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Internal Market and
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CONTROLS, CONTRACTS, LIABILITY AND INSURANCE

in the construction industry in the European Community

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FOREWORD

The provisional text on controls, contracts, liability and insurance in construction in the European Community consists of this summary and twelve national monographs.

Although drawn up on the basis of incomplete data, it should nevertheless provide a solid foundation for considering the scope and opportunities for harmonisation of the framework within which the various parties involved in construction carry on their activiites.

It is prefaced by a few remarks on liability and insurance drawn from the eminent professor, Julio Ferry Borges.

Then follow **thirty tables** which deal succinctly with the following subjects:

1 - The **desires** expressed in various quarters.
2 - **Jurisdictions** following decentralisation in Europe.
3 - The main characteristics of **construction permits.**
4 - A list of some **major** national organisations.
5 - A list of the main **professional organisations.**
6 - Information on **standardisation and approval.**
7 - A brief description of **construction regulations.**
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9 - A list of **general conditions** and standard clauses.
10 - A summary of **controls on construction.**
11 - A brief description of **the functions of the parties involved.**
12 - A list of some **national professions.**
13 - The normal breakdown of **roles.**
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16 - Normal methods of **tendering.**
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18 - What the **law** says about **builder's liability.**
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22 - For what **structures?**

23 - What are the **main concepts** contained in the Civil Codes?

24 - What happens in the event of **minor defects?**

25 - What is the **designer's post-construction liability?**

26 - What is the **contractor's** liability?

27 - What bonds and guarantees apply during construction?

28 - What post-construction **damage insurance** is available?

29 - What post-construction **liability insurance** is available?

30 - Finally, some data on **litigation** and arbitration.

A FEW PRELIMINARY REMARKS

On liability in construction

a) The oldest Code which deals with the determination of liabilities in construction is the **Code of Hammurabi**, written in the year 1760 BC by the 6th King of the dynasty of the kings of Babylon.

The Code is divided into three parts: laws on property, laws on the family, laws on compensation.

It is the latter which includes a section on the building of houses and boats, comprising various articles relating to compensation and accidents.

Here are the rules which applied to accidents in construction:

o Paragraph 229: If a builder builds an unsafe house, so that the house collapses and causes the death of his master, the builder shall be condemned to death.

o Paragraph 230: If the collapse causes the death of the son of the master of the house, the builder's son shall be condemned to death.

o Paragraph 231: If the collapse causes the death of a slave of the master of the house, the builder shall offer the latter a slave of equal value.

o Paragraph 233: If a builder builds a house which does not meet the requirements for the solidity of walls, he shall reinforce these walls at his own expense.

b) In our time the countries of the **western world** and in particular those of the European community have various legal systems covering **civil liability.**

In the Latin countries the laws in force are included in Civil Codes, which have developed from the Code of Justice of ancient Rome and subsequently the Code Napoleon, promulgated in 1804.

In Anglo-Saxon countries the legal system is a system of customary law.

In the former cases are judged through interpretation of the Code, in accordance with rational logic.

In the latter evaluation rests on an analysis of a succession of previous judgements; it develops from one to the next.

c) The obligations deriving from civil responsibilities are classified into **constractual liabilities and non-contractual liabilities.** In Anglo-Saxon legislation non-contractual liabilities are referred to as being "**in tort**".

Criminal liability should be considered alongside civil liability, particularly in cases of negligence, a problem which will not be dealt with here.

d) **In customary law** three levels of liability have to be considered:

- liability for negligence,
- strict liability,
- overall liability.

In the case of **liability for negligence, or lack of care,** blame is only attached if negligence is proven, and it is up to the plaintiff to prove that the defendant is to blame.

In **strict liability**, blame may be attached regardless of whether there has been negligence or not.

In this case the burden of proof lies on the defendant, who must demonstrate that there has been no negligence on his part, and even then

he may not be exonerated from all blame.

Finally one who has deliberately performed a prohibited act incurs **absolute liability**, without necessarily any proof of negligence.

e) **In building,** it is important to know and consider whether the obligations incumbent on those involved in the act of building are a duty of **care** or a duty of **result.**

Thus, for example, when an accident occurs in a structure due to an unknown cause, can one invoke the liability of a competent designer who put the best of his knowledge into preparation of the design, complied scrupulously with the regulations and continually supervised the building of the structure? What would be the situation of a builder who undertook under contract to build a structure in accordance with certain regulations; regardless of whether he acted with care, would or would he not be liable if these regulations were not adequate?

In the first case above it is likely that the designer could avoid liability, whereas in the second case liability may subsist if there has been a breach of contract.

f) **In Latin countries** the term "responsibility" covers **two different concepts:**

o **"to be responsible for"** means to be the agent involved in a given situation, being responsible for specific work,

o **"to have responsibility for"** means "to have an obligation to". This obligation may be moral, it may also correspond to a duty in law, in which case the term obligation then takes on its full meaning.

g) In the English language, when such situations arise a distinction is made between **"responsibility"** and **"liability"**, the former term only being used for the "causative agent" and the latter term for the concept of "having an obligation to".

Thus, according to the Napoleonic Code, the one who acts negligently and causes loss to another is liable for the loss in terms of his obligation to compensate the injured person.

On the other hand it is clear that by virtue of contract the obligation to compensate an injured person is a simple consequence of the duty of result, even in the absence of blame.

h) Today, in our modern societies, a twofold development can be observed:

- o an increase in the burden of liability, which becomes strict instead of merely being for negligence,
- o wider use of insurance, which ensures compensation independently of blame.

On insurance

i) Insurance is offered by three types of body:

- intermediaries (agents and brokers),
- insurers,
- reinsurers.

At European level insurance companies have come together in the European Insurance Committee, which has set up study groups for various insurance problems, particularly in the field of the investigation of building risks.

Whereas insurance **agents,** who find clients, may be independent persons, insurance brokers always have their own commercial and administrative organisation.

It is the **insurer** who underwrites the contract of insurance and thus undertakes to compensate the insured if an event corresponding to the foreseen risks should occur. For his own part he attempts to obtain

protection against these risks by turning to other insurers or reinsurance companies.

Finally, the reinsurance companies cover some insured risks or well-defined areas of these risks.

j) **Insurers** are organised in three ways:

o **mutual companies,** which are companies belonging to the insured persons, who collectively underwrite the risks,

o **insurance companies,** public or private companies whose responsibility is limited to their capital. Profits or losses are borne by shareholders, but there is a limit beyond which a company becomes insolvent and this therefore imposes a limitation on its insurance portfolio,

o the **British Corporation of Lloyds,** consisting of a number of "underwriting members" who in their role as insurers are grouped into various "syndicates" specialising in given types of risk.

There are approximately 20,000 underwriting members and about 100 syndicates. Every underwriting member accepts part of the liability, which he must undertake in full. There is a reserve fund of hundreds of millions of pounds.

k) **Reinsurers,** when they accept a risk, are in a similar situation to insurers: they must have sufficient funds to cover all their liabilities, or must themselves obtain insurance so as to cover some of their risks.

This transfer of risk may take place directly between an insurance company and a reinsurer, or through reinsurance brokers.

Reinsurance operations may take place on an individual basis, or rest on overall contracts between an insurer and a reinsurer within the framework of a period which is generally annual.

Reinsurance may also be obtained at a second level between reinsurance companies, and this is called retrocession.

The objective of retrocession is to spread the risk on a geographical basis, including reinsurers in different parts of the world.

l) **Insurance** is normally of three types:

- the insurance of persons,
- the insurance of liability,
- the insurance of assets, goods or interests.

The main types of insurance involving the **building process** are:

- bond insurance,
- liability insurance,
- asset insurance.

m) Bond insurance

Bonds are required in various situations associated with the performance of construction work.

"Bid bonds", which guarantee that a contractor tendering for the construction of a structure will not withdraw his bid and accepts to perform the work in accordance with this bid.

"Performance bonds", which insure that a construction contract will be performed. If the contractor does not fulfil his obligations the insurer will compensate the client for the loss incurred as a result of non-performance of the contract and will pay the additional cost that a contract with another company for completion of the work will make necessary.

"Advance payment bonds", which allow a client to be sure of

recovering advances which he has made to a contractor for the acquisition of materials, equipment, site installations, etc., if these objects are not used for the work for which they are intended.

"**Retention money bonds**", which enable a client to withhold part of the value of work done as a guarantee against any defects, without causing the contractor any cash-flow difficulties.

All these bond "insurances" are more instruments of finance than insurance proper, and this is why banks are authorised to provide them.

n) **Liability insurance** may apply to clients, designers and contractors.

Civil liability is itself divided into two major categories: contractual and non-contractual.

Contractual liability arises from non-performance of the clauses of a contract.

The contractual liability of the client may be incurred if he provides inexact data for preparation of the design.

Civil non-contractual liability may result from the infringement of general legal rules applicable to absolute rights concerning property, life, etc.

Such is the situation for example where excavation causes the collapse of an adjoining building, falling material strikes a passer-by, movement of a crane causes a power cut.

The liability insurance most widely used in construction is that of inherent noncontractual liability associated with performance of construction work or in general all the activities of the insured.

Damage caused to neighbouring buildings by excavation is frequently excluded from insurance, or often gives rise to additional premiums

specified in contractors' "all risks" insurance policies.

Designers cannot obtain cover for the following risks:

- o losses or damage resulting from delays in the delivery of designs,
- o failure to comply with applicable regulations,
- o inadequacy of technical knowlege.

Contractors for their part cannot obtain insurance covering:

- o deliberate infringment of laws and regulations,
- o injurious acts,
- o acts caused by wear, for eample the deterioration of a roadway,
- o damage caused by the use of explosives.

o) **Post-construction insurance** includes insurance against fire and flood and insurance against construction defects.

This has two essential aims:

- o protection of builders against claims for defects or damage for which they may be deemed to be responsible after the work has been accepted,
- o protection of the initial client and subsequent owners against defects in the object constructed.

This is insurance compensation for assets.

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1 - Desires expressed

	1a Integrated European System	1b Consolidated technical regulations	1c Minimum "framework" conditions
GERMANY			X
BELGIUM		X	
DENMARK			
SPAIN			
FRANCE		X	
GREECE	X	X	
IRELAND			
ITALY	X	X	X
LUXEMBOURG			
THE NETHERLANDS		X	
PORTUGAL	X		
UNITED KINGDOM			

Without going as far as an integrated system it would be useful to attempt to establish 4 factors at Community level:

1) "Building regulations",
2) harmonised post-construction liability,
3) standard contractual documents,
4) insurance for the object before and after construction.

1d	1e	1f	1g
General contractual clauses	Modernised Civil Code	New post-construction liability	Damage and liability insurance
X		X	X
X	X	x	x
			X
		X	
		X	
X	X		X
	X		X
X		X	X

2 - Jurisdictions following decentralisation

	2a	2b	2c
	Remaining to the Central state	Independent regions	Departements or provinces
GERMANY	Very little	11 Lander	40 Bezirke
BELGIUM	Much	3 Regions	9 provinces
DENMARK	Most	-	14 regions
SPAIN	Most	17 Independent regions	50 provinces
FRANCE	Most	-	100 departements
GREECE	Most	-	50 departements
IRELAND	Most	-	26 counties
ITALY	The principles	20 regions	100 provinces
LUXEMBOURG	Most	-	-
THE NETHERLANDS	More	-	11 provinces
PORTUGAL	Most	-	22districts
UNITED KINGDOM	Much	-	53 counties

- The Netherlands are centralising construction regulations.

- The FRG is harmonising Lander regulations within the Lander conference.

2d	2e	2f	2g
Districts or communes	Technical standards and approval	Regulations	Construction permit in the name of the
350 Kreise or towns	Bund	Länder	State
256 Communes	State/regions	Communes	Commune
277 local athorities	State	State	State
8 000 local authorities	State/inde-pendent regions	State/independ-and regions	Local authority
36 000 communes	State	State	Commune or the State
5 000 local authorities	State	State	State
-	State	Counties	County
8 000 communes	State/regions	Communes	Commune
118 communes	State	State/Communes	Commune
800 local authorities	State	Local authorities	Local authority
360 local authorities	State	State	Commune
370 districts or towns + London	State	State	State

3 - Construction permits

	3a	3b	3c
	Planning?	Technical?	Mere certification possible?
GERMANY	Yes	Yes	Envisaged
BELGIUM	Yes	NO	-
DENMARK	Yes	Yes	-
SPAIN	Yes	NO	-
FRANCE	Yes	NO	-
GREECE	Yes	Yes	-
IRELAND	Yes	Yes	-
ITALY	Yes	NO	-
LUXEMBOURG	Yes	NO	-
THE NETHERLANDS	Yes	Yes	-
PORTUGAL	Yes	NO	-
UNITED KINGDOM	Yes	Yes	NHBC (technical)

3d	3e	3f	3g
Documentation signed by an architect?	For State construction?	Opinion from the Architects Association?	Possibility of legal recourse?
Yes	Simplified	no	TA
Yes	Yes	Yes	Governmental
NO	Yes	no	TC
Yes	Yes	Yes	TA (difficult)
Architect's design	Yes	no	TA
Yes	Yes	no	Yes
NO	Yes	no	TC
Yes	Yes	nc	TA
In some communes	Yes	no	TA
NO	Yes	no	NO
NO	NC	no	TA
NO	Yes	no	TC

TA = Government tribunal
TC = Civil tribunal

4 - Main national organisations

	4a Central ministries	4b Authorities responsible for control	4c Research centres
GERMANY	BBM	KREISE	If BT
BELGIUM	MTP	communes	CSTC
DENMARK	BM	local authority	SBI
SPAIN	MOPU	local authority	INCE/ITEC
FRANCE	MEL	DDE	CSTB/LNPC
GREECE	MEHEPW	Local authority	?
IRELAND	DOE	County	AFF
ITALY	MTP/CER	commune	ICITE/CNR
LUXEMBOURG	MTP	commune	-
THE NETHERLANDS	MVRO	Local authority	SBR
PORTUGAL	SECH	Local authority	LNEC
UNITED KINGDOM	DOE	District	BRE
At Community or European level	-	-	RILEM

4d	4e	4f	4g
State buildings	Subsidised housing	Insurers of housing	Special organ-isations
BBD/FBV	GGW	-	Lander conference
Regle des batiments	Yes	-	SECO
Directoire	no	State funds	BPS
no	Yes	-	-
no	HLM	-	AFAC
nc	no	-	CTG
nc	no	NBA	-
no	ANIA CAP	-	IGI/COOPÉRATIVES
Yes	no	-	-
Yes	NVR/NCIV	GIW	KOMO
-	-	-	-
PSA	no	NHBC	ICE
-	CECODHAS	-	

5 - Professional organisations

	5a	5b	5c
	Architects	Engineers	Quantity surveyors
GERMANY	BAK/BDA	VUBI/VDI/VDDI	
BELGIUM	Association	Burobel/CIC	-
DENMARK	DAL	DICO/FRI	
SPAIN	Association	Association	Association (Technical architects
FRANCE	Association	Syntec/CICF	UNTEC
GREECE	SADAS	CTG	-
IRELAND	RIAI	ACEI	SCSI
ITALY	Association	Association/OICE	-
LUXEMBOURG	Association	ALII	-
THE NETHERLANDS	BNA	ONRI/IS	
PORTUGAL	AA	Association	
UNITED KINGDOM	RIBA	ICE/ACE/BCB	RICS
At Community and European level	CLAUE	ECCE	CEEC

5d	5e	5f	5g
Contractors	House-builders	Artisans	Specialised contractors
HDB/ZDB			BZB
CNC	-	CNC	-
DEF		HR	
CNC/SEOPAN	ANPCE		
FNB/FNTP	UNCMI	CAPEB	SNSO
Federation	-		
CIF	IHBA		
ANCE		CNA/CAREA	CCI
Federation	-	CM	-
AVBB			FAANB
AECOP			
BEC/FCEC	HBF	FMB	
ECC			

5 - Professional organisations (continued)

	5h Contractor's clubs	5i Builder's organisations	5j Financiers
GERMANY		PbW	GÖB/Bausparkasse
BELGIUM	-	UPSI	OCCH
DENMARK	-	BS	
SPAIN	-	ANPCE	Mortgaging bank.
FRANCE	SNBATI	FNPC	CDC
GREECE	-	UPECLTT	
IRELAND	-	-	
ITALY	IGI	ANCE	
LUXEMBOURG	-	-	
THE NETHERLANDS	Progressbouw	NVB	
PORTUGAL		AICE	
UNITED KINGDOM	TC	HBF	BSA
At Community and European level		UECL	FMCEE

5k	5l	5m	5n
Industrialists	Owners	Approval organisations	Quality promotion organisations
BMF		-	
FEB	Syndicat	Official	
DPCF/IR	DGF/BS		NBA
	CPU	Official	MOPU
UNCMI/AIMCC	INC	OPQCB	QC/Qualitel
		-	
CII		-	-
Fédération	Union	-	-
Progressbouw		-	
BME	BPF		

6 - Standards and technical approval

	6a Standards organisations	6b Technical approval organisations	6c Name of standards
GERMANY	NR Bau/DIn	IIBT	DIN
BELGIUM	IBN	ex INL	NB
DENMARK	DS/DIF	SBI	DS
SPAIN	MOPU (Aenor) MINER	Aenor/INCE	UNE
FRANCE	AFNOR	CSTB	NF
GREECE		-	
IRELAND	IIRS	-	IRRS
ITALY	UNI	ICITE	Norme UNI
LUXEMBOURG	-	-	-
THE NETHERLANDS	NNI	KOMO	NEM
PORTUGAL	LNEC	LNEC	NP
UNITED KINGDOM	BSI	BBA	BS
At Community and European level	CEN	UETAC	

6d	6e	6f	6c
Name of codes of practice	Many standards?	Certified?	Empirical development? (of USA)
VOB/C	Yes	Many	NO
STS	Yes	Few	Accepted
BB	Yes	Modular coordination	Yes
NBE/NTE	Yes	Many	NO
CCTG/DTU	Yes	Few	NO
	NO		Accepted
-	NO	-	Accepted
-	NO	National	Yes
-	NO	-	Yes
-	Yes	Modular coordination	Accepted
	Yes		
	Yes		Accepted

7 - Construction regulations

	7a	7b	7c
	Building regulations	Tall buildings	Beauty
	Yes	Yes	Yes
	no	Yes	Yes (regional)
	Yes (two)	no	no
	Yes	Yes	Yes
FRANCE	no	Yes	no
	nc		
	Draft	no	no
	no	Yes	Yes
LUXEMBOURG	no	Yes	no
	Draft	no	Yes
PORTUGAL	Annual edict		Yes
	Yes	no	no

NB - Fire safety and buildings open to the public are subject to regulations everywhere.

- Denmark has two "building regulations", one of which is for "small buildings".

7d	7e	7f	7g
National housing regulations	Energy saving	Role of the parties	Architect's remuneration and task
Yes	Yes	MBO	HOAI
Yes	Yes (Walloon district)	-	Yes
Yes	Yes	no	Yes
Assisted housing	Yes	Yes	Yes
Yes	Yes	1977 law	-
no		no	NO
Emilia-Romagna	Yes	no	Yes
no	nc	no	no
GIW	Yes	no	no
Yes			no
NHBC		no	no

8 - Regulations applicable to government contracts

	8a Work supplies and services	8b Supervision of government construction	8c Subcontracting
GERMANY	VOB/VOL	RB Bau	-
BELGIUM	1976 law	no	-
DENMARK	NO	no	-
SPAIN	1965 law	no	Yes
FRANCE	code	MOP law	1975 law
GREECE	Yes	no	-
IRELAND	NO	no	-
ITALY	code	1865 law	no
LUXEMBOURG	1974 law	no	Draft law
THE NETHERLANDS	NO	no	no
PORTUGAL		no	no
UNITED KINGDOM	NO	nc	no

No regulations on government contracts in Ireland and the United Kingdom, or Denmark.

8d	8e	8f	8g
Approval of contractors	Remuneration of architects	General clauses and conditions	Technical specifications
no	HOAI	VOB/B	VOB/C
Approval		AM/77	STS
no	no	no	no
Yes		PCG/PCAP	NBE
OPQCB		CCAG	CCTG
Yes			
no	no	no	no.
Yes			no
Yes	-	1974 Regulation	-
Yes	-	UAV	-
list	-	1986 legal rules	-
no	-	GCGC	-

9 - General conditions and standard clauses

	9a	9b	9c
	Civil code or common law	General "Construction" conditions	Conditions of contract "civil engineering"
GERMANY	Construction contract	VOB/B	-
BELGIUM	Construction contract	-	FABI
DENMARK	sale of goods	AB 72	-
SPAIN	Construction contract	PGC	-
FRANCE	Construction contract	CCAG	-
GREECE	-	Yes	-
IRELAND	common law	-	Yes (one)
ITALY	Construction contract	-	-
LUXEMBOURG	Construction contract	-	-
THE NETHERLANDS	Construction contract	-	-
PORTUGAL	Construction contract	Legal rules	-
UNITED KINGDOM	common law +UCTA 77[1] + DPA 72[2]	-	Yes (two)

1 - UCTA 77 = Unfair Contract Terms Act, 1977.
2 - DPA 72 = Defective Premises Act, 1972.

9d	9e	9f	9g
Conditions of contract "buiding"	General "design conditions"	Standard "construction contracts"	Standard "design" contracts
-	-	-	HOAI
n°100	-		Associa-/FABI tion
-	ABR 75	-	-
-	PCGE	-	-
-	Yes	Yes (three)	Association - Yes
-	-	-	-
Yes (two)	-	-	-
-	-	-	-
-	-	-	-
-	AR71/RV01	GIW/AVKA	-
-	-	605c/86	-
Yes (ten)	Yes (three)	-	-

10 - Controls on construction

	10a Government control during the construction period	10b Government acceptance	10c Government inspection after the construction period
GERMANY	Yes	Yes (two)	Yes
BELGIUM	NO	NO	Sometimes
DENMARK	Yes	Yes	Subsidised housing
SPAIN	NO	NO	No
FRANCE	NC	NO	Sampling
GREECE	Yes	Yes	nc
IRELAND	Yes	Rarely	no
ITALY	Yes	simple	no
LUXEMBOURG	NC	NO	no
THE NETHERLANDS	Yes	Yes	no
PORTUGAL	NO	NO	no
UNITED KINGDOM	Yes	Yes	no

10d	10e	10f	10g
Specialed body of inspectors	Compulsory private inspection	Private inspection frequent	Government inspection with particular reference to:
Yes	-	-	Stability
no	architect	SECO/AIB	-
Yes	-	-	Stability
no	architect	A.T.*	Planning requirements
no	Yes (certain buildings)	Yes	Acoustics
no	-	-	aspect
Yes	-	-	Foundations
no	-	-	aspect/hygiène
no	-	Yes	-
Yes	-	-	aspect/stability
no	no	no	-
Yes	possible	Housing (NHBC)**	health/safety

* A.T.s arquitecto tecnico en ejecucion de obras

** NHBC : National House-Building Council.

11 - Functions of the parties (construction)

	11a	11b	11c
	Client	Project designer	Director of works
GERMANY	Bauherr	Entwurfsverfasser	Bauleiter
BELGIUM	maitre d'ouvrage	architect	entrepreneur
DENMARK	byggherr	variable	konduktør
SPAIN	promotor	architect	architect
FRANCE	maitre d'ouvrage	Architect and design office	-
GREECE	principal	Consulting engineer	Consulting engineer
IRELAND	employer	architect	
ITALY	committente	progettista	direttore dei lavori
LUXEMBOURG	commettante	architect	-
THE NETHERLANDS	principal	architect	-
PORTUGAL	builder	Several	-
UNITED KINGDOM	employer	architect	-

Functions are governed by regulations in Germany, Belgium, Spain, France, Italy and Portugal.

11d	11e	11f	11g
Principal contractor	Responsible technician	Inspector	Sole party responsible for construction
Yes	-	-	General Unternehmer
Yes	-	-	entrepreneur general
-	-	-	total entreprenør
Yes	-	A.T.*	NO
Yes	-	-	Rarely
-	-	-	-
-	-	-	house builder
Sometimes	-	Yes (two)	costrattore
Yes	-	-	Sometimes
-	-	-	Sometimes
-	Yes	-	-
-	-	-	house builder

* A.T. = arquitecto technico en ejecucion de obras

12 - Professions other than those of architects, engineers and contractors

	12a	12b	12c
	Engineers engaging in architecture	Building contractor	Quantity surveyor or équivalent
GERMANY	Yes	Yes	-
BELGIUM	possible (1939 law)	-	Yes
DENMARK	possible	-	-
SPAIN	No	-	A.T.*
FRANCE	no	Yes	Yes
GREECE	Civil engineer	-	-
IRELAND	no	-	Yes
ITALY	Yes	Yes	-
LUXEMBOURG	no	-	-
THE NETHERLANDS	Yes	Yes	-
PORTUGAL	Yes	-	-
UNITED KINGDOM	no	-	Yes

12d	12e	12f	12g
Project manager	Technical inspection office	Inspectors	Others
-	-	-	Baumeister
Sometimes	Yes	-	-
-	-	-	konduktør
-	Sometimes	A.T.*	promoteur
conducteur d'operation	Yes	-	promoteur
-	-	-	graduate professionals
Yes	-	-	-
-	-	Yes (register)	periti edili, agrari
-	Yes	-	-
-	-	-	arbitrators
-	-	-	Municipal lists
Yes	-	-	house builders

* A.T. = arquitecto tecnico en ejecution de obras.

13 - Normal breakdown of roles (building)

	13a	13b	13c
	Ground	Stability calculation	Bill of quantities
GERMANY	architect + engineer	Engineer	Architect
BELGIUM	Architect	Architect + engineer	Architect
DENMARK	Contract	Contract	Contract
SPAIN	Architect	Architect	Architect
FRANCE	Engineer	Engineer	Architect
GREECE	Engineer	Engineer	Engineer
IRELAND	Architect	Engineer	Quantity Surveyor
ITALY	Engineer	Engineer	Architect
LUXEMBOURG	Engineer	Engineer	Architect
THE NETHERLANDS	Engineer	Engineer	Architect
PORTUGAL	Engineer	Engineer	Architect
UNITED KINGDOM	Engineer	Engineer	Quantity Surveyor

The law specifies the role of architects in Belgium and in Spain.

13e	13f	13g	13h
Project	Inspection and materials	Direction of works	Final acceptance
Architect	Architect and contractor	Architect	Architect
Architect	Contractor	Architect	By agreement
Contract	Contract	Contract	By agreement
Architect	Technical architect	Architect and A.T.*	Architect and technical architect
Architect	Contractor	Architect	By agreement
Architect	Contractor	Contractor	Client
Architect	Contractor	Contractor	Architect
Architect	Contractor	Direttore dei Lavori	Inspector
Architect	Contractor	Architect	Architect
Architect	Contractor	Contractor	Client
Architect	Contractor	responsible technician	Client
Architect	Contractor	Architect	Architect

* A.T. = arquitecto tecnico en ejecution de obras

14 - Role and responsibilities of contractors

	14a Legal obligations	14b Duty of care or result?	14c Duty of advice very strong
GERMANY	BGB art 631-651	Care	nc
BELGIUM	CC art 1787-1799	Care	nc
DENMARK	-	Result	no
SPAIN	CC art 1588-1600	Care	no
FRANCE	CC art 1792-1793	Result	no
GREECE	Yes	Result	nc
IRELAND	Common law	Care	no
ITALY	CC art 1656 1677	Result	Yes
LUXEMBOURG	CC construction contract	Result	no
THE NETHERLANDS	BW art 1792-1793	Care	Yes
PORTUGAL	CC art 1207 1230	Result	no
UNITED KINGDOM	Common law + Defective premises Act	Care	no

The Civil Code (CC) is often outdated.

14d	14e	14f	14g
Incompatibility between architect and contractor	Management contracting	Building team	Concession promotion
no	-	-	-
Yes	Sometimes	Yes. (Flanders)	Yes
Yes	Sometimes	no	-
Yes	-	-	-
Yes	-	-	Rarely
no	-	-	-
Yes	yes (three)	-	-
Yes	-	-	Yes
Yes	-	-	Yes
no	-	Yes	-
Yes	-	-	-
Yes	Yes (fee)	no	-

15 - Resort to original formulae

	15a	15b	15c
	Concession	Promotion leasing	Bail construction
GERMANY	no	no	no
BELGIUM	Yes	Yes	no
DENMARK		-	-
SPAIN	Yes	Yes	-
FRANCE	Rarely	no	Rarely
GREECE	-	-	-
IRELAND	-	Yes	-
ITALY	Yes	-	Yes (housing)
LUXEMBOURG	Rarely	Rarely	-
THE NETHERLANDS	-	-	-
PORTUGAL	-	-	-
UNITED KINGDOM	Rarely	Yes	-

15d	15e	15f	15g
Builder developers	Contracted developers	"Housing development" mandate	Sale against plans
no	Rarely	no	no
Yes	Yes	-	Yes
-	Yes	-	-
Yes	Yes	-	Yes
Yes	Sometimes	CC art 1831	Yes
-	Yes	-	-
developers	Yes	-	-
-	Yes	-	-
-	Rarely	-	Yes
-	Yes	-	-
-	Yes	-	-
developers	Yes	-	-

16 - Normal methods of tendering (construction)

	16a General tender for government contracts	16b General tender for housing	16c In separate lots
GERMANY	Sometimes	Rarely	Generally
BELGIUM	Yes	Yes	Rarely
DENMARK	Often	Often	Sometimes
SPAIN	Always	Often	Rarely
FRANCE	Rarely	Rarely	Generally
GREECE	Always	Always	-
IRELAND	Always	Always	-
ITALY	Often	Often	Rarely
LUXEMBOURG	Often	Sometimes	Rarely
THE NETHERLANDS	Often	Often	Sometimes
PORTUGAL	Often	Often	Sometimes
UNITED KINGDOM	Often	Always	Rarely

Quality is only rarely taken into account

16d	16e	16f	16g
On the basis of a detailed design	With **bill of quantities**	In packages (fast track)	Flexible choice criteria
Yes	Yes	-	Yes (recent)
Generally	Yes	-	Yes
Yes	Yes	-	Yes
Yes	Yes	-	no
Rarely	Sometimes	Rarely	Rarely
no	Sometimes	-	no
Generally	Often	Sometimes	Yes
Often	Sometimes	-	no
Generally	Yes	-	no
Always	Yes	-	Yes
variable	Sometimes	-	no
Yes	Often	Sometimes	Yes

17 - Acceptance of work

	17a One single acceptance	17b Final completion period	17c Two acceptances
GERMANY	BGB § 640 or VOB/B §12	None	-
BELGIUM	Sometimes	-	Generally
DENMARK	Yes	1 year	-
SPAIN	-	-	Yes
FRANCE	1978 law	1 year	-
GREECE	Yes	None	-
IRELAND	-	-	Yes
ITALY	Yes	6 months	-
LUXEMBOURG	-	-	Yes
THE NETHERLANDS	Yes	Contractual	-
PORTUGAL	-	-	Yes
UNITED KINGDOM	-	-	Yes

Harmonisation is desirable.

17d Period between two acceptances	17e Formal certificate of withdrawal of reservations	17f For government contracts only	17g Special features
-	no	no	2 types of acceptance
frequency 1 year	no	no	
-	Yes	no	Concept of defect without damage
1 year	Yes	Yes	-
-	no	no	1978 law
-	Yes	Yes	German VOB
6 months/1 year	no	Yes	Power of the architect
-	Yes	Yes	Role of the inspector
1 year	Yes	Yes	Contractor
-	Yes	Yes	-
1 year/2 years	Yes	Yes	-
6 months/1 year	Yes	no	Power of the architect

18 - Builder's liability: the law?

	18a The law specifies certain contractual responsibilities	18b Legal contractual liabilities inherent in construction	18c The law specifies certain post-construction liabilities
GERMANY	BGB/AGB	BGB § 631 651	BGB § 638/639
BELGIUM	CC art 1134/1135	CC art 1797-1799	CC art 1792/2270
DENMARK	CC	-	NO
SPAIN	CC	CC art 1588 to 1600	CC art 1591
FRANCE	CC	CC art 1779 to 1793	CC art 1792/2270
GREECE	CC	Yes	-
IRELAND	common law	-	NO
ITALY	CC	CC art 1653 to 1677	CC art 1677 & 1969
LUXEMBOURG	CC		CC art 1792/2270
THE NETHERLANDS	BW	BW art 1640 to 1230	BW art 1645
PORTUGAL	CC	CC art 1207 to 1230	CC art 1225
UNITED KINGDOM	common law +UCT Act (Unfair Contract Terms Act)	defective premises act 1972	defective premises act 1972

18d Contract may make exceptions	18e Exceptions in contract are possible	18f Special features for subsidised housing?	18g Onus of proof
VOB/B § 13	Tendering	no	Owner
NO	-	no	Owner*
-	-	Yes	Owner
NO	-	Yes	Owner*
NO	-	no	Builder (1)
-	-	no	-
-	-	no	The owner, for up to 10 years
NO	-	no	Builder
NO	-	no	Owner
	Tendering	no	Builder (2)
Yes	Government contracts	nc	Owner
NHBC scheme	NHBC scheme	no	Owner

* - Theoretically
1 - During the ten year or two year liability period.
2 - During the ten year liability period (collapse), but not for hidden defects in UAV contracts (owner).

19 - Legal obligations of vendors and owners

	19a Legal responsibility of vendors	19b Principal of vendors immunity	19c Duty of maintenance by the owner
GERMANY	BGB § 477 à 479	-	
BELGIUM	CC art 1792/2270 + Breyne law	-	CC art 1386
DENMARK			
SPAIN	C.C.	No	-
FRANCE	CC art 1641 to 1649 CCH art L 261		
GREECE			
IRELAND		Yes	
ITALY	CC art 1490		
LUXEMBOURG	1986 law		
THE NETHERLANDS			
PORTUGAL	CC art 482/798	no	CC art 492
UNITED KINGDOM	Defective Premises Act 1972	Changed	Defective Premises Act 1972

19d	19e	19f	19g
Owner of sub-sidised housing	Duty to notify defects to the purchaser	Implicit guarantee by the constructor/ vendor of finished housing	Implicit guarantee by the constructor/ vendor of unfinished housing
5 years		Legal	Legal
		Legal	Legal
	no	Often	Always
		Legal	Legal
Yes			
	Defective Premises Act 1972	Always	Always

20 - Post-construction liability: how long?

	20a Non-conformance with contract (breach of contract)	20b Responsibility in tort in extreme cases	20c Damage or severe defects in long lasting structures
GERMANY	30 years	-	5yrs(BGB)
BELGIUM	30 years	-	10yrs(CC)
DENMARK	20 years	-	5yrs(housing)
SPAIN	15 years	-	10yrs(CC)
FRANCE	30 years	-	10yrs(CC)
GREECE		-	
IRELAND	6 or 12 years	Unlimited	6-years after occurrence of the damage
ITALY	20 years	-	10 Years (CC)
LUXEMBOURG	30 years	-	10 Years (CC)
THE NETHERLANDS	30 years	-	10 Years (BW)
PORTUGAL		-	5 Years (CC)
UNITED KINGDOM	6or 12 years	15yrs(LDAct 1986)(1)	6-Years after occurrence of the damage (2)

1) - LDAct 1986 = Latent Damage Act.

2) - 20 years in Scotland.

20d	20e	20f	20g
Defects in other structures	Contract may specify other periods	Time available for initiating proceedings	Additional period for claiming compensation
1yr (BGB)	More if BGB 2 years if VOB	Immediately	
10 yrs (CC)	NO	10 years	-
Contract	Yes	5 years	
10 Yrs (CC)	No	15 years	-
At least 2yrs (CC)	NO (except for other structures)	10 years	-
-			-
2 years	NO	1 year after discovery of a defect	1 year
2 years	NO	10 years	-
-	5 years (hidden defects)	10 years	-
-	Yes, more	1 year after discovery of a defect	1 year
-	-	1 year after discovery of a defect	-

21 - Post-construction civil liability: which builders?

	21a Vendor or developer/ builder	21b Agent	21c Project designer
GERMANY	Yes (BGB)	-	Yes (BGB)
BELGIUM	Yes (Breyne law)	-	Yes (CC)
DENMARK	NO	-	Contact
SPAIN	Yes	-	Yes (CC)
FRANCE	Yes	Yes	Yes (CC)
GREECE	Yes	-	no
IRELAND	Contractual	-	Yes
ITALY	Yes (CC)	-	NO
LUXEMBOURG	1976 law	-	Yes
THE NETHERLANDS	BW + GIW	-	Yes
PORTUGAL	Yes	-	-
UNITED KINGDOM	DPA/NHBC scheme	-	Yes

21d	21e	21f	21g
Other consultants	Any contractor	Subcontractor	Any supplier
If contract (BGB)	BGB/VOB	no	VOL (6months)
If contract (CC)	CC	With respect to the single contract-or	Sometimes
Contractual	Contract	no	Housing (6_years)
A.T.*	CC	no	no
If contract (CC)	CC	no	components (EPERS)
-	Yes	no	no
If contract	Contract	nominated	nominated
no	CC	no	no
If contract (CC)	CC	no	no.
no	BW/ contract	no	no
If contract direct with the client	CC	no	no
	Contract	nominated	nominated

* A.T. = arquitecto tecnico en ejecucion de obras

22 - Post-construction civil liability: which structures?

	22a Structure Framework	22b Roofing Enclosure	22c Foundations Infrastructure Services
GERMANY	5 years*	5 years*	5 years*
BELGIUM	10 years	10 years	10 years
DENMARK	5 years**	5 years**	5 years**
SPAIN	10 years	10 years	10 years
FRANCE	10 years	10 years	10 years
GREECE	15 months	15 months	15 months
IRELAND	variable	variable	variable
ITALY	10 years	10 years	10 years
LUXEMBOURG	10 years	10 years	10 years
THE NETHERLANDS	10 years	10 years	10 years
PORTUGAL	5 years	5 years	5 years
UNITED KINGDOM	variable	variable	variable

* 5 years for a BGB contract, 2 years for a VOB construction contract.

** 5 years for government or subsidised buildings, otherwise 2 and 10 years.

22d Acoustic insulation	22e Heating Air conditioning Ventilation	22f Other equipment	22g Finishes
	5 years*	5 years*	5 years*
	10 years	10 years	1 year
	5 years**	5 years**	1 year
	10 years	10 years	6 months
1 year	10 years	2 or 10 years	1 year
15 months	15 months	15 months	15 months
Variable	Variable	Variable	1 year
-	10 years	2 or 10 years	2 years
2 or 10 years	2 or 10 years	2 or 10 years	2 years
	Contract	Contract	Contract
	Contract	Contract	1 year
Variable	Variable	Variable	1 year

23 - Main concepts associated with long term liability

	23a Concept of total or partial collapse	23b Concept of the threat of collapse	23c Concept of a reduction in the sale value
GERMANY	Implicit	Implicit	BGB art 633
BELGIUM	CC art 1792	Jurisprudence	NO
DENMARK	-	-	-
SPAIN	CC art 1591	Jurisprudence	NO
FRANCE	CC art 1792	-	NO (1)
GREECE	-	-	-
IRELAND	-	-	-
ITALY	CC art 1669	CC art 1669	NO
LUXEMBOURG	CC art 1792	-	NO
THE NETHERLANDS	BW art 1645	-	NO
PORTUGAL	CC art 1225	CC art 1225	NO
UNITED KINGDOM	-	-	-

The German Civil Code defines the three consequences of a defec
- o Nachbesserung = priority duty: correction of the defect.
- o Minderung = a reduction in the builder's fee if correction is uneconomic.
- o Wandlung = modification of the structure

(1) France: the concept of "intermediate damage".

(V)

23d	23e	23f	23g
Concept of a reduction in service capacity	Concept of the severity of the damage	Concept of a major structure	Concept of a defect in the ground
BGB art 633	-	-	-
Jurisprudence	Jurisprudence	Jurisprudence	CC art 1792
-	-	-	-
Jurisprudence	-	Jurisprudence	CC art 1591
CC art 1792	Implicit	-	CC art 1792
-	-	-	-
-	-	-	-
Implicit	CC art 1669	-	CC art 1669
Implicit	NO	-	CC art 1792
Implicit (UAV)	-	-	BW art 1645
Concept of long term art 1225	CC art 1225	-	CC art 1225
-	-	-	-

24 - Minor defects

	24a Limitation if visible on final acceptance	24b Legal limitation after initial acceptance	24c Contractual limitation after initial acceptance
GERMANY	no	1or 5yrs(BGB)	1or 2yrs(VOB)
BELGIUM	no	no	-
DENMARK	no	5 years	-
SPAIN	Yes	6 months	-
FRANCE	Yes	At least 2 years	-
GREECE	no	15 months	-
IRELAND	Yes	common law	-
ITALY	no	2 years	-
LUXEMBOURG	Yes	2 years	-
THE NETHERLANDS	Yes	-	5yrs(UAV)
PORTUGAL	Yes	-	-
UNITED KINGDOM	Yes	common law	-

24d	24e	24f	24g
Even for a mere difference from design	Even for a defect without damage or disorder	Limitation for deliberately concealed minor defects	Article in the law dealing with minor defects
Yes	Yes	30 years	no
Yes	yes	30 years	no
nc	no	20 years	no
Yes	No	15 years	no
1 year	no	30 years	CC art 1792-3
Yes	Yes		-
Yes	Yes	limited	no
Yes	Yes	10 years	CC art 1667
Yes	Yes	30years	CC art 1792
no	Yes	30years	-
-	-	-	-
Yes	YEs	limited	no

25 - Civil post-construction liability of the project designer (not including fraud)

	25a Legal duration	25b But contract can reduce it to	25c Defects in the ground
GERMANY	5 years	2 years	contract
BELGIUM	10 years	-	Yes
DENMARK	5 years	Less	contract
SPAIN	10 years	-	Yes
FRANCE	10 years	-	contract
GREECE	-	-	
IRELAND	unlimited	-	contract
ITALY	None	-	
LUXEMBOURG	10 years	-	contract
THE NETHERLANDS	None	-	contract
PORTUGAL	-	-	contract
UNITED KINGDOM	15 years	-	contract

25d Omissions in the design	25e Omissions in the supervision of work .	25f Simple duty of care	25g Limitation after death of the architect
Yes	contract	Yes	no
Yes	Yes	Yes	no
contract	contract	Yes	Contract
Yes	Yes	Yes	no
contract	contract	Yes	no
-	-	Yes	-
Yes	contract	Yes	2 years
-	-	Yes	-
contract	contract	Yes	no
contract	contract	Yes	Contract
contract	contract	Yes	-
Yes	contract	Yes	no

26 - Contractors post-construction liability (not including fraud)

	26a	26b	26c
	Name in the code	Only if a construction contract	The only person civilly liable
GERMANY	The contractor	Yes	no
BELGIUM	The contractors	Yes	no
DENMARK	-	-	no
SPAIN	The contractor	Yes	no
FRANCE	Any contractor	Yes	no
GREECE	-	Yes	no
IRELAND	-	no	no
ITALY	The contractor	Yes	Yes
LUXEMBOURG	The contractors	Yes	no
THE NETHERLANDS	The contractor	Yes	-
PORTUGAL	The contractor	Yes	Yes
UNITED KINGDOM	-	no	no

In some countries liability may last longer: this applies in Germany (FRG), Belgium and the Netherlands (30 years).

26d	26e	26f	26g
A sucontractor may be jointly liable	A supplier may be liable	Applicable to defects appearing within a period of	Contract may make exceptions
		5 years	Yes, 2 years
		10 years	No
	Yes	5 years (subsidised housing)	Yes
		10 years	NO
	Yes	10 years	NO
		15 months	Yes 3 years
Yes	Yes	Indeterminate	-
		10 years	NO
		10 years	NO
		10 years	Yes 5 years
		5 years	Longer period
Yes	Yes	15 years	NO

27 - Bonds and guarantees during construction

	27a Contractual bond	27b Housing "Satisfactory completion"	27c Short term "all risks" insurance
GERMANY	5%	-	Frequent
BELGIUM	5%	-	Frequent
DENMARK	Yes	State funds	Frequent
SPAIN	5%	-	Exists
FRANCE	5%	-	Frequent
GREECE	5% to 10%	-	Exists
IRELAND	Yes	NHB	Frequent
ITALY	5%	-	Exists
LUXEMBOURG	5% to 10%	-	Frequent
THE NETHERLANDS	5%	GIW (section 1)	Frequent
PORTUGAL	5% to 10%	-	Exists
UNITED KINGDOM	Yes	NHBC	Frequent

27d	27e	27f	27g
Inspection insurance or similar	Insurance covering the replacement of a bankrupt	Part covered by a performance bond	Mortgage in favour of the contractor
-	-	-	Yes
Yes	-	-	
Rarely	-	Limited	
-	-	-	
Yes	-	-	-
-	-	-	-
-	Yes	25% (NHB)	-
-	-	-	-
Yes	-	-	-
-	Yes	17% (GIW)	-
-	-	-	-
Rarely	Yes	20% (NHBC)	-

28 - Post-construction structure damage insurance

	28a	28b	28c
	Compulsory	Voluntary	For what structures?
GERMANY	no	Rarely	Subsidised housing
BELGIUM	no	Yes	Building + civil engineering
DENMARK	Yes (building)	Yes	If state credit
SPAIN	no	Yes	-
FRANCE		Yes	Approximately 50%
GREECE	no	-	-
IRELAND	no	Yes (HNB)	Subsidised housing
ITALY	nc	-	-
LUXEMBOURG	no	Rarely	Major
THE NETHERLANDS	Yes (housing)	Yes	4 floors
PORTUGAL	no	-	-
UNITED KINGDOM	no	Yes (NHB)	housing

28d	28e	28f	28g
Covers all defects for	Then only major defects for	Cost of insurance + inspection as a % of the construction cost	Including proper completion
-	-	-	-
-	10 years	2%	no
-	5 years	1%	Yes
10 years	-	-	-
-	10 years	1,5% *	no
-	-	-	-
-	6 years	0,2%	Yes
-	-	-	-
-	10 years	élevé	no
6 years	4 years	0,8%	Yes
-	-	-	-
2 years	8 years	0,4%	Yes

* add 2% for liability insurance

29 - Builder's post-construction liability insurance

	29a	29b	29c
	Compulsory for	Except for	Voluntary for architects
GERMANY	Architects/ engineers	8 Lander	2 out of 3
BELGIUM	Architcts	-	-
DENMARK	-	-	Exists
SPAIN	-	-	Yes
FRANCE	All "builders"	Subcontractors	-
GREECE	-	-	Rare and expensive
IRELAND	-	-	Yes (expensive)
ITALY	-	-	Yes
LUXEMBOURG	-	-	If insurance inspection
THE NETHERLANDS	-	-	Generally applicable
PORTUGAL	-	-	-
UNITED KINGDOM	-	-	4 out of 5

29d	29e	29f	29g
Volutary for engineers and quantity surveyors	Voluntary for contractors	Role of professional associations	Special features
compulsory	Does not exist	active (mutual)	HUK - Verband
Yes	If insurance inspection	active	AR of 1985
compulsory	Does not exist	active	Group insurance
Yes	Does not exist	active (mutual)	Ceiling 100 Mpts
expensive	Subcontractors	active (mutual)	Compulsory for suppliers EPERS
rare and expensive	Does not exist	-	Private insurance
Yes	Rare	no (Lloyds)	Ceiling: if insurance inspection: £0.5M
Recommended	Does not exist	active (mutual)	inadequacies
If insurance inspection	If insurance inspection	-	Compulsory for government contracts with foreign contractors
Yes	Does not exist	active	Free
-	Does not exist	-	Insufficiencies
4 out of 5	Rare and expensive	very active	Search for new formulae

30 - Litigation and arbitration

	30a Proceedings last on average	30b Arbitration is frequent	30c And takes on average
GERMANY	Years	Schiedsgericht or amicable	a few months
BELGIUM	Years	NO	-
DENMARK	Are rare	Frequent	1 year
SPAIN	5 years	no	-
FRANCE	Used to last 7 years	Spinetta law	less than a year
GREECE			
IRELAND	Years	Yes	
ITALY	10 years	Positive role of inspectors	-
LUXEMBOURG	Very rare	-	-
THE NETHERLANDS	Rare	generally applicable	12 to 18 months
PORTUGAL		no	
UNITED KINGDOM	Years	frequent	

30d	30e	30f	30g
Possibility of direct action against a subcontractor	Possibility of direct action against a supplier	Ruling "in solidum"	Legal liabilities
no	no	possible	confused
yes	oui	possible	confused
no	no	possible	clear
no	no	frequent	confused
if approved	if EPERS	possible	confused
if "nominated"	if "nominated"	frequent	confused
no	no	NO	clear
if approved	no	possible	confused
no	no	NO	clear
no	no	NO	clear
if "nominated"	if "nominated"	often	confused

POSTSCRIPT

It would be a pity, if not irresponsible, not to harmonise the **general framework** of construction and planning in the European Community.

The enlarged market requires **action** to bring general concepts to life.

Political decisions are essential in order to meet the desires already expressed, as summarised in the first of the foregoing thirty tables.

Decisions must take into account the extensive advantages for the construction industry and its clients, not only in aiding and encouraging intercommunity exchanges but also and above all in showing the rest of the world that Europeans are capable of setting up a **coherent system**, better than that of their American and Asiatic competitors:

- intelligible regulations,
- clear responsibilities,
- perfect contracts,
- flexible insurance.

There are only **four years** left in which to do it. Ye Gods!

July 1988

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1. INTRODUCTION

The Germans are convinced that they have a balanced technical/legal system: they have no intention of upsetting it.

Although doubts are raised here and there concerning:

- o The large number of requirements, the sometimes onerous economic consequences, and the technical apparatus established by the regulations,
- o Delays and duplicated work involved in the systematic supervision of operations by the authorities,
- o Certain fixed or out-of-date provisions in the national specification which are in practice those of the "VOB",

it would not seem that proposals for reform, such as those put forward in respect of inspection by the "Bauorduung der Zukunft" working party, have been enthusiastically received.

Two subjects are of serious concern to specialists:

- o The acceptance of work, which can be obtained too easily,
- o The warranty period, which is often only 2 years for contractors.

The essential characteristics of the German system can be summarised briefly as follows:

- o A coherent and impressive set of standards, approvals, certificates and marks,
- o Planning and construction under the strict control of the authorities,
- o A clear division of responsibilities between the designer of a project, contractors and project management,

- o Continuous follow-up of the maintenance and condition of property when structures are in service,

- o Zero use of liability insurance and limited use of professional indemnity insurance (architects only),

- o A very sharp division between the rigid requirements of statute law, which are immutable, and the provisions of private law which are flexible and can be amended by contract.

Qualitat am Bau! This is a topic which is on the cards in Germany too.

Defects in construction cannot be prevented despite very strict inspection from the outset but the Germans are of the opinion that they can be avoided, and can be limited provided a number of conditions are met through:

- o Developing an awareness of their responsibilities and a knowledge of their rights and duties in both builders and users,

- o Giving a marked practical bias to the content of training in the context of both the initial and ongoing education of designers and builders,

- o Giving more weight to legal provisions concering the duties of builders in relation to claims arising after construction, through reform,

- o Ensuring that maintenance work is carried out at the appropriate times, without omissions,

- o Making the requirements of specifications simpler, more readable and more orientated towards current practice,

- o Increasing research into various types of problems, which are increasingly more complicated, and bringing the lessons learnt from these to the knowledge of builders without delay.

2. CONTEXT

2.1. Political structures

Established by the fundamental law, the Grundgesetz, the federal political structure, which has historical roots, is regarded as a pattern for the encouragement of economic development.

In general decentralisation has been taken to "the lowest possible level", even with regard of jurisdictions, resources and administrative organisations.

a) The Republic is a federation of eleven "Lander", which include Hamburg, Bremen, West Berlin and eight "Flachenlander" (regions).

Legislative power is held by the parliament, the combination of the Bundestag and the Bundesrat, the latter representing the various Lander.

The population of the FRG is falling: it is now 62 million inhabitants distributed with a density of 248 per square kilometer over an area half as large as France. The active population is of the order of 26 million persons, of which only 1.5 are in the primary sector.

The Lander are very unequal in size and importance: from 0.7 to 17 million inhabitants.

Since the land reform the number of local authorities is less than 8000, including 87 free towns (Kreisfreiestadte), the others being grouped into 237 districts (Kreise).

The siz largest Lander are subdivided into administrative districts, the Regierungsbezirke, of which there are 25.

b) The Lander are territorial units having independent state status, and are not provinces or subordinate government structures.

Each has its own constitution, parliament, government, administration and jurisdiction, and its own endowment of roads, navigable waterways, administrative buildings, etc.

Their scope of action is bounded by exclusion: in principle the Lander have jurisdiction over everything which is not reserved for the Bund by the Fundamental Law.

The Lander frequently resort to local authorities to implement laws: they therefore have a direct statutory power over local authorities.

c) The Fundamental Law nevertheless recognises that **local authorities** have a right to considerable autonomy in their own affairs, Selbstverwaltung, and although they must provide certain services, Pflichtangaben, such as schools, roads, infrastructure, they remain free to have or not have theatres, swimming pools, etc., provided that their finances are sound.

It is the constitution of each individual Land which establishes the relative jurisdictions of the Land and the local authorities. Anything which does not explicitly lie within the competance of the Land or the Bund may lie within that of the local authorities.

d) The Kreise are joint local authority structures and not state structures. Each Kreis, which includes several dozen authorities and has an assembly elected on the same day as the municipal councils, is concerned with both local affairs and some state affairs which can advantageously be devolved upon it. This is what the Germans call Janusverwaltung, "Janus" government.

2.2. Main Federal organisations

At Federal level **three ministries** have a particular part to play in relation to construction:

- The Ministry for the Economy,
- The Ministry of Transport,
- The Ministry of Land Use, Construction and Planning.

The latter's jurisdiction is essentially in legislative matters: it prepares draft laws, grants any exceptions, but has no jurisdiction in the administration of planning or construction, except in urban development and the building of certain public buildings.

To avoid useless diversity the FRG has created two organisations, the Institut fur Bautechnik in Berlin and the Lander Conference, which provide the coordination necessary in technical and legal matters.

Urban development legislation is a Federal matter, building is the responsibility of the Lander.

Other important laws such as those on the saving of energy and urban development are voted on at Federal level.

2.3. Legal basis

Here is a list of the essential legal texts, from the Federal constitution down to Lander ordinances:

o Grundgesetz fur die BRD. The fundamental law of the 23 May 1949 (constitution of the F.R.G.),
o Bundesbaugesetz. The federal law of the 23 June 1960 on planning,
o Stadtebauforderungsgesetz. The Federal law of the 27 July 1971 on urban development,
o Bundesfernstrassengesetz. The Federal law of the 6 August 1961 on major highways,
o Bundes-Immissionsschutzgesetz. The Federal Law of the 18 January 1984 on atmospheric pollution from chimneys,
o Baunutzungsverordnung. The Federal ordinance of the 26 November 1968 on the use of buildings,
o Energiewirtschaftsgesetz. The Federal law of the 13 December 1935 on energy saving,
o AGB gesetz.

Alongside these Federal laws, there are ordinances issued by the Lander

which are essential to the field of construction, for example:

o Landesbauordnung Nordrheinland-Westphalen. The ordinance of 1984 on building,
o Prufzeichenverordnung. NRW. The ordinance of the 28 April 1973 on inspection marks,
o Bayerisches Architektengesetz. The Bavarian law of the 31 July 1970 on architects,
o Bayerisches Ingenieurgesetz. The Bavarian law of the 27 July 1970 on engineers.

The German Civil Code, which has similarities with the Code Napoleon, has been updated in respect of construction.

Here is a list of the main articles in this code, the Burgerliches Gesetzbuch (abbreviated BGB), which is particularly important in the matter of contract:

- Articles 276 to 278 - Negligence of various degrees of severity,
- Articles 339 to 345 - Contractual penalties,
- Article 345 - Burden of proof,
- Articles 421 to 428 - Plurality of debtors,
- Articles 631 to 639 - Contracts commissioning construction work,*
- Article 63 - Defects in construction
- Article 638 - Limitation periods
- Article 640 - Acceptance
- Article 642 - Distribution of risks
- Article 648 - Contractors' mortgages

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* Werkvertrage

2.4. Terminology

DIN: Deutsches Institut fur Normung

VOB: Verdingungsordnung fur Bauleistungen

LBO: Landesbauordnung

Kunde: Bauherr
Bautrager
Baubetreuer
Besteller

Bauteam: Bauherr, Planer, Handwerker, Entwurfsverfaser, Unternehmer, Bauleiter, Fachunternehmer, Ausbau, Nachunternehmer.

Generalunternehmer, Baumeister.

Bauprozess. Vertrag, Wervertrag, Auftraggeber, Auftragnehmer, Architekt, Planung, Uberwachung, Ingenieure, Fachingenieure, Unternehmer, Fachunternehmer, Erfullungstadium, Gewahrleistungsstadium, Ausfuhrung, Bauausfuhrung, Bauhandwerksicherungshypothek, Abnahme.

Rechte und Pflichten
Haftung, Haften
Verteilung der Gefahr
Mangel
Nachbesserung, Minderung, Wandlung
Beseitigung
Verschulden
Vorsatz
Fahrlassigkeit
Grobe Fahrlassigkeit
Beweislast
Beweislastumkehr
Verjahrung
Verjahrungsfrist
Schadenersatz

Streitigkeiten

Stadtebaurecht
Bauleitplane: Flachennutzugsplan, Bebauungsplane
Bauantrag
Baugenehmigung

2.5. Standards and approvals, good practice

Some technical rules of construction are included in the statutory provisions which will be examined section 3 below. Any construction project must of course be in accordance with these.

The principal contractor, project designer, contractors, etc., must all comply with them.

Apart from these "statutory technical rules", all projects must also comply with "the generally accepted rules of construction", in German the "anerkannte Regeln der Baukunst".

These codes of practice consist of:

- o German DIN standards, prepared by mixed "industry - science - government" committees,
- o International CEN or ISO standards, if appropriate.

These standards specify minimum requirements relating to normal products and materials.

Anyone deviating from these must provide proof that "safety" is achieved.

New items require a **quality certificate** (Zulassung) issued by the authorities.

Inspection marks (Prufzeichen) may be allocated to ordinary or new products or processes on a once and for all basis, and in the case of new items this

avoids the need for requesting the issue of a certificate in each individual case.

Certificates and marks are issued by the Institut fur Bautechnik for all Federal territory, and in general are valid for 5 years.

When it has not been possible for a new technique to be certified by the Institute, through lack of time, in the case of a large and urgent construction project, the minister of a Land may in exceptional circumstances give his approval.

Proof of structural stability is always required for buildings or components which are **prefabricated** in a factory, and in the case of houses it is also necessary to prove that the requirements relating to acoustics, heating, waterproofing, fire safety, etc., are met, on the basis of a prototype which is approved once and for all.

2.6. Planning

Within the context of the law of the 23 June 1960 the territory of each local authority is entirely covered by a land use plan called the, "the Flachennutzungsplan".

Much more detailed plans, called "Bebauungsplane" derive from this local area plan.

These plans, which are prepared as necessary, establish "imperatively and compulsorily" how land plots will be used: types of buildings, number of storeys, etc.

It is very difficult to obtain authorisation for building outside the perimeter of a built-up area.

Plans are always approved with the assent of the "state" authorities, i.e. the Land.

2.7. Subsidised rented housing

One building out of six is social rented housing in the sense of the laws of 1930 and 1940.

Of 1,800 companies, 1,200 are cooperatives going back to the 19th century.

The 600 companies operated by local authorities (300), private companies or the churches own two thirds of the stock.

Those which do not comply with the regulations may lose their approval and their tax advantages.

All companies must:

- Reinvest their profits,
- Limit their profits to 4%,
- Limit rents to the economic cost,
- Remain independent of the building industry.

The system is more exacting in respect of objectives than in respect of means.

In principle it is not the government but the union (GGW) which ensures control through responsible "inspectors".

3. CONTROLS

In the FRG building is subject to thorough control by the authorities.

This control is limited to compliance with the requirements of statute law only.

It never relates to the manner in which clients and the builders comply with or fail to comply with the provisions of the Civil Code.

Statute law on building is in two parts:

a) Planungsrecht: The law relating to planning, briefly mentioned in $26.
b) Bauordnungsrecht: Law governing construction, the fundamentals of which are presented below.

3.1. Regulations

Every Land issues its own construction regulations, called **Landesbauordunung**, which generally include most of the specifications in a model document prepared at Federal level, called the Musterbauordung (MBO).

These regulations, which are supplemented by more detailed ordinances, are designed to protect the community and individuals against **dangers** which threaten their safety and especially their life and health: Abwehr von Gefahren.

They also include minimum requirements for comfort, in particular for housing.

They deal with questions related to the appearance of buildings: Baugestaltung.

They lay down certain general technical rules, certain responsibilities and the procedure for authorising construction: the Baugenehmigung.

The provisions regulated in this way include in particular those relating to:

1. The relationship between the built-up **plot** and public highways, fire service and ambulance access to buildings, distances between buildings to limit fire risks and ensure the lighting and ventilation of occupied rooms.

2. The construction of **different parts of a building** with the primary concern being the stability of the structure, then protection against fire, safety of internal traffic, acoustic insulation, thermal insulation and protection of the health of the building's users.

3. Provisions applying to different **components** (walls, ceilings, roofs, staircases, doors, windows, etc.), and those relating to either their structural role or the number of storeys (e.g. outside walls, partitions and loadbearing walls).

Local authorities have some legislative power over drainage, drinking water, heating, internal and external architecture, and facades in particular.

Finally ordinances issued in each Land, which are almost all similar, relate to quality marks, garages, large stores, meeting halls, camping sites, etc.

Construction regulations in Germany consist of all this.

The German contents list of the MBO, in its form of June 1981, is appended.

Before turning to construction permits, it should be pointed out that one article in this MBO deals with the authority to sign documents appended to applications for permits, which is restricted to certain architects or engineers: this is the concept of the Bauvorlageberechtigung.

3.2. Construction permits

Prior authorisation is essential, except for minor construction work. It is

the application, the Bauantrag, which initiates the construction supervision procedure, the Bauaufsicht.

Plans and drawings which should make it possible for the appropriate authorities to check that plans meet **all** statutory requirements are appended to each application.

This check is obviously concerned with compliance with local authority plans and the requirements of the construction regulations, in particular the Landesbauordnung.

But it goes even further. A special feature of the German system is that the calculated stability of the building is checked. If the public services of the Kreise or town are not in a position to do this, the authorities entrust this stability check is to experts who have private status (Prufingenieure).

As indicated in relation to standards in $2.5, examination prior to the issue of a permit includes checking compliance with the standards, or the existence of a certificate in the case of technical innovations. To put it briefly, the authorities check the materials and the components which are incorporated in structures.

Civil law relationships between an owner and his neighbours are excluded from inspection in the course of this examination procedure.

The same applies to relationships between the owner on the one hand, and the architect and contractors on the other. Nevertheless the authorities have the power to ask the client (Bauherr) to reject an intended designer (Entwurfsverfasser) who is considered not to be competent.

Before issuing a permit the authorities make it their business to ensure by enquiries made to other departments that the project complies with statutory regulations concerning:

o The location of buildings close to roads, motorways, airports, frontiers, military installations, etc.

o Protection of the environment, nature, water tables, etc., protection against noise, nuisance, smell, radiation, etc.

o Energy saving, etc.

Work cannot be begun before the permit is issued in writing, but it is nevertheless possible to obtain an interim permit for earthmoving work.

As far as neighbours are concerned, they must be given the opportunity to comment, but the procedures vary from one Land to another.

3.3. Acceptance by the authorities

The authorities which issue a permit must also supervise the progress of operations on site.

For his part the client must always appoint a site manager, a Bauleiter, who has special responsibility for complying with statutory requirements during the construction stage.

A client must communicate the date on which work starts to the authorities one week in advance.

While work is in progress the authorities make two separate acceptances:

a) **Acceptance of the basic structure**, Rohabnahme, when loadbearing members, chimneys, dividing walls and roof are completed. Insofar as is possible the parts of a building which are essential to stability, fire safety, thermal insulation, acoustic insulation and wastewater drainage must be kept accessible.

   Finishing work cannot begin until the basic structure has been accepted.

b) **Final acceptance**, Schlussabnahme, which also includes provision for the supply of water and wastewater drainage.

Accessways and water systems must be operational when this final acceptance is made. The client must request this acceptance during the week following completion of the work.

Buildings may not be occupied until the final acceptance certificate has been issued, but this of course relates only to compliance with statutory requirements and has nothing to do with the "contractual" acceptance of the work, which is governed by private law.

If an offence is discovered the authorities may order work to be stopped, and this applies to new buildings, alterations, demolition or destruction. They may order a site where work continues despite a written or verbal prohibition to be shut down.

They can cause construction materials and components, tools, machinery and other accessories to be seized.

They may also prevent the occupation of a building which is built without compliance with the regulations and despite prohibitions.

It is clear that in Germany the control exerted by the authorities "in the name of the State" is very strict.

The Germans see in this the advantage of a reduced risk of problems following acceptance. They probably use this preventive action in the construction process as an argument for limiting the period during which builders incur liability following the acceptance of work to a shorter period than elsewhere.

4. CONTRACTS

As far as the regulations of **statutory law** are concerned, the following parties are involved in the act of construction:

- The client, the Bauherr,
- The project designer, the Entwurfsverfasser,
- The contractor or contractors, the Unternehmer,
- The site manager, the Bauleiter.

All four must be truly competent and have special responsibility throughout the construction process, although for very simple operations it remains possible for a person to do the building work himself, even if he is assisted by friends or neighbours, without formalities.

From the **contractual** point of view, these concepts no longer exist.

The parties enter into contract within the context of civil law, in particular the **Civil Code** (BGB) and the law of **contract** (Vertrag).

German vocabulary then makes use of concepts which must be borne in the forefront of one's mind.

First of all the contracts commissioning work, Werkvertrage, made between a client, the person giving the order, the Auftraggeber, and the person accepting the order, the Auftragnehmer.

Contracts commissioning work are contracts made:

o either with architects or engineers for the design (Planung) and supervision (Uberwachung) of the work,

o or with contractors for performance (Ausfuhrung) of the work,

o or with developers, in Germany generally called general contractors, Generaluntenehmer, whose services include the supply of a building.

Contracts relating to the supply of materials used in building are not contracts commissioning work.

A very clear distinction is made between the provision of work entrusted to contractors, Bauleistungen, and supplies, Lieferungen.

The authorities do not in any way supervise relationships between those who give and accept orders.

4.1. Designers and contractors

The title of architect is reserved for persons who are registered under this name in the **List of architects**.

This list is drawn up for each Land by the Association of Architects.

There are two types of architectural training: the architectural/engineering schools and the universities.

Registration is only possible after 3 years practice.

Professionals having 10 years of experience which is considered to be relevant may also be included on the list.

It is necessary to be on the list in order to have the right to sign the documents which are appended to an application for a construction permit. A regulation of the same type exists for **engineers**, with an ordinance on engineers in each Land, as for the architects.

Given that most building **companies** are small businesses, the manager or director must be registered in the **Register of tradesmen**.

These registers are not prepared at Land level, but for each of the major decentralised governmental groupings constituting the Regierungsbezirke.

The appropriate regional chambers of trade are responsible for this. In

principle, anyone who has received the necessary training (apprenticeship, worker's examination, worker, master worker's examination, etc.) is included in these registers.

For every occupation there is a professional body, of which membership is **compulsory**.

Thus all contractors must be members of their association (there are 2, depending on the size of the company). These are legally constituted associations which have jurisdiction over accidents at work in each Land and therefore issue their own requirements, which thus have the effect of a law.

Finally it should be mentioned that Federal clients should comply with the RBBau, which is a guide and not a text which can be cited as a basis for proceedings.

4.2. Contracts with construction companies

95 times out of 100 a client enters into **separate contracts** with every of specialist contractor.

Resort to a general contractor, who is entirely responsible for what his subcontractors do, remains very limited.

It is the custom, and it is also specified by the LBO, that a contractor or contractors should not produce designs, but should on the contrary receive all working drawings and detailed technical specifications which can be immediately used on site from the project designer at the appropriate time.

What does the construction contract, the **Bauvertrag**, normally contain?

One example is provided as an appendix: this is the contract of the Bundesarchitektenkammer (BAK).

This includes the following items:

1 - Angebot (offer): one page,
2 - Auftrag (order): one page,
3 - Besondere Vertragsbedingungen (special contractual conditions): 2 pages, then the general conditions arising from the VOB (see 4.3 below),
4 - Allgemeine Vertragsbedingungen (general contractual conditions): 18 articles,
5 - Zusatzliche Vertragsbedingungen (additional contractual conditions): 25 articles,
and finally:
6 - Leistungsbeschreibung (specification),
7 - Abnahmebescheinigung (acceptance certificate).

In general there are two types of construction contract: the VOB-Vertrag, and the BGB- Vertrag.

For a contract to be of the first type, which is most commonly the case, the parties must expressly agree that this will be so.

This means that the general provisions of the Civil Code are replaced by the general provisions of the VOB (B), which are wholly incorporated into the contract.

Whatever the type of contract, provided that it is a "Werkvertrag", the contractor (and also the architect) can if he wishes benefit in Germany from the opportunity provided by paragraph 648 of the BGB to obtain a mortgage on the building which has been built or which is going to be built.

This is the principle of the "Bauhandwerksicherungshypothek".

4.3. The VOB and the VOL

As a client the German State entered into very fundamental agreements with the building industry over 50 years ago:

o The VOB, Verdingungsordnung fur Bauleistungen, the conditions applicable to construction work,

o the VOL, Verdingungsordunung fur Lieferungen, the conditions applicable to materials.

These conditions, which were negotiated once and for all, are compulsory for government contracts, and are very often incorporated into private contracts.

They amend the provisions of the Civil Code on certain points, in particular with regard to:

- Contractual acceptance
- A shorter post-acceptance warranty period,
- Certain post-acceptance obligations,
- Remuneration and insurance.

The VOB includes **3 parts**:

o Part A, which is an instruction directed to government clients for the **delegation of construction work (DIN 1960),**

o Part B, which includes the general contractual conditions for the **performance** of construction work (DIN 1961),

o Part C, which is very much more bulky, which contains all the **general techical specifications** for construction work.

It is therefore part B which may form part of the contractual documents (private contracts) or must do so (government contracts).

As for part C, which is known briefly as the ATV, it not only provides a project designer with a compendium of good practice, but also enables him to draw up the **special technical specifications** without any omissions.

It is in fact presented in a working form, which reflects the realism of its authors.

It would be useful to consider the preparation of a tool such as the VOB-VOL, taken jointly, at **community level**.

Part A of the VOB is intended for clients. Consisting of 29 paragraphs, it summarises the various provisions which must be followed when delegating work.

Part C, of which one folio is provided by way of example as an appendix, includes 50 technical folios which are all DIN in class 18.

Each folio includes:

o Guidance on the preparation of specifications (Leistungsbeschreibung), which avoids omissions and provides a guide for architects.

o Requirements concerning the performance of work and its payment.

The 18 articles of the general contractual conditions of the VOB, i.e. part B, relate to:

1 - The nature and scope of building services.
2 - The remuneration of contractors, reference being made to paragraphs 242 and 677 of the BGB.
3 - The basic documents necessary for carrying out building work.
4 - The execution of work, with reference to paragraph 984 of the BGB.
5 - Completion periods.
6 - Difficulties in and the interruption of work.
7 - Division of risks between the two contracting parties.
8 - Cancellation by the ordering party, with reference to paragraph 649 of the BGB.
9 - Cancellation by the contractor, with reference to paragraphs 293 and 642 of the BGB.
10 - The duties of the parties, with reference to paragraphs 276, 278 and 823 of the BGB.
11 - Contractual penalties.
12 - Acceptance.

13 - Post-acceptance guarantee period, with reference to paragraphs 631 to 650 of the BGB.
14 - Final account.
15 - Work on a materials and labour basis.
16 - Payment.
17 - Bonds.
18 - Litigation.

4.4. Architects' tasks and fees

In the F.R.G. there is an "ordinance" which determines architects and engineers fees for all planning and construction work.

This very detailed ordinance lists in particular the various tasks performed by architects when responsible for the preparation of a project (Planung) and the supervision of its construction (Uberwachung).

Under the name of the HOAI, Honorarordnung fur Architekten und Ingenieure, it was adopted by the Federal Government in implementation of the law of the 4 November 1971.

Its contents list is provided as an appendix, together with a specimen contract recommended by the BAK.

4.5. Acceptance of work

Acceptance is governed by article 640 of the BGB or by article 12 of the VOB as appropriate.

a) In the case of a BGB contract, whether the contract is for work or for architect's services, acceptance may take the form of written acceptance, or be tacit, particularly when the client takes possession of a building.

Even in the latter case it is essential that **reservations** should be formulated in writing.

Acceptance is significant in 4 ways, all of which are important:

- o Risks are transferred from the contractor to the owner,
- o Rhe burden of proof in the event of any defects is reversed,
- o The warranty period, the end of the period marking the limit which the law provides for the client to make use of this warranty begins,
- o The contractor obtains the right to receive all contractual remuneration.

Here is the text of article 640 of the BGB:

"The client is bound to accept a structure built in accordance with contract, as long as acceptance is not rendered impossible through the nature of the structure".

"If a client accepts bad work, despite being aware of it, he only retains the rights conferred by articles 633 and 634 if reservations concerning the bad work are made at the time of acceptance".

Thus through acceptance the client **states** that the work on the whole conforms to the contract, and that he "takes possession" of the object built within the context of the contract.

Even in situations where possession is taken early under pressure of circumstances, for example where the client has had to leave his old rented housing, it is recommended that if necessary an explicit statement **rejecting acceptance** should be made in order to avoid tacit acceptance.

These obviously only relate to **known** defects (and not hidden defects, as the British call them), which are subject to reservations.

Without these reservations a client loses his rights to "Nachbesserung" and "Minderung", i.e. to repair of the defects and a reduction in the price, but not his right to any damages (Schadenersatz).

Reservations must in fact be made at the time of acceptance, neither before nor afterwards. Delay penalties which cannot exceed 5 to 10% of the cost of

the work may then be applied.

If a client does not fulfil his duty to make acceptance within an appropriate time, contract often specifies that the contractor can only demand acceptance in three circumstances:

- o If a third party (tenant or purchaser) produces a certificate attesting the absence of defects,
- o If the authorities have issued authorisation for occupation of the building,
- o Or, in the case of partial work, after the building as a whole has been completed.

It is the client who "holds" the contractor, because in general it is only he who can take the initiative over acceptance.

A contractor must be very vigilant in order to release himself from his obligations.

In fact, the post-acceptance warranty period will not begin if a defect which has given rise to a reservation is not put right.

The contractor must not only investigate a reservation and make good the defect, he must also make it known that this has been done.

Defects, even visible defects, which have not given rise to a reservation cannot bring about an interruption in or an extension of this post-acceptance warranty period.

b) In the case of a VOB contract, not only is the guarantee period 2 years instead of 5, as described below in section 5, but acceptance is less favourable to the client.

In fact it takes place tacitly **within 12 days** following written notification of completion of the work in writing from the contractor to the client.

Despatch of the final invoice is sufficient.

The period is for 6 days only following any taking of possession of the building by the user.

In this case it is no longer the contractor but the client who must be vigilant!

Thus therefore a **second type** of acceptance is possible in the F.R.G. This is the one normally in use because VOB/B contracts apply nine times out of ten.

Frequently several successive acceptances are made within the course of one building operation. First for the major structural work, then for different subassemblies forming independent entities, and finally for the completed building.

The procedure for achieving what the French call "final acceptance" of a building is amicable and not legal. The parties agree a time limit and a further acceptance is made until the building is finally accepted.

The two year warranty of the VOB, paragraph 13, starts from the day of final acceptance. During the 2 years warranty period it is very difficult for work to be made good because it is incumbent upon the client to provide proof of fault by the contractor.

The text of paragraph 12 of the VOB, which deals with acceptance in this form, is appended. It is very favourable to contractors.

VOB acceptance was criticised during the discussion organised by the appropriate committee, the DVA, in November 1986. There were demands that paragraph 12 should be revised and that in particular acceptance should always be in written form, because without this the rights of the client in the event of an apparent defect cannot be validly exercised.

It was suggested that a form of acceptance which would compel the parties to

negotiate and record the results in a document should be developed.

Might it not be useful to see how the Italians have dealt with this question, by having recourse to a third arbitrator?

5. LIABILITY

In very simplified form post-acceptance warranties last for

- o five years in the case of contractors, developers and architects having a "BGB Werkvertrag" with a client,
- o 2 years in the case of contractors having a "VOB Werkvertrag" with a client.

There are of course variations and exceptions, but this is the basic principle.

Within the context of a contract of sale (Kaufvertrag) the BGB fixes the warranty period for products to only 6 months after delivery.

Nevertheless some manufacturers offer a longer commercial warranty, which may be 30 years in the case of structural framework.

5.1. Contractor's liability

The rights of clients and the responsibilities of contractors before and after acceptance are very different. They also vary depending on whether the VOB is or is not part of the contract.

a) When a contract for the construction of a building is entered into without reference to the VOB the **Civil Code** applies, in particular paragraphs 631 to 651 of the BGB.

Before a building is accepted, a client has the right to:

- o Ensure that the building is constructed with precisely the characteristics and qualities specified in the contract,
- o To cancel the contract or reduce payments, if following the expiry of a reasonable period agreed amicably between the parties the building has not been correctly completed,
- o To claim damages and interest for defects which can be directly attributed

to the fault of the builder.

After acceptance a client can claim damages and interest for defects which can be directly attributed to a fault by the builder.

The date from which the limitation periods run is the date of final acceptance or the date on which acceptance is rejected.

In the case of buildings the warranty period ends after **5 years.**

In the case of infrastructure work it ends after **1 year.**

The limitation period for intentional defects or gross negligence is 30 years.

When defects appear during the one or five year warranty period the contractor's first duty is to put them right (Nachbesserung).

It it the builder's responsibility to decide how defects will be made good. The guarantee period restarts once repairs have been made.

A time limit for the repairs (Vornahmefrist) is generally agreed.

b) When a contract of works in entered into with reference to the VOB, part B applies, in particular paragraph 13 entitled "Gewahrleistung".

Before acceptance a contractor must correct all defects, and if he fails to do so the client may either make the repairs himself or reduce payments or claim for damages and interest.

After acceptance a client may claim for damages and interest for "substantial" disorders in buildings built or altered which make them unsuitable for their purpose and if these disorders are due to fault by the contractor.

In the case of building work the warranty period is for **two years** following

acceptance of the work, except in the case of certain parts which are exposed to fire (chimneys, etc.) for which the period is only one year.

For infrastructure work the guarantee period is again one year.

A contractor has the duty to eliminate any defect which appears during the guarantee period, but only if the client orders him in writing to do so.

If the contractor does not respond to an invitation to effect repairs within a reasonable period the client may have them repaired at the contractor's expense.

When repair of a defect is impossible or requires disproportionate expenditure, the contractor's remuneration may be reduced.

The very detailed provisions of paragraph 13 of the VOB/B are appended hereto.

In the case of a deliberately concealed defect or gross negligence the client not only has the right to damages and interest, but the limitation period is for 30 years.

Paragraph 13 also provides for the possibility of an extension to the warranty period. This remains exceptional, but is invoked for example in the case of large bridges.

Finally it is important to note that damages and interest may be claimed if the contractor fails to comply with "accepted good practice". This may include compensation for economic loss, and thus goes beyond the mere repair of defects in a building.

5.2. Architect's liability

In Germany there is a true architects' law, the Architektenrecht, which considers two factors:
- fees,

- obligations,

which are of course related.

Paragraph 15 of the HOAI provides a definition of the work of an architect, broken down into 9 parts. If some tasks are not performed the fees are not reduced provided that a building is free from defects.

It is not the time which has passed or the quality of paper which counts, it is the result, the object built.

An architect's contract is a Werkvertrag if it includes both plans for and supervision of the work, but if it is limited to supervision it is a simple contract for services, a Dienstvertrag.

The contract may be verbal, but this is not recommended.

Since 1985 there has a been a new unified architect's contract through which the obligations of architects can no longer be restricted.

When the contract includes stages 1 to 8, i.e. design and supervision, the 15 year liability period begins from acceptance.

Contract may reduce this period by 5 years.

Liability may be limited to the sum fixed by the architect's professional liability insurance.

Architectural services give rise to acceptance in the same way as for any Vertrag.

The criminal liability of an architect may be invoked if he is responsible for a dangerous structure in the sense of paragraph 323 of the Strafgesetzbuch, the Penal Code.

As the designer of a project, the Entwurfsverfasser, in the sense of the regulations relating to building, the LBO, and possibly as a Bauleiter,

architects are responsible for compliance with the requirements of statute law applicable to construction.

It is his responsibility to ensure that any design complies with the regulations, and the same applies on site if he is the Bauleiter.

Architects have the duty to ensure that "accepted good practice" is complied with, including that relating to thermal insulation and external and internal sound insulation.

There are however three circumstances in which the architect's liability can be invoked despite compliance with these rules.

The possibility of "Nachbesserung" by an architect is often contested, particularly when the building has already been built.

5.3. Liability of civil servants

According to German law all citizens have the right to compensation if a member of the government causes him damage as a result of unsatisfactory performance of his governmental duties.

This right, which is specified in the BGB, applies in respect of the government department in which the civil servant is employed.

Let us take an example where a local authority responsible for planning has let it be understood in a preliminary decision that an application for a construction permit for a factory would be accepted.

The client then incurs certain expenditure. A little later the authorities only approve the project with restrictions. In this situation the client has suffered material loss.

If the civil servant acted incorrectly, either intentionally, or through gross negligence, the head of his department may make a claim against him. The limitation period is then 3 years from discovery of the loss.

5.4. Liability and competence

Competence is more important than civil, penal and contractual liability.

In Germany the competence of building workers is higher than in other European countries for one essential reason: manual and technical work is not considered by the Germans to be less noble than intellectual and scientific work.

The technical schools are not a refuge for poor scholars, with the result that quality teaching is provided, and thus well-trained workers are offered to the labour market.

In addition to this Germans instinctively respect laws and rules. Good work is valued.

As indicated in the next section, a contractor's liability rests above all on the fact that it is impossible to obtain insurance for his own professional errors.

The overall result is the quality of German building.

Contrary to a fairly widespread opinion, the system is inspired by liberal principles. There are many obligations deriving from statute law, but they are in effect less restricting than the countless quasi-regulations existing in certain countries.

In Germany it is contract which establishes mutual responsibilities. In the light of this contract, professionals are responsible for their errors.

The manufacture of products is not controlled by governmental authority, but by industrial concerns themselves, their industrial associations and approved laboratories. Conversely control is exercised fairly strictly, first at the design stage and subsequently to ensure that a structure conforms to its design.

Complete uniformity is not however the case, and some criticisms show that there is still room for progress.

6. INSURANCE

The role of German insurance companies in building is very limited because insurance against loss of the French or Belgian type does not exist, and is not even envisaged by government authorities.

Civil liability insurance covering the consequences of professional shortcomings following the acceptance of a completed building only applies to architects and engineers.

Finally the banks insure clients for losses not exceeding 5% of the value of the services provided by any builder.

6.1. Architect's professional insurance

Unlike contractors, architects and engineers can obtain post-construction civil liability insurance policies, but the law does not oblige them to do so, except in two Lander, Hesse and North Rhine - Westphalia.

In the Federal Republic as a whole, more than a third of designers have no liability insurance.

Professional insurance for architects covers all acts performed by the insured person during the period for which the policy is valid.

It covers acts resulting in death, bodily injury and damage to property, including economic losses resulting.

This insurance also covers financial losses associated with failures by architects in their contractual duty of vigilant supervision.

6.2. Civil liability insurance for contractors

This is the Berufschaftpflichtversicherung.

Contractors obviously have duties with respect to their clients,

subcontractors and third parties.

What then does this insurance, which is not insurance for the object built, but site insurance, very frequently obtained at the request of the client himself, cover?

It covers the consequences of events which take place during the period for which the policy is valid and result in death, bodily injury or damage to property, insofar as the insured person is liable under civil law.

This coverage has narrow limits.

In fact the poor completion of a building built is not considered to be a loss of property, but only a financial loss, which is not covered by this insurance.

Any claim by a client against a builder, contractor or principal contractor in order to achieve the proper completion of work, alterations or repairs, or damage and interest, which would amount simply to compensation for these rights of the client, are not covered by the insurance.

The only losses caused to property resulting from the act of construction which are covered by insurance are those relating to parts of the building which were already in existence before the act of construction.

The main consequence of the above is that if a contractor fails to meet his contractual obligations, particularly in the event of bankruptcy, then the client has no remedy.

Insurance policies can in principle be drawn up freely, but in practice they are drawn up on the basis of a common model.

6.3. Insurance for the client

There are two, very different, forms of insurance.

First there is that which covers the client if he fails to meet certain of his obligations during the construction of a building.

The client in fact also incurs liability because he has taken the initiative of causing work which entails risks to third parties to be done on his land.

This insurance of the first type is the Bauleistungsversicherung.

Clients also wish to cover themselves against the risks of bad workmanship.

There is no loss insurance which will protect an owner for a long period after a building has been accepted, unlike in particular the practice in France (the Spinetta law) and Britain (NHBC).

However, as in almost all other countries, there is in Germany a practice whereby the client retains a sum of 5 to 10%, or requires an equivalent bank bond, to compel builders to make good minor defects.

However there is no practical means for a client to insure himself against major loss, or bankruptcy of the builders.

Clients frequently apply pressure to all the contractors on a job by retaining 5% from all of them, even if only one is responsible for a defect.

This sum, which provides an insurance for the client, is held by a bank.

6.4. Other insurances

In many Lander it is compulsory to obtain **fire insurance** for certain buildings.

There is then a contractual obligation between the two parties, the insured and the insurer.

The law on insurance contracts is the basis of these contracts.
Insurance organisations, which may be statutory, generally make their own

technical requirements, which may go well beyond those included in the statutory regulations and in particular those of the Landesbauordnung.

In the case of large buildings the fire insurance premium is reduced if the insured instals a large number of extinguishers or uses non-flammable materials when a building is built.

Finally, **civil servants** generally take out insurance covering their liabilities, because their departmental heads may make a claim against them if a ruling goes against the State, for example if an error is made in a construction permit or in the supervision of construction.

Offences covered by the **Penal Code**, such as for example:

- o The construction, alteration or demolition of buildings without authorisation,
- o The failure of those responsible for acts of construction to meet their obligations,
- o Failure to comply with the fire regulations,
- o The manufacture or sale of products for which a certificate has been rejected,
- o Failures to comply with good practice which result in death or injury,
- o Failure to pay social security contributions, in other words "moonlighting",

cannot however in any circumstances be covered by insurance.

This last improper act is not an offence if assistance is given benevolently or to neighbours.

7. LITIGATION

With a system which is based on prevention, it is obvious that litigation will be frequently burdensome for the client.

For the settlement of small disputes there is first a tribunal, called the VOB Stelle, which issues an opinion within a very short period, of one week, but which is rarely consulted. Its opinion does not have the value of a judgement with which the parties are obliged to comply.

Disputes of medium size are brought before a kind of arbitration tribunal, the Schiedsgericht, which consists of both jurists and construction experts who are brought together in this way because of their technical abilities. Judgement is only given after a few months.

Still not very well known to either builders or clients, this accelerated procedure was instituted a short while ago to relieve the burden of the ordinary courts.

Most disputes are brought before the ordinary courts, the Gerichte.

These judge any failure to fulfil statutory or contractual obligations.

As German law states that it is the client's responsibility to provide proof of fault by the builder in the event of any disorder, it is he who has to pay an expert to establish the damage and determine responsibilities in accordance with his opinion.

Often, as everywhere, many responsibilities are involved: the contractor, the supplier and, of course, the architect, whose task relates to both design and supervision of the work.

Provided that the guarantee period has not expired, any builder involved in a loss is responsible for the whole loss.

The client may, as he chooses, initiate proceedings against the most solvent

builder, the one whose warranty has not yet expired, or even the one who is legally most vulnerable.

Clearly different warranty periods for architects (5 years) and contractors (generally 2 years) pose difficult problems for the judges.

The guilty party is caused to make good all the loss himself or at his own expense. He may also have to compensate for other losses.

A party who has had a ruling given against him may make a claim against the other builders in order to obtain reimbursement of their share in the compensation.

These actions are frequently amicable. Nevertheless the settlement of disputes through the courts is always difficult for the plaintiff, through their expense and the time required (several years) to obtain a ruling. The owners of defective private housing frequently engage in such litigation.

In rural environments, where people know each other better than in the town, it seems that builders avoid the courts and attempt to reach an amicable settlement so as not to tarnish their reputations.

This does not mean that amicable settlements are always satisfactory. They are reached on the basis of the strengths of the parties.

In the case of minor problems a small client has no effective recourse if a builder refuses to make amends because of the cost of proceedings. He is at the mercy of the goodwill of the builder.

Where a client is powerful, he on the contrary is in a strong position with respect to local builders who wish to keep their chances of obtaining other contracts.

In general many builders meet their clients' demands in order to avoid adverse publicity and in particular accept to make repairs without charge

beyond the contractual warranty period.

8. PROBLEMS

Insofar as they exist, the problems in Germany are as follows:

o an increase in post-construction problems, which is a matter of concern to the authorities, and is partly due to atmospheric pollution,

o the high cost of construction, the corollary of the high quality rquired by the public and reflected in the standards,

o the inevitable slowness sometimes involved in the government's control over individual operations, at all stages in development,

o some provisions in the Verdingungsordnung fur Bauleistungen, which are too favourable to contractors and general contractors,

o in particular the post-construction warranty period, which is only two years when the contract is based on the VOB,

o also, in particular, the automatic acceptance of work authorised by the VOB, which may acts as a trap for clients,

o the lack of any system for insurance against loss, which deprives a client who purchases a house, or has one built, of any protection.

This list should not obscure the positive aspects of the German system, which have been emphasised throughout this report.

9. APPENDICES

List of appendices which will be included in the definitive edition published by the Directorate General for the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - MBO - Model construction regulations.
2 - BGB - German civil code (extracts).
3 - Model construction contract (Bauvertrag).
4 - Contractual clause on suppliers responsibilities.
5 - VOB - Conditions application to construction services.
6 - VOB/A - Delegation (Vergabe) DIN 1960.
7 - VOB/B - Performance (Ausfuhrung) DIN 1961.
8 - VOB/C - General technical requirements applying to earthworks DIN 18 300.
9 - VOB/ $12 Acceptance (below, in English).
10 - VOB/B $13 Warranty (below, in English).
11 - HOAI - Regulation on architects and engineers' fees.
12 - Model architects contracts.

Only appendices 9 and 10 are included in this publication.

9.1 - VOB/B Paragraph 12

Acceptance

1 - If a contractor requests acceptance after construction work has been completed the client shall have 12 working days in which to effect this. Any other period may be agreed.

2 - Special acceptance may be given for the following, on request:

a) isolated parts forming a whole,
b) parts on which continuance of the work is dependent.

3 - In the event of a substantial defect acceptance may be refused until repairs are made.

4 - Formal acceptance shall take place when one of the contracting parties requires it. Each party may then have recourse to an expert at its own expense. The expert's report is put in writing after joint negotiation. The report records any reservations relating to known defects and to penalties, and any objections by the contractor. Each party receives a copy.

5 - When one of the contracting parties is freed from his obligations with respect to paragraphs 2, 3 or 4 above, this discharge shall also apply to their legal representatives and their subcontractors, except where the latter have acted with intentional or gross negligence.

6 - If a third party claims against one of the contracting parties for any loss for which the second contracting party is responsible by virtue of paragraphs 2, 3 or 4, the former may request that the latter release him from his obligations with regard to third parties. He must not accept or satisfy claims by third parties without first providing the other party with an opportunity of being represented.

9.2 - VOB/B Paragraph 13

Warranty

1 - The party acting under instructions shall guarantee that the work supplied at the time of acceptance has the contractually required qualities, complies with accepted good practice and is free from defects which diminish or negate its value or suitability for normal use or the use specified in the contract.

2 - In the case of services based on samples, the qualities inherent in the sample shall be maintained, unless the differences are considered to be insignificant. This shall also apply to tests which are only recognised as such after the contract has been entered into.

3 - When a defect arises from the description of services or an instruction given by the party giving instructions, where the latter may have supplied or specified materials, or construction members or the performance of prior work by another contractor, the party acting under instructions shall then be released from providing a guarantee for such defects unless he has omitted to report likely defects in accordance with section 4 subsection 3.

4 - If the contract does not specify a warranty period, this period shall be for 2 years in the case of wooden structures and defects in wood, one year only for site work and parts affected by fire, and installations which must be fire-resistant. This period shall begin when the work has a whole is accepted. Only in respect of parts forming a separate whole will this period begin with effect from partial acceptance.

5.1 - The party acting under instructions has the duty to eliminate at his own expense any defects appearing during this period which may be due to services not in accordance with contract, provided that the party issuing instructions so requires in writing before the expiry of this period. The right to the repair of defects complained of expires at the end of the period in paragraph 4 above, calculated from receipt of the written claim or in any event prior to expiry of the contractual period. After repair work

has been accepted the warranty period in paragraph 4 above shall run unless specified otherwise by contract.

5.2 - If the party acting under instructions does not comply with a request for repair within a suitable period specified by the party giving instructions the latter may have them repaired at the expense of the party acting under instruction.

6 - When repair of a defect is impossible, or would require disproportionate expenditure and is for that reason refused by the party acting under instructions the party giving instructions may by virtue of sections 634 subsection 4 and 472 of the BGB reduce the remuneration of the party acting under instructions. The same may exceptionally apply where repair of the defect would result in unacceptable nuisance to the party giving instruction.

7.1 - When a major defect which appreciably reduces the suitability of the structure for its use is due to a fault by the party acting under instructions or one of his subcontractors the party acting under instructions shall also be obliged to repair damage to the structure built, whether the service provided is a new building, maintenance work or an alteration.

7.2 - In respect of the repair of such damage which goes beyond elimination of the defect itself, the party acting under instructions shall only have an obligation if:

a) the defect is intentional or is the result of a gross omission,
b) the defect results from failure to comply with "accepted good practice",
c) if the defect consists of failure to observe a contractually specified requirement, or
d) insofar as the party acting under instructions has obtained cover for loss through civil liability insurance or has obtained insurance in Germany under conditions approved by the insurance supervisory authorities.

7.3 - As an exception to paragraph 4 above, legal limitation periods shall

apply even if the party acting on instructions, in the situation in 7.2 above, is covered by insurance, or has been able by agreement with the party giving instructions to obtain cover.

7.4 - A limitation or extension of responsibility may be agreed contractually in exceptional cases where circumstances justify it.

2 - Belgium

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1. INTRODUCTION

In Belgium, as in many European countries, the essential factor in avoiding construction defects is not to determine responsibilities after loss has occurred, or to proceed rapidly to compensation.

The main problem is "performing satisfactory work", which always presupposes proper preparation and continuous supervision on site.

Proliferating forms of protection and insurance would probably be the wrong road to take.

It would be better to have responsible builders, satisfactory information, and clear simple roles and responsibilities before and after the construction period.

In a recent monograph on the organisation of quality control in construction in Belgium, Mr. Marcel Franssens emphasised the complex nature of the building industry:

o materials and products, elements and components which are difficult to compare, in particular with respect to their durability,

o buildings and structures which are always different, objects built not built by a single producer, but by numerous contractors and subcontractors on the basis of plans of variable quality.

*
* *

When defects occur, these frequently arise from the excessive complication of roles and responsibilities.

Also involved are pollution, bad weather, irresponsible use, lack of maintenance and not only lack of attention or negligence, but incompetence in some quarters.

The Belgian authorities are inclining towards the organisation of a system encouraging quality.

This is an enormous work, because of the scattered political structures, jurisdictions which are fragmented between numerous ministerial departments, the variety of operational procedures and perhaps also inflexibility among the professions, and a sometimes onerous heritage of questionable traditions and principles.

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* *

In Belgium the liability/warranty/insurance system can be summarised briefly as follows:

o the very old provisions of the civil code and the detailed nature of regulations,
o the difficulties, for judges, in interpreting outdated texts,
o the inappropriateness of the 1939 law, which compels architects to undertake everything,
o the poor protection for the buyers of housing.

Post-construction liability lasts for a ten year period, without a two year period for minor work. This cannot be attenuated by contract.

*
* *

This brief description of the **present situation** begins with the general context, regulations and controls on construction.

Then follows an examination of contracts, responsibilities, insurance and, briefly, litigation.

It would be relatively simple to modify the Belgian system to incorporate it into a European system, for two very different reasons:

- the Belgian mentality, which is sincerely and seriously "European",
- the lack of an unwritten law of the common law type, as in the Anglo-Saxon countries.

The Belgian system undoubtedly has two rigid features: the architect's task, and ten year liability, but many signs indicate that progress is desired and possible.

2. CONTEXT

2.1- Political structure

In this country of 10 million inhabitants where the national product was of the order of 8400 US dollars per head in 1984 the State has recently lost a major proportion of its powers to the three regions: Brussels, Flanders and the Walloon region.

All the laws of the kingdom are voted by Parliament, namely the Chamber of Representatives (212 deputies) and the Senat (106 senators).

The nine provinces, which are also district authorities, also act through delegation by the State and exert certain controls over the 526 local authorities (communes).

Decrees voted by the Councils for each of the two communities, Flemish and French, or again by the Councils of each of the three regions, can profoundly alter the national legal context.

Every province and commune has legislative powers deriving from the 1836 law.

2.2 - Main organisations

At central level the **Ministry of Public Works** remains powerful, although other ministries have a part to play in construction and the regions have set up their own ministries. Its jurisdiction covers land use, planning, major transport infrastructure and State buildings.

The following also have or had an important part to play in construction:

o the National Housing Institute (Institut National du Logement, INL), disbanded in 1984 but partly transferred (technical department) to the "Building Office" (Regie des Batiments) (MTP),
o the Belgian Standards Institute (Institut Belge de Normalisation, IBN),

o the Building Scientific and Technical Centre (Centre Scientifique et Technique de la Construction, CSTC),
o the Office Supervising Construction Safety (Bureau de Controle pour la Securite de la Construction, SECO), a non-governmental organisation.

In general direct intervention by the State in construction law and technology is fairly low key in Belgium, except where the State acts as a government client.

The Belgian State has always played a leading part and is cited in jurisprudence as a source of codes of practice and good practice.

2.3 - Legislative basis

Belgium is a country with a **written law** based on Roman law:

- laws (lois) voted by parliament,
- royal orders (arretes royaux) issued in council with ministers,
- ministerial orders (arretes ministeriels), of lesser rank,
- ministerial circulars (ciculaires ministerielles) which cannot be cited in proceedings.

Communities and regions can vote decrees (decrets) and issue orders (arretes), which is not the case for either provinces or communes.

Here is a list of the essential texts which relate to a greater or lesser degree to construction:

o The "Belgian Constitution" of the 7 February 1831.
o The "Communal" law of the 30 March 1836.
o The "Provincial" law of the 30 March 1836.
o The "Special law on institutional reforms" of the 8 August 1980.
o Articles 1792 and 2270 of the Napoleonic Civil Code on the responsibilities of architects and contractors.
o The law of the 20 February 1939 on protection of the title and profession of architect.

o The arrete-loi of the 3 February 1947 organising the approval of contractors.

o The law of the 29 March 1962 on town and country planning.

o The "Breyne" law of the 9 July 1971 governing the construction of housing and the sale of unbuilt or partly built housing.

o The law of the 14 July 1976 concerning government contracts for works, supplies and services and the royal arrete of the 22 April 1977.

o The royal arrete of the 22 April 1977 on the putting of certain government construction contracts out to tender in the context of the European Communities.

2.4 - Terminology

- CONSTRUCTION, edifice, batiment, ouvrage de genie civil.
- CONSTRUCTION, structure, building, civil engineering structure.

- **L'acte de construire** - Les partenaires:
- **The act of construction** - those involved:
. CLIENT, maitre de l'ouvrage, vendeur, promoteur,
. CLIENTS, vendors, developers
. CONSTRUCTEURS **l'architecte**; ingenieurs, bureaux d'etude, bureaux de controle, entrepreneurs, sous-traitants, fournisseurs, fabricants, experts
. BUILDERS, **architects**; engineers, design offices, inspection offices, contractors, subcontractors, suppliers, manufacturers, experts,
. UTILISATEURS, proprietaire, locataire.
. USERS, owners, tenants.

- **Le processus operationnel**
- **Procedures**
. Conception, execution, direction des travaux, reception des travaux, delai de garantie, maintenance, obsolescence,
. Design, construction, direction of works, acceptance of works, warranty period, maintenance, obselescence.
. Accord, contrat, convention; lois d'ordre public,
. Agreement, contract, understanding; statutory law
. Vices ou defaults, desordres, dommages; vices caches ou apparents,

. Faults or defects, disorders, damage; hidden or apparent defects,

. Plans, devis, cahiers des charges,

. Plans, estimates, specifications,

- **Les responsabilites**
- **Liability**

. Competence; responsabilite civile, penale, contractuelle, delictuelle.

. Competence; civil, penal, contractual, criminal liability,

. Force majeure

. Force majeure

. Partage des risques, regles de l'art,

. Division of risks, good practice,

. Obligation de moyens,

. Duty of means,

. Negligence, erreur ou omission, imprudence,

. Negligence, error or omission, rashness

. Dissimulation volontaire

. Deliberate concealment,

. Fraude, acte criminel,

. Fraud, criminal act,

. Rupture de contrat,

. Infringement of contract,

. Faute prouvee, gravite, gros ouvrages,

. Proven culpability, seriousness, major structures,

- **Les assurances**
- **Insurance**

. Assurance tous risques

. All risks insurance

. Assurance de responsabilite civile professionnelle

. Professional liability insurance

. Assurance - controle

. Insurance - supervision

. Garantie de produits

. Product warranties

. **Agreation** des entrepreneurs (marches publics)

. **Approval** of contractors (government contracts).

2.5 - Standards and approvals

Standards are relatively numerous, but few have been certified and it is generally the construction contract which ensures that they apply.

Approval generally forms an integral part of the "standardised technical specifications". Nevertheless in the absence of standards or approval it is accepted that proof of the quality of a product may be provided by other means, so as to leave the way open, as in the USA, to "empirical development".

For planning purposes the law of the 29 March 1962 divided the country into 49 areas, and it is on the basis of these area development plans that each local authority (commune) prepares its own local plan which is approved by the State and can be used as a basis for litigation. It is through these local authority plans that the authorities impose requirements on the location, volume, appearance and enclosure of buildings, courtyards and gardens, etc.

3. CONTROLS

The State undoubtedly has responsibilities for technical supervision, linked with the regulations on building work, public safety, establishments which are classified as being hazardous, fire prevention and public safety, but this supervision is frequently very tenuous in actual fact. It applies at local, provincial and regional or national level. Any mayor may nevertheless bring a halt to work which infringes the law or building permits.

Building permits are issued by local authorities on the basis of an application prepared by an architect. They are mainly concerned with compliance with planning laws and cannot be contested before the courts if rejected. There is no acceptance of completed buildings by the authorities, except in the case of certain buildings open to the public. The provisions of the construction regulations are restricted to the safety of occupants, neighbours and the public. Every major local authority has its own "building regulations", which specify hygiene, safety and health requirements.

As a result there are no national regulations, except for the fire safety of tall buildings and of course for public buildings such as hospitals, universities, etc. There are no "building regulations".

3.1 - Regulations

Although specified in by the law of the 29 March 1962, the general regulations on building have remained at draft stage.

Belgian construction regulations have therefore remained difficult to apprehend.

They include:

a) Local authority regulations implementing article 60 of the abovementioned law, which must normally ensure "the health, solidity and **beauty** of structures, installations and their environments, and their safety, in particular protection against fire and flood".

Every local authority is free to issue such regulations on **construction** or not, and to determine their contents, as long as this lies within the limits of their powers. In practice local authorities of some size have such local regulations which in addition to technical regulations include architectural and planning requirements.

The technical regulations are still generally of the traditional descriptive type.

b) The **general regulations** on construction issued by royal edict and applying to all or part of the country, in particular the royal arretes of the 4 April 1972 and 10 October 1974 providing national regulations for protection against fire in tall buildings. Jurisdiction over this has recently been devolved onto the regions.

c) The regulations relating to **fire prevention** are issued as edicts by individual ministers for the establishments under their control, whence a great variety of specifications and procedures.

Safety departments issued varying instructions, although the law of the 30 July 1979 was intended to coordinate all fire prevention, from the State down to the burgomasters. This law introduced compulsory civil liability insurance relating to fire or explosion.

d) Regulations applying to **safety at work**:

- o health and safety of workers, healthiness of work and workshops,
- o establishments classified as being dangerous, unhealthy or uncongenial.

These regulations affect the quality of buildings in many ways: protection against falls, fires, explosions, the release of harmful or flammable gases, ventilation, lighting, heating, cleanliness, electrical installations, lifts, gas storage vessels, transport, earthworks, scaffolding, ladders, work on roofs, auditoria, stores and liquefied gas stores, etc.

e) The regulations relating to public health, in particular:

o healthiness of roadways and buildings, in respect of drinking water, refuse, wastewater, in the context of the sanitary law of the 1 September 1945,

o atmospheric pollution control in the context of the law of the 28 December 1964,

o general regulation of the 3 August 1976 relating to wastewater and rainwater,

o noise control in the context of the law of the 18 July, 1973

o etc.

3.2 - Building permits

By virtue of article 44 of the law of the 29 March 1962 a building permit is required before any building is built.

This obligation also applies to government clients.

Although as a rule local authorities are responsible for the issue of permits, it is the State or the region which is responsible for this in the case of certain public, multi-authority or State-financed construction work.

Only architects have the power to draw up and sign the documents appended to an application. A copy of each dossier is sent to the Order of Architects, which is thus able to make comments in the event of obvious error.

As the architect alone is responsible for the stability of buildings, even if he calls in an engineer, the authorities do not check structural calculations.

Every local authority has the right to make a prior examination in respect of a given requirement, but as a rule this examination relates to planning and not technical requirements.

It is independent of examination required for hazardous or unhealthy installations.

To sum up, attention should be paid to the role and powers of architects, even for minor alterations.

3.3 - Governmental and private control

As the State has no responsibility for the control of construction there are no government building inspectors in Belgium, such as is found for example in Germany or in Sweden.

It is the **clients's** and the **builder's** responsibility to be aware of and comply with construction laws and regulations.

The ministerial arrete of the 10 August 1977 provides an indication of the means of control available to a client.

Clients and builders must at all times be in a position to provide proof that they are complying with the abovementioned requirements, if so requested by the burgomaster or agents delegated by the government for the inspection of works.

If these **agents** are negligent in performing their supervisory task they may theoretically be prosecuted on quasi-criminal grounds.

This applies in particular in the case of the regulations relating to the fire resistance of construction components and the safety guarantees required of heating equipment.

There are **private** "technical inspection offices", like the SECO office, in Belgium, whose task is not in any way similar to that of the British

"approved inspectors".

The way in which they act is essentially and historically linked with the system of ten year liability.

Their main function is to prevent risks of damage. Details of this are provided in the section on insurance.

Architects are responsible to clients if planning, construction and other laws, regulations and requirements are contravened or permitted to be contravened.

In this sense there is permanent self-inspection within the "building team".

Systematic inspection by the authorities is considered to be incompatible with construction professionals' responsibility for the selection of alternatives and means used.

4. CONTRACTS

4.1 - The parties involved

Contracts are entered into between the client and one or more builders, but the law can lay down the role of a profession. This is the situation for architects in Belgium.

Belgian construction law gives a special place to **three parties**, the client, the architect and the contractor.

Nevertheless many others have become involved in recent years, including specialist subcontractors, design offices, quantity surveyors, planners, decorators, interior architects, landscapers, etc., without the law having been modified in any way.

Despite the increase in the part they play, **engineers** are virtually absent from the law, whereas property development is covered by the "Breyne" law of the 9 July 1971, which is reproduced in full in the appendix.

Before it was disbanded the National Housing Institute expressed the desire that the status of consulting engineer should be established in the field of construction, without making any specific proposals.

Has the approvals system led to this? Construction **companies** are very much more concentrated in Belgium than elsewhere, and France in particular (36 times more numerous?).

Organised by the arrete-loi of February 1947, and since amended 5 times, **approval** compels all government or subsidised clients to entrust work only to companies which satisfy 4 basic conditions, and more stringent special conditions in the case of certain major works.

Approval certificates are issued by the Minister of Public Works on the basis of proposals by the Approvals Commission.

4.2 - Architects

The law does not merely protect **architects'** title and profession. For 50 years it has required all government and private clients to resort to an architect for "the preparation of plans and supervision of the performance of work for which prior application for authorisation for construction is required".

This is a professional **monopoly**, to which exceptions can only be made by the governor of a province when an establishment or a private individual is causing construction work to be done.

Set up by law in 1963, the order of architects takes part indirectly in the examination of building permits because the provincial professional colleges receive copies of the documents appended to applications and may make comments to project designers.

An architect may be made responsible by a client for carrying out all activities involved in the construction of a building, **excluding the work itself**: he cannot act as a contractor.

Through a royal arrete approving the regulations on ethics, the order has defined three main ways in which the profession may be exercised: as an independent, as a civil servant or as an employee.

An architect cannot accept work which is restricted to the preparation of a project without being **simultaneously** responsible for supervising its construction, unless he is assured that another architect is responsible for this supervision.

When a client calls in a technical adviser, engineer or other party, the architect "retains all the prerogatives of his task", but a written agreement should then define respective roles and responsibilities for all consultants, including insurance, with particular reference to articles 1792 and 2270 of the Civil Code.

The order has established a **scale of fees** in a "standard" and in various directives or recommendations has defined the detailed contents of the architect's task, the role and obligations of architects who accept work from property developers, who act in connection with individual buildings or who take part in architectural competitions.

Finally a recommendation relating to **contracts** between clients and architects emphasises a number of essential points:

- the need for a written contract,
- the time which the contract must be signed,
- the contents of the contract.

Without imposing a standard contract the order has prepared various **specimen contracts** and gives particular emphasis to the task and obligations of the architect, the obligations of the client and the acceptance of work.

Architects are recommended to restrict supervision of work to mere "general direction", excluding any "permanent supervision".

Insofar as remuneration is concerned, it does not seem to take into account the need to associate all those involved in accomplishment of the common objective.

The powerful Construction Office (Regie des batiments) uses **standard contract 77-1**, which does not require architects to supervise work because the office does this itself, in this case following the public works tradition. The Office also uses standard contracts 77-2 for environs and 77-3 for the stability of buildings.

Briefly, Belgian law intended to give architects the power to defend the public interest and even to act as an arbitrator between clients and contractors, but this is less and less in tune with reality.

Architects are above all the defenders of the interests of their clients, who are considered in law to be incompetent.

4.3 - Government contracts

Without being as thoroughly codified as in France, Belgian regulations are both recent and highly structured.

The "Permanent Commission on Government Contracts" (Commission Permanente des Marches Publics), created by royal arrete on the 14 December 1962, is responsible for codifying and coordinating texts relating to State contracts.

The law of the 14 July 1976 on government contracts for construction, supplies and services lays down the general principles, and in particular the principle that individual ministers retain their jurisdiction in respect of given types of construction contracts.

As a result, as far as building and public works are concerned, texts can only be harmonised through "reference documents" (documents de reference).

The royal order of the 22 April 1977 lays down a "general specification" (cahier general de charges), and "special specifications or documents in lieu thereof" and "all other documents to which special specifications make reference".

The ministerial arrete of the 10 August 1977 "laid down" the **general specification** itself, which consists of two sections:

I. Clauses common to all contracts,
II. Clauses specific to certain contracts: section 1 construction work, section 2 supplies.

This is the context within which Belgian government clients conduct building operations.

Acting in a similar way to the British Property Services Agency, the powerful Construction Office, which builds and maintains a vast State establishment, thus uses:

o standard specification no. 100 of 1984, which specifies the "addenda and emenda" which must be applied to the general specification "in respect of construction work" (with the special specification this specification no. 100 forms the specification governing construction work);

o where necessary, standard "technical" specifications 101, 104, 105, 150, 400, 800, 901, 902, etc.

These specifications themselves refer to standards and approvals, such as the BENOR labels issued once and for all to certain manufacturers, who are generally subject to inspection by "SECO", the technical inspection office which will be considered below in the context of insurance.

The system is similar to the German system with the combination of VOB and DIN, but nevertheless seems to be fairly complicated.

It is supplemented by the codification and data processing of quantities so as to unify construction nomenclature and assist the monitoring of prices.

Government construction contracts are always entrusted to a single "principal contractor" (entrepreneur principal) whose subcontractors are not known to the client.

From the legal point of view this principal contractor is regarded as a client of his subcontractors, who are thus also subject to ten year liability.

In Belgium no text defines or lays down a framework for subcontracting, nevertheless Belgian law on government contracts specifies two types of procedure:

o government **development** contracts (marches publics de promotion) which relate simultaneously to "the financing and provision of construction work or supplies and, where necessary, the design thereof",

o government **concession** contracts (marches publics de concession) which as

a quid pro quo for the work grant operating rights, which may or may not be supplemented by a price or dues.

Developers and concessionaires must wholly accept the responsibilties to the Government deriving from articles 1792 and 2270 of the Civil Code.

The royal arretes of the 14 November 1979 and 18 May 1981 determine the general conditions for the grant of such concession and development contracts.

To an outside observer it would seem that the formal differences between the Belgian, French, German, etc., systems might make understanding of the roles, work, responsibilities and tasks of those involved in construction unnecessarily complicated.

4.4 - Acceptance of work

A contractor who carries out work in accordance with a specification, including plans and descriptions, does not have a duty of result.

If it cannot be proven that performance failed to comply with these requirements the contractor cannot be held responsible for any damage resulting from faulty design of the structure.

Whereas in France it is the law which specifies the acceptance of work, in Belgium it is contract which deals with the termination of a contract and acceptance.

The general specification, article 39, determines the obligations of contractors until **final acceptance** (reception definitive) (the 2nd acceptance), in other words during the **warranty period** (delai de garantie) (or test period). Any work necessary to restore the structure or structures and to maintain it/them in good condition or in serviceable condition.

Provisional acceptance (reception provisoire) (first acceptance) enables the authorities to establish that work has been completed and that it conforms

to specification, with the consequence that apparent defects cannot subsequently be claimed against the contractor within the scope of contract.

Minor defects, imperfections in details, or the incompletion of minor work do not constitute an obstacle to provisional acceptance, which may be tacit.

According to Professor Flamme, the essential effect of final acceptance is to provide a **full** discharge for the contractor (except of course in cases where articles 1792 and 2270 of the Civil Code apply), and to cover not only visible defects but also hidden defects.

This is not always the judges opinion!

The warranty period which separates the two acceptances is normally one year.

The above relates to government contracts.

In the case of **private work**, contract can only specify a single acceptance, which eliminates the warranty period.

It is the client, generally assisted by his advisers (architect, etc.) who states in a report that the work is accepted.

There is a certain vagueness in Belgium relating to visible, hidden or merely unidentified defects at the time of acceptance, whereas these difficulties do not exist in countries like Italy or Sweden where acceptance is given by a third party with considerable formality.

Uncertainties accumulate when the final acceptance report is forgotten, which unfortunately sometimes happens.

5. LIABILITY

5.1 - Principles

In Belgium, like almost all European countries, the limitation period is 30 years if the "builders" deliberately conceal defects (concealment) or fraudulently replace one material by another, which is FRAUD.

"**Builders**" are individuals or corporations bound by contract to a "Client".

Except in cases of FRAUD, the limitation period applicable to them is 10 years.

However if a builder recognises his responsibility in good faith before the end of the limitation period, for example making repairs voluntarily without asking for any payment, another period of 10 years begins in respect of this repair work!

Here is an anomaly which is certainly less serious than in Great Britain, where in similar circumstances it is 15 years instead of 10, but surprising because in Germany it is 2 years instead of 10.

It may be said that in Belgium the 10 year liability is a kind of extension of contractor's contractual liability.

Prior to acceptance contractual liability is governed by articles 1641 et seq. of the Civil Code.

A contract "commissioning construction work" (contract de louage de l'ouvrage) normally ends with acceptance of the structure by the client, but articles 1792 and 2270 of the Napoleonic Civil Code burden individual builders with 10 year liability for certain "defects" in structures.

5.2 - Ten year liability

In general it is therefore the **contractual relationship** which gives rise to

the ten year liability. This also applies to contracts between contractors and subcontractors, but not between contractors and suppliers.

An engineer or design office linked by contract to an architect and not to a client again does not incur ten year liability.

On the other hand, vendors, developers and concessionaires are always subject to it.

Here is the text of articles 1792 and 2270 of the Civil Code:

Article 1792 "If a building built for a lump sum price fails wholly or in part through a defect in construction, even through a defect in the ground, the architect and contractors shall abe liable for 10 years".

Article 2270 "After ten years, the architect and contractors are discharged from providng a warranty for major structures which they built or supervised".

It is clear that in article 1792 the word lump sum does not mean lump sum for the structure as a whole, but covers payments based on the bill of quantities. Article 1792 does not apply to work on a time and labour basis paid on the basis of "supervised expenditure".

Unlike the French law of the 4 January 1978, which refers to the concepts of the structure and the components of a building, Belgian law has retained the original text of articles 1792 and 2270 of the Napoleonic Code.

These use the concepts of **building** (edifice) and **major structures** (gros ouvrage).

Jurisprudice has to decide, while providing extra protection for the "consumer". The initial concept of the failure of a structure is thus supplemented by that of the threat of failure, and unsuitability for use.

Nevertheless the question of severity is always present in a Belgian judge's

assessment of defects or unsuitability for use.

Although theoretically a plantiff has to provide proof of fault by the builder, in practice the latter in order to clear himself must demonstrate either improper use or failure to maintain the structure.

Theoretically a defect without adverse consequences is not a fault, whereas the concept of a reduction in the value of a structure does not apply in respect of the ten year period.

The "fault" must adversely affect a building or major structure.

Whereas the word building is clear: a house or building, the word "major structure" is not: structure, lift?

What is a serious fault? Should it compromise the solidity of the building or one of its major parts, or its healthiness, or its market value, or its suitability for use?

Ten year liability also applies to civil engineering structures: bridges, quay walls, drains, industrial structures, water towers, chimneys, foundations for machinery, etc.

Where express contractual provisions are lacking ten year liability begins from the date of final acceptance, but the parties have the option to set the **starting point** at the date of provisional acceptance.

None of this is very clear. Contract cannot make exceptions to the law in respect of the principle of the ten year period, but in practice it can alter the period of post-construction liability by one year.

5.3 - Special cases

Independently of the contractual and ten year liability to a client, builders in Belgium, whether or not linked to the client by contract, incur a semi-criminal liability ("in tort") for 30 years counting from the event

giving rise to a loss.

In this way clients can sue subcontractors or suppliers directly.

This common law liability may be invoked in a conflict between an architect and contractor, and sometimes, but rarely, between a client and a contractor.

Continuing precedents accept that an action for ten year liability appertaining to the client can be handed on to **successive purchasers**, as articles 1792 and 2270 of the Civil Code give rise to legal protection which is linked with ownership of the building.

If ownership of housing as yet unbuilt or incompleted is transferred in the context of a contract of sale the law of the 8 July 1971, which extended the ten year liability to the vendor, provides that the ten year warranty provided by the vendor persists in respect of subsequent owners, but action may only be taken against the initial vendor.

6. INSURANCE

6.1 - General

Belgian law does not require insurance of the object built, nor professional insurance, except for architects.

Here, in a brief summary, is the present situation of construction insurance in Belgium as described by a major insurer:

1 - Civil liability insurance

Any individual or corporation may take out an insurance policy in respect of their overall liability arising from their professional activities.

As far as construction is concerned, these policies generally cover:

o extra-contractual liabilities of the insured while work is in progress,

o liability following completion for a period of time which may or may not be limited, excluding the ten year liability.

Liability for subcontractors (or for their actions) is included among the optional guarantees.

2 - "All risks" insurance

Cover (in principle) for all those involved in construction work, on a site by site basis.

Guarantees over and above individual civil liability policies.

Damage sustained by structures under construction is covered.

In principle the guarantee ends when work is completed, but may be extended for one or two years (the so-called maintenance period), excluding the ten

year civil liability.

3 - "Supervision insurance"

This is similar to "All risks" policies, but involves a supervisory organisation (SECO or A.I.B.), making it possible to cover the ten year liability.

4. For the vendors and/or manufacturers of materials

Exceptional cover for products delivered and replacement costs, always excluded from other policies.

The parties are free to contract as they wish, and only have to respect not very stringent legal and statutory limitations.

It is the insurance supervisory office which approves companies general conditions.

Competition is unrestricted, and therefore depends on the market.

Although little used in the case of private houses, insurance of the object is fairly frequent in the case of apartment buildings, offices, industrial buildings and civil engineering structures.

6.2 - "All risks" insurance

All risks insurance may be taken out against an annual premium with additinal notification whenever a new site is started.

It only guarantees damage sustained by the structure under construction, always until work is completed, and sometimes for a **short period** of one or two years after construction.

Insurers most frequently compensate the client himself and only go to law if the builder himself is not insured, for example if he has failed to cover

his subcontractors.

6.3 - Supervisory insurance

Supervisory insurance is always taken out for a given site, it covers all builders and continues in effect for ten years, even if one of the builders should go bankrupt or die.

Ten year insurance for the object can only be obtained on condition that design and construction are subjected to technical inspection by a specialist office such as SECO.

This acts as builder's liability insurance at the same time.

It may be restricted to the major structure and extend to other work, including equipment and even its performance.

Taken out either by the contractor or by the client it is only appropriate to major construction or civil engineering operations.

According to SECO, it would be too burdensome for private housing, for example.

The value stated at the time of acceptance corresponds to the cost of rebuilding the object insured, but compensation is generally paid with an excess and with an allowance for age.

Defects are only covered in respect of the problems which they cause.

It is the insured party, the contractor or client, who has to enter into a contract with the inspection office appointed by the insurance company.

Instructions by this office are mandatory.

The cost of supervisory insurance is of the order of 2% of all the work done, half for the inspection office and half for the insurance company.

In fact this insurance is somewhat on the decline, because of its cost. An appendix is devoted to it.

In Belgium the State insures itself, in particular in respect of public works.

Nevertheless the Minister for Public Works allows exceptions to this principle and authorises supervisory insurance in two specific instances:

o structures which either because of their size or their novelty give rise to unusual problems,

o structures which are the object of competition in respect of both design and construction.

6.4 - Professional insurance

Obviously there exists an ordinary policy covering the civil liability of a **contractor** in Belgium, not only while work is in progress, but in some cases for a period after construction which is determined by agreement.

Known as "operational civil liability" (responsibilite civile exploitation), this insurance is not linked to technical inspection.

Under the terms of article 15 of the new regulation on ethics approved by the royal arrete of the 18 April 1985, architects working alone, in associations or in companies "shall obtain insurance against professional liability including their ten year liability".

This legal and compulsory insurance may be included within the framework of overall insurance covering all the parties involved in a construction activity.

It applies for a period of ten years from the date of acceptance, and for all structures "completed at the time of the death of the insured".

These provisions have been in force since April 1986. They have given rise to conflicts and criticism.

Conflicts because neither Belgian engineers nor contractors have accepted the architects suggestion for the general application of compulsory professional insurance.

Criticisms because some architects are fearful of the weight of responsiblity upon them, particularly in the case of judgements given "in solidum". Others think that the compulsory insurance of architects has arisen just on the brink of free circulation in the European Community.

7. LITIGATION

7.1 - General

In general, when a problem arises in a structure which is in use a client requests advice from his architect and an attempt is made to reach amicable agreement.

Unlike some countries, such as Holland, arbitration is rarely used in Belgium.

If amicable agreement cannot be reached the client requests a judge in chambers to appoint a judicial expert and issues writs against all the builders before the court.

A client may institute proceedings against the architect alone or the contractor alone, but this is exceptional.

In most cases the judge finds it impossible to distinguish between errors, negligence and other shortcomings by the parties and gives a judgement "in solidum" against all the "defaulting" builders.

This arrangement is very favourable to the client who can also claim repairs "for all" from only one of the defaulting builders, generally the most solvent. The latter may take warranty action against the other builders, in proportion to the liability of each, but with the risk of having to carry the burden of any which are insolvent.

Many actions are in progress in Belgium; they always last several years.

7.2 - Expert assessment

Expert assessment in civil matters is governed by articles 962 to 991 of the Judicial Code.

Expert assessment is both a form of proof and a form of investigation.

Judges are not compelled to follow the advice of experts if they are convinced otherwise.

An expert or group of experts must be appointed by the judicial authorities. Each of the parties in a suit may request the court to appoint an expert to establish the truth of its claims.

When a hearing involves both sides, in principle the parties are responsible for appointing an expert. However in practice it is most frequently the expert officially appointed by the judge who carries out the task.

Any individual may be appointed or selected as an expert. It is best to appoint a man who is not only competent in his specialism (doctors, engineers, architects, accountants, etc.) but who is also competent in the procedure for a judicial expert evaluation.

It is desirable that one should "consider the status of an expert, his standing, and his moral and professional qualities".

8. PROBLEMS

The Belgian legal system gives rise to certain difficulties which can be briefly summarised as follows:

1 - The outdated nature of the old articles 1792 and 2270 of the Civil Code.

2 - The fact that it is not law but contract which gives rise to the ten year liability.

3 - The vagueness about the date from which this liability runs.

4 - The extended interpretation given by judges to the concept of "severe defect".

5 - The 10 year limitation period for severe hidden defects and 30 years for minor hidden defects.

6 - The practice of judgements given "in solidum", which weighs exceptionally heavily on architects.

7 - The imbalance created by the architects monopoly and their recent obligation to insure.

8 - The lack of a coherent system of building regulations.

9 - The lack of damage insurance which is easily accessible for small clients.

10 - Obscurities in interpretation with respect to the extent of the acceptance of work and the visibility of defects.

11 - Inconsistency between law and practice in respect of the burden of proof within the ten year framework.

12 - The lack of standard contractual instruments for work done for

individuals.

13 - The fact that a contractor who effects repairs voluntarily after acceptance sees the 10 year guarantee period begin again from the date of the repair.

9. APPENDICES

List of the appendices which will be included in the final edition published by the Directorate General for the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - Fire prevention
2 - Arrete-loi of the 3 February 1974: approval of contractors.
3 - Standard specification No. 100 (extracts).
4 - General specification (extracts).
5 - Civil Code (extracts).
6 - The Breyne law (sale of houses).
7 - Supervisory insurance

3 - Denmark

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1. INTRODUCTION

The simplicity and conciseness of the Danish texts are as surprising as they are exemplary.

In general Danish law only lays down major principles and **contract** governs almost everything.

When government authorities make requirements, these are expressed in easily readable documents.

There is a law on construction 15 pages long, building regulations amounting to 150 pages and building regulations "for small buildings" amounting to 75 pages!

When the State wished to introduce **five year liability** for all those involved in construction in respect of its own buildings and those which it subsidises, it did so by means of a circular two pages long containing model contractual clauses!

There is no "in solidum" in Denmark. They architect is responsible for his own errors and negligence, but the party with **major responsibility** is the BYGGHERR, the client.

Anything which can restrict innovation is banned, and the improvement of productivity is a national objective.

Architects, engineers, contractors and suppliers know how to work together. The government encourages this coordination. It even attempts to create an "**industrial climate**" in construction, and uses consistent means for this purpose:

o "building regulations", which rest on requirements and performance prepared at national level,

o "modular coordination" in the design of buildings, so that components

which are themselves modular can be used,

o "long term programmes" to enable those involved in construction to carry out their work on the basis of continuing demand,

o consistent systems for "quality control and the subdivision of responsibilities", to avoid gaps in the chain of operations.

Contractors act as industrialists and not as mere intermediaries, but they do not have a separate role.

As in Holland, resort to **arbitration** is very frequent.

In brief Denmark is a country of contractors and traders and not of officials and lawyers.

The following subjects will be dealt with in turn below:

The context: general organisation, terminology, legal and technical basis, policy encouraging quality.

Supervision: regulations, the construction permit and supervision of construction.

Contracts: those involved, construction contracts, consultancy contracts, acceptance of work.

Liability, general and particular: liabilities of consultants, suppliers and contractors.

Insurance, that available on the market, that provided by the Building Defect Fund.

Litigation, the place of arbitration in Denmark.

2. CONTEXT

2.1 - General organisation

In this small centralised country of 4.5 million inhabitants, where the population density is 115 inhabitants per km^2, the government exerts considerable power which leaves little autonomy to the 14 regions and 277 local authorities, all of which are of more than 5000 inhabitants.

Regions are mere decentralised administrative levels in the State apparatus.

Local authorities, which issue few regulations, are responsible for monitoring construction, much less closely than in Germany.

The **Ministry of Housing** is responsible for construction regulations and techniques, while other ministries have jurisdiction over the environment, fire (justice) and tests (public works).

Exceptions and delegation may be granted, particularly for local authorities covering more than 30,000 inhabitants.

This ministry has three administrative units: **one department** and **two agencies.**

The department is in charge of general control, coordination and the Minister's secretariat. It deals with economic and budgetary matters, programmes and statistics, international relations and export promotion.

The **National Housing Agency** has wide powers. It prepares legislation, controls subsidies, encourages innovation and supervises housing credit organisations.

The **National Construction Agency** is responsible for construction legislation and regulations, energy saving, industrial development and coordination with public works.

Under the Ministry of Housing there are **four organisations**:

o the directorate responsible for the acquisition, operation and maintenance of government buildings,

o the Danish building research institute, the Statens Byggeforskningsinstitut (SBI),

o the council for construction development, the Byggeriets Udviklingsrad, which encourages quality, productivity and competitiveness in the Danish construction industry,

o the council for construction exports, the Byggeegsportradet.

2.2 - Terminology

FOLKETING, Parliament,
BOLIGMINISTERIET, Ministry of Housing,
MINISTERIET FOR OFFENTLIGE ARBEJDER, Ministry of Public Works,
MILLIEUMINISTERIET, Ministry for the Environment,
STATENS BYGGEFORSKNINGS INSTITUT (SBI),
DANSK INGENIORFORENING (DIF),
DANSK STANDARDISERINGSRAD (DS),

BYGGELOVEN, Baugesetz, the law on construction,
BYGNINGREGLEMENT (BR), Building Regulations, Bauordnung, Regulementation de la construction,
GODKENDELSE, approval (by a statics engineer for example), Zulassung,
BYGGHERR, Bauherr, client or again purchaser, employer (?), an ambiguous english word,
Consultants: ARCHITECT, ENGINEER,
BYGGETILLADELSE, construction permit, Baugenehmigung,
KONDUKTOR, Bauleiter, director of works,
AMTSVEJINSPEKTOR, County surveyor, government inspector,
TILLADELSE TIL IBRUGTAGNING, authorisation for occupation, Gebrauchserlaubnis,

TILBUD, tender, offer (by a contractor),
ENTREPRENOR, total entreprenor, ...
AFTALE, contract,
UDFORELSE, execution (of work),
TILSYN, supervision (on behalf of a client),
AFLEVERING, acceptance of works, handing over of works, Bauabnahme,
AFHJAELPNINGSPERIOPEN, making good period, warranty period,

TIDSFRISTER, period,
ANSVAR, responsibility,
RISIKO, risk,
OPHAEVELSE, cancellation,
TVISTER, disputes, litigation,
VOLDGIFT, arbitration,
VOLDGIFTSRETTEN, arbitration tribunal,
OMBUDSMAN, mediator.

2.3 - Legal basis

- Sales of Goods Act, 1906.
- Insurance Contracts Act,
- Competitive Tendering, Etc. Act 1966,
- Danish Building (Principles), Act 1957 (Byggeloven),
- Building Regulations, 1982 (BR),
- Banish Building Regulations for Small Buildings, 1975,
- Law of the 19 December 1985 setting up the Danish Building Defect Fund,
- Urban and Rural Zoning Act, 1969,
- Housing Regulation Act,
- Urban Renewal and Rehabilitation Act.

2.4 - Technical basis

In the case of new techniques, **approval** is issued by the Ministry of Housing, on the advice of and following proposals by committees operated by the SBI.

Two organisations, which work in close cooperation, have jurisdiction over standardisation:

o the DS, Dansk Standardiseringsrad, which is very active as far as exports are concerned,

o the DIF, the Danish Society of chemical, Civil, Electrical and Mechanical Engineers, Dans Ingeniorforening, which prepares design rules and codes of practice for all construction work.

BPS Centret (Building Planning Systematics) is a joint organisation maintained by the State whose function is to promote development of the Danish system of unrestricted prefabrication: consistency between individual projects, common use of certain details, innovation, etc.

Industrial policy, reflected in 1961 by a **law**, responds to export concerns. It makes modular coordination compulsory for certain types of building subsidised by the State and has resulted in considerable development of the Danish compatible components and subsystems industry.

All professions are involved in unrestricted prefabrication, the results of which are not always however fully convincing.

2.5 - Policy encouraging quality

Very recently the Danish government has instituted a coherent system of **quality-responsibility-insurance** which is compulsory when there is State money involved in construction.

The core of the system is a Fund voted by Parliament. This is dealt with in sections 5 and 6 below.

The circular of the 12 November 1986 relating to "quality assurance" is appended hereto. This gives prominence to the overriding responsibility of the **client** in this field.

The principle is that the quality **selected** should effectively be maintained throughout the process and achieved as the end result.

3. CONTROLS

3.1 - The law on construction

The construction regulations derive from the "**Byggeloven**". This law no. 323 of the 26 June 1975 was promulgated by the Minister of Housing and amended in 1976, 1977, 1979 and 1982.

Its English translation is provided as an appendix: only 15 pages.

The law has many purposes:

1) to ensure that all buildings are designed and constructed in such a way that they meet appropriate **fire safety, general safety** and **health** standards,

2) to insure that all buildings, and that all unbuilt spaces belonging to buildings, are of an adequate standard to **fulfil their intended use** and will be **correctly maintained,**

3) to encourage methods of design which increase the **productivity of the construction industry,**

4) to encourage measures which will minimise the excessive consumption of **energy** in buildings,

5) to encourage mesures which will mnimise the **cost of construction** and maintenance.

The construction regulations themselves are presented in a very accessible form as they are subdivided into:

- general regulations,
- regulations applicable to small buildings.

3.2 - Bygningreglement

The former, the Bygningreglement (BR), is included in a yellow brochure of some 150 pages, published in 1982, which includes 13 sections and an appendix:

o **General provisions** (10 pages): construction permit, authorisation for occupation, etc.
o **Land use** (7 pages): unbuilt areas (open spaces, parking areas, access for pedestrians, vehicles and fire services), calculation of the ground occupation coefficient,
o **Height and spacing of buildings** (10 pages)
o **Internal arrangement of buildings** (14 pages): accessways and passages, housing, other buildings, etc.
o **Building structures** (4 pages): modular design, construction of building structures, etc.
o **Fire precautions** (46 pages): distances, walls, exits, emergency exits, structural requirements, etc., private houses, multistorey buildings, hotels, hospitals, schools, shops, offices, factories, garages, agricultural buildings, etc.
o **Control of mildew** (5 pages),
o **Thermal insulation** (3 pages),
o **Acoustic insulation** (8 pages): general, housing, hotels, hospitals, schools, etc.
o **Chimneys and other equipment involving fire** (17 pages),
o **Ventilation** (11 pages): system capacities (housing and other buildings), construction, fire precautions,
o **Services and equipment** (8 pages): heating, lifts, evacuation in the event of fire, telephone cables, etc.
o **Exemptions** (9 pages): bridges, roads, pylons, small service systems, small buildings, uncovered swimming pools, agricultural buildings, etc.

An appendix is devoted to **acoustic measurements**. The detailed contents list, in English, is provided as an appendix.

3.3 - Small buildings

Also appended is the contents list for the **Danish regulations for the construction of small buildings**, issued in 1985. This is a very practical small green book, accompanied by commentaries so as to guide the user.

It includes the statutory provisions, and then requirements relating to:

- land use,
- the layout of buildings,
- structures and materials,
- thermal insulation,
- ventilation,
- services (water, drains, etc.),
- heating,
- chimneys and other installations involving fire,
- the special case of family houses separated by a party wall,
- the special case of summer houses,
- the special case of garages, shelters, etc., of less than 50 m^2,
- the special case of small buildings of less than 10 m^2,

with two appendices, one on calculation of the ground occupation coefficient, the other on unbuilt areas.

3.4 - Construction permit

Construction permits are issued by local authorities in the name of the State in accordance with a procedure described in the Bygningreglement.

It is compulsory even for government buildings, whereas a simple declaration is sufficient for small operations.

Any Danish citizen who wishes to build must submit an application together with technical documentation on the scale of 1/100, which does not have to be signed by an expert.

The application is examined technically, mainly from the point of view of stability.

Engineers "approved" by a national committee are responsible for this "static" examination.

Neighbours, owners or tennants may be consulted if an exception is requested.

The permit, which is normally issued within three weeks, incurs the payment of a fee.

In the case of major operations local authorities frequently require a client to make use of the services of a "Konduktor". He is like the German "Bauleiter", but is only responsible to the client.

Contractors are not responsible if construction regulations are not respected. This is the responsibility of the client, assisted by the "Konduktor".

Local authorities, who have specialist inspectors, do not systematically supervise construction work.

They merely make sample checks, or have these performed by architects or approved engineers.

"Governmental" **acceptance** takes place after work has been completed. It has the effect of an authorisation for occupation of the new building, but unlike the case in Germany it does not guarantee that all legal requirements have been fulfilled.

4. CONTRACTS

4.1 - The parties involved

The main parties involved in construction are:

o **contractors**, of which the largest frequently have factories manufacturing reinforced or prestressed concrete panels, beams and floors, and are therefore also industrialists,

o **architects**, some 5,000, which have no Association, nor protection for their title, nor professional monopoly, and who are bound to their government or private clients within the scope of the "general conditions for consulting services", the ABR75,

o **engineers**, who are "licenced" and play an essential part through their association, the DIF, Dansk Ingeniorforening, in drawing up the main standards on construction: foundations, concrete, wood, steel, masonry, etc., structures, ventilation, water installations, heating, etc.

There are no quantity surveyors in Denmark.

4.2 - Construction contracts

Both government and private clients use the same forms of construction contract.

There is a law of 1966 on the delegation of construction and civil engineering work, which takes up one page, and which applies to everybody.

Construction contracts are almost always drawn up with incorporation of the "AB72" general conditions published by the Ministry of Public Works. This is a relatively short document (10 pages) which includes 9 sections:

- general basis of contract,
- construction work,

- representation and cooperation,
- time periods,
- acceptance of work,
- liability and risk,
- cancellation,
- financial matters,
- litigation.

It would be difficult to make it simpler. Its text is appended hereto, in English.

4.3 - Design contracts

In the case of design contracts there is no special law, but the general conditions, ABR75, published by the Ministry of Housing. This is a document which applies automatically if nothing is specified in contract.

Fairly detailed (30 pages), like the AB72 it includes nine sections, accompanied by commentaries:

- general,
- tasks,
- fees,
- reproduction rights,
- time periods,
- responsibilities,
- delay and cancellation,
- inadequate services,
- litigation.

No scale of fees, but principles for the drafting of individual contracts.

4.4 - Acceptance of work

Acceptance of work is covered by articles 17, 21 and 22 of the AB 72.

There is only one, followed by a warranty period of one year.

It is the contractor's responsibilty to inform the client in writing that work has been completed. The client then has two weeks in which to organise a meeting for the purpose of accepting the work.

The contractor or his agent must personally be present at this meeting, failing which he will be obliged to accept quantities measured by the client and the opinion of the latter on the work done.

The acceptance made in the course of this meeting covers all the contractor's work, unless **major** defects or shortcomings are found. If this is the case a further meeting has to be organised for acceptance when the contractor informs the client that repairs have been made or that incomplete work has been completed.

In the case of **minor** defects or shortcomings the client may request that these should be repaired or completed within a reasonable agreed period. If the contractor fails to put matters right before the expiry of this period the client may have the work done at the contractor's expense. If the client considers that the correction made during the specified period is not sufficient the contractor has two weeks in which to correct it. Beyond this the client may have the work done at the expense of the contractor.

After acceptance the warranty period (making-good period) **is one year.** During this period a contractor must remedy without payment any defect or shortcoming caused by an error for which he is responsible.

The client must however make a written request to the contractor and specify a reasonable period for repairs or completion. Failure to do so by the contractor enables the client to make matters good at the contractors expense. The same applies in cases of urgency.

If defects and shortcomings make major work necessary the warranty period of one year will only begin, in respect of the parts of the structure concerned, after this work has been completed and written notification has

been provided by the contractor to the client.

A contractor may be exonerated from liability in respect of any occurrence during the warranty period in 3 circumstances:

- if there is no error or omission on his part,
- if the client has not promptly notified an obvious defect,
- if there is a defect in maintenance or incorrect use of the building.

In general, even in the case of a "turnkey" contract, the contractor has no duty of result.

He must do his work carefully (duty of care), rather like consultants.

On the contrary the concept of defect is particularly rigorous.

A defect may subsist although no damage results, when for example a plan is implemented incorrectly, a building is located too close to the boundaries of a public road or neighbouring properties, the colour of a facing is chosen incorrectly, or technical installations are of inadequate capacity.

5. LIABILITY

5.1 - General

In the Danish construction industry the question of liability is determined not by legislation but by legal practice through individual **contracts** for design, supply and construction work, and by general contractual conditions which apply to all participants in the act of construction, including the Ministry of Housing.

The most important basis for contracts in the field of **construction work** is the document AB72, "General Conditions for Works and Supplies for Building and Civil Engineering Works". The question of liability is dealt with specially in articles 18 to 22.

Consultant services are themselves basically defined in document ABR75, "General Conditions for Consulting Services", where responsibilities are dealt with in article 6.

Suppliers are subject to the provisions of the Danish law on the sale of goods. If the parties so agree they may reject these provisions, which they frequently do in favour of suppliers, by adopting the general conditions of sale prepared by the professional associations or by companies themselves.

In the context of an all-embracing system recently instituted by the Government for **buildings financed or subsidised by the State**, a new rule fixes the post-construction liability period for all participants, consultants, suppliers, contractors, at **five years**.

In the case of other buildings and civil engineering works this liability is also for **five years** for consultants, according to ABR75, but it remains **twenty years** for contractors in accordance with AB72, and is no more than **one year** for suppliers, in accordance with the law on the sale of goods.

5.2 - State-subsidised construction work

Reacting to the increasing number of problems found in recently built buildings, and in particular in reinforced concrete buildings built during the 60s and 70s, the Ministry of Housing has developed an **all-embracing system** covering quality and liability, in other words a system which is preventive and curative.

In Denmark, as in many other countries, it has been necessary to pay increasing attention to liability in the building industry.

Industrial development has been reflected in the arrival of new materials and new procedures.

The Danes are of the opinion that this is partially responsible for the increase in the number of problems discovered during the recent past.

Everyone knows that Denmark followed the road of innovation, and in particular that of "unrestricted" industrialisation. In principle technical development takes place at the risk of the client and owner, but in practice it is frequently difficult to draw a dividing line between the risk accepted by the client and negligence by architects or contractors.

In the assisted housing sector it has been necessary to pay some two thousand million Kroner for repairs alone, an enormous sum for a country of the size of Denmark.

Corresponding compensation has not been more than 50 million Kroner, i.e. 2.5% of the cost of repairs, generally following arbitration, rarely follwoing a judgement by the courts.

Faced with this sad state of affairs the Danish authorities came to the conclusion that the three different periods of post-construction liability, 5 years for consultants, 20 years for contractors and one year for suppliers, were not satisfactory.

The main effort must of course first be directed towards **preventing** problems. However since the first of July 1986 the new rule of **five year liability** "for all" applies whenever State money is involved in a new building.

This rule is not compulsory for work by local authorities, but it should progressively and spontaneously become generally applied.

Five year liability, which starts from the date of acceptance, is only the 7th component in the new system.

The Danes are convinced that most of the problems encountered in the past could have been avoided if building work had been performed with greater care from the design stage at the outset.

The **7 components of the system** are:

1) "quality assurance" during design and construction,
2) closer supervision while work in in progress,
3) modernisation of the tests for the acceptance of structures,
4) closer supervision of use and maintenance,
5) the introduction of an inspection procedure five years following the completion of a building,
6) the setting up of the "Building Defect Fund",
7) **standard rules** for establishing the **responsibilities** of consultants, suppliers and contractors.

Apart from the establishment of the Fund, which was voted by Parliament, all the components of this system have been instituted not by law but through administrative procedures.

The new rule limiting the liability period is obviously compatible with Danish law on damages.

This 5 year rule is inseparable from the compulsory **inspection** which is itself performed a few months after expiry of the 5 year period in order to

prevent action by an owner from being barred.

It does not alter the period available to owners and purchasers to complain about any problems. Various provisions, such as those of the law on the sale of goods, and those of the AB72 and the ABR75, continue to apply.

Furthermore, if there is fraud or gross negligence the five year rule does not apply.

Finally the Danes are of the opinion that the partly mainly responsible in any construction operation is the person who brought it into being, namely the **client** himself.

It is his responsibility to select satisfactory professionals and to manage the operation satisfactorily with a permanent concern for **quality.**

5.3 - Consultant's liability

Since 1979 the Danish government has lightened the burden of responsibility borne by architects.

It had to do so in order to avoid **"defensive design"**, and the rejection of innovation and technical developments.

Many other countries have not understood this, and continue to place intolerable burdens on skilled men, although society cannot do without them.

Why and how is a Danish architects (or engineers) in an acceptable situation?

First of all because in Denmark all questions of liability associated with problems in construction are generally dealt with not by the courts but by a permanent arbitration body.

Furthermore because the authorities are effectively concerned with controlling and evaluating risks in the construction industry considered as

a whole.

Because the concept of "state of knowledge" is accepted, and this is a decisive argument in rejecting some demands for compensation.

Because the compensation which may be required from architects is itself is limited, in amount and time, in a reasonable way.

What is stated in article 6.2 of the ABR75, which deals with the liability of consultants "for errors and negligence"? The text itself, together with its commentaries, is provided as an appendix?

In 6.2.1 it says that consultants are responsible in accordance with the provisions of the Danish law relating to errors and negligence in the performance of work.

The commentaries refer to the arbitrators' or judges' powers of discretion, and the precautions which must be taken in the event of technical innovation. They have adopted an English concept of "**skill and care**", which a client has a right to expect from his consultant.

In 6.2.2 it states that contract can determine the **amount** of the consultants pecuniary liability and the amount of any coverage by professional indemnity assurance.

The commentaries say that an attempt at negotiation must be made in every case and that if agreement is not reached the Danish law on damages will apply.

In 6.2.3 it states that in the case of building or civil engineering work the consultant's liability ceases **five years** following the date of acceptance of a structure, and that a client loses his right to redress if he omits to make a complaint in writing as soon as he becomes aware of or should have become aware of the possibility of the consultant's liability.

The commentaries specify that this 6.2.3 applies to hidden defects, whereas 6.2.2 applies to visible defects (1).

They retain the option for the judge or arbitrator to extent the consultant's liability beyond five years in the event of fraud or gross negligence.

In 6.2.4 it states that consultants cannot be held responsible for deficits, losses or profits, or other indirect losses.

In 6.2.5 it states that if a consultant shares a responsibility to the client together with others his share of the liability cannot exceed his **share of the remuneration**, compared with that of the others.

With this article a Danish architect, even if covered by insurance, cannot be caused to pay "for the others" as a result of a ruling "in solidum".

In 6.2.6 it states that the responsibility of an architect who "supervises" the work of a contractor is only "**secondary**", in other words it only applies if the contractor has ceased trading or is insolvent.

In 6.2.7 it states that a consultant's **employee** cannot have greater liability than the consultant himself.

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(1) Hidden defects are those which the client would be unable to discover in the course of an ordinary and reasonable inspection of the completed structure. Visible defects, which are defects other than hidden defects, should be notified immediately they are discovered, or as soon as they can be discovered, failing which the client will lose his right to redress.

In 6.2.8 it states that the members of a group of consultants who have accepted a "**total consultancy**" task are responsible "jointly and as a group" to the client.

The concept of "total consulting services" is itself clearly defined in article 2.2 of the ABR75.

What is remarkable in this document is that rather than being concerned with scales or details, it lays down reasonable principles and gives practical advice for the drawing up of contracts **without rigidity and without red tape.**

This would certainly provide an excellent basis if an attempt at harmonisation were to be made at Community level.

The **circular of the 25 June 1986,** appended hereto, which introduces the new five year liability rule for contractors and suppliers does not refer to consultants because these are already subject to the rule.

5.4 - Supplier's liability

A distinction must be made between two situations: that in which the supplier's liability lasts for several years and that in which it lasts for only one year.

In the second situation, that of civil engineering work and building not subsidised by the State, suppliers have in principle only **one year liability** by virtue of the 1906 law on the sale of goods. This one year rule can be amended by contract, as frequently happens.

Many suppliers offer a commercial **warranty** for five or ten years, in particular for roof sealing products.

In the case of State buildings or State-subsidised buildings suppliers are subject to **long term liability** and a further distinction must be drawn depending on the place which they occupy in the production chain:

o on the one hand "**downstream**" suppliers, who deliver their products, materials or components directly either to clients or contractors,
o on the other hand "**upstream**" suppliers, who are not linked by contract to either a client or contractor.

Article 2 of the circular of the 25 June 1986 states how supply contracts should be worded in order to introduce the long term liability.

It is the client's responsibility to impose a **clause** on contractors which must itself be included in contracts which contractors and their subcontractors enter into with all their suppliers.

This clause imposes a liability limited to **5 years following the acceptance of work (handing over), and 6 years following the delivery of a product to its purchaser** on all suppliers.

It provides for the possibility of claims being made directly against suppliers, even if this requires appearance before the "Danish court of arbitration for building and civil engineering", which will be discussed in section 7.

Articles 3, 4 and 5 of this circular deal with the situation of a supply ordered by a client, the possibility of attenuating the clause in article 2, and that of accepting commercial clauses provided that they are more favourable to the contractor than those in article 2.

The limits of 5 and 6 years are not valid if there has been fraud or gross negligence on the part of the supplier.

As the contractor and supplier are both liable for five years, the former may take proceedings against the latter during the five year period.

It should be noted that the period of 6 years should in all cases enable a downstream supplier to have recourse against an upstream supplier.

Here is the text of this article 2:

Article 2 - In his contract with a contractor a client shall oblige the former to ensure that the following supply clause is included in every contract entered into by the contractor and his subcontractors in respect of the products required for performance of the contract.

"The supplier's liability for defects in products shall cease five years following acceptance of the building in which a product is incorporated. In the case of a product which is to be stocked or resold however this liability shall cease not later than 6 years following delivery to the purchase".

5.5 - Contractor's liability

As in the case of suppliers a distinction is made between two situations, one in which the contractor's post-construction liability lasts for 20 years, and another in which it only lasts for 5 years.

In the **first situation**, that of civil engineering and non-subsidised buildings, the 20 years begin not on the date of acceptance (hand-over), but at the end of the warranty period of one year (making-good period) which follows acceptance.

This 20 year period is not explicitly mentioned in articles 18 to 22 of the AB72. It results from the Danish law of 1983 on limitations, which is specifically 20 years following the date of the malfeasance.

The contractor's liability is professional liability for negligence.

In the **second situation**, that applying to State buildings or State-subsidised buildings, the **five year liability period** starts on the date of acceptance (hand-over).

This is not a warranty period of 5 years during which the contractor has a true post-contractual duty of result.

Article 6 of the circular of the 25 June 1986 provides the text of the

liability **clause** which must be included in construction contracts.

This clause, which was initially prepared by the contractor's professional association, may be and is actually used in private contracts.

It makes provision for three possible attenuations of this liability.

6. INSURANCE

6.1 - General

Danish insurance companies offer their construction clients a wide range of policies meeting different needs: liability insurance, insurance of the object built, all risks insurance, etc.

Only two companies insure the **professional liability** of architects and engineers.

The coverage for consultants is permanent, because it is required by professional organisations.

"All risks" insurance of contractors covers the period between the start of work and the end of the one year warranty period following the date on which work is completed.

The State and some local authorities have their own insurers in respect of their own construction activities.

Various insurance formulae have been put forward from time to time to cover e.g. private houses against construction defects, but such insurance has not really found a wide and stable market.

Some builders of private houses, the members of a professional association, offer warranties of 5 years or more. For 5 years the annual premium is around 1,000 Kroner.

The recent creation of the Building Defect Fund should result in the development of similar insurance for private housing. The Ministry of Housing and the insurance companies are working on this.

6.2 - Building Defect Fund

The "Building Defect Fund" is an independent institution set up by a law

dated the 19 December 1986.

Is has a number of **objectives**:

o to finance the repair of defects in buildings subsidised by the State since the 30 June 1986,
o thus to avoid the deterioration of assets and a massive increase in rents,
o to prevent construction defects by quality control, a maintenance plan and inspection after 5 years.

This non-profit-making organisation is administered by a committee which includes users, and is the responsibility of the Ministry of Housing.

Any building which is subsidised by the State must follow its rules.

Only purchasers and owners pay premiums. Architects, engineers, contractors and suppliers who are found to be liable may nevertheless be caused to pay compensation, whether or not they are themselves insured.

For any new building the Fund takes a **premium** representing 1% of the cost of construction.

Half of the premium is intended to finance the inspection after 5 years, the other half covers any repairs covered by the Fund.

If necessary all owners will be asked to pay an additional premium of more than 1%.

In the event of damage, the excess is 5% of the cost of the repair.

Cover only applies to damage arising from a construction defect: fracture, leakage, deformation or other physical accident which substantially compromises the use of the building in respect of its initial purpose.

If the defect is due to a new material, member, component or process cover

is provided insofar as the purchaser made provision for this new factor in the context of a properly conducted experimental operation or development.

The object of this is not to discourage innovation.

On the other hand coverage is refused if the damage is due to wear, tear, poor maintenance or premature use following acceptance, or again if the normal or agreed lifetime of certain components, members or materials has been exceeded.

The Fund does not cover inadequacies which do not truly have the character of defects: poor quality, poor planning, inadequate installations, excessive energy consumption, etc.

It is the owner's responsibility to prove that a defect falls within the category of those covered by the Fund.

The Fund applies its coverage for a period of 20 years following the completion of a structure.

It may take proceedings against those who were involved in the construction. In the case of architects, engineers, contractors and suppliers such action can only be taken for 5 years following completion of the structure, provided of course that the basis of responsibility has been established.

The Fund does not wait for responsibilities to be clarified before providing financial coverage for the repairs necessary.

It only acts if quality control was applied during the construction period, and a detailed maintenance plan has been followed after the structure was accepted.

The basic principle of the Fund is that owners have an obligation to ensure that buildings are satisfactorily built and properly used.

The Fund does not therefore intervene in the process of construction. It

does not approve plans, even if these are innovative, neither does it inspect work.

During the five years preceding inspection it does not monitor use of the building, although it can make spot checks here and there from time to time.

It should be said that the **local authorities** themselves have a supervisory function with respect to subsidised buildings, even after work has been completed.

Direct supervision by the Fund will be applied systematically (from 1990 onwards) five years following the completion of a building and acceptance by the owner, through an inspection.

In point of fact it will not be five years after acceptance but a few months previously that the Fund will make this inspection of a building.

This **"five year" inspection** should make it possible to prepare a report with a record of defects, threatened defects and if possible the reasons for the defects.

The general concept, beyond that of inspection itself, is that more defects will be apparent after a building has been in use for five years than at the time of its acceptance.

This inspection after five years should also be linked with the fact that the liability of consultants, suppliers and contractors normally ceases five years after the acceptance of any building covered by the Fund.

It is intended that inspection should be performed visually by an expert having access to a wide range of technical testing and measuring equipment.

The Fund itself will not have permanent technical personnel for these inspections. It is intended that it should rely on architects or engineers who are already well organised, and it should not give rise to the creation of specialist firms.

To a large extent it is envisaged that after inspection the **technical evaluation** of defects covered by the Fund will be entrusted to the technical departments of local authorities.

The Fund intends to publish the details of its experience at regular intervals.

7. LITIGATION

Litigation is often settled by arbitration, as in Holland. The "**arbitration tribunal**", appointed by the "Board of Arbitration for Building and Civil Engineering Works", may be restricted to a single arbitrator if the parties agree.

If not the tribunal shall consist of three persons, one of whom will be appointed by the Chairman of the "Arbitration Tribunal Committee", the other two by the Board.

The arbitration procedure is described in article 31 of AB72.

Any member of the public who is dissatisfied with a decision by the authorities may complain to the Ombudsman, a typically Scandinavian personage who acts as mediator.

8. APPENDICES

List of the appendices which will be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - BPS centret,
2 - Quality assurance,
3 - Byggelover,
4 - Building regulations (contents),
5 - BR for small buildings (contents),
6 - General conditions AB 72,
7 - ABR 75 (extracts),
8 - NBA circular of the 25 June 1986 (liability).

4 - Spain

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1. INTRODUCTION

The quality of construction does not appear to be a concern of the authorities or the construction professions in Spain.

Less than 1000 claims arising from construction defects go before the courts each year.

Is this the result of the considerable power which Spain has given to its architects?

The description which follows briefly illustrates this situation. It deals in turn with:

o the general **context**:
- administrative structures,
- the main governmental or private organisations responsible for construction,
- the legal basis and terminology,
- standards and approvals,
- planning and subsidised housing,

o **controls** on construction:
- regulations, which remain centralised,
- the construction permit,
- the control exercised jointly by the authorities and by architects,
- the construction quality control system,

o **contracts** and those involved in construction:
- architects and technical architects,
- civil engineers and contractors,
- construction contracts,
- acceptance of work,

o the **responsibilities** of those involved:
- their general breakdown,
- ten year liability,
- certain aspects of jurisprudence,
- the special responsibility of developers in the "state subsidised" housing

sector,

o **insurance:**

- its general inadequacy,
- the professional indemnity insurance of architects and engineers,
- "all risks" insurance for contractors,
- the desires of architects,

o and finally a summary of the **problems** which appear to arise in the matter of liability and insurance.

2. CONTEXT

2.1 - Administrative structures

In this country of 39 million inhabitants where the national per capita product averaged 4500 US dollars in 1984, **decentralisation** has thoroughly shaken up the spread of powers in the field of construction and planning.

The 17 **independent regions**, referred to in brief as "Regions", are not mere administrative areas.

They have certain legislative powers, of which they have only made effective use in the last few years. Cataluna and the Basque Country have produced several dozen texts involving construction, other regions like Castille and most of those in Southern Spain have restricted themselves to a few measures of limited extent.

Local authorities, grouped into 52 provinces and numbering approximately 8,000, do not all have the necessary public services.

In accordance with the 1978 constitution many powers have been transferred from the State to the regions.

This new distribution of powers met a generally felt need, in view of the hold of the central State which was felt to be excessive.

Each of the regions has its own government and parliament. Although Spain is not strictly speaking a Federation, its 17 regions resemble the 11 Lander of the Federal Republic of Germany.

All planning has been transferred to them, and almost all construction. The central power has retained, in addition to certain major infrastructure work:

- the design of subsidised housing,
- the basic regulation, the "normativa basica",

- the technical regulations "the normativa technologica", but with the possibility of regional "supplements".

Most of the regions have so far retained the central technical regulations.

At provincial level the State, with some delegation, has some decentralised power.

Finally there is another level of administration, that of the local authorities, which are responsible for planning and issue construction permits.

The provincial "deputation" may assist small local authorities, and this is particularly the case in Cataluna where it is intended that full technical departments should be set up.

It is a fact that in many local authorities local government is not in a position to carry out properly the tasks for which it is responsible in respect of planning and construction, and these gaps are felt to have serious consequences, in particular by architects.

2.2 - Main organisations

At central level two ministries are mainly concerned with construction:

The Ministry of Public Works and Planning, known by its abbreviation MOPU, which has jurisdiction over construction regulations and standards, roads and motorways, and subsidised housing and ports.

The Ministry of Transport, which has jurisdiction over railways and airports.

All the central and regional administrations are attempting to institute a coherent system of quality control.

Other important organisations are:

- o the National Construction Confederation, abbreviated to CNC,
- o the supreme councils of architects and technical architects,
- o the Torroja Institute for research,
- o SEOPAN, an association grouping together the 60 largest companies,
- o EPU, the Camara de la Propriedad Urbana.

One of the original features of the Spanish system is the part played by **"professional colleges"**.

The law of the 13 February 1974, which was amended on the 26 December 1978 to come into line with the new constitution, is concerned with all the "adademic" professions which are linked to a higher diploma obtained by university training: lawyers, doctors, architects, technical architects, etc.

Each of these professions should have a professional union having a legal personality and civil liability in civil law.

For the nation the advantage of this legislation on colleges is to obtain the greatest possible benefit from groups of high level professionals so as to perform tasks for the public benefit without multiplying the number of officials.

This point will be examined again in section 3 in the context of the supervision of construction and the issue of construction permits.

In 1982 the government of Cataluna considered it necessary to produce a special law on the colleges of architects and technical architects. The same will probably happen in the Basque Country and Valencia.

2.3 - Legal basis

First here are a few essential texts:

- o The Constitution of 1978, the origin of decentralisation,
- o The Civil Code of 1889, and in particular articles 1588 to 1600,

o The royal decreto-ley of the 27 December 1929 setting up the colleges of architects,
o Law 2/1974 of the 13 February on professional colleges,
o Decreto 923/1965 of the 8 April, the basic law on State contracts,
o Law 19/1975 of the 2 May, reforming land and planning rights,
o Royal decreto-ley 31/1978 of the 31 October on state subsidised housing policy,
o Royal decreto-ley 12/1980 of the 26 September in respect of development land and new housing,
o Law 26/1984 of the 19 July on the protection of consumers,
o Royal decreto 1614/1985, of the 1 August, governing standardisation and certification activities.

Two decretos are particularly important as far as liability is concerned:

o decreto 461-462/1971 of the 11 March:
rules on the preparation of projects and the direction of construction work: the obligations to carry out geotechnical studies, to keep a record book, to issue a completion certificate, rules for action by professional colleges, etc.

o decreto 1716/1962 of the 12 July on the preparation of projects for public works by the State and its independent establishments: fundamental principles, supervision by specialist departments, financing of design.

Ten other texts should also be mentioned:

o Law 16/1985 of the 25 June on Spanish historical heritage,
o Royal decreto 1650/1977 of the 10 June on construction regulations: NBE basic standards and NTE technical standards, MV standards,
o Decreto 3565/1972 of the 23 December establishing technical standards for construction, the NTE,
o Royal decreto 1614/1981 of the 3 July on the public promotion of state subsidised housing in rural environments,
o Royal decreto 555/1986 on health and safety on building sites,
o Decreto 2414/1961 of the 30 November controlling unpleasant, unhealthy,

harmful and dangerous activities,

o Decreto 1998/1961 of the 19 October specifying a scale of fees for engineers,

o Decreto 265/191 of the 19 February establishing the fields of action and jurisdictions of technical architects,

o Decreto 2512/1977 of the 17 June specifying a scale of fees for architects,

o Decreto 3410/1975 of the 25 November, general regulations for State contracts.

2.4 - Terminology

Constitucion, constitution
Estado, state
Comunidades Autonomas, regional authorities

Edificacion, construction
Obra de ingeneria civil, civil engineering structure
Edificio, building
Vivienda, housing
Obras, construction work
Conservacion, maintenance

Ministerio de Obras Publicas y Urbanismo, Ministry of Public Works and Planning
Ordenacion urbana, town planning
Viviendas de Proteccion Oficial, state subsidised housing
Program Especial de la Reglementacion - PER, special control programme
Control de Calidad de la Edificacion, construction quality control
Reglamento general de la contratacion del Estado, general regulations for government contracts
Clasificacion de contratistas de obras del Estado, classification of state construction contractors.

Normativa sobre Edificacion, construction standards,
Normativa obligatoria, compulsory standards

Normativa recomendable, recommended standards,
Normas Basicas de la Edificacion - NBE, basic construction standards
Normas Tecnicas de la Edificacion - NTE, technical construction standards
Homologacion, certificcaion, marcas de calidad, approval, certification, quality marks

Colegios professionales, professional colleges
Arquitectos, architects
Arquitectos tecnicos, technical architects
Proyecto de ley de Ordenacion de la Edificacion, draft law on the organisation of construction

Contratos de obras, construction contracts
Promotor, propietario, developer, owner
Estudio del suel, proyecto, ground investigation, plan
Direccion de obras, construction management
Ejecucion de obras, construction work
Contratista, contractor
Subcontratistas, subcontractors
Certificado final de obra, final construction certificate
Ocupacion del immueble, occupation of a building
Uso y conservacion de la obra, use and maintenance of a structure

Responsabilidad, liability
Responsabilidad decenal, ten year liability
Obras por ajuste o precio alzado,
Ruina, collapse
Vicios de la construccion, vicio del suelo, vicio de la direccion, construction defect, defect in the ground, management defect
Danos, damage
Perjuicios, loss
Accion de indemnizacion, compensation

2.5 - Standards and approvals

The regulations on construction are very clearly presented in two documents

dating from 1986:

- one, published by MOPU, entitled "Indice de disposiciones relacionadas con la edificacion" (Guide to provisions relating to building), the other, published in Navarre, entitled "Normativa sobre edificacion" (Building standards).

Being aware of the difficulties which may arise if the independent regions and the State allow standards and regulations to proliferate, the Spaniards are making efforts to control their system.

Thus the royal decreto of the 1 August 1985 governs standardisation and certification activities.

In principle, **the so-called basic standards (NBE) form part of the regulations,** while the **technical standards (NTE) remain optional, even for public works.**

All these construction standards are prepared by MOPU in accordance with royal decreto 1650 of the 10 June 1977 on the regulation of building and decreto 1365 of the 23 December 1972 on the preparation of technical standards for building.

The first of these orders specifies basic standards for construction which are compulsory for all types of construction. It also lays down conditions for the incorporation of "MV" standards in the set of basic MBE standards.

The second of these texts relates to NTE standards only.

The "indice" published by MOPU provides a list and sometimes a breakdown of all these standards, which form a readable whole.

There are also Spanish standards, UNE, which deal for example with methods of test.

The manner of presentation in Navarre makes it possible to distinguish

clearly between what is compulsory and what is merely to be recommended from various points of view:

o project preparation, direction of works, use and maintenance of structures, and
o construction standards proper.

Technical approvals are issued by the Instituto Eduardo Torroja.

In the case of materials authorisation is issued by the Ministry for Industry.

In the case of construction components control is exercised by this ministry and by MOPU.

Control includes the manufacturing processes themselves.

"Technical architects" are closely involved in these quality inspections, and their supreme council is a driving force in the creation of a **network of accredited laboratories**.

2.6 - Planning

It is the regions which are now responsible for planning in Spain.

In actual facat this planning is carried out at local authority level.

The law of the 2 May 1975 lays down the new general framework for town and country planning.

It lays down fundamental rules for:

- the preparation of plans,
- land law,
- the exercise of rights to land use,
- the generation of development land,

- the jurisdictions of government authorities,
- taxation and urban policy.

Every local authority of more than 50,000 inhabitants has to draw up a **"general plan"** approved by the regional authority after examination by a planning committee.

"Area plans", approved by municipalities, are drawn up as and when development land is built up, on the initiative of developers and owners and after examination by a local committee.

4,000 local authorities of less than 10,000 inhabitants do not yet have their general plan.

Simplified procedures are envisaged for planning in small local authorities.

As in Italy the independent regions are concerned with coordinating investment over their territories as a whole.

Regional planning and programming activity is most vigorous in Cataluna.

It would appear that the State has reserved appreciable power and influence in the field of housing and **subsidised housing.**

Two important recent "royal decreto-leyes" bear witness to this:

o the decreto-ley of the 31 October 1978: **"state subsidised housing"** policy
o the decreto-ley of the 26 September 1980: encouraging State action in respect of land and housing.

The first of these unifies rules for the construction, financing, use and operation of this type of housing: developers, owners, financial establishments, State assistance, subsidies and interest allowances, etc.

The second sets up two major State public establishments:

- The IPPV, the Institute for the Government Promotion of Housing,
- ITOPE, the Institute for Public Works and Construction Technology.

It states that the concept of official protection in respect of housing extends to the purchasing and planning of land for residential use, primary government establishments, the rehabilitation of existing housing and work for the improvement of energy installations.

3. CONTROLS

3.1 - Regulations

The Ministry of Public Works and Planning in 1986 published a list of all provisions relating to construction in the broad sense of the term.

State regulations consist of more than 1500 laws, decrees, orders and decisions.

Regional regulations are restricted to a dozen texts, except in the Basque Country (40) and Cataluna (70).

The State regulations are relatively voluminous, and refer to standards: compuslory basic standards and optional technical standards.

None of the 17 regions have amended these standards.

o Only in Cataluna was legislation passed in respect of quality control in 1986,
o 14 regions have produced regulations for housing, some of which are very thorough,
o 11 planning, 8 tourism and the environment, 6 artistic heritage,
o 5 sports facilities, 4 projects, 3 water, 2 fire protection, companies, public buildings, cement, electricity and lifts,
o one only on the handicapped, acoustic insulation (Asturias), health and safety, architects, hospitals, concrete (Cataluna), wastewater (Cataluna), refuse, pressure equipment, plumbing (Andalucia), etc.

Unlike Italy the regulations governing construction are therefore not really decentralised.

The essentials are still together at national level, although some regions have made use of their right to pass legislation.

Thus there are 4 royal decretos which dominate the edifice of regulations:

o that of the 10 June 1977 specifying the "normativa basica de la edificacion",
o that of the 6 July 1979 specifying thermal conditions in buildings,
o that of the 10 April 1981 establishing conditions for fire protection in buildings,
o that of the 24 July 1981 specifying acoustic conditions in buildings.

Regulations on health are partly to be found at local authority level.

3.2 - Construction permit

Any project for the construction of a building is examined by the regional **college** of architects before reaching the office of the local authority responsible for issuing construction permits.

The college carries out compulsory checks by delegation from the authorities: examination of the formal quality of the project, its contents, planning control.

It checks that the **architect** is himself a member of the college so as in particular to avoid any legal incompatibilities.

The planning control carried out by the college of architects is not however binding on government.

Only then is the **developer** involved, and finally the **builder**, the latter not being compulsory because as far as the State is concerned warranty can only be technical and the authorities do not count on contractors but on architects and "technical architects" (formerly called "aparejadores").

The provincial colleges of technical architects have a parallel and similar part to play to that of the regional colleges of architects.

It is only after this prior double professional examination that the authorities investigate an application for a construction permit.

The examination performed is not technical, but merely relates to planning. It is very simple.

The rules specified by the order of the 11 March 1971 on the preparation of projects and on the direction of works are compulsory; in particular the one which in Spain makes a **geotechnical investigation** compulsory in the context of any construction project.

The local authorities also check that certain requirements have been fulfilled: fire prevention, handicapped, aesthetics, etc., without investigating technical quality.

The situation is different for projects which are subsidised by the State, which are subject to controls relating to quality, in particular to housing "under official protection".

Construction permits are always issued by the municipalities, even when the developer is the State or the region.

In large towns there are specialist organisations with delegations. In contrast to this in small local authorities architects are not always able to deal with experienced personnel, which makes their task more complicated.

An application must be signed by the client (client or developer) and the municipal authority has the absolute power to grant or reject permits.

This power is not discretionary however. A project must contravene a development plan in order to be rejected. There is therefore an appeal procedure to the municipal authority, and it is only after a second refusal that recourse may be had to a legal authority.

Permits have a threefold significance:

- o compliance the development plan,
- o compliance with local regulations
- o compliance with royal orders on site safety in the case of major work: more than 100 million pesetas or more than 50 workers.

Only if the work is subsidised do the local authorities carry out **any checks** following the issue of a construction permit.

According to law construction work is subject to continual technical supervision by architects and technical architects employed by developers

Thus in Spain architects may have to supervise their clients because in the case of many large buildings the developer is also the builder, i.e. the general contractor.

The major principle in Spain is that "**technicians**" are responsible to government authorities for construction.

The government only supervises its own construction operations. It is not involved in the "acceptance" of private work. On the other hand the services responsible for the supply of water, gas and electricity will not make connections until they have seen a construction permit.

For both government work and private work new premises, housing or other buildings cannot be occupied without a **certificate of completion of work** signed by the architect and technical architect.

In accordance with the order of the 11 March 1971 this certification is supervised by the college of architects.

3.4 - Quality control

There is in Spain a national policy for the quality control of construction.

The essential instrument of this policy is the network of numerous laboratories approved by the MOPU. The scope of the activities of these laboratories is determined by two decretos:

o that of the 20 July 1974 for the classes:
A - quality control of concrete,
B - quality control of metal structures,

C - quality control of soil mechanics,

o that of the 20 June 1984 for the classes:

D - fire,

E - acoustics,

F - heat.

As this work is private work, quality control remains optional, for both materials and execution.

4. CONTRACTS

4.1 - Architects and technical architects

Some 60,000 in number, Spanish **architects** are legally members of one of the 17 regional professional colleges, which are headed by the Supreme Council for the Colleges.

The profession is governed by the royal decreto-ley of the 27 December 1929 which created the college of architects, and made membership of the college compulsory for execising the profession, and determined the functions of the college.

These functions include the prior inspection of any project for the construction of a building, in accordance with a general principle which considers that the colleges of the "titled" liberal professions have a function in the public interest so as to reduce the number of officials.

As a consequence the college must itself have recourse to architects to exercise this supervision.

Architects tasks and fees are fixed by the royal orders of the 17 June 1977 and 23 January 1985.

Fees are passed through the regional college which retains a fraction and then pays the remainder to the client's architect.

Spanish architects follow six years of study culminating in a national university title.

The training given in the ten schools of architecture is not only artistic and general, it is also very technical. There are no civil engineers for the construction of buildings in Spain. It is the architects who are competeant in soil mechanics, the design of structures, electrical, thermal, air conditioning installations, etc.

"Proyectores" include both "technical architects" and of course civil engineers for civil engineering.

Technical architects, formerally called "aparejadores", are proud of the fact that they were involved in the building of the famous Monastery of the Escorial in the 16th centry. They have a completely unique position, but only in respect of buildings, never for roads, railways etc., the domain of civil engineers.

The simultaneous involvement of **two professionals**, the architect and technical architect, is compulsory in Spain in the context of any building construction operation.

The position of each can be summarised as follows:

o the architect alone is responsible for design, he is the conceptual director of the operation,
o the technical architect is not responsible for design, but he is the technical director on site.

Both the architect and the technical architect are linked to their client, the developer, by contract.

Technical architects receive four years academic training.

The main attributions of aparejadores are determined by two decretos: that of the 16 July 1935 on materials, and that of the 19 February 1971 on quality control.

The compulsory nature of the work of the technical architect is thus governed by orders by the Ministry of Planning and Housing.

Two higher level texts enshrine the compulsory character of the architect's task in the context of any construction operation:

o article 1591 of the civil code,

o various regulations and in particular the decreto of the 11 March 1971.

Article 1591, because it makes the architect (and not the engineer) liable alongside the contractor in the event of the collapse of a structure within ten years following construction.

The decreto of 1971, which has already been discussed above in section 32 in respect of the construction permit, because it determines the jurisdictions required for any building project and makes the role of the "technician", the architect, in supervision of the work compulsory.

Finally the decreto of the 17 June 1977 approving the scale of fees for architects provides a precise definition of the task of an architect both in government projects and in private projects, with ethical supervision.

Like the architects, technical architects are organised into professional colleges, but these are provincial and not regional, 52 in number and headed by a supreme council.

These colleges have obligations similar to the architect's colleges in respect of applications for construction permits, in the setting of fees, in the supervision of certification for the completion of work, etc.

The law of 1 April 1986 relates to the duties of technical architects and "technical engineers".

It allows technical architects to go beyond their role of the technical direction of works and to engage in design, but in certain restricted fields, other than housing, which is reserved for architects: industrial buildings, partial restoration work, demolition, structural design, etc.

This law has therefore extended the functions of technical architects.

Through this law of the 1 April 1986 the government undertook to prepare a future "law of attributions" designed to update and clarify the roles and responsibilities of the various parties involved in construction.

This law is not yet ready because of the extensive discussions between the government architects, technical architects, engineers, contractors have not yet resulted in any clear conclusions.

The law should also deal with problems associated with exercise of the role of builder-developer, which is becoming increasingly common in Spain.

4.2 - Civil engineers and contractors

More than half the Spanish market for civil engineering construction is now decentralised to the local authorities and regions.

Another half of the "clientele" of architects, engineers and contractors remains essentially in the hands of four ministries: MOPU, transport, education, health.

Also organised in "colleges", the Spanish **civil engineers** for roads, canals and ports enjoy an excellent reputation at international level.

Their role and responsibilities are not however determined either by the civil code or by law, unlike architects.

Alongside the independent consulting engineers, who work in company units of 5 to 10 engineers, many design offices are affiliated to construction companies.

The companies are themselves frequently owned by banks, which results in some clients choosing the company linked with the best lender.

One of the defects of the system is that a design office owned by a compny is in a poor situation for supervising that company's sites. Nothing in Spanish law can correct this situation.

Spanish civil engineers are protected not only by their title, but also by the exercise of their profession.

Thus all bridge designs must be signed by a civil engineer.

It is the State which gives civil engineers their title.

As in the case of the architect for a building, a civil engineer signs the design and supervises work. There may also be two different engineers, one for design and one for supervision.

In general cooperation between engineers and architects is inadequate.

The civil code seems to lie at the root of this situation. In Spain design offices are classified as **companies**.

The 60 largest construction companies are grouped into an association, SEOPAN. They account for 70% of the market.

Regional and local companies are grouped in another association.

When contracts are entered into with architects and technical architects by government or private developers these are subject to regulations, contracts entered into between developers and builders are not.

However in order to gain access to government construction contracts, Spanish contractors must be included in a **list** of contractors, and government construction contracts are themselves subject to regulations.

In Spain a construction contract is almost always entrusted to a general contractor in the case of roads, buildings, etc.

In the case of work for the State, this is always the case by virtue of article 186 of the general regulations of the 25 November 1975 on government construction contracts, the text of which is given below:

"**Subcontractors** have no obligations with respect to the principal contractor alone, who thus assumes entire responsibility to the Government for construction of the structure in accordance with the approved design...".

In the case of private work, it is only when building his own house that a "developer" does not call in a general contractor.

The Spaniards consider that "the philosophy of a general contractor is responsibility". Also it is not possible to prosecute a claim in law against a subcontractor if for one reason or another the general contractor is no longer in existence.

The classification of these **general contractors** is organised by the decreto of the 8 April 1965 and by different orders. **The general regulations for the State's construction contracts refer to these.**

This classification is prepared by the Ministry for the Budget. It relates to the contractor's facilities, the type and volume of work, the company's financial situation, etc. Inclusion on this list is compulsory if the government contract exceeds 10 million pesetas.

The Spanish classification therefore has two objectives:

o to indicate which general contractors are capable of constructing structures worth more than 10 million Pesetas,
o indicating whether these general contractors have the required qualifications for different types of structures.

General contractors are almost always consulted on the basis of a final project, and not a mere preliminary design, and an estimate of quantities (bill of quantities) prepared by the technical architect, who thus fulfils one of the roles of the British quantity surveyor.

General contractors are always paid for work actually done, and not on a lump sum basis.

Some regret the fact that it is always the price criterion which is involved in choosing contractors.

The Ministry for Industry in turn classifies subcontractors: painters,

plumbers, etc., and thus gives craftsmen the necessary accreditation even for private work.

A contractor already classified by the Ministry for Industry may ask to be included in the Ministry of the Budget's list.

4.3 - Contracts

In the case of **private work**, contracts with companies are unrestricted, provided that the civil code is respected.

In the case of **subsidised work**, contracts are also unrestricted, but the work must comply with the State's requirements. For example there is a specification for subsidised housing. Contracts with architects and technical architects always follow the provisions specified by their Associations: customers, whether government or private, cannot alter the normal level of fees.

In the case of **government work**, there is a law and a regulation by the Ministry for Housing. The basic law is the decree of the 8 April 1965.

The general regulations for State construction contracts are recent: the 25 November 1975. This has already been mentioned in respect of the classification of general contractors.

In the case of a structure worth more than 10 million Pesetas it is in theory impossible to enter freely into mutual arrangements. Apart from putting jobs up to tender there are three ways in which government developers engage companies:

a) design competitions,
b) competitive tenders,
c) design and construct (DC).

The government has a free choice of general contractor in a design competition, a procedure which is suitable for very difficult work.

In the case of a "competitive" tender there is a second envelope and the cheapest of those who have complied with the technical specifications is selected.

Normal DC is sometimes accompanied by an obligation to provide maintenance for several years following construction, which is one way of transferring financing onto companies.

Finally a royal decreto of 1986 amended the law of 1965 to bring it into line with the Community directive on government contracts.

Some Spanish experts hope that at Community level harmonisation will also apply to **specification**, and not only to the granting of government construction contracts. This would provide an opportunity to revise the Spanish general specification, the "pliego de clausulas generales".

4.4 - Acceptance of work

The starting point for the ten year liability is the final acceptance certificate for the structure signed jointly by the architect and the technical architect as specified by decretp 462 of the 11 March 1971, appended hereto.

Clients use this document to obtain authorisation for the occupation of new premises from municipal authorities.

In the case of government contracts the ordinance of the 5 October 1981 determines provisional and final acceptance, separated by a warranty period of one year.

While work is in progress architects generally visit a site once a week, technical architects two or three times a week.

These **regular visits** are considered to be essential, for both government work and private work.

The decree of the 11 March 1971 compels architects (tecnicos superiores) and technical architects (technicos medios) to keep a site record book (libro de ordenes y asistencias) in triplicate, and to record therein any important facts discovered on their visits.

In the case of private work this record is required by the professional colleges which have to pass the final acceptance certificate.

Thus cooperation between those involved in construction, the liberal professions and the municipal authorities is organised so as to exercise control over construction.

In the case of major work by the regions, of more than 50 million Pesetas, the inspectorate general of MOPU may assist in acceptance of the work.

In the case of civil engineering work the two acceptance reports are signed by the contractor, the developer and an "official witness".

5. LIABILITY

5.1 - General principles

Article 1902 of the Civil Code deals with responsibilties in general in respect of any persons who have suffered a loss at the hands of another, the limitation period generally being one year.

Article 1591 mentions architects and builders. Its purpose is to increase the general liability in article 1902 from one year to ten.

According to the Spanish **Civil Code** of which articles 1588 to 1600 are appended hereto, ten year liability applies to both architects and builders, in other words general contractors.

Technical architects also have liabilty, and for civil engineering structures it is the civil engineer who is regarded as an architect in the since of article 1591 of the code. This correlation is contractual and not legal, because the Civil Code does not acknowledge engineers.

Some Spanish experts feel that this is not clear.

Contractual responsibility is obviously determined by contract itself and applies only to the two contracting parties.

Post-contractual liability which may give rise to **compensation** can only be invoked on the basis of the Civil Code if there has been negligence or fraud.

An additional five year liability also applies to the developers of **subsidised housing.**

Proceedings can be instituted in order to require repairs for **fifteen years** following the discovery of a defect, provided that this defect has itself occurred within **ten years** following construction or completion of the structure.

5.2 - Subdivision of responsibilities

According to article 1591 of the Civil Code, **architects** are responsible for defects in the ground and in the direction of works, whereas **builders** are responsible for construction itself.

In reality this distinction is very difficult to establish, as indicated by certain judicial decisions which are appended hereto.

In practice responsibility is almost always borne jointly by the architect, the technical architect and the builder.

A Spanish judge first attempts to discover who was the "**technician**" who prepared the design. This attitude is consistent with the general system of construction which, in Spain, rests on the high level of training of architects, on the compulsory nature of their double task of design and the supervision of works, and on the active involvement of the professional colleges in all construction operations.

Thus, in principle, architects have a legal liability for **ten years** following construction, in respect of serious construction faults and defects in design, but only when the faults arise from the ground or from direction of the works.

Builders are also liable for ten years following construction, but only for faults in the object built due to materials and their use.

In the case of an engineer who designs a bridge, as in the case of an architect who designs a building, anything which fails to conform with the specifications in the contract in particular is a defect in construction.

In the case of private work liability applies to the assets of the party involved, and if he is insolvent this liability becomes theoretical.

The limitation period of fifteen years mentioned above in section $ 5.1 for any defect including minor defects, also applies in cases of fraud.

In other words, in this case there is no thirty year limitation as in France, Belgium and Germany.

It has already been stated in $ 4.3 that the principal contractor's subcontractors are not subject to ten year liability: they are in the same situation as the suppliers of materials and components.

As there is no two year liability in Spain, all the parts of a building, the structure, covering, foundations, heating, are covered by the ten year warranty.

This liability also applies to defects which do not give rise to problems. The ten year period starts again once repairs have been accepted.

Article 1591 of the Civil Code

"The builder of a building which collapses due to defects in construction shall be responsible for the loss if collapse occurs within ten years from completion of the structure. A similar responsibility, for the same period, applies to the architect who directed its construction, if collapse is due to a defect in the ground or in supervision.

If the cause arises from failure by the builder to observe contractual conditions actions for compensation may be initiated within fifteen years".

5.3 - Aspects of jurisprudence

In theory ten year liability can only be invoked in respect of construction defects which have resulted in the **failure** of all or part of a structure.

In practice jurisprudence extends this responsibility to any defect which **might** cause failure.

The **burden of proof** theoretically lies upon the plantiff, but in practice the "technician" has to demonstrate that there has been improper use or unsatisfactory maintenance. These two major deviations inspired by a desire

to protect consumers are to be found in Belgium, and in themselves provide a justification for rewriting, in the European Community, certain articles of the Civil Code which deals specifically with construction.

5.4 - Special features of subsidised housing

In the case of "officially protected housing", which is assisted finacially by the state, it is theoretically the **developer** himself who has special liability.

If any faults or defects in construction which make repair work necessary occur within **five years** of the completion of a building, the State may require the developer to make these good either himself or at his own expense.

This five year **warranty** is independent of any actions arising from liability that the owner of housing has the right to initiate against a builder and architect on the basis of the Civil Code.

The Supreme Court does not hesitate to place the burden of the five year warranty jointly on the developer, the builder and the architect.

6. INSURANCE

Generally speaking the Spanish insurance system is not in a position to cover the risks of those involved in construction and their clients.

Civil liability insurance does of course exist, in particular for architects, technical architects and engineers.

There are also policies, incorrectly called "all risk" policies, which only cover the contractor's risks during the construction period.

These forms of insurance remain inadequate however.

6.1 - Insurance of designers

Thus insurance companies do not cover **engineers** for more than 50 million Pesetas, which is not of the same order of magnitude as certain major civil engineering structures. Furthermore there is no legal obligation for professional insurance in Spain.

In practice the college of **architects** has developed a widely used standard insurance policy.

Very recently an architect's mutual insurance company, "Assema", has been able to cover half the market, the other half going to private insurance.

Technical architects also have two mutual insurances. The premiums are a percentage of fees.

Architects and technical architects thus have valid annual policies for work done during the previous ten years.

A ceiling of 50 million Pesetas is put on the risk, as for engineers.

6.2 - Insurance of contractors

As far as **builders** in the Civil Code, in other words contractors, are concerned, they are far from representing a professional unit as structured as that of the architects.

Very often they are constituted as a small limited company which has no insurance except for "all risks" insurance while work is in progress.

Large Spanish contractors take out post-construction insurance, but only for the first year following completion.

Their ten year liability is therefore not covered for the following nine years.

This unbalanced situation results in the courts very often making rulings **"in solidum"**, as in Belgium, except when there is a problem with the ground or subsoil, when the architect alone is responsible.

In this way rulings go against the person who can pay: the architect and/or the technical architect, who are almost always insured.

*
* *

The architect's supreme council is not satisfied with this situation. It does not in fact desire that compulsory insurance of the **object built** should be instituted, as in France, as it feels that this would give rise to a fall in the level of quality in construction.

Also there is in Spain, as almost everywhere in Europe, special legislation designed to protect "consumers", but this has not given rise to systems for protecting the purchasers of housing such as in Great Britain, Ireland or Holland for example.

What the Spanish architects would like is the development of professional

insurance for contractors. They would like all companies to be required to have a minimum technical expertise, without which the risk would be too great for the insurers and there would be no insurance for ten year liability.

7. PROBLEMS

It would obviously be troublesome if the independent regions made excessive use of their legislative powers, as Spanish regulations are among the clearest.

It would seem that some small local authorities do not have the necessary technical departments. This is a problem which affects Cataluna.

What other problems seem to arise?

Perhaps a certain vagueness in the **functions** of those involved in construction.

The Civil Code mentions architects and builders. It makes no mention of technical architects in respect of buildings or of engineers in respect of civil engineering.

The law of the 1 April 1986, which amended the professional functions of technical architects and technical engineers, has not brought an end to the difficulties because the Spanish Parliament has requested the Government to submit a draft of a new more general law, the "Ley de Ordenacion de la Edificacion", which would deal with the roles of all the parties involved in the process of construction, within a period of one year, which is already long past.

In the context of major construction work architects are simultaneously the client and the supervisor of the **building developer**: this is one of the points which will have to be tackled in a future law.

Spanish **engineers** consider that their liability is not clearly established by the Civil Code, whereas in practice if problems occur judges first seek out the designer of a project.

Cooperation between engineers and architects is insufficient, given that only the latter are considered in article 1591 of the Civil Code.

Furthermore, as already mentioned above in 5.3, there is no perfect correlation between the letter of article 1591 and the **judges interpretations**, whether over the concept of "collapse", or the burden of proof.

The criticisms concerning the lack of technical competence in some contractors reflects problems in the relationships between architects and builders.

The mere fact that the courts frequently give rulings **"in solidum"** is indicative of the lack of clarity in civil liability.

The liberal professions, which in Spain have high responsibility, are currently under attack, whereas they are probably the most solid pillar in the system.

Although the general level of construction quality is felt by Spanish architects to be very high, should one be satisfied with a situation in which a **client** who has suffered a loss:

o has to wait an average of five years in order to obtain redress from the courts,
o has virtually no possibility of going before an arbitration tribunal, as in Holland,
o is too frequently faced by a builder offering insufficient guarantees,
o and cannot, if they wanted to, find insurance for the object built, as exists in the case of housing in certain European countries?

Also felt to be a problem is the fact that the **producers** of materials (cement, steel, etc.) have no responsibility, even as the producers of construction components.

8. APPENDICES

List of the appendices which will be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - List of independent regions,
1 - List of regulations,
3 - Functions of technical architects,
4 - Classification of companies,
5 - Responsibilities of principal contractors,
6 - Duties of technicians,
7 - Detailed specification,
8 - Civil code (articles 1588 to 1600),
9 - Jurisprudence.

Only appendices 1 and 2 are included in this publication.

8.1 - List of independent regions

Andalucia	AND
Aragon	ARA
Asturia	AST
Balearics	BAL
Canaries	CAN
Cantabria	CNT
Castille Leon	CAL
Castille la Mancha	CAM
Cataluna	CAT
Estremadura	EXT
Galicia	GAL
Madrid	MAD
Murcia	MUR
Navarre	NAV

Basque country	PVA
La Reoja	LRI
Valencia	VAL

8.2 - List of regulations

1) **Basic statutes** - 20 royal decretos or state decretos
Technical article regulations - 130 orders, of which 100 on housing.

None of these regulations have been revised or amended at regional level. On the other hand the regions have produced regulations as follows:

2) Control of construction quality	CAT
Town planning	CAT PVA AND ARA AST CAN CNT GAL MAD MUR PVA
Tourism	CAT PVA ARA BAL CNT GAL MAD
Artistic heritage	CAT PVA BAL CAN NAV
Handicapped	CAT
3) Fire protection	BAL CAL
Environment	PVA AND AST BAL GAL NAV PVA VAL (unhealthy installations, etc.)
Acoustic insulation	AST
Thermal insulation	
Solar energy	
4) Stresses and loads	
Soil mechanics	
Geological investigations	
Noise and vibration	
5) Project design	CAT ARA MAD NAV
Construction contracts	
Direction of works	
Health and safety	
Prices	

6)	Architects	CAT
	Technical architects	
	Construction companies and industries	AND CAL
7)	Housing	CAT PVA AND ARA AST CAN CNT CAM EXT GAL MUR NAV PVA LRI
	Subsidised housing	CAT
	Public buildings	GAL NAV
	School buildings	CAT
	Hospitals	CAT
	Prisons	
	Sports facilities	CAT BAL CNT GAL LRI
	Ports	
	Airports	
8)	Steels	
	Concrete	CAT
	Bricks	
	Wood	
	Cement	CAT GAL
	Plaster	
	Glazing	
9)	Water	CAN MAD VAL
	Gas	
	Electricity	CAN NAV
	Fuels	
	Drinking water	
	Wastewater	CAT
	Refuse	CAT
10)	Lifts	CAT BAL
	Pressure equipment	CAT
	Domestic appliances	
	Heating	

11) Pipework
Frames
Roofing
Cladding
Facades
Lighting
Plumbing
Windows
Railings

AND

5 - France

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1. INTRODUCTION

After a long period in which the search for the lowest price and consumer protection have dominated almost all building in France, it seems that recently there have been the beginnings of a positive trend towards quality in construction and the responsibility of those involved.

The French production sector is marked by:

- the coexistence of two categories of designers, architects and design offices,
- the great variety of companies and small craftsmen, numbering more than 300,000 units.

A country with compulsory ten year insurance and where the separation of trades is general practice, France has a very powerful technical administration, a burdensome law on government contracts and special regulations for government construction contracts.

It is as if everything were based on the insurance of contractors acting as a counterweight to the lack of government control of construction.

Technical innovation is not governed by standards but by approvals, which should allow plenty of scope for innovation.

In France the liability-warranty-insurance system is quite unique.

Its latest version has only really come into existence in the last few years, and the way in which it will be applied is still partly uncertain and unknown.

The legal situation can be summarised as follows:

- the new provisions of the Civil Code, which was renewed in 1978,
- the difficulties of interpretation which cause problems for judges,
- the double obligation for insurance, for object and liability, in the

case of buildings,

o the neverthless incomplete protection of small clients.

Ten year liability is associated with a two year guarantee of satisfactory performance, neither of which can be amended by contract.

France is therefore the country of construction insurance for everyone.

The following subjects will be briefly considered:

The **context**:
- political structures and main organisations,
- legal basis,
- terminology,
- technical standards and recommendations,
- planning,
- subsidised rented housing.

Controls:
- regulations,
- the construction permit,
- public control and private control.

Contracts:
- those involved in construction,
- development and sale,
- construction of private housing,
- government contracts code,
- construction contracts,
- design contracts,
- acceptance of work.

Liability:
- general discussion,
- ten year liability,
- two year "satisfactory performance" warranty,

- coexistence of the three warranties,
- liability of project designers, subcontractors and suppliers

Insurance:

- principles,
- insured parties and compensation,
- operation of the system.

2. CONTEXT

2.1 - General

In this country of 56 million inhabitants where the national product was 9900 US dollars per head in 1984, the State has recently engaged in limited decentralisation to the benefit of the 100 Departements.

All laws are voted by Parliament, namely the National Assembly (577 deputies) and the Senate (320 senators).

The 22 regions have few facilities and powers. They play some part in planning and economic development.

The continued existence of numerous local authorities (communes), more than 36000, gives each of the 100 Departements increasing strength, and power through the major State departements such as the Directions Departementales de l'Equipement (DDE) (Departemental Establishment Directorates).

Every departement and every commune has the power to issue regulations.

At central level the Ministry of the establishment remains powerful, despite decentralisation. Its jurisdiction extends to land use, planning, major infrastructures, housing and the financing of subsidised housing, protection of the environment and transport.

The following also have a major part to play in construction:

- the Centre Scientifique et Technique du Batiment (CSTB), the Building Scientific and Technical Centre,
- the Laboratoire Central des Ponts et Chaussees (LCPC), the Central Highways Laboratory,
- the network of Centres d'Etudes Techniques de l'Equipement (CETE), the Establishment Technical Design Centres, of which there are 7,
- the network of Organismes de Logement Social (HLM), the subsidised housing organisations.

In general direct intervention by the State in construction operations is fairly minor in France, except when the State subsidises housing or acts as a client, which frequently occurs.

2.2 - Legal basis

France is a country with a written law, still strongly influenced by the Napoleonic era and by the principle of a hierarchy of legal texts:

- o laws (lois) voted by Parliament and ordinances (ordomances),
- o decrees in council (decrets en conseil) by ministers and ordinary decrees (decrets),
- o ministerial orders (arretes) and orders issued by lower ranking authorities.

Many groups of laws and regulations are codified.

Neither the regions, or the Departements nor the communes exert any influence on this codification, which remains within the province of the State.

Here is a list of the essential texts which relate to a greater or lesser extent to construction:

- o Code Civil, the civil code,
- o Code de l'Urbanisme, the planning code
- o Code de la Construction et de l'Habitation, the building and housing code
- o Code des Marches Publics, the government contracts code
- o Code des Assurances, the insurance code
- o The law of the 16 July 1971 on property development,
- o the decret of the 28 February 1973 on the functions of engineering and architecture,
- o the law of the 31 December 1975 on subcontracting
- o the law of the 3 January 1977 on architecture,
- o the law of the 3 January 1977 reforming housing assistance,
- o the decret of the 27 July 1977 on State loans for housing construction,

o the law of the 4 January 1978 on liability and insurance in construction,
o the law of the 2 March 1982 on the rights and liberties of communes, Departements and regions,
o the laws of the 7 January 1983 and 18 July 1985 on decentralisation in planning,
o the law of the 12 July 1985 on the supervision of public works,
o the law of the 23 December 1985 on rented housing and funding.

Other texts affect construction. Thus:

o the mining code (mines and quarries),
o laws on the protection of historical sites and monuments,
o the law of the 19 July 1976 on classified installations,
o the law of the 10 July 1976 on the protection of nature,
o Departemental sanitary regulations.

The interpretation of this set of texts by two jurisdictions, one governmental and one judicial, may give rise to problems.

2.3 - Terminology

o CONSTRUCTION - ouvrages (structures): batiment (buildings), ouvrage de genie civil (civil engineering structure):
L'acte de construire (The act of building). Les participants a l'acte de construire (parties involved in the act of building)
o CLIENT - maitre de l'ouvrage (client), promoteur (developer).
o CONSTRUCTEURS (builders) - architects, ingenieurs (engineers), bureaux d'etudes techniques (technical design offices), entrepreneurs (contractors), fournisseurs (suppliers), fabricants (manufacturers), importateurs (importers) and sous-traitants (subcontractors).
o UTILISATEURS (users) - proprietaire (owner), locataire (tenant).

Le processus operationnel (procedure)
o Stades de la definition, de la realisation et du l'utilisation des ouvrages (stages in the design, construction and use of structures)
o Maitre d'oeuvre (client): conception et controle de l'execution (basic

design and supervision)
- o Reception (acceptance), parfait achevement (proper completion), bon fonctionnement (satisfactory performance), entretien (maintenance), reparation (repair)...
- o Normes, DTU, avis techniques (standards, codes of practice, technical recommendations)
- o Marche, convention (contract, agreement)
- o Plans, devis descriptifs (descriptive estimates), cahiers des charges (specifications) (CCAG, CCAP, CCTG, CCTP).
- o Defauts (defects), dommages (damage), desordres (problems).

Les responsabilites (liability)
- o Competence.
- o Responsabilites contractuelle, civile, penale (constructual, civil, penal liability)
- o Responsabilite quasi-delictuelle (quasi-criminal liability)
- o Obligation de moyens, de resultat (duty of care, duty of result)
- o Erreur ou omission (error or omission)
- o Fraude, dol, dissimulation volontaire (fraud, deliberate concealment)
- o Presomption de responsabilite (presumption of liability)

Les assurances (insurance)
- o Assurance "dommages-ouvrage" (structural damage insurance)
- o Assurances de responsabilite (liability insurance)
- o "Police unique de chantier" (PUC) (single site policy)
- o Assurance tous risques chantiers (all risks site insurance)

2.4 - DTU, standards and technical recommendations

Good building practice may be justified by reference to standards, DTUs or technical recommendations.

The **documents techniques unifies** (DTU) (codes of practice) are prepared by interprofessional groups. These are codes of practice and not product standards. They specify either rules for the design and construction of structures, or design rules.

AFNOR **standards**, which apply to products and not structures, are, like the DTU, in the nature of recommendations. Few of them are compulsory in construction, and in no way do they have the breadth and scope of their German cousins.

DTU and standards only have contractual effect if a contract specifies that they should apply, which is always the situation in government construction contracts. Reference is frequently made to them in litigation.

Finally the **avis techniques** (technical recommendations), which are invoked optionally, are issued by ad hoc committees and establish the suitability use of processes, materials, components or equipment for use when their novelty or their use has not yet been subject to standardisation.

2.5 - Planning

The French state took control of planning through a law of 1943.

A multitude of laws and regulations, in particular the laws of 1982, 1983 and 1985 on decentralisation, have since that time been incorporated into the bulky Planning Code (1000 pages), which includes three categories of compulsory provisions:

o the general regulations for land use and planning, in particular those relating to structure plans (schemas directeurs) and land use plans (plans d'occupation des sols (POS)),

o mechanisms establishing reserve funds and for mounting concerted planning operations (zones d'amenagement concerte, ZAC, unified planning zones),

o instruments for the authorisation of individual construction projects: planning certificate, construction permit, conformance certificate.

The territory of France is now far from being covered by POS, but almost all towns of more than 10,000 inhabitants have them.
It is not easy to draw a dividing line between planning on the one hand and

construction on the other, as both the planning code and the construction code both sometimes have the same provisions.

The planning code lays down **two major principles** at the outset:

o the principle of the reasonable use of French land which must govern the preparation of all planning documents,

o the principle of a prohibition on the development of land which is not covered by a local urban planning document.

In its statutory part (articles R III-1 to R III-27) it contains the text of the "**reglement national d'urbanisme**" (national planning regulations) which apply automatically to location, positioning and architecture if a commune has not approved a "**plan d'occupation des sols**" (POS) (land use plan) which can be cited in litigation (1).

This very severely restricts the right to build outside parts of local authority territories which have already been built up.

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(1) The provisions of the following articles of the national planning regulations apply whether or not there is a POS:

R III-2	(harm to public health or safety)
R III-3	(risks of flood, erosion, slumping, landslips, avalanches)
R III-4	(nuisances, in particular noise)
R III-14-2	(damage to the environment)
R III-15	(precedence of national planning directives)
R III-21	(appearance of buildings)

All these provisions may be used as a reason for the rejection of a construction permit.

RIII-14 (planning, reserves, charges, contributions payable in the event of the construction of buildings for use as housing).

It gives the simple "**cartes communales**" (local authority maps) prepared by some small local authorities, and the "**directives d'amenagement national**" (national planning directives) provisional status.

Still on the level of general land use regulations and planning code introduces:

o in article L III-2, the principle restricting access to properties adjacent to specialised transport routes (motorways, etc.).
o in article L III-3, the principle of **national construction regulations** applicable to **housing** only, and that of general regulations on **thermal insulation**, heating and air conditioning in all buildings,
o in article L III-4, the principle of the **exclusion** from government work of professionals who have transgressed the rules applying to planning and construction,
o in article L III-5, the principle of the issue of a **planning certificate** defining the right to build on any plot of land resulting from a subdivision,
o in article L III-6, the principle of prohibiting the **connection** of unauthorised buildings to electricity, water, gas or telephone systems.

2.6 - Subsidised rented housing

Assisted housing is a French tradition: assistance for buildings, assistance to individuals.

Assistance for buildings applies to both those who purchase new housing and organisations empowered to build and manage subsidised rented housing, the "low rental housing" organisations (HLM), which may be government offices or private companies.

Several hundred HLM organisations own some three million housing units which are rented to low income families. In addition to this there is considerable assitance for buildings, in the form of low interest long term loans for construction and subsidies for restoration and modernisation.

These organisations are goruped together in a powerful Union, which has a fundament part to play in construction, going well beyond just the rented housing sector.

3. CONTROLS

3.1 - Regulations

In their compulsory parts the housing regulations apply to:

o the construction of housing,
o fields in which the State has responsibility: individual safety, health and safety.

This is the theory. Practice is very much more complex, because the French authorities have always wished to go further:

o appropriateness of the object constructed for its intended use, in particular habitability,
o objectives to a greater or lesser extent dependent on current social, economic or technical policy,
o ministerial circulars associated with State credits or subsidies.

Knowing what is compulsory and what is not is itself a problem.

There are no clear and simple "building regulations" in France. Builders and lawyers have to find their way through a forest of statutory or quasi-statutory texts over and above the already imposing "Construction and Housing Code".

This situation is even more worrying as France is one of the countries in which roles and responsibilites are most clearly defined and separated in every construction operation.

Specifically, French construction regulations can be described by grouping their components into seven parts:

1 - provisions applicable to all buildings,
2 - thermal characteristics,
3 - tall buildings,

4 - buildings open to the public,
5 - general provisions applicable to housing,
6 - the acoustic insulation of buildings,
7 - minimum habitability standards for housing,

bearing in mind that other regulations are linked with the construction regulations: the mining code, historical sites and monuments, classified installations, Departemental sanitary regulations, while special regulations apply to the construction of housing which is financially assisted by the State.

Of course the construction of specialised buildings, schools, hospitals, prisons, etc., which are financed or subsidised by the State is also subject to special rules which will not be considered here.

Here then is a brief discussion of the seven parts which make up the construction regulations:

1 - The **"provisions applicable to all buildings"** do not form what might be called "general construction regulations", even when supplemented by parts 3, 4 and 5. They are included in both the planning code and the construction code. They form articles L III-1, 2 and 3 of the latter code:

o the **construction permit** (permis de construire) for all construction work, even without funding, and even applicable to government authorities,
o the "architects design" (projet architectural) prepared by an architect (with exceptions),
o prohibition of **connnection** to electricity, water and gas systems if construction has not been authorised.

2 - The **thermal characteristics** of "structures and premises of all kinds" apply to new or modernised buildings.

3 - **Tall buildings** (immeubles de grande hauteur) (IGH) cannot be put into service without prior agreement by the authorities responsible for police and safety, while the corresponding construction permits act as an

authorisation for occupation. The statutory part of the construction code defines and classifies these tall buildings (28 metres high, 50 in the case of buildings used as housing). It lays down many strict rules for construction and use.

4 - In the same way as the rules on tall buildings, those for **buildings open to the public** are included in both the planning code and the construction code: garages and car parks in particular are subject to these.

5 - Whereas it is not possible to speak of true national construction regulations in France, it can be said that there are "**national housing construction regulations**" which have their origin both in the planning code (article L III-3) and in the construction code (article L III-4).

The "general provisions applicable to housing" in the latter code include two other articles in addition to that article L III-4, one referring to the public health code (Departemental sanitary regulations), the other to the local authority code (buildings close to cemeteries).

As far as the regulatons included in article L III-4 are concerned, these take concrete form in the statutory part of the construction code (articles R III-1 to R III-19) which specifies the principles of the requirements which are extensively developed in lesser texts, orders and sometimes mere circulars.

6 - **Acoustic insulation** is a legal requirement for housing only, and the first purchaser has six months in order to evaluate this (article L III-II of the construction code).

7 - Finally an appendix to article R 322-20 defines the "**minimum habitability standards**" which specify for all housing, whether new or not, reasonable requirements for safety, healthiness and facilities, on the one hand for the building as a whole and on the other hand for housing units and even separate rooms.

3.2 - The construction permit

Some work or construction may undoubtedly be exempted from a construction permit "because of their nature or their small size" (article L 422-1 of the planning code), but in France the construction permit procedure has in principle applied throughout the country since 1943.

The permit is not "technical", in the sense that it is merely a planning policy measure and not a construction policy measure. Applicants undertake to comply with the construction regulations on pain of "subsequent" sanctions, only the planning regulations being checked "in advance" by the authorities.

Subject to the exemption specified in the statutory part of the code (articles R 422-1 to R 422-5) a construction permit is required for any construction, regardless of its location, its use or its owner.

There is some vacillation however over enclosures and alterations.

The local authority reform of 1983 in principle gives mayors the power to issue permits in the name of the local authority if this has an approved POS.

If there is no approved POS the construction permit is issued by a representative of the State in the name of the State.

As pointed out in the context of the general land use regulations in $ 2.5 above, a permit may be rejected, in particular if the authorities consider that the intended building will adversely affect health, public safety or the environment, or if its appearance is not satisfactory, or if there is a risk of flood, avalanche, etc., nuisance (noise, smell), or again if a national directive prevents it.

An **architect's plan** (projet architectural) specifying "by means of plans and written documents the location of buildings, their composition, their layout and an indication of their volume, as well as the materials and colours

chosen" must be appended to the application. This is prepared by an architect except in the case of buildings of less than 170 square metres (800 in the case of agricultural buildings).

This is the legal basis of the obligation to involve an architect, but only for the preparation of a kind of non-technical preliminary design, without any structural design.

A construction permit indicates compliance with:

- planning regulations,
- regulations for the protection of historical sites and monuments,
- the highway regulations,
- safety regulations,
- authority charges,
- protection of the public maritime domain,
- departmental sanitary regulations.

It does not indicate compliance with the rules applicable to classified, unpleasant or unhealthy installations (piggeries, chemical plant, etc.).

It is valid for two years.

Abusive resort to ministerial circulars in the matter of construction permits has sometimes been critised by the Council of State.

Very frequently, and particularly in local authorities of less than 50,000 inhabitants, it is the State's technical departments in the departements (DDE) which examine applications, even when the mayor issues the permit.

3.3 - Controls

The State does not in any way systematically monitor compliance with the various construction regulations, even those which are compulsory.

Certainly the requirements applicable to fire are very restrictive, but

nevertheless government authorities satisfy themselves with **spot checks**.

Thus 5% of new housing is subjected to inspection by the State's technical departments.

In general monitoring of compliance with construction regulations is the responsibility of prefects and mayors.

Officials may visit construction in progress at any time, carry out appropriate checks and be notified of all technical documents, even 2 years following completion.

None of these "government" checks detracts from the responsibility of builders who are involved in the design and construction of buildings.

In France, as in Belgium, there are **private** inspectors who to some extent offset the lack of governmental inspectors.

The law of the 4 January 1978 devotes its Chapter II to these **technical inspectors** whose task is to "contribute to prevention of various technical hazards in the construction of buildings".

A technical inspector, who is bound by contract to the client, may be called in:

o in the context of the decree of the 7 December 1978 making his involvement compulsory in certain forms of construction presenting special hazards to personal safety, and in particular in the case of tall buildings,
o when an insurer links his scale of premiums to the involvement of a technical inspector,
o or, or course, when a client so decides himself.

His task always involves at least problems associated with the soundness of the structure and the safety of individuals. The profession of technical inspector is incompatible with any task involving the design, construction or even expert evaluation of the structure inspected.

Technical inspectors must be approved by a committee set up by the State on the basis of their competence and their professional ethics. The cost of this work is generally of the order of 0.5 to 1% of construction costs.

Like the builders, technical inspectors incur the statutory ten year liability, and must be insured.

Technical inspectors are sometimes reproached, rightly or wrongly, for:

o restricting the authority of the project designer, through their mere presence,
o indulging in some formality and delaying decisions on site.

What is undoubtedly true is that there is no question that technical inspection is both necessary and useful in France and that this arises from a special situation which is undoubtedly regrettable, but which is a fact, and is marked by gaps in the jurisdiction of certain construction professionals.

The construction code provides for **criminal sanctions** whereby proceedings may be instituted against those who contravene the regulations in articles L III-4 (general construction regulations), L III-9 (regulations relating to thermal characteristics) and L III-4 (standards for gas, electrical, etc., equipment, and their operation and control).

It makes provision for the possibility of suspending work by legal means to "limit damage" and specifies the nature of criminal sanctions and fines.

4. CONTRACTS

In construction a distinction must be made between two categories of contracts:

o construction contracts, called "contrats de louage d'ouvrage" in the French Civil Code, which are entered into by a client (the "maitre d'ouvrage"), and one or more builders, contractors, architects or engineers, indicated by the term "construction professionals" (locateurs d'ouvrage)",

o development contracts and contracts for the sale of property which is yet to be built, which go beyond mere construction.

The contract known as the contract for the construction of private housing belongs to the first category.

Construction contracts entered into by government clients are themselves subject to two regulations:

o one, very general, included in the code of government contracts issued by the Ministry of Finance,
o the other, which is special to government construction contracts.

Contracts between government clients and architects, engineers and other designers are also governed by the code of government contracts.

The following subjects will be dealt with in turn:

- development and sale,
- the construction of private housing,
- the government contracts code,
- construction contracts,
- design contracts entered into with architects or engineers,
- acceptance of work.

To begin with, a word on those involved in construction.

4.1 - Those involved in construction

In addition to the client or developer, any construction operation requires the involvement of several types of construction professionals:

- architects, engineers, technical design offices, and construction economists, during the **design** stage devoted to preparation of the project design (plans and specifications),

- contractors, suppliers and subcontractors, during the **construction** stage, under the twofold control of the **project manager** (maitre d'oeuvre) (an architect or engineer) and the technical inspector.

Coordination of the work is the responsibility of the principal contractor, or the project manager, who is then also the **site manager** (maitre de chantier).

If the client does not have the necessary competence he will, particularly in the public sector, have recourse to an experienced **project manager** (conducteur d'operation), generally a government technical department acting in a similar way to an Anglo-Saxon "project manager".

There are no "house-builders" in France, only "builders of private housing".

4.2 - Development and sale

Before examining the construction contracts which are entered into between a client and one or more builders, it is essential to point out what the contractual responsibilities are in two important special cases:

o property development contracts,
o contracts for the sale of a building which is yet to be built.

This is not a question of examining the way in which **property associations** (societes civiles immobilieres), which are set up with a view to selling buildings or allocating buildings to associates in subdivided fractions, and

are governed in accordance with the provisions of chapter 1 of book II of the construction code, are set up and operate. These associations, which publish their accounts, were set up by two laws, one of 1971, the other of 1972, with the intention of establishing a system for strengthening the legal protection of those purchasing property, in particular those purchasing housing in the form of flats.

A **property development contract** is a common interest **mandate** through which a person called the "contracted developer" (promoteur immobilier) makes an undertaking to a client to build a building for an agreed price.

As a paid agent the contracted developer takes a risk because he has a duty of result with respect to his client, in whose service he places his legal, administrative, technical and financial skill.

The corresponding provisions of the civil code, which are optional, are reproduced in the construction code.

If property development is intended for the construction of **housing** then provisions L 222-1 to L 222-6 of the construction code are contrary to law.

Article 222-3 in particular specifies the compulsory contents of any contract of this kind, namely: the nature of the building, its price, its financing, its delivery date, and the remuneration of the developer and the guarantee which he provides.

Very, if not too favourable to the client, this type of contract is little used in practice as the return/risk ratio for the contractor is low.

In the case of a contracted development contract it is the client who finances the operation. This is not the situation in a contract for the sale of a building which is yet to be built.

Contracts for the sale of buildings yet to be built were subjected to regulation in 1954 and then on several occasions since until 1967, in order to take into account the development of "**sale from plans**".

These regulations include duties to which penal sanctions apply. They specify special rules for acceptance and warranty when the sale relates to a building intended for housing.

The sale may be concluded "on completion" or "in anticipation of completion". In the first case payment and the transfer of ownership only take place on the date of the certificate of completion. In the second case payment and transfer follow the construction process, but the vendor nevertheless remains the client until the date on which the work is accepted.

The vendor is responsible for "visible defects" until the last day of the month in which the purchaser takes possession of the building. The purchaser only has a short period, one year at the most, to go to court.

As will be said in the next section, the vendor of a building which is yet to be built is liable in civil law to the purchaser for two years after acceptance in respect of some forms of damage, and for ten years in respect of major damage only.

With respect to the sale of a building intended for **housing**, a contract is void if it fails to conform to articles 1601-2 and 3 of the civil code and articles L 211-11 to 16 of the construction code.

4.3 - Contracts for the construction of private housing

The attraction of a private house for French people has resulted in the government authorities setting up regulations for such contracts, which are "construction" contracts, unlike the development and sale contracts considered above.

These regulations are strict because they form a part of statute law.

Difficulties arise in setting limits to their application.

The main characteristics of these contracts are as follows:

o they are not conventional construction contracts because in this case the builder offers the client a plan,
o they are nevertheless construction contracts because the builder is made responsible for carrying out the work,
o in these cases a builder does not purchase the land, as in the case of a contract of sale,
o in practice builders often take responsibility for legal, administrative and financial formalities as in the case of a development contract,
o if the construction permit is rejected, or if the State-assisted loan is not granted, the client owes the builder nothing.

Articles R 231-1 to R 231-15 of the statutory part of the construction code, and article L 231-1, which specify the contents of this very special type of contract, are provided as an appendix.

4.4 - Government contracts code

The government contracts code is a text which applies to all orders given by the State, local authorities and some of their public establishments.

It is prepared by the "central contracts committee" which comes under the Ministry of the Economy and Finance.

It is a document of 377 articles whose implementation is the subject of a large number of instructions.

The code is not an operational text, but a legally inspired text which is divided into four parts:

- book I general
- book II state contracts
- book III local authority contracts
- book IV coordination of orders.

The provisions of the code deal with both the award and the performance of contracts.

A constant concern of government authorities in France is to succeed in paying contractors within a period of 60 days.

Another concern, reflected in law 75-1334 of the 31 December 1975 on **subcontracting**, appended hereto, is intended to compel principal contractors to act loyally with respect to their subcontractors and to provide the latter with the option of being paid directly by the client when they have been been approved by the latter.

Articles 75 and 273 make contractual reference to certified French standards compulsory. On this subject see the circular of the 4 July 1986 on **technical standards and specifications** in public contracts, which also make the various "general technical specifications" contractual documents, but leave the door open to exceptions.

The circular of the 30 October 1980, amended on the 5 October 1987, concerning prices **in government contracts**, of which only the contents list is appended hereto, is also of general practical interest.

Articles 112 and 113 of the code state that there are four **specifications** in France:

- CCAG (clauses administratives generales), general administrative clauses,
- CCTG (clauses techniques generales), general technical clauses, approved by decret,
- CCAP (clauses administratives particulieres), special administrative clauses,
- CCTP (clauses techniques particulieres), special technical clauses, drawn up by government purchasers.

The warranties required from those awarded government contracts form the subject of chapter II.

4.5 - Construction contracts

These are subdivided three ways: government contracts and private contracts, building and civil engineering, State and local authorities.

In the case of **private contracts**, there is a French standard NF P 03-001 which takes the form of a CCAG applying only to building contracts.

Although certified, this standard is never used by government purchasers. In its form and in its substance it differs from the CCAG applicable to the State's **government contracts** for works approved by the decret of the 21 January 1976 and subsequently amended 4 times (1).

The "private" CCAG contains 20 articles, the "public" CCAG 50. Both refer to the CCAP and CCTP, but only the government CCAG refers to the CCTG.

The CCTG, which is therefore "governmental", consists of a collection of technical documents which are not standards, a list of which is published every year by the Central Contracts Committee.

Private contracts make use of "special clauses" (cahier des clauses speciales) and an "estimate" (estimatif), "technical clauses" (cahier des clauses techniques), a "situation statement" (etat de situation), etc., all concepts which are unknown in government contracts.

There is a **guide** to government contracts, which has no statutory force, which is intended to help a chronological approach to the system: preliminary studies, tendering, award of work, construction.

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(1) There is also a "works" CCAG for local authorities, but it is now out of date.

Finally, for government contracts there is a trio of **standard documents**:

- reglement particulier d'appel d'offres (RPAO), the special regulations appliable to tendering,
- clauses administratives particulieres (CCAP), the special administrative clauses,
- the acte d'engagement (AE), which has the force of both a "tender" and an "agreement".

These standard documents exist in three forms: full, simplified (A), and highly simplified (B). Variants exist for building work in separate lots and for works for governmental low rental housing offices.

The lack of equivalence between the government and private sectors has thus resulted in a great variety of contractual documents.

4.6 - Design contracts

Any contract entered into between a government purchaser and an architect and engineer is a design contract in the sense of articles 107 (state) and 313b (local authorities) of the government contracts code.

These contracts are called "master contracts" (de maitrise d'oeuvre) when their purpose is to obtain an "architectural, technical and economic response to a programme laid down by the client" as stated in the "MOP" law of the 12 July 1985.

This law, which has not yet been fully applied, compels government clients to use only certain procedures.

It thus reduces the range opened up by the decret of the 28 February 1973 on "engineering and architectural tasks".

The principles and the approaches in this decret, appended hereto, are widely known in France and some foreign countries. They have the special feature that they link the project designer's remuneration to compliance

with the **planned cost** (cout d'objectif) of a structure designed and supervised within the context of a supervisory task.

In the case of major operations they provide an opportunity for competition between a few designers without incurring the wastage of "competitions" which involve dozens or hundreds of designers.

Standard documents (RPAO, CCAP, AE) are in existence for these contracts. The transition from the decret of 1973 to the law of 1985 has not yet been completed.

4.7 - Acceptance of work

It is not contract but the law which specifies the acceptance of work, whether building or civil engineering work.

Article 1792-6 of the Civil Code lays down that acceptance is an absolute act. It signifies acceptance of the work, with or without reservations.

Given by the client in the presence of duly assembled contractors, with the involvement of both parties, it is the starting point for the "**warranty of proper completion**" (garantie de parfait achevement) which applies for **one year** to "contractors" only.

Any "problem" reported by the client either in the acceptance report or subsequently, but within the period of one year, must be repaired within a period determined by joint agreement.

It is during this period of one year that any defects in acoustic insulation in particular must be made good (1).

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1 - on this subject see what is said in $ 3.1 above (Regulations).

Given its legal importance an acceptance report must be prepared with the greatest care, which is unfortunately not always the case - no formal statement of reservations for example.

Acceptance has an exoneratory effect with regard to visible defects which are not the subject of reservations, whereas the contractual responsibility of ordinary law continues to apply for certain hidden defects after acceptance.

French jurisprudence places strict limits on the concept of visible defect.

A defect is visible if it can be detected by a layman.

Conversely a defect is hidden if:

- either the causes of the problem could not be determined at the time of acceptance,
- or if the serious consequences for the soundness of the structure only appear after acceptance.

In other words all defects are presumed to be hidden unless proven otherwise.

The following are appended hereto:

- articles 14 and 15 of standard P 03-001 which deals with acceptance and proper completion,
- articles 41 to 45 of the "State" CCAG which deal with acceptance, partial acceptance, handing over, contractual warranties and responsibilities "resulting from the principles underlying articles 1792 and 2270 of the civil code".

Some jurists say that, unlike ten year liability, acceptance such as defined by the law of the 4 Janury 1978 and considered in the following section, is not a matter of law and can therefore be amended by contract.

This has not been the practice so far.

The civil courts have recently accepted the principle of simple tacit acceptance, in particular in cases where the occupant takes possession.

Acceptance signifies, among other things, transfer of custody of the property from the contractor to the client.

Its date also marks the start of the three warranty or liability periods: proper completion, and the two and ten year warranties.

Finally it should be noted that in France use is rarely made of the complicated provisions of article 2103 paragraph 4 of the Civil Code which allows contractors, architects and other builders to obtain priviledged rights over the assets of a client to their own benefit.

5. LIABILITIES

5.1 - General discussion

Without mentioning penal liability, a contractor has a threefold liability:

1 - **contractual** liability, which has many aspects, and which does not necessarily terminate when work is accepted,
2 - liability to **ordinary law** (where fault is proven), with respect to third parties, but also with respect to the client for 10 years following the occurrence of damage, exclusive of the following,
3 - **special** liability (ten year liability) of builders, codified by Napoleon and amended to a greater or lesser extent over the last two centuries, without it being possible to say whether ten year liability is an extension of contractual responsibility or a modification of legal liability.

In France, as in many countries in Europe, the system of the **special liability** of "builders" was introduced into the Civil Code almost two hundred years ago.

Here is the text of the famous articles 1792 and 2270 of the Napoleonic Code, now amended, which had the merit of simplicity.

Article 1792 - "If a building constructed for an agreed price collapses wholly or in part through a defect in construction, even through a defect in the ground, architects and contractors shall be liable for ten years."

Article 2270 - "After ten years, architects and contractors shall be discharged from providing a warranty for major structures which they have built or supervised."

The requirement for a "construction **contract**" in order that these articles should apply resulted in the "vendor" always escaping them, whereas "**constructors**" other than the architect and contractors, engineers, surveyors, etc., could be subject to them.

French judges, and then legislators, considered that there is a **presumption** that the builder is liable.

These clear concepts are countered by the vagueness concerning the concept of buildings, major structures, collapse, problems, etc., which caused French legislators to introduce the concept of a **two year** warranty for "minor work" and to subject **vendors** to the ten year warranty in the 1967 law.

More even than in other countries, the delay in obtaining a ruling through litigation, which is sometimes as much as seven years, was felt to be intolerable soon after this law was published.

Too many builders without insurance, too much time lost in establishing responsibilities resulted in repairs of "defective" structures dragging on to the exasperation of the "injured parties".

The **law of the 4 January 1978**, which was voted unanimously, in addition to altering the system of responsibilities is marked primarily by the institution of a system of **compulsory insurance**.

The full text is given as an appendix.

Three warranties begin from the date of acceptance, which is itself defined by the law:

- the **warranty of completion** (garantie de parfait achievement) (1 year),
- the **warranty of satisfactory performance** (garantie de bonne fonctionnement) (2 years),
- the **ten year liability** (responsible decennale) which is guaranteed by the compulsory insurance.

The content of the one year warranty has already been examined when considering acceptance of work.

What about the contents of the other two?

5.2 - Ten year liability

Established by articles 1792 and 1792-2 of the Civil Code, this enshrines the principle of the "**presumption of liability**", which is thus a matter of law and cannot be amended by contract.

In other words a client does not have to prove fault by a builder in order to request repairs.

Builders, who are presumed to be liable for damage affecting a structure, can avoid liability by providing proof that the damage arises from "extraneous causes".

Articles 1792-1 et sequenter list the **builders** and other responsible parties who are subject to the ten year warranty:

- architects, engineers, contractors, technicians or other persons linked to the client by means of a construction contract (1),
- the vendor of a building which has been built or which is going to be built, and in particular the builder of a private house,
- an agent such as a "contracted developer".

Article 1792-4 includes manufacturers or importers of "components" (not linked to the client by a construction contract) in the list of builders considered jointly with the above, whereas "technical inspectors", who are entrusted with a preventive task, are also builders with liability for 10 years under the terms of article 9 of the law.

The ten year liability applies not only to new construction, but also to repairs, renovation work and other restoration of old structures, whether buildings or civil engineering structures.

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(1) - But not the subcontractor of a contractor or architect.

It applies to the **components** making up a structure and some components of the structure's equipment:

Components include: the service systems for a structure, its foundations, its framework and what the French call the "enclosure" (clos et le couvert).

Only items of equipment which are "indissociably" linked to components are subject to the ten year warranty.

The law does not provide a precise definition of these items of equipment. It merely defines the concept of indissociability.

As regards the **damage** which may give rise to the presumption of a builder's ten year liability, what does this entail?

First of all anything which compromises the **soundness of a structure**, or which renders it **unsuitable for its use**, regardless of the location of the damage within the structure as a whole.

Secondly, anything affecting the soundness of a component or an "undissociable" item of equipment.

In practice it is the physical nature of the damage which is or should be used to determine whether the ten year guarantee applies or not.

It is no longer the structure, large or small, which has to be considered in order to know whether two year or ten year liability applies, as it used to be, as jurisprudence has created the concept of "intermediate damage", rather as in the German system.

5.3 - The warranty of satisfactory performance (or two year warranty)

For a **minimum** period of 2 years under the terms of article 1792-3 of the Civil Code, this "warranty" is due by all builders subject to the ten year warranty.

It applies only to "dissociable" items of equipment.

Also this equipment must relate to the building itself, to the exclusion of domestic equipment and other machinery.

If an item of equipment, even if "dissociable", is the source of a problem which is harmful to the soundness or suitability of a structure, then the ten year warranty applies and not the two year.

In practice, this means that an error by any specialist or subcontractor may result in the two year or ten year liability of those involved being invoked.

5.4 - Coexistence of the three warranties in the law of the 4 January 1978

When a building suffers problems following expiry of the warranty period of one year, called the warranty of proper completion, difficulties can arise in the application of the law.

If no **reservation** was made by the client concerning the component of the structure in question, then there is no difficulty, the ten year warranty can apply, provided that the defect is not a "visible defect".

If on the other hand the component gave rise to a reservation, either in the acceptance report, or during the period of one year following the date of acceptance, then only contractual liability can be invoked.

The same applies for problems affecting "dissociable" items of equipment which are not subject to the ten year warranty but only to the generally two year warranty of satisfactory performance.

If for example an interior door no longer works and has to be replaced 18 months after acceptance, after being the object of a reservation at the time of acceptance, and if it is not possible to invoke the warranty of satisfactory performance then an attempt must be made to invoke the builder's liability in ordinary law!

It is reasonable to ask whether a simpler system, making proper completion and satisfactory performance a single entity, would not be more tractable.

It may be said that the French warranty of proper completion is of a contractual nature, whereas the warranty of satisfactory performance is of a legal nature (1).

"As a counter" to his burdensome ten year liability a builder can only have judgement given against him in respect of his thirty year liability in ordinary law for a minor hidden defect which does not imperil either the soundness or the suitability of a building for its use.

Failure to comply with "good practice" (DTU, etc.) cannot be invoked more than ten years after work has been accepted. The law of the 4 January 1978 voids builder's liability in this respect.

On the other hand failure to comply with "contractual obligations" can be invoked after ten years if it is proven.

Again it is necessary that the fault in construction should not have been visible at the time of acceptance.

5.5 - Liability of project designers

Even before work starts a project designer is responsible for the "architectural design" appended to applications for a construction permit.

While work is in progress his responsibility depends on the extent of the task which has been entrusted to him:

- a simple design task
- or a supervisory task, including design and "supervision" of the work.

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(1) In Great Britain the NHBC provides a single contractual warranty for 2 years for any defect after acceptance, whereas in Italy this 2 year period forms part of the legal warranty for which the contractor is responsible.

In France contracts between architects and clients are frequently entered into in the context of the decret of the 28 February 1973 which specifies the tasks and remuneration of designers:

- tasks m1, m2, m3 (supervision),
- tasks m6, m7, m8 (design).

The task of supervision does not in any way compel the architect to "supervise" work which attenuates his responsbility over the progress of work on site.

Things are different when in the context of the abovementioned decret the architect has a task of site supervision which also includes the scheduling and control of works.

5.6 - Liability of subcontractors and suppliers

Even under the law of the 31 December 1975, an "approved" subcontractor benefiting from direct payment would not have his liability invoked with respect to the client:

- neither was contractual liability, because there is no direct contract,
- nor the ten year liability, for the same reason,
- nor even the possible 30 year liability in ordinary law.

It is the person to whom the construction contract is awarded, the builder or main contractor, who is and remains the only person who is liable to the client.

On the other hand a subcontractor as a heavy duty of result with respect to the principal contractor.

Relationships between principal contractors and subcontractors are always difficult to determine reasonably, or as the English say "fairly". It is in the contract entered into between the principal and the subcontractor that the latter provides his warranty and takes out liability insurance on a

voluntary basis.

In the French system, a supplier's liability differs depending on whether the product sold is a component or a material.

o If it is a **component***, then liability is according to ordinary law when fault has been proven, or contractual with respect to the contractor, but it is also for ten years by virtue of article 1792-4 of the Civil Code with respect to the client.

The manufacturer is then, jointly with the contractor, subject to the presumption of liability if a product is the cause of a problem affecting a major component of a building.

o If it is a **material**, there is no ten year liability, but a **vendor's** ten year liability after delivery (ordinary law).

The distinction is very difficult to operate. A circular of the 21 January 1981 quotes two components:

- technical units, for example, sanitary units,
- window units and frames,

and provides a list of 4 conditions under which article 1792-4 may apply.

Judges have to make difficult decisions in this respect.

In the case of any construction product a contract of sale always provides the opportunity for claiming a warranty from a supplier, even in the event of acceptance without reservations on delivery.

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* An "EPERS: a component which may invoke the joint responsibility of the manufacturer and contractor.

If for example a supplier states that a facing product is satisfactorily strong, is weatherproof and will not craze, he may have judgement given against him for non-compliance in respect of the contract of sale.

6. INSURANCE

6.1 - Principles

In France, as elsewhere, there is "all risks" insurance and liability insurance which covers risks during and after the construction period. This subject will not be considered below so as to focus attention on the features which are original to France.

Before the 1978 law only architects were obliged to obtain insurance for professional liability.

Restricted to building work, the French post-construction insurance system is now **"double barrelled"**.

It requires compulsory insurance:

- for the **client**,
- and for every **builder**, provided that he is bound to the client by a construction contract.

The former compulsory damage insurance is often called "structure damage".

The compulsory insurance covers only ten year liability and not the warranty of satisfactory performance.

There is no legal definition of what building work is.

The concept of building can be established by default by reference to the circular of the 5 April 1979 by the Minister for the Establishment and a COPAL recommendation, which provide a list of civil engineering work.

The French system is directly inspired by the philosophy of the 70s, which was very favourable to the consumer, who is assumed to be incompetent and poorly informed.

6.2 - Insured parties and compensation

Who should be insured?

First of all the **client**, who gives orders to builders.

This is either the owner or the vendor of a building which has been built or is going to be built.

It is also, by extension, the contracted developer, even though he is an agent.

Owner, vendor, developer, all must take out structure damage insurance.

This obligation does not exist for what is called in France a "builder of private houses", who can be likened to an industrialist and who must include compulsory structure insurance in the contract entered into with his client.

There is no penal sanction, and therefore effectively no direct protection for a "small client" who, having decided to become a builder has a house built for himself or a member of his family by one or more contractors and omits to take out an insurance policy.

This duty of obtaining insurance is equivalent, for the insurer, of a duty to insure. As in the case of other risks which are subject to compulsory insurance the law has made provision for a Central Tariff Office (Bureau Central de Tarification) in particular to decide disputes relating to rejections of warranty and premiums.

Any builder who is bound to a client by a contract commissioning construction work must also insure himself.

Before beginning work on a site this builder must have insurance covering his presumed liability in accordance with articles 1792 and 1792-2 of the Civil Code. See section 5 on liabilities.

This obligation persists even when the builder is the State, in other words when the State is itself a contractor, designer, vendor, developer, etc., on behalf of others.

It applies to the manufacturers of components and technical inspectors, even though the former are not bound to the client by contract.

The principle of the system is to provide insurance against **damage**. What damage?

Compulsorily, the damage for which builders are legally liable for ten years, but not that which lies within the scope of the two year warranty of satisfactory performance, in article 1792-3 of the Civil Code.

6.3 - Operation of the system

How does the system work in practice?

Through the juxtaposition of two types of insurance policy, one for damage, the other for liability.

a) **Policies providing insurance against damage** have standard clauses. Their function is to guarantee that work for the repair of damage according to articles 1792 and 1792-2 of the Civil Code only will be paid for, without determining liability.

Finance for the repair of serious problems arising during the 9 years following the proper completion period is thus covered.

For problems of the same nature a warranty is also provided during the year of proper completion, but only after approaches to the contractor have been fruitless.

Cover is still more restrictive prior to acceptance, because it only applies if a construction contract is cancelled after a claim has been made to no avail. Under no circumstances therefore does it act as insurance for

satisfactory conclusion intended to protect the insured against the risk of a builder going bankrupt.

Excesses must never be agreed, even as a counterpart for a reduction in premiums.

Premiums are often paid in a single lump sum before work begins on site. They cover any successive owners, including the first purchaser in the case of sale on the basis of plans.

b) **Liability insurance policies** also have standard clauses. They provide a warranty for the presumption of ten year liability, including cover for tasks or work which is subcontracted.

These policies are generally taken out against annual premiums. They always include an excess which cannot be applied to third parties.

If damage occurs

Obviously it is the damage insurance policy which first comes into play as soon as the beneficiary of the warranty declares the loss to the insurer.

An expert appointed by the insurer produces two successive reports and the insurer has 60 days in order to provide a ruling in principle on his guarantee, and then 45 days to offer compensation. This period runs from the date of acceptance of the insured's claim by the insurer.

It can therefore be said that both insurer and insured have 30 days in which to come to an agreement.

In theory therefore damage is compensated for in less than **5 months**, unless it is technically difficult to repair.

In practice some insurers may be tempted to use their legal skills to delay expert examinations and a ruling.

One difficulty in the system was the possibility open to the insurer of invoking the non-existence of a structure or of a part of a structure in order to refuse to cover the insured.

After compensation the insurers try to act quickly. Damage insurers and liability insurers have recently concluded an agreement designed to ease the settlement between themselves of losses not exceeding 100,000 ecus.

Responsibilities are provisionally shared and settlement can be made quickly on the basis of a scale pending a subsequent amicable or litigious sharing of responsibilities.

It is very difficult to give a reliable indication of the cost of the system for the client.

It would seem that now, after the system has been in operation for several years, competition has really come into play between insurers and technical inspectors.

The orders of magnitude are as follows, as a percentage of the cost of the work:

- damage insurance 0.5%,
- liability insurance 2.0%.

This is not to take into account the technical inspector, who costs less than 1%.

The **single site policy** (Police unique de chantier, PUC) is a new "product" which has recently been offered by the insurers at the request of the government. It combines together the client's damage insurance and the ten year liability insurance of all builders and other manufacturers.

It has already resulted in and should result in a further fall in liability insurance rates, even though some insurers are still a long way from promoting this. Always taken out on an individual basis for a single site,

these policies have similarities to Belgian insurance-superintendence. Particularly suitable for large sites, such as the Arche de la Defense to the west of Paris, such policies could be adopted within the context of European harmonisation.

6.3 - Texts on construction insurance

Here is a list of texts implementing the law of the 4 January 1978:

o the decret of the 17 November 1978 implementing chapter III of the law on the compulsory insurance of construction work: exceptions, the role of the "Central Tariff Office",
o the arrete of the 17 November 1978 in implementation of article L 243-8 of the Insurance Code: compulsory standard clauses for damage insurance and liability insurance policies,
o the arrete of the 7 January 1987: standard clause on the failure of builders,
o the arrete of the 16 August 1984: standard clause on expert evaluation in damage insurance,
o the circular of the 5 April 1979 applying to government contracts in law: special warranties for weatherproofing and painting, list of civil engineering structures, subcontractor insurance, etc.,
o the circular of the 21 January 1981 on the "factors" which might result in "joint liability" of manufacturers and contractors (EPERS),
o the circular of the 10 June 1986 on damage insurance for buildings ordered by local authorities.

6.5 - Financing and the construction insurance market

The decision taken to finance construction insurance not by apportionment but by **capitalisation** from 1983 onwards met the desire for better protection of the insured (in the event that a builder ceases to exist) and better competition between insurers (1).

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(1) Because of this new method of managing construction insurance those insured are certain of being covered for ten years.

It has resulted in the setting up, through the financing law of the 28 June 1982, of the **"fund for compensation for construction insurance risks"** (fonds de compensation des risques de l'assurance-construction) whereby the risks inherent in the old procedure can be financed, any gaps in the new procedure can be covered and work to prevent problems and promote quality can be initiated.

Managed by the Caisse Centrale de Reassurance (Reinsurance Central Fund), this fund is essentially supported by those insured under the new system, whose premiums have been increased by 8.5% if they are small craftsmen and by 25,5% if they are clients or other builders.

This increase represents a tax of a fiscal nature collected by insurers and then passed on to the Public Treasury.

A decret of the 30 December 1982 specifies the manner in which this fund operates during a transition period between the old "apportionment" system and the new "capitalisation" system.

Now financially realistic the new system may be is still unknown.

There is no doubt that the French system obviously results in insured parties declaring a great many instances of damage: several tens of thousands over a year.

The construction market remains small for the insurance profession:

- 1% of insurance turnover,
- according to a frequently quoted estimate, 50% of new buildings avoid compulsory insurance.

The three thousand million Francs of the annual construction insurance turnover is made up as follows: about one thousand million for structure damage and two for ten year liability.

6.6 - Construction quality

6.6 - Construction quality

Better construction quality would not only reduce these three thousand million, but would make savings three or four times greater still through improving quality.

The Agency for the Prevention of Defects and the Improvement of Construction Quality (Agence pour la Prevention des Desordres et l'Amelioration de la Qualite de la Construction) groups together all the major professions involved in construction.

Its prime objective is to reduce the number of defects in the construction of buildings.

It is still necessary to know what these defects are, their nature, origin, cause and frequency, and to be able to warn builders quickly about serious technical hazards.

For this purpose the agency has set up an enormous system for the collection of information (SYCODES), which has been in operation since 1986, and has already suceeded in analysing more than 50,000 problems after being in existence for two years.

The French system for compulsory insurance for everyone gives special force to codes of good practice such as DTU and standards.

Insurers and technical inspectors sometimes refer to them to the letter. This situation is not without its disadvantages.

There are many in France who consider that work should be done to adapt, simplify, update and **internationalise** DTUs.

The arrete of the 7 January 1983 by the Director of Insurance concerning compulsory standard clauses applicable to liability insurance contracts (appendix 1 to article A 241-1) stipulates that "an insured party loses all right to a guarantee if he inexcusably fails to comply with good practice as

defined by the regulations in force, DTUs or standards specified by the relevant official organisations or in the construction contract in question. In application of this "insured party" should be taken to mean either an individual subscriber, or the head of a company or the company's legal representative in the case of a company registered in the list of companies, or the legal or duly empowered representatives of the insured when the latter is a corporate body. Such loss of rights cannot be applied to the beneficiaries of compensation".

This clause has given rise to considerable concern because there is a proliferation of standards and the DTU are full of detail and variety. This being the case who would not be at risk of being in default and likely to lose his rights?

This raised difficult questions of principle: standards do not guarantee satisfactory performance, they merely provide a reasonable precaution.

In addition to this they must be of excellent quality so that they do not act as a brake on developments, and must be regularly updated.

7. PROBLEMS

The system can raise questions and problems at the same time.

First of all compulsory insurance for the construction of buildings.

Will it be possible to maintain such a constraint in France, in the heart of the European Community, even for private sector operation?

An initial situation report can be made, emphasising its positive aspects, expressing some concerns and asking questions.

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* *

Above all it should be emphasised that the French system of liability and insurance was adopted unanimously by Parliament in 1978 following long reflection and thorough investigation.

The official report had revealed serious dissatisfaction on the part of clients and caused considerable concern to government authorities. Action had to be taken.

On the whole the situation was reorganised six years ago and this is to the credit of the system.

Despite its cost it provides satisfaction to most purchasers of buildings.

In the eyes of the insurers, and probably also the insured, French law therefore has some **positive aspects.**

There is no doubt that the French system is logical and consistent, because with compulsory insurance ten year liability becomes a true ten year warranty for buildings, although limited to major damage only.

It is true that the compulsory insurance which applies to builders,

including component suppliers, and in practice all builder's subcontractors, spreads the economic burden of any loss widely.

It is also true that some conflicts between purchasers and builders have disappeared, because for example the purchasers of new housing are aware that all builders, who are obliged to take out damage insurance for ten years, are selling both the housing and coverage in the event of problems.

The considerable speeding up the payment of compensation in the event of loss is also positive, because instead of lasting for sometimes 7 years the compensation period is 5 months if all goes well, i.e. if the damage insurers play fairly with the insured owner.

On the other hand insurers may express **some fears**, which may be shared by those taking out insurance in the future.

One of these concern the number of cases of litigation and the level of premiums. Will premiums, which are paid once only and for ten years, be sufficient to pay for all future losses?

Another fear is concerned with the development of jurisprudence. The 1978 law is recent, it profoundly alters old concepts such as major structures, defects, etc., and introduces new ones such as factors, suitability for use, damage, etc.

Finally, other arrangements might be considered:

o Some clients would like insurance for 2, 5, 10 and 20 years, for example.

o Combination of the two warranties, the one year warranty for proper completion and the two year warranty for "dissociable" components, which are not in fact covered by compulsory insurance, into one warranty.

o Not to reduce protection for small clients, who can now decide whether to take out insurance or not, whereas large clients have no choice.

o Revision of the conditions of insurance for component manufacturers and subcontractors of the principal contractor who are "approved" by the client.

o Abandoning the fragmentation of civil liabilities and liability insurance and regrouping them as in Italy or Holland so as to encourage self-supervision.

In the next few years, in France as elsewhere, the desire for quality must be prevalent.

In the immediate future preventive action should be taken. Only an appreciable improvement in results would bring about a consensus in favour of lightening the burden of liabilities, waranties and insurance.

8. APPENDICES

List of the appendices which will be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - Extract from the Construction Code (technical inspection).
2 - Contract for the construction of a private house.
3 - Law 75-1334 of the 31 December 1975 on subcontracting.
4 - Circular of the 4 July 1986 on technical standards and specifications.
5 - "Government" CCAG for works.
6 - "Private" CCAG for building (standard P 03-001).
7 - Standard documents (government construction contracts).
8 - Articles 41 to 45 of the "government" CCAG for works.
9 - Articles 14 and 15 of the "private" CCAG" for building.
10 - Decret of the 28 February 1973 (engineering and architecture).
11 - Law no. 78-12 of the 4 January 1978 on liability and insurance in the field of construction.
12 - Documentation from the "Mutuelle du Batiment".
13 - General conditions for liability insurance.
14 - Documentation from the "Mutuelle des Architectes".

6 - Greece

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1. INTRODUCTION

As will become clear in the following and very incomplete brief description, in Greece it is a particular individual, the civil engineer, who lies at the centre of system.

Architects have a limited place within the powerful "Greek Technical Chamber".

The obligations of contractors in respect of government work and private work are very different.

Some principles concerning the warranty period are similar to those in the German system.

Finally it should be noted that the boundary between exercise of the profession of civil engineer and activity as a contractor is not clear-cut.

2. CONTEXT

2.1 - Territorial structure

In this country of 10 million inhabitants, where the mean income per inhabitant was of the order of 3,800 US dollars in 1984, **territorial organisation** is marked by:

- o the importance of the capital, where one third of the country's population lives,
- o the existence of 50 departments administered by prefects,
- o the large number of local authorities, about 5,000,
- o the grouping of departments into recently created regions.

Local authorities provide the framework for government action, but do not always have the necessary facilities.

These authorities are "municipalities" if they have more than 10,000 inhabitants, otherwise they are mere "communities".

The Greek regions, which have no tradition, have a sort of regional council, but currently only few facilities.

2.2 - Main organisations

The Ministry for the environment, planning and public works, which in 1987 itself included two general secretariats and one special secretariat, is responsible for planning and construction.

There is an office of the ministry of public works in every town.

The **Greek Technical Chamber**, which has its office in Athens, has outlying sections in several regions of the country.

Set up by presential edict 2711/1926, it represents all branches of graduate engineers and architects and grants licenses for professional practice.

Anyone who wishes to practice must therefore be a member. The chamber is a corporate body in law, and for sixty years has acted as the **State's offical technical adviser.**

The CTG has drawn up a code of duties and has a disciplinary council.

The professional titles of members of the GTC have been protected since 1930. Membership of the GTC is obtained on graduation.

2.3 - Legal basis

The Republic of Greece has a **civil code** and a government contracts code. Here are some essential texts relating to construction and planning.

- o presidential edict 2711/1926 (creation of the Greek Technical Chamber),
- o law 4663/1930 (recognition of degrees and protection of title for all members of the Greek Technical Chamber),
- o G.O.K., (the State's general construction regulations of 1973),
- o law 696/1974 (regulations on the performance of public works),
- o law 716/1977 (regulations on the award of public works),
- o presidential edict 723/1979 (permanent arbitration for technical disputes).

3. CONTROLS

3.1 - Principles

Various laws and edicts, which are generally applicable, relate to safety on sites, scaffolding, gas installations, etc.

There exist national regulations on construction and planning in Greece.

All "municipalites" of more 10,000 inhabitants have a structure plan, whereas some "communities" of more than 500 inhabitants also have one.

Planning legislation gives rise to abuses however because controls are inadequate.

Thus there is no examination of land ownership and in addition to this in some parts of country there is even no land register.

On the other hand the authorities normally carry out checks, which are made at the "planning office".

Every "**classified**" town and village, and there are many, benefits from proper architectural controls exercised through a permanent special committee.

In principle the authorities only have to ensure that planned structures show no risks of being unsafe or no risks of nuisance to others.

3.2 - Construction permit

An application for a construction permit may be signed either by landowners or by builders, but in all cases it is civil engineers who sign all plans and design notes for structures.

Architects can only sign design notes for relatively simply buildings.

If the volume of a building exceeds 3,000 cubic metres the design note must carry two signatures, one of whom must be a specialist engineer.

In the case of private projects it frequently happens that no full structural design is made and the local authorities satisfy themselves with a check on the design assumptions.

3.3 - Controls

The controls operated by local authorities are theoretically the same whether government work or private work is involved, but in practice as the departments of the ministry control their own work the role of the local authorities is only formal.

Controls normally apply not only to compliance with planning regulations but also sometimes to conformance with technical regulations.

Only after a construction permit has been issued can the construction contract be entered into. The civil engineer can then himself become the principal contractor, the recipient of the construction contract, which is frequently the case in regions with few facilities and for projects of minor importance.

Civil engineers are therefore responsible for construction under public control.

Local authorities can in theory suspend construction work if the regulations are infringed.

If they wish they can inspect the quality of materials, and in particular the quality of ready-mix concrete.

Emphasis is placed on conformance with planning regulations.

In this field controls are generally subdivided into two stages:

- one after construction of the frame and loadbearing walls,
- the other after completion.

A government **certificate** authorising occupation is required before a newly built building can be occupied.

3.4 - Subsidised housing

There are no organisations specialising in subsidised **housing** in Greece.

Subsidised rented housing is allocated to persons of reduced means by lot.

Housing assistance takes the form of subsidies or loans representing one third or half the total cost.

Banks always demand large guarantees, generally twice the sum loaned.

4. CONTRACTS

There are two different sets of legilsation in Greece, one for government work and the other for private work.

Each contract refers to its own legislation, although many private contracts refer to the legislation for government work.

In the case of government work the legislation is included in two **codes**: the contracts code and the performance code.

4.1 - Design

Greek architects do not benefit from protection of their title nor from a monopoly of practice.

Together with engineers they are members of the Greek Technical Chamber.

All graduate civil engineers who are members of this technical chamber can also work as architects.

In addition to this many other engineers or other graduate professionals (mechanical engineers, surveyors, chemists, etc.) who have undergone ad hoc training, but not university training, can design houses up to two storeys high.

There is no incompatibility between exercise of the profession of civil engineer and contracting.

4.2 - Construction work

Construction **contractors** are rarely constituted as limited companies. More frequently they are companies with limited liability, from which the client always requires a bond.

After issue of the construction permit a contractor is generally selected on

the basis of a completed design, and not a mere preliminary design.

Contracts are always put out to general contractors who choose their own subcontractors.

Payment is on a lump sum basis or on the basis of unit prices. Frequently a lump sum for the superstructure and unit prices for foundations.

Contractors sometimes act as developers in the following circumstances. When the planning regulations permit buildings of 4 storeys to be built in certain areas, a contractor will buy an old building representing for example 40% of the area authorised, demolish it, build a 4 storey building and sell it.

In the case all **government contracts**, a **retained guarantee of 5%** of the value of the work is required before work begins.

While construction is in progress a client may pay part of this retained sum, but it is only once work has been completed that the entire retained sum is paid to the contractor.

Correspondingly, each interim payment made to the contractor throughout the construction process is limited to 95% of the value of the work done.

In the end the sum retained as a guarantee in the case of government contracts as a general rule amounts to 5% + 5%, i.e. 10% of the value of the work by the time the work is finished. (1).

The **work completion certificate** is a very important document which is signed by the government client himself, and not by the consultant.

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(1) There is no requirement of this kind applicable to private contracts.

Following expiry of the warranty period of 15 months or three years the **civil code** applies, to both government work and private work.

5. LIABILITY

The **liability of government departments** is rarely invoked, but it can be in some circumstances, for example:

o in the case of the construction of a building, if for one reason or another the construction permit is not ready at the required time,
o in the case of the construction of a road, if land expropriation has not been performed in time.

In both circumstances a contractor may initiate legal proceedings against a government client.

The **contractor's liability** following completion is only invoked during a short period during which the contractor must make good any defect.

The guarantee period in effect lasts for 15 months following completion. It may be extended to three years by contract in the case of major projects.

This period of 15 months (or 3 years) is limited by two certificates:

o the **completion certificate,**
o the **final acceptance certificate,**

and constitutes the "**maintenance period**".

The report indicating completion in no way means that the work has been implicitly accepted by the client.

Some time after this, generally two months after the certificate of completion, **provisional acceptance** is made during which any deviation from the contract or the design, and any defect or imperfection is noted in writing.

The contractor then has a period of three months to make good any deviation, defect or imperfection.

If he does not do so during the maintenance period this is automatically extended from 15 months to 18 months (or from 36 to 39 months). Contractors have therefore no advantage in putting off repair work or bringing the work into accordance with design.

The final acceptance certificate is only signed when all the clauses in the contract and all the project specifications have been fulfilled to the letter, and of course when all defects and imperfections have been repaired.

In practice:

- if a defect becomes apparent before provisional acceptance the corresponding certificate is not signed,
- if a defect becomes apparent after provisional acceptance then the final acceptance certificate is not signed until the defect has been eliminated,
- a defect certificate is signed in all circumstances, this certificate having the effect of interrupting the warranty period of 15 months (or 3 years), a period which only begins again after the defect has been eliminated.

Final acceptance may be tacit if nothing occurs during the 15 months following completion.

The procedure so described, which is similar to the German VOB procedure, but with a period of 15 months instead of 24 months, is compulsory for government work.

It is applied with the greatest firmness. Any defect, even a minor defect, will represent an obstacle to signature of the final acceptance certificate. This may apply even if a mere door is not to specification.

In the case of **private work** none of the above applies. In practice the contractor then has a duty of result, in that he must deliver an object in accordance with the design on a "turnkey" basis, failing which he does not get paid.

6. INSURANCE

If a contractor becomes insolvent or ceases to exist, a small owner benefits from no special protection.

In general consultants, architects and engineers have no professional indemnity insurance.

In addition to this insurance policies taken out by a contractor always exclude the risk of faulty design.

A civil engineer responsible for a project can be arraigned before the courts.

The insurance policies taken out by contractors are of two types:

- so-called "all risks" insurance,
- third party liability insurance,

in accordance with general practice in Europe.

These two insurances only apply during the construction period and during the maintenance period mentioned in the foregoing section.

The cost of such insurance is of the order of 0.25 to 0.5 per thousand.

Policies are always signed and paid for by contractors, even if they cover the client's liability.

This insurance is required by both public and private clients, but the market is limited because only major operations are covered.

7 - Ireland

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1. INTRODUCTION

The Irish system has known a measure of stability.

Thus a recent proposal made by the law reform commission to issue a new law on defective premises was not adopted by the authorites.

Also for the time being there is no question of amending the current system of limitations by means of a new law.

The building regulations, proposed in 1983, have not yet been approved.

Everyone knows that Irish law, like British, Canadian, Australian, etc., law, differs profoundly from Romano-Germanic law.

It should be remembered that over the centuries two branches of law developed, one at the Court of Westminster (Common Law), the other at the Court of Chancery (Equity).

As legislators have never chosen the technique of codification Irish law essentially consists of case law. Two recent developments have nevertheless altered this historical characteristic.

First of all the fact that these days the same judges, if not the same lawyers, deal with matters relating to both common law and equity.

Hence the fact that the law and regulations still only have a secondary role.

Statute law (statutes, Acts of Parliament) and statutory provisions implementing statute law by the authorities constitute the primary legislation and the secondary legislation respectively.

Unlike the United Kingdom, the Republic of Ireland has a written constitution to guaranee the fundamental liberties of its citizens and to restrict arbitrary action by the authorities.

In the United States of America, which as everyone knows is no more than a sort of appendage of Ireland, the legal basis underlying the liability of builders and the vendors of property is also common law.

Vendors therefore primarily have some immunity in respect of proceedings and losses arising from the premises which they have sold. The discontent which has arisen as a result of this situation over many decades has nevertheless not resulted in reform of a legislative nature, but has weighed insidiously on the decisions of the courts. Thus the **principle of the immunity of the vendor** is now subject to certain restrictions:

1 - Judges impose upon vendors an obligation to reveal to purchasers any hidden defects known to themselves which might give rise to a serious hazard to the health or safety of the occupants, and which a vendor might have hoped that the purchaser would not have discovered.

2 - Judges are disposed to impose civil liability on vendors when the location is such that it involves an unreasonable risk of nuisance.

3 - It would now seem that the builders/vendors of housing **implicitly** guarantee that buildings meet statutory requirements, have been built in a professional way and are suitable for habitation. It should be noted that vendors thus accept liability **even though they have not been negligent.**

2. CONTEXT

2.1 - Structures

In this country of three and half million inhabitants where the national product per inhabitant was the order of 5,000 US dollars in 1984, the unemployment crisis, including that in the construction industry, is keenly felt.

Generally speaking the counties, 26 in number, have a fairly broad degree of independence. At central level the relevant ministry is the Department of the Environment.

Two other organisations have an essential part to play in construction.

o An Foras Forbatha (AFF), the national institute for research in planning and construction,
o the Irish agency for science and technology (EOLAS).

For their own part the **professional organisations** take an active part in operation of the system:

- the Construction Industry Federation (CIF), responsible for the National House Building Guarantee Scheme,
- the Royal Institute of the Architects of Ireland (RIAI),
- the Royal Institution of Chartered Surveyors (RICS),
- the Institution of Engineers of Ireland (IEI),
- the Association of Consulting Engineers of Ireland (ACEI).

Most of these are represented in a liaison committee which has been existence for several years and is responsible for supervising and updating standard contracts for both government buildings and private buildings. These model contracts are published either by the RIAI or by the IEI, ACEI and CECA.

2.2 - Legal basis

- The Public Health (Ireland) Act, 1878,
- The Sale of Goods Act, 1893,
- The Statute of Limitations, 1957,
- The Civil Liability Act, 1961,
- The Local Government (Planning and Development) Act, 1963,
- The Housing Act, 1966,
- The Housing Authorities (Loan Charges Contributions and Management) Regulations, 1967,
- The Building Societies Act, 1976
- The Building Control Act,
- The Fire Services Act, 1981.

2.3 - Terminology

CONSTRUCTION
Buildings, civil engineering works, premises.

BUILDING TEAM

Clients: employer, developer, owner,
Professionals: architect, engineer, quantity surveyor,
Builder,
Ccontractor: main contractor, subcontractor, supplier,
Users: purchaser, tenant.

BUILDING PROCESS
Design, construction, completion,
Defects liability period,
Period of maintenance,
Duty of care,
Defect, disorder, damage,
Apparent defects,
Hidden or latent defects.

CONTRACT DOCUMENTS
Conditions of contract,
Tender, agreement, bond,
Priced bill of quantities,
Drawings, specifications

LIABILITIES
In contract, in tort,
Accepted risks,
Unforeseen circumstances,
Strict liability,
Negligence, lack of skill, of care,
Concealment,
Breach of duty,
Fraud, criminal acts,
Limitation,
fitness for purpose.

2.4 - Standards

EOLAS prepares and publishes standard specifications for products used in construction.

When such a specification is published most manufacturers conform to it. Architects generally respect Irish standards and codes of practice published by EOLAS, or if none is available, their British equivalents.

More than half new houses benefit from assistance or subsidy. They must therefore comply with the standards specified by the Department of the Environment.

EOLAS operates a system of conformance labels on certain products.

Irish architects attach great importance to the quality of materials and construction components.

3. CONTROLS

3.1 - Regulations

The regulations on building do not take the form of "building regulations". In fact the proposed building regulations prepared by the Department of the Environment in 1983 have not yet been adopted.

At the present time a great part of the country is not even covered by **by-laws**, which in some localities regulate the construction of buildings under the aegis of the Public Health (Ireland) Act, 1878.

Thus Dublin has had by-laws on construction since 1949, and these include functional requirements, technical provisions and administrative rules.

Not only are these by-laws not uniform, they are partly out of date.

3.2 - Construction permit

Anyone who wishes to build a building must subject the plans, specifications, design notes and drawings to the appropriate authority (the Planning Authority), which has 2 months in which to reply.

If approved the construction inspection department (Building Control) effects some degree of monitoring of the construction work.

A surveyor visits the site and must supervise drainage and foundation works.

When a locality has no by-laws on construction the authorities exert advance controls over construction through **planning permission**, which is always required.

The Department of the Environment uses its own inspectors who check that subsidised housing is built in accordance with certain ad hoc standards.

4. CONTRACTS

4.1 - The parties involved

The various parties involved in construction are:

o the client, the one giving instructions, generally called an "employer", who may himself be a developer or an owner,
o designers, called "professionals", which include architects, engineers and quantity surveyors,
o suppliers,
o contractors and subcontractors,
o builders, and in particular house-builders who deliver a finished product, and, unlike developers, have the technical facilities necessary, like a principal contractor.

There is no professional register nor national control of qualifications in Ireland. Nevertheless the title of "Chartered Engineer" is controlled by the Institution of Irish Engineers (IEI).

4.2 - The law of contract

The law of contract, which falls within the scope of common law, generally rests on the principle of "**strict liability**". The two parties enter a voluntary agreement whereby it may be agreed that certain liabilities will be reduced (1), but only if this is not illegal and given that these provisions have little value with respect to third parts.

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(1) This is the situation for contracts entered into with designers, where the latter do not have "strict liability" but only a duty of skill and care.

This is the doctrine of "**privity of contract**".

Judges recognised **two types** of contract: agreement, approval.

They also consider two situations. That in which the contracting parties have the same strength, and that in which one of the two parties is unable to defend himself.

Construction contracts are of the "agreement" type, regardless of who contracts with the client: a contractor, architect, engineer, surveyor.

Alongside these principles which originate in common law there is a law, the "Employers and Services Act", which classifies contracts into two categories;

- non-consumer contracts,
- consumer contracts.

In a consumer contract one of the parties is not in the business and the contractual clauses must be fair and reasonable.

In both situations it is contract and contract alone which gives rise to contractual civil liability.

All this legal apparatus is nevertheless difficult to gain access to because common law is not "written" and statute law, which is written, applies simultaneously in the matter of construction contracts.

4.3 - Procedure

In Ireland current practice is to entrust the construction of a building to a main contractor.

First of all the employer enters into separate contracts, one with the quantity surveyor, the second with the architect, and others with specialised engineers (structural, electrical, etc.).

Then he enters into a construction contract with the main contractor, and this is generally associated with a "performance bond".

The main contractor himself enters into contracts with two types of subcontractor:
- nominated subcontractors,
- domestic subcontractors,
and suppliers.

Only nominated subcontractors can give the client collateral warranty, and this has been the subject of a recent case (1982) "Junior Books v. Veitchi".

In building, **working relationships**, apart form those purely in civil engineering, are organised the around the architect, except for those between the main contractor and domestic subcontractors.

Every contract specifies whether the contractor has a mere duty of "skill and care", as is generally is the case for "professionals", or if the contractor has strict liability, the general situation for "contractors".

Strict liability is not a duty of result, although its evaluation is based on the result, i.e. the quality of construction.

The duty of "skill and care" is evaluated with respect to a "standard" level of skill and care which a client has a right to expect from the contractor.

1) Contractual relationships

Q.S.	Architect	Engineer
Performance bond	EMPLOYER (client)	Performance bond
Collateral warranty		Collateral warranty
Nominated subcontractor	Main contractor	Nominated subcontractor
	Domestic subcontractor	

Contractual arrangement for building procurement in Ireland

Privity of contract

Designers may sometimes be grouped together into a "design team", with which the client enters into contract.

2) Working arrangement (in practice)

Client
(employer)

Quantity surveyor | Architect | Engineer

Nominated subcontractor | Main contractor

Domestic subcontractor

Working relationships

The arrangement described is formal, and it is frequently replaced by a more flexible arrangement with direct communication between various parties.

4.4 - Contractual documents

When the client has collected together the **drawings** and **specifications** prepared by the architect and the **bill of quantities** prepared by the quantity surveyor he sends each company approached at set of these documents accompanied by **standard contract documents**.

These documents are as follows in Ireland:

a) For the construction of **civil engineering structures**, the document "Conditions of Contract and Forms of Tender, Agreement and Bond", the 1988 edition of which was issued by the IEI. This document is also used for contracts in the private sector, whereas a modified version (an amended clause 67 on price variation) is used for government contracts.

b) For the construction of **buildings**: there are two sets of documents entitled "Agreement and Conditions of Contract for Building Work". The first set, coloured "**yellow**", is used when the bill of quantities forms part of

the contract, whereas the second set, colour "**blue**", is used when the bill of quantities does not form part of the contract. There are separate documents in the "two colours" for private contracts and government contracts.

Documents intended for government contracts, which are prepared in particular by ministerial departments and authorities, were approved by the Ministry of Finance in 1982, following consultation with the RIAI, CIF and RICS. (1).

These documents specify the contractual responsibilities of clients and contractors. They are presented in a form which is widely understood and used throughout the world.

4.5 - Contracts with consultants

Except in exceptional cases where an engineering company delivers a structure on a turnkey basis, architects, engineers and quantity surveyors have a duty of care only to their client, and not strict liability.

This is the situation which can be found in other countries such as Denmark, Holland and the United Kingdom.

4.6 - Acceptance of work

Between the date of the practical completion and final completion of a **building** there is a period during which the contractor is liable for defects due to his negligence: this is the "**Defects Liability Period**".

---

1 - Agreement and conditions of contract for building work for use by Government Departments and local authorities.

The **architect's powers** are considerable. It is he who states that, in his opinion, work is or is not at the stage of "practical completion", who gives all instructions to contractors to remedy any defects during the defects liability period, and who says when and if the work is finally completed.

Clauses 29 to 35 in the yellow document, which deal with this question, are appended hereto together with the similar clauses in the blue document.

Either the architect or the engineer signs the **"Final Certificate"**, as appropriate.

In **civil engineering**, concepts are different. After a structure has successfully passed the tests specified by contract, the contractor asks the engineer to sign the **Certificate of Completion.**

There then begins the **"Period of Maintenance"**, after which the contractor should have made good any defect due to failure to comply with the contract.

If he does not do so the client may do so at the contractor's expense.

Clauses 48, 49 and 50 of the conditions of contract which deal with these questions are appended hereto.

5. LIABILITY

5.1 - Principles.

Anyone who wishes to investigate the responsibility of builders and vendors for **defects** in their buildings ("premises") must bear in mind two principles which are very different, at least in theory:

- voluntary liability "**in contract**", and
- liability "**in tort**".

From the contractual point of view buildings or premises are "defective" if their condition does not reach the level of **quality** which the purchaser had a right to expect under the terms of the contract.

When a distinction has to be made defects are called respectively "dangerous defects" or "defects of quality".

Before 1932, the year of the famous case of **Donoghue v. Stevenson**, which is summarised in the appendix, civil liability "in tort" did not exist. There was only civil liability "in contract".

Initially judges resisted the new rule. Finding it too general they limited it to physical injury resulting from negligent acts or defects on the part of manufacturers, provided that there was a relationship of proximity even though there was no contract.

Some feared that the wide application of these new principles might even destabilise the commercial order of society.

Finally the judges erected two barriers: the first, the existence of a duty of care, the second, the existence of a direct consequential loss linked to the concept of "proximity".

It is under these two restrictions that the principles of the ruling of 1932 now dominate the entire field of liability in tort.

5.2 - Vendor's liability

A distinction must be made between a property vendor's liability "in contract" and his liability "in tort".

1) **The vendor's liability "in contract"**

a) The vendor of a building has no obligation to a purchaser to ensure that the premises are free from defects of **quality.**

Here is a field in which the chill meaning of "caveat emptor" still prevails.

Unless the contract of sale explicitly states to the contrary it is the responsibility of the purchaser to concern himself with quality.

In the case of the transfer of real propety the concept of "implicit terms" in the Sale of Goods Act, 1893, does not apply, because this only applies to the sale of chattles.

In addition to this vendors are protected by the "rule of evidence" which restricts contractual proof to what is actually included in the written document.

b) All the above also applies in the case of the sale of **a fully completed new building.** In the absence of express or implicit warranty through the behaviour of the parties the vendor has no obligation to ensure that the housing is suitable for human habitation.

Even if such a warranty exists, a third party cannot make use of it. The purchaser of course has an action if fraud or deceit are involved, but otherwise he has no remedy.

Judges can in some cases consider that there is an implicit warranty, and the tendency in Ireland is to do so more and more frequently. It is felt that a builder should do his work "in a good and workmanlike manner", that

he should use satisfactory and appropriate materials, and that all housing should be reasonably suitable for human habitation.

c) It is only in the case of a sale by a "vendor-builder" of **housing which is to be completed in the future**, i.e. which has not yet been completed, that judges consider that there is always an implicit warranty.

2) Vendor's liability "in tort"

The general rule on **negligence** requires that everyone has a duty of care to ensure that his acts do not injure others.

The liability of the vendor of a building for **dangerous** defects has for a long time been described as a rock which has resisted the legal tide arising from the Donoghue v. Stevenson decision. Things have changed considerably in the course of time.

It is clear now that a builder no longer as such benefits from vendor's immunity and that the party who is injured "in tort" can take action directly against the builder.

The old rule of "privity of contract" has thus been set aside.

From other cases the following conclusion can be drawn for Ireland:

Although "caveat emptor" still applies to the purchaser of real property and although the general principles of negligence established in Donoghue v. Stevenson do not appear to affect the immunity given to such a vendor, the tendency in cases judged recently is to interpret this immunity in a restrictive way.

5.3 - Builder's liability

A distinction must also be made between a builder's liability "in contract and his liability "in tort".

1) Builder's liability "in contract"

This only relates to "builders", and not to architects and other "professionals".

When a builder sells a building he becomes the vendor and this, briefly, means that unless express provisions are stated he does not offer a warranty for the quality of the building nor for its suitability for use.

Given that a judge will nevertheless consider that in some cases (see b) of $ 5.2 above) the vendor has given an implicit warranty he will say that warranty always exists if a builder sells a house which is to be completed at some time in the future (see c) of $ 5.2 above).

2) Builder's liability "in tort"

The vendor's immunity dealt with in 5.1 above does not extend ipso facto to builders.

If a builder "negligently" builds a building which causes loss to another he becomes responsible for the loss in accordance with the principles of Donoghue v. Stevenson.

It is only when he sells the building that he benefits from the vendor's immunity at common law, provided that he does not find himself in a situation of negligence known as the "devouring cormorant".

5.4 - Consultants' liability

"Professionals", i.e. architects, engineers, property surveyors, are fairly uneasy about the present situation.

The concept of civil liability is no longer what it was twenty years ago. It is now seen by designers as a "potentially destructive force" for the future of the whole profession.

Some professionals are calling for reform, which would limit their liability, as they feel that they are liable "for an indeterminate sum for an indeterminate period to indeterminate persons".

A liability "in tort" cannot obviously be limited by contract. It is not something which results from the will of the parties.

It seems that in the 70s judges widely invoked designers' civil liability "in tort" by placing exaggerated burdens upon them, following the general movement for protecting consumers.

At the present time this trend has been reversed and the judges maintain more restrictive limits in cases where the negligence (error or omission) of designers can be invoked to justify their liability "in tort".

5.5 - Subcontractor's liability

Whether a subcontractor is "domestic" or "nominated" he has no contractual relationship with the "employer", but only with the "main contractor".

The ruling in Junior Books v. Veitchi, already mentioned in section 4, is important in this respect because it enables an employer to sue a **nominated subcontractor** directly on account of defective work in order to obtain compensation either for a direct economic loss or for a consequential economic loss.

In other words the duty of care due by a nominated subcontractor to the client now extends beyond the duty to prevent loss resulting from defective work, and goes so far as a duty to avoid defects in the work itself.

The same doctrine applies to relationships between the client and a **nominated supplier.**

5.6 - Limitation period

The concept of limitation arises from the written Irish constitution, and is

above all a long term limitation.

In constrcution, except in cases of fraud or deliberate concealment, the English have fixed the long limitation at 50 years for latent defects only, but this limitation can be extended.

Nothing of the sort in Ireland, where the "Statute of Limitations 1957" applies, in accordance with the interpretation made by the courts.

Judges will again have to refer to the constitution as well.

Thus, in general, the limitation for an action "in contract" is 6 years following the date of completion of a structure for an ordinary contract, and 12 years for a contract under seal.

For an action "**in tort**", the limitation is 6 years following the date of **discovery** of the damage.

No action may be initiated against the widow of an architect more than two years after the latter's death.

As indicated in the introduction, the Irish law reform committee prepared a draft bill entitled "Defective Premises Bill 1982" in 1982, but this has never got anywhere.

Now in fact its inspiration is considered too favourable to the consumer.

In Ireland the desire to protect purchasers of new housing has taken concrete form through the setting up of the National House Building Guarantee Scheme, which will be discussed in the next section.

6. INSURANCE

In Ireland, as elsewhere, three categories of insurance apply to construction:

- bond insurance,
- liability insurance,
- property insurance.

6.1 - Performance bonds

These are widely used in Ireland where clients (employers) require a bond not only from the main contractor but also from nominated subcontractors.

Generally the bond is for between 1/8 and 1/4 of the value the work.

It is provided by the contractor and its cost lies between 0.5 and 1% of the value of the work.

The guarantor is either an insurance company or a bank.

The validity of the "performance bond" expires with the end of the period of maintenance.

Documentation obtained from an insurance company working in the field of performance bonds is provided in the appendix.

6.2 - Insurances required of contractors

Various "conditions of contract" frequently compel a contractor to cover a number of risks by insurance.

Thus the **civil engineering** "conditions" envisage three types of insurance:

o insurance benefiting the contractor and his client, covering the works, equipment and site installations, and damage occurring during the

maintenance period,

- o third party liability insurance,
- o insurance for the client's civil liability.

The **building** "conditions" compel contractors to take out "all risks" insurance valid throughout the construction period.

Major insurance companies thus cover risks amounting to 5 or 10 million pounds.

6.3 - Insurance of designers

Obviously with the uncertainty over an architect's liability, the risk which has to be covered is both considerable and difficult to evaluate.

A few companies nevertheless insure this risk in Ireland, but the annual premiums are expensive.

Coverage applies to errors in the past, without making any distinction between ordinary negligence and gross negligence by the architect.

Quantity surveyors and engineers also take out liability insurance policies on a voluntary basis.

These policies, for which an annual premium is payable, fix a ceiling on compensation at a level agreed between the parties.

6.4 - The National House Building Guarantee Scheme

THe NHBGS provides the purchasers of housing with a useful guarantee.

Brought into being by contractors (CIF) and housebuilders (IHBA), if provides a six year guarantee:

- o only "major structural defects" limited to 15,000 pounds are covered for a premium of approximately 0.5% of the cost of the new housing,

o work is inspected by the DOE on behalf of the NHBGS at the insurer's expense,

o it constitutes a club of registered builders and developers, and these can be barred from membership.

The detailed rules of the operation of this "company" are appended hereto.

Coverage includes the possibility of bankruptcy by the builder during the construction period.

When work has been completed purchasers receive a guarantee certificate for six years.

If damage occurs the purchaser must approach the builder and the not the "company".

A detailed appendix indicates how this system operates as a whole.

7. APPENDICES

List of the appendices which will be included in the final edition published by the Directorate General for the Internal Market and Industrial Affairs of the Commission of the European Communities.

1 - Conditions of contract for:
a) works of engineering construction,
b) buildings works (with guarantees),
c) buildings works (without guarantees).

2 - Three cases from common law.

3 - National House-Building guarantee scheme (documentation).

Only appendix 2 is included in this publication.

7.1 - Three cases from common law

1) Donoghue vs. Stevenson case (1932)

A lady in Scotland asked a friend to purchase a bottle of ginger beer for her. It was an opaque bottle. She drank a part of it and in pouring the remainder, emptied remains of a decomposed snail into her glass. She became violently ill. She sued the manufacturer: she had not purchased the bottle, her friend had, so she had no contract with the supplier. As the contract for supply was between the supplier and the manufacturer, she had no contract with the manufacturer. There was no contract between herself and her friend, as a gift is no consideration of law. Consequently the doctrine of **privity of contract** precluded her from suing anyone in contract. She claimed damage against the manufacturer. Miss Donoghue succeeded by a base majority of 3 to 2 and the modern tort of negligence was confirmed as a independent action at common law.

2) Junior Books vs. Veitchi case (1982)

This was a case in which a nominated subcontractor had negligently laid a floor, which proved to be deficient due to the manner in which it was laid; cracks appeared and owners were faced with the prospect of continual maintenance costs to keep floor usable. The owners sued the subcontractor directly in tort for negligence (there being no collateral agreement) for the cost of replacement of the floor and consequenctial economic loss including loss of profits during replacement.

In short the plaintiffs were looking for compensation for a deficient element. The court did not consider the floor as a danger to persons or damage to property.

Junior Books is imporant on its facts as it establishes that an employer can sue a nominated subcontractor directly for faulty work irrespective of whether it has caused harm or not.

The duty of care owed by a nominated subcontractor to the employer now extends beyond the duty to prevent harm being done by faulty work to a duty to avoid faults in the work itself.

3) Pirelli vs. Faber case (1983)

The current statute was the Statute of Limitation providing that an action founded on tort, which includes an action in negligence, shall not be brought after the expiration of six years from the date on which the cause of action accrued.

Where building defect which grounds an **action in negligence** is latent and consequently not discoverable for a period after the work is completed, a problem arises as to when the right of action accrued: was it when the negligent act occurred (the date of damage) or was it when consequential damage was discovered (the date of discoverability)?

The answer determines the period of liability in tort as finite or

indeterminate, which is in turn central to risk of liability and its assessment for the purposes of indemnity insurance.

The way in which the courts have approached the answer is best illustrated by looking the Pirelli-Faber case (1983).

Pirelli had engaged Faber as an engineer to design a chimney. The factory lining specified was unsuitable and uncontested evidence was that the lining must have failed in 1970 and also that the failure would not have been ordinarily discovered until 1972. Proceedings were issued in 1978.

The question was: was the action statute barred?

The House of Lords rejected the argument in the Court of Appeal and found the date of accrual on the proper interpretation of the Act.

The Pirelli case established the date of damage as the date on which the action accrues in the case of latent damage; resulting in a finite liability on those liable.

Prior to the Pirelli case, the question of latent damage had been referred to the English Law Reform Committee, which reported in 1984. The first conclusion of the Commission is:

"the present law is injust to plaintiffs and defendants. In our view it requires reform which will take care of the interests of both. Reform is bound therefore to be in effect a compromise between the conflicting interests".

The report goes on to recommend that the date of accrual should be the date of damage, but that in the case of latent defects there should be a 3 year extension from the date of discoverability with an overall long-stop of 15 years against all owners as a class.

The Latent Damage Act, 1986 (UK) adopted the recommendation of the English Law Reform Committee.

The courts of Ireland, Australia, New Zealand and Canada have respectively refused to follow the House of Lords in Pirelli and have adhered to the date of discoverability as the date on which an action accrues in negligence.

8 - Italy

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1. INTRODUCTION

The legal-technical system has some noteworthy features:

o an attempt to achieve a balance between central government and regional government in the context of standardisation and regulations,
o the importance attached by the government to real estate policy and therefore to the generation of building land,
o the princple of the involvement of a third inspector in the acceptance of work,
o the concentration of civil "post-construction" liability on the contractor alone,
o the allocation of penal liability in the case of the collapse of a building or structure,
o the very clear separation between government work and private work at contractual level.

The following subjects will be dealt with in turn: general structure, central government, legal basis and terminology, standards and approvals, planning, subsidised rented housing.

After this description of the **context, regulations and controls are examined**: national and local authority regulations, the construction permit, the law on concrete and steel structures, the law on building in earthquake areas, authorisation for the occupation of new buildings, followed by **contracts**: government work and private work, the parties involved in construction, contractual documents, concessions, contractual acceptance of work, the role of the inspector, followed by **responsibilities**: allocation of responsibilities, the civil code, contractor's civil liability, other liabilities, the penal liability of architects and engineers,

and finally a few words on insurance, questioning and the settlement of disputes by arbitration or by legal means.

2. CONTEXT

2.1 - Territorial organisation

Endowed with a new Constitution in 1947 the Republic of Italy shows many analogies with France in its general organisation and legal architecture.

First of all in its organisation, with 20 regions, some 100 provinces and some 8,000 local authorities.

In its legal architecture with the hierarchy of laws, decrees, regulations and circulars. In Italy as in France there are government tribunals and a Council of State.

Neverthless, France and Italy have adopted different principles in the matter of **decentralisation.**

Since time immemorial Italian local authorities, which are four times less numerous than in France, have had real independence, in particular in the regulation of construction.

The provinces, where the State is represented by prefects, have no true independence with respect to the regions.

Italian **regions** are in no way comparable to French regions.

The regions in fact have true legislative power by virtue of the law of the 10 February 1953 on the constitution and operation of regional authorities.

There is certainly a government commissioner, but in construction and planning he only exerts very limited control because the regions are almost entirely independent in this respect.

The regional executive consists of a committee in which the chairman is surrounded by several "assessors" with competence in different fields.

Decreto-legge of the 28 December 1971 organised the transfer of jurisdiction from the state to the regions.

In order to prevent each region from becoming a small republic, regional laws are or should be coordinated with national sector framework laws for: transport, agriculture, planning, public works, environment, etc.

These **framework laws** lay down principles rather than procedures.

In practice the behaviour and regulations of regional authorities can differ.

There should be an inter-regional committee, but it has not yet been set up, although there are problems which need to be dealt with jointly, particularly in pollution control.

In the field of construction and planning each region receives credits from the State and allocates them iteself in favour of the operations which it decides to finance, with the exception of two types of work:

o motorways, although a region has the option to reject them,
o strategic operations such as nuclear power stations, although the towns can have their say.

2.2 - Main organisations

At central level, the ministries having special jurisdiction with respect to construction are:

o the ministry of Public Works, for subsidised housing and major infrastructure,
o the ministry of Transport,
o the ministry of Defence.

In the case of subsidised housing the Ministry of Public Works has an internal organisation, the CER, in Italian **"Comitato per l'edilizia**

residenziale" (Committee for residential building), which plays an essential part in developing a new policy favouring quality, with the assistance of the regions.

Among other central organisations mention should be made of:

o ICITE and CNR for research,
o ANCE, the powerful professional association of **private** construction companies,
o the organisation for Construction Cooperatives, which are very strong in the field of building,
o the national councils of the professional associations: architects, engineers, surveyors and technicians.

2.3 - Legal basis

The main features of Italian law in general, including the law on construction and planning, are:

o the tradition inherited from the 19th centry and reflected in laws and regulations on "public works",
o the existence of a set of legal codes, the Civil Code, the Penal Code and others, as in France,
o the multitude of texts, laws, decrees, regulations and circulars.

Here by way of example are a few texts of varying degrees of importance relating to construction and planning.

o the Civil Code, in particular articles 1655 to 1677 (dell'appalto),
o Law 584/77.
Application of the European directive on government contracts,
o 3 March 1934, no. 383.
The consolidated text on local authority and provincial law,
o The law of the 10 February 1953, no. 62.
The constitution and operation of the regions,

o The law of the 27 December, 1956, no. 1423.
The antimafia law,
o The basic law on public works of 1865, no. 2248.
The basic law of the 20 March 1865 on public works,
o The law of the 24 June 1929, no. 1137.
Provisions for the award of public works,
o The law of the 10 February 1962, no. 57.
Establishment of the national builder's register,
o The law of the 11 July 1889, no. 6216.
The law on the construction of public works by cooperative companies,
o The law of the 5 November 1971, no. 1086.
Provisions applicable to all normal or prestressed reinforced concrete structures, and to metal framed structures,
o The law of the 2 February 1974, no. 64.
Provisions for construction with particular rules for earthquake areas.
o The law of the 3 July 1970, no. 504.
The law on the award of contracts,
o Regolamento "contabilita lavori" of 1895, no. 350.
The regulation of the 25 May 1895 on the direction, accounting for and acceptance of public works,
o The law of the 17 February 1987, no. 80.
Extraordinary rules relating to public works,
o The decree of the 16 May 1987 no. 246 by the Minister of the Interior.
Fire safety standards for residential buildings,
o Decreto Min LL.PP. 18.1.1988. Lince di inquadramento della normative tecnica nazionale per l'edilizia residenziale.
Technical standardisation guidelines for residential buildings,
o Regio decreto 8 February 1923, no. 422.
Rules for the performance of public works and on expropriation,
o Capitolato generale del ministerio dei LL. PP.
Decrees of the 28 May 1895 and 16 July 1962, no. 1063, on general clauses and conditions for government construction contracts,
o 15 December 1955, no. 22.608.
Standard agreement by the Ministry of Public Works for design work and the direction of works entrusted to members of the liberal professions.

2.4 - Terminology

Costruzione, opere, construction works
opera di ingegneria civile, civil engineering structure
edificio, building
edilizia, construction
lavori, works
rustico, rural
manutenzione dell'opera, maintenance of a structure

Albo, register
imprese, companies
cooperative di produzione e lavoro, construction cooperatives
construttore, builder
architetti, ingegneri, geometri, periti, architect, engineers, surveyors, experts
edili, agrari, construction, agricultural

Building team
committente, progettista, client, designer
direttore dei lavori, appaltore, subappaltore, direttore del cantiere, director of works, contractor, subcontractor, site manager

Collaudatore, inspector

Building process

- Direzione, esecuzione, consegna, contabilita, collaudazione dei lavori, direction, performance, handing over, accounting for and testing/inspection of construction work
- concessione, concession
- contratto, convenzione, contract, agreement
- gara, aggiudicazione, appalto, tendering, award, tender
- capitolato generale di oneri, bill of quantities
- progetti, designs
- specifiche generale, particolari, general, detailed specifications

- preventivo estimativo, descrittivo, estimate, descriptive estimate
- termine contrattuale, contractual term
- verbale di ultimazione, completion report
- verbale di collaudo, acceptance report
- collaudo, testing
- collaudo statico, static acceptance

Responsabilita, Liability
- responsabilita contrattuale, contractual liability
- periodo di garanzia, warranty period
- responsabilita decennale, ten year liability
- rovina, collapse
- vizio dell'opera, construction defect
- vizio occulto, rilevante, per dolo, hidden defect, visible defect, fraud

2.5 - Standards and approvals

There are few Italian standards relating to construction, and priority is given to materials and basic products.

At national level these are prepared by the UNI, whereas technical approvals are issued by the ICITE/CNR.

Alongside **national standards**, of which some are compulsory, in particular for reinforced concrete structures, metal frame structures and structures exposed to earthquake and fire hazards, and are therefore of a statutory nature, there are local or **regional standards**.

The current development of regional standardisation is coordinated at national level by the CER in the field of **housing**. The Italians pay considerable attention to this and wish to encourage the concept of performance.

Neither new techniques nor new materials are subject to compulsory technical approval.

The Instituto Centrale per l'Industrializzazione e la Tecnologia Edilizia (ICITE) (Central Institute for Building Industrialisation and Technology), an organisation of the Consiglio Nazionale delle Ricerche (CNR) (The National Research Council), can issue **approval certificates** on the basis of laboratory tests.

In addition to this the ICITE intends to set up a network of laboratories in view of the Community market.

Mention should be made of the trailblazing role played by the Emilia Romagna region, together with the CER, in instituting a system of quality standards and controls based on **performance** in the field of housing.

This experiment, which is intended to be realistic and easy to apply, is of particular interest in view of both its objectives and its novelty.

A summary is provided in a CER document entitled "Normativa technica per la nuova edificazione e per il recupero edilizio: strutture, livelli et metodi di prova dei requisiti in ordine alle esigenze di comfort, economia e durata", "technical standards for new building and restoration: structures, levels and methods for testing performance relating to comfort, economy and durability requirements".

An appendix is devoted to this "prima normative tecnica regionale" (first regional technical standard), which is the subject of the regional law of the 9 November 1984, no. 48.

If no UNI standard or technical approval is in existence, it is possible to build in Italy on the basis of mere "agreed standards", prepared by industrial firms, so as to leave room for "empirical development" as in the USA.

2.6 - Planning

In this respect legislation lies within the jurisdiction of the regions, and central government merely lays down guiding principles.

There is a State law on planning, voted in 1942, which was amended to some extent in 1967 and 1971.
Coordination plans, which have no legal value except for the authorities, should exist for every region, but the preparation of these is not yet complete.

It is at local authority level that planning is most tangible. Its two instruments are:

- the "piano regolatore generale" (structure plan),
- the "piani regolatori particolareggiati" (detail plans).

The former should cover all a local authority's territory.

The latter are only prepared when a "government" operation is financed, or if part of the local authority area has to be planned very strictly. They are highly detailed.

This is not very important because local authority construction regulations include provisions of the planning type, relating to the aesthetics and layout of buildings, the appearance of facades, materials, etc.

In the case of small local authorities which do not have a special plan what the Italians call a "programma di fabbricazione" (building programme) constitutes the regulations on construction.

All local authority plans must be approved by the regional authorities.

At an operational level there are also "piani di lottizzazione" (estate plans).

If a local authority plan includes errors or omissions then the national "standards construttivi" (building standards) will automatically apply, and these include the decreto of 1968 on the density, height and spacing of buildings, green spaces and parking areas.

According to the 1967 law on planning, the "legge ponte", local authorities which have produced no plans for their areas must establish a boundary for the town centre within which the density of buildings must not exceed 1.5 m^3 per m^2.

Any newly built-up area must include public reserved land of the order of 18 m^2 per inhabitant, which can be amended by individual regions.

It is also the regions which have the power to legislate on protection of the environment.

2.7 - Subsidised rented housing

This is the responsibility of the regions and not the local authorities.

There are essentially four ways in which housing is financed in Italy:

- the government sector, which is **subsidised** to 100%,
- the **assisted** sector, with a government contribution towards interest,
- the **controlled** private sector, which benefits from "right of space",
- the **unrestricted sector**, frequently within the context of concessions granted to contractors.

The Italians, who are against the establishment of detailed technical standards, nevertheless consider that performance standards should apply to new housing.

The 1988-1997 ten year programme will reflect the desire to reform the technical regulations applicable to housing so as to ensure quality without creating obstacles.

The regions and the CER are jointly involved in this effort.

In general the quality of the construction operation must be evaluated from two different points of view:

- a **technical** point of view, and
- an **environmental** point of view,

and on four levels:

- the location,
- the building,
- housing provision,
- materials and products.

This evaluation will be made either on the basis of standards or general provisions, or as individual clients wish, in respect of the points of view or levels concerned.

3. CONTROLS

3.1 - Regulations

The dividing line between planning law and construction law is not as clear in Italy as in other European countries.

Secondly the regulations applicable to construction do not form a code at national level of the "building regulations" type.

There are of course **national laws and regulations**, such as the law of 1971 on metal and reinforced or prestressed concrete structures, or the regulations on buildings more than 24 metres tall, or again the 1974 law on buildings in earthquake areas.

There are also national "sector" regulations for housing, schools and hospitals for example, where the State is involved in financing.

Every local authority should have its own construction regulations and incorporate the minimum requirements imposed by the State.

These **municipal regulations**, of which many are more than 50 years old, bring together:

o provisions concerning land use, the appearance of buildings and in particular facades,
o provisions responding to concerns for health and safety,
o provisions specifying procedures for construction permits and construction controls.

Although energy saving is the subject of a national law, there are no regulations on acoustic insulation.

3.2 - The construction permit

The construction permit has a twofold effect, in planning terms and

technically.

After a period of legal homelessness, it now seems that construction law is again part of the law of property.

The construction permit is governed by two laws, the law of 1977 and the law of 1985.

The permit, for which a fee is payable, is not required for ordinary maintenance work, nor for certain work by the State.

Under the terms of municipal construction regulations the documents appended to an application for a permit must generally be signed by two persons:

- the owner,
- the project designer.

In the case of buildings having a metal or wood structure the project designer and the director of works must be architects or engineers who are enrolled in the registers of the appropriate Associations.

The same applies for buildings in earthquake areas.

The authorities do not check stability calculations; their examination merely considers compliance with requirements relating to the appearance and location of buildings, safety, health and fire.

They carry out compulsory inspection while work is in progress, and work must be completed within 3 years of the date of issue of the permit.

Finally they have certain obligations with respect to the office of civil engineering, but they do not directly engage in any "technical" acceptance, except in respect of fire safety and health.

3.3 - The law of the 5 November 1971 and the law of the 2 February 1974

It should be understood that there are two sorts of inspectors, called "collaudatori" in Italy:

- o some working in the context of the 1895 regulations on public works,
- o others working in the context of the 1971 law on reinforced concrete or metal structures.

The latter, who are skilled in the field of **statics**, "accept" some structures within the context of the law of the 5 November 1974.

The full text of this law is appended, together with a brief analysis of its contents.

Four sections deal in turn with requirements, supervision, penal sanctions and technical standards.

Liability lies with the three parties involved and the inspectors.

The three parties are the project designer, the director of works and the "costruttore" or builder.

The regional civil engineering office has a passive part to play until damage arises, or penal and civil liabilities are invoked.

As far as the law of 2 February 1974 is concerned, this also lays down definitions, technical standards, procedures, administrative and technical responsibilities and sanctions when buildings are built or reinforced in earthquake areas.

Here again the regional civil engineering office plays a part, as well as a number of officials and government officers.

3.4 - Authorisation for occupation

When a new building has been built following the issue of a permit, occupation of the building is only authorised by the municipality under certain conditions.

This procedure is "**mixed**" in the sense that the municipal authority, which does not have many technical officers, merely applies checks on appearance, planning, safety, health, etc.

It is the "director of works", generally the client's architect, who certifies that work has been completed.

Then, in both the case of government work and subsidised work, the government appoints an inspector who must go and see whether contract and government construction regulations have been complied with, and whether the building has been constructed "in accordance with good practice".

The date of completion of work shown on the certificate produced by the director of works becomes the starting date for the ten year liability period which will be discussed in section 5.

Furthermore, in practice, the director of works only signs this certificate, in Italian a "verbale di ultimazione", without reservations, in other words when all visible "defects" or "differences" have been eliminated.

All this seems rather complicated, but there is some logic behind it.

o the director of works is responsible for ensuring that the construction conforms with the regulations, and in particular in respect of the stability of the building,

o the "inspector" is only involved if public money has been spent and has a mainly administrative role,

o the municipality only issues an authorisation for occupation once it has

performed a few simple checks.

Checking of the statics of certain buildings within the context of the laws of 1971 and 1974 considered in 3.3 above is then superimposed on all this procedure.

Here again the procedure is "mixed".

Obviously in the case of government or subsidised work there is nothing to prevent the two checks being entrusted to a single person, but this person **must** be someone other than the director of works and the project designer.

From this general discussion of regulations and controls on construction it will be seen that:

o the technical apparatus of regulations is relatively complicated because it is not codified and it is different at national and local authority, or even regional, levels,

o to prevent certain hazards associated with the statics of buildings the government has laid down procedures, but competent professionals incur all liability (penal only).

This allocation of roles and responsibilities is quite unique.

4. CONTRACTS

4.1 - General principles

There is a very clear distinction in Italy between "public works" contracts and other construction contracts.

Furthermore, decentralisation has resulted in decline of the great tradition, as expressed in the law of the 20 March 1865 on public works and the regulation of the 25 May 1895 on supervision, of accountability and acceptance in the case of public works by the State.

The provisions of this law and regulations are based on the principle that a strong technical administration exists.

The regulation of the 29 May 1895 on the design of projects and the regulation of the 17 March 1932 on military engineering works also form part of the traditional base.

It would seem that this set of regulations has enabled the Ministry for the Treasury on the one hand and the Ministry for Public Works on the other hand each to govern what lies strictly within their own jurisdictions. This is not the case in all European countries, where financial and technical regulations frequently overlap.

One of the original features of the system is the task entrusted to the "inspector" or the inspection committee.

The latter consists of a **third party** appointed, within the context of an individual operation, by the Minister in the case of works on behalf of the State, by the region in the case of works falling within the jurisdiction of the regions, who must be involved in the acceptance of construction work.

This inspector, whose function is both administrative and technical, can only be appointed if he himself has no interest, i.e. if he is neither the designer of the project nor the director of works.

In the case of **private construction work**, contracts must comply with the provisions of chapter VII of the Civil Code relating to construction contracts, entitled **"Dell'appalto"**, which is more succinct than the regulations by the Ministry of Public Works, but nevertheless contains 23 articles numbered 1655 to 1677, the texts of which are given in the appendix.

An independent inspector is sometimes called in as in the case of public works.

4.2 - The parties involved in construction

Who then are the **parties** involved in any construction operation?

First of all there is the client, in Italian the **"committente"**.

Although he has no technical responsibility he must comply with the law which imposes certain obligations upon him, in particular those of the Civil Code and those of the laws of the 5 November 1971 and 2 February 1974 discussed in 3.3 above.

Then come architects and engineers, who can act as:

- project designers,
- directors of works,
- inspectors,

and surveyors and construction technicians in the case of operations of lesser importance.

In order to exercise these functions they must be enrolled in the register (albo) drawn up by their corresponding Associations for each individual province.

Architects, and there are more than 35,000 in Italy, are primarily artists who do not have such a great responsibility as in countries such as Spain or

Belgium.

They sign projects but they are not always the sole author, other persons, in particular engineers and even surveyors, frequently being co-authors. In addition to this there is no text which gives architects a professional monopoly of project preparation.

As in Belgium and France, **contractors** cannot gain access to government contracts of a certain size unless they are enrolled in the **Albo nazionale dei costruttori** (builders' national register), established by the law of the 10 February 1962.

In Italy the contractors who carry out work are of three types:

- private companies, affiliated to the ANCE,
- public companies,
- production and construction cooperatives.

The site manager, the "direttore del cantiere", who is a member of the construction company, should not be confused with the director of works.

The latter, the **direttore dei lavori**, may be but is not necessarily the project designer. It depends on his competence.

The director of works, who cannot be compared to a German Bauleiter, is regarded as an essential party involved in the process of construction.

He must ensure that work is carried out in accordance with the design, but he can make modifications to the design even if it has been completed.

It is his responsibility to defend the client's interests with regard to the contractor.

4.3 - Government contracts.

All **"public works" contracts** are awarded on the basis of two decrees:

o the decree by the President of the Republic of the 16 July 1962, no. 1063,
o the ministerial decree of the 28 May 1895, as amended.

The first text is equivalent to part A of the German VOB.

It is in the nature of an instruction to government departments for the delegation, performance of, payment for and acceptance of construction work, and for the regulation of disputes.

The second text consists of a general specification applicable to public works contracts.

This is equivalent to Part B of the German VOB. It forms a part of contractual documents. Nevertheless in form it is closer to the French CCAG. It includes 55 articles (some of which are provided in the appendix).

The Italian name of this document is "Capitolato generale per gli appalti delle opere dipendenti dal ministero dei LL.PP."

There are no "general technical specifications" which apply to all building and civil engineering work in Italy.

This is not surprising because standards and codes of practice are not as highly developed as in other countries.

The equivalent of part C of the German VOB and the DIN standards, or again the French CCTG and the DTU, does not therefore exist.

This is not a critism. The Italians do in fact have many technical specifications, but it cannot be said that the set of specifications is complete.

As already mentioned in respect of standards, the Italians do not want to fix everything and would prefer to restrict standardisation to:

- assisting access to export contracts,
- allowing companies a certain freedom to innovate.

Government contracts are very often entrusted to general contractors who undertake to find specialised subcontractors for which they are entirely responsible to the client.

This practice has developed because there is an increasing number of small companies specialising in various technologies (foundations, pipework, etc.) which are not in a position either to bid for a structure as whole or to effect the coordination of work.

Tenders are normally put out to companies on the basis of detailed technical designs, although the desire to encourage innovation sometimes leads the government to prefer tendering on the basis of simple preliminary designs, as is currently the case in the subsidised housing sector.

Companies are paid either on a lump sum basis or on the basis of work actually done.

Finally the law encourages consortia of companies in the context of the award of public sector work.

4.4 - Concessions

For public works in general recourse to concessions is particularly frequent in Italy (in recent years only).

The legal basis is the law of the 24 June 1929, no. 1137 and the very recent law 80/87, whereby public works can be conceded to government authorities or private organisations.

Thus the Rome underground, the reconstruction of areas affected by earthquakes in Southern Italy, universities, new towns, etc., have been granted as concessions by law during the last thirty years.

This practice is tending to become more widespread. On the one hand it avoids the creation of new government departments and on the other hand it avoids mutliplying awards for public works.

4.5 - Acceptance

Here it is a question of describing how acceptance takes place in Italy in the context of **government contracts.**

There is no need to repeat what has been said in 3.4 above on authorisations for the occupation of completed buildings issued by municipalities.

The contractual acceptance of **public works** essentially involves 2 persons:

- the director of works,
- the "independent" inspector.

The director of works and the contractor sign a completion certificate, in Italian the "**certificato di ultimazione**" di lavori.

The director of works and the contractor, but also the client and the inspector, sign the acceptance certificate, the "**certificato di collaudo**".

Each of these certificates is preceded by a report, a "verbale".

A certificate cannot be issued if any reservations made in the acceptance report and any comments made by the inspector during the "collaudo" have not been dealt with. It relates to the "contractual" quality of a structure, its conformance with design, compliance with good practice and compliance with contractual conditions, in particular in respect of sums paid to the contractor.

In the case of small structures, worth less than some 100,000 ecus, the acceptance certificate with four signatures may be replaced by a mere certificate of proper construction, a "**certificato di regolare esecuzione**" in Italian, with only 2 signatures, that of the director of works and the

contractor.

Section VI of the 1895 regulations concerning the acceptance of works (articles 91 to 117) is appended.

Other articles in these regulations mention the role of the inspector, in particular article 23 on disputes between the government and contractors.

In the case of major operations the client may appoint an inspector or the inspection committee at the start of work, so that disputes can be settled under the best possible conditions as and when they arise.

In the case of **private work** acceptance takes place more simply because the client has no obligation to appoint an inspector, except in the case of subsidised work.

There are always two reports:

- o the completion report, the "verbale di ultimazione",
- o the acceptance report, the "verbale di collaudo".

The former is signed by the director of works and the contractor, the latter by the client, inspector and contractor.

In general acceptance should take place within six months following the date of completion.

In the case of some work, such as for example heating installations, this period may be extended.

Acceptance shall begin within a period of 2 months following the day on which the inspector receives the documents together with the certificate of completion.

It must end 4 months later, unless it is found in the course of acceptance that defects have to be repaired by the contractor at his own expense and

within specified periods; these periods interrupt the acceptance period.

The inspector always comments on any reservations which may have been made in the course of construction or at the time of completion either by the director of works or by the contractor, and these reservations may be of a technical or of an economic nature.

5. LIABILITY

This subject has already been raised in respect of the authorisation for the occupation of buildings and the acceptance of work.

There is no need to discuss the contractual liability of builders again here.

It is however essential that their **civil and penal liabilities** should be investigated.

On the face of it Italian legislation provides for a logical allocation of these responsibilities.

Some nevertheless feel that in Italy the law is not really in line with the current and future needs of technology and management.

It is in itself of source of litigation, and many cases go as far as the Supreme Court of Appeal.

It even results in some degree of formality.

5.1 - Civil Code

What does the Civil Code say?

First of all, article 1490, that a **purchaser** is protected with respect to a **vendor**. This question will not however be discussed, except in respect of the transfer of property before expiry of the ten year liability period.

Subsequently article 1662, a **builder** has a duty to construct a structure "in accordance with good practice", whether a building or a civil engineering structure is involved.

The Italian Civil Code devotes 23 articles to construction in section VII, entitled "Dell' appalto".

The concept of construction itself is defined in article 1655, and the following articles consider many subjects other than those dealt with in most European Civil Codes in some detail.

Here is the list:

- Article 1656. Subcontracting
- Article 1657. Determination of prices
- Article 1658. Supply of materials
- Article 1659. Differences from design
- Article 1660. Need to deviate from design
- Article 1661. Modifications requested by a client
- Article 1662. Checks while work is in progress
- Article 1663. Notification of defective materials
- Article 1664. Difficulties in construction work
- Article 1665. Inspection of the structure and payment therefor
- Article 1666. Inspection and part payment
- Article 1667. Differences and defects in a structure
- Article 1668. Contents of the warranty
- Article 1669. Collapse and defects in a structure
- Article 1670. Subcontractor's liability
- Article 1671. Unilateral cancellation of a contract
- Article 1672. Impossibility of constructing the structure
- Article 1673. Endangering or deterioration of a structure
- Article 1674. Death of the contractor
- Article 1675. Rights and duties of a contractor's heirs
- Article 1676. Rights of contractor's auxiliaries with respect to the client
- article 1677. Continuation of work while a structure is in use.

5.2 - Contractor's liability

It has already been indicated that in Italy contracts, and in particular contracts for public works, leave the contractor entirely responsible for maintenance of the structure not only up to the date of completion "with reservations", but up to the date of completion "without reservations", in

other words after the client has waived "his reservations".

It is the date of completion, shown in the completion certificate, which determines the starting point for the builder's ten year liability.

As already indicated in 4.7 above, contractors must repair all defects pointed out by inspectors during acceptance.

They must not only act so that any reservations by the director of work included in the completion report are dealt with, but they must also make good any new defects discovered after the date of completion.

Until the date of acceptance contractors are therefore subject to a true duty of result.

In this respect Italian law gives inspectors real powers.

If a contractor refuses to repair or gives evidence of bad faith the law permits the client to call in another contractor at the expense and risk of the defaulting builder.

However, if the contractor ceases to exist before acceptance, the client has no resort and must bear the costs of repair. This is the situation when the contractor goes bankrupt.

Apart from the duty of result incumbent on a contractor between the completion and acceptance of work, considered above, what are the responsibilities of the parties after completion?

As far as the client is concerned, **only the contractor** continues to have civil liability.

The other parties involved in construction, the project designer(s), the director of works and even the site manager cannot have their liability invoked except by **penal means**.

The client himself may also incur penal liability in the context of the laws of 1971 and 1974 considered in 3.3 above.

Contractor's civil liability

This starts at the same time as the six months period during which the inspector makes his inspections and during which the contractor's contractual liability persists.

This is established by articles 1667 and 1669 of the Civil Code, namely:

o **two years**, both for differences from design and for all defects, minor or major, in a structure, by virtue of article 1667,
o **ten years** for severe defects only, by virtue of article 1669.

Italian law also specifies the periods available to the client in order to provide notification of these differences or defects:

o 60 days following discovery in the case of the differences or defects in article 1667,
o one year following discovery in the case of the severe defects in article 1669.

The Civil Code does not specify periods for making good, effecting repairs or paying compensation in accordance with articles 1667 and 1669.

It merely states, in article 1668, that a reduction in price ("Minderung" in the RFG) may be possible in lieu of repairs ("Nachbesserung").

It also says that if the defects in a structure are such that they render it totally unsuitable for its purpose the client may cancel the contract.

Specifically then, in Italy, contractors have a duty of result.

The Civil Code is based on the principle that contractors know their trade and must furnish work performed in accordance with good practice.

This is why contractors are always liable to the client for defects in a structure built, whether serious or not, and even minor deviations from design.

5.3 - Architects and engineer's penal liability

Architects and engineers, and surveyors and construction technicians in the case of minor work, can also incur penal liability.

If an architect restricts his role to that of a "progettista" (designer), without investigating the statics and without directing works, he has no liability, even of a penal nature.

If on the other hand he acts as a specialist in statics for the design of a reinforced concrete or metal structure within the context of the law of the 5 November 1971, his penal liability will be incurred if the building or structure collapses and causes bodily injury.

This obviously also applies to any other designer responsible for designing a structure within the context of this law or the law of 1974 on earthquakes.

It also applies to any skilled person responsible for the "direction of works" and for "site management" who is a member of the construction company.

It also applies to the "inspector", who within the context of the 1971 law prepares the static acceptance certificate, the "collaudo statico", and who is either an architect or an engineer.

If an error is found in a design note, which is filed at the regional civil engineering institute for any metal or reinforced concrete structure, its author is generally liable in the event of bodily injury.

Architects or engineers who have penal liability may subsequently also have civil liability, jointly with the contractor, who alone has liability with

respect to the client.

6. INSURANCE

During the construction period every government contract of works includes a clause relating to a **retained guarantee** or **bond**, which amounts to 5% of the contractual sum.

There is also professional indemnity insurance for contractors and architects in Italy, but it is not compulsory.

Finally, no trace of insurance of objects in Italy. No ten year insurance as in France, legally, for buildings, or as in Great Britain, through contract, for all new housing.

7. LITIGATION

When a dispute arises and it is not settled by agreement between the client and contractor, compensation is determined:

- either by the courts,
- or by arbitration.

A description of the legal procedures is out of the question.

Lawsuits generally last some ten years.

The arbitration procedure is therefore widely used.

The parties each choose an arbitrator, a technician or lawyer as appropriate. The two arbitrators appoint a third arbitrator, by joint agreement, and he becomes the chairman of the arbitration tribunal.

The final decision by this tribunal is binding on the parties because there is no possibility of appeal.

What defects or problems justify compensation?

The law recognises three:

o differences from the contracted design, even if they do not give rise to problems,
o defects in the structure, which are found to be contrary to good practice,
o the severe defects in article 1669 of the Civil Code.

In Italy as elsewhere, judges have difficulty in deciding what is serious, and therefore whether the contractor's ten year liability or merely two year liability applies.

There are of course cases in which there is no doubt, particularly in

relation to foundations.

Defects relating to pipework, floors, leakage of water, septic tanks, heating installations, thermal installation, etc., may also be regarded as severe defects.

This is not the case for acoustic insulation defects.

Where defects can be attributed to various contractors these are jointly liable and the client may obtain a ruling against all of them "in solidum".

What happens in the event of transfer of ownership?

Article 1669 of the Civil Code states that a contractor's civil liability is not of a contractual nature.

As liability arises from concern for the public interest, it may be invoked by anyone who has suffered from a defect in construction.

The 2 year and 10 year periods benefit subsequent owners, as the starting point for the warranties remains unchanged, namely the date of completion.

Nevertheless a new owner does not have the same periods of time in which to notify defects:

- merely 8 days following the transfer of property in the case of visible defects, or following the discovery of hidden defects,
- only one year following the date of discovery of the severe defects in article 1669.

8. PROBLEMS

Problems or questions?

1) In Italy the law is rigid and contract cannot make exceptions to the Civil Code as in Germany or Holland.

2) Resort to an independent inspector is a part of traditional practice; formality must be avoided.

3) The construction regulations are difficult to discover, and this is likely to become worse in the future.

4) Jurisprudence has been unable to clarify what constitutes a severe defect invoking ten year liability.

5) The lack of any system for the protection of the purchasers of housing is probably to be regretted.

It would seem however that many positive aspects should be retained and investigated with a view to the future Community market.

9. APPENDICES

List of the appendices which will be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of European Communities.

1 - Law of the 5 November 1971 (structures).
2 - Law of the 2nd January 1974 (earthquakes).
3 - Decree of the 18 January 1988 (housing).
4 - Law of the 10 January 1963 (register).
5 - Law of the 20 March 1865 (extracts).
6 - Regulation of the 25 March 1895 (extracts).
7 - Civil Code (extracts).
8 - Requirements in Emilia Romagna.
9 - Regional development programme (extracts).
10 - Standards for housing in Emilia Romagna.

Only extracts of appendices 1, 6 and 7 are included in this publication.

9.1 - Law of the 5 November 1971, no. 1086

Legal provisions applicable to all ordinary or prestressed reinforced concrete structures and metal structures.

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Chapter I: Provisions

Article 1 General provisions
Article 2 Design, direction and performance
Article 3 Responsibilities
Article 4 Initial declaration
Article 5 Site documents
Article 6 Final declaration
Article 7 Static acceptance
Article 8 Authorisation for occupation

Article 9 Mass-produced manufacture of components.

Section II: Supervision

Article 10 Supervision
Article 11 Discovery of infringements
Article 12 Suspension of work

Section III: Penal sanctions
Article 13 Improper work
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Article 15 Responsibility of the director of works
Article 16 Responsibility of the "collaudatore"
Article 17 Lack of acceptance certificate
Article 18 Notification of ruling

Section IV: Final provisions
Article 19 Work in progress
Article 20 Laboratories
Article 21 Preparation of technical standards
Article 22 Applicable technical standards.

Brief analysis of law no. 1086

Article 1 General provisions: Definition of the structures subject to the law on the basis of their composition. The requirement for perfect stability in order to avoid any danger to the community and users.

Article 2 Design, direction and execution of construction work: Project design prepared by an engineer, or an architect, or a surveyor, or a technician (1) registered in the registry, and having competence for the structure in question. The direction of work also to be entrusted to a competent engineer, architect, surveyor or technician. The project designer and the director of work are not necessarily to be the same.

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(1) perito industriale edile

Atticle 3 Responsibilities: The designer shall be responsible for the design. The director of works and the builder (2) shall be responsible for conformance of the structure built to the design, the quality of materials used and if appropriate the use of prefabricated components.

Article 4 Initial declaration: To be directed to the civil engineering office, with the name of the client and the parties responsible.

Article 5 Site documents: The responsibility of the director of works.

Article 6 Final declaration: Various documents are appended to this for forwarding to the civil engineering office.

Article 7 Static acceptance: Entrusted to a "collaudatore" who is someone other than the project designer and the director of works. This "static inspector" must be an architect or an engineer who has been on the register for more than 10 years. A copy of the static acceptance report is to be passed to the civil enginering office.

Article 8 Authorisation for occupation: On presentation of the static acceptance report and a certificate from the civil engineering office.

Articles 10, 11, 12 specify the roles of mayors and prefects in the event of an infraction.

Articles 13 to 18 specify the level of fines which can be applied to clients, inspectors and builders.

Finally articles 19 to 22 provide a list of official laboratories and deal with technical standards.

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(2) costruttore

9.2 - Regulation of the 25 May 1895 , no. 350

Article 91 - The function of acceptance

The object of the acceptance of a structure is to check and certify that:

1) the structure has been built in accordance with good practice and in accordance with the specified technical specifications.

2) that it has been built in accordance with the contract and any duly approved codicils,

3) that the quantities shown in the accounts and justificatory documents correspond to reality not only in dimensions, forms and quantities, but also in the quality of materials and products,

4) that the prices allocated and accounts established with a view to final settlement are in accordance with the specifications of contract,

5) that the government's interests has been taken into account when work has been done on a materials and labour basis.

9.3 - Civil Code

Section VII. Dell' appalto

Article 1667 - Differences and defects in a structure

A contractor shall provide a warranty for any defect in a structure and any difference with respect to the contractual design.

The warranty is not due if the client has accepted the structure with the differences and defects known to him, or detectable by him, provided that in the latter case he is not faced with silence by the contractor in bad faith.

On pain of forfeiture the client must inform the contractor of any

differences or defects within 60 days of their discovery. This notification is not necessary if the contractor has recognised the differences or defects or if he has concealed them deliberately.

Proceedings against the contractor may be taken during the two years following the day on which work is completed. The client may agree a payment providing a final end to the warranty provided that the difference or defect has been notified within 60 days of discovery and within 2 years of completion of the work.

Article 1669 - Collapse and defects in a structure

When in the case of a building or any other fixed asset which is intended by its nature to have a long life, and the structure as a result of a defect in the ground or a defect in construction collapses wholly or in part, or even shows an obvious danger of collapse or severe defect, within six years following it s completion the contractor shall be responsible to the client and his assigns provided that notification is made in the year of their discovery.

The client's right is forfeited one year after notification.

9 - Luxembourg

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1. INTRODUCTION

In Luxembourg it is the custom in both government and private construction work to place emphasis on the quality and strength of structures.

This desire takes concrete form in a very simple policy: sufficient financial means must be invested at the outset in order to obtain a satisfactory result.

The Civil Code imposes a ten year liability on vendors and builders, but optional insurance is very expensive.

Large foreign companies which come to work on behalf of the State are obliged by contract to cover their ten year liability by insurance.

The description which follows relates to the general context, regulations and controls, contracts and then liability and insurance.

2. CONTEXT

In this country of 380,000 inhabitants the Ministry of Public Works has jurisdiction over the entire construction, building and civil engineering sector.

The 118 local authorities and the State share regulatory powers. The legal basis consists essentially of:

- o the Civil Code, in particular articles 1601, 1646, 1792 and 2270,
- o the law of the 4 April 1974 concerning the system for government contracts for construction and supplies,
- o the grand-ducal regulation of 6 November 1974 concerning government contracts for construction and supplies,
- o the law of the 28 December 1976 on the sale of buildings as yet unbuilt and the compulsory warranty in respect of construction defects,
- o the law of the 19 March 1988 on safety in State administrations and departments, in public establishments and schools.

The dividing line between **sale** and **the commissioning of works** is thus fairly clearly drawn.

3. CONTROLS

3.1 - Regulations

There is no law on construction in Luxembourg. By virtue of a government arrete every local authority has to draw up its own **construction regulations**, which must contain both planning and technical requirements.

Most local authorities now have such regulations, but with the exception of the town of Luxembourg and a dozen other towns no specialist municipal personages have been appointed.

Only in the town of Luxembourg do the authorities apply real controls on construction.

Throughout the territory of the grand duchy a number of buildings which are open to the public, hotels, auditoria, etc., are subjected to a rigorous procedure in the context of the law of 18 March 1988, but this does not apply to office buildings.

Some local authorities apply their own technical regulations and detailed compulsory requirements in their "building regulations".

There are of course general priniciples on the quality of materials, a duty to build in accordance with good practice, to prevent fire risks, etc.

In practice clients and contractors can build preferably in accordance with European **standards** and rules, or failing that German or French standards.

If they use products which are not covered by a standard, "neutral" foreign technical approval may be required.

In some cases the highways authority has to carry out tests.

3.2 - Construction permit

A construction permit is required for any building of a certain size.

Documents appended to applications must be signed by an architect. Mayors issue permits on the advice of a committee, which is not binding.

It is also necessary to obtain roadway permission, after a check has been made that the projected construction is stable and therefore offers no danger to traffic by the public.

There is no supervision of construction while work is in progress, no government acceptance of the completed structure, except in the case of buldings which are open to the public, which are supervised by specialist personnel from the Ministry of Labour.

3. CONTRACTS

4.1 - Principles

In Luxembourg poor quality is anathema.

The government places great importance on secondary work, finishes and even furnishings.

It is of the opinion that investment and maintenance form a single whole, and prefers to grant the credit necessary for the construction of solid builidngs.

By doing so it avoids the budgetary shortages which are unfortunately frequent when maintenance expenses have to be voted by the elected representatives.

The government even goes so far as to ask that contractors should produce maintenance contracts together with their bids.

As the Buildings Administration (Regie des Batiments) does in Belgium, the Luxembourg government sometimes requires contractors to provide the necessary funds. A general contractor who provides finance, builds and maintains is reimbursed in twenty years. This is the situation for the large European buildings.

In the town of Luxembourg only architects who have received university training abroad for at least 4 years followed by a final examination which is recognised as being valid by the appropriate Luxembourg governmental committee may submit designs to the government.

4.2 - Practice

In the case of private contracts there is no standard contract but the specifications are almost all the same. In the case of government construction work there is on the other hand a basic law of the 27 July

1936, amended by the law of the 4 April, 1974.

In addition to this the grand ducal regulation of the 6 November 1974 provides for a "general specification applicable to government contracts for work and supplies on behalf of the State" and also establishes methods of award and the procedure for the "submissions committee".

In principle work is contracted for by separate trades.

General contractors are only approached in the event of major works. The government insures that subcontractors are regularly paid and requires a "schedule of payments" from the general contractor.

A draft law which proposes granting subcontractors direct action (direct payment) is before the legislature.

4.3 - Acceptance

The concept of the **completion of a building** is defined in articles 1601-2, 6, 7 and 9 of the new Civil Code, the text of which was amended by the law of the 28 December 1976 mentioned in section 5.

These requirements apply if a building as yet unbuilt is **sold.**

Defects in conformance with the specifications of contract which are not of a substantial nature and defects which do not render structures or items of equipment unsuitable for their use do not constitute obstacles to establishing completion. Such defects or poor workmanship are visible defects which the purchaser must discover within **the month** following the "taking of possession" of the building.

What is clear in the context of the sale is less clear in the context of construction. The concept of the **acceptance of work** is not defined by the Civil Code, but by contract.

In the **government sector**, contract specifies two successive acceptances.

A client may make use of new installations following provisional acceptance, whereas the contractor has one year in which to make good defects and poor work; final acceptance is confirmed in writing after the work has been made good.

An irremediable defect or poor work may result in an allowance agreed between the parties.

In the **private sector** it is impossible for there to be a true "acceptance of work".

The starting point for builder's ten year and two year liability, which will be discussed in section 5, is then either:

- the date on which the building is made available,
- the date on which possession is taken,
- the date on which the keys are handed over, or
- the date of occupation

5. LIABILITY

The system of builder's ten year liability as it currently exists in Luxembourg is inspired by the Napoleonic Code.

It is similar to both that of the Belgian Civil Code (no compulsory insurance) and that of the French Civil Code (two year liability for minor work.

Roughly speaking it is the French system prior to the 1978 law.

5.1 - Construction period

When working on government construction contracts contractors are bound to conform to the "special specification" which forms the basis of the contract concluded between the client and himself.

He must deposit a bond of 5% of the value of the contract or provide a bank guarantee for the same amount.

If following notification a contractor does not carry out a particular condition in a contract the client may as of right cut off the sums due to the contractor, and therefore the bond, on mere notification.

In addition to this 10% of instalments paid are retained as a guarantee until the work has been accepted, which only takes place when all the defects found with a knowledge of both parties have been made good by the contractor.

A contract may specify a maintenance period one year, often covered by the contractor's "all risks" insurance.

There is therefore a first provisional acceptance when work is completed and a second final acceptance generally one year later.

The client has use of the structure from the date of provisional acceptance,

and contractors, the new article extends this to **any person bound to the client by a contract commissioning works**: "If the building should collapse wholly or in part through a defect in construction, even through a defect in the ground, contractors, architects and other persons bound to the client by a contract commissioning works shall be liable for ten years".

2) The new article 2270 introduces **two year liability for minor work**: "Architects, contractors and other persons bound to the client by a contract commissioning works are discharged from warranty of the structures which they have made or directed after ten years in the case of major works, and after two years in the case of minor works".

5.4 - Interpretation

Because the Luxembourg Civil Code makes a distinction between **major works and minor works**, as in France before the Spinetta law, it is necessary to know what the judges' interpretation is.

In order for the ten year warranty to apply, there must be:

- either a defect in the ground,
- or a defect affecting major work.

The definition of "major work" has varied with time in favour of the "consumer".

According to a ruling of the Court of Appeal of the 29 June 1984, "minor work can only include that which is designed and performed by way of providing a connection to, or decorating major structures, work which does not form part of the investment in property and which can permissibly be renewed under the heading of maintenance or simple restoration without destruction".

This ruling considers the criteria for major work to be:

o the function of the work in the building with regard to its stability and

but the contractor is not thereby excused from making good any defects found.

5.2 - Post-construction period

When work has been completed a builder's liability is determined by the Civil Code. It is a matter of ordinary law.

The important text in this respect is the law of the 28 December 1986 "**on the sale of buildings as yet unbuilt and the obligation to provide a warranty in respect of construction defects**", which is reproduced in full in the appendix.

a) This law **supplements** the Civil Code **for the sale of buildings as yet unbuilt** with:

1) articles 1601-1 to 1601-14,
2) article 1642-1 according to which the **vendor** of a building as yet unbuilt cannot be discharged of his liability for construction defects which are then **visible** either prior to acceptance or after the expiry of a period of **one month** following the taking of possession by the purchaser,
3) article 1646-1 according to which the **vendor** of a building as yet unbuilt is held liable for **ten years** from the date of acceptance for **hidden defects** for which architects, contractors and other persons bound to the client by a contract commissioning works are themselves liable by virtue of articles 1792 and 2270 of the Code; he must also **guarantee minor work** for **two years** from the date of acceptance.
These warranties also benefit subsequent owners of the building, but legal action can only be taken against the initial vendor,
4) a supplement to article 1648, according to which any action must be initiated, on pain of being barred, **within the year** following the date on which the vendor had his liability for **visible defects** discharged.

b) This law **amends** the Civil Code for **construction** proper:

1) Whereas the old article 1792 restricted **ten year liability** to architects

safety,

- o the serviceability of the structure,
- o the magnitude of the repair which the defect makes necessary,
- o the cost and the nature of lasting investment in the work in question.

On his own account the director of public works has provided a definition of what constitutes these major and minor works in a note of which an extract is provided in the appendix.

The Luxembourg government emphasises the theoretical nature of all these considerations. Defects or poor work which may engage post-construction liability are extremely rare in government construction work because:

- o projects in fact meet the imperative requirements for quality and solidity in structures,
- o because work done is closely supervised by government authorities.

Article 1792 not only requires that there should be a defect in the ground or a defect affecting a major structure in order to incur ten year liability, but also that the defect should be of sufficient **severity** to affect the solidity of the building either wholly or in part.

A mere nuisance in use would not be sufficient.

Unlike other countries Luxembourg requires that **actions** in respect of warranty must take place within the ten year **warranty** period.

In other words, in order to be considered, an action must be initiated before expiry of the builders or vendor's ten year or two year liability period.

In any event there is no benefit to purchasers in "storing up" any basis of claim. The concept of a "**short period**" between the date of the appearance of a hidden defect and the date of legal proceedings applies here more than elsewhere.

6. INSURANCE

Insurance is not specified either by law or by the Civil Code.

It is taken out either voluntarily or at the request of the client. It is then a requirement of the special specification.

There are two types of insurance in Luxembourg:

- ten year and two year civil liability insurance,
- "all site risks" insurance.

6.1 - Liability insurance

Liability insurance is regularly required by the Government when the state is a client, except in the case of minor operations.

The same applies to new housing and large scale private sector operations.

This insurance does not apply to individual builders, but to the **object built**. It covers all the parties involved: developers, architects, engineers, contractors, subcontractors, etc.

The civil liabilities in question are not only those in articles 1792 and 2270 of the Civil Code (ten year and two year), but also those of article 1382 with respect to third parties.

It is generally the contractor who takes out the policy before work is begun, on the basis of an estimate negotiated with an insurance company.

When insurance is in existence a Belgian or French technical inspection office examines the stability of the structure, but the insurer himself has no influence over the inspector.

This insurance is similar to Belgian insurance and inspection. It continues to apply to successive owners for 10 years.

There is no bonus or deduction, but an excess of the order of 10%. The warranty obviously lasts for ten years, but it is reduced after every loss by the amount of compensation paid by the insurer.

The cost of insurance/inspection as a whole seems to be particularly high, even though losses are rare, especially in the case of government construction work.

6.2 - Site insurance

"All risks site insurance" is required by the client in the case of major works, particularly when they are performed by a general contractor.

The following can be insured: the structure itself, fittings, equipment, third party damage, etc., in various circumstances: force majeure, storm, flood, snow, landslip, theft, clumsiness, negligence, vandalism.

Premiums vary greatly depending on the project, between 0.5 and 1% of the value of the operation. They are less if liability insurance is also taken out.

9. APPENDICES

List of the appendices to be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - Law of 4 April 1974 (government contracts).
2 - Grand ducal regulation of the 6 November 1974 (government contracts).
3 - Law of the 28 December 1976, relating to the sale of buildings as yet unbuilt and the duty of warranty in respect of construction defects.
4 - The distinction between major and minor works.
5 - Documentation on ten year and two year liability insurance.
6 - Documentation on "all site risks" insurance.

10 - The Netherlands

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1. INTRODUCTION

As in most European countries it is not so much the concept of post-construction liability which interests Dutch clients, but that of the **durability** of buildings and civil engineering structures.

Special attention is now concentrated on quality in general, quality assurance and quality control.

The Dutch with their pragmatic approach do not hesitate to prefer **contract** to law, to industrialise structures and to standardise projects.

Thus in the case of subsidised housing they have decided to make modular co-ordination compulsory.

When organising operations clients generally choose the traditional approach, but they often prefer an original procedure, the building team.

In the case of buildings of a repetitive nature, schools, old peoples housing, the Dutch do not hesitate to prepare standard programmes, even to the extent of going searching for ideas abroad.

In the subdivision of responsibilities in the event of post-acceptance damage the contractor is considered number one, whereas architects risk less than elsewhere, without going quite as far as the clear separation between civil and penal liabilities such as that practiced in Italy.

Briefly, in many respects the Netherlands are distinguished by their nonconformism, their taste for innovation and their aptitude for taking a far-seeing view.

These character traits appear in both the legal field and in the technical field.

2. CONTEXT

2.1 - Political organisation

In this country of 14 million inhabitants where the per capita income was 9,400 US dollars in 1984, the population density means that special importance is given to land use, planning and construction.

Legislation is unique and centralised, but is little developed. All draft laws are subject to the Council of State which stands alongside the Queen.

Each of the 11 provinces has its own parliament and its own government. Government authority is divided between the State, the provinces and 800 local authorities.

The local authorities, which have fairly wide powers, act for the State and the provinces "by delegation", as in Germany.

Local authorities have a fair degree of independence. A slight tendency towards reconcentration to the benefit of the State can be seen in the field of construction.

2.2 - Main organisations

The Ministry of Housing and Construction, which also has jurisdiction in planning matters, prepares draft laws and issues ordinances, edicts and orders.

It exerts a decisive influence on subsidised housing, which is extraordinarily highly developed because it represents three quarters of new housing.

As in Belgium, the United Kingdom and Germany, it is responsible for constructing State buildings.

In general this ministry can give instructions, which remain restricted to

the provinces, but they cannot do so to local authorities.

In each province central power is represented by the Crown's commissioner, and the local parliament appoints sector "deputies".

The provinces have jurisdiction for planning. They approve detail plans and local authority construction regulations.

The local authorities are the authorities having jurisdiction for the issue of authorisations for construction.

Their task is to draw up detail plans and their own construction regulations.

The Dutch are preparing new national construction regulations. For this purpose a committee for harmonising the regulations has been set up close to the minister.

Legal basis: few major texts:

- Civil Code,
- The law of 1962 on housing and planning,
- Uniforme Administratieve Voorwaarden,
- Building team.

2.3 - Standards and approvals

In general the Netherlands is probably the one country in Europe which has the greatest interest and shows the greatest care in technical standardisation, conceptual innovation, "industrialised" building and quality certification. This progressive and imaginative quality is reflected in obvious cohesion in the activities of the various professions involved in construction.

It is based on the conviction that if the construction industry does not make a spectacular leap forward in productivity and quality like other

industries it will inexorably decline.

Thus technical standardisation is of considerable value here. Not only do construction regulations frequently look back to standards, or refer to them directly, standardisation and regulation are closely bound up with each other.

Very often model contracts and tendering procedures require compliance with standards in the case of works subsidised by the State.

Dutch standards, NEN, are prepared by a mixed committee within the Standards Institute, a private institution.

KOMO, in Dutch "Stichting voor Onderzoek, Beoordeling en Keuring van Materalen en Construkties" (the Foundation for the Investigation, Evaluation and Inspection of Construction Materials), is a private organisation originating from the union of local authorities. Administered by a council which includes authorities, architects and engineers, contractors, etc., and partly subsidised by the Ministry of Housing, KOMO plays an important part in the approval of technical innovations and in the inspection of imported products.

KOMO certificates in practice have real clout.

Still on the subject of standardisation it should be noted that in the Netherlands modular coordination is compuslory for subsidised housing and that resort to the "building team" enables industrialised companies to take part in the preparation of projects, which is equivalent to a truly national consensus directed towards the rationalisation of production facilities.

In this spirit Progressbouw is an association of major firms involved in the construction of housing and industrial building which use rational construction methods. Progressbouw's target is optimum satisfaction of the essential needs of construction, formulated by "**demand**" through a suitable "**offer**".

This association directs its activities towards the construction **market**, where needs are expressed, and also towards construction processes so as to promote effective production.

Progressbouw acts as a **mediator** between its own members and the other parties involved in construction. It provides **investigations**, where the need is felt for them, so as to support its own policy and to assist mutual information between its members.

2.4 - Planning and subsidised housing

The first planning instrument was the 1901 law on housing, the Woningwet, whose main preoccupation was correcting the unhealthiness of housing.

The concept of planning itself has undergone many changes, and finally it is the major laws of 1962 on housing and planning which are still valid.

There are three levels of planning, national, regional and local.

National planning would never seem to have got off the ground.

Regional planning is the responsibility of the Provinces. It is not compulsory, but the government has the power to demand it.

At **local authority level** planning is partly compulsory.

A structure plan may be prepared for a local authority's entire area.

As for detail plans, similar to the German Bebauungsplane, they are only compulsory for the parts of local authority territory outside long-standing urban centres.

Local authorities can obviously draw up detailed plans for each of these centres, but in principle it is up to them to decide to do so.

All these plans are drawn and prepared on the basis of a model provided by

the Union of Local Authorities. A certain amount of coordination is ensured, particularly in respect of protection of the environment, nature, historical sites and monuments, etc.

The **subsidised housing** stock, both rented and purchased, has been very prominent in the Netherlands for a very long time.

Three new houses out of four are subsidised.

A thousand organisations, which are obliged to respect ceiling prices, nevertheless benefit from relative freedom of action.

The smallest of these organisations, which do not have the necessary skills in-house, frequently have resort to the procedure known as the "building team" when they act as clients in order to increase their stock.

This practice is used for one project out of every two. However the larger organisations responsible for subsidised housing rarely make use of it.

3. CONTROL

3.1 - History

In the nineteenth century it was impossible to impose even a few sensible rules to avoid anarchy in construction.

There were of course prohibitions, like that of building wooden houses or of tarring facades, and obligations, such as those for aligning buildings along roads and for pile foundations close to the sea.

Epidemics drew attention to poor hygiene in housing and especially to the "hovels" in which workers lived.

This was the origin of the **1901 law on housing**, which specified that every municipality must regulate construction and housing.

A departmental model was established in 1933, but this did not put an end to the practice of cupboard-beds, which continued until 1941.

After the war the crisis in housing and the economy as a whole rapidly led to the development of industrialisation.

Then, within the framework of the reconstruction law, an "edict on uniform construction regulations" was prepared in 1956, and this edict had priority over municipal regulations.

From 1965 the entry into force of the **new 1962 law on housing** compelled every municipality to produce construction regulations based on a model established by the VNG, amended 15 times between 1965 and 1980.

For this reason the appropriate minister finally decided in 1983 to reorganise Dutch regulations, by concentrating them in a new edict, which has not yet been issued.

This historical reminder shows that it is unrealistic to leave the task of

writing construction regulations to municipalities.

3.2 - Municipal regulations

What are the contents of the current **municipal orders**, which have their legal basis in article 2 of the 1962 law on housing?

Essentially concerned with safety and health, they can also deal with subjects such as energy saving and the environment, then using the law on muncipalities as a basis.

It is compulsory for the following matters to be regulated in any municipal regulation on construction:

- roads which can be built on,
- front and back alignments,
- location of buildings,
- solidity of facades, walls, floors, stairs, attics and roofs,
- fire prevention,
- wastewater and rubbish disposal,
- control of rats and mice,
- external appearance,

as well as matters specific to housing:

- dimensions and partitions,
- internal courtyards,
- rooms, stairways, halls and landings,
- the level of ground floor rooms,
- damp prevention,
- chimneys, ventilation, light,
- rooms with a supply of water.

The highest level texts deal with acoustic insulation.

These regulations which are included in municipal construction regulations

relate to construction, but also use, planning and the construction permit.

These sets of regulations give rise to two types of criticism:

o from the construction industry, which finds them too detailed, too numerous and too rigid,
o from the public, which is subject either to additional requirements from the burgomaster or possible exceptions.

In addition to this some regulations overlap, most frequently for safety reasons.

A desire has been expressed for the harmonisation of technical regulations in the European Community.

3.3 - New edict on construction

The new edict on construction should include:

o technical requirements for new or existing buildings and associated works,
o special rules for housing and in particular on dimensions, areas, fittings and the layout of rooms,
o safety rules supplementing the general provisions for fire prevention,
o requirements concerning the use of standards and technical approvals, insurance and quality control, energy savings.

The municipalities will be given additional jurisdiction to enable them to determine more specific regulations or requirements, in particular on foul water or storm water drainage, on the stability of buildings, on the height of buildings, on the use of certain materials, etc.

Conversely, instead of imposing more requirements, burgomasters may grant exceptions in certain cases and within certain limits.

For preparation of the new edict, and more generally for the new national

construction regulations, the appropriate minister has developed a **fundamental philosophy** of the greatest interest. Briefly, it specifies four types of concern:

1 - the OBJECTIVES of safety, health, serviceability, energy saving,
2 - FACTORS, mainly lifetime, cost, environment,
3 - PRECAUTIONS which must be observed in order to restrict the field of regulations, to given them practical significance, so that they are measurable and inspectable and so that they do not constitute an obstacle to innovation,
4 - the CONDITIONS which must be respected in order to achieve an unambiguous and readable whole which is therefore uniform, complete and easy to amend.

3.4 - Construction permit and controls

A **construction permit** is required before any work is begun.

It should be noted that an advance opinion from a committee whose task is to judge the **beauty** of a planned structure is required on a regular basis.

All public or private clients must submit their applications to the municipalities, which entrust examination to a "local authority or joint local authority" construction office.

The authorities may require the use of an architect or engineer. They attach great importance to stability calculations.

The construction permit issued by a burgomaster only relates to construction regulations. It is the client's responsibility to obtain authorisations from other authorities such as those responsible for waterways, roads, the environment, etc., but the local authorities act as an adviser.

From the point of view of fire safety the examination is concerned with the safety of persons and not the safety of assets. The requirements are especially severe.

The German concept of a director of works (Bauleiter), responsible for ensuring that government regulations are respected on site, does not exist here.

Controls on building are put into practice by the local authorities a little as in Germany but with the difference that the procedure is less thorough. Thus the government cannot call in specialised experts from the private sector.

A local authority may however require that a client use competent experts.

There is no "government" acceptance of main structures, but only final "governmental" acceptance which has the effect of an authorisation for the occupation of the completed building, but only in the case of housing. It is more complicated in the case of buildings other than housing.

As no damage insurance exists in the Netherlands, there are no technical inspection offices such as the SECO in Belgium.

4. CONTRACTS

4.1 - Those involved in construction

Among the various parties involved in construction neither the architect nor the contractor is supreme.

The Dutch system rests on the duties of the **client**, who is responsible for compliance with the statutory requirements and regulations according to law.

A similar principle applies in Denmark.

The rights, duties and responsibilities of Dutch **architects** are less than in Belgium for example: no monopoly, no association, no specific law.

Trained as architect-engineers in the universities, or at the Academy of Fine Arts (AVB), their professional organisation is the BNA, and their title is not protected.

There is on the other hand an association of **engineers**.

As far as contractors are concerned, some of which are powerful industrial concerns, they can only practice if they have successfully passed an **examination** which relates to both technique and management.

Before being authorised to practice contractors must prove that they have financial credibility.

In addition to this only contractors which are included in a **list** have access to government contracts.

Other professionals, consultants, technicians, developers and others are in no way restricted by such obligations.

Contractual relationships in principle lie within the framework of the Civil Code, the Burgerijk Wetboek, but as in Germany exceptions to the code may be

made by contract.

Above all else the parties are afraid of leaving it to the ordinary courts, which are suspected of incompetence, to settle their disputes. This is why contracts always contain an **arbitration** clause. This concept is developed in the Netherlands as nowhere else in the European Community.

4.2 - Procedures

Procedures are original and realistic.

There is a strong tendency to unify design and building in the Netherlands.

The very special procedure entitled "**building team**" is the highest expression of this desire to unify the production process.

It enables "industrial contractors" who really have "something" to contribute to engage in innovation without forcing architects to accept humiliating terms, as is the case with the "design and build" procedure.

When a client decides to make use of a building team he must first of all appoint his representative, who will play a central part throughout the procedure.

The characteristic feature of the building team is that the contractor is part of it from the outset, preferably in preparation of the programme and in the design of future buildings. Acting then as a simple consultant, under the tutelage of the client, and alongside the architect, quantity surveyor and engineer or engineers, it allows the "design team" to benefit from his know-how.

At a particular stage in the development of the project the consultant contractor is invited to make an offer. If this is accepted he becomes the contractor without further ado, and this is what happens nine times out of ten.

This is obviously a "mutual agreement" procedure which government authorities cannot easily use. If necessary they prefer the turnkey approach.

Nevertheless it is widely used by the organisations which construct and manage subsidised housing, particularly in the case of medium sized operations. The client has the advantage of avoiding unnecessary costs and finally hopes to achieve a better quality-price ratio as a result of this one to one approach.

The disadvantage is that the procedure in fact gives the contractor too strong a position.

Within a building team a client enters into contracts directly with the architect, the quantity surveyor, the engineer, and the consultant contractor. Each retains his responsibilities and, it can be said, his independence.

In general the **traditional approach** is the most widely used, in preference to the building team, but then only one contractor is involved, the main contractor, mainly to avoid gaps in the coordination of work.

Whereas the contractor is co-responsible for the design in the building team, he is not in the traditional procedure:

- the client is responsible for the project,
- the contractor is responsible for its implementation,

and it is the architect who monitors the contractor in the name of the client.

In order that the responsibility of the "main contractor" should be clear, it is prohibited for a client to refuse a subcontractor.

In the Netherlands jobs are always put out to contract on the basis of a fully completed project, including therefore detailed technical

specifications and construction plans.

Although the client is responsible for a project, the contractor, in his capacity as main contractor, is responsible for warning the client against errors in design. In any event it is he who in practice bears the greatest financial consequences in the event of post-acceptance damage, more so than in other countries.

The architect's responsibility in the Netherlands remains relatively limited.

This lesser responsibility for the designer, whether he is an architect or an engineer, not only has advantages for the professionals.

Thus the powerful ministry responsible for transport prefers that projects for roads, waterways and maritime and other structures be prepared by its own engineers.

The situation is then very clear. The client, the project designer, is directly responsible for the design.

It should be pointed out that, as in Belgium and Luxembourg, government clients can use **leasing** for the construction of government buildings.

In general **contracts** are entered into on the basis of **models** and not on the basis of detailed statutory texts, such as for example the French government contracts code.

Faced with the variety of different model contracts a working party set up in 1978 issued proposals in 1981 which have since not been taken up.

It is not envisaged that a large number of model contracts will be favoured in the new draft civil code which contains a new section on construction contracts.

In the new Dutch civil code the provisions relating to construction

contracts will form an integral part of those dealing with the sale of consumer goods.

An important point to emphasise is that in the Netherlands contractors have a duty of vigilance concerning the architect's design. This point will be taken up in detail in section 5 on responsibilities.

4.3 - The UAV

For construction contracts Dutch **government clients** must make use of the UAV, **"Uniforme Administrative Voorwarden"**, uniform administrative conditions.

The origin of these unified contractual conditions is the Ministry of Waterways, the importance of which in this country is well known. Prepared in close cooperation with the construction industry, these UAV resemble the German VOB.

The 1968 edition is to be replaced by a 1988 edition.

The UAV are written for clients who are assumed to be competent, as of course government clients for roads, canals, schools, civil and military buildings, etc., obviously are.

They are cosigned by the Ministers of Transport, Housing and Defence.

A competent client, who either has his own technical departments or external advisers, himself exercises real supervision over the performance and progress of work. This is the spirit of the UAV which have also been adopted in their contracts by private clients, but only in the case of major operations.

It should nevertheless be noted that more and more powerful clients are dictating their own clauses to companies, even to the extent of going far from the UAV.

In their new edition the UAV will introduce new rules, inspired by case law, in particular on the collateral responsibility of nominated subcontractors, a British concept.

The UAV in their 1968 edition take the form of a document of some 50 pages containing some 50 paragraphs, themselves grouped into 14 sections.

A more recent appendix relates to **insurance** taken out by contractors.

Section I is devoted to definitions, the contractual nature of the UAV and standards.

Section II deals with representation of the parties, the client being represented by a true "manager".

Section III defines the **general duties** of the parties, of which there are five for the client and 29 for the contractor. They refer in particular to articles 1375 and 1649 of the Civil Code, and impose a duty of vigilance on the contractor in respect of the project provided by the client.

Section IV is devoted to performance periods and in particular **acceptance** (paragraph 9), **completion** (paragraph 10), the **maintenance period** (paragraph 11) and **contractor's post-completion liability** (paragraph 12), subjects which will be examined below.

Section V deals with amendments and modifications, VI with the site, VII with construction materials, for which the contractor is responsible, and for any commercial **warranties** for certain **members** used in construction.

Section IX deals with construction work, X with additional work or lesser work, XI with payments, and in particular, in paragraph 44, with liabilities in the event of **damage** sustained by the structure before acceptance.

Section XII deals with the possibility of the disappearance of the parties, and XIII with unforeseen circumstances.

Finally section XIV concerns recourse to **arbitration**, either to record particular facts while work is in progress or to settle particular disputes.

The general impression is that this document is intermediate between the French CCAG and the German VOB/B, but it is even more detailed.

It would be interesting to know what the fate of the next edition of the UAV, the fruit of experience, will be.

4.4 - Other model forms of contract

Other general contractual clauses exist alongside the UAV, in particular:

o those imposed by the organisation guaranteeing **subsidised housing**, the GIW, which date from 1974,
o those of the model used for the sale or construction of housing in the non-subsidised sector,
o those called the AVKA, which are used for **small buildings**.

Under pressure from consumers unions, some clauses which are considered to be too favourable to contractors have recently been modified.

There are also standard forms of contract between contractors and **suppliers** in the Netherlands.

Restrictions to suppliers liability which are frequently made in these contracts are considered to be unacceptable.

A contractor may have judgement given against him for using defective products, even when these have been ordered by a client. This is a point which must be dealt with in the new edition of the UAV.

The general "**AR 1971**" rules are the equivalent for **architects** to the UAV for contractors.

They deal with the architect's task, remuneration and responsibility.

The AR 1971 may become contractual by a mere exchange of letters. They are used by the government and private clients.

Fees are proportional to the value of the work and are subdivided into three classes depending on its complexity.

The AR 1971 limit architect's liability with respect to the client. An architect is liable only in the event of "serious fault" which causes damage "directly".

The amount of compensation cannot exceed half the fees. The limitation is for ten years following acceptance.

And of course arbitration is always possible.

For consultants and **engineers**, the normal model contract, the "**RVOI**", is not compulsory. Consultants/engineers are responsible for errors which they may make acting as competent and conscious professionals. The amount of compensation which can be claimed from them is a maximum of 1,500,000 florins.

4.5 - Acceptance

This question is dealt with in section IV of the UAV, which is widely incorporated into contracts.

1) The contractor informs the client of the date on which in his opinion the work will be completed. Acceptance must normally take place within 8 days following this date.

2) After acceptance the client writes to the contractor to indicate approval, or rejection, mentioning defects. Acceptance is final if approval is given.

3) If the client does not write within 8 days following acceptance, acceptance is considered to have been given.

4) If acceptance does not take place within 15 days following the date suggested in 1) by the contractor, he will write again to the client, who has 8 days in which to reply. If no reply is received during this period acceptance is deemed given.

5) Minor defects cannot be invoked to delay approval, but they must be repaired quickly.

The client himself may take the contractor's part to propose a date by which his opinion the work should be completed.

All this procedure may be recorded in writing in the "site book", which must kept on site, instead of communicating via the post.

A "maintenance period" is not required unless this is specified by contract.

During this period the contractor must make good any new defects at his own expense, within a reasonable period determined by the client.

In the case of certain types of damage which occur during this period responsibility may lie wholly or partly with the client.

After this period the acceptance procedure described above in 1), 2), 3), 4) and 5) begins again in order to establish that the contractor has fulfilled his obligations.

The date of acceptance is obviously the date on which the client "**approves**" completion, whether or not there is a contractual "maintenance period".

After that date the contractor may no longer be held liable for new defects, with the exception of those which will be considered in the next section.

5. LIABILITY

Unlike Anglo-Saxon builders, who work within the imprecise framework of common law, the liabilities of Dutch builders are defined by the **Civil Code**.

It must also be emphasised that, as in Germany, a construction contract may **supplement** certain provisions of the Civil Code.

Twenty years ago the Civil Codes in France, Belgium and the Netherlands were the same for contracts "commissioning works".

This comprised articles 1640 to 1652 in the Dutch Civil Code, articles 1792 and 2270 in the Belgian code and former articles 1792 and 2270 in the French code which were overturned by the Spinetta law in 1978.

The equivalent articles in the German Civil Code are articles 631 to 651, which have been brought up to date.

The concepts of the Napoleonic Code, which have be preserved without amendment in Belgium and the Netherlands, are considered to be out of date and in practice have been replaced by the concepts of the UAV.

5.1 - Contractor's liability

Article 1645 of the Dutch Civil Code which is equivalent to article 1792 of the Belgian Civil Code deals with defects affecting the solidity of a building, and holds the builder to be liable for **collapse** for a period of 10 years.

According to the Supreme Court, this article means that **the burden of proof** lies on the builder, who must prove that the damage is not due to fault on his part.

The Dutch courts "interpret" this article 1645 liberally.

Traditionally this article only applies for serious defects likely to give

rise to the collapse of a structure.

It became clear that this provision was not sufficient and that another was needed for **hidden defects**:

- o 2 years in Germany in paragraph 13-3 of the VOB,
- o 5 years in the Netherlands in paragraph 12-b of the UAV,
- o again in the Netherlands, 4 years in the AVTI and 3 years in the AVKA,
- o 2 years in the "Benelux Draft", but nothing of the sort in Belgium.

Germany is the most liberal, Belgium is the least. In the Netherlands article 1645, which is concerned with **collapse**, is supplemented contractually by contract which considers **hidden defects** which do not give rise to collapse.

Here for example is the tenor of **paragraph 12 of the UAV**, which deals with the contractor's post-acceptance liability:

1) Following the day on which work is accepted a contractor may no longer be held liable for defects in the structure.

2) There are two exceptions to the above:

a - cases in which article 1645 of the Civil Code applies,
b - **hidden defects** due to the fault of the contractor, provided that the latter is notified of these within a reasonable period.

3) A hidden defect is considered to be one which despite continuing vigilance by the client is not discovered while work in is progress or at the time of acceptance.

4) No legal action alleging a hidden defect is possible after the end of the **fifth year** following acceptance.

The date of acceptance is the day following the "maintenance period" where this is specified by contract.

It would seem therefore that **between year 11 and year 30**, in the Netherlands as in Germany, there remains the possibility of legal proceedings against the contractor when a building collapses through the **fault of the contractor**, but it is then the plantiffs responsibility to provide proof of fault.

There is also the possibility that not only the contractor but also his nominated subcontractors can be sued "in tort".

5.3 - Architect's liability

As already indicated above in §4.3, the contract between a client and an **architect** may limit the liability of the latter after completion.

Certainly, in the event of a serious fault it is doubtful that an architect could escape all liability if a building were to collapse and result in dramatic consequences within 30 years.

In the event of a structural defect, which must be repaired, damage not caused by a defect, a failure in the supervision of construction or an infeasible plan, an architect may be compelled to reimburse part of his fees, up to a maximum of half, provided that proof of his error can be produced.

Thus the AR 1971, which are the general conditions for any architect's contract in the Netherlands, devote section VI to this question of liability in these terms:

"- an architect is responsible to his client for losses sustained by the latter as a direct result of a serious error by the architect,
- an architect must limit or make good these losses at his own expense, up to the limit of half of his fees, and within 10 years of the completion of his work,
- architects are responsible for the compatibility of components designed and manufactured by others than himself with the building as a whole."

The concept of "serious error" in these AR 1971 may be replaced by the concept of "reproach error" in the new "SR" which will additionally limit liability to 5 years instead of 10.

5.3 - Supplier's liability

This is a subject which is of great interest to the Dutch, given the high level of industrialisation prevalent in the country.

As in Denmark the factory manufacture of components is exceptionally highly developed - more than one third of the added value of structures.

The new edition of UAV will contain major clauses concerning supplier's liability.

Some feel that the subject should be considered at Community level, in its multiple aspects.

The Civil Code, in its present form, is not appropriate to the industrial dimension of construction as it is developing in some countries.

It is interesting to note that the Danes have recently found a very simple solution for subsidised housing: five years following acceptance applicable to everybody - designers, contractors, suppliers.

Many other subjects of concern could be developed, here as elsewhere, for example:

o the liability of a contractor awarded a "turnkey" contract,
o the sharing of liabilities between clients, architects and engineers and contractors,
o force majeure,
o the responsibility of subcontractors "nominated" by a client,
o the liability of the client when he specifies a given material or subcontractor, etc.

It would be useful to compare problems and their solutions at Community level.

6. INSURANCE

6.1 - An overview

Unlike French law on building in general and the Danish law on subsidised housing, Dutch law does not include any duty to insure in the construction sector.

This does not mean that systems of insurance do not exist in practice:

o either because construction contracts require contractors to take out site insurance,

o or because project designers consider it essential to cover their professional civil liability,

o or because housing loan organisations require that properties be insured during and after the construction period.

What is however certain is that resort to insurance remains limited, and it does not represent a major market for large Dutch brokers.

An all risks policy, CAR **"Construction All Risks"** policy is required by clients who incorporate the UAV in their construction contracts.

Article 50-a of the UAV, which is devoted to this kind of insurance, is appended hereto, together with the general conditions no. V154 offered by a major insurer, which includes restrictions, for example:

- if the construction period is longer than 36 months,
- or if the building is taller than 40 metres,
- etc.

It is obviously the contractor and not the client who takes out this type of professional liability insurance.

As far as **architects** are concerned, almost all of them take out insurance policies consistent with their liabilities, generally limited by contract to the value of half their fees.

6.2 - "New housing" warranty

One of the most interesting features in the Netherlands, from the point of view of construction insurance, are the **warranty systems associated with subsidised housing.**

These systems have similarities with the British NHBC system and the new Fund set up by the Danish parliament, but they do not go quite as far.

They are based on the major principle of Dutch law which leaves a great deal of freedom to **contract**, and they have only recently been set up, as they date from 1974-1976.

One interesting example is the system developed by the housing construction guarantee institute, the GIW, Guarantee Instituut Woningbouw.

In a legal context where boundaries are broad, and refined to a greater or lesser extent by jurisprudence, it would appear to be prudent for the purchaser of new housing to take out damage insurance.

Dutch **law** can be summarised as follows:

o civil liability according to ordinary law for **30 years** for damage due to failure, in contract or in tort, by the builder, the burden of proof being the responsibility of the **owner.**
o special civil liability for **10 years**, in the event of a **major** structural defect, the owner not having to provide proof of fault by the builder.

Contract can never alter this 10 year legal liability, but it frequently limits a builder's liability for **hidden defects** which do not result in the collapse of a structure to **5 years** (UAV), the burden of proof lying upon the owner.

Most contracts state explicitly that a builder must act in accordance with good practice, and this provides a basis of assessment for some claims.

How can an owner benefit from a real **warranty**, which is certainly contractual, but has the same force as a law?

The GIW provides an answer specifically to this.

6.3 - The GIW system

The GIW is a private "institute", but covers almost 80% of new housing in the Netherlands.

National builder's organisations, consumers organisations and experts are represented in it.

The GIW provides both a warranty and insurance, and issues a certificate, the GIW Warranty Certificate.

Decentralised builder's associations work on behalf of the GIW.

The system operates to the benefit of any future owner-occupier of new housing, at the expense and risk of a builder who is a member of the GIW, provided that the building is not more than 4 storeys high.

The builders themselves are selected on the basis of financial, technical and professional criteria.

Plans are also investigated for compliance with the GIW's technical conditions.

No inspection on site, unlike the NHBC in England. The **6 year** warranty provided by the builider is automatic, the purchaser does not have to provide proof of fault.

In the case of major defects the 10 year warranty complies with the Civil Code.

The warranty is transferrable.

If a builder does not fulfil his warranty obligations, the GIW takes action, for example in the event of the bankruptcy, refusal or disappearance of a builder.

The certificate offers two warranties, called section I and section II.

Section I applies to the period between sale and the completion of work. The compensation does not exceed 17% of the cost of the housing, including the land.

Section II applies to the 6 year and 10 year warranties. It covers repairs if the builder should go bankrupt. The compensation may even be monetary.

Disputes are settled as simply and as economically as possible. Compensation cannot exceed 147,000 florins.

Specifically, the system is not restricted to the payment of compensation. It ensures that work is actually completed (section I) and that faults are actually repaired (section II).

Rulings given by independent tribunals limit the parties under contract, but prior conciliation is often preferable.

The GIW **standard contract** binding the purchaser to a builder is provided in the appendix.

All GIW builders must pay the organisation 0.8% of the cost of housing, this premium being recovered from the purchaser.

Clearly the GIW system is not incorporated into Dutch regulations. It is based on goodwill, but it has been required since 1981 for the construction

of certain new housing benefiting from high levels of State subsidy (class A).

This is not yet the case for class B and C subsidies. Lenders themselves frequently require GIW protection.

In 1987 more than 1500 builders were registered with the GIW, 40,000 houses were covered by section I and 150,000 by section II.

Out of 1800 disputes, almost half have been settled amicably. The 1,000 others only represent one house in a hundred.

40,000 certificates were still valid.

Complaints were valued at 3.3 million guilders.

In the year 1987 alone new GIW contracts totalled 6,000 million guilders.

The GIW, which is not a proper insurance company, has no direct contract with the reinsurance market. The risks associated with the 40,000 certificates are covered by:

- bank guarantees for insolvency insurance (section I),
- insurance companies, for extreme cases (section II),
- the organisations of GIW builders themselves, for many repair risks (section II).

7. LITIGATION

It has already been mentioned that the parties avoid bringing disputes to court.

They prefer consolidation and arbitration.

In the Netherlands there is an **Arbitration Tribunal for the Construction Industry** (in Dutch: the Raad van Arbitrage voor de Bouwbedrijven in Nederland), something which would be unthinkable in countries like Belgium and France. This is a very special institution which has been in existence for 80 years.

It would not be as vigorous as it is today were it not for the UAV, which make explicit reference to it in $49.

It was stated in section 4 that these UAV are the general contractual conditions which are compulsory for contracts between government clients and contractors, and are widely used by private clients for major construction work.

The specialised Arbitration Tribunal has some 100 members, a third of which are appointed by the Royal Institute of Engineers, a third by the architect's professional organisation and a third by the federation of contractors.

Some 20 extraordinary members are appointed by the tribunal itself.

All these appointments are ratified by the Minister of Transport and Waterways.

Appointed for renewable 4 year terms, members remain active up to the age of 70. Most extraordinary members are lawyers.

The Chairman of the Board cannot himself be an arbitrator.

When a dispute arises it is in principle up to the parties to choose an arbitrator or arbitrators from within the Institute, failing which the appointments are made by the Chairman.

When a dispute exceeds 65,000 guilders there are 3 arbitrators instead of one.

A so-called emergency procedure, which quickly leads to a definitive judgement on the basis of a hearing which does not last for more than one day, can be selected. The Dutch are convinced that arbitration is essential in construction for various reasons:

o the **technical skill** of the arbitrators, in a very special industry where numerous parties are involved, where the role of the architect is tenuous, where implementation takes a long time,

o the **practical and informal nature** of the relationships which can be established between the Arbitration Tribunal, the parties, witnesses and experts,

o the **speed** of the arbitration procedure, which is obvious because times are measured in months and not in years: 12 months only for 40% of arbitrations, 12 to 18 months in one third of cases,

o the **anonymity** surrounding the arbitration procedure, even though rulings are published every month.

The Tribunal benefits from an excellent reputation, it does not hesitate to make visits on site, it has a technical-legal background, etc.

Of course there are number of disadvantages in the system.

First of all its cost: an average of 3600 guilders.

Finally the fact that arbitration is only contractual between clients and contractors, even though other parties are always involved to a greater or

lesser extent.

Finally, the fact that rulings are final and can therefore not be taken to the High Court.

Some are of the opinion that the Dutch arbitration system could advantageously be transferred to a European level or even an international level.

In the Netherlands, as in Great Britain, it is difficult to know whether a plaintiff should claim breach of contract or breach of duty of care.

Many other questions arise, some are probably due to overlaps or obscurities in contract and in law:

- mutual roles and responsibilities of architects and contractors,
- the duty of vigilance on the part of the contractor,
- the liability of subcontractors, whether or not nominated by the client, or even sometimes specified by him,
- the possibility for the client of suing a subcontractor directly for negligence,
- the actual contents of the project given to the contractor, choice of materials, etc.

8. APPENDICES

List of the appendices which are to be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appenidices

1 - Advantages and disadvantages of three types of organisation for construction activity,
2 - UAV ($$1 to 12),
3 - UAV ("insurance" appendix),
4 - Normal conditions of insurance,
5 - The GIW system,
6 - The GIW contract,
7 - UAV (settlement of disputes).

11 - Portugal

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1. INTRODUCTION

In Portugal responsibilities are completely different in the case of government construction work and private constuction work.

In the case of the latter it is the **Civil Code** which applies, with five year liability applying to the contractor.

In the case of government construction contracts it is not the Civil Code which applies, but the "**legal rules**" for public works, and the warranty period is for one year.

Beyond these periods of five years or one year **owners** alone continue to have a responsibility, that of properly maintaining the building or structure built.

During the construction period the legislators rely not on the project designer but on the "**responsible technician**".

The following will be investigated in turn: the general context and in particular the legal basis, followed by regulations and muncipal authorisation.

Various topics relating to government or private contracts, acceptance and finally matters of liability and insurance will then be considered.

2. CONTEXT

2.1 - General

This country of more than 10 million inhabitants, where income per inhabitant was almost 2,000 US dollars in 1984, is divided into 22 districts, 4 of which are in the independent regions of the Azores and Madeira.

Numbering some 360, local authorities are relatively few in number.

The Ministry of Public Works, transport and communications has jurisdiction especially over housing and construction.

It has a directorate general in every district.

The powerful **National Civil Engineering Laboratory** has an essential part to play, even in the field of building.

It has one thousand persons in permanent employment and conducts its manifold activities in close liaison with the government.

The preparation and publication of regulations and standards lies within the jurisdiction of the following organisations:

- o the LNEC, already mentioned,
- o the Technical Regulations Revision and Establishment Commission,
- o the Directorate General for Quality.

2.2 - Legal basis

In addition to the **Civil Code**, the legal basis consists essentially of the following texts:

o Order no. 718/87 of the 21 August 1987. **List of legal provisions** which have to be observed by the "technicians responsible" for the planning of

structures and their construction.

o Decree-law no. 38.382 of the 7 August 1951. The General regulations on construction and planning (amended in 1952, 1963, 1975 and 1985).

o Decree-law no. 794/76 of the 5 November 1976 on land policy and the characteristics and cost of housing.

o Decree-law no. 166/70 of the 15 April, 1970 on the **authorisation of special works.**

o Decree no. 73/73 of the 28 February 1973 on the **official approval** required from the **technicians responsible** for plans for works which are subject to municipal authorisation.

o Decree-law no. 804/76 specifying minimum conditions for the habitability of buildings built without prior municipal authorisation.

o Decree-law no. 235/86 of the 18 August 1986 on the **legal system** for services in respect of the performance of works of construction, reconstruction, restoration, repair, maintenance and alteration of fixed assets belonging to the State, government associations, government institutions, government companies and mixed government/private companies.

o Decree-law no. 348-A/86 of the 16 October 1986 on the **revision of prices** for construction work and supplies.

o Order no. 605-C/86 of the 16 October 1986 on model forms of calls for tender or limited calls for tender and **standard specifications** in different circumstances: on a percentage basis, on a lump sum basis or on the basis of a price schedule, on the basis of the client's project.

2.3 - Terminology

Constitucao, constitution
Estado, state
Governo, government
portaria, ministerial edict
conceito; concept
municipio, municipality
obras publicas, public works
obras particulares, private construction

Construcao, construction

bens imoveis, real property
edificio, building
obra, structure
licenciamento muncipal, municipal authorisation
licenciamento de obras particulares, permit for private construction
fornecimento, supply
empreitada, construction work
restauro, restoration
reparacao, repair
conservacao, conservation
trabalhos, works

Participante no acto de construir, parties involved in the act of construction
empresa, company
arquitectos, architects
engenheiros, engineers
agentes tecnicos de engenhaira, engineering technicians
construtores civis, civil builders

building team
dono de obra, client
technicos responsaveis, responsible technicians
empreiteiro, contractor

Contrato, contract
partes do contrato, parties to a contract
regime juridico, legal rules
concurso publico, limitado, public, restricted tender
caderno de encargos, specification
proposta, offer
empresas titulares de **alvara** de empreiteiro de obras publicas, companies holding a public works contractor's permit

Building process

acto de construir, act of building
projecto, project
concepcao, design
execucao, construction
prazo, period
fiscalizacao, supervision
empreitada por preco global, por serie de precos, por percentagem, lump sum, itemised, percentage contract
caucao, bond
pagamento, payment
revisao, inspection
medicao, measurement
entrega, delivery
deficiencias de execucao, construction defects
vistoria, inspection
recepcao provisoria, provisional, final acceptance
resolucao, cancellation
seguro, insurance

Direito, law
codigo civil, civil code
obligacao, obligation, duty
responsabilidade, liability
culpa, blame
deviciencias, defects
cuidado, care
resultado, result
erros e omissoes do projecto, design errors and omissions
conciliacao, conciliation
acordo, agreement
processo arbitral, arbitration procedure

2.4 - Standards and codes of practice

Portuguese standards (normas) and the standards of the LNEC (especificacoes) are in principle mere recommendations. Quality and performance standards must be applied in the case of subsidised building work.

The use of new products or procedures is generally subject to **approval** by the LNEC.

It is the LNEC which inspects the quality of numerous construction materials and components.

3. CONTROLS

3.1 - Regulations

The general objectives and principles of Portuguese construction **regulations** are first of all the protection of health and safety.

Considerations of an aesthetic nature are also involved, together with a concern to encourage the construction of **low cost housing** through less severe requirements concerning surface area, height, linking spaces, etc.

All the texts making up the regulations are included in ministerial edict no. 718/87 of the 21 August 1987.[1].

This edict gives a detailed list of the "legal provisions" which must be observed by "responsible technicians" both in the preparation of "designs" and in "construction work".

The texts are grouped into three sections as follows:

1) Documents containing technical standards applicable to the design and construction of **structures in general**:

- Legal provisions of **general application** (43 texts),
- Legal provisions applicable to structures on the basis of their **location** (52 texts),
- Legal provisions applicable to the performance of construction work (11 texts),

2) Documents containing technical standards applicable to the design and construction of **certain types of structures**:

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1 - Updated every year.

- water supply (7 texts),
- drains (3 texts),
- gas (1 text),
- electricity (15 texts),
- industrial establishments (59 texts),
- miscellaneous (41 texts).

3) Documents containing technical standards applicable to the design and construction of structures in the **autonomous regions** of the Azores and Madeira (17 texts).

The simplest thing is to refer directly to this list, which is shown in the appendix.

Many of the construction regulations refer to standards, which thereby acquire legal value.

Many rules apply to both buildings and civil engineering structures.

3.2 - Municipal authorisation

As far as construction permits are concerned, the basic text is decree-law no. 166/70 of the 15 April 1970.

Most **private** construction, reconstruction, enlarging, repair or demolition work on buildings, including work resulting in a change in the local topography within urban boundaries or within protected rural areas, are subject to **municipal authorisation.**

Exceptions are provided for maintenance or alteration work implying only minor changes, and certain "light" structures of an agricultural nature located more than 20 metres from a public highway, and some structures left to the discretion of local authorities.

Special powers are attributed by this decree-law to the authorities in Lisbon and Oporto.

Examination is particularly concerned with the external appearance of buildings, their incorporation into the urban environment, and conformance with town plans.

Inspection by the authorities is required before buildings which are subject to authorisation are put into service.

Decree 73/73 of the 28 February 1973 defines the roles and responsibilities of persons preparing and signing projects submitted for municipal authorisation.

This text only applies to **private construction**, government construction not being subject to any prior authorisation.

The decree in question, which was prepared following consultation with the professions, includes 8 articles:

- article 1: general provisions,
- article 2: urban land use plans,
- article 3: buildings,
- article 4: structure of buildings,
- article 5: special installations and equipment,
- article 6: transitory provisions,
- article 7: action by municipal councils,
- article 8: final provision.

Approval is required for all "**responsible technicians**" (tecnicos responsaveis) who prepare projects for structures subject to "**municipal authorisation**" (licenciamento municipal).

Projects must be prepared and signed by architects, civil engineers, technical agents or other graduate designers recognised by their corresponding professional organisations.

When several technicians are involved in the preparation of a single project, each part of the project must be signed by the technician or

technicians directly involved.

Technicians must undertake in writing (article 6 of the decree of the 15 April, 1970) to comply with general technical standards and construction specifications, and the various statutory provisions applicable.

If infringement occurs a mayor may prohibit a defaulting technician from preparing any new projects for an indeterminate period.

Article 3 of the decree of the 28 February 1973 organises **cooperation** between architects, engineers, technical agents and civil builders.

Buildings having four storeys and of 800 m^2 or more may be entrusted to civil builders.

Some operations are reserved for architects.

On the other hand the latter can only perform calculations for structures or special installations in simple cases, apart from which resort to civil engineers or technical agents is compulsory.

3.3 - Control

The authorities do not carry out **true** governmental **inspection** of private construction.

The inspection which is performed by the municipalities is relatively simple.

It is the professional **qualifications** of designers and contractors, and even of some suppliers, which are considered to be essential in Portugal, as already mentioned in relation to municipal authorisation in $ 3.2.

4. CONTRACTS

4.1 - The parties involved

First there is the client, the "dono de obra".

Portuguese **architects**, who are the members of an association and not of an order, benefit from no monopoly.

Unless special regulations have to be applied, for example for the protection of historical sites, many professionals can prepare building projects in Portugal.

The proportion of the overall turnover of consultancy in construction falling to architects is thus no more than one third.

This point was already mentioned in $ 3.2 above in relation to the construction permit.

Thus in Portugal, apart from the civil engineers, who like their Spanish colleagues work in the building sector, there are:

- technical agents for civil engineering and mining,
- graduate civil builders.

These professionals are mentioned in the decree of the 28 February 1973, which compels resort to responsible technicians.

In order to have access to government construction contracts **companies** must be included in a **list** drawn up by the Ministry of Public Works.

A joint committee on which architects, engineers and contractors are represented has jurisdiction over this, and operates in a rather bureaucratic manner.

No special form of contract is required in the case of **private construction**.

In this case the clauses of articles 1207 to 1230 of the Civil Code apply.

The text of these articles is given in the appendix.

While work is in progress responsibility rests not on the project design or designers but on the **resposible technician** to whom direction of the project itself, i.e. the operation, has been entrusted.

Thus any operation for the construction of a building begins with the appointment of the responsible technician.

Then follows the application for municipal authorisation. After this authorisation has been issued the contractor is then appointed by the client.

An employee of a construction company may be included in the list of responsible technicians held in each municipality.

4.2 - Government contracts

All **government contracts** for work and supplies are awarded on the basis of recent texts:

- o the 'legal rules' established by decree-law no. 285/86 of the 18 August 1986,
- o the system of **price revisions** established by decree-law no. 348-A/86 of the 16 October 1986,
- o the model notices appended to order no. 605-C/86 of the 16th October 1986,
- o the **model tender programmes** appended to the same order,
- o the **model specifications** appended to the same order.

The legal rules of 1986 replace those of 1969 and adapt them to the 1971 Community directive on government construction contracts.

This is a document containing 236 articles which is not of a contractual nature but constitutes a common legal basis, some of the provisions of which

are automatically applicable in contract if contract is silent.

It includes 8 sections:

I - The system for government contruction contracts,
II - The drafting of the contract,
III - Construction work
IV - Payments,
V - Acceptance and settlement
VI - Cancellation,
VII - Disputes,
VIII - Transitory and final provisions.

In the first section a distinction is made between work done on a lump sum basis, on the basis of a price schedule and on a "percentage" basis, i.e. on the basis of controlled expenditure.

In the second section the concept of **specification** (caderno de encargos) is itself defined in article 61, together with the "competitive tender" (concurso) which covers all forms of invitation for competition.

A contractor who is bound by contract to a client is responsible for all works, even if they are performed by subcontractors or are effected by suppliers.

4.3 - Acceptance

Although no text specifies material conditions for acceptance in the case of **private construction work**, it is the "legal rules" which specify the conditions under which **government construction work** is to be accepted, in articles 194 to 205.

There are thus **two acceptances**, one provisional, the other final, separated by a warranty period of two years unless contract specifies otherwise.

In practice contract frequently reduces this period to a single year.

The following articles of the "legal rules" are provided as an appendix.

article 194 - inspection,

article 195 - defects in construction,

article 196 - provisional acceptance,

article 203 - warranty period,

article 204 - inspection,

article 205 - defects in construction.

Following signature of the final acceptance certificate no special civil liability such as the ten year liability in the Spanish, French, Italian, or Belgian Civil Codes applies to the contractor, who can be taken to court in accordance with ordinary Portuguese law.

5. LIABILITY

5.1 - Civil Code

In Portuguese legislation civil liability is incorporated into the Civil Code, drawn up in 1867 on the pattern of the Napoleonic Code, and then amended on several occasions, mainly in 1966 and 1977.

In its present version the Portuguese Civil Code has given rise to criticism in matters relating to construction.

Article 482 specifies in respect of civil liability: Anyone who through fraud or fault unlawfully infringes upon the rights of others, or legal provisions designed to protect the rights of others shall compensate the injured person for the damages arising from his infringement.

Article 798 in turn states: A debtor who culpably fails to fulfil his obligations becomes responsible for any harm which he may cause to the creditor.

Article 562 applies in respect of the duty of compensation: Anyone who has a duty to make good damage must restore a situation to what it previously had been, failing which there will be a right to redress.

The Civil Code gives few details in respect of the problem of liabilities inherent in **construction**. It legislates in general on contractual responsibilities, damage caused by objects, animals or activities (article 493) and the compensation of third parties.

It deals in specific articles with damage arising in buildings or other structures (article 492) and damage caused by gas or electricity installations (article 509).

Here is the text of **article 492**:

1) The **owner** or the possessor of a building or other structure which

collapses either wholly or in part through a defect in construction or a defect in maintenance shall be liable for damage caused, unless he can prove that there is no fault on his part or that even though he was diligent it was not possible to avoid the damage.

2) Anyone who has a duty under the law or through a negotiated legal act to maintain a building or a structure shall be responsible to the owner or possessor when damage is due exclusively to a defect in maintenance.

The legislation deals with **construction** in section 12 of Chapter II of book II of the Civil Code (articles 1207 to 1230).

According to this text (article 1208) a builder must construct a building in the manner stipulated in contract, and without defects which would cancel or reduce either the value of the structure or its suitability for ordinary use or its suitability as specified in the contract.

If no specifications are made in contract materials (article 1210) shall be appropriate to the characteristics of the structure and may not be of less than average quality. Translated into terms of the probability of mechanical properties this last proposal is meaningless because it would lead to the rejection of half of all supplies!

It is clear that the code errs through lack of a modern vision of the problems of construction, and this is not surprising because the basic text is now over a hundred years old.

The distinction which is made between government work and private work in Portugal must be emphasised.

Where in the case of private work **post-construction liability** is determined by article 1225 of the Civil Code, in the case of government construction work it is determined by the "legal rules" already mentioned in section 4.

In both cases this liability takes the form of a **warranty period**.

5.2 - The five year liability period (private construction work)

This period generally begins when a building is handed over to the client and the latter accepts it, although there is not necessarily any need to draw up a special certificate of completion and acceptance.

When a construction contract does not mention any length for this warranty period it is then determined by the Civil Code and lasts for five years.

However in accordance with legal doctrine if the contract does mention a particular term for this period, it cannot then be less than five years.

A client who accepts work cannot subsequently claim for defects which were visible at the time of acceptance.

If a defect arises during the five year warranty period the client must notify this within 30 days and the contractor must make repairs within a reasonable period.

If the contractor fails to make repairs the client may bring the matter before the courts either to compel the contractor to make repairs or to obtain compensation covering the cost of repair by another contractor.

If a contractor becomes insolvent the client becomes one of his creditors.

A translation of article 1225 of the Civil Code which fixes the contractor's civil liability period to five years is provided in the appendix.

5.3 - One year warranty (public works)

As indicated in section 4.4 in respect of the acceptance of public works, the warranty period separating the two acceptances is normally of one year.

If a defect is discovered during the "inspection" specified in article 194 of the "legal rules" the client must mention this in the provisional acceptance certificate and at the same time notify his reservation to the

contractor, and the time given to him in order to make good the defect. The contractor has ten days in which to react and the client has 30 days in which to reply.

During the warranty period the contractor is responsible for all "differences" from the design and all "errors" in construction.

These imperfections may relate to the quality, form or dimensions of materials and construction components.

The contractor is no longer liable if the errors are due to the orders of the client or his representative.

In the event of errors in the plans liability lies with the client or with the contractor depending on whoever produced the eroneous document. This implies that correction of defects or the cost of damage is borne by the responsible party alone.

In government construction work inspectors appointed by the client have both pecuniary and disciplinary liability.

If a contractor refuses to make repairs or pay compensation to a government client, then the latter has three options:

o either to have repairs performed by another contractor and to be paid by the defaulting contractor either by means of the bond or through the seizure of assets,
o or, if the contractor is bankrupt, to become one of his creditors,
o or to bear the consequences itself, if the contractor cannot be sued because he is no longer in existence.

In addition to this when a government client is faced with a defaulting contractor the government contractor's approval organisation may be caused to intervene.

There is no special text concerning the civil or contractual liability of

project designers, who are therefore subject to the general provisions of the Civil Code, although articles 1207 to 1230 of this code, which are "reserved" for contractors, do not apply to them.

In no circumstances is the warranty period applicable to contractors applicable to designers.

Finally Portuguese law does not say what a contractor's responsibilities are with respect to a **new owner** in the situation where a client transfers the property. This is certainly a serious omission in the legislation.

Other legislation contains provisions which must be respected by the various parties involved in construction.

Thus in particular the general regulations on construction and planning (decree-law no. 38 882) and the regulation on insurance in the case of civil construction work (decree-law no. 41 821).

These regulations are prepared by committees within the Supreme Council for Public Works and the Ministry of Labour respectively.

6. INSURANCE

The Insurance Institute of Portugal is responsible for regulating the insurance market and for promoting technical and administrative standardisation in the activities of insurers and reinsurers.

a) **Bond insurances** have no particularly notable features.

Bid bonds are no longer required for government contracts. The final bond represents 5% of the value of the work and may be given in the form of a banker's guarantee (articles 101 and 102 of the "legal rules").

b) **Liability insurance**

Portuguese law does not compel clients, responsible technicians or contractors to cover their professional liability by insurance.

In addition to this contracts rarely compel professionals to take out such insurance.

Where such insurance does exist the insurers do not inspect projects, any more than they supervise the progress of work.

Insurers do not compel clients to make use of technical inspection offices.

They do not refer to the classification of companies prepared by the ad hoc official committee.

The professions do not make use of collective insurance.

No insurance company covers professional liability beyond the warranty period, which is itself only one year following acceptance in the case of public works.

There is no damge insurance in Portugal, as there is in France, Great Britain, Holland and Denmark, whereby an owner can be compensated when

defects or damage arise after acceptance or during a warranty period where such exists.

It is clear from this brief description that the construction insurance market is limited and that it only covers a small fraction of construction work.

7. PROBLEMS

Among the problems and the questions which can be raised, the following would appear to stand out:

- some discontent over the outdated clauses of the Civil Code,
- some vagueness concerning the liability of designers,
- an undoubted lack of insurance.

8. APPENDIX

List of the appendices which will be included in the final edition published by the Directorate General of the Internal Market and Industrial Affairs of the Commission of the European Communities.

1 - List of legal provisions applicable in 1987.
2 - Decree 73/73 of the 28 January 1973 (official approval required of responsible technicians).
3 - Decree 166/70 of the 15 April 1970 (municipal authorisation).
4 - Extracts from the "legal rules" (acceptance).
5 - Extracts from the Portuguese Civil Code.
6 - Article 1225 of the Civil Code.

Only appendix 6 is included in this publication.

8.1 - Article 1125 of the Portuguese Civil Code.

Buildings intended to have a long service life

1 - Without prejudice to the provisions of article 1219 et sequenter, if an operation concerns the construction, alteration or repair of buildings or other structures which are designed by their nature to have a long service life and which during a period of **five years** from delivery or in the course of a contractual warranty period collapse wholly or in part or manifest severe defects or threaten collapse through a defect in the ground or in construction, alteration or repair, the contractor shall be responsible for the loss to the client.

2 - In this case the latter shall have a period of one year in order to make a claim and may only request compensation within one year following his claim.

12 - United Kingdom

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1. INTRODUCTION

The text which follows is an attempt to describe the British "system" in its present state.

Based on standard contracts, decisions of the high court, parliamentary laws and government orders, this system is truly unique within the European Community.

It gives a contrasting general impression which can be summed up in two words: pragmatism and uncertainty.

Pragmatism because contract is of primary importance, because government clients are not governed by special rules, because the protection of house-buyers is a success.

Uncertainty because unwritten law is difficult to apprehend, because some traditions are challenged, because diversity sometimes leads to confusion.

Before discussing liability and insurance, the general context, regulations and controls, proedures and contracts will be examined in turn:

o context:

- general organisation,
- districts and counties,
- other organisations,
- legal basis,
- terminology,
- planning,
- subsidised rented housing,

o controls:

- regulations,
- planning permission,

- building control,

o contracts:

- principles,
- parties and procedures,
- unfair contracts,
- contracts for the sale of buildings,
- construction contracts,
- design contracts,
- acceptance of work.

o liability:

- principles,
- defective premises,
- builder's liability,
- designer's liability,
- limitations,
- liability of suppliers and subcontractors.

o insurance:

- general description,
- non-residential buildings,
- residential buildings (NHBC),
- insurance of designers,
- insurance of contractors,
- commercial warranties.

o litigation (briefly).

2. CONTEXT

2.1 - General organisation

The United Kingdom consists of England, Wales, Scotland and Northern Ireland.

The average income of its 56 million inhabitants was order the order of 8500 US dollars in 1984.

The British constitution has the unique feature that it is not written down.

Political organisation is relatively simple. The central government, the 53 counties (England and Wales) and the 370 districts implement the laws voted by Parliament.

The counties cannot receive "orders" from the government.

Counties and districts each have their own administrations and their own elected assemblies.

The major ministry of the **Department of the Environment** (DOE) performs its functions in four fields:

- planning,
- road system, including technical regulations,
- construction and housing,
- state buildings.

A ministry of housing and construction is located in Edinburgh and a Welsh Office in Cardiff.

It is the DOE which prepares laws, reforms and regulations.

Major legislation is always the subject to prior cooperation, particularly within the Building Regulations Advisory Committee.

The DOE cannot and is not expected to give "its own" interpretation of laws and regulations in circulars, except in special critical cases where it issues "recommendations", which in practice have the force of instructions.

It sometimes acts as an arbitrator between developers and local authorities responsible for the control of construction. Its decisions are then compulsory.

2.2 - Districts and counties

a) Although the central government is, with its different ministries, the supreme authority dominating and controlling construction and planning, the British **counties** are also authorities which have competence in this field.

Some fifty in number, the counties have for long represented the traditional structure of the country.

Responsible for the implementation of laws voted by Parliament, they must also implement orders and circulars from central government, insofar as no other institution has the authority to do so.

In the field of town planning the counties are the authorities with responsibility for planning, and in particular are responsible for drawing up or approving the various master plans for their areas.

They also have responsibility for fire protection and thus have fire services which are regularly consulted in respect of every application for permission to build. They are responsible for major road networks, etc.

b) Each county consists of several **districts.**

Like the counties, districts are independent authorities.

There are two types of districts: the 36 metropolitan districts which include the largest towns, and the 333 other districts, none of which in principle have less than 40,000 inhabitants.

These too are also responsible for implementing laws and the orders and directives issued by central government, particularly in their capacity as the authorities responsible for compliance with plans and construction regulations.

It is their responsibility to issue building permits and to supervise the progress of building work.

Unlike most other countries in the Community, the United Kingdom has instituted a double construction permit: "planning permission" is required for planning before construction itself is submitted to "building control".

Building plans appended to applications enable the district authorities to check for compliance with the requirements contained in the "building regulations".

Anyone who wishes to build must submit two separate applications and receive two decisions granted by two different departments in the district authority.

Districts are also responsible for the construction of subsidised housing, the finance for which is provided by the Department of Environment, which must meet certain special technical requirements in its design.

The district authority is responsible for issuing "planning permission" after having consulted the various authorities with responsibility for roads, water, etc.

The personnel responsible for construction and planning are appointed by the elected district representatives, themselves in turn responsible to the electorate: this is rather similar to what happens in Germany in the "Kreise".

2.3 - Other organisations

Among the most important organisations mention should be made of:

o The "Building Research Establishment" (BRE), which has recently seen its personnel cut back by half, and which plays an essential part in promoting development and quality.

o The "British Board of Agreement" (BBA), which investigates technical innovations and issues approval certificates which are hihgly valued by the industry.

o The "British Standards Institution" (BSI), responsible for standards.

o The "National House-Building Council", which had its origins in the construction industry, and provides excellent protection for every one of the annual 200,000 purchasers of new property.

o The "Law Reform Committee", which prepared the recent law on latent defects, and the "Scottish Law Committee".

o The powerful and renowned "Institution of Civil Engineers".

o The "Property Services Agency", resposible for the construction and maintenance of certain state buildings.

2.4 - Property Services Agency (PSA)

In general British government departments have the function of guidance and control.

Whenever possible and necessary an operational body, an Agency, is set up.

This applies to the property owned by the Crown and the government, which is built, managed and maintained by the powerful "Property Services Agency".

The PSA, which is part of the DOE, has 160 offices throughout the country and is responsible for almost all public buildings, including embassies, but not including univesities, colleges and hospitals.

After having risen to 40,000 persons, its staff now numbers only about 25,000, including 500 architects, 1,000 surveyors and 5,000 engineers and technicians.

Its turnover is of the order of £2,000 million per year, half of which is for new construction, but this is tending to fall, the main "client" being the Ministry of Defence.

Although exempt from the formalities of local construction controls, the PSA does nothing without consulting district authorities.

The Agency plays an active part in standards committees and operates a policy of encouraging **quality**. The principles and methods applying to this are shown in the appendix.

2.5 - Legal basis

Both planning and construction are governed by legislation in different parts of the United Kingdom.

In general England and Wales have the same rules, but Scotland and Northern Ireland have their own peculiarities, which are sometimes very marked.

a) The requirements of the state are expressed in **statute law** which consists of statutes and statutory instruments.

Statutes are in fact the laws voted by the representatives of the people, **acts of parliament.**

Statutory instruments are, one might say, mere orders issued by the executive which Parliament may possibly cancel.

b) Most things which in other countries of the European Community are included in the civil code are governed by **Common Law**, which together with equity is one of the two branches of British customary law.

Like the constitution of the United Kingdom, the Common Law **is not written down**; it consists of significant decisions by the judiciary, and it can never be amended by contract.

c) **Standard contracts** have acquired a legal value which goes beyond the particular scope of each contract. This characteristic of the British system is explained not only by tradition but also by the lack of legislation on government contracts and by the lack of government jurisdiction.

d) The **contracts** themselves must remain "fair", if one of the parties is not "in the business", but they have lost a little of their force since the decision of Donoghue v. Stevenson which will be discussed in Section 5.

e) Specifically, here is a **list of regulations** or important decisions (E = England, W = Wales, S = Scotland):

- Local Government Act, 1972 (E, W),
- Town and Country Planning Act, 1971 (E, W),
- Building Act, 1984,
- Housing and Building Control Act, 1984,
- Building Regulations, 1984 (E, W),
- Building (Approved Inspectors, etc.) Regulations, 1985,
- Unfair contract Terms Act, 1977,
- Supply of Goods (Implied Terms) Act, 1973,
- Supply of Goods and Services Act, 1982,
- Occupiers' Liability Act, 1957,
- Defective Premises Act, 1972,
- Health and Safety at Work Act, 1974,
- Consumer Protection Act, 1961 (E, W, S),
- Prescription and Limitation (Scotland) Act, 1973,
- Latent Damage Act, 1986 (E, W),
- Third Party Rights Against Insurers Act, 1930,
- Arbitration Act, 1979 (E, W).

f) The main decisions of the judiciary include in particular:

- Donoghue v. Stevenson (1932),
- Junior Books v. Veitchi (1982),
- Pirelli v. Faber (183),

as well as:

- Hancock v. WR Brazier Ltd (1966),
- Wimpey v. Poole (1985),
- Peabody v. South Bedfordshire District Council (1986).

2.6 - Terminology

Local authorities

- Planning permission,
- Building regulations,
- Approved documents,
- District surveyors,
- Approved inspectors.

Building societies

Building, premises, dwellings,
  - Civil enginering works,
  - Design, construction, maintenance, obsolescence,

Client, employer, owner, principal,
  - Successive owners,
  - Purchaser,
  - Tenant.

Professionals, consultants,
  - Engineer, architect, quantity surveyor,
  - Supplier,

- Developer,
- Builder, house-builder,
- Vendor.

Contractors, main contractor,

- Sub-contractors,
- Nominated sub-contractor, domestic sub-contractor.

Project

- traditional approach,
- Management contract,
- Single point responsibility,
- Design and construct, turnkey,
- Project management,
- Brief.

Contract (employer - contractor)

- Tender, agreement, bond,
- Conditions of contract, appendix,
- Drawings, specification,
- Bill of quantities,
- Implied terms,
- Duty of care,
- Strict liability,
- Duty of result,
- Project planning,
- Operations on site.

Completion

- Defect, damage,
- Personal injuries,
- Damage to the property,
- Action, plaintiff, defendant
- Negligence (error, omission), concealment, deliberate concealment, fraud,
- Bankruptcy,

- Breach of contract,
- Breach of duty of care,
- Disputes, settlements,
- Time limits, limitations,
- Latent damage: date of accrual, date of knowledge,
- Long stop, short stop

2.7 Planning

The instruments for planning at local level have been developed and instituted on the basis of the "**Town and Country Planning Act**, 1971", which applies in England and Wales - a voluminous document of 400 pages of which a brief summary is given at the end of this section.

This planning applies to development, land use, control of the height of buildings and the layout of buildings on individual plots of ground, from both the geometrical and aesthetic points of view.

The former "Development Plans", which applied to entire districts, have been succeeded by "**Structure Plans**" which are prepared by the counties and approved by the DOE. These plans, which are not binding, are in the nature of guidance documents. They contain a description of the areas reserved for housing, industry, leisure, etc., and specify building densities. They are not restricted to a description of policy for land use and major infrastructure, they also consider improvement of the physical environment and transport. Structure plans must take account of economic objectives on a larger than regional basis and the financial resources available.

The very much more detailed "**Local Plans**" are generally prepared by each district. If these are consistent with the county structure plan then these local plans do not have to be approved by either the county or the DOE.

The counties themselves can also decide to set up local plans, if necessary. Frequently therefore only part of the territory of a district is covered by local plans.

Conversely every county must have a structure plan. The preparation and modification of these plans is a continuing and burdensome task for the DOE.

At the present time local plans only cover one quarter of Britain.

The "Local Government Act, 1985" amends the system of double planning, structural and local, for London and the large metropolitan counties.

Considering this double planning to be excessively burdensome and unnecessarily complicated, the government is considering replacing it by single planning at district or borough (London) level. This suggestion has been received with a qualified welcome.

A flexible procedure however allows the Ministry to intervene and make a decision when a difficulty arises (**call-in**).

The public is able to take part actively in the preparation of all these guideline plans.

2.8 - Subsidised rented housing

Whereas in France 30% of rented housing belongs to the government sector (HLM), in Great Britain 70% does.

The enormous pool of British government rented housing is progressively being sold to its occupiers as part of government policy.

Apart from this public sector the British rent little and buy a lot: on average citizens move house six times during their lifetimes. It is true that rights on change of ownership here are particularly weak.

The average price of a new house in the private sector in 1985 was £55,000 in Greater London, and £32,000 in Wales.

3. CONTROLS

The controls exerted by the authorities in Great Britain, as already said in respect of the districts, applies not only to the **location** but also to the **construction** of buildings.

Much more rigorous than in other Community countries, it is closer to the German system than to the French.

It is one of the essential tasks of the local authorities, which are the districts in England and the regions in Scotland.

However in the case of housing a certain **privatisation** of control has already been achieved.

The nature of construction regulations will first be described.

3.1 - Regulations

British building regulations are unique in the sense that they have their origin, as in the Netherlands, in the laws on public health.

Great epidemics, great fires and then the industrial revolution inspired the earliest legislation and even now it is the laws of 1936, 1961 and 1974 which lay down the principles for the control of building.

Before the issue of the first "Building Regulations", issued by the DOE in 1972, local authorities each had their own "bye-laws" on building.

Now the head legislation is founded on a recent law, the "**Building Act 1984**" a brief summary of which is given in the appendix, and which in section 1 gives the Secretary of State the power in make building regulations for the design and construction of buildings, in order to:

o preserve the health, safety, wellbeing and comfort of persons around and within buildings, or those who may be affected by the buildings,

o promote satisfactory use of energy in all its forms,

o prevent the wastage, excessive consumption, poor use of or contamination of water.

It is under this law that the new "**Building Regulations 1985**" (statutory instrument 1985 No. 1065) which are currently valid (SI-1985 No. 1936 and SI-1987 No. 798), even for London, but not Scotland and Northern Ireland, have recently been brought into force.

Presented in a convenient form in the "Manual to the Building Regulations", they are accompanied by explanatory documents.

In the context of a policy of liberalisation (to lift the burden), these BR 1975 are the result of a reexamination of building controls with three objectives:

o to reduce the number of regulations and provide a greater degree of self-regulation,

o to simplify the form of the regulations to make them easier to understand, use and administer, through faster and simpler procedures,

o to provide greater flexibility by abandoning the detailed and prescriptive nature of the old regulations.

Thus the BR 1985 are drawn up in functional terms; they say for example:

"the walls, floors and roofs of buildings shall adequately resist the penetration of a building by mildew."

The details of the old regulations have been replaced by "**Approved Documents**" (AD), which are a practical guide to compliance with functional requirements. The ADs are not statutory texts. They are written as far as possible in direct terms and make frequent use of diagrams and tables. They should be easy to update.

There is one AD per requirement. In the case of the first (means of escape), which is concerned with means of escaping from fire, there is no AD but prescriptive regulations and compulsory rules.

The BR, which are prepared by the DOE and submitted to Parliament, are administered by local authorities, the **"District Councils"**, and to a certain extent by approved but independent inspectors outside the government.

In respect of health and safety the **requirements** of the BR 1985 apply to all buildings: structural stability, resistance to fire and condensation, drainage, etc.

Additional requirements apply to **housing**: sound insulation between two housing units, bathrooms, storage of food, evacuation of wate, etc.

All the BR and the AD had already been subjected to the critical second reading (stage 2) in 1987.

The differences between Scotland the rest of the Great Britain have also been investigated so as to bring the Building Standards (Scotland) Regulations and the SDD'S Technical Memoranda closer into line with their counterparts to the south of the border.

Rather than dealing particularly with the "collapse" of buildings of more than 4 floors, or of a height in excess of 9 metres, it is intended that the concept of the robustness of a structure should be introduced. It is also intended to introduce the hazards of glass doors, to revise calculations on thermal insulation, the movement of handicapped persons, the durability of materials, etc.

The AD themselves have therefore had to be improved on certain points.

Physically the **"Manual to the Building Regulations"** is a 60 page brochure which begins with three tables, which are appended hereto, showing the procedure which has to be followed by anyone who wishes to build.

Section 1 states the types of work to which the BR apply.

Section 2 describes the two alternative systems of building control: for supervision of the work there is a choice between the local authority and an approved private inspector.

Section 3 includes the text of the BR proper and their 3 appendices:

Appendix 1 : requirements,
Appendix 2 : installations for handicapped persons,
Appendix 3 : exempt buildings and works.

This brochure is supplemented by ten others;

o one including the compulsory rules for means of escape in the case of fire,

o nine others which containg the 12 Approved Documents corresponding to the 12 requirements, A, B, C, ... L.

BR 11 allows applicants in most cases to submit a mere **notice** to the local authority instead of a set of plans.

3.2 - Planning permission

As already mentioned in the previous section concerning planning, the "Town and Country Planning Act" is the legal basis of "Planning Permission".

This does not apply if the operation (development) takes place under the "GDO" or if the authorisation is granted within the context of the "VCO".

The authority having jurisdiction is generally the district (or London borough), but in the case of mines and large urban developments it is the county.

Permission is granted or refused on its merits having regard not only to the

"structure plan" and the "local plan", but also all other provisions and in particular the policies of the Ministry, provided that they have been published.

All applicatons are entered in a register which is open to the public, and some may be advertised locally.

Anyone is free to make objections, but third parties can no longer appeal after permission has been granted.

Local planning authorities have the power to sanction infringements of planning permission, such as lack of permission or failure to comply with a condition imposed by permission.

They send the party involved a note indicating how the infringement should be remedied (demolition of a structure, ceasing to occupy land, etc.). To ignore this notification is a "criminal offence".

3.3 - Building control

As indicated at the end of paragraph 3.1 anyone who wishes to build must subject himself to building control via two routes, one governmental, the other private.

If the applicant chooses the **government route**, there are two options open to him: to submit a mere "**building notice**" to the local authority, or to deposit "**full plans**".

Using the notice procedure building control takes place on site and offers the advantage of being faster and simpler, but the level of protection for the builder is not as high as it is when plans are approved in advance.

If the applicant chooses the **private route**, an "**initial notice**" is sent to the local authority, which loses its powers and leaves the task of monitoring conformance with the regulations throughout the building operation to the approved inspector.

In parallel with the Building Act 1984, the "**Housing and Building Control Act, 1984**" is the legal basis for the public or private control of construction.

At the present time there is only one approved inspector in the United Kingdom, the National Housing-Building Council, which is only responsible for houses having less than 5 floors.

Application of the new provisions to other inspectors has run up against problems of professional insurance.

Local authorities and approved inspectors have duties imposed by law. If they fail in their duties they may have civil liability with respect to the "building developer", in other words the client.

The current view is that the Building Act and the BR are not designed to protect the building developer or others from purely economic losses.

The duties of "district surveyors" and "approved inspectors" are not owed to the initial owner, who benefits from their advice.

They are owed only to successive owners insofar as there is a hazard to the health or personal safety of the occupant.

Even if this duty of care is breached, the damages which can be applied are limited to the amount of expense necessary for restoring the property to a condition eliminating the hazards to the health or personal safety of the occupant.

This emanates from the recent decision "Investors in Industry etc. vs South Bedfordshire District Council".

Whether public or private, building control has to be paid for. The fees are controlled.

Local authorities only issue authorisation for occupation in respect of

certain types of buildings.

There is therefore no true "final acceptance" (Schlussabnahme) of new buildings as there is in Germany.

In addition to this district surveyors do not always make an inspection on site while work is in progress, except in London, as the Germans do. British "building control" therefore lags behind the German "Bauaufsicht".

The **approved inspectors** do not issue any construction permit at the outset. They forward and "initial notice" to the local authority, which has ten days to accept it or reject it, and issue two sorts of **certificates**: the plans certificate and then the final certificate, which are forwarded to the local authorities for filing. It is their responsibility to consult the "fire authority".

If the regulations are infringed the effect of the "initial notice" ceases.

4. CONTRACTS

4.1 - Principles

Contract has for a long time had exceptional importance and scope in the United Kingdom.

Whether in respect of sale or construction, contracts fall within the scope of Common Law and not equity.

Written law only specifies major principles in the "Unfair Contract Terms Act, 1977".

This does not say, as in France, that contracts for building or sale are void if they do not comply with this or that legal regulation.

It also does not say, as in France, that government contracts made between a government client and a private supplier must be subject to special regulations.

The fundamental principle of Common Law in matters of contract is that of caveat emptor: only what is explicitly stated applies.

That which binds the parties is only of concern to themselves: "privity of contract", and does not apply to others...

One who is "in the business" shall not impose an "unfair" clause on ignorant purchasers...

The following subjects will be discussed in turn below:

- o Unfair Contract Terms Act, 1977, the law on contracts in general.
- o Contracts for the sale of buildings.
- o Construction contracts.
- o Design contracts.
- o Acceptance of work.

First a few words on the parties and procedures involved.

4.2 - The parties involved and procedures

It has already been stated that all "building developers" must before all else obtain "planning permission" and subject themselves to "building control".

The building developer will be the original owner to whom the authorities responsible for control have no duty, as stated in paragraph 3.3.

When he enters into contracts for construction - design contracts, construction contracts - the person having planning permission is designated by the term EMPLOYER (and not by the terms "owner", "principal" or "client"): this the client (1).

In the United Kingdom there are **developers** who build houses and sell them. 3,000 of these are members of the National House-Building Council.

With whom does the building developer enter into contracts? This depends on the procedure selected:

- the traditional approach,
- the management contract, or
- design and build.

The third approach concentrates all work and responsibilities on a single "producer".

The second approach is similar to that frequently used in the industrial field. Although it is increasingly used (20% of the market), it remains "in the minority" in comparison with the fist (75% of the market).

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(1) Normally in the case of large developments the client makes use of a reliable person, the **project manager**.

An appendix is devoted to these procedures.

In general the State intervenes little in professional matters. British tradition requires that every citizen should be free to exercise a profession provided that he is not prohibited from doing so.

Thus the State imposes no requirements on designers, entrepreneurs or tradesmen.

Of course a limited liability company must not act outside the field specified by its articles, but this goes no further and remains formal.

The authorities which issue construction permits require no approval of architects or tradesmen.

In theory a client may prepare his own plans and build his building himself.

4.3 - Architects, engineers, surveyors

In the United Kingdom **professionals** are parties involved in construction who only supply intellectual services.

These are the architects, engineers and surveyors, who are not members of professional orders, but of mere organisations, sometimes very powerful and very well known throughout the world, such as for example:

- The Institution of Civil Engineers,
- The Institution of Structural Engineers,
- The Royal Institute of British Architects,
- The Royal Institution of Chartered Surveyors.

These professional organisations generally provide both practical and theoretical training for their members, who sometimes themselves receive the prestigious qualification of "Chartered"...

Only the title of architect is protected by law, which enables many

engineers or surveyors to call themeselves such without having the required skills.

No legal provisions confer a monopoly or restricted field on any one of these professions.

The surveyors include first of all the **quantity surveyors**, who have long had a special place and authority in the "design team".

A quantity surveyor (Q.S.) is a professional who like an architect is most frequently directly linked to the client by contract.

His role goes further than mere preparation of the **"bill of quantities"**, which is often contractual. A Q.S. is in fact a cost consultant for all stages of a project, and even a sort of agent for the client in matters of organisation and budgeting.

It would not appear that this situation leads to any conflicts with the profession of architect.

In addition to the four organisations already mentioned above (ICE, ISE, RIBA, RICS), five others have been accepted by the government for the approval of "approved inspectors" in the private sector who will be responsible for part of building control:

- the Chartered Institute of Building,
- The Faculty of Architects and Surveyors,
- the Incorporated Association of Architects and Surveyors,
- the Institution of Building Control Offices,
- the Chartered Institution of Building Services Engineers.

4.4 - Contractors and tradesmen

These are also members of professional organisations which train painters, bricklayers, etc.

A principle of British law is that one should not do specific work without having the necessary competence. Anyone who fails to observe this principle may bear heavy responsibility for defects or damages associated with the object built.

This principle often results in clients only entrusting major projects to true specialists, or requiring a principal contractor only to award subcontracts to approved subcontractors.

Many British contractors specialise in the building of housing. These are the **house-builders**. Some 27,000 of these are members of the National House-Building Council, alongside the 3,000 developers.

In the United Kingdom hardly anybody takes the risk of having his house built in separate lots. The house-builders build and sell almost all of the 200,000 new houses built every year in the private sector.

Among the principal professional organisations of contractors and tradesmen mention should be made of:

- the Building Employers Confederation (BEC) which covers several federations,
- the Federation of Civil Engineering Contractors,
- the Federation of Master Builders,
- the House Builders Federation,
- the Federation of Associations of Specialist Subcontractors,
- the Confederation of Specialist Engineering Contractors.

4.5 - The Unfair Contract Terms Act, 1977

At the risk of burdening the narrative, it would seem essential to describe this law, which in the absence of a code governing public contracts dominates all contractual relationships regardless of the status, public or private, of the contracting parties.

Applicable throughout the United Kingdom, with variants in Scotland, this

law applies not only to construction, but to all contracts - and we know how important these are in law here.

Its purpose is to impose limitations on the possibility of including clauses in contracts which are designed to restrict or avoid responsibility, either through breach of contract, or through negligence, or through breach of other obligations.

This law makes it possible to invoke **negligence** if the contractor does not provide evidence of care and skill. It enables the purchaser of a new building who considers himself wronged to claim against the builder even if the contract of sale or works does not say explicitly that the building should be the object of care and skill.

It includes 3 parts and 4 appendices:

Part I: Introduction, liability for negligence, contractual liability, clauses specifying unreasonable compensation, warranties to consumers, sale and hire purchase, associated contracts, effects of breach of contract, evaluation of what is "reasonable" etc.

Part II: Special features applicable to Scotland.

Part III: International supply contracts, choice of legal clauses, validity of other legislation, obligations deriving from the "Consumer Protection Acts", etc.

4.6 - Contracts for the sale of buildings

The major principle in Common Law in the case of a contract of sale entered into between a purchaser and a vendor who is not the builder is that of caveat emptor, by virtue of which, in the absence of a **warranty**, the purcahser has no rights with respect to a vendor who has not built the building himself.

However when the vendor is the builder and enters into a contract with the

purchaser for the sale of a house on the basis of plans, or while it is in the course of construction, the decision of Hancock v. Brazier has applied since 1966, and according to this there is the **implicit warranty** that the house, when built, will have been built with satisfactory materials and in accordance with professional methods and will be fit for habitation.

Furthermore when the vendor is a builder he is invariably registered with the National House-Building Council, so that the purchaser can find the finance. Contracs of sale therefore include compulsory warranty clauses.

4.7 - Construction contracts

In general within the context of any government or private construction operation the contracts entered into by the client and the architects, engineers, surveyors and contractors correspond to **standard forms** prepared by the professional organisation.

Futhermore, these standard forms, which have been used for a very long time and improved over the years, have acquired such an importance that the British courts now consider them as a legal basis going beyond the specific object of the contract.

Thus these standard forms say who is responsible for obtaining the various government authorisations.

They presuppose that the signatories to the contracts have not only the required technical knowledge but also the required knowledge of building law.

On the basis of these standard forms it is the entrepreneur who is obliged to comply with State requirements in respect of the construction of buildings. The client benefits from a right of action against any infractions of these requirements by the entrepreneur.

If there are no State requirements then in accordance with these standard forms the entrepreneur has a free choice of the materials and techniques

which are to be used, but the client here again has a right of action.

How is the arsenal of British standard construction contracts presented?

a) Although there is no code for **government contracts**, large government clients such as the PSA have their own principles and procedures concerning contracts.

First of all a minimum of competition is imposed in accordance with the requirements of the "Procurement Policy Committee".

Within the context established by this committee every ministerial department has the authority to take detailed steps for the preparation, award and implementation of construction contracts.

Although this is not compulsory, government clients generally accept the cheapest offer.

There is no standard form for government contracts but like most government clients the PSA uses the "General Conditions of Government Contracts for Building and Civil Engineering Works", abbreviated to GC/Works/1., designed on the assumption of a skilled and strong contractor.

b) In the case of **private work**, the contractual forms are not the same for building and civil engineering.

Construction contracts for **civil engineering** work are entered into under a document known throughout the world, the "ICE conditions of contract", more specificaly entitled "Conditions of contract and form of tender, agreement and bond for use in connection with works of civil engineering construction".

These general conditions include 72 articles and are a twin of those used by the Irish and many other countries, including non-Anglo-Saxon ones.

c) In respect of **building** work most contracts entered into by private

clients follow the standard forms prepared by the "Joint Contracts Tribunal", abbreviated JCT, which includes ten organisations preepresenting designers (3), contractors (3), government (3) and owners (1), and the Scottish Building Contract Committee.

These standard forms are not without their critics, because a major British consultant has been entrusted by the British Property Federation with the preparation of a new system of building contracts, and more recently a similar initiative has been taken by the ICE for civil engineering.

However this may be, the JCT has produced several standard forms over many years, each of which is a "Standard Form of Building Contract".

A "**Practice Note 20**" appended hereto, allows one to choose between the different standard forms depending on:

- whether the client is a local authority or not,
- the magnitude of the operation,
- the contractual or non-contractual nature of the "bill of quantities",
- whether the contractor is not (as is generally the case or is responsbile for design.

These standard forms are excellent instruments. Among the main ones mention should be made of:

- the "Local Authorities with quantities" standard form,
- the "Intermediate" form for ordinary work,
- the "Minor Building Works" standard form for minor work
- the "With Contractor's Design" standard form, if the contractor is responsible for design.

In particular they have the merit of bringing the obligations of the different parties together into one document, whereas in other countries these have to be found not in the construction contract, but in a multitutde of heterogeneous contracts, regulations and even codes of practice!

JCT does not restrict itself to contracts between the employer and main contractor, it also governs relationships between a principal contractor and subcontractors.

JCT also provides a special type for certain subcontractors, nominated subcontractors, who, unlike domestic subcontractors, are known and approved by the client.

As in Ireland, the nominated subcontractors provide the client with a "collateral warranty".

Finally it should be emphasised that in the United Kingdom it is rare for a client to enter into several contracts for the construction of a building in separate lots, except obviously in the case where the procedure selected is the management contract.

In this situation the management contractor prepares and manages successive packages so as to accelerate the progress of operations (fast track).

Even though the Bill of Quantity forms part of the contract and thus becomes the "Contract Bill", it may be corrected if it includes a qualitative or quantitative error or omission. The contract is not thereby vitiated, but the departure must be treated as a "variation".

Article 2 of the Standard Form of Building Contract, "Local Authorities with Quantities", says:

"The Contract Bills, unless otherwise specifically stated therein in respect of any specified item or items, are to have been prepared in accordance with the Standard Method of Measurement of Building Works, 6th Edition, published by the Royal Institution of Chartered Surveyors and the Building Employers Confederation";

"If the Contract Bills there is any departure from the method of preparation referred to a in clause 2.2.2.1 or any error in description or in quantity or omission of items, then such departure or error or omission shall not

vitiate this Contract but the departure or error or omission shall be corrected and such correction shall be treated as if it were a Variation required by an instruction of the Architect/Supervising Officer under clause 13.2."

4.8 - Design contracts

The various professional organisations have prepared documents which are concerned with both the choice of consultant and contract.

Thus the RIBA, the Royal Institute of British Architects, has produced a brochure in which the different "services" of architects are clearly listed from A to L, from "inception" to "completion", and where the contract clauses and method of determining fees are examined a little in the same way as in the German HOAI, but with less details.

It should be understood that in the United Kingdom architects do not content themselves with the task of supervising work as in France, but are often involved in the "project management", that is in the "management contract", in brief they sometimes provide unique services.

On its side the ACE, the Association of Consulting Engineers, has prepared its "conditions of engagement", whereas the RICS, the "Royal Institution of Chartered Surveyors", has published a detailed brochure of the same type.

In principle these different documents apply to both public and private clients. Government authorities have not taken part in their preparation and have neither approved nor agreed them.

4.9 - Acceptance of work

In construction contracts there is frequently a clause which provides for the contractor to repair defects and maintain structures over a certain period, from 6 months to one year following the completion of work.

The date on which this period begins is that specifed in what the JCT

contracts call the "certificate of practical completion". The "certificate of completion of making good defects" is only signed by the architect at the end of the period if the contractor has fulfilled all his obligations.

Retention money is only returned to the contractor after the second certificate has been signed.

The JCT 1980 contract say that contractors should remedy defects shrinkages and other imperfections due to materials, to work which fails to conform to contract, and to frost if this occurs before "practical completion".

The final certificate is issued to the contractor as soon as possible, and at the latest within three months following either the end of the "defects liabiity period" of 6 or 12 months, or the date of completion of the repair work making good the defects, or the date of acceptance of the necessary documents required by the contractor.

In the case of civil engineering work the terminology is slightly different: there is a "certifidate of completion" if the engineer is satisfied, then a contractual "period of maintenance" during which the contractor still has obligations...

What is clear is that in the United Kingdom the powers of the architect (building) or engineer (civil engineering) are of fundamental importance when it comes to the acceptance of work.

5. LIABILITY

5.1 - Principles

a) The main British principle, it should not be forgotten, is that liability is not imposed by written laws (statute law) voted by elected representatives (Acts of Parliament), but derives from **Common Law**, which is the general unwritten law of the "community".

Common Law gives every British citizen the right to sue "in contract" or "in tort", provided that 3 conditions are met:

- that the "defendant" has a duty to the "plaintiff",
- that there is breach of contract or breach of obligation,
- that the "plaintiff" has suffered damage by reason of this breach.

The fact that the legal "basis" is a set of judge's decisions (case law) obviously does not contribute to the clarity and permanence of liabilities.

Many professionals complain of this situation of uncertainty and disorder (mess). Not only lay people but also lawyers fail to find their way through it.

It should be said that apart from Italy few countries have succeeded in clearly establishing the responsibilities of builders during the construction perod.

b) As already emphasised in the foregoing section, the British **standard forms of contract** go a long way towards defining responsibilities.

This is not surprising because British laws are relatively succinct and do not deal with construction contracts or the rental of buildings as do most civil codes of Latin inspiration.

The responsibilities of builders are therefore primarily contractual, "**in contract**".

c) They also derive from successive decisions taken by the judiciary within the context of Common Law, which allow the negligence of a builder to be invoked in proceedings "**in tort**" and for redress to be obtained in the event of damage after construction.

Three important decisions by English judges, which their Australian, New Zealand and Canadian counterparts have not always accepted, are included in the appendix.

d) Whether "in contract" or "in tort", liability is "**limited**" in time by laws on limitation which differ between England and Wales on the one hand and Scotland on the other.

e) Liability is the subject of a law of 1972, the "Defective Premises Act", which obliges those who build housing to work "properly".

This British law also terminates the immunity of the vendor of new or old buildings, if he is incompetent. It can be used as a basis for legal action against a negligent builder or vendor "in tort".

The same appies to another statue law: the "**Occupiers' Liability Act**", 1957.

f) Another law, entitled the "**Health and Safety at Work Act, 1974**" makes it possible to take action against infringement of a regulation when for example one of the provisions of the "Building regulations" has been infringed.

The civil liability of builders is more broadly and easily invoked in that these "building regulations" take the form of a clear working text which includes almost all aspects of construction and design.

g) The excellent warranty system operated by the **National House-Building Council** for new buildings built by registered "house-builders" or sold by "developers" both protects the purchaser and improves quality on a voluntary basis.

Translated into contract, this NHBC warranty leaves intact the Common Law rights which allow the purchaser to invoke breach of the duty of care and skill, etc, if necessary.

5.2 - The Defective Premises Act, 1972

Althoug it did not adopt all the suggestions made by the Law Reform Committee, the "Defective Premises Act", 1972, is an important legal basis from 4 points of view:

a) It imposes on persons who take on the work of constructing **dwellings** a statutory (and non-implicit) duty to work "in a proper and workmanlike fashion and with proper materials", etc.

b) It abolishes the immunity conferred on **vendors** and landlords by Common Law in respect of work done negligently prior to the sale or rental of a building.

c) It imposes a new duty on the landlords, who already have a duty to repair **premises** offered for rent, which consists of taking "reasonable" care for the **safety** of any person who may "reasonably" be thought to suffer from the defects present in such premises.

d) Finally, the DP Act, 1972, says that none of these statutory duties can be either cancelled or restricted by contracts.

5.3 - Builder's liability "in contract"

A builder's liability arises primarily from the **contract** provided that it does not contain:

- o "unfair" terms in the sense of the UCT Act,
- o nor clauses contrary to the DP Act, in the case of a new building,
- o nor infringement of the rights of purchasers and vendors under Common Law.

Contractual liability has several features:

- it results from the terms of the contract, obviously,
- it is of voluntary origin,
- it applies above all to the quality of the object constructed,
- it is restricted, unlike liability "in tort".

Contractual liability for **damages** is not linked to the existence of a contractual clause on construction defects. However such a clause cannot prevent a builder from being declared liable in breach of contract.

The nature and extent of damages for "breach of contract" is assessed on the basis of the general rules of law applicable to damages.

These common rules say that damages are only recoverable by invoking a contract if:

o either they are a natural consequence of breach of contract,
o or that they result from special circumstances known to the parties which gave rise to exceptional losses.

The assessment of damages is generally based on the actual monetary loss, and the client naturally has the right to attenuate this loss.

Although it should be clear and unequivocal, liability "in contract" may be amended by the general terms used by the courts in reaching their decisions: implicit terms, consistency with custom, reasonable clauses, satisfactory professional work, appropriate materials, care and skill, etc.

The obligations of builders with respect to their clients are therefore not always clear, no more so than those of landlords with respect to their tenants.

The difficulties are increased by the diversity of procedures practiced in the United Kingdom:

"traditional approach, design and build, develop and construct, turnkey, management contract, project management, client managed forms, standard JCT forms, GC forms, ACE forms, ICE forms, BPF forms", etc.

Also in this country, more than elsewhere, there is an awareness of the poorly defined and poorly resolved major problems of the mutual responsibilities of parties when each have a separate contract with the client.

The British think and know that the general lack of well-defined responsibilities in the "builidng team" causes gaps between functions and is a factor in poor quality control on site, and gives rise to a high level of defects.

5.4 - Builder's liability "in tort"

Builders have many extra-contractual obligations which if they fail to fulfil may result in their being held liable "in tort" and to compensate not only the client, but successive owners and even tenants or others.

Such is the case in particular when after work has been completed and a structure has been put into use defects which were not detected at the time of acceptance give rise to damage of some severity.

This is the very British concept of "hidden defects" and "latent damages".

Theoretically the owner must prove fault by the builder, but in fact the liability of contractors is stricter than that of architects and engineers.

Proving that a contractor is at fault, or rather negligent, is not always easy. The concept of defect itself is not clearly defined.

What is a defect?

- a threat to safety or health?
- a cause of damage to the structure?

- a loss of quality or value in a building?
- reduction in the fitness of a building for its purpose?

Who is liable? Those who had a contract during the time of construction, or others after the work has been completed?

What are the responsibilities of a builder, his suppliers, his subcontactors, the designers, the district surveyors, etc.?

The current trend in England is to atttempt to place all the parties in one operation in the same "net" and to act in such a way that the contracts allow the possibility of actions "in contract" and not "in tort" throughout the limiting period of 12 years which applies to contracts "under seal".

5.5 - Professional liability

What has already been said about builder's liability "in contract" or "in tort" applies generally to architects, engineers, quantity surveyors and other "professionals".

With however some changes of emphasis and certain reliefs.

o The contract must be "fair", but the "Defective Premises Act" does not apply because it cannot be said that designer "takes on" building work as does a builder or contractor.
o Also the liabiity of designers is less strict than that of entrepreneurs.

What is required of a designer is that he should show the skill, care and diligence which any client may reasonably expect of him.

In cases of "negligence" he may incur civil liability if he has failed in his contractual obligations (in contract) or professional obligations (in tort).

Whence the concept of "**standard of care**" required from any competent member of a profession.

An architect, engineer or quantity surveyor cannot be held civilly liable if he can demonstrate that he worked with professional skill, care and diligence, or again if the damage has been caused by a third party, and not by a professional act.

The current trend is to limit the liability of designers contractually, but this does not take them outside the scope of the "Unfair Contract Terms Act".

Increasing numbers of designers are grouping together to work in limited companies and may thus obtain satisfactory professional insurance.

Architects consider themselves to be particularly vulnerable. In a recent publication their professional organisation, the RIBA, complained of excessive consumer protection and above all the continually increasing number of suits against professionals.

They have found that even though the recent "**Latent Damage Act**", which came into force in September 1986, limits the period in which legal action can be taken to fifteen years following the professional act which is alledged to be negligent, legal action may still be taken even after retirement and beyond the grave.

Some would go so far as to say that the British concept of "liability", with its uncertain nature (1), might have a destructive effect over a whole range of professional building work.

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(1) "The professions are liable in an indeterminate amount for an indeterminate time to an undeterminate class."

The **engineers** too have expressed fears about the increasing number of actions at law for negligence and the increasing cost of professional insurance. Going further they feel the "Latent Damage Act, 1986" will aggravate the situation still further.

Even in the case of design contracts the obligations implicit in Common Law appear to be onerous and uncertain.

5.6 - Limitations

For centuries the law has applied limits to legal action. An attempt must in fact be made to reach a balance between the rights of plantiffs and the rights of defendants. Years after the events in question, witnesses have disappeared, memories become dim, documents have been destroyed.

In addition to this judges are often overloaded with cases which are presented in different versions and which are more difficult to evaluate the older they are.

The term used in the United Kingdom to indicate the legal period within which a plaintiff may initiate legal proceedings is the "limitation period".

The law on "limitations" is frequently considered to be immensely complex in England and Wales.

It applies to everyone and in particular to contractors and designers in cases of latent damage.

Thus damage may be said to be latent when the defect which causes it was not apparent on the date of "final completion", that is to say when the builder had corrected everything which had been discovered by the date of "practical completion", and then during the contractual warranty period.

The system of limitations is not the same in Scotland as in England and Wales.

a) **In Scotland**, there is a particularly severe law, the "Prescription and Limitation Act, 1973", which draws a distinction between formal contracts and informal contracts.

1) When a contract is **informal**, for example based on an exchange of letters, any action in breach of contract or duty must be initiated within five years following the date on which the damage occurs or can be "reasonably" discoverable, but within the limit of a "long stop" period of 20 years following the date on which it occurred.

These periods of 5 and 20 years also apply to actions for negligence, but not to deliberate concealment and fraud.

2) When a contract is entered into **formally**, actions may be initiated at any time during a period of 20 years following the date on which the damage occurred. In the case of these contracts the 5 year period and the concept of "discoverability" no longer apply.

b) **In England and Wales**, the "Law Reform Committee" requested in 1980 that the question of limitations in the case of latent damage should be considered in order to overcome the increasing difficulties encountered in this respect, precisely because of the law.

Following acceptance by the Lord Chancellor the committee's recommendations took the form of the "Latent Damage Act, 1986".

Since this law came into effect in September 1986 the **periods** within which actions may be initiated are as follows:

1) For actions based on breach of contract, **six years** for ordinary contracts (under hand) and **twelve years** for contracts under seal from the date of the breach alleged by the plaintiff.

2) For actions based on negligence, **six years** from the date on which the damage occurs (date of accrual) but with an extension of **three years** from the date on which the plaintiff had knowledge of his right to go to law

(date of knowledge) and with a limit (long stop) of **fifteen years following the date of performance of the negligent act.**

These periods do not apply if there has been deliberate concealment or fault: see the graph.

The limiting (cut off) period of fifteen years means in effect that builders and designers are no longer liable for negligence fifteen years after the completion of building work.

In Scotland the equivalent of this period is twenty years running from the date on which the damage occurs. When the damage arises from a latent defect the initial date of the "long period" is less precise than in England, all the more so as to damage can occur several years after completion of the work.

The construction industry is particularly concerned about all these questions. It was not really satisfied by the law of 1986. It would appear that no form of insurance covers the risk between the 10th and 15th years.

The "Latent Damage Act, 1986" has not amended the system of six or twelve years limitation of actions or claims which are not based on breach of contract.

It is also possible that the parties may agree contractually to reduce these periods of six or twelve years provided that they do not become "unreasonably" short.

This happens in particular in the case of contracts made with designers. The date of completion of the work need not necessarily be considered as the start of the period of limitation for such contracts.

In the case of limitations on actions based not on contract but on negligence it should be appreciated that before 1986 the system of limitations was that of a period of six years counting from the date on which the damage occurred, without it being necessary for the claimant to be aware of the damage or to have been able to discover it...

Reference should be made to the decision of Pirelli v. Oscar Faber and Partners, appended hereto.

The main provisions of the recent "Latent Damage Act, 1986" may be summarised as follows:

a) The old principle according to which it is the **date of the damage** which is taken as the starting date of the period of limitation remains unchanged.

b) The limitation period of six years is added to a period of three years which runs from the date on which plaintiff discovered or "should have discovered if he was reasonably diligent", which is the same as initiating proceedings for negligence.

c) No action for negligence may be initiated following the expiry of a period of fifteen years following the date of the defendant's breach of duty.

d) **Successive owners** benefit from the same rights as the initial owner, in particular the period of three years to enable them to become aware of the existence of damage.

British **civil engineers** consider that the new law leaves too many uncertainties.

They are fearful of the high cost of future work in the event of litigation within the fifteen year period for which the legal origin is the date of the breach of duty; they would prefer that the origin should be the completion of the project, if only to ease the wording of professional insurance policies.

They feel that it is regrettable that the LD Act 1986 only deals with the limitation of actions for negligence and thus leaves plaintiffs the possibility of artificially invoking infringements of a law in order to avoid limitation.

Finally they wonder whether the concept of deliberate concealment is appropriate to construction work because foundations are hidden in the ground, bricks are hidden under plaster etc.?

5.7 - Liability of suppliers and subcontractors

Suppliers are always liable "in contract" to contractors or other purchasers.

In any contract for the sale of goods it is "implicit" that the goods are of merchantable quality and that they are appropriate for the use required.

A supplier may be liable "in tort" to a developer on the basis of Donoghue v. Stevenson.

In some circumstances, and even if the contract is between the supplier and contractor, it may be said that there is a "collateral" contract between the supplier and the client with the result that the liability "in contract" of the "supplier" with respect to the "developer" may be invoked.

This is the situation with "nominated suppliers", which can be said to be suppliers selected and identified by a "developer".

The situation of these suppliers is dealt with in the building contracts themselves, and in particular in the JCT standard contract forms.

Likewise a subcontractor always has contractual obligations and therefore liability "in contract" with respect to the main contractor.

But he may be liable "in tort" to the developer.

Unlike "domestic subcontractors", "nominated subcontractors" must even though they have no contract with the developer provide the latter with an implicit collateral warranty and may thus be liable "in contract" to the developer.

6. INSURANCE

6.1 - General description

Here as elsewhere owners insure themselves against risks such as fire, explosion, flood, etc.

Construction defects are not risks normally covered by insurance.

Insurance against defects is difficult to obtain in the United Kingdom, with the exception of residential buildings, almost all of which are covered by the NHBC system.

In the case of non-residential buildings the defect insurance market is unrestricted but narrowly defined. One half of a precent of the total annual value of new industrial or commercial buildings must be covered by insurance against latent defects.

Finally designers generally have professional liability insurance at their disposal.

6.2 - Non-residential buildings

Several factors restrict the market in insurance against latent defects, "Latent Defects Protection Insurance" (LDPI), in the industrial and commercial building sector:

o often powerful, clients do not hesitate to initiate proceedings and obtain judgements against builders and architects,
o the latent defects in an office building are not financially disastrous for commercial owners,
o owners of industrial buildings are generally tolerant of small defects,
o the protection of these owners does not raise any political problem,
o they are well placed to require and obtain repairs to seals, facings, etc.

Two professional building contractors' organisations, the Building Employers Confereation (BEC) and the Federation of Master Builders (FMB), offer their members warranty systems which cost 1% of the contractual sum (BEC) or 1% of annual turnover (FMB), but with a limitation of only two years following completion of the work, and with an obligation to accept arbitration in cases of dispute.

Two companies are attempting without great success to introduce ten year insurance into the United Kingdom. One of these the "Norman Insurance Co. and Scor", requires a minimum premium of 5,000 pounds.

The cost of this ten year defect insurance is of the order of 2 to 3% of the contractual sum.

Most clients prefer to work with contractors in whom they have confidence and with designers covered by a professional indemnity insurance policy (PIIP), despite the inadequacies of this sytem of insurance.

6.3 - Residential buildings

Protection of the purcahser of new housing - houses or flats - is a real problem. To be convinced of this, all that is needed is to reverse the five arguements given at the start of section 6.2 in relation to non-residential construction.

The solution found a long time ago in the United Kingdom is excellent. It includes prevention and insurance. This is the solution provided by the **National House-Building Council** (HBC).

The NHBC provides ten years protection to the purchasers of new houses.

Its chairman is appointed by the Secretary of State for Housing, but the NHBC receives no state subsidies or aid. The members of its board are persons appointed by organisations closely linked with the housebuilding industry: the association of building societies, the association of consumers, the professions (architects, surveyors, solicitors, etc.).

The NHBC system is not mere insurance: it also includes standards, inspection and research.

The dominant feature of the system is that it is not compulsory for either manufacturers or purchasers.

It operates on a **voluntary basis**:

o 30,000 builders are members of it becasue they feel that it is in their interest,
o 99% of house purchasers benefit from the system because they consider it to be in their interest.

Builders who are members of the NHBC must respect its **rules**.

The NHBC fulfils its role of protecting the purchaser:

o by keeping a **register** of its members,
o by imposing a minimum of construction **standards**,
o by **inspecting** houses and flats during construction,
o by providing **warranties** and long term **insurance**, the buildmark.

A builder cannot be included on the **NHBC register** without having demonstrated his competence: he must demonstrate that he has built and can answer detailed technical questions.

All builders on the register must meet the technical requirements of the NHBC which are regularly updated in the light of experience.

All housing built is subjected to inspection based on checklists. No inspection can prevent every defect, the objective is to ensure that builders do good work and avoid subsequent costly repairs.

The "**Buildmark**", which is not valid in Scotland, provides the purchaser with advantages during construction, and then for ten years following, and also when the house is sold.

It does so in this way:

While a house is being built, the purchaser is insured to the sum of 10,000 pounds against the **disappearance** of the builder (bankruptcy, etc.), or for the correction of any defects in construction.

During the first two years after construction the builder must correct all **defects** at his own expense; if he does not do so the purchaser has the right to arbitration and compensation if the builder is insolvent.

Between the third and the tenth years after construction the purcahser is insured against **major damages** due to any defect in the loadbearing structure; he is not insured against ordinary repairs or defects which do not give rise to major damage.

If the house is sold before expiry of the cover the second and third purchasers are insured against new defects which appear for the first time after purchase of the house.

To some extent the NHBC is a builder's club. Anyone who is not a member or is no longer a member is virtually unable to sell.

The NHBC building standards are not applied in tandem with the building regulatons: they supplement them in the case of housing.

The **preventive** role of the NHBC is absolutely essential: numberous visits on site made informally by experienced inspectors, internal inquiries on errors of construction and damage, publications for the use of members, campaigns to encourage quality, management, etc.

A hundred or so site foremen are rewarded every year within the context of the "**pride in the job**" compaign which is given wide coverage in the media. The **cost** of protecting the purchaser is of the order of 0.4% of the selling price of a house. The amount of compensation paid every year is some ten million pounds.

There is a special system for renovated housing, which tends to be found in city centres.

The building societies and banks subject their property loans to NHBC protection, thus it can be said to form an intimate part of the "British system".

6.4 - Insurance of designers

In the United Kingdom almost all designers (about 80%) have taken out insurance policies which cover them for complaints for negligence.

These policies are called PIIP: "Professional Indemnity Insurance Policies".

This cover is restricted to actions arising from the lack of skill and care which a client may reasonably expect from a competent professional: this is the concept of "standard of skill and care" mentioned in the previous section.

If a designer has to ensure the completion of his project he is not covered by his PIIP in the event of a claim for failure, unless - and this happens - his insurer has specially accepted this extension of liability.

Most PIIP are written on the basis of claims made. This means that the policy pays up for any claim notified during a particular insurance **year**, regardless of when the work was completed.

A client who enters into a contract with a designer for the design of a building can have no certainty that the designer will still be appropriately insured in the future, even if he is at the time when the contract is concluded, if any claim should arise.

This is a serious defect of all these PIIP.

The PIIP should provide the funds required within the limit of a certain insured sum when an owner is successful in his suit against a designer who

has been negligent, either as the author of the project or as a consultant.

Nevertheless there are almost always restrictions and obstacles:

o cost , time and difficulty in proving negligence, ...
o other professionals involved who do not always have similar cover,
o uncertainties in respect of the force of the policy, level of coverage, work insured, etc.

Policies which are valid for a long period, of 10 to 15 years, are not now available in the United Kingdom.

Because of the rapid rise in the cost of PIIP premiums professionals are actively looking for safeguards in the form of group insurances, standard policies, etc.

In England and Wales the RIBA is developing a new scheme, whereas in Scotland this has already been done. The ACE already has a system for consultant enginers. The RICS is envisaging a compulsory system for quantity surveyors.

6.5 - Insurance of contractors

Contracts and builders take out liability insurance policies for two reasons: either because the JCT standard forms of contract and others compel them to do so, or through good sense and prudence.

These policies generally do not cover defects in buildings. They provide cover for injury and damage to third parties which may arise during construction.

These insurances are not imposed by law. Clients however often insist that they should be taken out, and likewise the financers of major projects.

Insurance policies covering the risk of negligence, similar to designer's PIIP, can be obtained, but the prices are so high that they are rarely used,

particularly as future house owners have better protection available to them, in particular that offered by the NHBC.

If a builder has a "design and build" contract he may take out a PIIP policy under the same conditions as a designer.

There is also "all risks" insurance, abbreviated CAR, which covers damage to contractor's equipment and installations. Cover can be provided on an annual basis for all a contractor's sites, or on an individual basis for a single site which is then valid for the principal contractor and subcontractors.

CAP policies are only in force during the construction period and frequently also during the 6 to 12 months maintenance period which follows.

Currently, increasing numbers of CAR policies offer cover extended to "public liability", but never liability arising from the products used in construction.

Insurers are loath to be involved with individual projects, except in the case of very large projects.

Finally it should be noted that whenever a builder, architect or engineer has taken out an insurance covering him for negligence, but retires from the business or disappears, a law enables an injured third party to claim compensation directly from the insurance company. This law is entitled the "Third Parties Rights Against Insurers Act, 1930".

6.6 - Commercial warranties

In the construction industry there is a strong pressure that companies should guarantee products, in particular sealing and roofing products, moisture-proof products, double windows, wood treatment products, etc.

Some firms offer warranties of 10, 20 or even 30 years, sometimes without cover from an insurance company. Three different types of product insurance must be distinguished in this respect:

- o those which cover public liability, i.e. the consequences of injuries,
- o those which cover the producer's liability, but not replacement or repair of the defective item,
- o those which are a true warranty and thus cover replacement or repair of the defective item.

Recently a system called "Testguard" has been developed to combine the product warranty after construction with quality assurance during construction: product tests, quality certified by the manufacturer, insurance policy.

7. LITIGATION

Only litigation in the non-residential construction sector, not covered by the NHBC, will be dealt with here.

To sum up the dissatisfaction felt by purchasers and builders only one statistic need be quoted: more than half of insurance premiums go not on repairing defective buildings but on paying experts and lawyers.

The uncertainties of Common Law and the legal basis as a whole result in the fact that it is almost always difficult to draw up a claim.

Claims are generally made "in solidum". When they are made by a client they are often prosecuted "in contract" and "in tort" simultaneously.

In general owners will have to initiate proceedings or threaten proceedings in order to obtain the repair of latent defects after the construction period.

They must then, with the assistance of their adviser, identify the defects, their principal cause, and legal and financial liabilities.

Proceedings are interminable, expensive and uncertain. Several years are required in order to establish responsibilities and faults thus remain unrepaired.

The tendency is to avoid the courts in favour of arbitration.

Very often those responsible have disappeared, retired or have no valid professional insurance.

Faced with this situation some are considering the French sytem, but on the other hand attempts made in this direction have not so far achieved any success.

What is certain is that outside the housing sector there is great

dissatisfaction felt by both builders and purchasers.

8. APPENDICES

Lists of the appendices which will be included in the definitive edition published by the Directorate General for the Internal Market and Industrial Affairs of the Commission of the European Communities.

List of appendices

1 - List of regions and counties.
2 - Town and Country Planning Act, 1971.
3 - Main legal decisions (Common Law)
4 - PSA - Quality Assurance.
5 - Building Act, 1984.
6 - Manual to the Building Regulations, 1985.
7 - Procedures.
8 - Unfair Contract Terms Act, 1977.
9 - JCT - Practice Note 20 deciding on the appropriate form of JCT Main Contract.
10 - Defective Premises Act, 1972.
11 - Latent Damage Act 1986.
12 - ACE - Conditions of Engagement, 1981.
13 - Architect's appointment (RIBA).
14 - RIBA Insurance Scheme (PIIP).
15 - HNBC Scheme (Buildmark).
16 - General Conditions of Government Contracts for Building and Civil Engineering Works (Form GC Works 1).
17 - Conditions of Contract and Forms of Tender, Agreement and Bond for use in connection with works of Civil Engineering Construction.
18 - JCT - Standard Form of Building Contract, 1980 - Local Authorities with Quantities.
19 - JCT - Intermediate IFC, 1984 - Form of Building Contract for works of simple content.
20 - JCT - Agreement for Minor Building Works.
21 - JCT - With Contractor's Design.

Only appendices 1, 2 and 3 are appended to this publication.

8.1 - List of regions and counties in England, counties in Wales and regions in Scotland

ENGLAND (8 regions and 45 counties)

1. North

Tyne & Wear

Cleveland

Cumbria

Durham

Northumberland

2. North West

Greater Manchester

Merseyside

Cheshire

Lancashire

3. Yorkshire & Humberside

South Yorkshire

West Yorkshire

Humberside

North Yorkshire

4. West Midlands

West Midlands

Hereford & Worcester

Shropshire

Staffordshire

Warwickshire

5. East Midlands

Derbyshire

Leicestershire

Lincolnshire

Northamptonshire

Nottinghamshire

6. East Anglia

Cambridgeshire

Norfolk

Suffolk

7. South West

Avon

Cornwall & Isles of Scilly

Devon

Dorset

Gloucestershire

Somerset

Wiltshire

8. South East

GLC

Bedfordshire

Berkshire

Buckinghamshire

East Sussex

Essex

Hampshire

Hertfordshire

Kent

Oxfordshire

Surrey

West Sussex

WALES (8 counties)

Clwyd

Dyfed

Gwent

Gwynedd

Mid Glamorgan

Powys
South Glamorgan
West Glamorgan

SCOTLAND (12 Regions)
Borders
Central
Dumfries & Galloway
Fife
Grampian
Highland
Lothian
Orkney
Shetland
Strathclyde
Tayside
Western Isles

8.2 - Brief summary of the "Town and Country Planning Act", 1971

The "Town and Country Planning Act, 1971" has been amended many times, mainly by the "Local Government, Planning and Land Act, 1980" and by the "Housing and Planning Act, 1986".

The basic principle was that too much building land had been purchased in the past out of statute and that it would henceforth be necessary to require planning permission or rather permission to develop...

It is the concept of "development" which has received most attention from the legislators, and not that of "construction".

Some exceptions or simplifications are included in the "General Development Order, 1977" (GDO) and the "Use Classes Order, 1987". (UCO).

Here is a rapid summary of the 15 parts of the TCP Act, which contains 295 sections and 25 appendices:

Part 1: Administration

Definitions of local authorities, planning committees and consultative committees, delegation to counties and districts and the officers of local authorities, the situation of Greater London.

Part 2: Development Plans

Structure plan, local plans, etc.

Part 3: General control of planning

The concept of "development" and "new development", applications for "planning permission", refusal and grant of permission, the role of the ministry, etc.

Part 4: Special controls

Buildings of his historical or architectural interest, trees, advertising hoardings, waste land, offices, industrial buildings.

Part 5: Sanctions

Part 6: Acquisition and "appropriation" of land

Parts 7 and 8: Compensation

Part 9: Right of compulsory purchase

Part 10: Motorways

Part 11: Statutory undertakers (operational organisations)

Part 12: Validity of structure plans

Part 13: Financial provisions

Part 14: Special cases: mines, crown land, etc.

Part 15: Miscellaneous

8.3 - Liability arising in Common Law

As already mentioned in section 4.6 concerning contracts for the sale of buildings, the principle of caveat emptor results in a **purchaser** having no implicit warranty unless the vendor is himself the builder.

The rights conferred by Common Law on the **occupier** of a building to sue negligent builders, district surveyors or architects result from the following decisions:

Dutton v. Bognor Regis, where the district surveyor was found liable because he had not required foundations which were sufficiently deep.

Anns v. London Borough of Merton (1978), where judgement was given against the district because it had neglected to inspect a small building.

Raymond Batty v. Metropolitan Realisation (1978), where judgement was given against the developer and builder for negligence for failing to have discovered the poor quality of the ground on which a building which collapsed was built.

Pirelli v. Oscar Faber (1983), which ruled that the period of limitation in the case of latent damage starts on the date on which the damage occurs.

Subsequent decisions according to which this period only begins at the time when the damage could reasonably be discovered.

Hancock v. WR Brazier Ltd (1966), which makes it possible to sue the builder of a new house which has not been built with satisfactory materials nor in an appropriate way, and which once built is not suitable for habitation.

Wimpey v. Pool (1985), which makes it possible to invoke the negligence of a

designer who acts without the care and skill reasonably to be expected from a competent professional.

Junior Brooks v. Veitchi (1982), according to which a "nominated subcontractor" is responsible to the client for economic loss deriving from poor work even though he has no contract with him.

Donoghue v. Stevenson (1932), as a result of which a third party may be sued for negligence in the absence of a contract.

A Scottish woman had been invited by a friend to drink a bottle of ginger beer. The bottle was not transparent. She drank, and when pouring out the rest of the liquid found a decomposing snail in her glass.

She became violently ill and sued the manufacturer.

Not having bought the bottle she had no contract with the proprietor. As the contract of supply was between the proprietor and manufacturer she had no contract with the manufacturer.

Furthermore she had no contract with her friend, as a gift is not taken into consideration by the law.

It was therefore impossible for her by virtue of the doctrine of "privity of Contract" to sue anybody "in contract". She sued for damages against the manufacturer.

Miss Donoghue won her case by a majority of 3 to 2, and this decision confirmed the modern concept of negligence in actions under Common Law.

The case gives rise to two principles:

- negligence is a separate tort,
- the absence of privity of contract between the plaintiff and the defendant does not rule out liability in tort.