

PANTA RHEI

This issue :

NICHEWARE
new electronic network
of TECHWARE

Information Bulletin for 'Education in Hydrology and Water Management' and 'Training for Water Resources Technology' within the framework of the HUMAN RESOURCES and MOBILITY Programmes of the European Union (EU)

A QUARTERLY BULLETIN

N° 21/22 - DECEMBER - 1994

ALFA

Amérique Latine - Formation Académique CEC (DGI) university exchange programme with Latin America.

CALWARE

Computer-Aided-Learning in hydraulics, hydrology and WATER RESOURCES technology, strand Cb project (TECHWARE).

CC

Coordinating Committee of TECHWARE.

CEC

Commission of the European Communities.

COMETT II

COMMUNITY action for Education and Training for Technology, the European Community programme on cooperation between universities and industry regarding training in the field of technology (TFHR).

COPERNICUS

The programme of DGXII for cooperation in science and technology with Central and Eastern European Countries for areas of the 4th Framework Programme not covered by the specific programmes.

COST

European Cooperation in the domains of Science and Technology.

CTB

Coordinating TECHWARE Bureau in Brussels (B).

DG

Directorate-General, administrative unit of CEC (there are XXIII DGs).

EC

Executive Committee of TECHWARE.

ECTS

European Community Course Credit Transfer System (ERASMUS)

EP

European Parliament (EU).

EFTA

European Free Trade Association (member states : A, CH, FL, IS, N, S, SF).

ERASMUS

European Action Scheme for the Mobility of University Students (TFHR).

ETC

European Training Courses of TECHWARE.

EU

European Union (member states : B, D, DK, E, F, GR, I, IRL, L, NL, P, UK).

EWA Ring

JEP (TEMPUS) in the field of Environment, Water and Agricultural soils.

FORCE

FORMATION Continue en Europe -

Continuing Vocational Training in Europe (TFHR).

HCM

Human Capital and Mobility, sub-programme for Science, Research and Development (DGXII).

ICP

Interuniversity Cooperation Programme (ERASMUS).

IP

Intensive Programme (ERASMUS).

JEP

Joint European Project (TEMPUS).

LEONARDO

Vocational training programme 1995-1999 of CEC.

MATECH

European Center for MATHEMATICS and TECHNOLOGY of urban water pollution, network of HCM programme (of DG XII).

NGAA

National Grant Awarding Authority providing the grants for student mobility (ERASMUS).

NICHEWARE

European Network of Information Centres for Hydraulics-Environment and WATER RESOURCES / project-proposal of TECHWARE.

PECO

Pays d'Europe Centrale et Orientale.

The programme for cooperation in science and technology with Central and Eastern European Countries, for participation in ongoing projects within the five currently open specific EC-programmes (DG XII).

PEP

Personnel Exchange Programme of TECHWARE.

PHARE

Support programme of CEC (DGI) for Central and Eastern European Countries including the Baltic States but not including the TACIS-countries.

RTB

Regional TECHWARE Bureau.

RTD & D

Research, Technological Development and Demonstration.

SG

Specialist Group for preparing a future TECHWARE activity.

SME

Small- and Medium sized Enterprise.

SOCRATES

Educational programme 1995-1999 of CEC.

SPES

Student and young graduate Placements for training in European industry of the water environment Sector (TECHWARE).

S&T

Science and Technology

STRANDS (COMETT)

A : Action establishing UETPs.

B : Action for transnational exchanges (students, young graduates, personnel).

C : Joint Training Actions.

D : Complementary measures.

TACIS

Support programme of CEC (DGI) for Russia and the 12 New Independent States of the former Soviet Union.

TECHWARE

TECHNOLOGY for WATER RESOURCES, sectoral UETP (COMETT, Strand A) and International Non-Profit-Making Association, with Coordinating Bureau in Brussels (B).

TECHWARE- Italia, TECHWARE-UK&IRL and TECHWARE-Vlaanderen are Regional TECHWARE Bureaus (RTB). The symbol of TECHWARE is the **icosahedron**, associated with water in PLATO's philosophy.

TEMPUS

TransEuropean Cooperation Scheme for Higher Education, the EC-programme for education and training in CEE-Countries (TFHR and PHARE).

TF

Task Force for a given activity of TECHWARE.

TFHR

Task Force Human Resources, Education, Training and Youth (CEC).

UETP

University Enterprise Training Partnership (COMETT, Strand A).

WEEL

Water Environment European Laboratories, pan-European scientific network of TECHWARE (HCM programme of DGXII).

Hydrology

The logos of the waters, or the science that deals with the waters of the earth, their occurrence, circulation and distribution, their chemical and physical properties, and their interaction with their environment, including their relations to living beings.

Water management

Planned development, distribution and use of water resources, in accordance with predetermined objectives and with respect to both quantity and quality of the water resources.

Water resources technology

The development and application of (new) technologies to increase and improve the supply both in quantity and quality, interpreted in terms of availability of surface and underground waters.

'Tis that which makes the great Difference in Mankind: The little, and almost insensible Impressions on our tender Infancies, have very important and lasting Consequences: And there 'Tis, as in the fountains of some Rivers, where a gentle Application of the Hand turns the flexible Waters into Channels, that make them take quite contrary Courses, and by this little Direction given them at first in the Source, they receive different Tendencies, and arrive at last, at very remote distant places.

*John LOCKE "Some Thoughts concerning Education"
p. 83, in J.W. Yolton and J.S. Yolton, 1898, Clarendon, Oxford.*

BACKGROUND

- Following the successful EURO-WORKSHOPS of TECHWARE in 1993 (Lisboa, Brussels, Potenza, Wallingford) which culminated into "Recommendations from EURO-WORKSHOPS on Water Policy and RTD-Issues" presented at the Conference "Europe and Scientific and Technological Cooperation on Water" organised by the European Commission at HYDROTOP '94 at Marseille in April 1994 and published in the Proceedings of this Conference (ISBN 92- 826-6464-3).
- **Within TECHWARE's projects**
 - ETC** - European Training Courses for advanced Water Technologies, sponsored by the COMETT-programme
 - WEEL** - Water Environment European Laboratories, sponsored by the HUMAN CAPITAL and MOBILITY programme.
 - NICHEWARE** - European Network of Information Centres for Hydraulics-Environment and WATER RESOURCES, a project-proposal under the TELEMATICS APPLICATIONS programme of the European Commission.
- Implementing TECHWARE's mission :
 - facilitate European Cooperation
 - be a bridge between national and European levels
 - network people effectively
 - enhance research cooperation
 - create a European attitude
 - facilitate the exchange of scientific knowledge
 - provide relevant information

GENERAL AIMS

- Dissemination, timetable and coordination of complementary activities for the specific RTD-programmes within the 4th FP.
- Presentation of past and present research projects undertaken by local organisers.
- Examination of past research results in national programmes.
- Integrated cross-sectoral approach of European water environment RTD.
- Follow-up of TECHWARE Recommendations on Water Policy and RTD Issues.
- Relationship with other EU policy, e.g. the 5th Community Programme on Policy and Action for the Environment and Sustainable Development, Structural Funds, the White Paper.

ACTION LINES AND SPECIFIC RTD PROGRAMMES OF THE 4TH FP ADDRESSED

- Telematics Applications.
- Industrial Technologies.
- Standard, Measurement and Testing.
- Environment and Climate.
- Socio-economic Research.
- Third Countries and International Organisations.
- Dissemination and Optimisation of Results.
- Training and Mobility of Researchers.

• Expected outcome

Each Euro-workshop will provide relevant information, facilitate European research cooperation, build bridges between national and European level, facilitate industry-university cooperation and create a European attitude.

The series of Euro-workshops will allow to prepare for reviews of national water RTD, complementary to the review of programmes and activities supported by Directorate General XII 'Science, Research and Development' and of other related initiatives, published by the European Commission under the title "Europe and Scientific and Technological Cooperation on Water", EUR 15645 EN.

EURO - WORKSHOPS

Integrated European Water Environment Research and Technology Development

PROGRAMMES

(for further details: return the APPLICATION FORM)

• MADRID 26-27 JANUARY 1995

Contact : Mr. M. Menendez Prieto

Address and venue : Centro de Estudios Hidrográficos del CEDEX (Centro de Estudios y Experimentación de Obras Públicas)

Pº. Bajo Virgen del Puerto nº. 3, E- 28005 MADRID

Tel : +34-1-3357900 • Fax : +34-1-3357922

Thursday 26th January

10 a.m. Session 1 : "Cooperation and funding"

16 p.m. Session 2 : "Specific subprogrammes of the 4th FP"

Friday 27th January

10 a.m. "Past and going research projects in Spain and integrated cross-sectoral approaches"

• PERUGIA 1-2 March 1995

Contact : Prof. G. Roth

Address : Istituto di Idraulica, Università di Perugia, Facoltà di Ingegneria

S. Lucia, I- 06125 PERUGIA

Venue : WARREDOC, Villa Colombella, Perugia

Tel : +39-75-5852616 • Fax : +39-75-5852606

This EURO-WORKSHOP will be held within the framework of the EU- Environment Contract EV5V-CT0167 on MONITORING AND PREDICTION OF FLOOD HAZARDS IN SOUTHERN EUROPE.

A multi-disciplinary discussion will be held including issues of Climate Change, Radar Meteorology and Remote Sensing Applications. The integrated approach will be promoted for targeted socio-economic research related to water and natural hazards.

• WALLINGFORD 30 March 1995

Contact : Ms. Jacqueline Watts

Address and venue: HR Wallingford, Howbery Park, Wallingford, Oxfordshire, UK- OX10 8BA

Tel : +44-491-835381 • Fax : 44-491-826703

This EURO-WORKSHOP will focus on the examination of past and on-going research projects in national UK/IRL and EC-programmes, with a view of :

- management structures
- experience of technology uptake
- dissemination approaches
- recommendations to prospective research groups

• HELSINKI June 1995

Contact : Mr. M. Puupponen

Address and venue : Water Environment Research Institute (VERI)

P.O. Box 436, SF-00101 Helsinki

Tel : +358-019291 • fax: +358-01929577

The EURO-WORKSHOP will be an opportunity to make acquaintance with the Finnish and Baltic past and on-going research and to explore the potential for new development for cooperation in the EU-programmes.

Within the 4th Framework Programme 1994-1998 TECHWARE launches a new series of

EURO - WORKSHOPS

"Integrated European Water Environment
Research and Technology Development"

in several locations

MADRID, Spain • 26-27 January 1995

organised by CEDEX

PERUGIA, Italy • 1-2 March 1995

organised by Istituto di Idraulica, Università di Perugia

WALLINGFORD, United Kingdom • 30 March 1995

organised by HR Wallingford

HELSINKI, Finland • June 1995

organised by WERI



TECHWARE

TECHNOLOGY FOR WATER RESOURCES
INTERNATIONAL NON-PROFIT MAKING ASSOCIATION

UETP • UNIVERSITY ENTERPRISE TRAINING PARTNERSHIP UNDER COMETT II
the European Community programme on cooperation between
universities and industry regarding training in the field of technology

APPLICATION FORM

Fill in and return to one of the addresses given on the reverse side

TECHWARE EURO-WORKSHOPS 1995
Integrated European Water Environment
Research and Technological Development
within the 4th Framework Programme

I request further detailed information about
the EURO-WORKSHOPS of my choice

MADRID

PERUGIA

WALLINGFORD

HELSINKI

Name :

Affiliation :

Address :

.....

.....

Tel.....Fax.....E-mail.....

Date :

Signature



European Network of Information Centres
for Hydraulics - Environment and Water Resources

overview

NICHEWARE will be an electronic European wide network providing training and information services to enterprises and institutions in the water field. It will be a subscription service management by Regional TECHWARE Bureaux across Europe.

services

The easy to use broadband telematics system of NICHEWARE will provide open and distance learning services, including multimedia resources, as well as a range of information services. The following is a brief description of the main services areas :

- a. Dates and details of public courses**
NICHEWARE will hold up to date details of courses, seminars and workshops throughout Europe as well as details of past events and availability of course notes. On line request for further information and booking will be available.
- b. Interactive multimedia training modules**
Under the COMETT programme, TECHWARE has developed distance learning materials and a series of multimedia training materials. NICHEWARE will provide a range of training modules for the water-environment sector which can be studied

- remotely as computer aided distance learning tools.
- c. Intelligent references, abstracts and papers**
NICHEWARE will be able to search intelligently for references and will be able to extract knowledge from abstracts and papers held on the network.
- d. Student placement and employment services**
To date TECHWARE has placed over 2000 graduate months in organisations across Europe. NICHEWARE will facilitate this process by holding on line the details of students. The network will also include recruitment services for water professionals throughout Europe.
- e. Training and mobility of researchers**
Information on existing and upcoming projects.
- f. Research dissemination**
NICHEWARE will provide discussion group services, hypertext document services for research dissemination.
- g. Experts and consultants**
A database of experts and consultants in the water-environment field will be provided by NICHEWARE which will enable organisations to readily identify external professionals with appropriate skills and experience.
- h. Image and film library**
Photographs and video clips relating to hydraulics - environment and water resources will be held on NICHEWARE.
- i. Water news**
A timely and topical electronic newsletter will be published regularly on NICHEWARE.

NICHEWARE partners

The NICHEWARE service will be managed by the Regional TECHWARE Bureaux which are already part of the successful European TECHWARE network. The suppliers of information to NICHEWARE will include the major international hydraulic and water research laboratories, leading European universities, water service companies and water regulatory bodies.

Please could you kindly complete the questionnaire and fax a copy to the Coordinating TECHWARE Bureau, Brussels.

to : +32-2-5026735



TECHWARE CTB
c/o CIBE-BIWM
Wolstraat 70
B-1000 Brussels

from Fax No. :
from :
organisation :
address :

1. How do you rate your level of support in principle for the proposal ? (high, medium, low)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2. How would you rate your likely benefit from the NICHEWARE services ? (high, medium, low)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3. How would you rate the usefulness of each type of on-line service ? (high, medium, low)	
a. Dates and details of public courses	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. Interactive multi-media training modules	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c. Intelligent references, abstracts & papers database	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d. Student placement & employment services	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
e. Training and mobility of researchers	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
f. Research dissemination	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
g. Experts and consultants database	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
h. Image and film library	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
i. Water news	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4. What is your organisation's planned commitment in two years time regarding electronic communication (E-mail) for professional staff ? (all, majority, some, a few)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5. Please send me more details on TECHWARE (tick box)	<input type="checkbox"/>

H M L
A M S F

TECHWARE



TECHNOLOGY FOR WATER RESOURCES
INTERNATIONAL NON-PROFIT MAKING ASSOCIATION

UETP • UNIVERSITY ENTERPRISE TRAINING PARTNERSHIP UNDER COMETT II
the European Community programme on cooperation between
universities and industry regarding training in the field of technology

December 1994

Dear Colleague

TECHWARE prepares an exciting new electronic network called **NICHEWARE** -European Network of Information Centres for **Hydraulics, Environment and Water Resources**.

We are writing to request your assistance in relation to a short questionnaire on an exciting development of TECHWARE. As you may already be aware, TECHWARE is a well established European network of over 250 universities and enterprises covering the whole of the water environment. TECHWARE offers its members access to European graduate training placements, sponsorship for the development of courses, links into the European Commission, and a strong network of fellow professionals.

Over the past 5 years TECHWARE and its members have won a number of large European projects and have hosted influential Euro Workshops aimed at publishing recommendations on RTD and water policy.

TECHWARE is now looking to provide its members with an electronic European Network of Information Centres for Hydraulics - Environment and Water Resources (NICHEWARE) which will provide high quality on line services in the water field. To assist us in developing this exciting new information and training service to meet the needs of our intended customers, we would be most grateful if you could spare just a few minutes to read the description of the NICHEWARE project on the reverse side and to answer a few questions.

We are very much looking forward to receiving your views on NICHEWARE.

Yours sincerely,

The lead-partners

Ing. N. Bazzurro
NICHEWARE - Service Management

Dr. J. Davis
NICHEWARE - Applications

Dr. E. A. Delo
NICHEWARE - Project Management

Dr. D. Gritsis
NICHEWARE - Telematics Integration

Mr. J. Zapasnik
NICHEWARE - Users Service

EDITORIAL

Information from several sources reached the Editor that there is a general policy shift

within the Commission of the European Union with regard to networking. Active networking, whether in education, in training, in research or in general partnership for joint venture projects of many kind, has been promoted by CEC in the past as especially important for offering "European added value" to projects. In the early preparatory documents for the 4th Framework Programme, as well as for the programmes for education (Art. 126 of the Treaty of Maastricht) and Training (Art. 127), networking was always a major policy stream.

This seems no longer to be the case when reading some final documents adopted by the Council.

When analysing this policy shift, one should recognise from the start that the Commission is a large body with many programmes and activities. In principle, it is the Commissioner who is defining the policy of each programme or activity. The implementation of this policy is, of course, the task of the administrative bodies, i.e. the relevant Directorate-Generals.

The Treaty of Maastricht allows for further interaction: 1° by the European Parliament (an example is given under the ERASMUS-SOCRATES News in this issue); 2° by the **subsidiarity** principle. Many programmes of CEC are governed by "management committees" consisting of representatives of the Member States. The subsidiarity principle allows more than ever to more strongly link initiatives at the European level to actions at the national level. This is a very sound policy as long as the initiative at the European level remains lively and viable.

The Editor has experienced that the term "networking" is perceived in quite diverse ways within the CEC. The term is used (and misused) to characterise activities which do not necessarily involve real "networking". Networking is more than a simple sender-receiver model of communication where the information is

sometimes conceived of as an article of commerce.

"Networking" is not ensured by a mere partnership on a contractual basis for execution of a given project of short-duration.

"Networking" is a true commitment for collaborative actions with a long-term perspective. Members of a network should be convinced that more efficient and effective activities can be realised when pooling expertise, promoting interactive processes and seeking synergies for specific needs. The design and implementation of such a network is not an ad-hoc activity which can be executed by goodwill and conviction only. A policy is needed to allow the sustainability of such a networking-concept.

The Editor believes that there is still (financial) scope for true networking in the upcoming programmes SOCRATES, TEMPUS II, LEONARDO and the 4th Framework Programme for RTD. Prerequisites, however, are full commitment to the European Union and a vision of the "learning society of the 21st Century".

The Editor faces another issue: the continuity of PANTA RHEI. Financial and human resources are simply no longer available to publish on a full quarterly basis and free of charge. Therefore, again this double issue No. 21/22. This will continue in 1995 because the funding of the ERASMUS-ICP, which supports PANTA RHEI, has decreased by 60%, and the TEMPUS project EWA-Ring as well as the COMETT-UETP TECHWARE are ending. Fortunately, some of the upcoming TEMPUS II-projects have committed themselves to continuous support of PANTA RHEI. We hope that the new LEONARDO programme, which should start up in 1995, will allow for further support of PANTA RHEI through TECHWARE. However, LEONARDO-contracts will not be implemented before the end of 1995. A challenging future should be NICHEWARE -the "TECHWARE with Information Technology" project-proposal- which could bring PANTA RHEI on the Information Highway... in 1997 ?

The Editor

le magazine

for Education, Training and Youth in Europe
The new publication of the European Commission
Summer 1994 - Issue 2

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Overview : Commission President Jacques Delors • **The German Presidency** : Education Minister Karl-Heinz Laermann • **Dossier: Mobility** : Planes, trains and brains: ideas on the move / Open minds: breaking invisible barriers / Eurostudents: Erasmus faces the examiners / Clocking on: work placements abroad / Chalk and cheese: European teacher exchanges / Creditable credentials - or dodgy diplomas? / Virtual mobility: open and distance learning / Crossed channels: lifting the language barrier • **The Athena project** : Skills, training and women's economic development • **Quality in education**: Can it be assessed? • **Gypsies and itinerants**: Schooling with no fixed address • **Arts education**: A new European attitude • **Programmes in action**

EUROPEAN COMMISSION
Task Force: Human Resources, Education, Training and Youth
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ENCLOSURES

Please fill in and return :

- TECHWARE
- EUROWORKSHOPS
- NICHEWARE
- TECHWARE ETC



ERASMUS

NEWS from ERASMUS/SOCRATES

ICP : Interniversity Cooperation Programme "Hydrology and Water Management"

Coordinator : Prof. A. Van der Beken • Address : see Editor

ERASMUS Bureau

70, rue Montoyerstraat 70
B-1040 Brussels

tel +32-2-2330111
fax +32-2-2330150

Socrates programme approved

The Socrates education programme proposed by the Commission was approved by ministers of the 12 European Union countries in Luxembourg on Tuesday 21 June 1994. The education Ministers reached a common position and agreed a budget of ECU 760 million for the programme over five years (1995-99). The budget will be subject to revision after three years.

There are some 75 million pupils and higher education students in the EU. "Young people represent the future of Europe", Commissioner Antonio Ruberti stressed. "The principal objective of this ambitious programme is to give as many of them as possible the chance to add a European dimension to their studies and preparation for working life, thereby helping them to benefit from the career opportunities of a truly open European employment market". Professor Ruberti expressed his particular satisfaction with the institutional collaboration which has allowed agreement to be reached scarcely six months after the new programme was proposed. He hoped that a further effort would be made regarding the budget during the final stages of the procedure.

Improving the quality of education features strongly in the White Paper on growth, competitiveness and employment for Europe. SOCRATES is designed to make a

significant contribution in this area via a set of measures based on transnational cooperation.

These include physical mobility in the form of exchange schemes, improving knowledge of languages, and modern techniques for open and distance learning. European initiatives will also be introduced for the first time at all teaching levels, including schools.

At school level, the programme is mainly designed to encourage exchanges of teaching staff and the formation of partnership between schools in different Member States for joint educational projects, for example in such areas of common interest as languages, cultural heritage and environmental protection.

In higher education, the student and academic staff mobility developed under the Erasmus programme will continue, allowing beneficiaries to pursue their studies or professional development partially in other member States. Particular support will also be given to cooperation projects between universities, which may be linked in networks, on subjects of common interest (joint development of curricula, improved teaching methods, etc.).

At all levels, the programme will support the improvement of language capabilities in the EU (for example, through initiative courses or teaching periods abroad for language teachers), open and distance learning, and exchanges of information (notably via the extension of the EURYDICE network) and experience (particularly through study visits for education specialists).

The Socrates proposal discussed by the Economic and Social Committee

The Socrates proposal is a part of the White Paper of the Maastricht Treaty. As well as the Green Paper, it focuses on the European dimension of education, but concerns more about the factors of growth, competitiveness and employment.

This proposal is intended to ensure the continuation of Community action already undertaken, particularly under the Erasmus and Lingua programmes. It covers three areas of activity: Higher education; school education; and horizontal actions to promote language learning, open and distance education and learning, information and

ERASMUS ICP "Hydrology and Water Management" New Edition with Addendum

Name :

Address :

requests a copy of the INFORMATION BROCHURE (second edition) and the POSTER

Date : Signature :

Return to the Editor of PANTA RHEI

exchanges of experience.

The Socrates programme introduces changes in the field of cooperation between the participating universities. In the past, university faculties cooperated with each other. Now the Commission proposes concluding an institutional contract with all the participating universities, but **it is not yet clear what sort of relationship there will be between the ICPs (inter-university cooperation programmes) and the institutional contracts** (1).

In the view of the Economic and Social Committee, **the highly decentralised execution of the programme may divine to a problem in the coordination of the information** (2). The Committee points out that the supply of information is one of the most important instruments for making a programme a success or a failure. Besides, there should be a proper coordination between the Leonardo, Socrates and Youth for Europe III programmes (3). With regard to the priority given to the lesser used or taught languages, the Committee is in favour of protecting those, but does not think that this instrument will contribute to the European dimension in education.

Ref: Official Journal
No: 94/C 195/11 of 18 July 1994

Notes of the Editor :

- (1) Six months later, this is not yet clear at all.
- (2) I refer to the Editorial in this issue.
- (3) Again, six months later there is no news about this coordination.

The European dimension of education: the GREEN PAPER

The Treaty of Maastricht gives the Community new responsibilities in the field of education. By presenting a Green Paper, the Commission hopes to spark off a debate about the possibilities of Community action in the field of education.

The fundamental principles on which this Green Paper is based are respect for national identities, together with the adequate preparation of young people for more effective integration into European society and working life.

The school is one of the main focal points for educational activity within the Member States; the same should therefore hold good for Community action. But the Green Paper does not make any reference to culture, which is a fundamental part of European identity. Culture is in fact the real cornerstone of European integration, bringing together the norms of democracy and constitutional government, citizenship, traditions and mentalities, as well as an intense, historico-cultural diversity.

Therefore, the Green Paper and the European dimension should comprise the promotion of the various European cultures, where humanism should be the common denominator. If that succeeds, the European citizen may achieve a pan-European cultural identity something which would be important for completing the idea behind the internal market. Besides, knowledge of other Community languages and affairs are key requirements for cultural, economic, technical and scientific cooperation aimed at promoting competitiveness, for it is clear that quality education will lead to 'a quality Europe' where expertise, creativity and dynamism are encouraged.

For the reasons mentioned, the Community should find ways to encourage mobility among students, teachers and other education staff. The main objectives are to increase the number of students following a supplementary course of study in another Member State and to increase the number of teacher exchanges. This has to be done by promoting mutual academic recognition of diplomas, qualifications and courses of study.

Ref: Official Journal
No: 94/C 195/10 of 18 July 1994

News from ICP-94-B-1138 Hydrology and Water Management

This ICP has submitted its activity report 1993-1994 and its re-application form for 1995-1996. Student Mobility has increased from 40 in 1992/3 to 60 in 1993/4. Teaching staff mobility has also increased: from 15 in 1992/93 to 21 in 1993/4.

Five new partners from F, E and S will join the ICP from July 1995 onwards. This brings the total number of partners to 47 in 14 countries. The new partners are: Escuela Universitaria Politécnica, Programa de Formación de Técnicos en Agua, Sevilla (E); Ecole Nationale des Travaux Publics de l'Etat, Vaulx (F); Université de Poitiers, Laboratoire d'Hydrogéologie, Poitiers (F); University College School of Engineering, Dept. of Civil Engineering, Galway (IRL); Swedish University, Dept. of Soil Sciences, Uppsala (S).

Overview of activities ERASMUS ICP "Hydrology and Water Management"

ACADEMIC YEAR	PARTNERS	COUNTRIES	STUDENT MOBILITY		TEACHER MOBILITY	
			NUMBER	MONTHS	NUMBER	MONTHS
1989-90	9	7	4	16	3	5
1990-91	21	8	12	59	5	8
1991-92	27	10	22	138	9	10
1992-93	34	12	40	150	15	15
1993-94	37	12	60	332	21	21
1994-95 (2)	42	14	>100(1)	***	59(1)	59(1)
1995-96	47	14	>100(2)	***	87(2)	***(1)

(1) not yet known (2) requested

News from ICP- partners

BELGIUM

IUPHY (Interuniversity Postgraduate Programme in Hydrology) at the Vrije Universiteit Brussel (VUB) does not longer exist: it is merged from 1 October 1994 onwards with the former similar programme CIE (Centre for Irrigation Engineering) of the Katholieke Universiteit Leuven (KUL), a new ICP member since 1994/95. The new postgraduate programme took the name **IUPWARE -Interuniversity Programme in Water Resources Engineering**. This MSc-programme in English language consists of a first common year, taught at KUL where students take the registration. The second year allows specialisation in: 1. Hydrology, 2. Irrigation engineering, and 3. Water quality management. The diplomas are issued by both universities. All students of the second year register at VUB. Admission requirements are: a 4-year BSc-degree to enter the first year and a 5-year engineering degree (or the IUPWARE first year) to enter the second year. IUPWARE is the first example of a fully integrated programme between two universities in the Flemish region in Belgium.

ITALY

Politecnico di Milano-Dipartimento di Ingegneria Idraulica, Ambientale e del Rivelamento, announces a complete course programme "Environmental and Land Engineering" (in Italian language). The degree can be obtained after five years study. The first three years are common to all; the fourth and fifth year comprises four specialisation areas: 1. Environment, 2. Soil protection, 3. Georesources, 4. Land Planning and Management.

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Europe and beyond

ALFA

Amérique Latine - Formation Academique

The CEC Directorate-General I for External Relations has launched its Community-Latin America university exchange programme (1994-1998) with an EC- contribution of 32 MECU. The programme consists of three subprogrammes:

- Cooperation between higher education institutions
- Postgraduate exchanges
- Student exchanges

There will be three phases to the programme.

Phase one (part of first year and the second year)

- start-up of subprogramme A activities
- preparation of subprogramme B

Phase two (third year)

- continuation of subprogramme A activities
- start-up of subprogramme B activities

Phase three (fourth and fifth year)

- continuation of subprogramme A and B activities
- start-up of subprogramme C

EC-US Cooperation

Twenty three "demonstration projects" have been selected for support in the exploratory phase of EC-US cooperation in higher education. Among the seven topics of supported projects, one topic interests our readers: **Groundwater protection as a global environmental problem.** The range of activities to be pursued covers organisation of student mobility-including industrial placements, teaching staff mobility, joint curriculum development and intensive seminars. Also ECTS is high on the agenda.

classical tasks, hydraulic engineering has evolved to deal with water quality, environmental issues and ecology, and it is further broadened by the new challenges posed by the need for sustainable development and by the threat of global changes. New developments in science and technology and computer sciences must be reflected both in contents and methods of teaching. Education must also provide engineering skills and procedures as well as professional preparation including the ability to work in interdisciplinary teams. In view of these developments, continuing education will have a major role to play, and large-scale systems and international aspects will be of increasing importance. These developments call for suitable IAHR activities.

IAHR Bulletin Vol. 11-1994, p.36.

EURO-CHALLENGE

Key Information and Jobs for the European Graduate

This book is a detailed guide for all those considering studying or working in one of the EU countries, or in Switzerland. Whilst being especially interesting for business and technical students and graduates, it is aimed at young people from all disciplines. The book is divided into two sections: a magazine-type collection of articles, and the lexicon section containing the facts and figures of European career-planning. The book covers all sorts of aspects such as European study programmes, grants and fellowships, the employment market (with a list of over 270 top European companies for graduates), and includes 14 country profiles in which we look at living, studying and working in the individual countries.

*First Edition 1983, 240 pp., price 24DM
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on your desk

Education of Hydraulic Engineers

Journal of Hydraulic Research

*by Prof. Dr. Helmut Kobus,
Prof. Dr. Ing. Erich Plate,
Prof. Hsieh Wen Shen
and Dr. Andras Szollosi-Nagy*

In this report, a joint IAHR and UNESCO panel addresses the current developments in hydraulic engineering and their implications for the education of hydraulic engineers. The framework of underlying basic sciences, geosciences and engineering sciences and the large variety of engineering subjects involved must be seen in the broader context of the natural and social environment. In addition to its

Who's Who Guide to International Student Organisations

The "Who's Who Guide to International Student Organisations" is a guide covering 27 organisations with detailed information on Nature and Aims, Structure, Activities, Funding and External Relations. Most of the organisations are heavily centred in Europe with their offices in Belgium or The Netherlands.

*The price is BEF 1.100 per copy, including
mailing expenses inside Europe.
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New upcoming TEMPUS proposal

ENVIRONMENTAL HYDROLOGY

Joint Proposal of the Czech Republic and
EC-Countries

Summary :

The previous JEP TEMPUS 2150 "EWA -
Ring" should require follow-up activities in
the form of a JEN with the participation of :

- Two Czech universities (AU Prague, TU
Prague)
- Four EU universities (AU Wageningen, VU
Brussels, TU Braunschweig, BoKu Vienna)
which create the basis for further
cooperation. Maintenance of earlier JEP
achievements will be properly carried out in
the form of staff contacts, exchange of
syllabi, teaching aids, software, etc.

For the dissemination and rational utilisation
of JEP results the demand of target group
members will be met. This group is
recruited from:

Charles University Prague, one organisation
(Hydromet. Institute) and three enterprises
(Water Board Vltava River, Hydroproject
Consult. Comp. and Aquatest Comp.). The
main dissemination programme consists of
two workshops on the topical themes of
Environment, Water and Agricultural Soils
(EWA-Ring as it was in the JEP), and also
some staff visits and software
dissemination.

It is very significant that this follow-up is
in good accordance with the process of
social and economic restructuring in
the Czech Republic, providing a unique
opportunity to apply ecological principles
in the re-privatisation process in national
resources.

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TEMPUS CET-PROJECT CME-94-I-2003

Evaluation and Assessment of Present and Future Continuing Education and Training (CET) for Water Resources Engineering

Continuing Education and Training (CET) in the Water Resources
Engineering Sector has developed considerably in the last few years
in Europe. Some institutions and universities have more than 30
years experience of programmes and short courses in this field.
Some enterprises have also used CET for specific technology in the
field of water resources engineering.

Organisations like FAO, OECD, UNESCO and UNDP, a.o., and
scientific or professional associations have also developed CET-
activities in the water field.

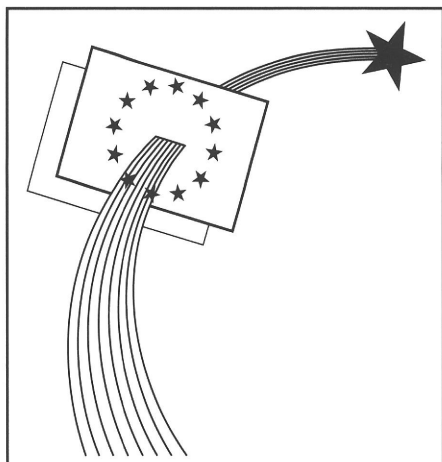
Within Europe, the European Union has developed since 1987 CET
activities within the ERASMUS, COMETT and TEMPUS Action
Programmes, and the new SOCRATES and LEONARDO
Programmes will certainly promote and strengthen CET by fostering
complementarity between education and training and synergy
between different policies at the European Union. Within these EC
Action Programmes, some organisational Intensive Programmes
(within the ERASMUS Programme) and short courses (within the
COMETT and TEMPUS Programmes). Other CET-activities are:
COMETT's joint training projects and pilot projects, distance learning
and computer aided learning, etc.

In this context, the present project proposal will aim to assess present
and future CET activities in the water resources engineering, to
evaluate the training needs and the potential use of advanced
learning technology. It will seek to analyse supply and demand,
weakness or gaps, language problems, viability of CET-activities and
quality and accreditation problems.

A workshop-panel, composed of CET-directors from the CEEC, EU
and EFTA countries, will decide on the aims and issues to be debated
and on the methodology of the workshop. All participants will
prepare pre-workshop reports for discussion. A blueprint for future
CET-activities in water resources engineering will also be prepared
as an outcome of the workshop.

This EURO-WORKSHOP is organised by TECHWARE with the
support of the Task Force for Human Resources, Education and Youth
(TFHR), of TEMPUS and COMETT and will take place in Brussels, 20-
22 April 1995.

Contact : The Editor of PANTA RHEI



Women into Technology

Promoting the cause of women in technology and encouraging the UETPs to raise awareness to sexism, were the purposes of the workshop organised by UETP WITEC in February 1994 in Sheffield.

The findings of the workshop were that equal opportunity policies need to be targeted at all levels: school, social, training and work level. At school, for example, more girls should be encouraged to take technological subjects, and to enter professions where they can act as role models for others. There is a lack of such role models and therefore improved contacts and visibility of women in these fields need to be developed.

One of the objectives of LEONARDO programme (starting 1 January 1995) would be, as in the past, equal opportunities. One initiative in this line involving women would be a continuation and updating of the existing NOW initiative (New Opportunities for Women).

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A competitor of COMETT

FORCE - Three years of activity

Since it was first developed in 1991, FORCE has created the largest transnational continuing training network bringing together companies, social partners and training organisations. At the moment, the network has almost 6,000 individual partner organisations.

In the three years of activity, the development of the programme has been significant, and the growth in its transnational dimension corresponds with the acceptance of two principles: innovation and anticipation of change.

The three call for projects have followed each other with increasing intensity. They yielded a total of 2,500 proposals, from which 720 projects were selected. However, several hundred more could have been selected had the FORCE budget been sufficient to finance all the high quality projects submitted.

The Commissions view on the FORCE programme :

FORCE seeks to make workers aware of the need for training throughout their working lives to safeguard their employment and avoid exclusion from the labour market. Pro 8 August 1994, the Commission is satisfied with the action taken in this area. *Official journal no. : 94/C 219/152, 8 August 1994.*

Workshop on the experiences of sectoral UETPs

Brussels 20 September 1994

This Workshop was part of a larger project, on which COMETT will present a report on the experiences of 7 years of COMETT. It was organized very successfully by Mr. G. SAIO, coordinator of UETP GISIG, member of TECHWARE.

Two main themes were discussed :

- The experiences of different sectoral UETPs.
- The UETPs possible role in the future, under LEONARDO.

Mr. Hans-Jurgen Schmehr, representative of TFHR (Task Forces for Human Resources), pointed out what should be discussed during the Workshop. TFHR is looking for the UETPs advise for maintaining a quite successful network under LEONARDO, which means new pilot projects to be developed. The main point concerning the UETPs is the partnership between industries and universities, which has been a pilot project. But which role could the UETPs play in LEONARDO ?

The LEONARDO Programme has been developed from the White Paper, where the key issue is unemployment, i.e. job creation. The LEONARDO Programme is set to encompass much of the work previously done by COMETT (COMMunity programme for Education and Training in Technology), FORCE (Continuing Education Programme) and EUROTECNET (programme to promote innovation in vocational training to take account of on-going technological change). He also explained which concrete changes the LEONARDO Programme contains concerning the 3 Strands which will be established.

Further, he talked about the role of the sectoral UETPs as follows :

- European Association
- Large partnership and transnationality
- Forum for different institutional organizations (Universities, Enterprises, Research Institutes, etc.)
- Operative network in sectoral UETPs; Link among Training and Education, Research and Technology Development (within the 4th Framework)
- Technology transfer
- Contribution in the EU "built-up"

The 19 most successful sectoral UETPs (of approximately 80), were invited to this Workshop. TECHWARE was among them.

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NEWS from
COMETT/LEONARDO

LEONARDO is coming

(see PANTA RHEI No. 18/19, March 1994)

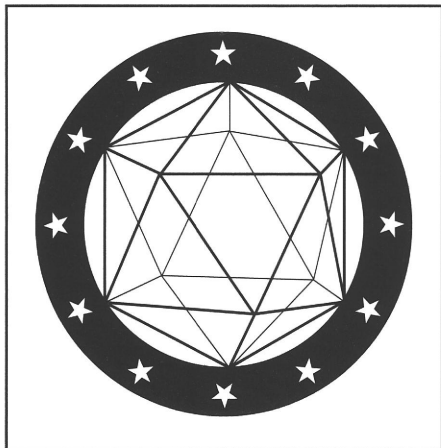
The Task Force for Human Resources, Education, Training and Youth (TFHR) of the CEC has made the first step for implementation of the new programme LEONARDO : a tender for the Technical Assistance Office -TAO- has been closed on 28 October 1994. A similar call for tender took place for the SOCRATES programme.

The new LEONARDO TAO will require a staff of approximately 60 to 75 persons. The beginning of the contract is scheduled for 1 May 1995.

It is the firm intention of the TFHR that the programme be operational in 1995

Major tasks of the future TAO :

- logistical support structure
- preparation of calls for proposals
- assistance in the procedure of project selection
- administrative and financial management of the contracts
- information tasks
- planning, monitoring and evaluation measures.



UETP : University Enterprise Training
Partnership
TECHWARE
TECHnology for WAtER REsources
Coordinator : A. Van der Beken
c/o CIBE-BIWM
Wolstraat 70 rue aux Laines
B-1000 Brussels
Tel +32-2-5188893 Fax +32-2-5026735

TECHWARE meetings

of the Board of Management and the General Assembly

Madrid, 10-11 June 1994

The TECHWARE meetings in Madrid were very successful thanks to the perfect organization of the host CEDEX-CEH, Centro de Estudios y Experimentación de Obras Publicas, Centro de Estudios Hidrograficos.

Some highlights

- Evaluation, Assessment and Perception of TECHWARE.
The results of an independent AUDIT of TECHWARE were presented in a very clear way by Mr. Wouter VAN DEN BERGHE, expert to the Commission.
The general conclusion of this AUDIT is that TECHWARE performs very well in comparison to other UETPs of the COMETT-programme. However, it often fails to show its successes and therefore awareness of TECHWARE's potentials is weak among members. But members also often do not realise the limitations of TECHWARE or the huge amount of paperwork involved with contracts of the Commission.
- A Working Party "General Policy and Total Quality" was set up to prepare a follow-up of the recommendations of the AUDIT. The Executive Committee of December 1994 will decide on the proposals, prepared by this Working Party, for implementation in 1995.
- Election by the General Assembly of
- the new President : R. BAZZANO,
General Manger of AMGA, the Water

- Supply and Sanitation Company of Genova (I).
- the new Board of Management.
- Election by the Board of Management of the new Executive Committee, chaired by the President.
- New Executive Committee of TECHWARE:
President : R. Bazzano (I)
Vice-president : J.W. Lyklema (NL)
R. Sellin (UK), Chairman RTB-UK & IRL
Treasurer : R. Petiau (B)
Co-ordinator : A. Van der Beken (B)
Member : J.C. Refsgaard ((DK)
Co-opted : J. De Greef (B),
Chairman RTB-VL
E. Doda (I), Chairman RTB-I
J. Dirickx (UK), past-president

All officers of the association serve for a term of two years. All persons are representatives of the member-bodies of TECHWARE.

- Acceptance of the Financial Accounts of 1993 and the Auditor's report. Approval of the 1994 budget.
- Approval of the Activity Report 1993 and of on-going activities.
- Approval for launching a new series of TECHWARE-EUROWORKSHOPS.
- Decision to prepare a major new project proposal called NICHEWARE.
- Demonstration of CALWARE.

calware

Computer - Aided - Learning for hydraulics, hydrology and WAtER REsources technology

CALWARE entered its last project-year, ending 30 June 1995.

It has received considerably attention from both inside and outside Europe. On 13-14 June 1995 will be held a CALWARE-meeting in cooperation with CALHYDRO 95, a group from German-speaking countries.

The meeting will be held in Leuven (B) and will be open to all interested persons.

Contact : Dr. J. Davies, University of Bristol,
Department of Civil engineering
Fax : +44-272-251154

info

HYDRA 2000

The XXVIth IAHR Congress HYDraulics Research and its Application next century will be held in London (UK), 11-15 September 1995. One of the many topics addressed is : Training the hydraulic engineer for the 21st century. Contributions to this topic should be submitted not later than 30 April 1995.

There is also the J.F. Kennedy Student Paper Competition. Submissions should be original work, not previously published, authored by students with a university registration at any time during the period 1993 to 1995. Deadline for these student papers is 31 January 1995.

Contact : XXVI IAHR Congress, Ms. S. Frye,
Conference Office, Institution of Civil

Engineers.
1 Great George Street, London SW1P 3AA UK
Tel: +44-71-8399801 Fax: +44-71-2331743

on your desk

Continuing Education in France : Legislation, Funding, Structure

Contents :

1. Introduction
2. All enterprises participate in the financing of continuing education
3. Continuing education activities in French companies
4. Social partners control important financial resources and have decision power in some elements of education
5. State financing concentrates on fighting unemployment
6. Chambers of commerce and industry are important actors in French continuing education
7. Employees participate in the definition and control of educational activities
8. Training providers operate on a free market
9. French companies benefit from the educational programmes of the European Community

When discussing the role of a country's government in continuing education and whether continuing professional development could -or should- be made compulsory in a certain profession, France is often looked on as an example.

The famous "training tax", introduced by legislation in 1971 made continuing education a compulsory expense of all companies with ten or more employees, and this was later extended to include all companies regardless the size.

This report looks at how French systems works. It describes the legislative framework and the options that French companies face when deciding about how to spend the compulsory training money. The report tries to evaluate how the system has formed continuing engineering education market in France and how French engineers benefit from it.

Leiko, Marita
Published by International Association for
Continuing Education, IACEE
Espoo 1994
ISBN 952-9789-02-5

New handbook : The practical guide to multimedia - A handbook in planning, developing and running multimedia based training

Information : PLS Consult A/S
Gateborg Allé 5B
DK-8200 Aarhus N
Denmark
Tel : +45-86161700
Fax : +45-86160800
E-mail : ss@pls.dk

The Information Society and TECHWARE

The Bangemann Report

"Europe and the global information society: recommendations to the European Council" report of the high-level group on the information society chaired by Commissioner Mr. M. Bangemann (industrial policy).

The information society is coming whether we like it or not

The report insists on the need to demonstrate immediate applications and mentions ten specific applications :

Teleworking, **distance learning, a network for universities and research centres, telematic services for SMEs**, road traffic management, air traffic control, healthcare networks, electronic tendering, trans-European public administration networks, and city information highways.

Within the specific RTD-programme "TELEMATICS APPLICATIONS OF COMMON INTEREST" and its area "TELEMATICS FOR KNOWLEDGE" subarea: "Education and Training", the Commission will fund a few "experimental information resources networks", integrating the existing technologies, addressing the interconnection and interoperability of information infrastructures (the so-called "infostructures") and services, and demonstrating "generic solutions" for direct applications in other areas.

The future viability of such experimental information resources networks in a market-oriented approach is an essential feature.

TECHWARE takes up the "information society"-challenge and prepares a project proposal for education and training of highly specialised personnel with a cross-sectoral approach towards the area TELEMATICS FOR THE ENVIRONMENT.

NICHEWARE

European **N**etwork of **I**nformation **C**entres for **H**ydraulics, **E**nvironment and **W**ater **R**esources

is the name given to the new TECHWARE project-proposal. The word "niche" is common to both English and French, and is well-known in other cultural environments as well.

TECHWARE has fifteen good reasons for developing this project-proposal :

1. TECHWARE is a large and well-established European network of universities and enterprises, including SMEs, covering the whole of Europe,

with a decentralised management structure with Regional Bureaux.

2. TECHWARE has a five-year experience with large European projects.

3. TECHWARE covers the whole WATER-environment area which can easily offer "generic solutions" for other areas.

4. TECHWARE has successful experiences with distance learning through its project TRITON on computer conferencing for urban WATER management. This COMETT-pilot project was well regarded by the assessment project of DELTA, the former specific programme for telematic applications.

5. TECHWARE runs a high-quality series of computer-aided learning titles (the CALWARE-project) and has given inputs to the development and design of such course-material on a truly European scale.

6. TECHWARE has funded and promoted a unique series of more than 60 short-courses of highly specialised nature, delivered in the past 5 years in different European locations. Many of these courses are eligible for re-design and some are indeed already available in digital form and simulation mode.

7. TECHWARE convenes in April 1995 a Euroworkshop "Evaluation and assessment of present and future Continuing Education and Training (CET) activities for WATER Resources Engineering". The Euroworkshop is sponsored by the Task Force for Human Resources, Education, Training and Youth of the Commission, and addresses ERASMUS, TEMPUS and COMETT projects as well as non-CEC funded CET-activities. It will bring together 30 of the most important CET-providers in Europe, including Central and Eastern Europe.

8. TECHWARE's unique relationship with the Inter-university Co-operation Programme (ICP): "Hydrology and WATER management", one of the largest ICPs of the ERASMUS programme, offers an asset to build up an inter-institutional network for highly specialised education. The forthcoming SOCRATES programme will allow the establishment of a similar thematic network for dissemination of information, curriculum development and scientific reflection on the contents and quality of the education and training in WATER-environment related disciplines.

9. TECHWARE was involved in a project of Strategic Analysis for Science and Technology (SAST) of CEC-DG XII, and has organised EURO-WORKSHOPS to disseminate the results of SAST and also published Recommendations on RTD and WATER Policy.

10. TECHWARE is involved in the HCM-HUMAN CAPITAL and MOBILITY programme through its project "WEEL - WATER Environment European Laboratories" and has strong links with "MATECH - European Centre for MAThematics and TECHnology of urban WATER pollution", another HCM-project.

11. TECHWARE sponsors an Information Group on Combined Sewer Overflows (CSO) which successfully gathered in 6 months-time more than 120 case-studies or research-studies. This is an excellent direct information source for training and innovation which is of utmost importance for the urban environment.

12. TECHWARE's large membership of private and public companies and consultants forms the ideal environment for setting up local user-platforms which should demonstrate the economic viability of NICHEWARE.

13. TECHWARE has organised successfully more than 300 training placements for a total duration of about 2000 months and has contributed in this way to the employment issue by offering a European "added value" to many graduates.

14. TECHWARE is well-known among international organisations and has executed projects funded by the World Bank, the United Nations Development Programme and the World Health Organisation. It contributes to international programmes of UNESCO and World Meteorological Organisation and has the support of many scientific and professional organisations such as the International Association for Hydraulic Research, the International and European WATER Resources Associations and the International WATER Supply Association.

15. TECHWARE, last but not least, through its origin as a COMETT - University Enterprise Training Partnership (UETP) and its very nature, is strongly committed to the European Union and its goals.

TECHWARE projects

TECHWARE Specialist Group (SG) Combined Sewer Overflow CSO - Information Group

(Combined Sewer Overflows are emergency outlets for over-loaded sewerage systems).

The questionnaire (Information Sheet) sent as an enclosure in PANTA RHEI No. 20 - June 1994 was a success and resulted in a database of more than 120 case-studies. the CSO-information Group can now start up a lively exchange programme.

The next major activity of the CSO-group is a 3-day Workshop in November 1995 :

"Water quality and impact in rivers, lakes and coastal waters from sewers and storm sewer overflows" at BENICASEM (80 km North of Valencia, Spain)

in cooperation with the University of Alicante (UPV).

For further information, contact :

Secretariat SG-CSO c/o Smisson
Foundation, Foundation Chambers
Tel : +44-275-341440
Fax : +44-275-341413

or

Unidad Docente Mecánica de Fluidos,
Dep. de Ingeniería Hidráulica y Medio
Ambiente, Universidad Politécnica de
Valencia.

Tel : +34-6-3877611
Fax : +34-6-3877619

A very active TECHWARE member

Enrique Cabrera, Professor of Hydraulic Engineering at the Universidad Politécnica de Valencia (Departamento de Ingeniería Hidráulica y Medio Ambiente), has launched the Journal "INGENIERIA DEL AGUA", an exciting and successful project, disseminated in Mediterranean and South American countries. "INGENIERIA DEL AGUA" is a technical forum to present and discuss theories and ideas within the water field; it aims to promote research and technical applications; to diffuse experience and expertise, both theoretical and practical; and to facilitate access to information.

The quarterly bulletin is opened to contributions, and The Editor welcomes articles, news, advertisements, in Spanish, Italian, French or Portuguese (articles in English and German will be translated). Subscription outside Spain is US \$ 80/year.

For further information, please contact :

Unidad Docente Mecánica de Fluidos
"REVISTA INGENIERIA DEL AGUA"
Dep. de Ingeniería Hidráulica y Medio
Ambiente, Universidad Politécnica de
Valencia.

Apartado de Correos 22012
E- 46080 Valencia, Spain
Tel : +34-6-3877611
Fax : +34-6-3877619

TECHWARE : BENEFITS AND RIGHTS OF MEMBERSHIP

1. the appointment of one representative to attend the General Assembly, who has the right to vote and to propose items for the agenda of the General Assembly,
2. to propose projects within the objectives of TECHWARE for further discussion and to claim support from TECHWARE for their realisation, through Specialist Groups and Task Forces,
3. to propose the establishment of a Regional TECHWARE Bureau in mutual agreement with other members of the region,
4. to benefit from a members' discount on registration fees for all TECHWARE events; all employees of a member-body are entitled to receive the discount. In the case of members which are Professional or Scientific Associations, UETPs or Trade Associations, this benefit is limited to four nominated representatives,
5. to propose the creation of Specialist Groups for a subject which comes within the terms of reference of TECHWARE,
6. to participate in Specialist Groups and Task Forces under the conditions fixed by the Executive Committee,
7. to receive the Members' list,
8. to have an entry in the relevant section of the Members' Directory,
9. to receive all general communications issued by TECHWARE,
10. to receive other TECHWARE publications at reduced rates.

TECHWARE SUPPORTING MEMBERSHIP

Members who assign to the association a supporting contribution of 1.000 ecu as an interest-free loan are recorded in the minutes as supporting members and are entitled to a position on the Board of Management.

see enclosure : please fill in and return to one of following addresses :

TECHWARE Membership Dues * 1995

Decision of the General Assembly of Madrid (E)
11 June 1994

- Individual Consultant
295 ECU
- University, Laboratory or
Department of University,
School or non-profit Research Institute
320 ECU
- Enterprise, Authority
COMETT size code S1, S2, S3
(less than 200 employees)
440 ECU
- Professional or Scientific Association,
UETP's, Federation of Enterprises
585 ECU
- Enterprise, Authority
COMETT size code S4, S5, S6, S7
(more than 200 employees)
735 ECU
- Life Membership
7750 ECU

* Not including 2.5% allowance
for banking costs

FOR ALL FURTHER INFORMATION, please contact :

CTB - Coordinating TECHWARE Bureau
c/o CIBE-BIWM
Wolstraat 7, rue aux Laines
B - 1000 Brussels, Belgium
tel +32-2-5188893 • fax +32-2-5026735

Bank Accountnumber :
ASLK-CGER BANK 005-4323374-76
P.O. 1436 - Brussels 1, B - 1000 Brussels
telex 26860 • fax +32-2-139117
For easy and quick money transfer,
use code : 61189SWIFT CGAK BE BB

RTB-I

Regional TECHWARE Bureau Italia
c/o AMGA,
via SS. Giacomo e Filippo 7
I - 16122 Genova, Italy
tel +39-10-83431 • fax +39-10-8343284

RTB-UK&IRL

Regional TECHWARE Bureau
UK and Ireland
c/o HR Wallingford
Wallingford, UK OX 10 8BA Oxfordshire,
Great Britain
tel +44-491-835381
fax +44-491-826703

RTB-VL

Regional TECHWARE Bureau Vlaanderen
c/o WEL vzw
Marktplein 16, B-2110 Wijnegem, Belgium
tel +32-3-3537253 • fax +32-3-3538991

EUROPEAN TRAINING COURSES

see enclosure

REMINDER : All TECHWARE - memberbodies can send their personnel to the short courses at discount registration fee.

SP94-10.05

Nutrient Removal during Sewage Treatment - Reasons, methods and consequences

Stoke-on-Trent, United Kingdom
1995

The course is designed for personnel in the water industry, and allied businesses, who need to gain an overview of nutrient removal philosophy and technology. Day 1 will set out to explain the need, the potential solutions and the technology. Day 2 will draw on the benefit of visiting speakers from UK and Europe who are involved in developing nutrient removal strategy or implementing nutrient removal technology, and seek to highlight some of the practical aspects of this challenging problem.

Contact : RTB-UK&IRL

SP94-09.02

Sewers Infrastructures in Mediterranean Areas : Filling the gap. Course no. 3: The quality of the service

Genova, Italy
30 - 31 January 1995

This course will deal with the tariff justification upon evidence of the quality of the service. Experiences from different countries will be compared. The course is intended for max. 30 participants coming from technical bodies, water agencies and municipalities.

Contact : RTB-I

SP94-10.04

Water Supply Engineering

Bristol, United Kingdom
06-10 February 1995

Contact : RTB-UK+IRL

forthcoming TECHWARE activities

SP94-14.04

Rioolrenovatie en Kwaliteitszorg in de Rioleringssector

Atwerpen, Belgium
21 February 1995

Brussels, Belgium
03 May 1995

Contact : RTB-VL

SP93-09.05

Groundwater pollution modelling

Cosenza, Italy
27-31 March 1995

This course will focus on the analysis of parameters uncertainty in groundwater flow and pollution. The problem of parameters estimation will be addressed in both its deterministic and probabilistic approach for saturated and unsaturated flow conditions.

A few case-studies will be presented together with the discussion about the significance of field-data and laboratory measurements. Contaminant transport parameters, in the saturated and unsaturated zone, will be also discussed.

The course is intended for max. 30 participants coming from technical bodies, water agencies and municipalities.

Contact : RTB-I

GIS for Catchment Management

Wallingford, United Kingdom
27 March - 07 April 1995

A three day course with the option for a further seven days training in the principles and applications of Geographical Information Systems for Catchment Management. The course will offer the following: - Hands-on experience of GIS; - Training in the basic principles of GIS through a number of case studies; - Improved awareness of the use of GIS for land and water management; - Techniques for erosion hazard, sediment yield and land capability assessment; - Use of software for irrigation and groundwater applications.

Contact : RTB-UK+IRL

SP94-14.02

Integrated Water Management

Blissingen, The Netherlands
27 - 28 April 1995

Contact : RTB-VL

SP94-10.09

Environmental Hydrology

Dublin, Ireland
May 1995

Contact : RTB-UK&IRL

SP94-10.01

Computer Aided Engineering - Water Distribution

Limerick - Ireland
01 - 02 June 1995

The course will address the advance of application of CAE in fluid process/network analysis in water industries. The analysis will be of single phase fluid flow under steady state conditions and will make use of commercially available CAE software. A primary technique in this course is the use of live industrial case studies derived from the cooperating enterprises. The output will be

a full text and case study application manual with appropriate CAE documentation. The course will be suitable for engineers who are playing a key industrial role in engineering project system design, evaluation, economic analysis and commissioning. The training will be biased towards the demonstration of advanced engineering application concepts.

Contact : RTB-UK&IRL

SP94-10.03

Ports and Marinas - Designing for Efficiency, Economy and the Environment

Wallingford, United Kingdom
13-15 June 1995

Contact : RTB-UK&IRL

other forthcoming TECHWARE activities in 1995

CTB coordinates :

- Evaluation and Assessment of present and future Continuing Education and Training (CET) for Water Resources Engineering Brussels (B), 20-22 April 1995
- CALHYDRO 95 / CALWARE Open meeting on Computer-Aided-Learning in Water Resources. Leuven (B), 13-14 June 1995

RTB - VL coordinates :

- VLARIO (Flemish Sewers) Courses Antwerpen - Brugge - Gent - Hasselt (B), Spring 1995

TECHWARE's Specialist Group COMBINED SEWER OVERFLOWS

4 Day Workshop on Water Quality and Impact in Rivers, Lakes and Coastal Waters from Sewers and Storm Sewer Overflows. Benicasim (E), November 1995

Contact : Universidad Politecnica de Valencia, Departamento de Ingenieria Hidraulica y Medio Ambiente P.O.Box 22012, E-46071 Valencia
Tel : +34-6-3877611
Fax : +34-6-3877619

NEW ! TECHWARE EURO-WORKSHOPS on INTEGRATED WATER RTD WITHIN THE 4TH FRAMEWORK PROGRAMME: see enclosure

- Madrid (E), 26 - 27 January 1995
- Perugia (I), 01 - 02 March 1995
- Wallingford (UK), 30 March 1995
- Helsinki (SF), June 1995

addresses : see page 14 and calendar

HUMAN CAPITAL & MOBILITY

Pan-European Scientific Network :
WEEL - WATER ENVIRONMENT EUROPEAN LABORATORIES
(subnetwork of TECHWARE)

Coordinator : Prof. F. Saccardi
Università di Genova, Istituto di Idraulica
Via Montalegrio 1, I - 16100 Genova, Italy
tel +39-10-3532496 • fax +39-10-3532481

**MATECH • EUROPEAN CENTER FOR MATHEMATICS AND
TECHNOLOGY OF URBAN WATER POLLUTION**

Coordinator : Ass. Prof. P. Jacobsen
Institute of Environmental Science and Engineering
Technical University of Denmark
Building 115, DK-2800 Lyngby
Tel +45-45-933908 • Fax +45-45-932850



news from HCM-TMR

The final selection round of HCM within the Third Framework Programme listed 456 proposals.

Only 20% were accepted. Neither WEEL nor MATECH were accepted for renewal. This means that there will be no continuity of mobilities if the new programme "TRAINING and MOBILITY of RESEARCHERS" (TMR) in the 4th Framework Programme is launched. The call for Proposals is expected on 15 March 1995 with a deadline of 15 June 1995. It is unlikely therefore that contracts will start before 1996. There will be other calls for proposals on 15 March 1996 and 15 March 1997.

The draft Work programme for TMR "Training and Mobility of Researchers" (1994-1998) proposes four activities :

1. Research networks
2. Access to large-scale facilities
3. Training through research
4. Accompanying measures

General Objectives of TMR

The aim of the TMR Programme is to promote, through the stimulation of training and mobility of researchers, a quantitative and qualitative increase of human resources within the Community and in the Associated States. The general objectives of the TMR Programme are the following :

- to stimulate training through research and, by means of co-operation, to foster better utilization of high-level researchers in the Community;
- to improve the mobility of European researchers throughout the Community, encouraging mobility both between universities, research institutes and industry and between disciplines, thus better exploiting the research potential in the different disciplines;
- to promote, for instance through networks, transnational co-operation on research activities proposed essentially by the researchers themselves and not eligible for support under the thematic RTD programmes of the Fourth Framework Programme;
- to facilitate the access of researchers to existing large-scale facilities that are essential for high-quality research;
- to improve the scientific and technological cohesion of the Community and contribute to the attainment of a general level of scientific excellence by offering research opportunities to scientific institutions and researchers from all regions of the Community.

Research Fields

The TMR Programme covers all fields of the exact, natural, economic and management sciences, as well as those social and human sciences that contribute to the objectives of the Fourth Framework Programme. In order to encourage the

creativity and innovation of researchers in conceiving their projects, there are no pre-established targets or priorities in the fields covered by the TMR Programme. Scientific merit and interest for the Community will be the overriding criteria in the evaluation and selection of projects.

The TMR Programme will be co-ordinated with other training initiatives of the Community.

Objectives of Research networks

The objective of this activity is to encourage research teams from a number of countries to work together on high quality joint research projects and, in this context, to promote the training and mobility of researchers, particularly young post-doctoral researchers. Such research networks will also encourage interaction between different disciplines, the combination of different technologies, the transfer of techniques from one scientific domain to another, the dissemination of results, and co-operation between academia and industry.

It will be the task of each network, by means of an appropriate project management, to distribute the research responsibilities between its research teams and to co-ordinate its research operations so that co-operation and communication is as open and efficient as possible. Advantage should be taken of the capabilities and potential of modern telematics, whenever appropriate.

Criteria for Selection

Networks to be financed will be selected on the basis of their scientific/technical quality - both the quality of the proposed project and of the applicant teams. A high quality project must be innovative, in other words, it must represent a significant step forward beyond the current state-of-the-art and should include substantial original work. The following criteria are also important factors in the selection process :

- the added value that working together as a network could represent for European science, particularly in terms of the training of researchers, especially young post-doctoral researchers;
- the intention of the participants to work together meaningfully on a joint research project;
- the extent to which the proposed project management should ensure an effective co-ordination of the network's joint activities;
- the participation of industry where relevant to the research project proposed.

Community Financing (total 335 MECU)

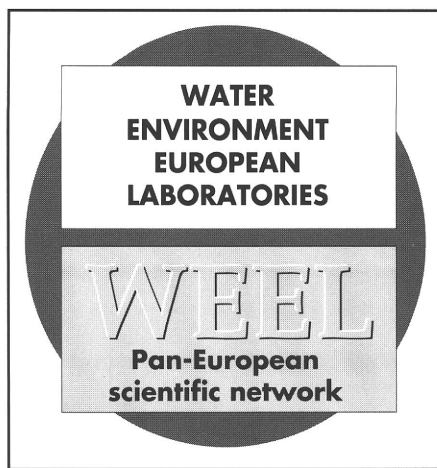
While the organizations within a network will use their own resources (national funds, private funds, etc.) to finance the actual research work, Community support will finance, at the rate of up to 100%, the additional costs of creating and maintaining the network. The following costs are allowable for support :

- a. Labour Costs : additional costs relating to the reinforcement of research staffs through the temporary appointment of visiting researchers, who, as a general rule, should come from a country that fully participates in the Programme other than that of the team concerned;
- b. Networking Costs : additional costs arising from the researchers themselves working together in the network, including all mobility costs associated with the activities of the network and the costs of exchanging information and publishing results;
- c. Other Direct Running Costs : including consumables, subcontractors and, if required, the use of computers and external scientific facilities;
- d. Overheads : a fixed contribution in respect of indirect general costs of up to a maximum of 20% of the total of the allowable costs in categories a, b and c. At least two-thirds of the overall financial support to a network must be spent on labour and networking costs (i.e. categories a plus b).

As a general rule, Community support will not be granted to procure durable equipment or to contribute to infrastructural costs. An exception will be made in the case of funds used to equip a new research team to be set up in a less-favoured region of the Community by a researcher trained abroad on a post-doctoral fellowship under this or the HCM Programme.

For each network, the annual rate of support to its research teams should be between ECU 50,000 and 80,000 per team, when averaged over all the teams in the network. Higher levels of funding will be awarded to a network only in the most exceptional of cases.

Duration of the contract will be between 3 and 4 years.



weel
water environment
european laboratories
scientific network

**Pan-European Scientific Network for
integrating disciplinary components
of the Water Sciences and
Technologies : RTD for Regional
Integrated Water Management
Project Nr. ERBCHRXT930212**

WEEL enters soon its second and last operational year.

The project was rearranged according to the available funding at the First WEEL Meeting of team leaders and young researchers, on 14th-16th November 1993.

Presently the project is divided in three research areas in the field of RTD for the supply and use of fresh water resources : the first one deals with multisensor observations of rainfall fields for hydrometeorological hazards prediction and climate change monitoring.

The second one deals with groundwater recharge, contaminant migration in aquifers and groundwater protection and the third one deals with surface water balance and sediment transport modelling.

Thirteen young researchers are presently hard working to fulfill the agreements.

A second WEEL Meeting of team leaders and young researchers will be held in Brussels, 12-13 January 1995.

new euroworkshops
of TECHWARE
on Integrated Water Environment RTD
within the 4th Framework
programme

26 and 27 January 1995

Centro de Estudios Hidrográficos del
CEDEX, Madrid, Spain

01 -02 March 1995

Perugia, Italy

30 March 1995

HR Wallingford, Wallingford, UK

June 1995

Helsinki, Sweden

see enclosure

MATECH

EUROPEAN CENTER FOR
MATHEMATICS AND TECHNOLOGY
OF URBAN WATER POLLUTION

Network Meeting

MATECH held the First Annual Network (FAN) meeting on 4th June 1994 in Cernice, the Czech Republic. The meeting formed part of the 7th European Junior Scientist Workshop on : Integrated Urban Storm Runoff. The Workshop was organised by the Czech Technical University and supported by MATECH.

The FAN meeting was attended by approximately half the members of MATECH who have a contract running under the HCM programme. Also in attendance were a number of interested guests attending the Workshop.

The meeting gave a general overview of what MATECH has accomplished thus far as a network and gave opportunity to discuss the future policies and objectives of the network.

One important decision that was reached, was that the overall aim of MATECH should NOT be to become an association of professionals : rather it should remain a research oriented network and therefore only involve active researchers receiving funding and the accompanying supervisors and advisors. This motion led to the concept of dynamic partnership policy, whereby an individual is only officially a partner of MATECH, with contracts signed through or under MATECH.

New partners

The PECO Programme (an initiative of the CEC to provide Eastern European countries and the New Independent States of the former Soviet Union with funding to participate under existing contracts) resulted in MATECH submitting to the CEC four partners to participate under the existing network contract.

The partners MATECH selected were :

- Technical University of Brno, Department of Landscape Water Management, Czech Republic.
- Czech Technical University of Prague, Sanitary Engineering Department; Czech Republic.
- University of Ljubljana, Faculty of Architecture, Civil Engineering and Survey, Hydrotechnical Division; Slovenia.
- Ukrainian Centre for Protection of Waters; Ukraine.

These proposals for collaboration are pending a CEC decision.

Projects

The MATECH office received official notification from the CEC that the proposals made to the HCM Programme for 1994 have not been selected. This applies to the

proposals made under the Network Activity and under the Institutional Fellowship Activity.

Regarding the Network Activity, MATECH inquired as to the reason behind the refusal and was informed that there had been a policy shift, whereby greater emphasis in this Activity should be placed on the research aspects, rather than on mobility. The CEC felt that to achieve this policy shift smaller networks should be promoted, which addressed a single research area.

General

If you wish additional information on MATECH or would like to receive a general information leaflet, then please contact the MATECH Secretariat at the address given on page 17.

info

Useful publications of Science Research and Development of the European Commission :

• EC-Funded Research and Technological Development

"a research-proposals manual"

An insight into the handling of project proposals

An introduction to contract negotiation

This book is a guide to internal Commission procedures for handling project proposals submitted to research and technological development (RTD) programmes. Part 1 deals with the process for organising the evaluation of proposals after they have been submitted and the selection of which proposals to finance. Part 2 deals with the process of negotiating a RTD contract and subsequent project management.

1994, Office for Official publications of the European Communities, L-2985 Luxembourg

Price (excluding VAT) in Luxembourg : ECU 11,50

ISBN 92-826-7076-7

• RTD INFO - News rounding on EC-Research and Technological Development Programmes

Issue No. 6 - June 1994 includes a draft of the new harmonized application forms for RTD project applications. Your comments please !

Editor : Information Services DGXII
Fax : +32-2-2958220

CORDIS Information Collection Unit RTD-Partners database

If you would like to obtain access to the database please contact :

CORDIS Customer Services
BP 2373, L-1023 Luxembourg
Tel : +352-34981240
Fax : +352-34981248

EC funding for collaborative R&D between the European Union and Eastern and Central Europe

Strengthening the research capacity and reorienting research to the socioeconomic needs of central and east Europe countries is of prime importance for the successful transformation of their economies.

Collaborative R&D has an important role to play in this context. The European Commission's COPERNICUS action was set up specifically to encourage collaborative R&D between Member States and central and east Europe.

The EC's Telematics programme for health care (AIM) is one of the areas in which this collaboration can take place, and moreover it was explicitly mentioned in the last call for proposals.

A budget of 57 million ecus has been allocated to the COPERNICUS action, to be distributed between DGIII (Industry), DGXII (Research), DGXIII (Telecommunications, Information Market and Exploitation of Research). Of this amount, 22% is devoted to Information technology (DGIII), 18% to telecommunications, telematics and language engineering (DGXIII) and 60% to DGXII activities.

- manufacturing, production, processing, materials,
- measurement and testing,
- agro-food industry and
- biotechnology.

Contact :

Dr. Jens Christensen
EC DG XIII/C-4AIM Office
200 rue de la Loi, B-1049 Brussels
Tel : +32-2-2963407
Fax : +32-2-2960181

or
Grazyna Wojcieszko

EC DG XIII/A-6
200 rue de la Loi, B-1049 Brussels
Tel : +32-2-2958357
Fax : +32-2-2961716

SPRINT : Specific Projects 1994 Extension

Specific projects are large-scale transnational technology transfer projects addressing problems of technology diffusion in Europe. This action line was launched in 1989 as a major activity of the SPRINT programme.

Four projects were given additional support to extend their activities to further users.

SP257 focuses on leakage control in fresh water supply systems, and is extending to include partners in Germany.

SP226, working on the transfer of real-time control systems into urban drainage systems, is extending to include pilot implementations in lake Garda (Italy), and Berlin (Germany).

Contact : Antonio Dorenzo /Guido Haesen
CEC Jean Monnet building
L-2820 Luxembourg
Tel : +352-4301-34546
Fax : +352-4301-34544

or
Antony Boylan /Peter Lowe
Sprint Technical Assistance Unit

119 Avenue de la Faiencerie
L-1511 Luxembourg
Tel : +352-465588
Fax : +352-465550

COST - European Cooperation in the field of Science and Technical Research

New proposal : Electrochemical sensors for flow measurements.

EUROPEAN GEOPHYSICAL SOCIETY XX General Assembly Hamburg, 3-7 April 1995

J. Philip O'Kane, EGS Vice-president, Hydrological Sciences, informs PANTA RHEI readers about the excellent opportunity for European hydrologists to interact annually as a group and with the larger community of geophysicists. The annual General Assembly is attended at present by more than 2000 scientists.

Hydrologists are becoming more and more concerned with the major scientific and practical problems associated with global change. To address these issues, closer links between hydrologists, meteorologists and climatologists are required. The EGS, embracing as it does the full spectrum of scientific disciplines relevant to climate change, provides an excellent opportunity to forge such links. EGS provide a forum for European hydrologists who wish to meet and interact on an annual basis. The Hydrology Programme contains a number of sessions/symposia related to the climate change issue, as well as more traditional topics which are always close to the hearts of many hydrologists.

Contributions from young scientists are particularly welcome, for whom EGS Travel Awards are available.

Contact : Prof. J.P. O'Kane
Dpt. of Civil & Engineering, University
College Cork, Ireland
Tel : +353-21-276871
Fax : +353-21-276648
E-mail : JPOKANE@IRUCCVAX.UCC.IE

on your desk

Commission of the European Communities - Directorate-General XII - Science, Research and Development.

Environment Research Programme Catalogue of Contracts

Draft - 6 April 1994

This version is a DRAFT of the upcoming catalogue of contracts of the Environment Research Programme (1990-1994).

The topics covered do not include socio-economics, climate and natural hazards.

Table of Contents :

- Area 1 : Participation in global change programmes
- Area 2 : Technologies and engineering for the environment
- Area 4 : Technological and natural risks

Water pollution prevention

"Without clean water, there is no life, and there is no long-term development". This is how Alfred M. Duda, Senior Water Resources Management Specialist with the Environment Department, describes the urgent call for new water pollution prevention policies, programmes and investments contained in the Bank's Water Resources Management Policy adopted in 1993.

In its "Water Resources Management Policy Paper", the World Bank has called attention to mismanagement of surface and ground water resources as a significant impediment towards poverty reduction and sustainable development.

The long-lived toxic substances that are being released to the aquatic ecosystems are resulting in serious human health problems, irreversible ecosystem damage, huge economic losses, and unprecedented challenges to traditional economic thinking on the validity of cost and benefit analysis.

A new type of development strategy is needed that incorporates more concerns about natural resources management and the carrying capacity of specific waterbodies into water development activities.

Greater emphasis of Bank-supported operations is being placed on restoration/protection of aquatic ecosystems, groundwater quality/ recharge area protection, and prevention of pollution discharges to surface waters. The bank is increasing its support of government efforts to expand collection/treatment of sewage, and is committed to implement agricultural best management practices for preventing pollution of surface and groundwater.

While the world is relying more on markets to promote development, environmental protection is an area where government legislation and effective regulations still play a central role: priority actions for pollution prevention and investments in clean technology are clearly the way ahead.

Abstract of the article "New focus on water quality protection is part of World Bank water resources management policy", by Alfred M. Duda. Environmental Bulletin, Vol. 6, No.3 Summer 1994.

The road to a sustainable drinking water supply

The Ministerial Conference on Drinking Water and Environmental Sanitation, 22-23 March 1994, Noordwijk, the Netherlands

Contents :
Working with Agenda 21
Tackling drinking water problems at the

source.

A drinking water conference is about more than just drinking water.

Dutch award to Burkina Faso water project Commission on Sustainable Development, one year on.

In six months time, the CSD must be a political monitoring agency.

Climate Treaty enters into effect surprisingly quickly.

Redistribution of global environmental space in practice.

The common road to a sustainable society.

For further information :

Conference Manager Mr. G. Ardon
Head of Drinking Water Section,
Environmental Directorate; Chief Secretary to
the Secretariat, Mrs. E. Hage
P.O. box 30945, 2500 GX The Hague
The Netherlands
Tel : +31-70-3394254
Fax : +31-70-3391288

Earth Views

Earth Views is a new bulletin published three times a year by the Environment Assessment Programme of the United Nations Environment Programme (UNEP)

Earth Views incorporates the information on the UNEP-Environment Assessment Programme, GEMS (Global Environment Monitoring System) / WATER and AIR, and GRID (Global Resource Information Database).

For a free subscription, please write to :

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United Nations Environment Programme
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Fax : +254-2-623943 or 623944
E-mail : EAINFO@UNEP.NO
Telex : 22068 UNEP KE

Women and Water UN World Water Day 22 March 1995

The United Nations has designated 22 March as World Water Day. On 22 March 1995, the theme is Woman and Water and the day will be celebrated by the United Nations system, national governmental organizations and international and national non governmental organizations. For the next seven years starting in 1998, the themes will follow the seven parts of chapter 18 of Agenda 21.

Information :

Mr. John C. Rodda
World Meteorological Organization
Tel : +41-22-7308111
Fax : +41-22-7348250

See reference number
for corresponding
addresses
on page 21

CALENDAR 1995-96

- 27** To be announced
Stoke-on-Trent
TECHWARE ETCourse
Nutrient Removal During
Sewage Treatment - Reasons,
Methods and consequences
- 33** 13 January- 13 July
Barcelona (E)
International Course on
Subterranean Hydrology
- 19** 23-27 January
California (USA)
Course
Risk-based Analysis
- 36** 26-27 January
Madrid (E)
TECHWARE EURO-
WORKSHOP
Integrated Water RTD within the
4th Framework Programme
- 15** 30-31 January
Genova (I)
TECHWARE ETCourse
Sewers infrastructures in
Mediterranean Areas: Filling the
gap: The quality of service
- 32** February (5 days)
Portsmouth (UK)
Course
Industrial Wastewater
Discharge- Problems and
Treatment
- 21** 1 February
London (UK)
Meeting
Education and Environmental
Scientists
- 27** 6-10 February
Bristol (UK)
TECHWARE ETCourse
Water Supply Engineering
- 19** 6-10 February
California (USA)
Course
Water Quality Management
- 40** 08-11 February
Brussels (B)
European Student Fair
- 28** 21 February
Antwerpen (B)
Part 1
Brussels (B) 3 May
Part 2
TECHWARE ETCourse
Rioolrenovatie en Kwaliteitszorg
in de Rioleringssector
- 19** 27 Feb - 3 March
California (USA)
Course
Managing Hydrologic Data in
HEC-DSS
- 8** 27 February- 9 June
Kensington (Australia)
UNESCO-sponsored graduate
course in hydrology
- 6** March 95 (4 weeks)
Wien (A)
Hochschulkurse und
- Hochschulelehrgänge
Strassenentwässerung
- 15** 1-2 March
Perugia (I)
TECHWARE-EUROWORKSHOP
Integrated RTD on Water and
Natural Hazards within the 4th
Framework Programme
- 12** 1-3 March
Zurich (CH)
Short course
3-D Velocimetry and Image
Analysis Techniques
- 31** 6 March - 7 April
Bet Dagan (Israel)
International Postgraduate
Course
Hydrometeorology
- 2** 13 March - 07 April
Southampton (UK)
Short Course
International Course on
Computer Applications in
Irrigation
- 7** 19-25 March
Southampton (UK)
International Seminar
Marine oil spills: impact and
response
- 39** 22 March
UN World Water Day
Women and Water
- 22** 22 March
London (UK)
Meeting
IWEM Spring Centenary
Symposium-World Water Day
- 16** 22-23 March
Doncaster (UK)
Course
Landfill management and
Engineering
- 7** 26 March - 6 April
London and Shropshire (UK)
International Seminar
Environmental education: from
policy to practice
- 5** 27-29 March
Paris (F)
Workshop
Membranes in drinking water
production
- 12** 27-31 March
Zurich (CH)
16th International Course
Pollutant transport and
management in heterogeneous
aquifers
- 27** 27 March- 7 April
Wallingford (UK)
Course
Geographical Information
Systems for Cathment
Management
- 27** 30 March
Wallingford (UK)
TECHWARE EURO-WORKSHOP
- Integrated Water RTD within the
4th Framework Programme
- 7** 2-8 April
Oxford (UK)
International Seminar
Environmental change: policy,
planning and management
- 23** 6 April
Marlow (UK)
Meeting
Environmental Fate of Water
Pollutants
- 11** 11-12 April
Southampton (UK)
International Conference on
Multimedia Communications
- 26** 20-22 April
Brussels (B)
EUROWORKSHOP
Continuing Education and
Training (CET) for Water
Resources
- 28** 27-28 April
Vlissingen (NL)
TECHWARE ETCourse
Integrated Water Management
- 28** Spring 95
Antwerpen, Brugge, Gent,
Hasselt, Leuven (B)
TECHWARE Course
VLARIO (Flemish Sewers)
- 20** Spring 95
Trondheim (N)
Course
Reservoir Engineering
- 20** Spring 95
Trondheim (N)
Course
Hydraulic Design and Sediment
Transport
- 27** May 95
Dublin (IRL)
TECHWARE ETCourse
Environmental Hydrology
- 19** 1-5 May
California (USA)
Course
Risk-based Analysis
- 17** 8-10 May
Sao Paulo
Rio de Janeiro 10-12 May
(Brasil)
6th World Conference on
Continuing Engineering
Education
- 1** 15-17 May
Osaka (Japan)
IWSA Specialized Conference
Advanced Treatment and
Integrated Water System
Management into the 21st
Century
- 19** 15-19 May
California (USA)
Course
Unsteady Flow Analysis
- 18** 17-19 May
Coventry (UK)
learning organisations: best
practices management
- 10** 22 - 26 May
Geneva (CH)
International Conference on
Hydrological Technology and its
Management
Training in the use of modern
technology for hydrological
services
- 9** 23-25 May
Iowa (USA)
Hydraulics Colloquium:
University Curriculum Evolution
and Continuing Education
- 38** June 95
Helsinki (SF)
TECHWARE- EUROWORKSHOP
Integrated Water-Environment
RTD
- 27** 1-2 June
Limerick (IRL)
TECHWARE ETCourse
Computer Aided Engineering-
Water Distribution
- 30** 10-21 June
Gyor and Baja (H)
Short course TEMPUS SJEP-
"ICER"
Floodplain restoration
- 35** 12 June-14 July
Cambridge, Massachusetts
(USA)
Training Workshop on
Environmental Economics and
Policy Analysis
- 26** 13-14 June
Leuven (B)
CALHYDRO 95 CALWARE
Open meeting
- 27** 13-15 June
Wallingford (UK)
TECHWARE ETCourse
Ports and Marinas - Designing
for Efficiency, Economy and the
Environment
- 14** 26-30 June
Maastricht (NL)
Training Course
Introduction to the administration
of international education
- 14** 4-7 July
Maastricht (NL)
Training Course
Decision making in international
education
- 19** 24-28 July
California (USA)
Course
Sediment Transport in Rivers &
Reservoirs
- 34** 1-4 August
Macao (China)
International Conference on
Education, practice and
promotion of computational
methods in Engineering using
small computers
- 3** 14 Aug - 24 Nov
Wageningen (NL)
International Post-graduate
Course on Land Drainage
- 19** 21-25 August
California (USA)
Course
Flood Frequency Analysis
- 20** Trondheim (N)
Part 1 21-25 August
Part 2 28 Aug - 1 Sep
Course
Well Testing
- 4** 11-15 September
London (UK)
Seminar: Hydra 2000
Training the hydraulic engineer
for the 21st century
- 20** Autumn 95
Trondheim (N)
Course
Engineering Geology
- 20** Autumn 95
Trondheim (N)
Course
Engineering Hydrology
- 29** October 95
Silsoe, Bedford (UK)
MSc in Water Policy and
Management
- 37** November 95 (4 days)
Benicasim, Valencia
Workshop
TECHWARE's Specialist Group
Combined Sewer Overflows
- 24** 8 November
Manchester (UK)
Meeting
Effluent Toxicity and Treatability
- 1996**
- 25** 14-17 April
Loughborough (UK)
Toxic Impacts of Wastes on the
Aquatic Environment
- 13** 17-19 April
Southampton (UK)
First International Conference
Environmental Engineering
Education and Training
- 18** 15-17 May
Copenhagen (DK)
Leadership for Learning
Organisations: sustaining a
competitive advantage in a
changing world

Note : In view of PANTA RHEI's objectives, this calendar includes only educational and training or related activities in the field of water and human resources and mobility. These announcements are made free of charge. Advertising of other activities such as Conferences, are welcome. See rates on page 23 • Please contact the Editor •

- 1** Office of IWSA Specialized Conference (Water Osaka '95) c/o Osaka Municipal Water Works Bureau 6-28 Minami-Ogimachi, Kitaku, Osaka 530, Japan Tel: +81-6-363-7301 Fax: +81-6-363-7362, or +81-6-313-1832
- 2** The Short Course Administrator Institute of Irrigation Studies University of Southampton Southampton SO9 5NH, UK Tel: (0703) 593728 Fax: (0703) 677519 Telex: 47661 A/B SOTONU G
- 3** International Institute for Land Reclamation and Improvement P.O. Box 45, 6700 AA Wageningen, The Netherlands Tel: 08370 - 90144 Telex: 45888 intas nl Fax: 08370 - 17187
- 4** XXVth IAHR Congress c/o Ms. Sue Frye Conference Office Institution of Civil Engineers 1 Great George Street UK-London SW1P 3AA Tel: +44-71-8399801 Fax: +44-71-2331743
- 5** Edith Weitz Compagnie Valmy, 32, Place Ronde, Cedex 82 92982 Paris la Defense Fax: (33.1) 46 35 31 50
- 6** Ausseninstitut der TU Wien A- 1040 Wien, Gusshausstrasse 28 Tel: + 43 1 58801 DW 4019, 4033 or 5269 Fax: + 43 1 505 49 61
- 7** International Seminars Department The British Council 10 Spring Gardens London SW1A 2BN, UK Tel: +44 (0)71 389 4264/4252/4226 Fax: +44 (0)71 389 4154 Telex: 8952201 BRICON G
- 8** Mrs. Liza Lim School of Civil Engineering The University of New South Wales PO Box 1 Kensington, NSW 2033 (Australia)
- 9** Marlene Janssen (Coordinator) Iowa Institute of Hydraulical Research The University of Iowa Iowa City, IA 52242, USA
- 10** World Weather Watch, CP 2300 CH - 1211 Geneva, Switzerland Tel: +41 22 730 8244 Fax: +41 22 734 2326 Telex: 414199 OMM CH
- 11** Philippe Geril, SCS Europe European Simulation Office University of Ghent Coupure Links 653 B - 9000 Ghent, Belgium Tel: +32 9 233 77 90 Fax: + 32 9 233 49 41
- 12** Institute of Hydromechanics and Water Resources Management ETH Honggerberg CH-8093 Zurich, Switzerland Tel: (01) 633 30 65/66 Fax: (01) 633 10 61
- 13** Sue Owen, Conference Secretariat Wessex Institute of Technology Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK Tel: 44 (0) 703 293223 Fax: 44 (0) 703 292853
- 14** European Association for International Education EAIE Secretariat, Van Diemenstraat 344, 1013 CR Amsterdam (NL) Tel: +31 - 20 - 625 - 2727 Fax: + 31 - 20 - 620 - 9406
- 15** Reginal TECHWARE Bureau Italia c/o AMGA Via SS Giacomo e Filippo 7 I - 16122 Genova, Italy Tel: +39 - 10 - 834 31 Fax: +39 - 10 - 834 32 84
- 16** Richard Weber, Course Coordinator Minerals Engineering Doncaster College, High Melton Doncaster DN5 7SZ, UK Tel: 0302 55 3922 Fax: 0302 55 3923
- 17** Prof. Edith Ranzini c/o Escola Politecnica- EPUSP Caixa Postal 8174 01065-970 Sao Paulo SP-Brasil Fax: +55- 11-813 74 15
- 18** E.C.I.O. Chaussée de Bruxelles 135 B-1310 La Hulpe Tel: + 32 2 6555803 Fax: + 32 2 6555812
- 19** USA Corps of Engineers Water Resources Support Center HEC, 609 Second Street DAVIS, CA 95616 - 4687, USA
- 20** Christian Arentz SEVU at the Norwegian Institute of Technology University of Trondheim N- 7034 Trondheim Tel: +47 73595267 Fax: +47 73595150
- 21** SCI- Society of Chemical Industry Environment & Water Group SCI Conference Secretariat Tel: 071 235 3681 Fax: 071 823 1698
- 22** IWEN- The Institution of Water and Environmental Management Tel: 071 831 3110 Fax: 071 405 4967
- 23** The Royal Society of Chemistry Ms. L.A. Hart Tel: 071 437 8656 Fax: 071 287 9825
- 24** ChemE North Western Branch T. Thompson Tel. & Fax: 051 427 1596
- 25** Elaine Wellingham The Royal Society of Chemistry, IWEM and Society of Environmental Toxicology and Chemistry Tel. and Fax: 0275 853311
- 26** Coordinating TECHWARE Bureau c/o CIBE Wolstraat 70 rue aux Laines B- 1000 Brussels, Belgium Tel: + 32 - 2 - 518 88 93 Fax: + 32 - 2 - 502 67 35
- 27** Reginal TECHWARE Bureau UK & IRL c/o HR Wallingford Ltd Howbery Park, Wallingford Oxfordshire OX10 8BA, UK Tel: +44- 491- 835 381 Fax: +44- 491- 826 703
- 28** Reginal TECHWARE Bureau- Vlaanderen c/o WEL Marktplein 16, B - 2110 Wijnegem Tel: +32- 3- 353 72 53 Fax: +32- 3- 353 89 91
- 29** The Student Recruitment Executive Silsoe College, Cranfield University Silsoe, Bedford MK45 4DT, UNITED KINGDOM Tel: +44(0)1525 863318/9 Fax: +44(0)1525 863316
- 30** Prof. Istvan Zsulfa Dept. Water Management Technical University Budapest Muegystem zkp 3 H- 1111 Budapest, Hungary Tel: + 36-1- 166 569 Fax: + 36-1- 166 569
- 31** Ms. Z. Borzuk, Coordinator Service météorologique israélien P.O. Box 25 Bet Dagan, 50250, Israel Tel: 03-968-2108/165 Fax: 03-968-2126/176
- 32** Dr. Michael R.I. Purvis Director of Postgraduate Courses in Environmental Engineering School of Systems Engineering, University of Portsmouth Anglesea Road Portsmouth, Hampshire PO1 3DJ, United Kingdom Tel: +44-705-87 65 43 Fax: +44-705- 84 23 29
- 33** Fundación Centro Internacional de Hidrología Subterránea Calle Beethoven, 15, 3º - 08021 Barcelona, Spain Tel: +34-3-201 52 55 Fax: +34-3-209 88 86, or +34-3-401 65 04
- 34** Scientific Secretariat Prof. Joao Bento Instituto Superior Tecnico 1096 Lisboa Codex, Portugal Tel: (+351)-1-848 12 06 Fax: (+351)-1-848 84 81
- 35** Theodore Panayotou, Program Director International Environmental Program Harvard Institute for International Development One Eliot Street, Cambridge, MA 02138, USA Tel: 617-495-9173 Fax: 617-495-3956
- 36** Centro de Estudios Hidrográficos del CEDEX Pº Bajo Virgen del Puerto nº3, E- 28005 Madrid, Spain Tel: +34 1 33 57 900 Fax: + 34 1 33 57 922
- 37** Universidad Politécnica de Valencia Departamento de Ingeniería Hidráulica y Medio Ambiente P.O. Box 22012 E- 46071 Valencia, SPAIN Tel: 34-6-38 77 611 Fax: 34-6-38 77 619
- or
- Combined Sewer Overflows- Specialist Group Smisson Foundation Foundation Chambers, Shearwater House Clevedon Hall Estate, UK-BS21 7RD Clevedon, Avon, UNITED KINGDOM Tel: +44-275-341 440 Fax: +44-275-341 413
- 38** Mr. M. Puupponen WERI- Water and Environment Research Institute P.O. Box 436, SF- 00101 Helsinki, Finland Tel: +358-0-19291 Fax: +358-0-192 95 77
- 39** Mr. John C. Rodda World Meteorological Organisation Tel: +41-22-7308111 Fax: +41-22-7348250
- 40** European Student Fair rue de la Caserne 86 B-1000 Brussels Tel: +32-2-5144080 Fax: +32-2-5144818

addresses

Sources of success



From 8 → 11 February 1995.
Brussels Exhibition Center - Halls 7 & 9.



The European Student Fair, a unique opportunity to meet over 400 universities from 23 countries. Special features: MBA and Post-graduate study zone, Recruitment area and Language zone. The "Euro-Meeting" will focus on Socrates, the European Commission's new mobility programme.

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THE EUROPEAN
THE WEEKLY NEWSPAPER FOR EUROPE

Frankfurter Allgemeine
ZEITUNG FÜR DIE WELT

student opportunities

Grant NFWO-FNRS "SPADEL"

The Belgian National Foundation for Scientific Research offers an annual grant of 500.000 BEF of the SPADEL Foundation. Young PhD students, citizens from EU-countries, can apply before 1 February 1995. The research project should relate to the origin of natural carbonate waters.

Info :

NFWO-FNRS
Egmontstraat 5, B-10550 Brussels
Tel : +32-2-5129110
Fax : +32-2-5125890

E.E.R.O. - Long Term Fellowships for Young Scientifics - Call for applications

The European Environmental Research Organisation will award long-term post-doctoral fellowships for young scientifics wishing to work in a European country that is not the applicants home country. It is preferably for research on polluting chemicals and radionuclides in the terrestrial, aquatic and atmospheric environments. Awards include a travel grant, a subsistence allowance and a bench fee for the receiving laboratory. Limited to PhD-holders - Duration : 1 year
Deadline for applications : 31 August

Short term Fellowships : For scientifics who wish to initiate collaboration, learn newly developed techniques or use special

facilities in a laboratory in another European country, awards of one week to three months are available.

Info :

EERO, P.O. BOX 191, NL-6700 AD
Wageningen, the Netherlands
Fax : +31-83370-84818

Lise Meitner Postdoctoral Research Fellowships

Young researchers (max. 35 years) can apply for a research project (all disciplines) to be completed in an Austrian research institute with which they have already contact.

Duration: minimum 12 months, maximum 24 months.

Contact : Mr. Robert GASS

and Mrs. Susanne MENSCHIK,
Austrian Science Foundation (FWF)
A-1040 Wien, Weyringergasse 35,
Austria
Tel : +43-1-5056740
Fax : +43-1-5056739

Fellows of the programme "Toxicology & Environmental Toxicology"

ESF - European Science Foundation
Short-term visiting : fellowships of 1 to 3 months.

Research fellowships : 4 to 12 months
Long-term fellowships : max. 24 months

Info :

ESF European Science Foundation, Quai
Lezay-Marnésia 1, F-67000 Strasbourg
Fax : +33-88370532

on your desk

Water in our Life

A Textbook for Teachers in Environmental Education.

Contact : VWB

Verlag für Wissenschaft und Bildung,
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Germany
Tel : +44-30-2510415

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Information :

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PANTA RHEI

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OBJECTIVES OF PANTA RHEI

An efficient and continuous way of communication among all ERASMUS, COMETT, TEMPUS, HCM and COST-CEEC partners, both active and prospective, and among students and training participants with interest in water related fields.

Service to the

- ICP-Interuniversity Cooperation Programme "Hydrology and Water Management"
- JEP-Joint European Project : "Interuniversity Coordinating Forum for East-West Cooperation in the field of Environment, Water and Agricultural Soils (EWA-Ring)"
- UETP-University Enterprise Training Partnership : TECHWARE - TECHnology for WAtER REsources
- TECHWARE-WHEEL pan European scientific network "Water Environment European Laboratories"
- MATECH : European center for MAtematics and TECHnology of urban water pollution

Dissemination of activities or proposals of partners, in particular,

- transnational exchanges of students, young graduates and staff
- joint development of full curricula or specific training tools
- crash or intensive courses
- analysis of training needs
- information about other water related training activities, including research training.

Promotion of a European dimension in the field of water-related education and training.

"panta rhei" all things are in constant flux

It is an axioma of Heraclitus (c.540-c.480 BC), Greek philosopher of Ephesus, quoted by Plato. Heraclitus is also known for illustrating the persistence of unity through change by the analogy of the river : "Upon those who step into the same river different and ever different waters flow down".

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ERASMUS



COMETT



Tempus



HCM

Information Bulletin for 'Education in Hydrology and Water Management' and 'Training for Water Resources Technology' within the framework of the HUMAN RESOURCES and MOBILITY Programmes of the European Community (EC)

Bulletin d'information pour 'l'Enseignement de l'hydrologie et de la gestion de l'eau' et la 'Formation aux technologies des ressources en eau' dans le cadre des programmes Ressources Humaines et Mobilité de la Communauté Européenne.

Informationsblad om 'Uddannelse og efteruddannelse i tekniske emner knyttet til vand' indenfor EF's rammeprogrammer om Menneskelige Ressourcer og Mobilitet.

Boletín de información sobre 'Educación en hidrología y gestión de agua' y 'Formación práctica en tecnologías de recursos de agua' en el marco de los programas de la Comunidad Europea de Recursos Humanos y Movilidad.

Informatie bulletin voor 'Onderwijs en waterbeheer' en 'Opleiding voor technologie van de watervoorraden' in het raam van de programma's Menselijk Potentieel en Mobiliteit van de Europese Gemeenschap.

Bolletino informativo riguardante: 'Studio dell'Idrologia e Gestione delle Risorse Idriche' e 'Corsi di formazione sulle tecnologie delle Risorse Idriche', nell'ambito dei Programmi della Comunità Europea sulle Risorse Umane e la Mobilità

Informationsbulletin für 'Unterricht in der Hydrologie und Wasserverwaltung' und 'Ausbildung für die Technologie des Wasservorrates' im Rahmen der Programme Menschliches Potential und Mobilität der Europäischen Gemeinschaft.

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