EUROPEAN
COAL AND STEEL COMMUNITY

THE HIGH AUTHORITY

Investment in the Community Coalmining and Iron and Steel Industries

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REPORT ON THE 1964 SURVEY

Position as at January 1, 1964

JULY 1964

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I — GENERAL REMARKS

As in previous years, the High Authority has conducted a survey of past and future investment by Community enterprises as at January 1, 1964, and its foreseeable effects on production potential. The survey covers all but a few very small enterprises, which this year account among them for less than 0·5% of the Community's total coal production and less than 0·4% of its total crude-steel production.

Annex I following sets forth the *basic definitions* adopted. In particular, it specifies that investment projects have been classified in three categories, according as they were on January 1, 1964, already completed or in progress (Category A), approved (Category B) or merely planned (Category C). Because of the differences in the form in which Community enterprises in practice declare projects "merely planned", the Category C projects dealt with in this Report are those of the extractive industries (coal and iron ore) only.

Annex II contains tables showing for each sector capital expenditure and production potential broken down by *producer areas.*

a) Capital Expenditure

Capital expenditure entered by Community enterprises on the credit side of their balance-sheets over the ten years 1954-63 totalled 12,600,000,000 dollar E.M.A. units of account. During this period investment in the extractive industries remained fairly steady until 1962, but dropped sharply in both in 1963; investment in the iron and steel industry, on the other hand, rose steadily, particularly striking increases being reported from 1961 onwards.

TABLE 1

General Trend in Investment in Recent Years

Indices

Sector	Projects completed				Projects planned for 1964
	1954-60 (annual average)	1961	1962	1963	
Coalmining Industry	100	91	90	77	79
Iron-ore mines	100	132	122	83	73
Iron and steel industry	100	184	202	240	203
All E.C.S.C. industries	**100**	**146**	**155**	**170**	**150**

In 1954 the breakdown of Community investment was 49% for the iron and steel industry, 48% for the coalmining industry and 3% for the iron-ore mines : in 1963, as a result of the contrasting trends since then, the corresponding figures were 80%, 18% and 2%.

TABLE 2

Capital Expenditure in the Community Industries, 1954-1965

$ '000,000 (*E.M.A. units of account*)

Sector	Actual expenditure										Estimated expenditure (Categories A+B+C) [1]	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Coalmining industry	445	408	405	471	469	406	371	385	381	327	334	266
Plants producing B.K.B. and low-temperature brown-coal coke	5	8	4	2	5	5	6	4	6	9	10	8
Iron-ore mines	30	31	44	50	41	40	43	52	49	33	29	21
Iron and steel industry	453	524	570	708	644	587	775	1 123	1 228	1 458	1 238 [1]	684 [1]
Total	**933**	**971**	**1 023**	**1 231**	**1 159**	**1 038**	**1 195**	**1 564**	**1 664**	**1 827**	**1 611**	**979**

[1] The estimates for the iron and steel industry relate only to expenditure on projects already in progress (A) or approved (B) at January 1, 1964, not to those merely planned (C).

The corresponding figures for the years 1962 and 1963 differ from those given in last year's Report, inasmuch as, generally speaking,

a) for the past year (1963), actual expenditure falls below the estimates submitted on January 1;

b) for the previous year (1962), the expenditure figures returned before the balance-sheets were closed are corrected when the next survey is drawn up.

The 1963 survey suggested that capital expenditure during the coming year would total $ 1,880,000,000. This proved 97% accurate overall, the average being pushed up by continuing substantial investment in the iron and steel industry, particularly in Italy.

b) Production Potential

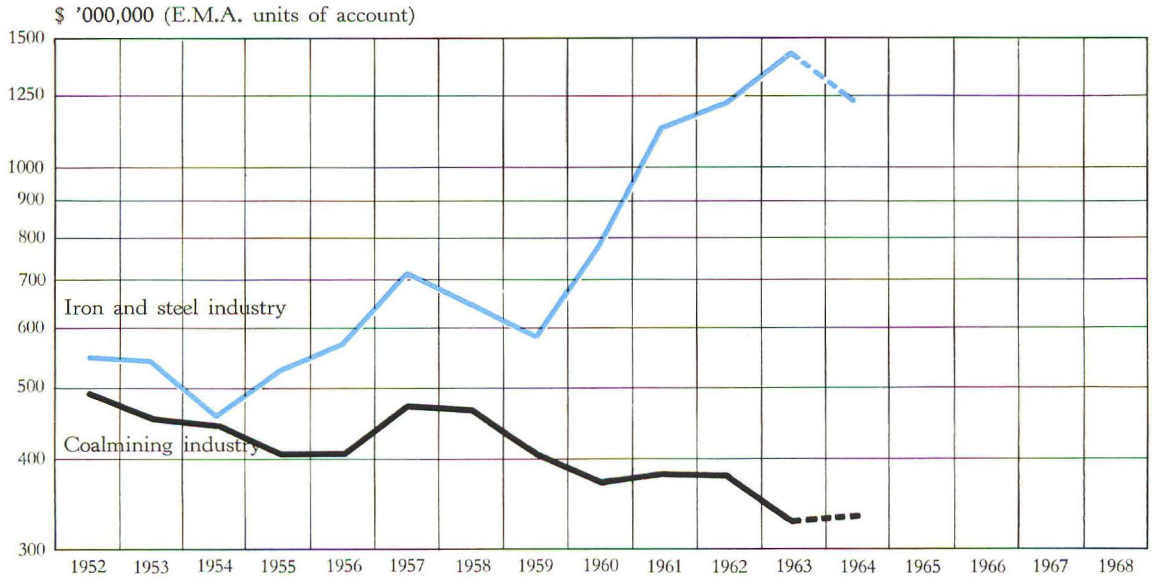
Hard-coal production potential may be expected to contract gradually up to 1967, at about the same rate as actual production has shrunk since 1952. This is due partly to the smaller number of coal-winning shifts taken as a basis for calculation in certain coalfields, and party to pit closures.

Extraction of *iron-ore* increased satisfactorily from the inception of the Community until 1961. Since then it has been slowly dwindling, Lorraine is now practically the only orefield in production which is felt still to offer some scope for expansion.

FIGURE 1

Investment in the Coalmining and Iron and Steel Industries

A — Capital expenditure



B — Actual production and production potential

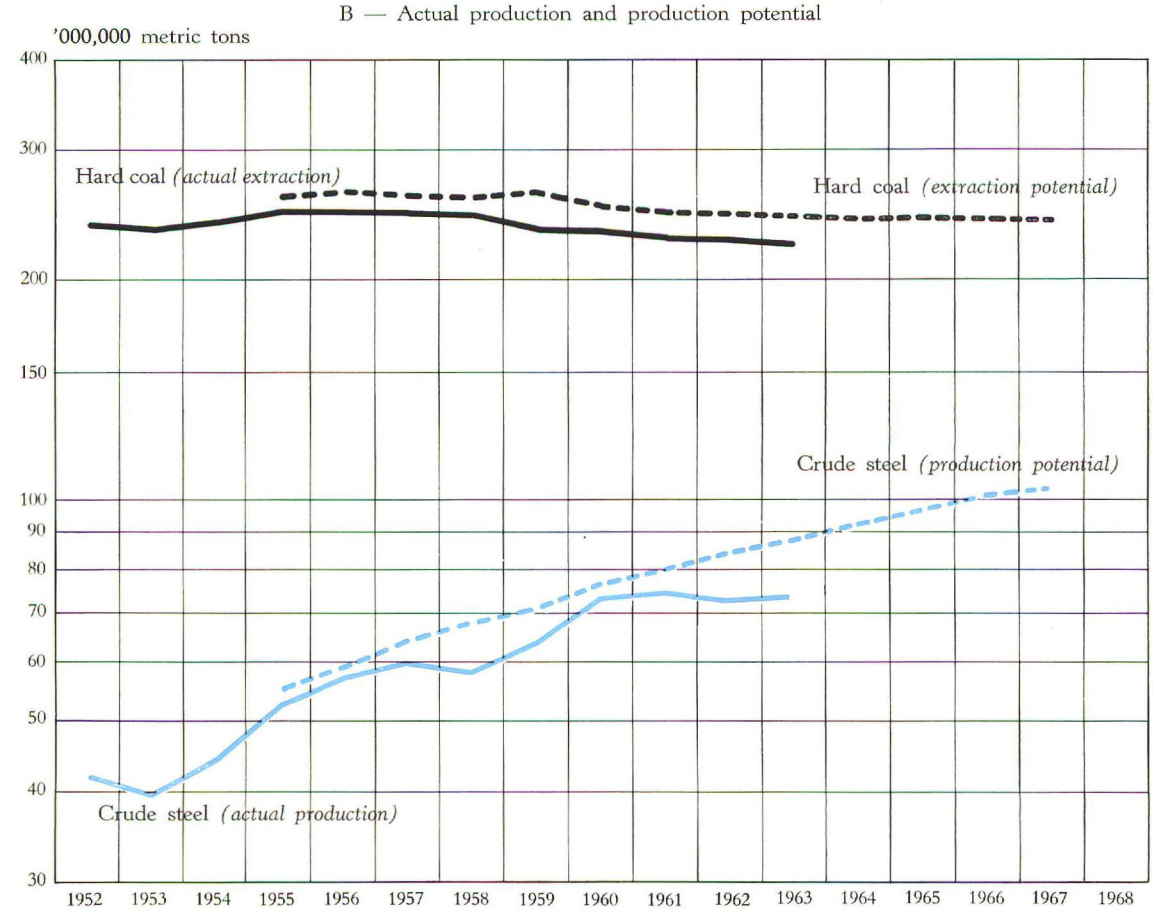
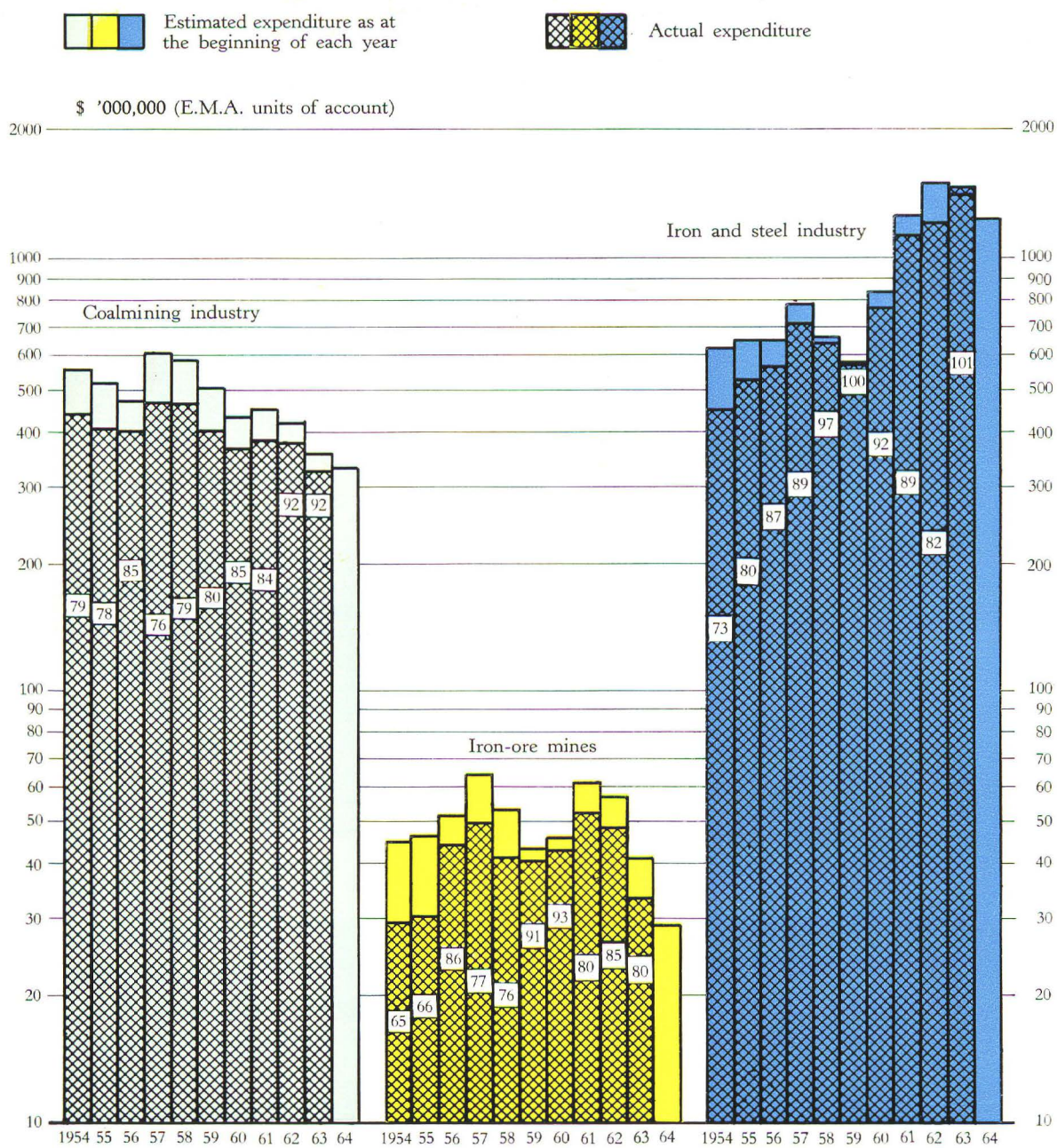


FIGURE 2

Comparison of Actual Capital Expenditure and Estimated Capital Expenditure as at the Beginning of Each Year

(Out-Turn Percentages)



In the *iron and steel* industry the expansion made possible by the large-scale investment which has been and still is being effected should continue at a fair pace, though not so fast as was suggested by earlier surveys.

TABLE 3

Actual Production and Production Potential in the Community Industries

Product	Actual production			Production potential		
	1952 ('000,000 m.t.)	Mean annual rate of increase in %	1963 ('000,000 m.t.)	1963 ('000,000 m.t.)	Mean annual rate of increase in %	1967 ('000,000 m.t.)
Hard coal [1]	237·4	*—0·6*	222·9	243·2	*—0·2*	241·2
Iron ore	65·3	*+1·9*	80·2	97·9	*+1·1*	102·2
Pig-iron	34·7	*+4·0*	53·4	65·9	*+3·8*	76·5
Crude steel	41·8	*+5·2*	73·1	87·6	*+4·0*	102·5

[1]) Exclusive of "small mines" (see Annex I, page 33).

In order to interpret the production-potential figures correctly, it must be borne in mind that the sum of the potentials declared by the individual mines and works is bound to be slightly above the maximum production actually achievable in the Community, by reason of unforeseeable incidents or circumstances which, in the course of any one year, may make it impossible for some of these enterprises to attain their maximum.

Thus, even during the best years, actual production has never exceeded 96% of the sum of the individual production potential declared. For pratical purposes 96% may be considered the highest rate of actual production achievable in the Community overall.

TABLE 4

Community Ratios of Actual Production to Production Potential

%

Product	1955	1956	1957	1958	1959	1960	1961	1962	1963
Hard coal	94·9	94·6	*95·1*	94·8	89·3	92·6	92·7	92·0	91·7
Coke	93·2	*96·5*	96·1	92·2	84·3	85·7	85·3	85·0	84·2
Iron ore	*95·4*	95·1	94·9	91·3	90·9	94·6	91·7	87·6	81·9
Pig-iron	*96·3*	96·0	94·7	87·9	88·3	94·3	90·9	85·5	81·0
Crude steel	95·8	*96·1*	94·1	85·7	89·6	95·6	91·7	87·3	83·4

II — THE COALMINING INDUSTRY

The figures at January 1, 1964, show a decrease in capital expenditure in the coalmining industry from $ 381,000,000 in 1962 to $ 327,000,000 in 1963. This decline is particularly marked in the Ruhr, Aachen and Nord/Pas-de-Calais coalfields. It should be noted that the power-stations in the Sulcis coalfield, Sardinia, on which an estimated $ 16,000,000 was spent in 1962 and a further $ 33,000,000 was planned to be spent in 1963, are no longer included among the pithead power-stations.

TABLE 5

Capital Expenditure in the Coalmining Industry, 1954—1965

$ '000,000 (*E.M.A. units of account*)

Sector	Actual expenditure										Estimated expenditure (Categories A+B+C)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Collieries	241.8	256.4	248.6	281.4	268.4	226.8	226.0	235.4	220.5	219.7	221.0	172.0
Coking-plants, mine-owned	67.9	52.2	46.2	59.5	63.4	55.8	33.7	43.1	35.9	19.3	21.4	11.4
Coking-plants, independent	19.5	12.3	11.1	8.6	8.8	4.7	1.6	1.4	5.1	3.0	8.3	4.0
Briquetting-plants	3.8	7.3	4.5	4.7	3.5	5.4	7.1	3.4	5.1	9.3	12.5	5.6
Pithead power-stations and other power-generating plant	111.7	79.9	94.5	117.2	125.0	113.4	102.6	101.3[1]	114.6[1]	75.6[1]	70.8[1]	72.8
Total	**444.7**	**408.1**	**404.9**	**471.4**	**469.1**	**406.1**	**371.0**	**384.6**	**381.2**	**326.9**	**334.0**	**265.8**
Plants producing B.K.B. and low-temperature brown-coal coke	5.3	8.1	4.5	2.3	5.0	4.8	6.0	3.8	6.0	9.0	10.0	8.5

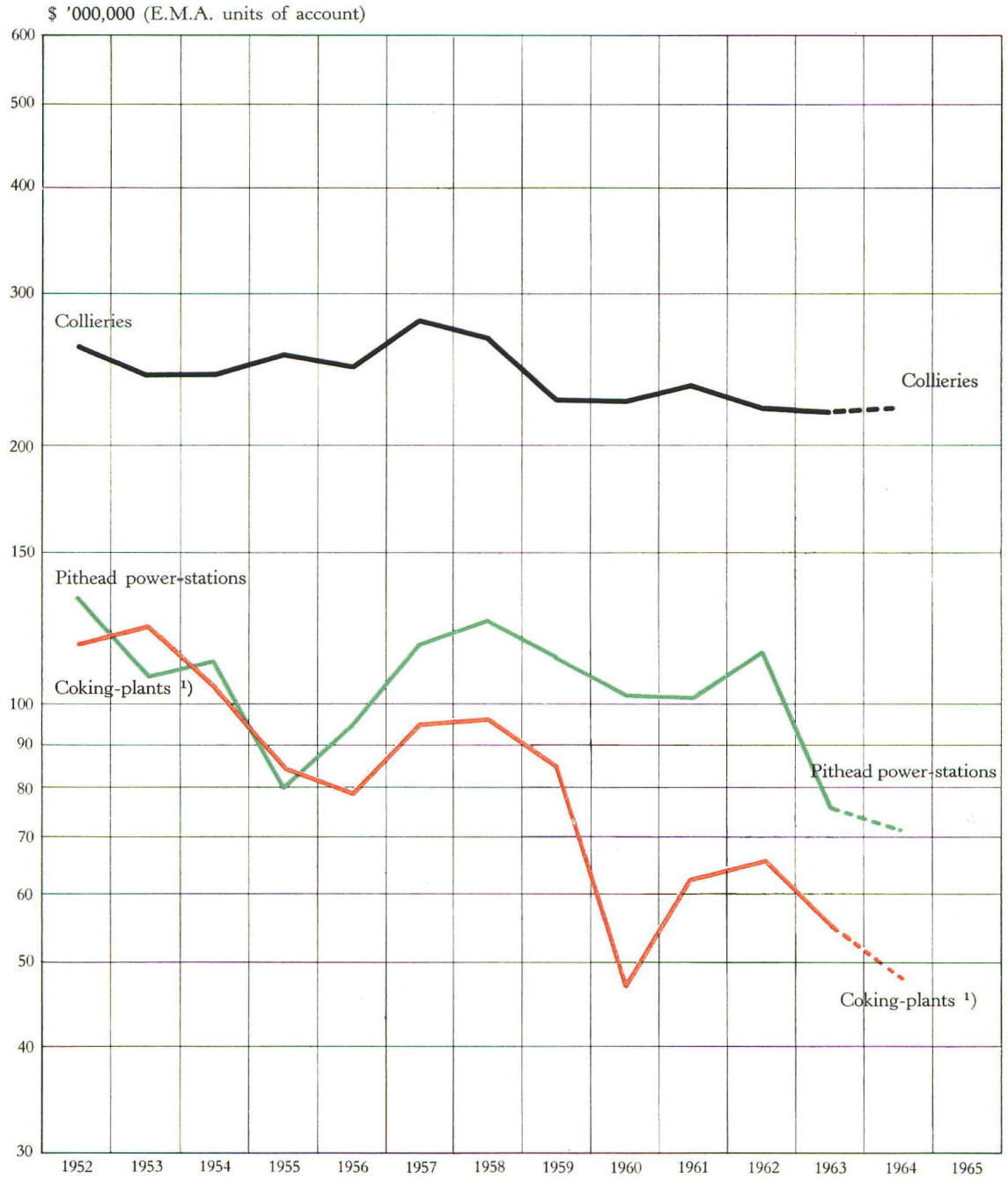
[1]) Corrected figures, exclusive of thermal power-stations at Sulcis, Sardinia.

a) Collieries

Capital expenditure on this pits remained in 1963 about the same as in 1962 considerably below the relatively steady level, recorded from 1952 to 1961. Expenditure in this sector per metric ton extracted, which averaged $ 1.05 over this latter period, dropped in 1962 and 1963 to $ 0.98 for the Community overall, with the figure for the Ruhr exactly coinciding and those for the French Centre/Midi and Nord/Pas-de-Calais coming a good deal lower still.

FIGURE 3

Capital Expenditure in the Coalmining Industry



[1]) Mine-owned, steelworks-owned and independent coking-plants.

As before, capital expenditure was divided more or less evenly between coal extraction (including shafts and mechanical equipment below ground) and surface installations (screening, washing, buildings and other installations).

TABLE 6

Capital Expenditure on Collieries, 1954—1963

$ '000,000 (E.M.A. units of account)

Type of installation	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Shafts and underground workings	43.5	54.9	57.5	63.8	67.0	51.1	48.7	42.6	37.0	40.8
Mechanical equipment below ground	49.0	53.8	57.7	68.2	62.9	49.3	52.7	58.3	56.4	56.4
Haulage and winding equipment	22.6	20.1	18.8	22.4	20.6	24.1	25.8	24.4	21.3	17.9
Screening and washing	68.4	64.9	50.4	57.4	50.6	48.3	45.4	49.3	47.3	42.6
Other surface installations	31.4	35.1	34.4	36.1	33.0	27.6	32.9	35.1	33.9	36.1
Buildings, etc.	26.9	27.6	29.8	33.5	34.3	26.4	20.5	25.7	24.6	25.9
Total	**241.8**	**256.4**	**248.6**	**281.4**	**268.4**	**226.8**	**226.0**	**235.4**	**220.5**	**219.7**

As regards production potential, the 1964 survey confirms the trend detected the previous year : the industry's aggregate potential may be expected to work out in 1967 some 2,000,000 tons less than in 1963. Despite the numerous pit closures effected since 1959 because of the change in the conditions of competition among the different energy products, the Community coalmining industry's production potential is contracting only gradually thanks to investment designed to raise productivity in the collieries still in operation.

TABLE 7

Development of Hard-Coal-Production Potential [1])

'000,000 metric tons

Production		Production potential				
1952	1963	1963	1964	1965	1966	1967
237·4	222·9	243·2	242·5	242·3	241·7	241·2

[1]) As in previous years, mines producing only small tonnages are excluded; the total production of these small mines in 1963 amounted to approximately 1,100,000 metric tons.

It is estimated that potential will contract in the French coalfields (-2,200,000 tons of saleable coal between 1963 and 1967 in the Nord/Pas-de-Calais and -1,100,000 in the Centre/Midi), in Dutch Limburg (-1,000,000) and in the Saar (-1,700,000); increases are, on the other hand, expected in the other three German coalfields (+3,100,000), in Belgium (+600,000) and in Italy (+300,000 tons).

The number of working days per annum on which the production potentials indicated are based varies from coalfield to coalfield : 287 in France, 260 in Germany (296 in the Saar), 254 in the Netherlands, 250-260 in most of the Belgian collieries.

b) Coking-Plants

The sag observed in 1962 in capital expenditure on mine-owned coking-plants became more marked in 1963 : the amount spent was not even 70% of that estimated at the beginning of the year, and was in both Germany and France easily the lowest figure since 1952. Expenditure per ton of coke produced worked out at only $ 0.43, as against $ 0.80 in 1962, $ 0.90 in 1961 and an average of $ 1.30 over the years 1952-60. The estimates for 1964 and 1965 suggest no appreciable upturn; a number of projects earlier approved and envisaged have had to be dropped or deferred.

Capital expenditure on the independent coking-plants continues small, the total for 1963 being only just over $ 3,000,000 : in Belgium and the Netherlands investment is falling, while it remains fairly active in Italy.

On the other hand, investment in the steelworks-owned coking-plants (here included to provide a full picture of the carbonization sector) reached a high level in 1963, with expenditure per ton of coke produced more than three times as great as in the case of the mine-owned plants. This is however, almost entirely due to a series of extensions undertaken at Italian coastal steelworks.

In the following table, two sets of estimates are given for 1964 and 1965, the first covering only projects already in progress or approved (Categories A and B), and the second also including projects only contemplated (Categories A, B and C).

TABLE 8

Capital Expenditure on Steelworks-Owned Coking-Plants, 1954—1965 [1])

$ '000,000 (E.M.A. units of account)

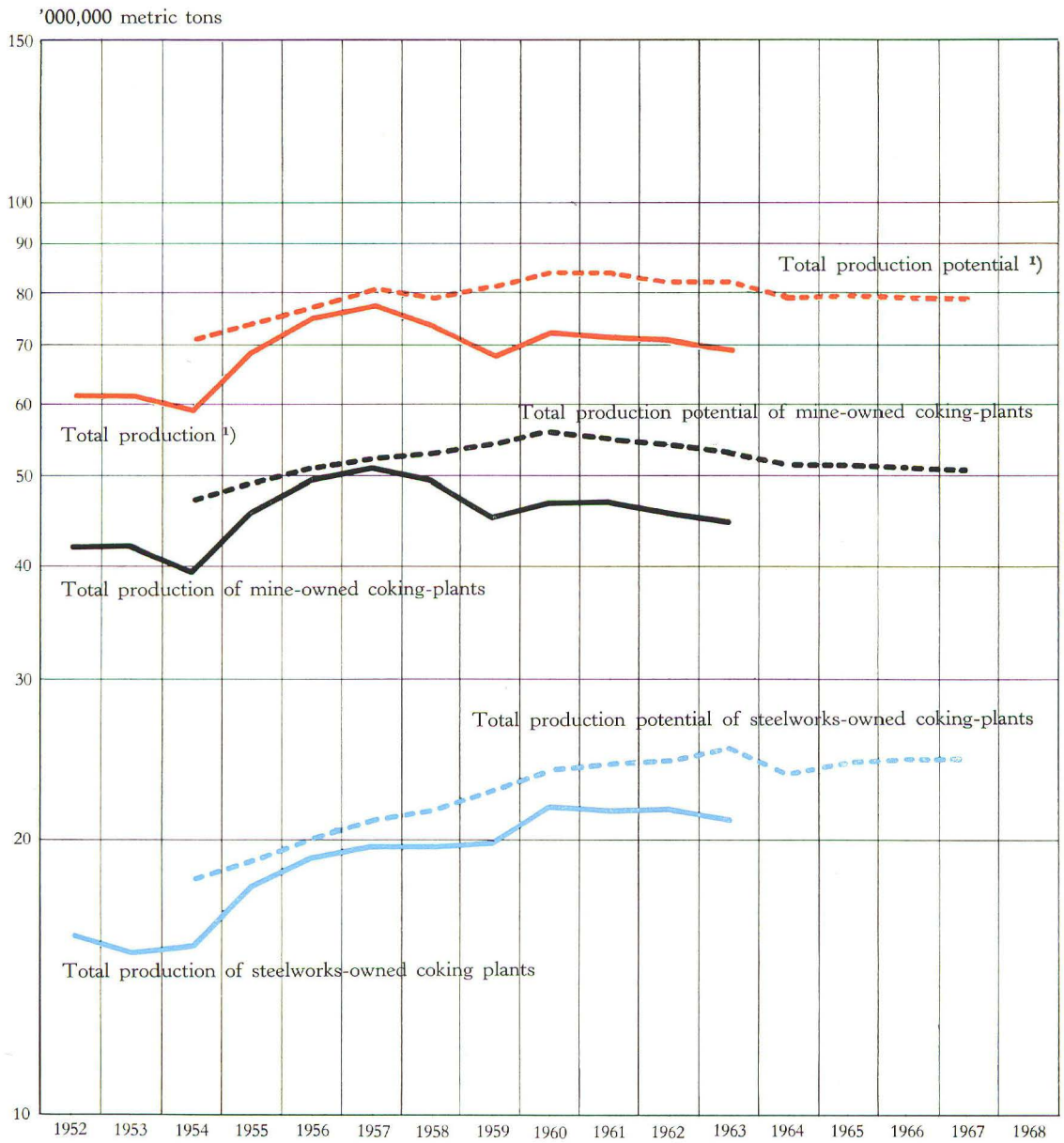
Actual expenditure										Estimated expenditure			
										1964		1965	
1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	Cat. A+B	Cat. A+B+C	Cat. A+B	Cat. A+B+C
18.0	19.9	22.3	28.0	24.6	24.9	11.5	18.3	25.0	33.0	33.0	18.3	8.3	10.2

[1]) Cf. Table 17, under 66 „The Iron and Steel Industry" (1964 and 1965 estimates for Categories A and B only).

As in previous years, just under half of the capital expenditure in the carbonization sector as a whole went on the coke ovens themselves : of this, four times as large a proportion was spent in 1963 on new plant (mainly in Italy) as on renewals and replacements.

FIGURE 4

Production and Production Potential of Coking-Plants



1) Mine-owned, steelworks-owned and independent coking-plants.

TABLE 9

Capital Expenditure on Mine-Owned, Independent and Steelworks-Owned Coking-Plants, 1954-1963

$ '000,000 (E.M.A. units of account)

Type of installation	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Coke ovens	46.5	32.2	32.3	41.8	41.7	32.7	20.7	26.6	29.2	27.2
of which:										
New plant	(31.9)	(19.3)	(17.3)	(24.7)	(21.8)	(14.7)	(9.6)	(13.7)	(14.4)	(21.4)
Renewals and replacements	(14.6)	(12.9)	(15.0)	(17.1)	(19.9)	(18.0)	(11.1)	(12.9)	(14.8)	(5.8)
Gas producers and other gasification plant	5.7	3.4	2.0	1.3	1.3	0.9	0.9	0.6	2.1	0.8
Coke-oven gas and by-product plant	27.1	28.9	25.9	34.8	29.6	28.3	13.1	18.2	18.1	10.2
Miscellaneous	26.0	19.9	19.4	18.1	24.2	23.5	12.1	17.4	16.6	17.1
Total	**105.3**	**84.4**	**79.6**	**96.0**	**96.8**	**85.4**	**46.8**	**62.8**	**66.0**	**55.3**

The 1967 production potential of the mine-owned plants is estimated at 5 % (2,300,000 tons) less than the 1963 figure; the potential of the independent plants is likely to remain about the same, while for the steelwork-owned plants a substantial decrease may be expected, notwithstanding the extensions planned in Italy. Overall, the 1964 survey for the first time indicates a contraction — of over 3,000,000 tons a year between now and 1967 — in the coke production potential of the Community.

TABLE 10

Development of Coke Production Potential

'000,000 metric tons

Category	Actual production		Production potential				
	1952	1963	1963	1964	1965	1966	1967
Mine-owned plants	42·2	44·8	53·1	51·7	51·7	51·0	50·8
Independent plants	3·2	3·4	4·0	3·9	3·9	4·0	3·9
Steelworks-owned plants [1]	15·8	21·1	25·2	23·6	24·2	24·4	24·5
Total	**61·2**	**69·3**	**82·3**	**79·2**	**79·8**	**79·4**	**79·2**

[1] Cf. Table 18, under "The Iron and Steel Industry". The production-potential figures above for the steelworks-owned plants are calculated on the same basis as for the other types of plant, *viz.* including all three categories of projects.

Table VIII annexed contains some technical data on the operation of the coking-plants (coal input, coke output, gas consumed and produced).

c) Briquetting-Plants

Capital expenditure is still very much lower in this sector than elsewhere; there has, however, been a certain increase in appropriations for this purpose as a result of the brisk sales of briquettes in 1963.

Projects in hand in this connection are principally in Belgium (Southern coalfields and Campine) and France (Nord/Pas-de-Calais and Centre/Midi), and relate for the most part to the production of smokeless ovoids, to be used to help good the shortage of sized anthracite and low-volatile coals. Aggregate Community production potential may be expected to rise from 17,900,000 tons in 1963 to 19,800,000 in 1967.

d) Pithead Power-Stations

Partly in consequence of the reclassification of the Sulcis power-stations, capital expenditure under this head for 1963 shows a drop of some 34% as compared with 1962. The greater part continues to be spent on the big power-stations, while the share of the other generating-plant at the mines is declining. The collieries are supplying more and more thermal energy, direct or through specialized agencies, towards the provision of heating and refrigeration for urban agglomerations and industry : expenditure specifically for this purpose in 1963 totalled $ 1,800,000, which is included in the following table under „miscellaneous".

TABLE 11

Capital Expenditure on Pithead Power-Stations and other Power-Generating Plant at Mines, by Types of Installation, 1954—1963

$ '000,000 (E.M.A. units of account)

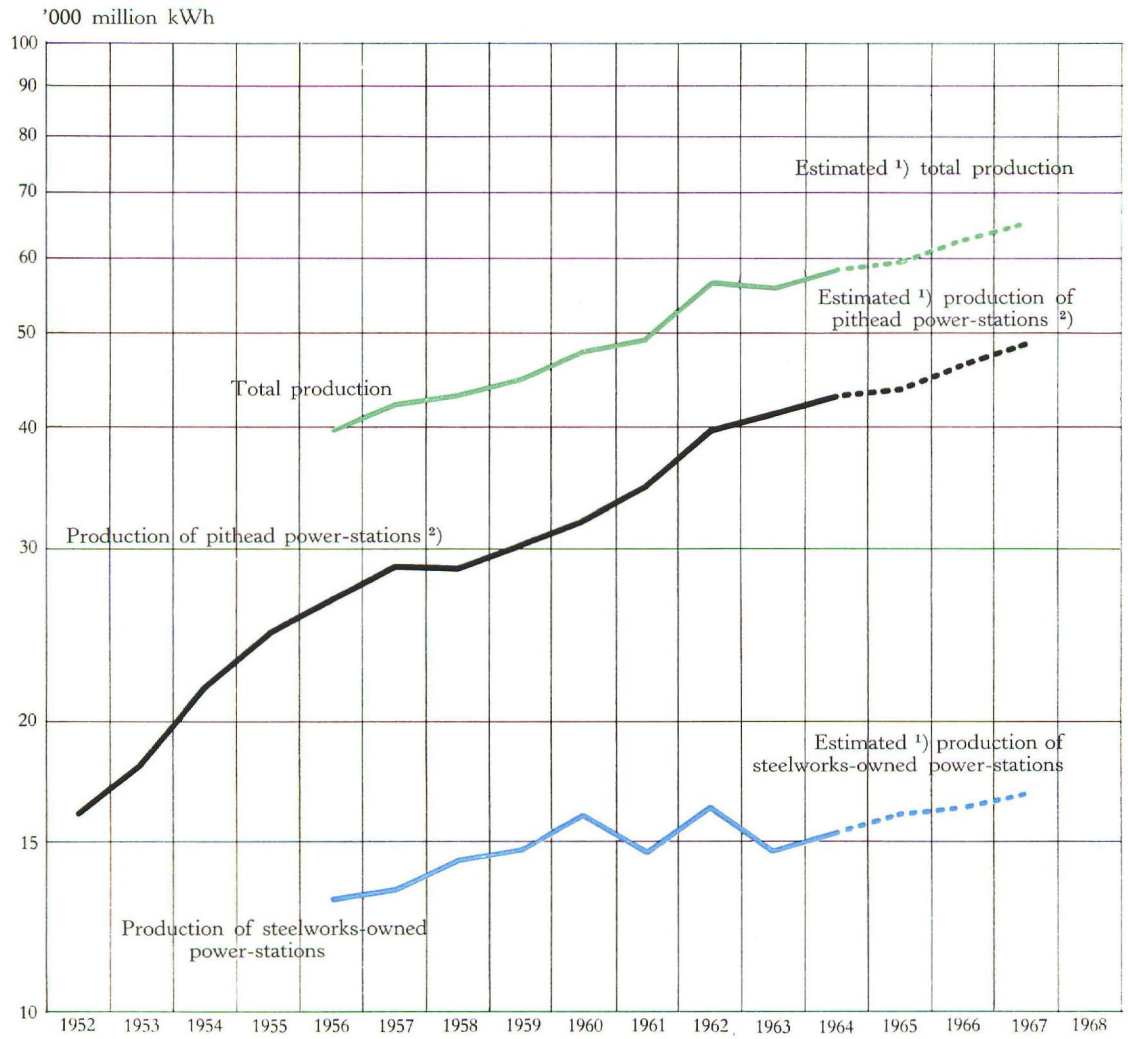
Type of installation	1954	1955	1956	1957	1958	1959	1960[1]	1961[1]	1962[1]	1963
Steam-raising plant	47.2	30.2	30.5	39.8	45.8	47.7	36.4	30.6	47.8	26.1
Power-generating plant and distribution switchgear	30.3	24.3	31.0	38.3	38.6	38.1	42.5	45.3	39.0	22.2
Buildings	9.7	6.3	7.3	10.9	15.4	8.2	7.5	10.1	10.7	11.9
Electricity distribution networks	11.1	7.9	14.5	11.6	8.4	5.3	7.0	5.7	6.0	6.7
Compressed-air plant	7.6	5.5	4.8	5.2	4.9	3.7	2.7	1.9	1.6	1.7
Miscellaneous	5.8	5.7	6.4	11.4	11.9	10.4	6.5	7.7	9.5	7.0
Total	**111.7**	**79.9**	**94.5**	**117.2**	**125.0**	**113.4**	**102.6**	**101.3**	**114.6**	**75.6**

[1]) Corrected figures, exclusive of power-stations at Sulcis, Sardinia.

Investment in this sector in 1963 was still fairly substantial in the Ruhr, the Saar and the Nord/Pas-de-Calais, where several big new thermal power-stations have just been completed. The only projects of any size still scheduled to be carried out in the next two years are those of some few major producers in the Ruhr, the Saar and Southern Belgium.

FIGURE 5

Electric Power Production



1) For 1964 and following years energy production figures have been estimated on the basis of the maximum electric capacity as in mid-year assuming the same number of load-hours as in 1963, i.e. 4,405 hours per annum for the pithead power-stations and 4,279 hours per annum for the steelworks-owned power-stations.
2) Pithead power-stations proper and other power-stations plant at mines.

In these circumstances, the maximum electric capacity of the Community pithead power-stations will not after all expand as fast as was suggested by last year's survey : the overall increase during the next four years should, however, be in the region of 16%, even though a number of obsolete plants in France are being taken out of production.

The figures for the steelworks-owned power-stations (here included to provide a full picture of the power-generating position in both Community industries) are also rather lower than the enterprises' estimates of January 1, 1963; nevertheless, their maximum electric capacity should increase overall by approximately 17% between the beginning of 1964 and the beginning of 1968.

TABLE 12

Development of Maximum Electric Capacity

(in MW)

	Beginning of 1963	Beginning of 1964	Beginning of 1965	Beginning of 1966	Beginning of 1967	Beginning of 1968
Pithead power-stations	9 032	9 734	9 822	9 994	10 919	11 294
Steelworks-owned power-stations	3 367	3 438	3 691	3 771	3 835	4 014

The pithead power-stations operated in 1963 at 4,405 load-hours and the steelworks-owned stations at 4,279 : at these rates, their output of electric current would rise between 1963 and 1967 from 41,100 to 48,900 million kWh and from 14,600 to 16,800 million kWh respectively.

Tables XI annexed give some technical data on the operation of the pithead stations (specific consumption in calories per kWh, consumption of low-grade coal, load-hours per annum). 68% of their 1963 production was sold to the grids, as compared with 66% in 1962, 61% in 1961, 55% in 1960 and 1959, and 50% in 1958.

e) Plants Producing B.K.B. and Low-Temperature Brown-Coal Coke

Capital expenditure in this sector shows a slight upturn. The production potential for briquettes is, however, still gradually contracting, while that for low-temperature coke remains unchanged.

III — THE IRON-ORE MINES

Between 1956 and 1962 capital expenditure in the Community iron-ore industry never fell below $ 40,000,000 a year, but in 1963 it slumped to $ 33,000,000, and the estimates for the years ahead indicate a steady decline. All the Community's orefields, large and small, are affected : of the major producer areas, Western France and the Salzgitter region are the hardest hit, but even Lorraine is not escaping the trend, since both the actual expenditure in 1963 and the estimated expenditure for 1964 work out at only 70% of the 1962 figure.

TABLE 13

Capital Expenditure in the Iron-Ore Industry, 1954—1965

$ '000,000 (E.M.A. units of account)

Type of installation	Actual expenditure										Estimated expenditure (Categories A+B+C)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Mining of ore	14.8	16.3	22.3	29.4	22.7	22.5	26.1	30.8	26.1	19.8	21.2	13.5
Preparation of ore at mine ..	7.3	5.9	10.6	10.9	9.6	9.2	7.5	9.6	10.1 [1]	8.3	3.3	3.7
Various surface installations .	7.4	8.5	11.0	9.5	8.9	8.6	9.6	12.0	12.4	4.9	4.5	3.9
Total	**29.5**	**30.7**	**43.9**	**49.8**	**41.2**	**40.3**	**43.2**	**52.4**	**48.6** [1]	**33.0**	**29.0**	**21.1**

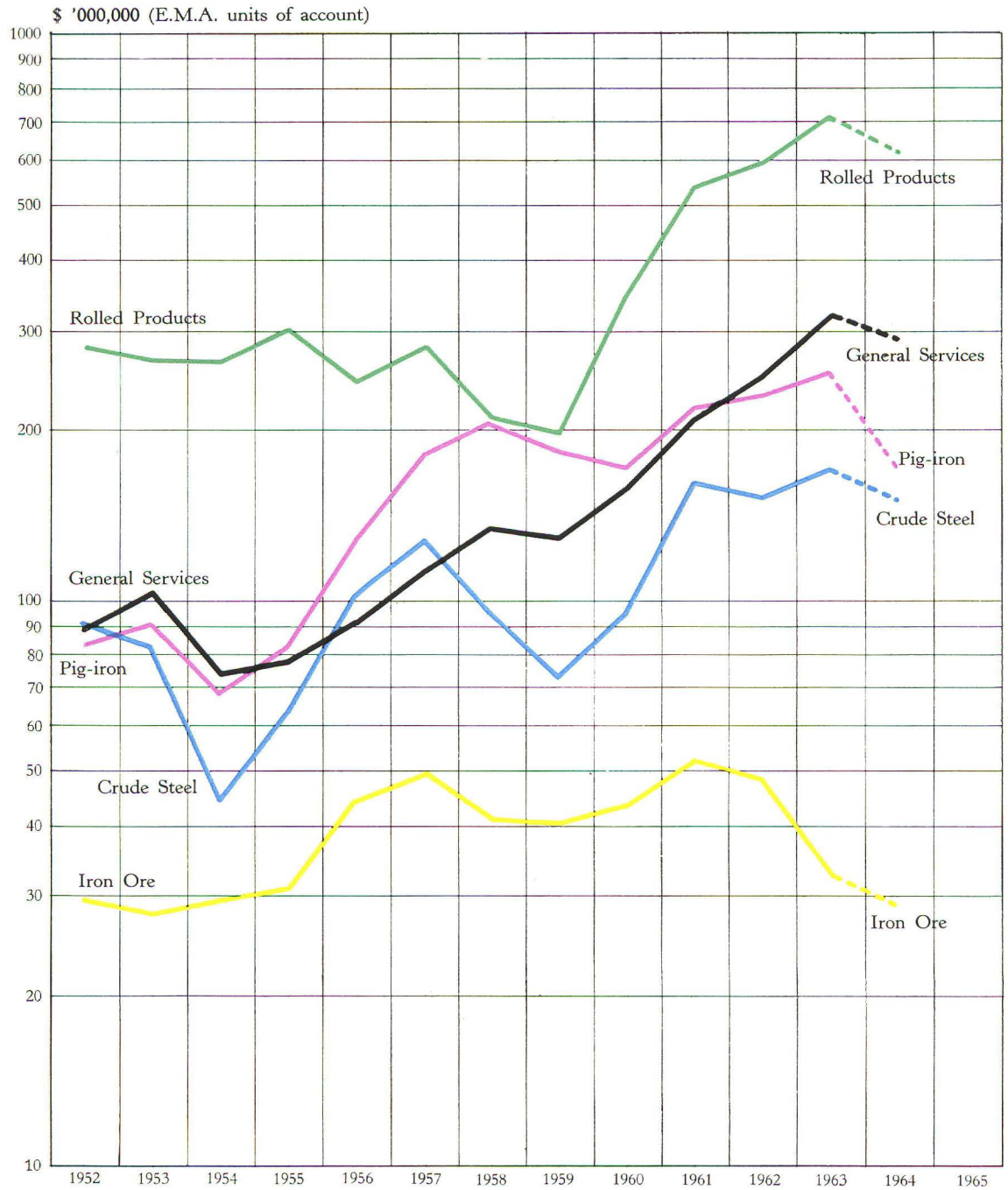
[1]) Corrected figures, exclusive of sintering plant at mines, which is now included for calculating purposes under "blast-furnace burden preparation" (see Table 17).

From 1952 to 1961 Community production of crude ore increased progressively from 65,300,000 to 95,900,000 metric tons; i.e. at a cumulative average annual rate of 4·4%. Since then, in face of stiffening competition from overseas ores, some uneconomic mines have had to be closed and a number of expansion schemes scrapped, with a consequent drop both in actual production and in the expected rate of growth.

Production went down from 95,900,000 tons in 1961 to 92,400,000 in 1962 and 80,200,000 in 1963.

FIGURE 6

Capital Expenditure in the Iron-Ore Mines and Iron and Steel Industry



The figures submitted at January 1, 1964, indicate that 1965 production potential is likely to work out at only 99,600,000 tons, as compared with last year's estimate of 108,600,000 and the estimate a year earlier of 115,400,000. The annual rate of growth from 1963 to 1967 is now put at only 1·1% for the Community overrall (in contrast to the 4·4% annual increase in actual production from 1952 to 1961), and even that is assuming no shortening of the working week in any orefield.

Such expansion as is still expected is confined to Lorraine and, in a very minor degree, Western France; everywhere else contraction is taking place, at varying speeds.

TABLE 14

Development of Crude-Ore Production Potential

'000,000 metric tons

Extraction		Extraction potential				
1952	1963	1963	1964	1965	1966	1967
65·3	80·2	97·9	97·5	99·6	100·8	102·2

Lorraine ore accounted for about 65% of total production around 1959-60; in 1963 it accounted for 68%, and its share in Community production potential is expected, according to the January 1, 1964, estimates, to reach 72% in 1967.

IV — THE IRON AND STEEL INDUSTRY

Since 1959 capital expenditure in the Community iron and steel industry has been rising steeply, with year-to-year increases of 32% in 1960, 45% in 1961, 9% in 1962 and 19% in 1963. From the present estimates for 1964 and 1965, however, it would appear that this trend is now petering out : investment in the last year or two has largely represented the completion of projects already under way, rather than the launching of new ones.

The German, Luxembourg and Netherlands shares of the Community total remain more or less the same, as regards both the immediate past and the immediate future : the shares of the Belgian and, in particular, the French industry have contracted, but this has been more than counterbalanced by the vigorous investment drive in Italy, especially in the coastal plants. Actual expenditure in Italy in 1963 and estimated expenditure in 1964 works out slightly higher than that in Germany, the Community's biggest producer.

The proportion of expenditure going on the rolling-mills and on general services shows an appreciable increase, while the proportion going on pig-iron and crude-steel production is declining steadily.

TABLE 15

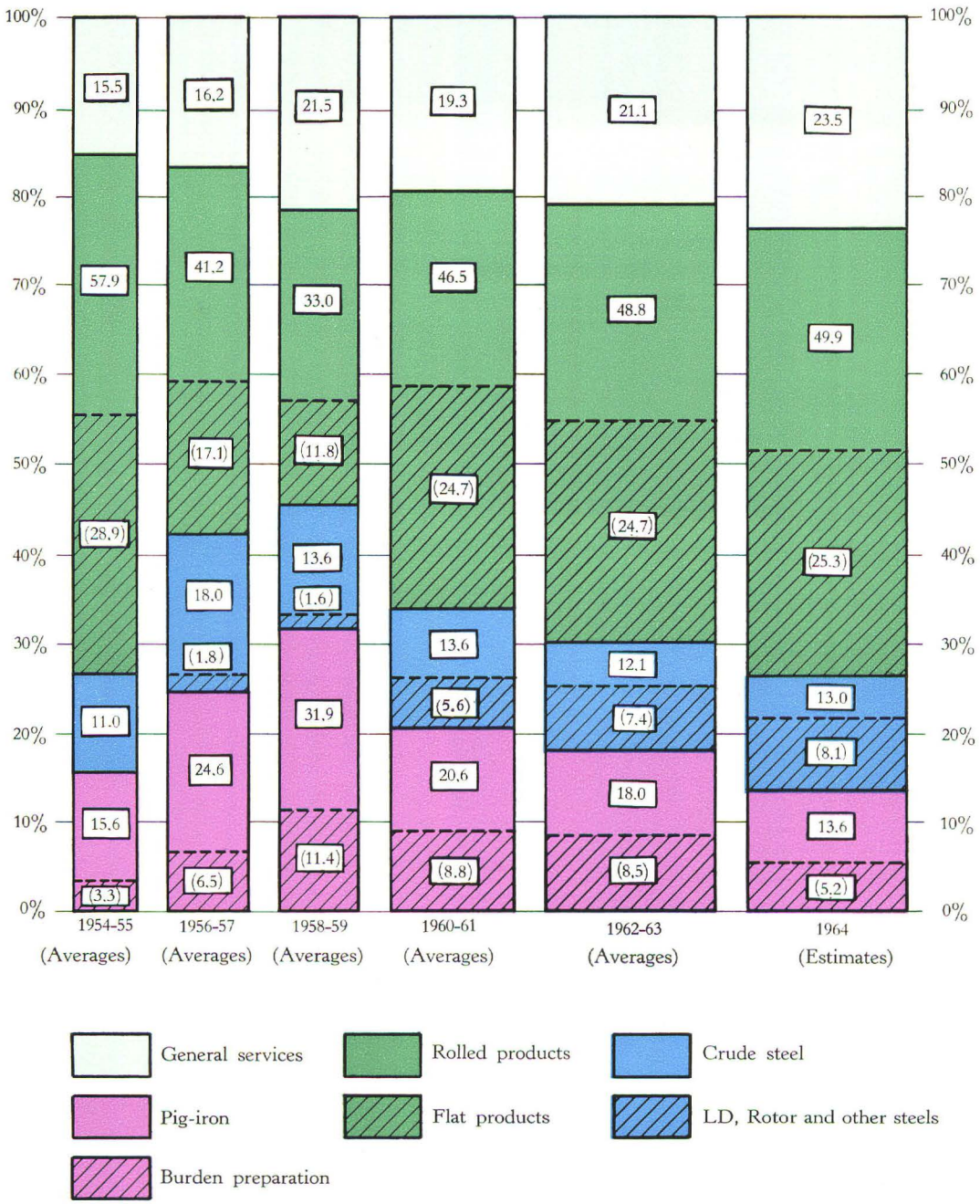
Capital Expenditure in the Iron and Steel Industry, 1954—1965

$ '000,000 (E.M.A. units of account)

Type of installation	Actual expenditure										Estimated expenditure (Categories A+B)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Plant for production of												
pig-iron	69.8	82.9	130.5	183.5	206.1	186.8	172.2	218.8	231.2	253.3	167.8	81.2
steel	44.1	63.2	101.6	128.4	94.8	72.7	95.4	162.8	152.4	171.6	161.4	113.1
rolled products	265.1	301.1	244.9	282.4	207.0	198.6	350.3	532.4	597.6	713.7	618.5	345.8
General services	74.5	77.1	92.9	113.9	135.7	128.5	157.3	209.1	247.1	319.5	290.8	143.4
Total	**453.5**	**524.3**	**569.9**	**708.2**	**643.6**	**586.6**	**775.2**	**1 123.1**	**1 228.3**	**1 458.1**	**1 238.5**	**683.5**

FIGURE 7

Breakdown of Capital Expenditure in the Iron and Steel Industry



The breakdown of expenditure among the main sectors of the industry is noticeably different from that of the last few years, more resembling the pattern observed in 1954-55, though with increased emphasis on the general services.

TABLE 16

Trend in Capital Expenditure in the Iron and Steel Industry, 1954—1964

%

Type of installation	Average 1954-55	Average 1956-57	Average 1958-59	Average 1960-61	1962	1963	1964 (estimates)
Plant for production of							
pig-iron	15·6	24·6	31·9	20·6	19·5	17·4	13·6
crude steel	11·0	18·0	13·6	13·6	14·5	11·8	13·0
rolled products	57·9	41·2	33·0	46·5	47·4	48·9	49·9
General services	15·5	16·2	21·5	19·3	18·6	21·9	23·5
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0

The following subsections examine one by one the four main categories of investment and their effects on production potential.

a) Pig-Iron Production

The proportion of total expenditure on pig-iron production plant, which in 1958-59 amounted to 32 %, has been falling heavily : in 1963 it was 17·4%, and the estimate for 1964 is only 13·6%, lower than in 1954-55, when it was 15.6 %.

Absolutely, expenditure on pig-iron production in 1963 was everywhere down, except in Germany and the coastal regions of Italy. Mainly owing to intensive investment activity in the latter, the Community figures for 1963 show a slight net increase over 1962 in all three branches of this sector, the steelworks-owned coking-plants, the burden-preparation installations and the blast-furnaces themselves, but the operations in Italy have now progressed to a stage after which there will be a considerable falling-off in all three in 1964 and, more especially, in 1965.

TABLE 17

Capital Expenditure on Pig-Iron Production Plant, by Types of Installation, 1954—1965

$ '000,000 (E.M.A. units of account)

Type of installation	Actual expenditure										Estimated expenditure (Categories A+B)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Steelworks-owned coking-plants ...	18.0	19.9	22.3	28.0	24.6	24.9	11.5	18.3	25.0	33.0	16.3	8.3
Burden preparation.	11.6	21.1	31.5	51.5	66.7	73.5	73.7	93.3	108.9 [1]	119.0	64.3	28.7
Blast-furnaces	40.2	41.9	76.7	104.0	114.8	88.4	87.0	107.2	97.3	101.2	87.2	44.3
Total	**69.8**	**82.9**	**130.5**	**183.5**	**206.1**	**186.8**	**172.2**	**218.8**	**231.2** [1]	**253.2**	**167.8**	**81.3**

[1] Corrected figures, including sintering plant at mines, now included for calculating purposes under "burden preparation" (see Table 13).

As regards the probable trend in coke production potential, the new capacity being installed along the Italian seaboard, though substantial, will not fully offset the effects of the forthcoming closures of steelworks-owned coking-plants in the northern parts of the Community. Sinter-production potential at iron and steelworks on the other hand, may be expected to expand everywhere, by a total of 33% over four years (a somewhat slower rate than in previous years) : the resulting increase in availabilities of sinter will to a great extent account for the estimated 16% rise in pig-iron production potential between 1963 and 1967.

TABLE 18

Development of Production Potential of Pig-Iron Production Plant

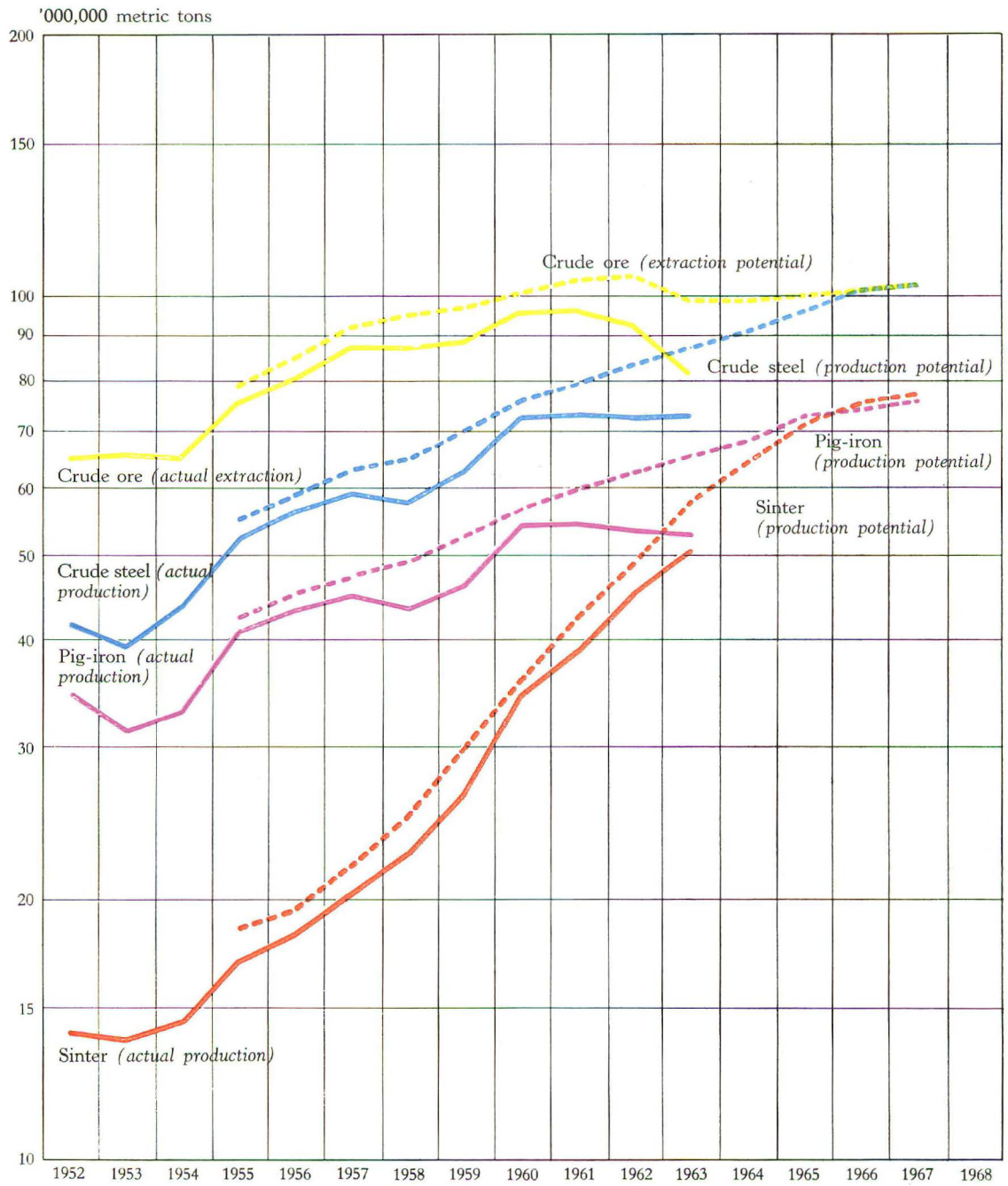
'000,000 metric tons

Product	Actual production		Production potential				
	1952	1963	1963	1964	1965	1966	1967
Coke (steelworks-owned plants) [1] .	15·8	21·1	24·7	23·6	24·2	24·0	23·8
Sinter	14·0	51·1	58·6	65·1	72·3	76·5	78·1
Pig-iron	34·7	53·4	65·9	68·5	72·9	75·7	76·5

[1] Cf. Table 10 under "The Coalmining Industry". The production potential figures above for all three types of plant concerned in the production of pig-iron are based only on investment projects in progress or approved (Categories A and B).

FIGURE 8

Actual Production and Production Potential of the Iron and Steel Industry



The expected increases, though considerable in the case of sinter and pig-iron, are smaller than the enterprises' earlier forecasts had suggested. The current estimates for 1965 production potential show, as compared with the January 1963 and January 1962 estimates, a net decrease of 1,300,000 and 2,300,00 metric tons respectively for coke from the steelworks-owned plants, 1,200,000 and 4,900,000 tons respectively for sinter, and 3,000,000 and 5,200,000 tons respectively for pig-iron. The slackening in the forecast rate of growth for sinter and pig-iron is particularly marked in the Ruhr and Lorraine.

b) Steel Production

The industry has been investing less and less in basic Bessemer steelmaking plant since 1958, and will before long be investing next to nothing. Since 1961 it has also been showing less interest than before in open-hearth plant, though a number of modernization operations are planned for 1964 in the Ruhr and in the Italian coastal works. Expenditure on electric-furnace plant, on the other hand, continues fairly high, at $ 20,000,000 a year, mainly in the Italian inland works and in France. The increase in expenditure on oxygen steelworks continues : close on 70% of total investment in the crude-steel sector in 1963 went on this type of installation, with the Italian industry leading and the Belgian, North German and Ruhr enterprises following.

TABLE 19

Capital Expenditure on Steelmaking Plant, by Production Processes, 1954—1965

$ '000,000 (E.M.A. units of account)

Production process	Actual expenditure										Estimated expenditure (Categories A+B)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Basic Bessemer	13.9	17.2	22.4	45.1	49.7	33.8	21.2	24.2	23.0	17.3	9.9	4.4
Open-hearth	20.1	30.7	53.9	51.6	27.4	17.6	29.1	44.8	30.2	18.1	28.2	12.6
Electric-furnace	10.1	15.3	17.2	16.4	10.6	8.5	11.1	21.8	21.1	16.2	23.0	11.0
L/D, Rotor, etc.			8.1	15.3	7.1	12.8	34.0	72.0	78.1	120.0	100.2	85.0
Total	44.1	63.2	101.6	128.4	94.8	72.7	95.4	162.8	152.4	171.6	161.3	113.0

Community crude-steel production potential in 1963 totalled 87,600,000 metric tons. Projects approved by heads of enterprises as at January 1, 1964, should increase this to 102,500,000 in 1967, a rise of 17% over four years; this is a somewhat slower rate than was indicated by forecasts in previous years. The present estimate for 1965, for example, is only 96,700,000 tons, as compared with the 1962 estimate for the same year of 98,900,000.

TABLE 20

Development of Crude-Steel Production Potential, by Production Processes

'000,000 metric ton

Production process	Actual production		Production potential				
	1952	1963	1963	1964	1965	1966	1967
Basic Bessemer	23·0	33·3	38·3	36·5	35·5	34·2	33·4
Open-hearth	15·2	25·3	30·8	31·3	31·9	31·3	31·0
Electric-furnace	3·3	8·9	10·6	11·2	11·8	12·0	12·3
L/D, Rotor, etc.	0·3	5·6	7·9	12·6	17·5	23·4	25·8
Total	41·8	73·1	87·6	91·6	96·7	100·9	102·5

The estimated net increase of some 15,000,000 tons in production potential between 1963 and 1967 represents the sum of increases of approximately 18,000,000 tons for oxygen-blown steels and 2,000,000 for electric-furnace, less a decrease of 5,000,000 for basic Bessemer.

Oxygen steelmaking capacity is thus expected to increase rapidly : by 1967 it should account for rather over 25% of total Community potential, as against only 9% in 1963. There are, however, considerable variations from region to region : proportions currently estimated for 1967 include 61% in the Italian coastal works, 57% in the Netherlands, 36% in Belgium, 32% in northern France, 27% in northern Germany, 24% in the Ruhr, 23% in Luxembourg, 15% in the Saar and 6% in Lorraine. Some time soon after 1967, the Lorraine percentage will rise following the completion of a new works now planned by two big companies there.

Basic Bessemer, and to a lesser extent open-hearth, steels will therefore lose ground steadily, partly to electric-furnace but very much more to the oxygen-blown qualities.

TABLE 21

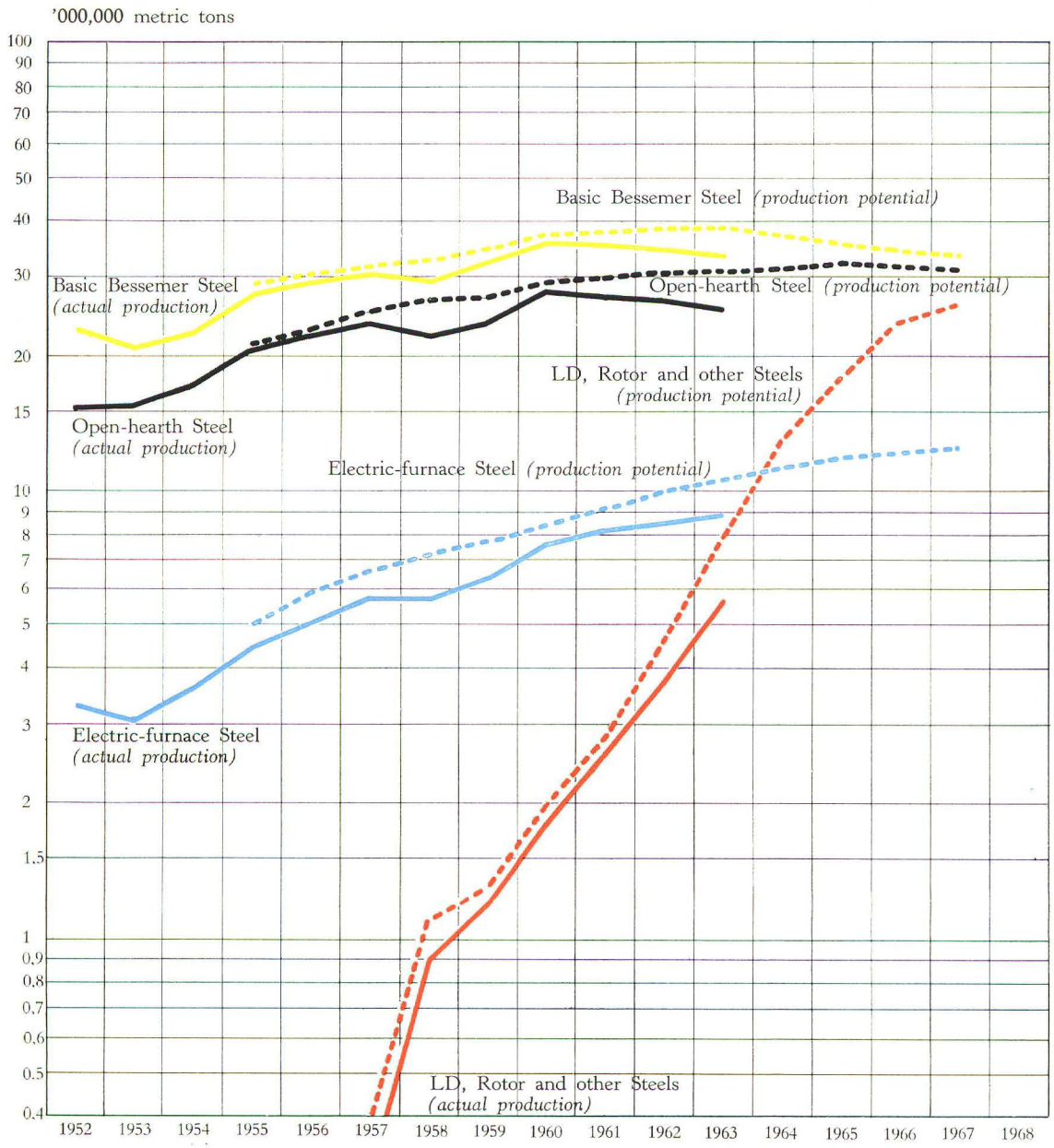
Shares of the Different Steelmaking Processes in 1952, 1963 and 1967

%

Production process	Actual production	Production potential	
	1952 Actual share	1963 Actual share	1967 Estimated share
Basic Bessemer	55·0	43·7	32·6
Open-hearth	36·4	35·2	30·2
Electric-furnace	7·9	12·1	12·0
L/D, Rotor, etc.	0·7	9·0	25·2
Total	100·0	100·0	100·0

FIGURE 9

Actual Production and Production Potential of Crude Steel by Production Process



Aggregate Community crude-steel production potential is now expected to grow from 1963 to 1967 at 4·0% per annum, the lower rate for the traditional types of plant being offset by vigorous expansion in oxygen steelmaking capacity. This is some way below last year's estimate of 5·2% for 1963-66, which was, incidentally, the annual average rate of growth in actual production from 1952 to 1963.

TABLE 22

Mean Annual Rate of Development in the Crude-Steel Sector, by Production Processes

%

Production process	Mean annual rate of increase in actual production 1952-63	Estimated mean annual rate of increase in production potential 1963-67
Pig-iron (for comparison)	+ 4·0	+ 3·8
Basic Bessemer	+ 3·4	— 3·5
Open-hearth	+ 4·7	+ 0·2
Electric-furnace	+ 9·4	+ 3·8
L/D, Rotor, etc.	+30·5	+34·4
Total crude steel	+ 5·2	+ 4·0

c) Production of Rolled Products

As shown in Table 16, capital expenditure on rolling-mills and anciallary plant has increased from 33% of the total in 1958-59 to 49% in 1963, and is expected to reach 50% in 1964, a figure so far only exceeded in 1954-55.

Absolutely, the 1963 and planned 1964 increases are particularly substantial in the Ruhr, and still more so in Italy (coastal and inland works); in northern and eastern France, on the other hand, investment has fallen or is likely to fall.

TABLE 23

Capital Expenditure on Rolling-Mills, 1954—1965

$ '000,000 (E.M.A. units of account)

Type of mill	Actual expenditure										Estimated expenditure (Categories A+B)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Heavy and medium section mills	29.1	35.8	28.6	32.5	30.1	44.7	55.0	66.4	66.0	75.1	65.0	50.8
Small-bar mills	29.8	38.7	37.7	32.4	25.7	15.2	19.2	26.2	27.5	43.9	65.3	41.2
Wire mills	15.5	12.4	14.0	14.3	5.6	4.4	16.2	28.4	51.0	45.6	26.8	11.3
Total, section mills	*74.4*	*86.9*	*80.3*	*79.2*	*61.4*	*64.3*	*90.4*	*121.0*	*144.5*	*164.6*	*157.1*	*103.3*
Hoop and strip mills	13.6	12.5	5.6	12.5	5.7	2.8	4.3	5.5	8.6	8.2	5.5	4.2
Plate and universal mills	41.3	36.3	24.2	36.5	20.6	15.3	24.8	35.4	46.2	64.0	29.7	21.7
Hot sheet mills	4.3	3.6	1.8	2.0	2.3	3.2	3.7	6.0	2.1	2.3	1.3	0.1
Cold sheet mills	3.6	2.8	0.7	0.1	0.7	0.5	0.4	0.7	0.4	0.1	0.5	0.5
Hot wide-strip mills	31.6	35.8	30.3	31.9	16.2	16.0	27.5	67.0	65.5	158.6	129.9	57.3
Cold wide-strip mills	45.2	52.6	44.4	28.5	32.4	29.8	114.8	178.6	175.9	130.9	146.9	76.2
Total, flat-product mills	*139.6*	*143.6*	*107.0*	*111.5*	*77.9*	*67.6*	*175.5*	*293.2*	*298.7*	*364.1*	*313.8*	*160.0*
Blomming and slabbing mills	23.1	41.3	31.2	45.1	31.6	40.4	43.6	74.8	93.6	112.3	87.8	54.5
(*of which:* continuous-casting installations)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(2.3)	(4.1)	(9.8)	(12.3)
Miscellaneous	28.0	29.3	26.4	46.6	36.1	26.3	40.8	43.4	60.8	72.8	59.8	28.0
Total	**265.1**	**301.1**	**244.9**	**282.4**	**207.0**	**198.6**	**350.3**	**532.4**	**597.6**	**713.8**	**618.5**	**345.8**

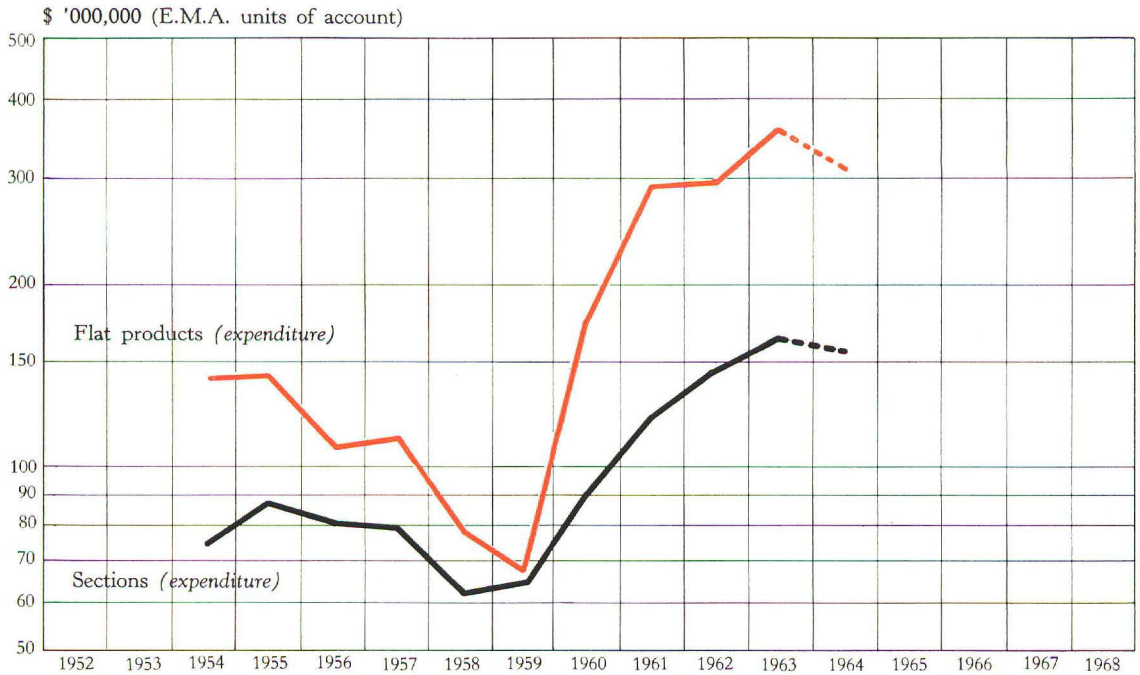
The rise in capital expenditure which began in 1960 has been especially marked in respect of wide-strip capacity, only abating somewhat for the cold mills in 1963, and showing signs of doing so for the hot mills in 1964. In 1961, the increase spread to the blooming and slabbing mills, in 1962 to the plate and wire mills, and in 1963 to the small-bar mills. Spending is thus going up in practically all parts of the rolling sector, though the section mills are less to the fore than they were from 1954 to 1959.

Special mention should be made of the growing interest in continuous casting : the share of these installations in the industry's total expenditure on rolling capacity, which was 0·5% in 1962 and 1963, is expected to increase to 1·5% in 1964 and approximately 3·6% in 1965. The investment concerned, past and future, is mainly concentrated in Germany, in the Ruhr and Saar.

FIGURE 10

Sections and Flat Products

A — Capital expenditure



B — Actual production and production potential

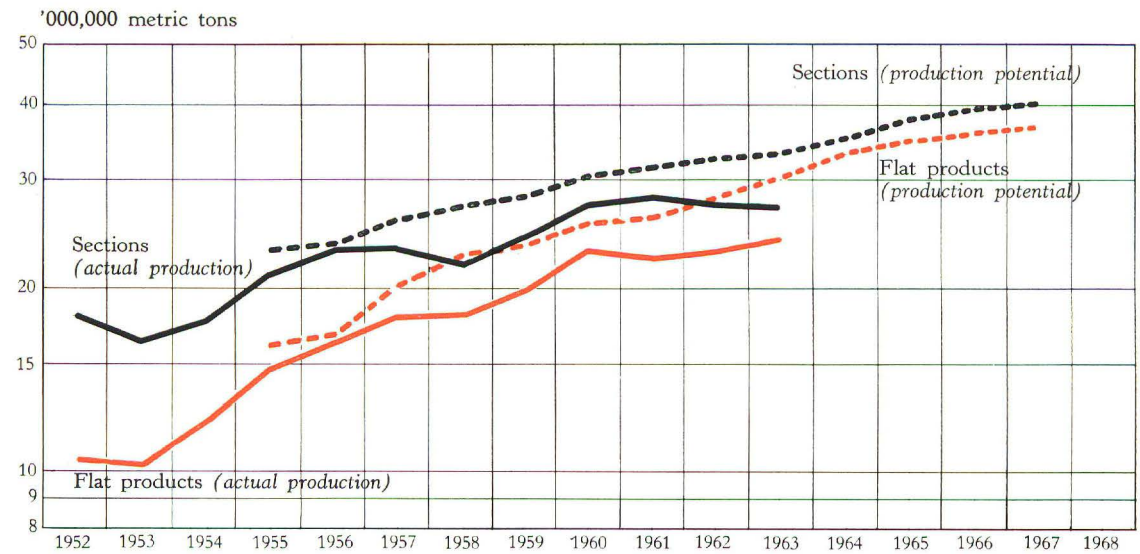


TABLE 24

Shares of the Different Types of Mill in Capital Expenditure in the Rolling Sector, 1954—1964

In %

Type of mill	Average share 1954-59	Share 1960	Share 1961	Share 1962	Share 1963	Estimated share 1964
Section mills	30	26	23	24	23	25
Flat-product mills	43	50	55	50	51	51
(*of which*: wide-strip mills)	(26)	(40)	(46)	(40)	(35)	(40)
Blooming and slabbing mills	14	12	14	16	16	14
(*of which*: continuous-casting installations	(—)	(—)	(—)	(0.4)	(0.6)	(1.6)
Miscellaneous	13	12	8	10	10	10
Total	**100**	**100**	**100**	**100**	**100**	**100**

Between 1952 and 1963, actual production of rolled products increased at a mean annual rate of 5·5 % overall, 3·8% for sections (wire-rod 6·3%) and 7·8% for flats (cold-reduced sheet 26·0%). The rate of increase in production potential for 1963-67 is expected to go up to 4·3% for sections and down to 5·1% for flats : thus although capacity on the flat-products side is still expanding faster than on the sections side, the respective rates of growth are gradually converging.

TABLE 25

Mean Annual Rate of Development in the Rolling Sector, by Types of Finished Product

Product	Actual production			Production potential		
	1952 ('000,000 m.t.)	Cumulative mean annual rate of increase in %	1963 ('000,000 m.t.)	1963 ('000,000 m.t.)	Cumulative mean annual rate of increase in %	1967 ('000,000 m.t.)
Heavy and light sections, incl. tube rounds and squares	15·2	+ 3·2	21·6	27·2	+ 3·9	31·7
Wire-rod	2·8	+ 6·3	5·5	7·0	+ 5·6	8·7
Total, sections	*18·0*	*+ 3·8*	*27·1*	*34·2*	*+ 4·3*	*40·4*
Hoop and strip and tube strip	2·3	+ 6·3	4·5	5·7	+ 2·5	6·3
Plate of 3 mm and over	4·3	+ 5·1	7·4	10·2	+ 3·9	11·9
Hot-rolled sheet under 3 mm	3·1	— 4·5	1·9	2·6	— 1·0	2·5
Cold-reduced sheet under 3 mm	0·8	+26·0	10·2	12·0	+ 8·3	16·5
Total, flat products	*10·5*	*+ 7·8*	*24·0*	*30·5*	*+ 5·1*	*37·2*
Total, rolled products	28·5	+ 5·5	51·1	64·7	+ 4·7	77·6
(*of which*: products rolled in continuous and semi-continuous mills)	(.)	(.)	(29·1)	(36·2)	(+ 5·9)	(45·6)

Production potential for flat products in 1952 accounted for 37% of the total potential for finished rolled products, and in 1963 for 47%; in 1967 the proportion is expected to be 48%, or close on one-half. Between 1963 and 1967 the proportion of steel to be rolled in continuous and semi-continuous mills in the Community should increase from 56% to 59%.

Table XXV*b* annexed gives the position with regard to one type of semi-finished product very much in demand, namely coils, produced mostly for cold rerolling in continuous mills : the potential of the hot wide-strip mills is there shown to have increased from 8,000,000 metric tons in 1955 to 13,800,000 in 1963, with an estimated further expansion to 23,000,000 in 1967, representing an average annual rate of growth of 9% over twelve years.

d) General Services

Capital expenditure on power-generating plant in the iron and steel industry doubled between 1954 and 1963. The effects of this expansion on the production potential for electric current are dealt with in Section II, *d* above, in connection with the expected development of pithead power-stations (see Table 12).

Expenditure on other general services, and more especially on civil-engineering operations, increased sevenfold over the same period, rising particularly steeply in and after 1960-61, in connection, chiefly, with projects for the construction of a number of integrated plants on the North Sea and Mediterranean coasts.

TABLE 26

Capital Expenditure on the General Services of the Iron and Steel Industry, 1954—1965

$ '000,000 (E.M.A. units of account)

Type of installation	Actual expenditure										Estimated expenditure (Categories A+B+C)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Power-generating plant and distribution networks	43.0	39.3	32.0	43.2	56.8	58.3	60.7	71.7	84.2	92.1	80.1	42.8
Miscellaneous	31.5	37.8	60.9	70.7	78.9	69.7	96.6	137.4	162.9	227.4	210.7	100.6
Total	**74.5**	**77.1**	**92.9**	**113.9**	**135.7**	**128.5**	**157.3**	**209.1**	**247.1**	**319.5**	**290.8**	**143.4**

FIGURE 11

Actual Production and Production Potential for the Various Categories of Finished Rolled Product

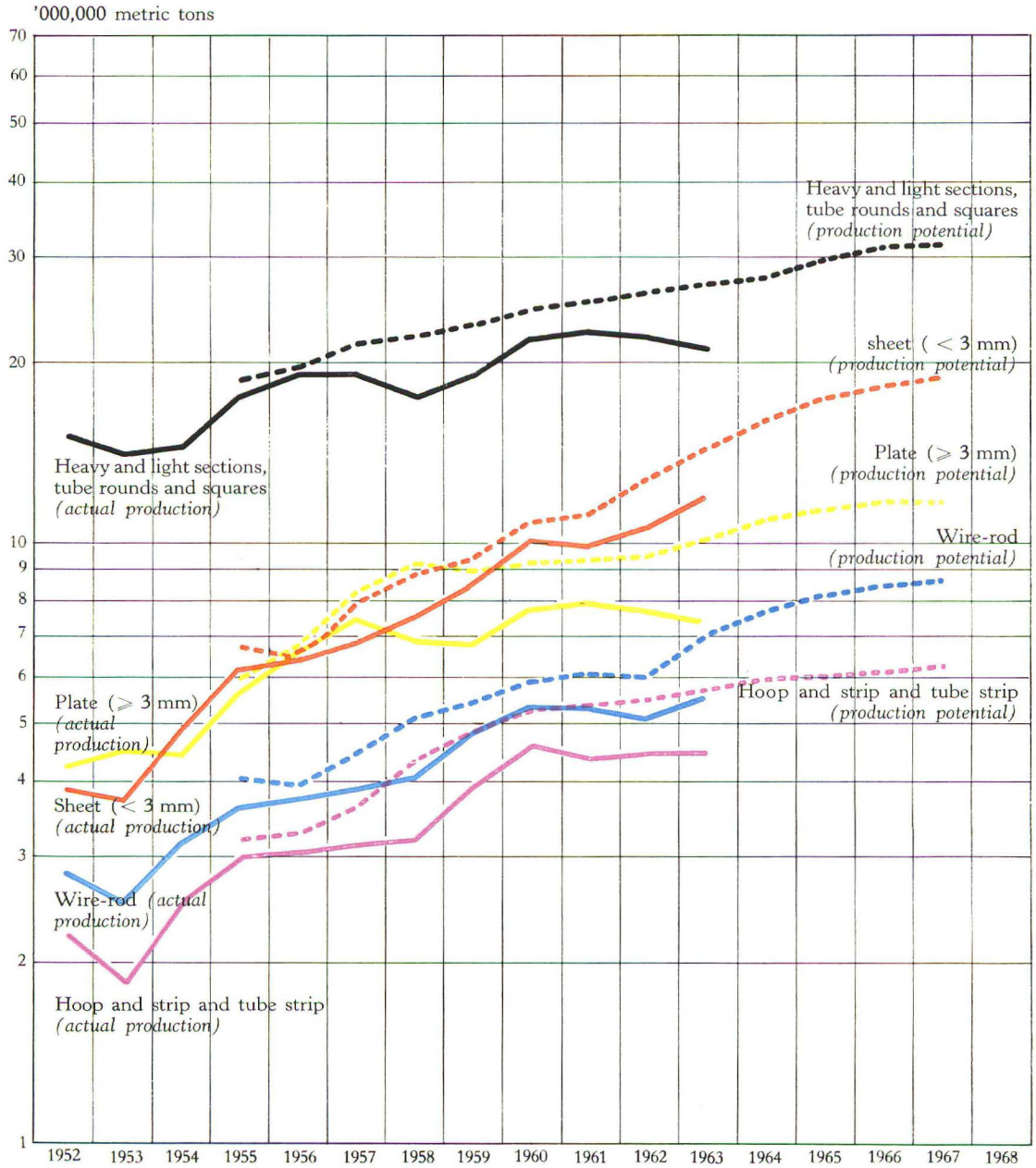
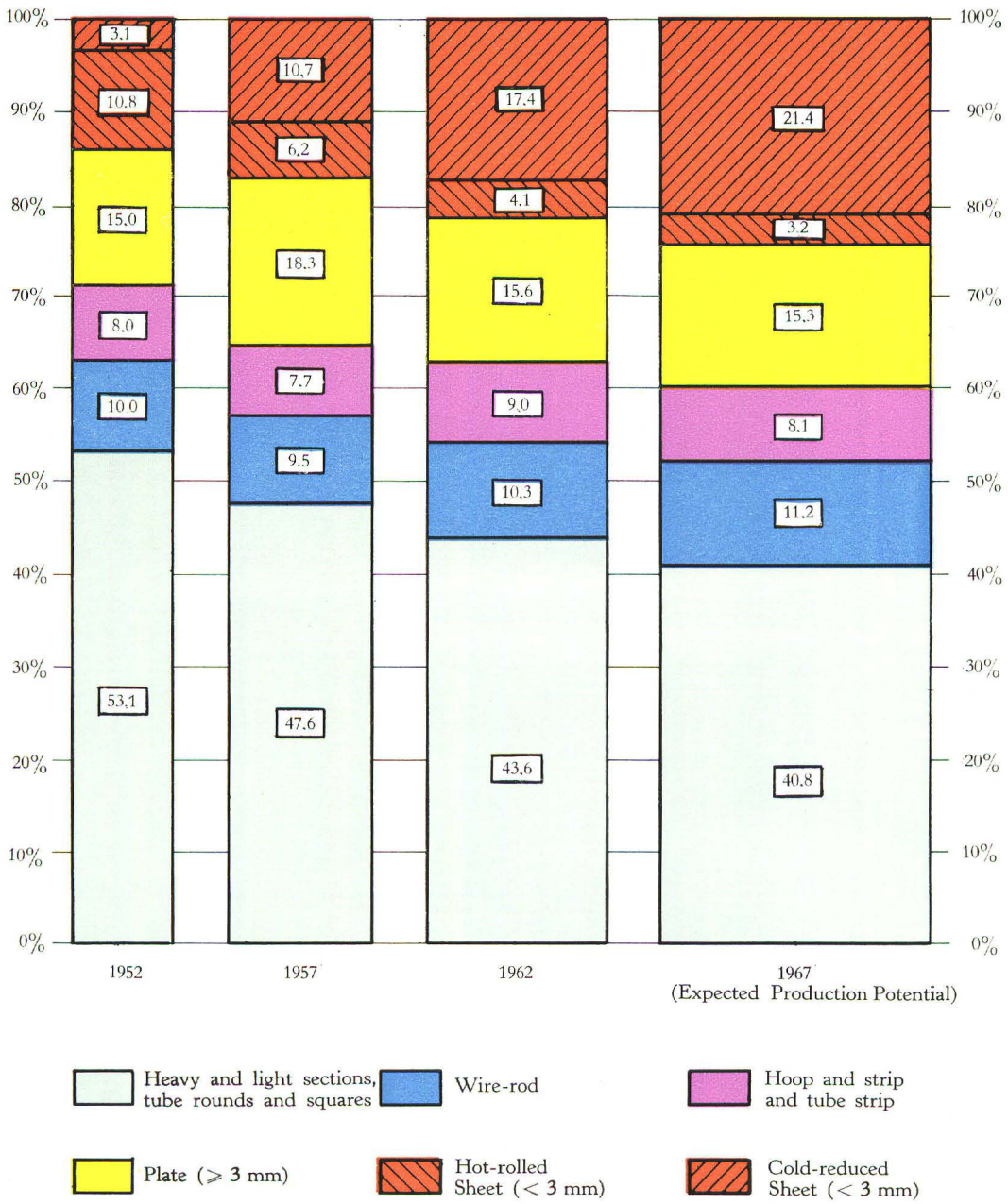


FIGURE 12

Breakdown of Total Production of Finished Rolled Products by Types of Products



V — CONCLUSIONS

From 1957 to 1962, each successive annual investment survey indicated a lower rate of expansion in Community production potential for **hard coal**, and from 1963 onwards the forward estimates are of a slow but steady contraction, the latest data now suggesting a reduction from 243,000,000 metric tons in 1963 to 241,000,000 in 1967. The latter figure may be set against the forecast of approximately 245,000,000 given for the Community's 1970 requirements of coal from all sources in the Study on the Long-Term Energy Outlook drawn up in December 1962 by the Executives of the three European Communities.

The 1964 survey also points for the first time to a certain contraction in Community **coke** potential : despite additions to coking capacity at the Italian coastal iron and steel plants, the maximum possible production, given 96% utilization, is now expected to fall from 79,000,000 tons in 1963 to 76,000,000 in 1967, representing an input of rather less than 100,000,000 tons of coking coal. If the 1967 demand from consumer sectors other than the blast-furnaces and sintering-plants is put at approximately 20,000,000 tons, this leaves about 56,000,000 for the iron and steel industry — a supply well in line with the probable pig-iron potential in that year, particularly in view of the expected further reduction in specific consumption of coke per ton of pig-iron produced.

The expansion in the **thermal power-station** sector will continue, though more slowly than was suggested by earlier surveys, the maximum electric capacity of the pithead and steelworks-owned centres together increasing from an average 12,800 MW in 1963 to an average 15,000 MW in 1967. At the present operating rates, their combined electricity output may be expected to rise from 55,800 million kWh to 65,700 million; of this, 48,900 million would be supplied in 1967 by the pithead stations, which, assuming a specific consumption of about 0·4 kg./kWh, would burn just under 20,000,000 tons of coal, mainly in the form of low-grade products. To this figure must of course be added the coal consumption of thermal power-stations not rated as "pithead stations."

Capital expenditure in the Community **iron-ore** industry began markedly to decline in 1963. Only the producers in Lorraine, and to a very minor extent those in Western France, are still thinking in terms of expanding their production potential in the years ahead, and even the Lorraine mines' estimates are for only 72,000,000 tons in 1966, as compared with the figure of 75,000,000 suggested in the 1963 survey. The estimates of aggregate Community potential in 1966 have been revised since last year from 108,500,000 tons to 101,000,000, so that the proportion of imported high-grade ores in the Community iron and steel industry's total flow of supplies will continue to rise rapidly.

The iron and steel enterprises view their prospects with much more confidence : in continuance of various major projects launched earlier, they approved in 1963 a record outlay amounting to something like $ 20 per ton of steel produced, nearly twice the specific expenditure for 1959 or for almost any year before that.

Although several integrated coastal plants are building, a growing proportion of capital expenditure is going on the modernization of existing equipment, as is clearly shown by the fact that the estimated rate of expansion in capacity is decreasing despite the very large sums being invested. Indeed, it would appear that the modernization drive is now extending to all three sectors of the industry — the blast-furnaces, the steelworks proper and the rolling-mills — whereas formerly some Community enterprises were more anxious to expand than to imitate their main competitors in going over the latest production processes in a big way.

The January 1, 1964, estimates suggest a maximum possible production of pig-iron in 1967, assuming 96% utilization, of 73,500,000 metric tons — less than the 1962 survey's figure of 75,000,000 tons for 1965. This deceleration in the **blast-furnace** sector is, however, counter-balanced by an improvement in the driving rate as a result of the increase in the ratio of maximum production of sinter to maximum production of pig-iron, which will make it possible to step up the proportion of sintered ore in the blast-furnace burden.

The increasing concentration on oxygen steels, mainly at the expense of basic Bessemer, is reducing the average amount of pig-iron required per ton of crude steel produced, so that the falling-off in blast-furnace expansion is not greatly affecting the trend in the **steelworks** sector. The current estimates put maximum crude-steel production in 1967, given 96% utilization, at 98,500,000 tons, altogether, including 25,000,000 tons of oxygen steel. While the total figure is no higher than last year's estimated total for 1966, stress must be laid on the very high proportion represented by the oxygen-blown steels, namely 26%, exactly the percentage suggested in the Community's latest General Objectives of April 5, 1962.

Investment in the **rolling-mill** sector, which in and after 1960 was concentrated more particularly on hot and cold-wide-strip capacity, is now more evenly divided among the roughing, the flat-product and the section mills. While modernization is going ahead actively on the traditional roughing mills, a number of enterprises, principally in Germany, are experimenting with the new continuous-casting processus. The proportion of finished products rolled in continuous or semi-continuous mills in the Community as a whole is expected by 1967 to be nearly 60%, as against a mere 49% in 1960 and 56% in 1963.

ANNEXES

I — Basic Definitions

II — Statistical Tables

I — BASIC DEFINITIONS

To ensure that the figures obtained shall be comparable, the High Authority has adopted the following definitions.

I — INVESTMENT

(a) Capital expenditure

Capital expenditure means all expenditure shown or to be shown on the credit side of the balance-sheet as fixed assets in the year under review, except in respect of the collieries and pithead power-stations where the expenditure to be shown is that which would have been, or would be, entered on the credit side of the balance-sheet in accordance with Document AM 43 (*Directives relatives au calcul de l'amortissement des biens investis dans l'industrie charbonnière de la C.E.C.A.*), drawn up by the study committee of the coal producers of Western Europe.

The term does not, however, cover the financing of workers' housing schemes, financial participations and all investment not directly connected with Treaty products (chemical and synthetic products other than the conventional by-products of coking-plants, castings, tubes, etc.).

(b) Classification of investment projects

As regards the trend in capital expenditure and related production potential, the same breakdown of capital schemes as that used in the questionnaires submitted to the enterprises has been adopted, *viz.*

A — *Projects completed or in progress before January 1, 1964;*

B — *Projects approved but not yet in progress on January 1, 1964:*

C — *Other projects planned to be started between January 1, 1964 and December 31, 1966.*

In the case of the iron and steel industry except for the capacity of the power-stations the figures in respect of category C projects have been disregarded.

(c) Unit of account

The unit adopted is the *dollar* unit of account of the European Payment Union (E.P.U.) and subsequently that of the *European Monetary Agreement* (E.M.A.). Their equivalents in national currencies are given in the following table :

Country	Currency	Up to and including 1956	1957	1958	1959 and 1960	1961	1962 and onwards
Germany (Fed. Rep.)	DM	4.20	4.20	4.20	4.20	4.03(4)	4.00
Belgium/Luxembourg	Frb.-Frl.	50	50	50	50	50	50
France (1)	Frf, (2)	350	377 (3)	420	4.937(3)	4.937	4.937
Italy	Lit.	625	625	625	625	625	625
Netherlands	Fl.	3.80	3.80	3.80	3.80	3.65(5)	3.62

1) And Saar up to July 5, 1959.
2) N.F. as from January 1, 1959.
3) Mean between official rate of exchange in force from January 1 to August 11, 1957 (350) and that in force from August 12 to December 31, 1957. (420).
4) Mean between official rate of exchange in force from January 1 to March 3, 1961 (4,20), and that in force from March 4 to December 31, 1961 (4.00).
5) Mean between official rate of exchange in force from January 1 to March 3, 1961 (3.80), and that in force from March 4 to December 31, 1961 (362).

(d) Capital-goods price indices

The statistics for the annual investment surveys are compiled from the enterprises' declarations at the ruling prices for the year concerned, the figures being converted into dollar units of account at the official rates shown above.

Although it is extremely difficult to work out capital-goods price indices applying to all the Community industries and countries, the High Authority's publication of 1963, *La C.E.C.A. 1952-1962 ; Résultats, Limites, Perspectives*, suggests (p. 104) the following, basis 1961 = 100, and brought up to date in respect of 1962 :

1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
81.6	80.5	79.9	82.1	85.4	89.9	92.9	94.9	97.2	100.0	105.0

The figures in this report can thus be converted to 1961 prices by applying the index for the year concerned to the annual expenditures recorded.

II — MINING INDUSTRIES

(a) Coal

Extraction potential. — The figures shown represent the net maximum output technically achievable, allowing for the performance capacity of the different installations at the collieries (underground, surface, washeries), and assuming that it is not impeded by marketing difficulties, strikes or manpower shortages.

A number of mines with a low output, including the German "small mines," have not been included as regards either capital expenditure or production potential. They accounted for a production in 1963 of only about 1.1 million metric tons (of which 0.7 million not shown in any official statistics), out of 222.9 million, *i.e.* less than 0.5 %.

(b) Coke

Production potential. — The figures shown represent the maximum annual coke production achievable with the plant in operation at a given date, taking into account the minimum coking time technically allowable for the normal composition of the coking blend, with due regard to the state of the ovens and the performance capacity of the ancillary and auxiliary installations. It is assumed that a ready market and unlimited raw-material supplies are assured.

(c) Pithead power-stations

Maximum electric capacity of a power-station means the maximum electric power that could be produced throughout several hours of continuous operation with all plant in full working order and with adequate fuel stocks of normal quality, and assuming that there exist no restrictive external factors (fuel of inferior quality, shortage of cooling water, inadequacy of the network receiving the power produced, etc.), but taking full account of all plant limitations that may arise out of the maximum electric capacity of each component of the main plant and auxilaries of the station.

The net output represents the maximum power that can be supplied, measured at the station busbars after deducting the electric power taken by the station auxiliaries and the losses in the station transformers, if any.

Current produced means the net production of electric current measured at the station busbars after deducting the electric current taken by the station auxiliaries and the losses in the station transformers, if any.

(d) Iron ore

Extraction potential. — The figures shown represent the maximum continuous output which can be achieved by each mine, allowing for the performance capacity of the different installations (underground, surface, ore-preparation plant where the ore is sold only after treatment) and for estimated manpower availabilities during the year under consideration.

III. — IRON AND STEEL INDUSTRY

(a) Production potential

Sinter, pig-iron, crude-steel and rolled-products production potential means the maximum production which can effectively be achieved by all the different sections of the plant together, allowing for possible bottlenecks in one section holding up all the others. This maximum possible production is defined as follows.

> "Maximum possible production is the maximum production which it is possible to attain during the year under normal working conditions, with due regard for repairs, maintenance and the usual holidays, employing the plant available at the beginning of the year but also taking into account both additional production from any new plant installed and any existing plant to be finally taken off production in the course of the year. Production estimates must be based on the probable composition ratios of the charge in each plant concerned, on the assumption that the raw materials will be available."

In the case of steels produced mainly from pig-iron, the production potential is estimated in respect of the blast-furnaces and steelworks as a whole and not each steelworks individually.

The capital expenditure of a number of very small iron and steel works has not been included in this survey. It was assumed that the production potential of these enterprises would over the next few years remain at the level of actual production for 1963. The production potentials mentioned in this report therefore exceed those actually declared by a certain percentage which varies from sector to sector but does generally not exceed 0.4 % for crude steel and 1.3 % for finished rolled products.

As the production potential of the *rolling-mills* is governed by the shape (section), thickness and width of the material fed into the mill (metal input) and the products to be obtained, we have proceeded on the assumption that, should no forecast be possible as to future steel-rolling conditions, it will be necessary to base estimates on the conditions obtained in 1963. The same applies to the apportionment of steel availabilities among the different types of mill.

(b) Steelworks-owned power-stations

See "Mining Industries", Section II, c. for definitions of maximum capacity and electric current.

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HARD COAL INDUSTRY

Total investment

TABLE I

Capital Expenditure by Coalfields

$ '000,000 (E.M.A. units of account)

Coalfield	Actual expenditure							Estimated expenditure	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Ruhr	174.98	175.46		192.57	200.69	204.76	166.96	181.54	144.66
Aachen	11.16	9.77		13.33	18.09	19.51	9.99	7.12	2.66
Lower Saxony	9.82	3.71		4.19	5.06	4.98	5.89	8.32	10.70
Saar	19.36	18.96		31.46	33.82	32.92	35.36	26.91	23.32
GERMANY (F.R.)	*215.32*	*207.90*		*241.55*	*257.66*	*262.17*	*218.20*	*223.89*	*181.34*
Campine [2])	16.89	15.76		10.98	14.06	7.64	11.65	11.10	9.75
Southern Belgium [2])	30.07	25.27		20.16	18.48	16.45	16.96	22.89	14.21
Dutch Limburg [2])	15.41	19.67		11.11	14.20	21.97	18.98	15.88	10.33
BELGIUM and NETHERLANDS	*74.09*	*66.00*		*44.40*	*49.77*	*50.64*	*50.39*	*51.77*	*34.86*
Nord/Pas-de-Calais	55.18	57.14		44.41	38.24	33.11	24.34	16.02	16.97
Lorraine	52.83	45.55		24.95	28.29	23.03	20.01	22.51	20.70
Centre-Midi	24.14	14.99		13.89	9.52	7.70	10.11	9.35	7.13
Independent plants [3])	16.46	11.08		0.16	0.28	0.10	0.74	1.45	—
FRANCE	*148.61*	*128.76*		*83.41*	*76.33*	*63.94*	*55.20*	*49.33*	*44.80*
ITALY	*6.69*	*5.53*		*1.61*	*0.89*	*4.41*	*3.04*	*8.97*	*4.80*
Total	**444.71**	**408.19**		**370.97**	**384.65**	**381.16**	**326.83**	**333.96**	**265.80**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Exclusive of mine-owned and independent coking-plants, which are, however, included in the total for Belgium and the Netherlands.
[3]) Up to 1957, coking and briquetting plants; after 1957, briquetting plants only.

HARD-COAL COLLIERIES

Investment

TABLE II

Capital Expenditure by Coalfields

$ '000,000 (E.M.A. units of account)

Coalfield	Actual expenditure							Estimated expenditure	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Ruhr	83.23	103.14		107.94	124.51	117.14	112.23	121.97	88.03
Aachen	9.07	8.61		8.51	10.36	10.79	8.18	5.76	2.39
Lower Saxony	4.09	2.60		4.01	4.42	3.61	5.28	4.78	3.12
Saar	15.16	11.97		19.55	24.03	19.06	19.71	16.54	14.35
GERMANY (F.R.)	*111.55*	*126.32*		*140.01*	*163.32*	*150.60*	*145.40*	*149.05*	*107.89*
Campine	13.45	12.89		6.95	6.48	7.08	10.61	7.45	6.59
Southern Belgium	24.58	22.87		9.54	8.92	8.10	10.39	14.03	9.92
BELGIUM	*38.03*	*35.76*		*16.49*	*15.40*	*15.18*	*21.00*	*21.48*	*16.51*
NETHERLANDS (Limburg)	*11.60*	*16.87*		*9.57*	*12.05*	*15.71*	*12.44*	*11.83*	*6.79*
Nord/Pas-de-Calais	38.42	36.86		31.57	22.15	13.73	14.07	9.16	14.48
Lorraine	28.07	27.84		18.83	14.34	18.23	18.03	20.26	19.25
Centre/Midi	12.84	10.35		8.52	7.47	5.93	7.04	7.34	6.25
FRANCE	*79.33*	*75.05*		*58.92*	*43.96*	*37.89*	*39.14*	*36.76*	*39.98*
ITALY (Sulcis and La Thuile)	*1.28*	*2.40*		*1.00*	*0.61*	*1.12*	*1.68*	*1.84*	*0.84*
Total	241.79	256.40		225.99	235.34	220.50	219.66	220.96	172.01

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.

MINE-OWNED AND INDEPENDENT COKING-PLANTS [1])

Investment

TABLE III

Capital Expenditure by Areas

$ '000,000 (E.M.A. units of account)

Area	Actual expenditure							Estimated expenditure	
	1954	1955	...[2])	1960	1961	1962	1963	1964	1965
Mine-owned coking-plants									
Ruhr	32.55	24.83		19.62	18.60	17.11	10.10	15.98	8.84
Aachen	1.43	0.34		0.31	1.12	0.52	0.30	0.45	0.05
Lower Saxony	0.01	0.05		—	—	—	—	—	—
Saar	2.31	2.03		2.26	1.18	5.39	3.80	1.40	1.21
GERMANY (F.R.)	*36.30*	*27.25*		*22.19*	*20.90*	*23.02*	*14.20*	*17.83*	*10.10*
BELGIUM and the NETHERLANDS	*9.70*	*4.85*		*1.08*	*1.87*	*2.74*	*1.16*	*0.74*	*0.56*
Nord/Pas-de-Calais	7.29	7.61		5.02	6.47	4.43	1.98	1.40	0.23
Lorraine	13.55	12.01		4.15	12.65	4.47	1.02	0.98	0.51
Centre/Midi	1.01	0.50		1.25	1.21	1.18	0.87	0.50	—
FRANCE	*21.85*	*20.12*		*10.42*	*20.33*	*10.08*	*3.87*	*2.88*	*0.74*
Total	**67.85**	**52.22**		**33.69**	**43.10**	**35.84**	**19.23**	**21.45**	**11.40**
Independent coking-plants									
BELGIUM and the NETHERLANDS	*2.02*	*0.45*		*1.07*	*1.16*	*1.84*	*1.64*	*1.16*	*0.04*
FRANCE [3])	*15.47*	*10.31*		—	—	—	—	—	—
ITALY	*2.00*	*1.56*		*0.58*	*0.28*	*3.29*	*1.36*	*7.13*	*3.96*
Total	**19.49**	**12.32**		**1.65**	**1.44**	**5.13**	**3.00**	**8.29**	**4.00**
Grand Total	**87.34**	**64.54**		**35.34**	**44.54**	**40.97**	**22.23**	**29.74**	**15.40**

[1]) Including low and medium-temperature coking-plants.
[2]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[3]) Exclusive of Gaz de France from 1957.

HARD-COAL BRIQUETTING-PLANTS

Investment

TABLE IV

Capital Expenditure by Areas

$ '000,000 (E.M.A. units of account)

Area	Actual expenditure							Estimated expenditure	
	1954	1955	.. [1]	1960	1961	1962	1963	1964	1965
Ruhr	0.85	2.42		0.22	0.12	0.82	2.07	0.78	0.50
Aachen	—	0.09		—	0.17	0.51	0.33	0.14	—
Lower Saxony	0.05	0.08		0.11	0.46	0.51	0.24	0.12	0.02
GERMANY (F.R.)	*0.90*	*2.59*		*0.33*	*0.75*	*1.84*	*2.64*	*1.04*	*0.52*
Campine	—	—		—	—	—	0.36	3.36	1.08
Southern Belgium	0.49	0.81		0.59	0.56	1.27	2.80	2.83	0.67
BELGIUM	*0.49*	*0.81*		*0.59*	*0.56*	*1.27*	*3.16*	*6.19*	*1.75*
NETHERLANDS (Limburg)	*0.24*	*0.27*		*1.26*	*0.38*	*1.18*	*0.37*	*0.40*	*0.62*
Nord/Pas-de-Calais	0.57	1.95		3.46	1.27	0.31	0.92	2.90	1.86
Centre/Midi	0.66	0.93		1.28	0.19	0.37	1.51	0.50	0.81
Independent plants	0.99	0.77		0.16	0.28	0.10	0.74	1.45	—
FRANCE	*2.22*	*3.65*		*4.90*	*1.74*	*0.78*	*3.1z*	*4.85*	*2.67*
Total	**3.85**	**7.32**		**7.08**	**3.43**	**5.07**	**9.34**	**12.48**	**5.56**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.

PITHEAD POWER-STATIONS [1]

Investment

TABLE V

Capital Expenditure by Areas

$ '000,000 (E.M.A. units of account)

Area	Actual expenditure							Estimated expenditure	
	1954	1955	...[2]	1960	1961	1962	1963	1964	1965
Ruhr	58.35	45.07		64.79	57.46	69.69	42.56	42.81	47.29
Aachen Lower Saxony Saar	8.22	6.67		14.23	15.23	17.02	13.40	13.16	15.54
GERMANY (F.R.)	*66.57*	*51.74*		*79.02*	*72.69*	*86.71*	*55.96*	*55.97*	*62.83*
Campine	3.44	2.87		4.03	7.58	0.56	0.68	0.29	2.08
Southern Belgium	5.00	1.59		10.03	9.00	7.08	3.77	6.03	3.62
BELGIUM	*8.44*	*4.46*		*14.06*	*16.58*	*7.64*	*4.45*	*6.32*	*5.70*
NETHERLANDS (Limburg)	*3.57*	*2.53*		*0.28*	*1.77*	*5.08*	*6.17*	*3.65*	*2.89*
Nord/Pas-de-Calais	8.90	10.72		4.36	8.35	14.64	7.37	2.56	0.40
Lorraine	11.21	5.70		1.97	1.30	0.33	0.96	1.27	0.94
Centre/Midi	9.63	3.21		2.84	0.65	0.22	0.69	1.01	0.07
FRANCE	*29.74*	*19.63*		*9.17*	*10.30*	*15.19*	*9.02*	*4.84*	*1.41*
ITALY (Sulcis and La Thuile)	*3.41*	*1.57*		*0.03*	—	—	—	—	—
Total	111.73	79.93		102.56	101.34	114.62	75.60	70.78	72.83

[1]) Pithead power-stations proper and other power-generating plant at mines.
[2]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.

HARD COAL

Extraction

TABLE VI

Extraction and Extraction Potential by Coalfields

'000,000, metric tons net

Coalfield	Actual extraction potential			Actual extraction 1963	Expected extraction potential			
	1955	1962	1963		1964	1965	1966	1967
Ruhr	127·7	125·2	123·7	116·8	124·9	125·2	125·5	125·9
Aachen	7·5	8·3	7·8	7·8	8·2	8·3	8·4	8·5
Lower Saxony	2·7	2·1	2·2	2·2	2·3	2·4	2·4	2·4
Saar	17·6	16·7	16·8	14·9	16·4	16·1	15·7	15·1
GERMANY (F.R.)	*155·5*	*152·3*	*150·5*	*141·7*	*151·8*	*152·0*	*152·0*	*151·9*
Campine	10·5	11·7	11·8	10·1	11·9	11·9	11·9	12·2
Southern Belgium	21·9	13·0	12·6	11·3	12·2	12·2	12·4	12·8
BELGIUM	*32·4*	*24·7*	*24·4*	*21·4*	*24·1*	*24·1*	*24·3*	*25·0*
NETHERLANDS (Limburg)	*13·0*	*12·8*	*12·7*	*11·5*	*12·2*	*12·1*	*11·8*	*11·7*
Nord/Pas-de-Calais	29·4	28·4	28·2	24·7	27·5	27·5	27·0	26·0
Lorraine	13·6	15·0	15·0	13·2	15·0	15·0	15·0	15·0
Centre/Midi	13·0	12·0	11·6	9·8	11·4	10·9	10·7	10·5
FRANCE	*56·0*	*55·4*	*54·8*	*47·7*	*53·9*	*53·4*	*52·7*	*51·5*
ITALY (Sulcis and La Thuile)	*1·4*	*0·8*	*0·8*	*0·6*	*0·5*	*0·7*	*0·9*	*1·1*
Total	258·3	246·0	243·2	222·9	242·5	242·3	241·7	241·2

N.B. The above table does not take into account the extraction of some mines of small capacity (1.1 million metric tons in 1963 of which 0.7 million metric tons from the "small" German mines, which do not figure in the official production statistics).

COKE

Production

TABLE VII a

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1963 [1]	Expected production pontential			
	1955	1962	1963		1964	1965	1966	1967
Mine-owned coking-plants								
Ruhr	36·9	38·1	36·7	29·8	35·2	35·1	35·7	35·7
Aachen [2]	1·3	1·9	1·9	1·9	1·9	1·9	1·8	2·0
Lower Saxony	0·3	—	—	—	—	—	—	—
Saar	0·9	1·5	1·4	1·4	1·5	1·6	1·7	1·7
GERMANY (F.R.)	*39·4*	*41·5*	*40·0*	*33·1*	*38·6*	*38·6*	*39·2*	*39·4*
BELGIUM and the NETHERLANDS	*4·3*	*4·3*	*4·4*	*3·9*	*4·3*	*4·3*	*3·0*	*2·6*
Nord/Pas-de-Calais	3·9	5·0	5·2	4·5	5·2	5·2	5·2	5·2
Lorraine	1·0	2·3	2·6	2·4	2·7	2·7	2·7	2·7
Centre/Midi	0·6	0·9	0·9	0·9	0·9	0·9	0·9	0·9
FRANCE	*5·5*	*8·2*	*8·7*	*7·8*	*8·8*	*8·8*	*8·8*	*8·8*
Total	**49·2**	**54·0**	**53·1**	**44·8**	**51·7**	**51·7**	**51·0**	**50·8**
Independent coking-plants								
BELGIUM and the NETHERLANDS	*1·8*	*1·6*	*1·6*	*1·3*	*1·5*	*1·4*	*1·4*	*1·4*
FRANCE [3]	*2·0*	—	—	—	—	—	—	—
ITALY	*1·9*	*2·5*	*2·4*	*2·1*	*2·4*	*2·5*	*2·6*	*2·5*
Total	**5·7**	**4·1**	**4·0**	**3·4**	**3·9**	**3·9**	**4·0**	**3·9**
Steelworks-owned coking-plants								
GERMANY (F.R.)	*8·2*	*11·1*	*11·1*	*8·5*	*10·2*	*9·7*	*9·6*	*9·6*
BELGIUM and the NETHERLANDS	*5·1*	*6·4*	*6·8*	*6·0*	*6·5*	*6·4*	*6·5*	*6·6*
FRANCE	*4·1*	*4·6*	*4·7*	*4·2*	*4·6*	*4·7*	*4·7*	*4·7*
ITALY	*1·3*	*2·5*	*2·6*	*2·4*	*2·3*	*3·4*	*3·6*	*3·6*
Total	**19·0**	**24·6**	**25·2**	**21·1**	**23·6**	**24·2**	**24·4**	**24·5**
Grand Total	**73·9**	**82·7**	**82·3**	**69·3**	**79·2**	**79·8**	**79·4**	**79·2**

[1]) These figures are not the same as those published in the High Authority's *Bulletin Statistique*, since certain coking-plants have been classified differently.

[2]) Including electrode coke (109.000 metric tons produced in 1963).

[3]) Exclusive of Gaz de France after the beginning of 1955.

LOW- AND MEDIUM-TEMPERATURE COKE

Production

TABLE VII b

Production and Production Capacity

'000 metric tons

	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Mine-owned plants	552	473	476	413	495	495	495	495
Steelworks-owned plants	—	—	—	—	—	—	—	—

TABLE VIII

Coal Input and Coke Output (Mine-Owned, Independent and Steelworks-Owned Coking-Plants)

COKING-PLANTS

Technical Data

Type of coal	1955		1961		1962		1963	
	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%
Group V [1]	70 770	*77·9*	71 978	*75·0*	70 672	*75·0*	69 407	*75·4*
Group VI [1]	14 541	*16·0*	18 285	*19·1*	18 202	*19·3*	17 850	*19·4*
Other groups	5 215	*5·7*	4 915	*5·1*	4 621	*4·9*	3 932	*4·3*
Coke breeze and low-temperature coke breeze	366	*0·4*	727	*0·8*	781	*0·8*	873	*0·9*
Total	**90 892**	**100·0**	**95 905**	**100·0**	**94 276**	**100·0**	**92 062**	**100·0**
	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]
Coke production	68 850	757·5	71 746	748·1	70 645	749·3	69 301	752·8
	metric tons	% of total imput	metric tons	% of total input	metric tons	% of total input	metric tons	% of total input
Oil input	43 900	0·047	59 083	0·062	60 272	0·064	67 778	0·074

[1] The breakdown between Groups V and VI is only approximate.

[2] Output of coke (ton for ton) for coal input (also ton for ton). The figure is of practical value; considerable variations may, however, arise as a result of variations in the moisture content of the coal input and the coke produced.

		1955	1961	1962	1963
a) Coke-oven gas delivered	'000,000 stand. cub. metres	29 960	32 230	31 882	30 882
b) Gas output	stand. cub. metres per ton of wet-charged coal	330	336	338	335
c) Coke-oven gas delivered to outside enterprises or for consumption other than *d*)	'000,000 stand. cub. m.	20 335	22 359	22 203	21 678
	% of *a*)	(67·9)	(69·4)	(69·6)	(70·2)
d) Consumption for heating oven :					
1) Coke-oven gas	'000,000 stand. cub. m.	9 625	9 871	9 679	9 210
	% of 4)	(68·0)	(68·6)	(68·1)	(67·6)
2) Producer gas	'000,000 stand. cub. m.	1 119	1 094	1 351	1 350
	% of 4)	(7·9)	(7·6)	(9·5)	(9·9)
4) Blast-furnace and other gases	'000,000 stand. cub. m.	3 408	3 434	3 177	3 064
	% of 4)	(24·1)	(23·8)	(22·4)	(22·5)
4) Total consumption of gas for heating ovens	'000,000 stand. cub. m.	14 152	14 399	14 207	13 624
		(100·0)	(100·0)	(100·0)	(100·0)
e) Specific consumption in kcal/kg. of dry-charged coal (assuming an average moisture content of 8 %)		728	702	704	692

N.B. The gas volumes have been calculated on the basis of a calorific power of 4,300 Kilocalories per standard cubic metre.

HARD-COAL BRIQUETTES

Production

TABLE IX

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Ruhr	7·5	5·0	5·0	5·0	5·0	5·2	5·7	5·7
Aachen	0·5	0·7	0·8	0·8	0·9	1·0	1·0	1·0
Lower Saxony	0·5	0·5	0·6	0·6	0·6	0·6	0·6	0·6
GERMANY (F.R.)	*8·5*	*6·2*	*6·4*	*6·4*	*6·5*	*6·8*	*7·3*	*7·3*
Campine	—	—	—	—	—	—	0·2	0·4
Southern Belgium	2·3	2·4	2·5	2·1	3·0	3·0	3·0	3·2
BELGIUM	*2·3*	*2·4*	*2·5*	*2·1*	*3·0*	*3·0*	*3·2*	*3·6*
NETHERLANDS (Limburg)	*1·3*	*1·4*	*1·6*	*1·6*	*1·7*	*1·7*	*1·7*	*1·7*
Nord/Pas-de-Calais	4·6	4·2	4·0	3·4	4·2	4·3	4·2	4·2
Centre/Midi	2·2	1·9	1·9	1·9	2·0	1·8	1·8	1·8
Independent plants	2·2	1·2	1·5	0·9	1·2	1·2	1·2	1·2
FRANCE	*9·0*	*7·3*	*7·4*	*6·2*	*7·4*	*7·3*	*7·2*	*7·2*
Total	**21·1**	**17·3**	**17·0**	**16·3**	**18·6**	**18·8**	**19·4**	**19·8**

TABLE X

Output of Electric Current and Electric Capacity of Pithead Power-Stations [1]) by areas

Area	Actual electric capacity MW				Actual output 000,000 kWh 1963	Expected electric capacity MW			
	Beginning 1955	Beginning 1962	Beginning 1963	Beginning 1964		Beginning 1965	Beginning 1966	Beginning 1967	Beginning 1968
Ruhr	1 727	4 000	4 323	4 275	19 893	4 366	4 397	5 112	5 598
Aachen Lower Saxony Saar	527	676	728	1 111	3 304	1 102	1 240	1 390	1 285
GERMANY (F.R.)	*2 254*	*4 676*	*5 051*	*5 386*	*23 197*	*5 468*	*5 637*	*6 502*	*6 883*
Campine	253	407	407	407	1 499	413	413	413	413
Southern Belgium	388	793	768	886	4 794	886	886	886	1 004
BELGIUM	*641*	*1 200*	*1 175*	*1 293*	*6 293*	*1 299*	*1 299*	*1 299*	*1 417*
NETHERLANDS (Limburg)	*283*	*351*	*351*	*418*	*1 517*	*418*	*418*	*478*	*478*
Nord/Pas-de-Calais	856	1 321	1 193	1 360	5 539	1 360	1 360	1 360	1 236
Lorraine	475	686	698	713	2 841	713	723	723	723
Centre/Midi	459	565	564	564	1 740	564	557	557	557
FRANCE	*1 790*	*2 572*	*2 455*	*2 637*	*10 120*	*2 637*	*2 640*	*2 640*	*2 516*
ITALY (Sulcis and La Thuille)	—	*64*	—	—	—	—	—	—	—
Total	**4 968**	**8 863**	**9 032**	**9 734**	**41 127**	**9 822**	**9 994**	**10 919**	**11 294**

[1]) Pithead power-stations proper and other power-generating plant at mines.

PITHEAD POWER-STATIONS [1]

Technical Data

TABLE XI a

Specific Consumption of Coal 1963 [2]

C = Output of electric current in '000,000 kWh
P = Maximum electric capacity in '000 MW (average at beginning 1963 - beginning 1964)
H = Load-hours per annum (1963)

} by type of specific consumption

Specific consumption	< 3000 kcal/kWh			3000-3499 kcal/kWh			3500-3999 kcal/kWh			4000-4999 kcal/kWh			⩾ 5000 kcal/kWh			Total			Average consumption kcal/kWh
Country/Coalfield	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	
Ruhr	10 897	2 283	4 773	4 049	865	4 681	2 665	581	4 587	1 502	323	4 653	780	218	3 578	19 894	4 270	4 659	3 119
Aachen Lower Saxony Saar	2 073	463	4 477	824	164	5 024	—	—	—	358	243	1 473	49	20	2 450	3 304	890	3 712	3 153
GERMANY (F.R.)	*12 970*	*2 746*	*4 723*	*4 873*	*1 029*	*4 736*	*2 665*	*581*	*4 587*	*1 860*	*566*	*3 286*	*829*	*238*	*3 483*	*23 198*	*5 160*	*4 496*	*3 124*
Campine	771	140	5 507	427	141	3 028	157	55	2 855	144	71	2 028	—	—	—	1 499	407	3 683	2 990
Southern coalfields	4 423	685	6 457	290	76	3 816	—	—	—	81	66	1 227	—	—	—	4 794	827	5 797	2 554
BELGIUM	*5 194*	*825*	*6 296*	*717*	*217*	*3 304*	*157*	*55*	*2 855*	*225*	*137*	*1 642*	—	—	—	*6 293*	*1 234*	*5 100*	*2 658*
Nord/Pas-de-Calais	3 880	698	5 559	1 402	374	3 749	80	75	1 067	169	130	1 300	—	—	—	5 531	1 277	4 331	2 849
Lorraine	2 768	664	4 169	—	—	—	—	—	—	16	8	2 000	57	43	1 326	2 841	715	3 973	2 981
Centre/Midi	395	80	4 938	604	195	3 097	437	152	2 875	226	95	2 379	78	42	1 857	1 740	564	3 085	3 483
FRANCE	*7 043*	*1 442*	*4 884*	*2 006*	*569*	*3 525*	*517*	*227*	*2 278*	*411*	*233*	*1 764*	*135*	*85*	*1 588*	*10 112*	*2 556*	*3 956*	*2 995*
NETHERLANDS	—	—	—	*733*	*120*	*6 108*	*434*	*105*	*4 133*	*350*	*160*	*2 188*	—	—	—	*1 517*	*385*	*3 940*	*3 593*
Total	**25 207**	**5 013**	**5 028**	**8 329**	**1 935**	**4 304**	**3 773**	**968**	**3 898**	**2 846**	**1 096**	**2 597**	**964**	**323**	**2 985**	**41 120**	**9 335**	**4 405**	**3 038**

[1]) Pithead power-stations proper and other power-generating plant at mines.

[2]) This table covers only power-stations proper and other power-generating plant which actually produced electric current from coal before January 1, 1964. Their load-hours per annum were calculated by dividing the annual output by the average maximum electric capacity (arithmetical mean between the electric capacity at the beginning of 1963 and 1964).
A possible source of error arises where new power-stations had not yet been brought into operation and obsolete plant had not been closed down by July 1, 1963.

PITHEAD POWER-STATIONS [1]

Technical Data

TABLE XI b

Specific Consumption of Coal, 1955-1963

	1955	1956	1957	1958	1959	1960	1961	1962	1963
Average specific consumption in kcal/kWh	3 703 [2]	3 649	3 556	3 492	3 337	3 227	3 113	3 014	3 038 [3]
Consumption of secondary products in % of consumption of coal (ton for ton)	88%	88%	88%	87%	87%	92%	92%	89%	92%
Load-hours per annum	4 761	4 934	5 036	4 530	4 185	3 965	4 020	4 518	4 405 [3]

[1]) Pithead power-stations proper and other power-generating plant at mines.
[2]) Approximate figures.
[3]) See Table IX*a* for breakdown by coalfields.

The ratio of maximum electric capacity to nominal installed capacity varies as follows :

Beginning of	1954	*83.5%*
do.	1955	*84.5%*
do.	1956	*87.9%*
do.	1957	*87.9%*
do.	1958	*88.8%*
do.	1959	*88.8%*
do.	1960	*89.4%*
do.	1961	*89.3%*
do.	1962	*89.2%*
do.	1963	*89.2%*
do.	1964	*89.1%*
Forecast for beginning of	1968	*91.1%*

B.K.B. AND LOW-TEMPERATURE BROWN-COAL COKE

Investment and Production

TABLE XII a

Capital Expenditure on Plants Producing B.K.B. (Brown-Coal Briquettes) and Low-Temperature Brown-Coal Coke

$ '000,000 *(E.M.A. units of account)*

	Actual expenditure							Estimated expenditure	
	1954	1955	...[1])	1960	1961	1962	1963	1964	1965
Briquetting-plants	5.10	7.87		5.63	3.36	5.59	8.77	9.80	8.47
Low-temperature coking-plants	0.24	0.27		0.36	0.47	0.40	0.22	0.21	—
Total	5.34	8.14		5.99	3.83	5.99	8.99	10.01	8.47

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the Survey's Report.

TABLE XII b

Production and Production Potential for B.K.B. and Low-Temperature Brown-Coal Coke

'000,000 metric tons

	Production potential			Pro-duction	Expected production potential			
	1955	1962	1963	1963	1964	1965	1966	1967
B.K.B.	16·8	14·0	14·0	14·0	13·9	13·9	13·3	13·1
Low-temperature coke	0·6	0·6	0·6	0·6	0·6	0·6	0·6	0·6

IRON-ORE INDUSTRY

Investment

TABLE XIII

Capital Expenditure by Orefields

$ '000,000 *(E.M.A. units of account)*

Orefield	Actual expenditure							Estimated expenditure (projects in progress, approved, or merely planned)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Salzgitter, Ilsede, Harzvorland .	2.21	4.73		5.29	9.43	6.64	6.16	4.12	1.38
Osnabrück, Weser-Wiehengeb.	1.15	0.70		0.64	0.75	0.62	0.30	0.14	—
Siegerland-Wied	2.20	1.30		0.48	1.37	1.16	0.27	0.11	—
Central and Southern Germany [2]	0.83	0.77		0.93	0.54	0.26	0.12	0.07	0.01
Other German fields [3]	0.73	1.25		1.22	1.70	0.75	0.54	1.07	0.81
GERMANY	*7.12*	*8.75*		*8.56*	*13.79*	*9.43*	*7.39*	*5.51*	*2.20*
BELGIUM	—	—		*0.04*	*0.11*	*0.01*	—	—	—
Eastern France	16.43	16.62		28.92	30.60	26.98	19.40	18.71	14.67
Western France	1.26	1.83		2.93	4.86	8.14	2.94	2.99	1.56
French - Centre-Midi	0.19	0.15		0.41	0.15	0.10	0.19	0.09	0.25
FRANCE	*17.88*	*18.60*		*32.26*	*35.61*	*35.22*	*22.53*	*21.79*	*16.48*
ITALY	*4.09*	*2.47*		*1.41*	*1.71*	*2.76*	*1.80*	*0.70*	*2.03*
LUXEMBOURG	*0.37*	*0.88*		*0.94*	*1.22*	*1.17*	*1.36*	*1.01*	*0.43*
Total	**29.46**	**30.70**		**43.21**	**52.44**	**48.59**	**33.08**	**29.01**	**21.14**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
([2]) Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.
([3]) Doggererzgebiet, Kreideerzgebiet.

IRON-ORE INDUSTRY

Extraction

TABLE XIV

Extraction and Extraction Potential by Orefields

$ '000,000 *(E.M.A. units of account)*

Orefield	Extraction potential			Actual extraction 1963	Expected extraction potential			
	1955	1962	1963		1964	1965	1966	1967
Salzgitter, Ilsede, Harzvorland	9.5	12.5	10.1	7.7	7.9	8.1	8.0	8.0
Osnabrück, Weser-Wiehengebirge ...	1.8	2.4	2.1	1.2	2.1	2.1	2.1	2.1
Siegerland-Wied	1.4	1.2	0.8	0.8	0.6	0.6	0.6	0.6
Central and Southern Germany [1] ...	1.7	1.7	1.3	1.2	1.0	1.0	1.0	1.0
Other German fields [2]	2.2	2.9	2.4	2.0	2.1	2.0	2.0	2.1
GERMANY	*16.6*	*20.7*	*16.7*	*12.9*	*13.7*	*13.8*	*13.7*	*13.8*
BELGIUM	*0.1*	*0.2*	*0.2*	*0.1*	*0.2*	*0.2*	*0.2*	*0.2*
Eastern France	48.3	67.7	64.4	54.4	68.3	70.6	72.3	73.6
Western France	4.1	6.0	6.3	4.0	6.3	6.4	6.4	6.4
French - Centre,Midi	0.4	0.3	0.2	0.1	0.2	0.2	0.2	0.2
FRANCE	*52.8*	*74.0*	*70.9*	*58.5*	*74.8*	*77.2*	*78.9*	*80.2*
ITALY	*2,7*	*2.2*	*1.8*	*1.7*	*1.6*	*1.4*	*1.4*	*1.4*
LUXEMBOURG	*7.6*	*8.3*	*8.3*	*7.0*	*7.2*	*7.0*	*6.6*	*6.6*
Total	**79.8**	**105.5**	**97.9**	**80.2**	**97.5**	**99.6**	**100.8**	**102.2**

[1]) Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.
[2]) Doggererzgebiet, Kreideerzgebiet.

TABLE XV

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Northern Germany [2]	210.22	60.88		35.92	90.86	103.52	109.83	54.08	18.17
North Rhine/Westphalia		216.31		165.47	271.48	262.67	291.16	272.01	136.32
Southern Germany [3]		12.00		27.71	17.99	19.26	9.58	10.76	4.16
Saar	15.61	19.41		40.84	41.71	29.94	32.33	31.02	19.27
*GERMANY	*225.83*	*308.60*		*269.94*	*422.04*	*415.39*	*442.90*	*367.87*	*177.92*
*BELGIUM	*32.92*	*33.14*		*136.88*	*127.56*	*139.45*	*153.42*	*112.14*	*97.60*
Eastern France	125.86	71.40		134.66	186.01	227.58	173.31	138.43	57.66
Northern France		22.54		74.24	152.37	159.62	103.87	70.97	16.76
France - other areas		14.27		23.15	34.40	36.57	36.88	36.95	21.39
*FRANCE	*125.86*	*108.21*		*232.05*	*372.78*	*423.77*	*314.06*	*246.35*	*95.81*
Italy - coastal areas	35.85	10.35		43.78	54.77	77.76	347.88	337.08	220.68
Italy - other areas		25.56		19.40	52.09	79.95	100.20	92.30	40.67
*ITALY	*35.85*	*35.91*		*63.18*	*106.86*	*157.71*	*448.08*	*429.38*	*261.35*
*LUXEMBOURG	*25.08*	*22.13*		*28.43*	*31.37*	*39.37*	*43.51*	*28.67*	*15.78*
*NETHERLANDS	*7.94*	*16.34*		*44.71*	*62.43*	*52.53*	*56.10*	*54.08*	*35.05*
Total	**453.48**	**524.33**		**775.19**	**1123.04**	**1228.22**	**1458.07**	**1238.49**	**683.51**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS-OWNED COKING-PLANTS

Investment

TABLE XVI a

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	4.18	0.10		0.22	0.29	0.39	1.98	0.20	—
North Rhine/Westphalia		1.53		1.03	0.82	0.45	0.42	0.30	0.20
Southern Germany [3])		0.14		0.06	0.04	0.01	0.03	0.01	—
Saar	1.05	4.05		1.47	1.84	1.69	0.31	0.17	0.01
GERMANY	*5.23*	*5.82*		*2.78*	*2.99*	*2.54*	*2.74*	*0.68*	*0.21*
BELGIUM	*1.39*	*2.82*		*2.96*	*2.55*	*2.07*	*2.77*	*0.95*	*0.07*
Eastern France	9.29	5.10		3.75	7.95	9.78	2.17	0.79	0.25
Northern France		—		0.30	0.47	0.12	0.15	0.59	0.04
France - other areas		0.81		0.23	0.45	0.35	0.20	0.20	—
FRANCE	*9.29*	*5.91*		*4.28*	*8.87*	*10.25*	*2.52*	*1.58*	*0.29*
Italy - coastal areas	—	—		1.04	3.29	8.25	24.03	11.93	6.30
Italy - other areas	—	—		0.14	—	—	—	—	—
ITALY	—	—		*1.18*	*3.29*	*8.25*	*24.03*	*11.93*	*6.30*
LUXEMBOURG	—	—		—	—	—	—	—	—
NETHERLANDS	*2.08*	*5.39*		*0.28*	*0.60*	*1.85*	*0.96*	*1.12*	*1.45*
Total	**17.99**	**19.94**		**11.48**	**18.30**	**24.96**	**33.02**	**16.26**	**8.32**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

TABLE XVI b

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	3.08	2.69		0.95	0.40	1.07	4.01	2.26	—
North Rhine/Westphalia		8.43		20.92	23.54	9.40	11.76	9.06	3.20
Southern Germany [3])		0.04		0.04	0.02	0.03	—	0.09	—
Saar	0.12	0.03		9.57	3.64	1.75	2.36	3.00	0.63
GERMANY	*3.20*	*11.19*		*31.48*	*27.60*	*12.25*	*18.13*	*14.41*	*3.83*
BELGIUM	*0.10*	*0.27*		*19.29*	*13.75*	*12.91*	*10.67*	*6.49*	*3.41*
Eastern France	0.57	1.48		10.12	32.24	49.33	27.95	14.93	4.72
Northern France		0.15		5.50	6.30	13.80	3.60	1.20	—
France - other areas		0.01		0.03	2.32	3.47	4.10	0.86	—
FRANCE	*0.57*	*1.64*		*15.65*	*40.86*	*66.60*	*35.65*	*16.99*	*4.72*
Italy - coastal areas	0.61	0.84		0.40	0.59	2.86	43.33	24.11	15.78
Italy - other areas		0.17		0.03	0.46	0.05	0.07	0.10	—
ITALY	*0.61*	*1.01*		*0.43*	*1.05*	*2.91*	*43.40*	*24.21*	*15.78*
LUXEMBOURG	*7.11*	*6.13*		*2.92*	*8.28*	*11.48*	*6.98*	*0.33*	—
NETHERLANDS	—	*0.90*		*3.92*	*1.73*	*2.72*	*4.20*	*1.84*	*0.91*
Total	11.59	21.14		73.69	93.27	108.87	119.03	64.27	28.65

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BLAST-FURNACES

Investment

TABLE XVI c

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Northern Germany [2]	16.74	0.26		3.91	4.56	4.56	2.87	0.80	0.37
North Rhine/Westphalia		16.16		20.18	27.28	25.23	24.45	17.19	12.50
Southern Germany [3]		2.53		1.07	0.77	1.37	0.43	1.31	—
Saar	1.92	1.56		3.33	2.11	2.91	6.21	4.28	1.22
GERMANY	*18.66*	*20.51*		*28.49*	*34.72*	*34.07*	*33.96*	*23.58*	*14.09*
BELGIUM	*7.34*	*5.83*		*7.89*	*14.41*	*14.14*	*10.10*	*9.94*	*6.13*
Eastern France	11.14	9.43		27.36	23.89	23.50	23.55	19.95	8.02
Northern France		1.10		8.79	16.26	11.35	6.20	4.14	0.68
France - other areas		0.71		0.92	0.73	0.95	0.79	0.55	0.05
FRANCE	*11.14*	*11.24*		*37.07*	*40.88*	*35.80*	*30.54*	*24.64*	*8.75*
Italy - coastal areas	0.59	1.68		4.20	5.78	5.98	20.06	21.67	10.68
Italy - other areas		0.08		0.34	0.71	0.32	0.24	0.10	—
ITALY	*0.59*	*1.76*		*4.54*	*6.49*	*6.30*	*20.30*	*21.77*	*10.68*
LUXEMBOURG	*2.01*	*2.33*		*4.57*	*3.58*	*5.36*	*5.32*	*6.08*	*3.55*
NETHERLANDS	*0.44*	*0.18*		*4.46*	*7.17*	*1.66*	*1.01*	*1.21*	*1.07*
Total	**40.18**	**41.85**		**87.02**	**107.25**	**97.33**	**101.23**	**87.22**	**44.27**

[1] Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Würtemberg, Bavaria.

STEELWORKS-OWNED COKING-PLANTS, BURDEN PREPARATION AND BLAST-FURNACES - TOTAL

Investment

TABLE XVI d

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Northern Germany [2]	24.00	3.05		5.08	5.25	6.02	8.86	3.26	0.37
North Rhine/Westphalia		26.12		42.13	51.64	35.08	36.63	26.55	15.90
Southern Germany [3]		2.71		1.17	0.83	1.41	0.46	1.41	—
Saar	3.09	5.64		14.37	7.59	6.35	8.88	7.45	1.86
GERMANY	*27.09*	*37.52*		*62.75*	*65.31*	*48.86*	*54.83*	*38.67*	*18.13*
BELGIUM	*8.83*	*8.92*		*30.14*	*30.71*	*29.12*	*23.54*	*17.38*	*9.61*
Eastern France	21.00	16.01		41.23	64.08	82.61	53.67	35.67	12.99
Northern France		1.25		14.59	23.03	25.27	9.95	5.93	0.72
France - other areas		1.53		1.18	3.50	4.77	5.09	1.61	0.05
FRANCE	*21.00*	*18.79*		*57.00*	*90.61*	*112.65*	*68.71*	*43.21*	*13.76*
Italy - coastal areas	1.20	2.52		5.64	9.66	17.09	87.42	57.71	32.76
Italy - other areas		0.25		0.51	1.17	0.37	0.31	0.20	—
ITALY	*1.20*	*2.77*		*6.15*	*10.83*	*17.46*	*87.73*	*57.91*	*32.76*
LUXEMBOURG	*9.12*	*8.46*		*7.49*	*11.86*	*16.84*	*12.30*	*6.41*	*3.55*
NETHERLANDS	*2.52*	*6.47*		*8.66*	*9.50*	*6.23*	*6.17*	*4.17*	*3.43*
Total	**69.76**	**82.93**		172.19	218.82	231.16	253.28	**167.75**	**81.24**

[1] Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BASIC BESSEMER STEELWORKS

Investment

TABLE XVII a

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Norther Germany [2])	3.24	2.99		0.34	1.11	0.49	0.48	0.71	—
North Rhine/Westphalia		4.05		3.73	4.16	5.87	2.77	1.68	0.83
Southern Germany [3])		0.24		0.02	0.08	0.12	0.02	0.12	—
Saar	0.40	1.36		3.20	3.07	1.67	1.16	0.33	—
GERMANY	*3.64*	*8.64*		*7.29*	*8.42*	*8.15*	*4.43*	*2.84*	*0.83*
BELGIUM	*1.75*	*2.57*		*6.43*	*6.63*	*7.74*	*7.54*	*1.95*	*0.71*
Eastern France	5.72	3.54		5.20	6.65	4.57	3.24	3.56	2.80
Northern France		0.15		1.00	1.00	1.30	0.40	0.30	—
France - other areas		0.20		0.30	0.64	0.60	0.20	0.25	0.05
FRANCE	*5.72*	*3.89*		*6.50*	*8.29*	*6.47*	*3.84*	*4.11*	*2.85*
Italy - coastal areas	0.16	0.05		0.55	0.17	—	0.03	—	—
Italy - other areas		—		—	—	—	—	—	—
ITALY	*0.16*	*0.05*		*0.55*	*0.17*	—	*0.03*	—	—
LUXEMBOURG	*2.64*	*2.10*		*0.41*	*0.74*	*0.69*	*1.41*	*1.02*	—
NETHERLANDS	—	—		—	—	—	—	—	—
Total	**13.91**	**17.25**		**21.18**	**24.25**	**23.05**	**17.25**	**9.92**	**4.39**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

OPEN-HEARTH STEELWORKS

Investment

TABLE XVII b

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Northern Germany [2]	12.33	2.92		4.09	9.78	6.07	4.33	2.56	0.81
North Rhine/Westphalia		15.62		14.82	17.55	12.26	4.47	14.36	4.29
Southern Germany [3]		0.30		0.94	0.16	0.45	0.23	0.22	—
Saar	0.47	0.08		0.33	0.23	0.12	0.68	0.42	—
GERMANY	*12.80*	*18.92*		*20.18*	*27.72*	*18.90*	*9.71*	*17.56*	*5.10*
BELGIUM	*0.30*	*0.05*		*0.26*	*0.04*	*0.36*	*0.20*	*0.19*	*0.07*
Eastern France	5.43	3.78		4.06	3.07	2.40	1.39	1.65	2.20
Northern France		3.52		0.45	2.01	1.08	0.57	0.18	0.16
France - other areas		0.21		0.72	1.16	0.22	0.16	0.16	—
FRANCE	*5.43*	*7.51*		*5.23*	*6.24*	*3.70*	*2.12*	*1.99*	*2.36*
Italy - coastal areas	1.38	1.62		1.50	5.49	4.43	3.51	7.30	4.45
Italy - other areas		0.82		0.83	2.92	1.37	1.16	0.50	0.57
ITALY	*1.38*	*2.44*		*2.33*	*8.41*	*5.80*	*4.67*	*7.80*	*5.02*
LUXEMBOURG	—	—		—	—	—	—	—	—
NETHERLANDS	*0.21*	*1.73*		*1.12*	*2.35*	*1.42*	*1.38*	*0.67*	*0.08*
Total	**20.12**	**30.65**		**29.12**	**44.76**	**30.18**	**18.08**	**28.21**	**12.63**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ELECTRIC-FURNACE STEELWORKS

Investment

TABLE XVII c

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954 [1]	1955 [1]	.... [2]	1960	1961	1962	1963	1964	1965
Northern Germany [3]	5.42	0.05		0.74	0.35	0.02	0.01	0.07	—
North Rhine/Westphalia		9.76		1.65	6.51	2.97	1.16	3.49	0.83
Southern Germany [4]		—		—	0.03	0.35	1.00	1.40	0.10
Saar	—	0.02		2.10	0.60	0.72	—	—	—
GERMANY	*5.42*	*9.83*		*4.49*	*7.49*	*4.06*	*2.17*	*4.96*	*0.93*
BELGIUM	*1.60*	*1.41*		*0.30*	*0.70*	*0.88*	*0.48*	*0.16*	—
Eastern France	1.14	—		0.75	0.73	0.59	2.09	3.21	1.64
Northern France		1.22		0.71	1.03	0.30	0.09	0.11	0.61
France - other areas		0.94		2.55	5.22	6.54	3.84	5.21	1.99
FRANCE	*1.14*	*2.16*		*4.01*	*6.98*	*7.43*	*6.02*	*8.53*	*4.24*
Italy - coastal areas	1.75	—		0.35	0.60	0.61	0.60	1.00	1.00
Italy - other areas		1.46		1.85	5.89	7.70	5.94	7.15	4.85
ITALY	*1.75*	*1.46*		*2.20*	*6.49*	*8.31*	*6.54*	*8.15*	*5.85*
LUXEMBOURG	—	*0.04*		*0.07*	*0.10*	*0.10*	*0.18*	*0.08*	—
NETHERLANDS	*0.15*	*0.17*		*0.04*	*0.08*	*0.32*	*0.79*	*1.14*	—
Total	**10.06**	**15.07**		**11.11**	**21.84**	**21.10**	**16.18**	**23.02**	**11.02**

[1]) For the years 1954-1955 including other steelworks except LD, Rotor and similar processes.
[2]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[3]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[4]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

LD, ROTOR AND OTHER STEELWORKS

Investment

TABLE XVII d

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955 [1]	.... [2]	1960	1961	1962	1963	1964	1965
Northern Germany [3]	.	—		4.25	7.98	10.80	13.81	3.42	—
North Rhine/Westphalia	.	0.15		6.31	34.90	36.42	20.88	10.41	7.52
Southern Germany [4]	.	—		—	0.04	—	—	—	—
Saar	.	—		1.74	1.91	0.32	0.29	2.73	7.33
*GERMANY	.	*0.15*		*12.30*	*44.83*	*47.54*	*34.98*	*16.56*	*14.85*
*BELGIUM	.	—		*4.36*	*5.39*	*10.18*	*21.55*	*20.71*	*23.97*
Eastern France	.	0.06		4.73	2.12	3.17	3.90	3.29	3.37
Northern France	.	—		5.00	9.60	9.80	8.00	3.00	—
France - other areas	.	—		—	—	—	—	—	—
*FRANCE	.	*0.06*		*9.73*	*11.72*	*12.97*	*11.90*	*6.29*	*3.37*
Italy - coastal areas	.	—		—	0.01	1.35	45.15	47.22	36.04
Italy - other areas	.	—		—	—	—	—	—	—
*ITALY	.	—		—	*0.01*	*1.35*	*45.15*	*47.22*	*36.04*
*LUXEMBOURG	.	—		*2.25*	*3.15*	*4.03*	*3.67*	*7.81*	*5.29*
*NETHERLANDS	.	—		*5.35*	*6.86*	*1.99*	*2.79*	*1.65*	*1.49*
Total	.	**0.21**		**33.99**	**71.96**	**78.06**	**120.04**	**100.24**	**85.01**

[1]) For 1955, LD, Rotor and similar works only.
[2]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[3]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[4]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS - TOTAL

Investment

TABLE XVII e

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	20.99	5.96		9.42	19.22	17.38	18.63	6.76	0.81
North Rhine/Westphalia		29.58		26.51	63.12	57.52	29.28	29.94	13.47
Southern Germany [3])		0.54		0.96	0.31	0.92	1.25	1.74	0.10
Saar	0.87	1.46		7.37	5.81	2.83	2.13	3.48	7.33
GERMANY	*21.86*	*37.54*		*44.26*	*88.46*	*78.65*	*51.29*	*41.92*	*21.71*
BELGIUM	*3.65*	*4.03*		*11.35*	*12.76*	*19.16*	*29.77*	*23.01*	*24.75*
Eastern France	12.29	7.38		14.74	12.57	10.73	10.62	11.71	10.01
Northern France		4.89		7.16	13.64	12.48	9.06	3.59	0.77
France - other areas		1.35		3.57	7.02	7.36	4.20	5.62	2.04
FRANCE	*12.29*	*13.62*		*25.47*	*33.23*	*30.57*	*23.88*	*20.92*	*12.82*
Italy - coastal areas	3.29	1.67		2.40	6.27	6.39	49.29	55.52	41.49
Italy - other areas		2.28		2.68	8.81	9.07	7.10	7.65	5.42
ITALY	*3.29*	*3.95*		*5.08*	*15.08*	*15.46*	*56.39*	*63.17*	*46.91*
LUXEMBOURG	*2.64*	*2.14*		*2.73*	*3.99*	*4.82*	*5.26*	*8.91*	*5.29*
NETHERLANDS	*0.36*	*1.90*		*6.51*	*9.29*	*3.73*	*4.96*	*3.46*	*1.57*
Total	**44.09**	**63.18**		**95.40**	**162.81**	**152.39**	**171.55**	**161.39**	**113.05**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BLOOMING AND SLABBING MILLS (INCLUDING CONTINUOUS CASTING PLANTS

Investment

TABLE XVIII a

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	.	9.42		0.63	2.76	10.31	9.62	9.50	5.15
North Rhine/Westphalia	.	20.84		12.06	20.26	21.15	32.26	14.44	11.84
Southern Germany [3])	.	0.53		—	—	0.04	0.08	0.34	—
Saar	.	0.04		5.68	2.86	2.46	2.78	8.29	4.25
GERMANY	.	*30.83*		*18.37*	*25.88*	*33.96*	*44.74*	*32.57*	*21.24*
BELGIUM	.	*1.11*		*8.91*	*6.97*	*14.43*	*21.50*	*8.87*	*4.94*
Eastern France	.	3.21		4.97	14.25	11.10	3.63	5.56	6.45
Northern France	.	—		3.97	16.26	10.40	4.00	2.40	—
France - other areas	.	0.17		0.93	0.89	0.32	0.84	0.60	0.05
FRANCE	.	*3.38*		*9.87*	*31.40*	*21.82*	*8.47*	*8.56*	*6.50*
Italy - coastal areas	.	0.18		3.24	2.86	4.03	13.50	22.85	16.12
Italy - other areas	.	1.99		1.19	2.73	6.02	8.61	7.11	4.32
ITALY	.	*2.17*		*4.43*	*5.59*	*10.05*	*22.11*	*29.96*	*20.44*
LUXEMBOURG	.	*2.76*		*0.24*	*1.53*	*3.40*	*5.09*	*2.14*	*0.20*
NETHERLANDS	.	*1.09*		*1.78*	*3.39*	*9.91*	*10.40*	*5.71*	*1.14*
Total	23.10	41.34		43.60	74.76	93.57	112.31	87.81	54.46

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SECTION MILLS

Investment

TABLE XVIII b

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	.	12.02		2.31	5.31	5.58	10.01	4.67	2.39
North Rhine/Westphalia	.	38.20		15.33	25.26	35.83	41.30	34.12	11.45
Southern Germany [3])	.	2.85		0.57	0.64	0.89	0.95	0.85	0.36
Saar	.	8.12		7.30	15.15	8.69	6.52	2.39	4.79
*GERMANY	.	*61.19*		*25.51*	*46.36*	*50.99*	*58.78*	*42.03*	*18.99*
*BELGIUM	.	*2.63*		*23.91*	*16.75*	*16.25*	*5.67*	*6.36*	*4.14*
Eastern France	.	8.76		11.51	15.50	28.41	31.68	31.98	12.55
Northern France	.	1.61		4.76	15.86	16.79	9.49	2.13	1.15
France - other areas	.	3.85		2.88	4.61	4.61	4.78	9.75	7.12
*FRANCE	.	*14.22*		*19.15*	*35.97*	*49.81*	*45.95*	*43.86*	*20.82*
Italy - coastal areas	.	0.32		4.52	5.52	3.66	6.77	23.47	34.56
Italy - other areas	.	8.29		2.58	4.03	4.57	8.81	6.77	5.32
*ITALY	.	*8.61*		*7.10*	*9.55*	*8.23*	*15.58*	*30.24*	*39.88*
*LUXEMBOURG	.	*0.23*		*13.95*	*9.52*	*8.92*	*17.02*	*8.74*	*6.31*
*NETHERLANDS	.	—		*0.77*	*2.85*	*10.28*	*21.60*	*25.84*	*13.10*
Total	74.40	86.88		90.39	121.00	144.48	164.60	157.07	103.24

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Würtemberg, Bavaria.

FLAT-PRODUCT MILLS

Investment

TABLE XVIII c

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Northern Germany [2]	.	23.26		12.85	47.57	40.15	38.81	17.52	5.35
North Rhine/Westphalia	.	67.33		33.45	57.13	60.02	88.85	114.57	61.81
Southern Germany [3]	.	1.98		22.06	14.33	8.06	2.47	2.91	1.69
Saar	.	0.44		0.27	0.19	1.85	1.86	0.31	—
GERMANY	.	*93.01*		*68.63*	*119.22*	*110.08*	*131.99*	*135.31*	*68.85*
BELGIUM	.	*7.59*		*36.94*	*33.43*	*29.57*	*37.20*	*31.66*	*31.74*
Eastern France	.	11.49		16.33	34.83	37.56	13.13	10.82	2.58
Northern France	.	11.33		23.80	48.77	59.43	44.34	24.04	8.35
France - other areas	.	3.86		5.30	7.26	5.45	8.53	8.75	5.66
FRANCE	.	*26.68*		*45.43*	*90.86*	*102.44*	*66.00*	*43.61*	*16.59*
Italy - coastal areas	.	1.77		3.37	3.73	4.25	64.50	40.81	16.58
Italy - other areas	.	7.09		5.50	27.60	48.91	62.85	60.64	18.43
ITALY	.	*8.86*		*8.87*	*31.33*	*53.16*	*127.35*	*101.45*	*35.01*
LUXEMBOURG	.	*4.42*		*1,01*	*1.09*	*0.91*	*0.57*	*0.44*	*0.16*
NETHERLANDS	.	*3.03*		*14.59*	*17.29*	*2.57*	*0.93*	*1.32*	*7.61*
Total	**139.60**	**143.59**		**175.47**	**293.22**	**298.73**	**364.04**	**313.79**	**159.96**

[1]) Capital expenditure concerning **1956 — 1959** appears in the tables of the **1963** Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ROLLING-MILLS - TOTAL [1])

Investment

TABLE XVIII d

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	.... [2])	1960	1961	1962	1963	1964	1965
Northern Germany [3])	138.03	45.52		15.99	55.94	56.30	58.69	31.82	12.89
North Rhine/Westphalia		136.30		65.27	108.73	122.98	172.92	180.24	94.82
Southern Germany [4])		6.75		24.13	15.55	14.80	5.40	4.51	2.26
Saar	8.00	9.80		13.56	18.69	13.48	11.66	13.49	10.02
GERMANY	*146.03*	*198.37*		*118.95*	*198.91*	*207.56*	*248.67*	*230.06*	*119.99*
BELGIUM	*15.57*	*13.80*		*77.74*	*68.21*	*72.26*	*75.40*	*48.49*	*41.06*
Eastern France	64.00	29.63		37.51	70.19	90.58	66.11	57.01	23.85
Northern France		13.52		35.26	84.68	94.13	65.51	31.66	10.62
France - other areas		9.23		13.07	16.48	16.56	21.52	24.12	16.31
FRANCE	*64.00*	*52.38*		*85.84*	*171.35*	*201.27*	*153.14*	*112.79*	*50.78*
Italy - coastal areas	25.39	4.52		20.86	15.58	16.02	97.96	105.99	76.45
Italy - other areas		18.69		10.09	35.60	61.87	82.33	75.60	28.92
ITALY	*25.39*	*23.21*		*30.95*	*51.18*	*77.89*	*180.29*	*181.59*	*105.37*
LUXEMBOURG	*11.21*	*8.40*		*16.02*	*12.83*	*13.97*	*22.98*	*11.43*	*6.67*
NETHERLANDS	*2.95*	*4.92*		*20.80*	*29.88*	*24.62*	*33.25*	*34.14*	*21.92*
Total	**265.15**	**301.08**		**350.30**	**532.36**	**597.57**	**713.73**	**618.50**	**345.79**

[1]) Including ancillary and auxiliary plants.
[2]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[3]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[4]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS-OWNED POWER-GENERATING PLANTS AND DISTRIBUTION NETWORKS

Investment

TABLE XIX a

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	14.83	4.07		2.13	3.96	12.53	15.10	5.42	—
North Rhine/Westphalia		12.19		11.70	17.44	18.34	16.07	7.47	4.04
Southern Germany [3])		1.24		0.87	0.26	1.12	1.10	1.77	0.53
Saar	0.88	0.57		1.44	2.99	2.61	5.99	2.90	—
GERMANY	*15.71*	*18.07*		*16.14*	*24.65*	*34.60*	*38.26*	*17.56*	*4.57*
BELGIUM	*2.35*	*2.86*		*9.08*	*5.87*	*5.93*	*6.76*	*7.87*	*10.85*
Eastern France	21.15	12.45		23.33	18.80	18.69	18.01	11.60	3.30
Northern France		0.67		2.33	5.19	2.79	1.13	2.38	0.62
France - other areas		0.79		2.01	1.59	2.69	1.88	0.93	0.15
FRANCE	*21.15*	*13.91*		*27.67*	*25.58*	*24.17*	*21.02*	*14.91*	*4.07*
Italy - coastal areas	1.20	0.38		5.04	7.83	10.52	18.39	34.28	21.02
Italy - other areas		1.10		0.49	0.71	0.63	1.99	1.52	0.99
ITALY	*1.20*	*1.48*		*5.53*	*8.54*	*11.15*	*20.38*	*35.80*	*22.01*
LUXEMBOURG	*1.32*	*2.30*		*0.41*	*1.22*	*1.40*	*1.66*	*0.72*	*0.06*
NETHERLANDS	*1.25*	*0.69*		*1.85*	*5.83*	*6.98*	*4.00*	*3.25*	*1.27*
Total	42.98	39.31		60.68	71.69	84.23	92.08	80.11	42.83

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

MISCELLANEOUS (IRON AND STEEL WORKS)

Investment

TABLE XIX b

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	12.37	2.28		3.30	6.49	11.29	8.55	6.82	4.10
North Rhine/Westphalia		12.12		19.86	30.55	28.75	36.26	27.81	8.09
Southern Germany [3])		0.76		0.58	1.04	1.01	1.37	1.33	1.27
Saar	2.77	1.94		4.10	6.63	4.67	3.67	3.70	0.06
GERMANY	*15.14*	*17.10*		*27.84*	*44.71*	*45.72*	*49.85*	*39.66*	*13.52*
BELGIUM	*2.52*	*3.53*		*8.57*	*10.01*	*12.98*	*17.95*	*15.39*	*11.33*
Eastern France	7.42	5.93		17.85	20.37	24.97	24.90	22.44	7.51
Northern France		2.21		14.90	25.83	24.95	18.22	27.41	4.03
France - other areas		1.37		3.32	5.81	5.19	4.19	4.67	2.84
FRANCE	*7.42*	*9.51*		*36.07*	*52.01*	*55.11*	*47.31*	*54.52*	*14.38*
Italy - coastal areas	4.77	1.26		9.84	15.43	27.74	94.82	83.58	48.96
Italy - other areas		3.24		5.63	5.80	8.01	8.47	7.33	5.34
ITALY	*4.77*	*4.50*		*15.47*	*21.23*	*35.75*	*103.29*	*90.91*	*54.30*
LUXEMBOURG	*0.79*	*0.83*		*1.78*	*1.47*	*2.34*	*1.31*	*1.20*	*0.21*
NETHERLANDS	*0.86*	*2.36*		*6.89*	*7.93*	*10.97*	*7.72*	*9.06*	*6.86*
Total	**31.50**	**37.83**		**96.62**	**137.36**	**162.87**	**227.43**	**210.74**	**100.60**

[1]) Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

GENERAL SERVICES (IRON AND STEEL WORKS) TOTAL

Investment

TABLE XIX c

Capital Expenditure by Areas

$ '000,000 *(E.M.A. units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress, or approved)	
	1954	1955	.... [1]	1960	1961	1962	1963	1964	1965
Northern Germany [2]	27.20	6.35		5.43	10.45	23.82	23.65	12.24	4.10
North Rhine/Westphalia		24.31		31.56	47.99	47.09	52.33	35.28	12.13
Southern Germany [3]		2.00		1.45	1.30	2.13	2.47	3.10	1.80
Saar	3.65	2.51		5.54	9.62	7.28	9.66	6.60	0.06
GERMANY	*30.85*	*35.17*		*43.98*	*69.36*	*80.32*	*88.11*	*57.22*	*18.09*
BELGIUM	*4.87*	*6.39*		*17.65*	*15.88*	*18.91*	*24.71*	*23.26*	*22.18*
Eastern France	28.57	18.38		41.18	38.17	43.66	42.91	34.04	10.81
Northern France		2.88		17.23	31.02	27.74	19.35	29.79	4.65
France - other areas		2.16		5.33	7.40	7.88	6.07	5.60	2.99
FRANCE	*28.57*	*23.42*		*63.74*	*77.59*	*79.28*	*68.33*	*69.43*	*18.45*
Italy - coastal areas	5.97	1.64		14.88	23.26	38.26	113.21	117.86	69.98
Italy - other areas		4.34		6.12	6.51	8.64	10.46	8.85	6.33
ITALY	*5.97*	*5.98*		*21.00*	*29.77*	*46.90*	*123.67*	*126.71*	*76.31*
LUXEMBOURG	*2.11*	*3.13*		*2.19*	*2.69*	*3.74*	*2.97*	*1.92*	*0.27*
NETHERLANDS	*2.11*	*3.05*		*8.74*	*13.76*	*17.95*	*11.72*	*12.31*	*8.13*
Total	**74.48**	**77.14**		**157.30**	**209.05**	**247.10**	**319.51**	**290.85**	**143.43**

[1] Capital expenditure concerning 1956 — 1959 appears in the tables of the 1963 Survey's Report.
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Würtemberg, Bavaria.

SINTER

Production

TABLE XX

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	0·7	2·3	2·4	2·1	3·0	3·0	3·0	3·0
North Rhine/Westphalia	8·7	17·7	17·9	15·4	17·8	18·3	18·9	19·9
Southern Germany [2]	0·1	0·3	0·3	0·2	0·3	0·3	0·3	0·3
Saar	3·2	5·4	5·3	4·4	5·3	5·7	5·7	5·7
GERMANY	*12·7*	*25·7*	*25·9*	*22·1*	*26·4*	*27·3*	*27·9*	*28·9*
BELGIUM	*0·7*	*5·5*	*6·3*	*5·2*	*7·7*	*9·2*	*9·2*	*9·8*
Eastern France	1·8	8·0	12·9	11·4	15·1	16·1	17·8	17·8
Northern France	0·1	1·5	2·4	2·2	2·6	3·0	3·1	3·1
France - other areas	0·0	0·7	0·8	0·8	1·1	1·4	1·4	1·4
FRANCE	*1·9*	*10·2*	*16·1*	*14·4*	*18·8*	*20·5*	*22·3*	*22·3*
Italy - coastal areas	1·4	2·2	2·2	2·2	3·2	6·3	8·1	8·1
Italy - other areas	0·5	0·7	0·6	0·3	0·6	0·6	0·6	0·6
ITALY	*1·9*	*2·9*	*2·8*	*2·5*	*3·8*	*6·9*	*8·7*	*8·7*
LUXEMBOURG	*1.2*	*3·4*	*5·0*	*4·5*	*5·2*	*5·2*	*5·2*	*5·2*
NETHERLANDS	—	*2·1*	*2·5*	*2·4*	*3·2*	*3·2*	*3·2*	*3·2*
Total	**18·4**	**49·8**	**58·6**	**51·1**	**65·1**	**72·3**	**76·5**	**78·1**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

PIG-IRON

Production

TABLE XXI

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual pro - duction 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	2·1	3·8	3·8	3·0	3·8	3·9	4·6	4·6
North Rhine/Westphalia	13·8	21·0	21·9	15·8	21·4	21·9	22·4	22·4
Southern Germany [2]	1·1	1·4	1·4	1·0	1·5	1·5	1·5	1·5
Saar	3·0	3·6	3·7	3·3	3·9	4·0	4·0	4·0
GERMANY	*20·0*	*29·8*	*30·8*	*23·1*	*30·6*	*31·3*	*32·5*	*32·5*
BELGIUM	*5·5*	*7·6*	*7·9*	*7·0*	*8·8*	*9·3*	*9·7*	*10·2*
Eastern France	8·5	12·1	12·7	10·5	13·1	13·6	13·7	13·9
Northern France	2·0	2·6	3·3	2·7	3·7	4·1	4·2	4·3
France - other areas	0·9	1·2	1·3	1·0	1·3	1·3	1·3	1·3
FRANCE	*11·4*	*15·9*	*17·3*	*14·2*	*18·1*	*19·0*	*19·2*	*19·5*
Italy - coastal areas	1·4	3·3	3·4	3·4	3·9	5·8	6·8	6·8
Italy - other areas	0·4	0·6	0·6	0·4	0·6	0·6	0·6	0·6
ITALY	*1·8*	*3·9*	*4·0*	*3·8*	*4·5*	*6·4*	*7·4*	*7·4*
LUXEMBOURG	*3·1*	*4·0*	*4·1*	*3·6*	*4·3*	*4·5*	*4·5*	*4·5*
NETHERLANDS	*0·7*	*1·7*	*1·8*	*1·7*	*2·2*	*2·4*	*2·4*	*2·4*
Total	**42·5**	**62·9**	**65·9**	**53·4**	**68·5**	**72·9**	**75·7**	**76·5**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BASIC BESSEMER STEEL

Production

TABLE XXII a

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	1·0	1·8	1·8	1·4	1·4	1·2	1·2	1·2
North Rhine/Westphalia	8·0	9·8	9·2	7·9	7·7	7·6	6·9	6·7
Southern Germany [2]	0·4	0·6	0·6	0·5	0·6	0·6	0·6	0·6
Saar	2·5	2·9	2·9	2·6	2·9	3·0	3·0	2·7
GERMANY	*11·9*	*15·1*	*14·5*	*12·4*	*12·6*	*12·4*	*11·7*	*11·2*
BELGIUM	*5·2*	*6·9*	*7·2*	*6·6*	*7·3*	*6·9*	*6·4*	*6·3*
Eastern France	6·7	9·5	9·7	8·1	9·9	10·1	10·3	10·4
Northern France	1·1	1·5	1·5	1·2	1·5	1·4	1·3	1·3
France - other areas	0·3	0·5	0·5	0·5	0·5	0·6	0·6	0·6
FRANCE	*8·1*	*11·5*	*11·7*	*9·8*	*11·9*	*12·1*	*12·2*	*12·3*
Italy - coastal areas	0·4	0·7	0·7	0·7	0·6	—	—	—
Italy - other areas	—	—	—	—	—	—	—	—
ITALY	*0·4*	*0·7*	*0·7*	*0·7*	*0·6*	—	—	—
LUXEMBOURG	*3·2*	*4·1*	*4·2*	*3·8*	*4·1*	*4·1*	*3·9*	*3·6*
NETHERLANDS	—	—	—	—	—	—	—	—
Total	**28·8**	**38·3**	**38·3**	**33·3**	**36·5**	**35·5**	**34·2**	**33·4**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

OPEN-HEARTH STEEL

Production

TABLE XXII b

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	1·3	2·5	2·8	2·1	2·8	2·8	3·1	3·1
North Rhine/Westphalia	9·3	13·4	13·4	10·5	14·0	13·9	13·7	13·5
Southern Germany [2]	0·9	0·8	0·7	0·6	0·7	0·7	0·7	0·7
Saar	0·7	0·9	0·9	0·8	1·0	1·0	1·0	1·0
GERMANY	*12·2*	*17·6*	*17·8*	*14·0*	*18·5*	*18·4*	*18·5*	*18·3*
BELGIUM	*0·7*	*0·7*	*0·7*	*0·5*	*0·7*	*0·7*	*0·5*	*0·5*
Eastern France	1·8	2·5	2·6	2·2	2·6	2·7	2·7	2·7
Northern France	1·5	2·4	2·5	2·2	2·4	2·5	2·5	2·5
France - other areas	0·9	0·6	0·5	0·4	0·5	0·5	0·5	0·5
FRANCE	*4·2*	*5·5*	*5·6*	*4·8*	*5·5*	*5·7*	*5·7*	*5·7*
Italy - coastal areas	1·4	3·3	3·4	3·4	3·3	3·7	3·2	3·2
Italy - other areas	1·8	2·3	2·1	1·9	2·1	2·2	2·2	2·1
ITALY	*3·2*	*5·6*	*5·5*	*5·3*	*5·4*	*5·9*	*5·4*	*5·3*
LUXEMBOURG	—	—	—	—	—	—	—	—
NETHERLANDS	*0·9*	*1·2*	*1·2*	*0·7*	*1·2*	*1·2*	*1·2*	*1·2*
Total	**21·2**	**30·6**	**30·8**	**25·3**	**31·3**	**31·9**	**31·3**	**31·0**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ELECTRIC-FURNACE STEEL

Production

TABLE XXII c

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955 [1]	1962	1963		1964	1965	1966	1967
Northern Germany [2]	0·1	0·2	0·2	0·2	0·2	0·2	0·2	0·2
North Rhine/Westphalia	0·9	2·5	2·5	2·1	2·5	2·6	2·6	2·6
Southern Germany [3]	0·1	0·1	0·1	0·1	0·2	0·2	0·2	0·2
Saar	0·1	0·2	0·2	0·2	0·2	0·2	0·2	0·2
GERMANY	*1·2*	*3·0*	*3·0*	*2·6*	*3·1*	*3·2*	*3·2*	*3·2*
BELGIUM	*0·4*	*0·7*	*0·6*	*0·3*	*0·7*	*0·6*	*0·6*	*0·6*
Eastern France	0·3	0·4	0·4	0·4	0·5	0·6	0·6	0·6
Northern France	0·2	0·3	0·3	0·2	0·3	0·3	0·3	0·4
France - other areas	0·6	1·2	1·3	0·9	1·3	1·4	1·4	1·4
FRANCE	*1·1*	*1·9*	*2·0*	*1·5*	*2·1*	*2·3*	*2·3*	*2·4*
Italy - coastal areas	0·2	0·4	0·5	0·5	0·5	0·5	0·6	0·6
Italy - other areas	1·9	3·7	4·2	3·7	4·5	4·8	4·9	5·1
ITALY	*2·1*	*4·1*	*4·7*	*4·2*	*5·0*	*5·3*	*5·5*	*5·7*
LUXEMBOURG	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*
NETHERLANDS	*0·1*	*0·2*	*0·2*	*0·2*	*0·2*	*0·3*	*0·3*	*0·3*
Total	5·0	10·0	10·6	8·9	11·2	11·8	12·0	12·3

[1] For 1955, including „other steels".
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

LD. ROTOR AND OTHER STEELS

Production

TABLE XXII d

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	.	0·4	0·3	0·3	0·9	1·5	1·7	1·7
North Rhine/Westphalia	.	1·8	3·5	2·0	5·1	5·4	7·2	7·3
Southern Germany [2]	.	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Saar	.	0·2	0·2	0·2	0·2	0·2	0·2	0·7
GERMANY	.	*2·4*	*4·2*	*2·5*	*6·2*	*7·1*	*9·1*	*9·7*
BELGIUM	.	*0·0*	*0·3*	*0·2*	*1·3*	*1·9*	*3·2*	*4·1*
Eastern France	.	0·5	0·7	0·6	0·9	0·9	0·9	0·9
Northern France	.	0·3	0·9	0·8	1·5	1·8	2·0	2·0
France - other areas	.	0·1	0·1	0·0	0·1	0·1	0·1	0·1
FRANCE	.	*0·9*	*1·7*	*1·4*	*2·5*	*2·8*	*3·0*	*3·0*
Italy - coastal areas	.	—	—	—	0·5	3·2	5·4	5·9
Italy - other areas	.	—	—	—	—	—	—	—
ITALY	.	—	—	—	*0·5*	*3·2*	*5·4*	*5·9*
LUXEMBOURG	.	*0·1*	*0·2*	*0·1*	*0·3*	*0·5*	*0·7*	*1·1*
NETHERLANDS	.	*1·1*	*1·5*	*1·4*	*1·8*	*2·0*	*2·0*	*2·0*
Total	.	4·5	7·9	5·6	12·6	17·5	23·4	25·8

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Würtemberg, Bavaria.

STEEL - TOTAL

Production

TABLE XXII e

Production and Production Potential by Areas

'000,000 *metricton*

Area	Production potential			Actual production	Expected production potential			
	1955	1962	1963	1963	1964	1965	1966	1967
Northern Germany [1]	2·4	4·9	5·3	4·0	5·3	5·7	6·2	6·2
North Rhine/Westphalia	18·2	27·5	28·6	22·5	29·3	29·5	30·4	30·1
Southern Germany [2]	1·4	1·5	1·4	1·2	1·5	1·5	1·5	1·5
Saar	3·3	4·2	4·2	3·8	4·3	4·4	4·4	4·6
GERMANY	*25·3*	*38·1*	*39·5*	*31·5*	*40·4*	*41·1*	*42·5*	*42·4*
BELGIUM	*6.3*	*8·3*	*8·8*	*7·6*	*10·0*	*10·1*	*10·7*	*11·5*
Eastern France	8·8	12·9	13·4	11·3	13·9	14·3	14·5	14·6
Northern France	2·8	4·5	5·2	4·4	5·7	6·0	6·1	6·2
France - other areas	1·8	2·4	2·4	1·8	2·4	2·6	2·6	2·6
FRANCE	*13·4*	*19·8*	*21·0*	*17·5*	*22·0*	*22·9*	*23·2*	*23·4*
Italy - coastal areas	2·0	4·4	4·6	4·6	4·9	7·4	9·2	9·7
Italy - other areas	3·7	6·0	6·3	5·6	6·6	7·0	7·1	7·2
ITALY	*5·7*	*10·4*	*10·9*	*10·2*	*11·5*	*14·4*	*16·3*	*16·9*
LUXEMBOURG	*3·3*	*4·3*	*4·5*	*4·0*	*4·5*	*4·7*	*4·7*	*4·8*
NETHERLANDS	*1·0*	*2·5*	*2·9*	*2·3*	*3·2*	*3·5*	*3·5*	*3·5*
Total	**55·0**	**83·4**	**87·6**	**73·1**	**91·6**	**96·7**	**100·9**	**102·5**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SECTIONS

Production

TABLE XXIII a

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual pro - duction 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	1·0	1·5	1·4	1·1	1·6	1·8	2·0	2·0
North Rhine,Westphalia	6·4	9·3	9·6	7·3	10·0	10·4	10·5	10·7
Southern Germany [2]	0·6	0·7	0·7	0·6	0·7	0·8	0·8	0·8
Saar	1·6	2·1	2·4	1·9	2·4	2·6	2·6	2·6
GERMANY	*9·6*	*13·6*	*14·1*	*10·9*	*14·7*	*15·6*	*15·9*	*16·1*
BELGIUM	*2·9*	*3·7*	*4·0*	*3·1*	*4·2*	*4·3*	*4·5*	*4·6*
Eastern France	4·3	5·4	5·6	4·5	5·7	6·0	6·1	6·2
Northern France	0·9	1·3	1·6	1·1	1·8	1·8	1·8	1·8
France - other areas	0·8	1·2	1·3	0·9	1·3	1·4	1·4	1·4
FRANCE	*6·0*	*7·9*	*8·5*	*6·5*	*8·8*	*9·2*	*9·3*	*9·4*
Italy - coastal areas	0·8	1·1	1·3	1·2	1·3	1·7	2·5	2·9
Italy - other areas	1·6	3·7	3·8	3·2	3·8	4·0	4·1	4·1
ITALY	*2·4*	*4·8*	*5·1*	*4·4*	*5·1*	*5·7*	*6·6*	*7·0*
LUXEMBOURG	*1·8*	*2·2*	*2·2*	*1·9*	*2·2*	*2·3*	*2·4*	*2·5*
NETHERLANDS	*0·2*	*0·2*	*0·3*	*0·3*	*0·4*	*0·7*	*0·8*	*0·8*
Total	**22·9**	**32·4**	**34·2**	**27·1**	**35·4**	**37·8**	**39·5**	**40·4**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FLAT PRODUCTS

Production

TABLE XXIII b

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	0·4	1·3	1·6	1·2	1·9	1·9	2·1	2·1
North Rhine/Westphalia	5·5	9·1	9·6	6·6	10·3	11·0	11·2	11·3
Southern Germany [2]	0·6	1·1	1·3	0·9	1·3	1·3	1·3	1·3
Saar	0·8	0·8	1·0	0·7	1·1	1·2	1·2	1·2
GERMANY	*7·3*	*12·3*	*13·5*	*9·4*	*14·6*	*15·4*	*15·8*	*15·9*
BELGIUM	*1·9*	*2·6*	*3·0*	*2·4*	*3·3*	*3·5*	*3·6*	*4·1*
Eastern France	2·3	4·6	4·9	4·1	5·0	5·2	5·3	5·3
Northern France	1·3	2·1	2·3	1·9	2·8	3·0	3·1	3·1
France - other areas	0·4	0·5	0·4	0·4	0·4	0·4	0·5	0·5
FRANCE	*4·0*	*7·2*	*7·6*	*6·4*	*8·2*	*8·6*	*8·9*	*8·9*
Italy - coastal areas	0·7	1·7	1·6	1·4	1·9	2·3	2·5	2·5
Italy - other areas	0·8	1·6	2·0	1·8	2·4	2·6	2·7	2·8
ITALY	*1·5*	*3·3*	*3·6*	*3·2*	*4·3*	*4·9*	*5·2*	*5·3*
LUXEMBOURG	*0·7*	*1·0*	*1·2*	*1·1*	*1·2*	*1·2*	*1·2*	*1·2*
NETHERLANDS	*0·8*	*1·6*	*1·6*	*1·5*	*1·6*	*1·6*	*1·8*	*1·8*
Total	**16·2**	**28·0**	**30·5**	**24·0**	**33·2**	**35·2**	**36·5**	**37·2**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FINISHED ROLLED PRODUCTS - TOTAL

Production

TABLE XXIII c

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	1·4	2·8	3·0	2·3	3·5	3·7	4·1	4·1
North Rhine/Westphalia	11·9	18·4	19·2	13·9	20·3	21·4	21·7	22·0
Southern Germany [2]	1·2	1·8	2·0	1·5	2·0	2·1	2·1	2·1
Saar	2·4	2·9	3·4	2·6	3·5	3·8	3·8	3·8
GERMANY	*16·9*	*25·9*	*27·6*	*20·3*	*29·3*	*31·0*	*31·7*	*32·0*
BELGIUM	*4·8*	*6·3*	*7·0*	*5·5*	*7·5*	*7·8*	*8·1*	*8·7*
Eastern France	6·6	10·0	10·5	8·6	10·7	11·2	11·4	11·5
Northern France	2·2	3·4	3·9	3·0	4·6	4·8	4·9	4·9
France - other areas	1·2	1·7	1·7	1·3	1·7	1·8	1·9	1·9
FRANCE	*10·0*	*15·1*	*16·1*	*12·9*	*17·0*	*17·8*	*18·2*	*18·3*
Italy - coastal areas	1·5	2·8	2·9	2·6	3·2	4·0	5·0	5·4
Italy - other areas	2·4	5·3	5·8	5·0	6·2	6·6	6·8	6·9
ITALY	*3·9*	*8·1*	*8·7*	*7·6*	*9·4*	*10·6*	*11·8*	*12·3*
LUXEMBOURG	*2·5*	*3·2*	*3·4*	*3·0*	*3·4*	*3·5*	*3·6*	*3·7*
NETHERLANDS	*1·0*	*1·8*	*1·9*	*1·8*	*2·0*	*2·3*	*2·6*	*2·6*
Total	**39·1**	**60·4**	**64·7**	**51·1**	**68·6**	**73·0**	**76·0**	**77·6**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HEAVY AND LIGHT SECTIONS (INCLUDING TUBE ROUNDS AND SQUARES)

Production

TABLE XXIV a

Production and Production Potential by Areas

'000,000 *metric ton*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	1·0	1·5	1·4	1·1	1·4	1·6	1·8	1·8
North Rhine/Westphalia	5·1	7·2	7·4	5·5	7·5	7·8	7·9	8·0
Southern Germany [2]	0·6	0·7	0·7	0·6	0·7	0·7	0·7	0·7
Saar	1·3	1·7	1·9	1·5	1·9	2·1	2·1	2·1
GERMANY	*8·0*	*11·1*	*11·4*	*8·7*	*11·5*	*12·2*	*12·5*	*12·6*
BELGIUM	*2·4*	*3·0*	*3·1*	*2·4*	*3·2*	*3·3*	*3·5*	*3·6*
Eastern France	3·4	4·0	4·1	3·2	4·2	4·3	4·3	4·3
Northern France	0·9	1·3	1·3	1·0	1·4	1·4	1·4	1·4
France - other areas	0·6	0·9	1·0	0·7	1·0	1·1	1·1	1·1
FRANCE	*4·9*	*6·2*	*6·4*	*4·9*	*6·6*	*6·8*	*6·8*	*6·8*
Italy - coastal areas	0·7	1·0	1·2	1·1	1·2	1·6	2·3	2·7
Italy - other areas	1·2	3·1	3·1	2·7	3·1	3·3	3·4	3·4
ITALY	*1·9*	*4·1*	*4·3*	*3·8*	*4·3*	*4·9*	*5·7*	*6·1*
LUXEMBOURG	*1·5*	*1·9*	*1·9*	*1·7*	*1·9*	*2·0*	*2·1*	*2·2*
NETHERLANDS	*0·1*	*0·1*	*0·1*	*0·1*	*0·2*	*0·4*	*0·4*	*0·4*
Total	**18·8**	**26·4**	**27·2**	**21·6**	**27·7**	**29·6**	**31·0**	**31·7**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Würtemberg, Bavaria.

WIRE-ROD

Production

TABLE XXIV b

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	—	0·0	0·0	0·0	0·2	0·2	0·2	0·2
North Rhine/Westphalia	1·3	2·1	2·2	1·8	2·5	2·6	2·6	2·7
Southern Germany [2]	—	0·0	0·0	0·0	0·0	0·1	0·1	0·1
Saar	0·3	0·4	0·5	0·4	0·5	0·5	0·5	0·5
GERMANY	*1·6*	*2·5*	*2·7*	*2·2*	*3·2*	*3·4*	*3·4*	*3·5*
BELGIUM	*0·5*	*0·7*	*0·9*	*0·7*	*1·0*	*1·0*	*1·0*	*1·0*
Eastern France	0·9	1·4	1·5	1·3	1·5	1·7	1·8	1·9
Northern France	0·0	—	0·3	0·1	0·4	0·4	0·4	0·4
France - other areas	0·2	0·3	0·3	0·2	0·3	0·3	0·3	0·3
FRANCE	*1·1*	*1·7*	*2·1*	*1·6*	*2·2*	*2·4*	*2·5*	*2·6*
Italy - coastal areas	0·1	0·1	0·1	0·1	0·1	0·1	0·2	0·2
Italy - other areas	0·4	0·6	0·7	0·5	0·7	0·7	0·7	0·7
ITALY	*0·5*	*0·7*	*0·8*	*0·6*	*0·8*	*0·8*	*0·9*	*0·9*
LUXEMBOURG	*0·3*	*0·3*	*0·3*	*0·2*	*0·3*	*0·3*	*0·3*	*0·3*
NETHERLANDS	*0·1*	*0·1*	*0·2*	*0·2*	*0·2*	*0·3*	*0·4*	*0·4*
Total	**4·1**	**6·0**	**7·0**	**5·5**	**7·7**	**8·2**	**8·5**	**8·7**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HOOP AND STRIP AND TUBE STRIP

Production

TABLE XXIV c

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	—	—	—	—	—	—	—	—
North Rhine,Westphalia	1·5	2·5	2·5	1·8	2·6	2·7	2·7	2·8
Southern Germany [2]	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Saar	0·2	0·3	0·3	0·2	0·3	0·3	0·3	0·3
GERMANY	*1·7*	*2·8*	*2·8*	*2·0*	*2·9*	*3·0*	*3·0*	*3·1*
BELGIUM	*0·3*	*0·4*	*0·4*	*0·3*	*0·4*	*0·4*	*0·5*	*0·5*
Eastern France	0·6	1·1	1·1	1·0	1·2	1·2	1·2	1·2
Northern France	0·0	0·0	0·1	0·0	0·1	0·1	0·1	0·1
France - other areas	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
FRANCE	*0·6*	*1·1*	*1·2*	*1·0*	*1·3*	*1·3*	*1·3*	*1·3*
Italy - coastal areas	0·1	0·2	0·2	0·2	0·3	0·3	0·3	0·3
Italy - other areas	0·1	0·3	0·3	0·3	0·3	0·3	0·3	0·3
ITALY	*0·2*	*0·5*	*0·5*	*0·5*	*0·6*	*0·6*	*0·6*	*0·6*
LUXEMBOURG	*0·4*	*0·6*	*0·7*	*0·6*	*0·7*	*0·7*	*0·7*	*0·7*
NETHERLANDS	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*	*0·1*
Total	3·3	5·5	5·7	4·5	6·0	6·1	6·2	6·3

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

PLATE > 3 mm (INCLUDING WIDE FLAT STEEL)

Production

TABLE XXIV d

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	0·4	0·9	0·9	0·7	0·9	0·9	0·9	0·9
North Rhine,Westphalia	2·4	3·8	4·0	2·6	4·4	4·4	4·6	4·6
Southern Germany [2]	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Saar	0·4	0·5	0·6	0·5	0·7	0·8	0·8	0·8
GERMANY	*3·2*	*5·2*	*5·5*	*3·8*	*6·0*	*6·1*	*6·3*	*6·3*
BELGIUM	*0·7*	*0·8*	*0·8*	*0·6*	*1·0*	*1·1*	*1·1*	*1·1*
Eastern France	0·6	1·3	1·3	0·9	1·3	1·3	1·3	1·3
Northern France	0·4	0·5	0·7	0·5	0·7	0·7	0·7	0·7
France - other areas	0·1	0·1	0·1	0·1	0·1	0·1	0·1	0·1
FRANCE	*1·1*	*1·9*	*2·1*	*1·5*	*2·1*	*2·1*	*2·1*	*2·1*
Italy - coastal areas	0·3	0·6	0·6	0·5	0·7	1·0	1·2	1·2
Italy - other areas	0·3	0·6	0·6	0·4	0·6	0·6	0·6	0·6
ITALY	*0·6*	*1·2*	*1·2*	*0·9*	*1·3*	*1·6*	*1·8*	*1·8*
LUXEMBOURG	*0·1*	*0·1*	*0·2*	*0·2*	*0·2*	*0·2*	*0·2*	*0·2*
NETHERLANDS	*0·3*	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*
Total	**6·0**	**9·6**	**10·2**	**7·4**	**11·0**	**11·5**	**11·9**	**11·9**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HOT-ROLLED SHEET
< 3 mm.

Production

TABLE XXIV e

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	—	0·0	0·0	0·0	0·1	0·1	0·1	0·1
North Rhine/Westphalia	1·1	1·0	1·1	0·7	1·0	1·0	0·9	0·9
Southern Germany [2]	0·4	0·3	0·2	0·2	0·2	0·2	0·2	0·2
Saar	0·1	0·0	0·1	0·0	0·1	0·1	0·1	0·1
GERMANY	*1·6*	*1·3*	*1·4*	*0·9*	*1·4*	*1·4*	*1·3*	*1·3*
BELGIUM	*0·5*	*0·3*	*0·2*	*0·2*	*0·2*	*0·2*	*0·2*	*0·2*
Eastern France	0·5	0·4	0·4	0·3	0·3	0·3	0·3	0·3
Northern France	0·4	0·3	0·3	0·2	0·3	0·3	0·3	0·3
France - other areas	0·2	0·1	0·1	0·1	0·1	0·1	0·1	0·1
FRANCE	*1·1*	*0·8*	*0·8*	*0·6*	*0·7*	*0·7*	*0·7*	*0·7*
Italy - coastal areas	0·1	0·1	0·1	0·1	0·1	0·2	0·2	0·2
Italy - other areas	0·2	0·1	0·1	0·1	0·1	0·1	0·1	0·1
ITALY	*0·3*	*0·2*	*0·2*	*0·2*	*0·2*	*0·3*	*0·3*	*0·3*
LUXEMBOURG	—	*0·0*	*0·0*	*0·0*	*0·0*	*0·0*	*0·0*	*0·0*
NETHERLANDS	*0·0*	*0·0*	*0·0*	*0·0*	—	—	—	—
Total	**3·5**	**2·6**	**2·6**	**1·9**	**2·5**	**2·6**	**2·5**	**2·5**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

COLD-REDUCED SHEET
< 3 mm.

Production

TABLE XXIV f

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1963	Expected production potential			
	1955	1962	1963		1964	1965	1966	1967
Northern Germany [1]	—	0·4	0·7	0·5	0·9	0·9	1·1	1·1
North Rhine/Westphalia	0·5	1·8	2·0	1·5	2·3	2·9	3·0	3·0
Southern Germany [2]	0·2	0·8	1·1	0·7	1·1	1·1	1·1	1·1
Saar	0·1	—	—	—	—	—	—	—
GERMANY	*0·8*	*3·0*	*3·8*	*2·7*	*4·3*	*4·9*	*5·2*	*5·2*
BELGIUM	*0·4*	*1·1*	*1·6*	*1·3*	*1·7*	*1·8*	*1·8*	*2·3*
Eastern France	0·6	1·8	2·1	1·9	2·2	2·4	2·5	2·5
Northern France	0·5	1·3	1·2	1·2	1·7	1·9	2·0	2·0
France - other areas	0·1	0·3	0·2	0·2	0·2	0·2	0·3	0·3
FRANCE	*1·2*	*3·4*	*3·5*	*3·3*	*4·1*	*4·5*	*4·8*	*4·8*
Italy - coastal areas	0·2	0·8	0·7	0·6	0·8	0·8	0·8	0·8
Italy - other areas	0·2	0·6	1·0	1·0	1·4	1·6	1·7	1·8
ITALY	*0·4*	*1·4*	*1·7*	*1·6*	*2·2*	*2·4*	*2·5*	*2·6*
LUXEMBOURG	*0·2*	*0·3*	*0·3*	*0·3*	*0·3*	*0·3*	*0·3*	*0·3*
NETHERLANDS	*0·4*	*1·1*	*1·1*	*1·0*	*1·1*	*1·1*	*1·3*	*1·3*
Total	3·4	10·3	12·0	10·2	13·7	15·0	15·9	16·5

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Würtemberg, Bavaria.

HOT WIDE-STRIP MILLS

Investment

(already included in the capital expenditure for the flat-product mills, Table XVIII *c*)

TABLE XXV a

Capital Expenditure by Areas

$ '000,000 *(E.M.A, units of account)*

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	...[1])	1960	1961	1962	1963	1964	1965
Northern Germany [2])	.	14.5		3.6	21.3	8.5	23.8	5.7	0.2
North Rhine/Westphalia	.	12.7		7.7	13.1	13.9	33.7	53.0	21.4
Southern Germany [3])	—	—		—	—	—	—	—	—
Saar	—	—		—	—	—	—	—	—
GERMANY	.	*27.2*		*11.3*	*34.4*	*22.4*	*57.5*	*58.7*	*21.6*
BELGIUM	.	*0.9*		*6.1*	*7.4*	*8.9*	*23.3*	*9.8*	*13.9*
Eastern France	.	1.8		2.3	2.0	1.5	0.9	0.4	0.3
Northern France	.	1.1		4.6	20.0	27.7	22.7	9.1	5.6
France - other areas	.	0.8		—	—	0.5	1.1	0.7	0.2
FRANCE	.	*3.7*		*6.9*	*22.0*	*29.7*	*24.7*	*10.2*	*6.1*
Italy - coastal areas	.	0.4		1.0	1.0	0.3	37.2	26.8	9.1
Italy - other areas	.	2.4		0.9	1.4	3.5	15.7	24.1	6.1
ITALY	.	*2.8*		*1.9*	*2.4*	*3.8*	*52.9*	*50.9*	*15.2*
LUXEMBOURG	.	*0.2*		*0.6*	*0.0*	*0.0*	*0.0*	*0.1*	. —
NETHERLANDS	.	*1.0*		*0.7*	*0.8*	*0.7*	*0.3*	*0.1*	*0.6*
Total	31.6	35.8		27.5	67.0	65.5	158.7	129.8	57.4

[1]) Capital expenditure concerning 1956-1959 appears in the tables of the 1963 Survey's Report.
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

COILS [1]

Production

TABLE XXV b

Production and Production Potential by Areas

'000,000 *metric ton*

Area	Production potential			Actual production 1963	Expected production potential			
	1955 [2]	1962	1963		1964	1965	1966	1967
Northern Germany [3]	0·3	0·6	0·9	0·7	1·4	1·6	1·7	1·7
North Rhine/Westphalia	1·7	3·3	3·5	3·1	4·1	5·2	5·2	6·5
Southern Germany [4]	—	—	—	—	—	—	—	—
Saar	—	—	—	—	—	—	—	—
GERMANY	*2·0*	*3·9*	*4·4*	*3·8*	*5·5*	*6·8*	*6·9*	*8·2*
BELGIUM	*1·0*	*1·4*	*1·7*	*1·5*	*2·3*	*2·6*	*2·7*	*3·5*
Eastern France	1·5	2·3	2·4	2·3	2·5	2·5	2·5	2·5
Northern France	1·1	1·7	1·7	1·7	2·4	2·7	2·8	2·8
France - other areas	0·1	0·0	0·0	0·0	0·0	0·0	0·1	0·1
FRANCE	*2·7*	*4·1*	*4·1*	*4·0*	*4·9*	*5·2*	*5·4*	*5·4*
Italy - coastal areas	0·9	1·5	1·5	1·5	1·8	2·9	3·2	3·2
Italy - other areas	0·2	0·1	0·3	0·1	0·4	0·5	0·6	0·8
ITALY	*1·1*	*1·6*	*1·8*	*1·6*	*2·2*	*3·4*	*3·8*	*4·0*
LUXEMBOURG	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*	*0·4*
NETHERLANDS	*0·8*	*1·3*	*1·4*	*1·4*	*1·5*	*1·5*	*1·5*	*1·5*
Total	**8·0**	**12·7**	**13·8**	**12·7**	**16·8**	**19·9**	**20·8**	**23·0**

[1] The products of the Treaty obtained by transformation of hot-rolled coils are included in the tables XXIII *b*, XXIV *c*, *-d*, *-e* and *-f*.
[2] Figures for 1955 are approximations only.
[3] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[4] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.