

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 1962 SURVEY

Position as at January 1, 1962

JULY 1962

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## I — GENERAL REMARKS

For the tenth year in succession, the High Authority has conducted a survey of past and future investment by Community enterprises as at January 1, 1962, and its foreseeable effects on production potential. Annex I following lists the basic definitions adopted; Annex II contains a breakdown of the statistical data by coalfields and producer areas.

As in previous years, the survey covers all but a few very small enterprises accounting among them for less than 0.7 % of the Community's total coal production and less than 1.8 % of its total steel production (see Annex I).

### (a) Capital Expenditure

Capital expenditure entered by Community enterprises on the credit side of their balance-sheets over the eight years 1954-61 totalled 9,100 million dollar units of account, representing an annual average of 1,140 million (59 % in the iron and steel industry, 37 % in the coalmines, 4 % in the iron-ore mines; the percentages for 1954 alone worked out at 49 %, 48 % and 3 % respectively).

Overall, capital investment in the Community industries in 1961 exceeded that for the record year 1960 by 30 %. But the steep rise in investment activity in the iron and steel industry and in the iron-ore mines masks the decline in the coalmining industry since 1960. The forecasts drawn up by the iron and steel industry for 1962 suggest a fresh upsurge of capital expenditure in that industry.

**TABLE 1**  
**General Trend in Investment Projects in Recent Years**

Sector	Projects completed		Projects planned for 1962
	1954—1960 (annual average)	1961	
Coalmining industry.....	100	89	103
Iron-ore mines.....	100	124	160
Iron and steel industry.....	100	184	246
<b>All E.C.S.C. industries</b>	<b>100</b>	<b>136</b>	<b>177</b>

*Indices*

Table 2 and Fig. 1 show, in absolute figures, the capital expenditure effected or estimated in each of the main industries from 1954 to 1963.

The figures for the years 1960 and 1961 differ from those given in our previous report, inasmuch as

- (a) for the past year (1961), actual expenditure falls below the estimates submitted on January 1;
- (b) for the previous year (1960), the expenditure figures, returned before the balance-sheets were closed, are corrected when the next survey is drawn up.

TABLE 2  
Capital Expenditure in the Community Industries, 1954—1963

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

Sector	Actual expenditure								Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Coalmining industry .....	445	408	404	471	469	406	371	378	439	373
Plants producing B.K.B. and low-temperature brown-coal coke .....	5	8	5	2	5	5	6	4	8	6
Iron-ore mines .....	30	31	44	50	41	40	43	49	64	47
Iron and steel industry .....	453	524	570	708	644	587	775	1122	1500 <sup>1)</sup>	1092 <sup>1)</sup>
<b>Total</b>	<b>933</b>	<b>971</b>	<b>1023</b>	<b>1231</b>	<b>1159</b>	<b>1038</b>	<b>1195</b>	<b>1553</b>	<b>2011</b>	<b>1518</b>

<sup>1)</sup> Expenditure only on projects in progress (A) or approved (B) (see Annex I, page 33).

Fig. 2 indicates that actual expenditure in 1961 amounted in the coalmining industry to 83 %, in the iron and steel industry to 89 % and in iron-ore mines to 80 % of the forecasts made on January 1.

### (b) Production Potential

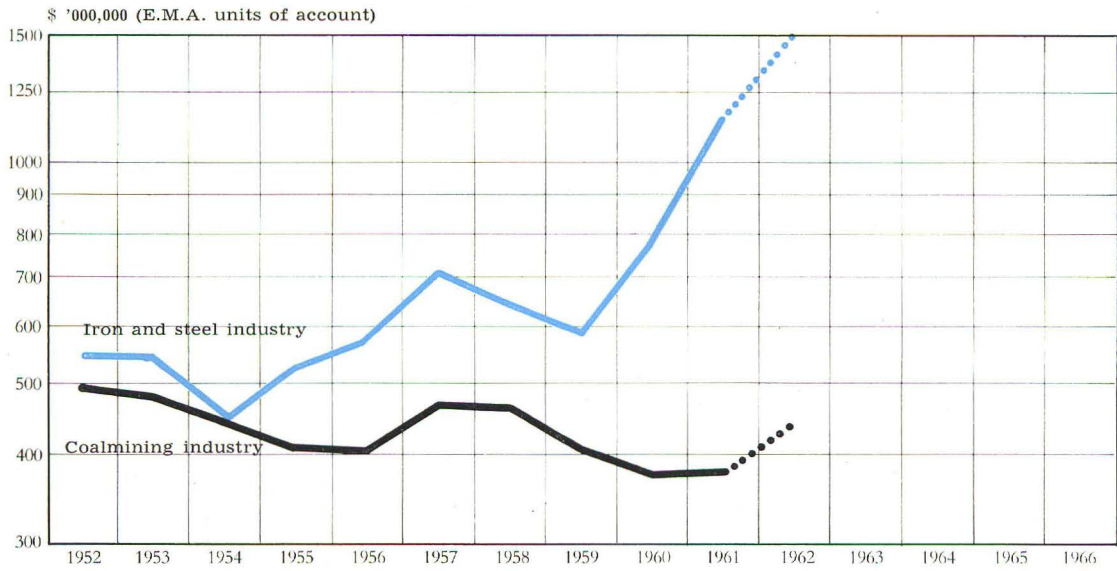
In comparison with the forecasts made previously, the production potential of the coal-mining industry shows a slow but steady decline, attributable partly to the smaller number of coal-winning shifts taken as a basis for calculation in certain coalfields, and partly to the closure of pits.

On the other hand, the rate of expansion made possible by the investment effected is being maintained at a high level for pig-iron and crude steel.

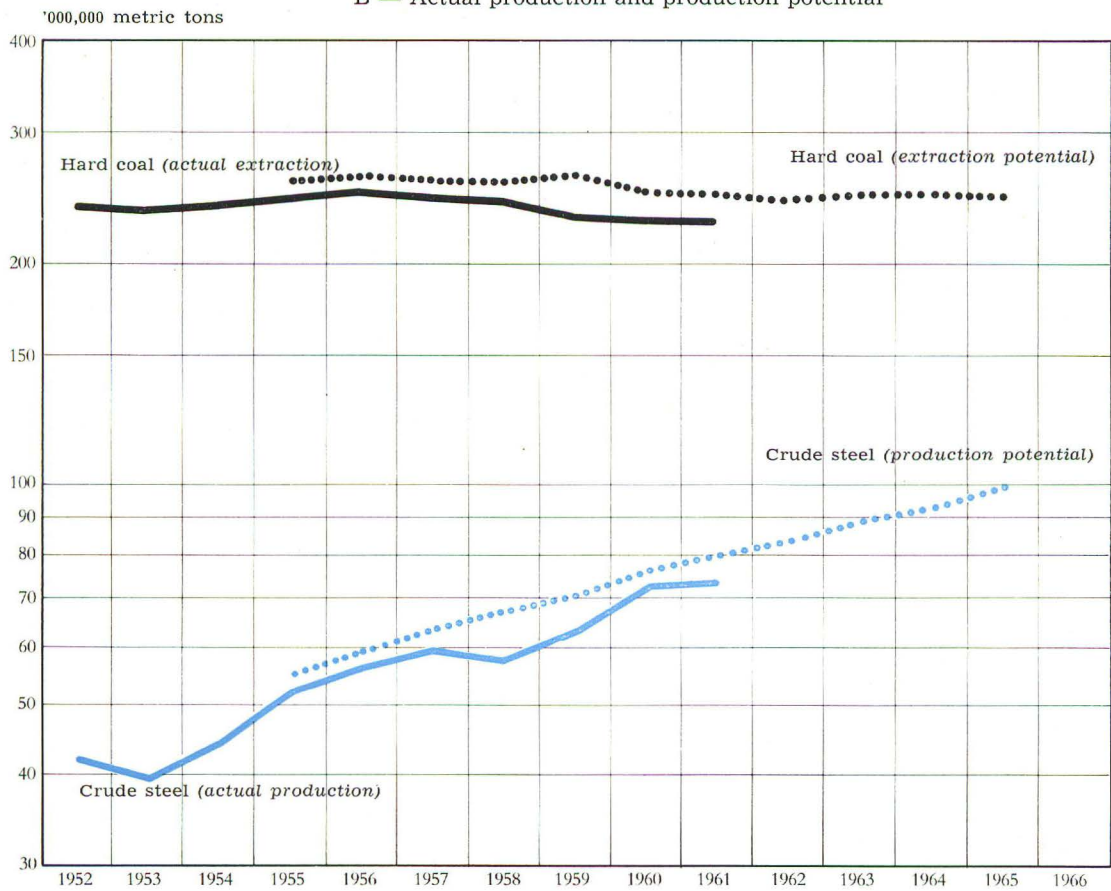
FIGURE 1

Investment in the Coalmining and Iron and Steel Industries

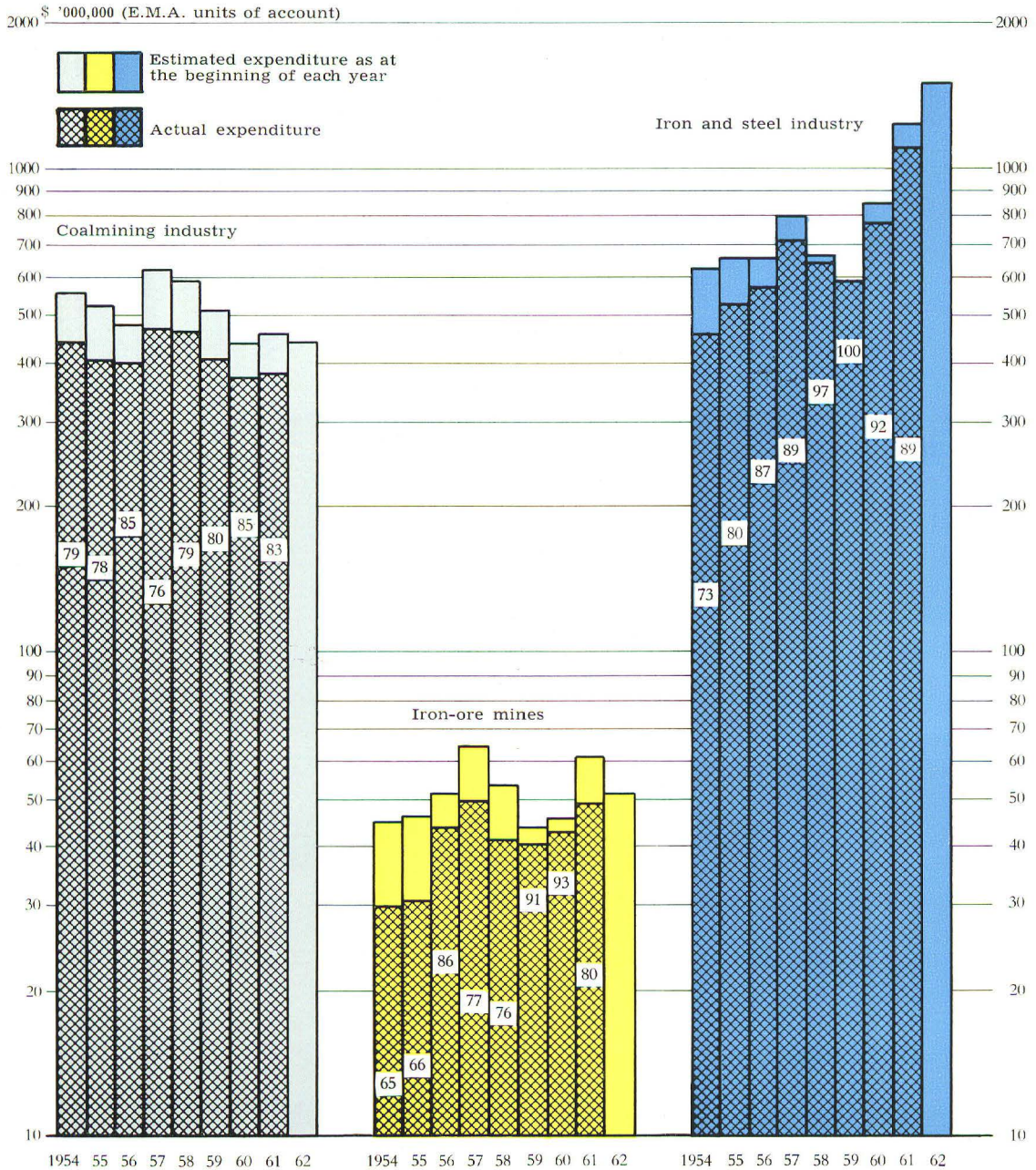
A — Capital expenditure



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)



**TABLE 3**  
**Actual Production and Production Potential**

Product	Actual production			Production potential		
	1952 ( <sup>'000,000</sup> m.t.)	Mean annual rate of increase in %	1961 ( <sup>'000,000</sup> m.t.)	1961 ( <sup>'000,000</sup> m.t.)	Mean annual rate of increase in %	1965 ( <sup>'000,000</sup> m.t.)
Hard coal <sup>1)</sup> .....	237.4	— 0.4	228.9	246.8	+ 0.7	248.0
B.K.B. and low-temperature brown-coal coke .....	16.5	— 7.6	14.4	14.4	— 0.7	14.0
Iron ore .....	65.3	+ 4.4	95.9	104.5	+ 2.5	115.4
Pig-iron .....	34.7	+ 5.2	54.6	60.1	+ 6.8	78.1
Crude steel .....	41.8	+ 6.4	73.2	79.9	+ 5.5	98.9

<sup>1)</sup> Exclusive of the "small mines" (see Annex I, page 34).

In order to interpret the production-potential figures correctly, it must be borne in mind that the sum of the potentials declared by each mine or 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 never exceeded 96 % of the sum of the individual production potentials declared for the purposes of the survey.

**TABLE 4**  
**Relation between Actual Production and  
the Sum of Individual Production Potentials**

Sector	1955	1956	1957	1958	1959	1960	1961
Hard coal ...	94.9	94.6	95.1	94.8	89.3	92.6	92.7
Coke .....	93.2	96.5	96.1	92.2	84.3	85.7	85.3
Ore .....	95.4	95.1	94.9	91.3	90.9	94.6	91.7
Pig-iron .....	96.3	96.0	94.7	87.9	88.3	94.3	90.9
Crude steel ...	95.8	96.1	94.1	85.7	89.6	95.6	91.7

%



## II — THE COALMINING INDUSTRY

Table 5 shows the figures for the whole coalmining industry, broken down under collieries, coking-plants, briquetting-plants, and power-stations and other generating plant. The figures for the plants producing B.K.B. and low-temperature brown-coal coke are given separately.

**TABLE 5**  
**Capital Expenditure in the Coalmining Industry,**  
**1960—1963**

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

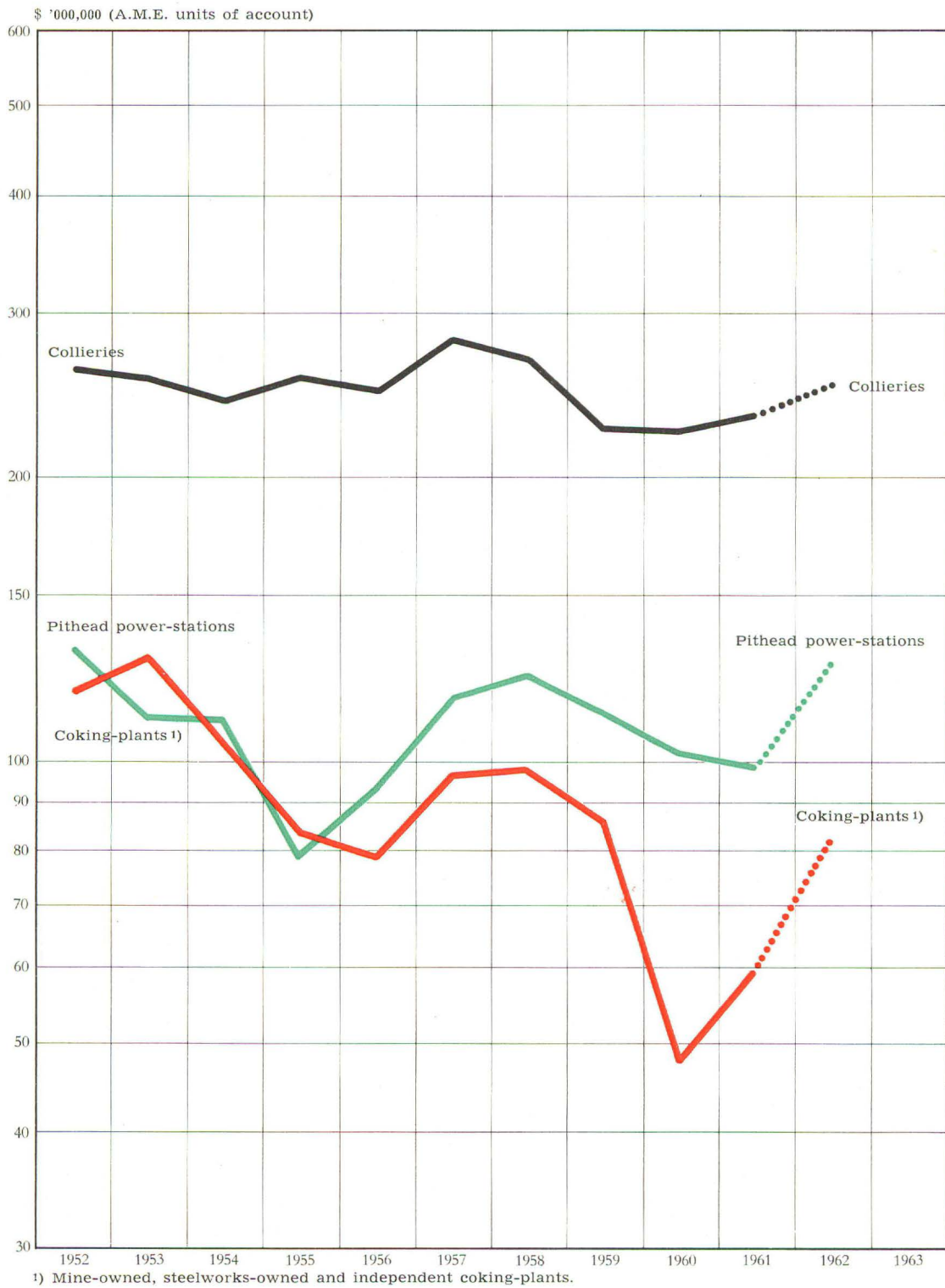
Sector	Actual expenditure		Estimated expenditure	
	1960	1961	1962	1963
Collieries .....	226	234	251	196
Coking-plants, mine-owned .....	34	40	47	38
Coking-plants, independent .....	1	1	6	3
Briquetting-plants .....	7	4	7	5
Pithead power-stations and other power-generating plant .....	103	99	128	131
<i>of which:</i>				
Pithead power-stations .....	(94)	(92)	(117)	(124)
Other power-generating plant ....	(9)	(7)	(11)	(7)
<b>Total</b>	<b>371</b>	<b>378</b>	<b>439</b>	<b>373</b>
Plants producing B.K.B. and low- temperature brown-coal coke .....	6	4	8	6

### (a) Collieries

Capital expenditure on the collieries remains singularly constant, averaging 1.05 units of account per metric ton of coal produced from 1952 to 1960, and 1.02 units per ton in 1961. In absolute figures, the amounts invested have ranged from a maximum of 281 million



FIGURE 3  
Capital Expenditure in the Coalmining Industry



units of account in 1957 to a minimum of approximately 226 million in 1960. Expenditure in the Saar was high owing to the operation in the Warndt; in the Belgian coalfields, as in 1959 and 1960, it was only about half what it had been in the years up to 1958. Forecasts for 1962 for the Community coalfields as a whole are again somewhat above the figures actually recorded for the past twelve months.

Capital expenditure from 1954 to 1961 may be broken down by categories of installation as follows.

TABLE 6  
Capital Expenditure on Collieries, 1954—1961

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

Category	1954	1955	1956	1957	1958	1959	1960	1961
Shafts and underground workings ...	43.5	54.9	57.5	63.8	67.0	51.1	48.6	43.5
Machines and mechanical equipment below ground .....	49.0	53.8	57.7	68.3	62.9	49.3	52.5	55.2
Haulage and winding equipment ....	22.6	20.1	18.8	22.4	20.6	24.1	25.8	24.9
Screening and washing .....	68.4	64.9	50.4	57.4	50.6	48.3	45.3	48.2
Other surface installations.....	31.4	35.1	34.4	36.1	33.0	27.6	32.9	36.1
Buildings, etc. ....	26.9	27.6	29.8	33.5	34.3	26.4	20.5	26.3
<b>Total</b>	<b>241.8</b>	<b>256.4</b>	<b>248.6</b>	<b>281.5</b>	<b>268.4</b>	<b>226.8</b>	<b>225.6</b>	<b>234.2</b>

As in previous years, expenditure on extraction proper accounts for slightly over 50 % of the whole.

The following table shows the expected development of production potential. The forecasts are some 4 million metric tons below last year's; the collieries of Southern Belgium, however, still represent about 14 million tons out of the total of 248,0 million indicated for 1965. The figures are not fully comparable, as the number of working days which is used as a basis varies from one country and from one coalfield to another: 260 in Germany (296 in the Saar), 260 in the Netherlands, 260 in Belgium, and 287 in France.

TABLE 7

## Development of Hard-Coal Extraction Potential

'000,000 metric tons

Extraction		Extraction potential				
1952	1961	1961	1962	1963	1964	1965
237.4	228.9	246.8	246.0	247.0	247.5	248.0

Tables I and V annexed contain a detailed breakdown of expenditure and of the expected development of extraction potential. As in last year's survey, mines producing only small tonnages are excluded: the total production of these small mines in 1961 amounted to approximately 1.6 million metric tons.

**(b) Coking-Plants**

Expenditure in 1961 on mine-owned coking-plants was higher than in 1960, but still low, well below the level of 1954-59.

Specific capital expenditure per metric ton of coke produced in the mine-owned coking-plants amounted to 0.86 units of account as against an average 1.30 for the years 1952-60.

As regards the steelworks-owned coking-plants (which we include here in order to provide a full picture of the carbonization sector), expenditure showed an upturn in 1961; record levels are forecast for 1962 and 1963, mainly as a result of Italian coking-plant development projects.

The following table shows the trend in capital expenditure on steelworks-owned coking-plants. The forecasts for 1962 and 1963 have been worked out twice, first as covering only projects already in progress or approved (categories A and B), and secondly as including projects only contemplated (categories A, B, and C). Table 17 incorporates this trend from 1954 onwards, but for 1962 and 1963 indicates only expenditure on categories A and B.

TABLE 8

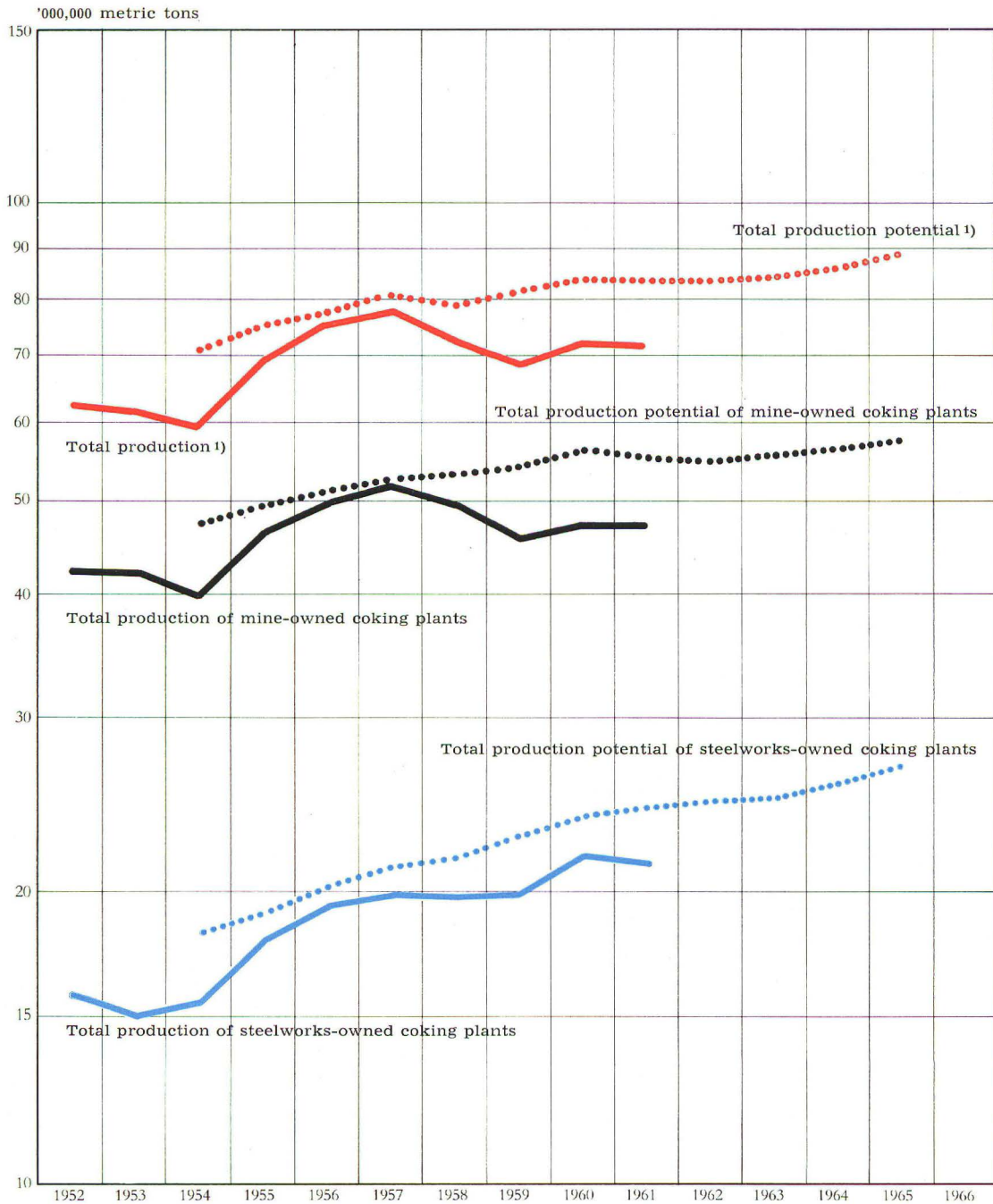
## Capital Expenditure on Steelworks-Owned Coking-Plants, 1960-1963

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

1960	1961	Forecasts 1962		Forecasts 1963	
		Categories A + B	Categories A + B + C	Categories A + B	Categories A + B + C
11.5	18.2	29.7	30.1	20.0	25.1

FIGURE 4

Production and Production Potential of Coking-Plants



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

The breakdown of expenditure from 1954 to 1961 by categories of plant is as follows.

TABLE 9

**Capital Expenditure on Mine-Owned, Independent and  
Steelworks-Owned Coking-Plants, 1954—1961**

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

Category	1954	1955	1956	1957	1958	1959	1960	1961
Coke ovens .....	46.5	32.2	32.3	41.8	41.7	32.7	20.7	25.6
<i>of which:</i>								
New plant .....	(31.9)	(19.3)	(17.3)	(24.7)	(21.8)	(14.7)	(9.6)	(12.7)
Repairs and replacements .....	(14.6)	(12.9)	(15.0)	(17.1)	(19.9)	(18.0)	(11.1)	(12.9)
Gas producers and other gasification plant .....	5.7	3.4	2.0	1.3	1.3	0.9	0.9	0.4
Coke-oven gas and by-product plant	27.1	28.9	25.9	34.8	29.6	28.3	13.1	18.1
Miscellaneous .....	26.0	19.9	19.4	18.1	24.2	23.5	12.1	15.7
<b>Total</b>	<b>105.3</b>	<b>84.4</b>	<b>79.6</b>	<b>96.0</b>	<b>96.8</b>	<b>85.4</b>	<b>46.8</b>	<b>59.8</b>

The expected development of production potential is shown in the table below. While the mine-owned plants show only a small increase, and the independent plants none at all, the production potential of the steelworks-owned plants is expected by 1965 to be appreciably greater than in 1961.

TABLE 10

**Development of Coke Production Potential**

'000,000 metric tons

Cokeries	Actual production		Production potential				
	1952	1961	1961	1962	1963	1964	1965
Mine-owned plants .....	42.2	46.9	55.6	55.1	56.1	57.0	58.0
Independent plants .....	3.2	3.4	4.3	4.1	4.1	4.2	4.2
Steelworks-owned plants <sup>1)</sup> .....	15.8	21.5	24.3	24.7	24.9	25.7	26.8
<b>Total</b>	<b>61.2</b>	<b>71.8</b>	<b>84.2</b>	<b>83.9</b>	<b>85.1</b>	<b>86.9</b>	<b>89.0</b>

<sup>1)</sup> Cf. Table 18, page 20. The production-potential figures above for the steelworks-owned plants are calculated on the same basis as for the other types of plants, viz. including not only projects in progress or approved (categories A and B) but also projects only contemplated (category C).

Tables II, IV and XIVa annexed contain a detailed breakdown of expenditure and of the expected development of capacity, together with technical notes as to the operation of the coking-plants from 1954 to 1961.

### (c) Briquetting-Plants

Capital expenditure is very much lower in this sector than elsewhere, and is practically nil as regards those plants which are not actually colliery-owned.

Details will be found in Tables III and VII annexed.

### (d) Pithead Power-Stations

Both actual and estimated expenditure in this sector continue high in most areas.

As in previous surveys, we have included all expenditure on the so-called "shared" power-stations, i. e. those jointly owned by collieries and other bodies.

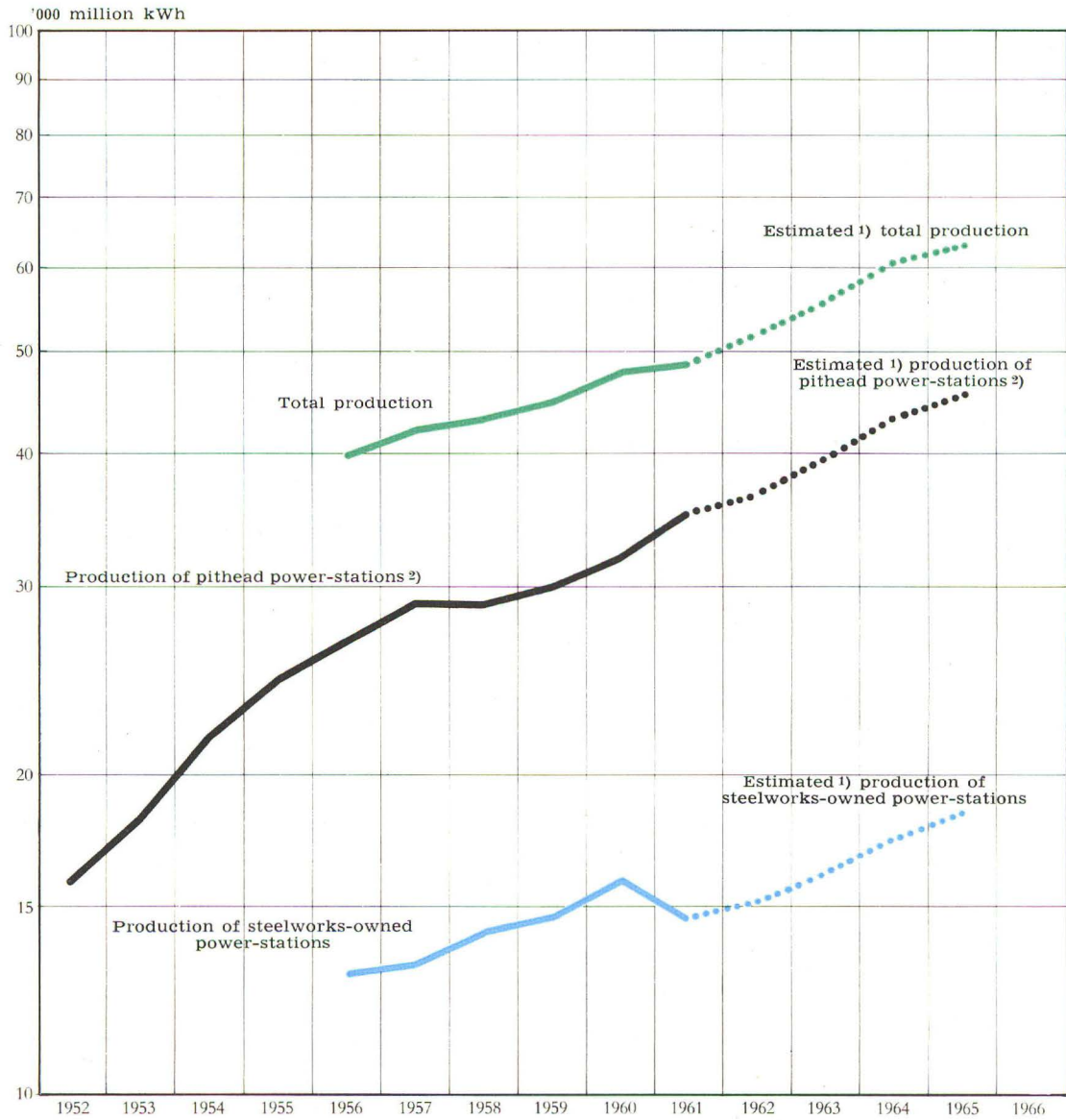
**TABLE 11**  
**Capital Expenditure on Pithead Power-Stations and other Power-Generating Plant at Mines, by Types of Installation, 1954—1961**

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

Type of installation	1954	1955	1956	1957	1958	1959	1960	1961
<i>Pithead power-stations :</i>								
Steam-raising plant.....	41.1	26.9	26.9	36.2	42.9	46.0	34.8	29.1
Power-generating plant and distribution switchgear.....	26.8	21.0	28.6	34.5	35.4	35.7	40.7	42.8
Buildings.....	9.2	6.1	6.8	10.7	15.1	7.9	7.2	9.7
Electricity distribution networks ..	6.5	4.4	12.6	9.0	6.1	4.0	5.0	3.7
Miscellaneous.....	4.9	5.5	6.3	11.3	11.7	10.1	6.0	6.3
<b>Total</b>	<b>88.5</b>	<b>63.9</b>	<b>81.2</b>	<b>101.7</b>	<b>111.2</b>	<b>103.7</b>	<b>93.7</b>	<b>91.6</b>
<i>Other power-generating plant at mines :</i>								
Steam-raising plant.....	6.1	3.3	3.6	3.6	2.9	1.7	1.6	0.6
Power-generating plant and distribution switchgear.....	3.5	3.3	2.4	3.8	3.2	2.4	1.7	1.9
Buildings.....	0.5	0.2	0.5	0.2	0.3	0.3	0.3	0.1
Electricity distribution networks ..	4.7	3.5	1.9	2.6	2.3	1.3	2.0	2.1
Compressed-air plant.....	7.6	5.5	4.8	5.2	4.9	3.7	2.7	2.3
Miscellaneous.....	0.9	0.2	0.1	0.1	0.2	0.3	0.5	0.3
<b>Total</b>	<b>23.3</b>	<b>16.0</b>	<b>13.3</b>	<b>15.5</b>	<b>13.8</b>	<b>9.7</b>	<b>8.8</b>	<b>7.3</b>

FIGURE 5

Electric Power Production



1) For 1962 and following years energy production figures have been estimated on the basis of the maximum electric capacity as at mid-year assuming the same number of load-hours as in 1961, i.e. 4,020 hours per annum for the pithead power-stations and 4,366 hours per annum for the steelworks-owned power-stations.  
 2) Pithead power-stations proper and other power-stations plant at mines.



The following table shows the expected development of the maximum electric capacity of the power plant installed.

TABLE 12

## Development of Maximum Electric Capacity

Beginning of 1961	Beginning of 1962	Beginning of 1963	Beginning of 1964	Beginning of 1965	Beginning of 1966
8,406	8,863	9,432	10,371	11,098	11,547

MW

These figures show little change from those in last year's survey. The proportion of capital expenditure going on generating plant other than pithead power-stations continues to fall, as investment is being concentrated rather on the installation of large generating condensing sets. The number of load-hours (calculated on the basis of the average annual electric capacity), which had been rising steadily (4,761 in 1955, 4,934 in 1956, 5,036 in 1957), went down in 1958 to 4,530, in 1959 to 4,185 and in 1960 to 3,965, but in 1961 rose again to 4,020; over the same period, the number of kilowatt-hours produced by plant consuming over 4,000 calories per kWh fell from 6,100 million to 3,300 million, i.e. from 25 % of total pithead power-station production in 1955 to 9.5 % in 1961.

At 4,020 hours, the pithead power-stations should by 1965 be producing not less than 46,000 million kWh.

In 1961, 61 % of the electric current produced was sold.

Tables IV, VIII and IX annexed contain a detailed breakdown of expenditure and of the development of maximum electric capacity, together with some technical data on the operation of the pithead power-stations, number of load-hours, specific consumption (of calories per kWh), and consumption of low-grade fuels.

The steelworks-owned power-stations (which we include here in order to provide a full picture of the power-generating plants of both the coalmining and the steel industry) are expected to attain the following maximum electric capacities.

Beginning of 1961	Beginning of 1962	Beginning of 1963	Beginning of 1964	Beginning of 1965	Beginning of 1966
3,271	3,403	3,503	3,856	4,099	4,274

MW

In 1961, they produced 14,568 million kWh with an average electric capacity of 3,337 MW and 4,366 load-hours. At this performance rate they should produce approximately 18,300 million kWh in 1965.

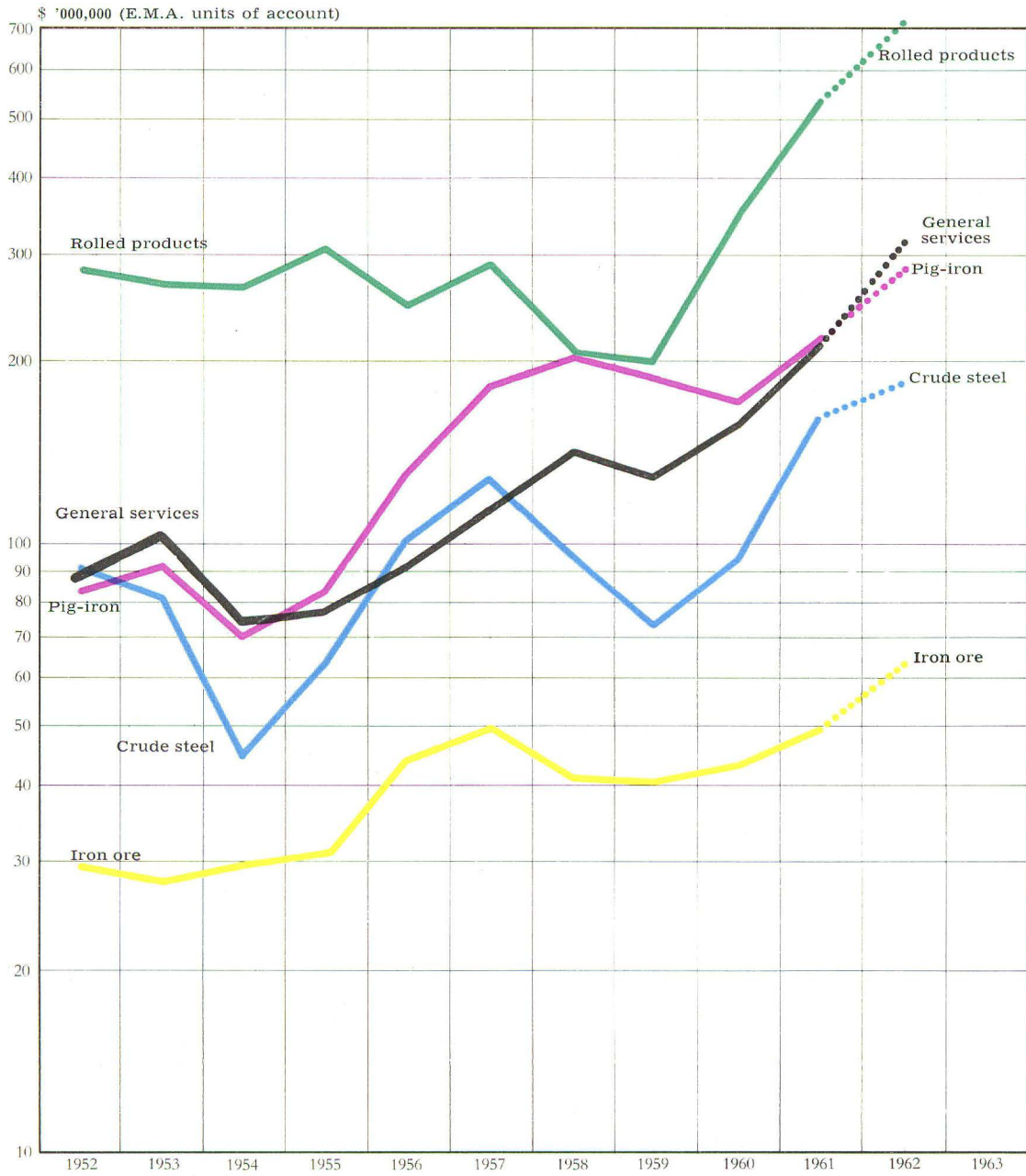
Overall production of electric current by the pithead and steelworks-owned power-stations together is thus likely to reach 46 + 18 thousand million = 64,000 million kWh in 1965, or 23 % of the thermal-current production forecast and 17 % of the total production of electric current forecast for the Community for 1965, according to the High Authority's latest energy studies.

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

Table X annexed contains the breakdown of expenditure and expected development of production potential. The latter indicates a gradual decline in briquette production, with production of low-temperature coke expected to remain unchanged.

FIGURE 6

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



### III — THE IRON-ORE MINES

Capital expenditure in the Community iron-ore mines has been, since 1956, in the region of 40 million units of account per annum, with peaks of close on 50 million in 1957 and 1961. The projects declared by the enterprises suggest that the latter figure will be only slightly exceeded in 1962. In relative value, capital expenditure on iron-ore extraction represents little more than 50 % of total expenditure.

TABLE 13  
Capital Expenditure in the Iron-Ore Industry, 1954—1963

\$ '000,000 (E.M.A. units<sup>5</sup> of account)

Type of plant	Actual expenditure								Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Mining of ore .....	14.8	16.3	22.3	29.4	22.7	22.5	26.1	27.7	29.5	23.3
Preparation of ore at mine .....	7.3	5.9	10.6	10.9	9.6	9.2	7.5	9.7	18.5	16.7
Various surface installations .....	7.4	8.5	11.0	9.5	8.9	8.6	9.6	11.8	15.7	7.1
<b>Total</b>	<b>29.5</b>	<b>30.7</b>	<b>43.9</b>	<b>49.8</b>	<b>41.2</b>	<b>40.3</b>	<b>43.2</b>	<b>49.2</b>	<b>63.7</b>	<b>47.1</b>

Crude-ore extraction increased from 65.3 million metric tons in 1952 to 95.9 million in 1961, *i. e.* at a cumulative mean annual rate of 4.4 %. Actual and estimated expenditure is not enough to maintain this rate of expansion, since extraction potential is only expected to rise from 104.5 million metric tons in 1961 to 115.4 million in 1965, *i. e.* at an average annual rate of no more than 2.5 %.

Lorraine ore accounted for 65 % of total extraction in 1961, as in 1959 and 1960. Its share in Community production potential is expected to rise from 63 % in 1961 to 67 % in 1965.

TABLE 14  
Development of Ore-Crude Extraction Potential

'000,000 metric tons

Actual extraction		Extraction potential				
1952	1961	1961	1962	1963	1964	1965
65.3	95.9	104.5	107.3	111.0	112.7	115.4

#### IV — THE IRON AND STEEL INDUSTRY

Capital expenditure in the Community iron and steel industry in 1961 reached the outstandingly high figure of 1,122 million dollar units of account, representing a 45 % increase over the record level attained the year before. Expenditure approved in respect of 1962 totals 1,500 million units of account, representing a further increase of 34 %.

These two overall year-to-year increases, for 1961 over 1960 and for 1962 over 1961, relate to all the various production stages, but are in general largest of all in the case of the rolling-mills.

TABLE 15

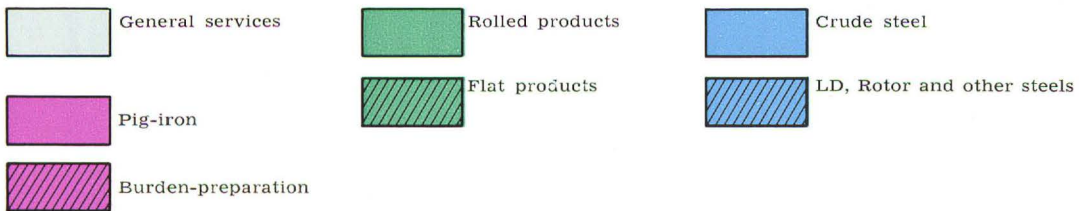
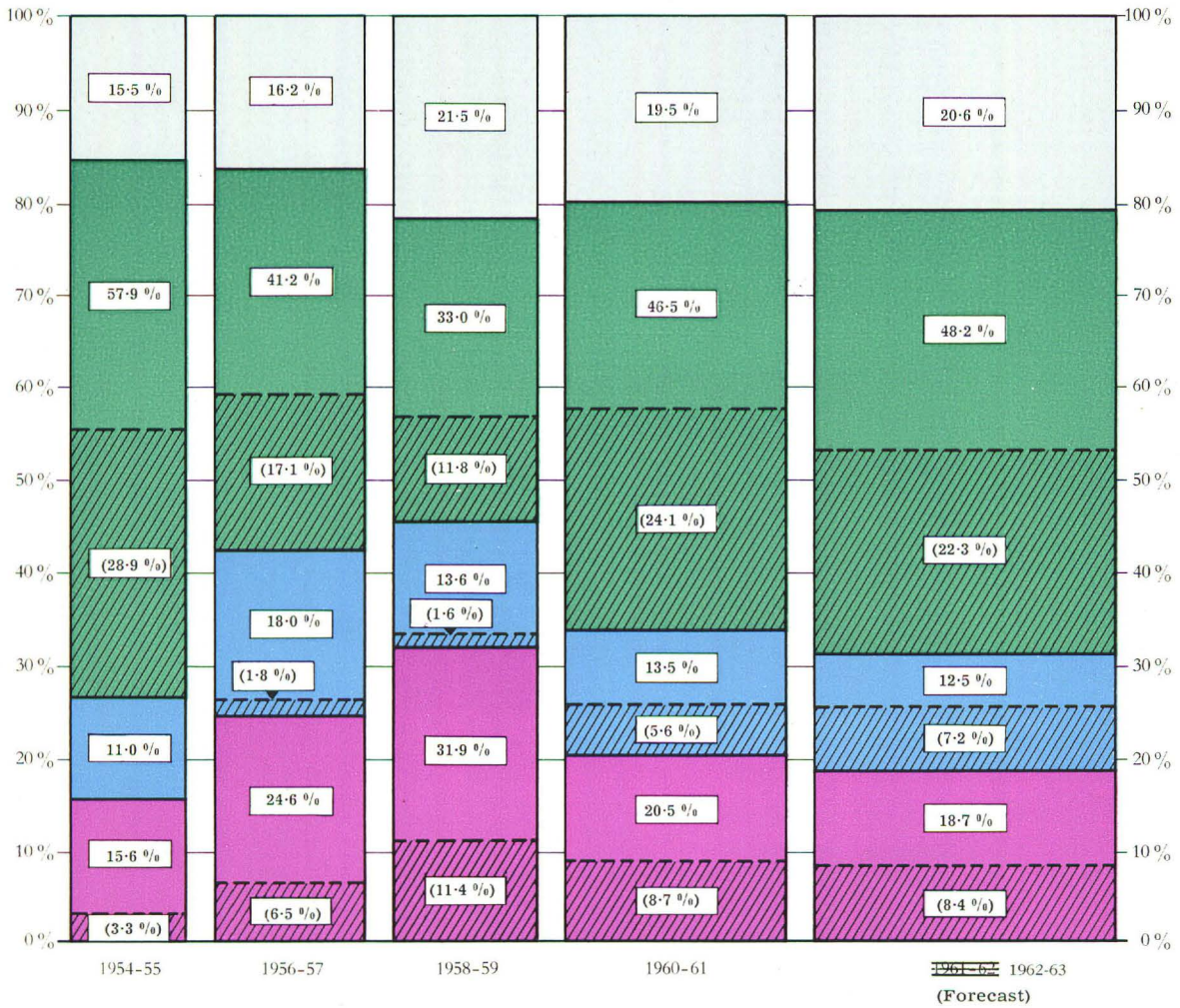
**Capital Expenditure in the Iron and Steel Industry,  
1954—1963**

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

Type of plant	Actual expenditure								Estimated expenditure (projects in progress or approved as at January 1, 1962)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
<i>Plant for production of:</i>										
pig-iron .....	69.8	82.9	130.5	183.5	206.1	186.8	172.2	217.2	285.1	199.1
steel .....	44.1	63.2	101.6	128.4	94.8	72.7	95.4	161.4	184.0	139.8
rolled products .....	265.1	301.1	244.9	282.4	207.0	198.6	350.3	531.6	716.6	533.1
<i>General services</i> .....	74.5	77.1	92.9	113.9	135.7	128.5	157.3	212.2	314.5	219.6
<b>Total</b>	<b>453.5</b>	<b>524.3</b>	<b>569.9</b>	<b>708.2</b>	<b>643.6</b>	<b>586.6</b>	<b>775.2</b>	<b>1122.4</b>	<b>1500.2</b>	<b>1091.6</b>

FIGURE 7

Breakdown of Capital Expenditure in the Iron and Steel Industry



The trend in capital expenditure in the main sectors of the industry is indicated in Table 16 and Fig. 7. Both the projects completed in 1960 and 1961 and the forecasts for 1962 and 1963 show that capital expenditure in respect of production plant for rolled products now accounts for almost half of the total expenditure, as against one-third in 1958 and 1959.

**TABLE 16**  
**Trend in Capital Expenditure in the Iron and Steel Industry,**  
**1954—1963**

Type of plant	Actual expenditure				Estimated expenditure (projects in progress or approved as at January 1, 1962)
	Average 1954—1955	Average 1956—1957	Average 1958—1959	Average 1960—1961	Average 1962—1963
<i>Plants for production of:</i>					
pig-iron .....	15.6	24.6	31.9	20.5	18.7
steel .....	11.0	18.0	13.6	13.5	12.5
rolled products .....	57.9	41.2	33.0	46.5	48.2
<i>General services</i> .....	15.5	16.2	21.5	19.5	20.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

In the following subsections of this report we examine one by one the four main categories of investment and their effects on production potential.

#### (a) Pig-Iron Production

As was forecast in the replies to the questionnaire sent out in connection with our previous investment survey, capital expenditure on pig-iron production plant now stands, and seems likely to continue for some years, at approximately 20% of the industry's total volume of investment, as against about 32% in 1958-1959.

However, though expenditure under this head showed a certain relative shrinkage in 1961, the absolute figures remain high, particularly in respect of the blast-furnaces (where it is not far off the maximum recorded in 1958), and still more of the burden-preparation installations (where it is 23% above the previous record of 1959 and 1960). The enterprises forecasts suggest that all the 1961 figures will be substantially exceeded in 1962.



TABLE 17

**Capital Expenditure on Pig-Iron Production Plant,  
by Types of Installation, 1954—1963**

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

Type of installation	Actual expenditure								Estimated expenditure (projects in progress or approved as at January 1, 1962)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Steelworks-owned coking-plants.....	18.0	19.9	22.3	28.0	24.6	24.9	11.5	18.2	29.7	20.0
Burden preparation.....	11.6	21.1	31.5	51.5	66.7	73.5	73.7	90.9	127.9	89.6
Blast-furnaces.....	40.2	41.9	76.7	104.0	114.8	88.4	87.0	108.1	127.5	89.5
<b>Total</b>	<b>69.8</b>	<b>82.9</b>	<b>130.5</b>	<b>183.5</b>	<b>206.1</b>	<b>186.8</b>	<b>172.2</b>	<b>217.2</b>	<b>285.1</b>	<b>199.1</b>

In view of the modest scale of investment in steelworks-owned coking-plants, the overall increase in coke production potential from 1961 to 1965 can hardly be estimated at more than 11 %. The production potential for sinter is, on the contrary, likely to continue expanding rapidly, thanks to the large amounts regularly invested in this sector since 1956-1957. The estimated 80 % increase in availabilities of sintered ore over the next four years will to a great extent account for the 30 % rise forecast for pig-iron production potential: the mean annual rate of increase in this sector will work out at 6.8 % between now and 1965, i.e. well above the rate of 5.2 % recorded for actual pig-iron production between 1952 and 1961.

TABLE 18

**Development of Production Potential  
of Pig-Iron Production Plant**

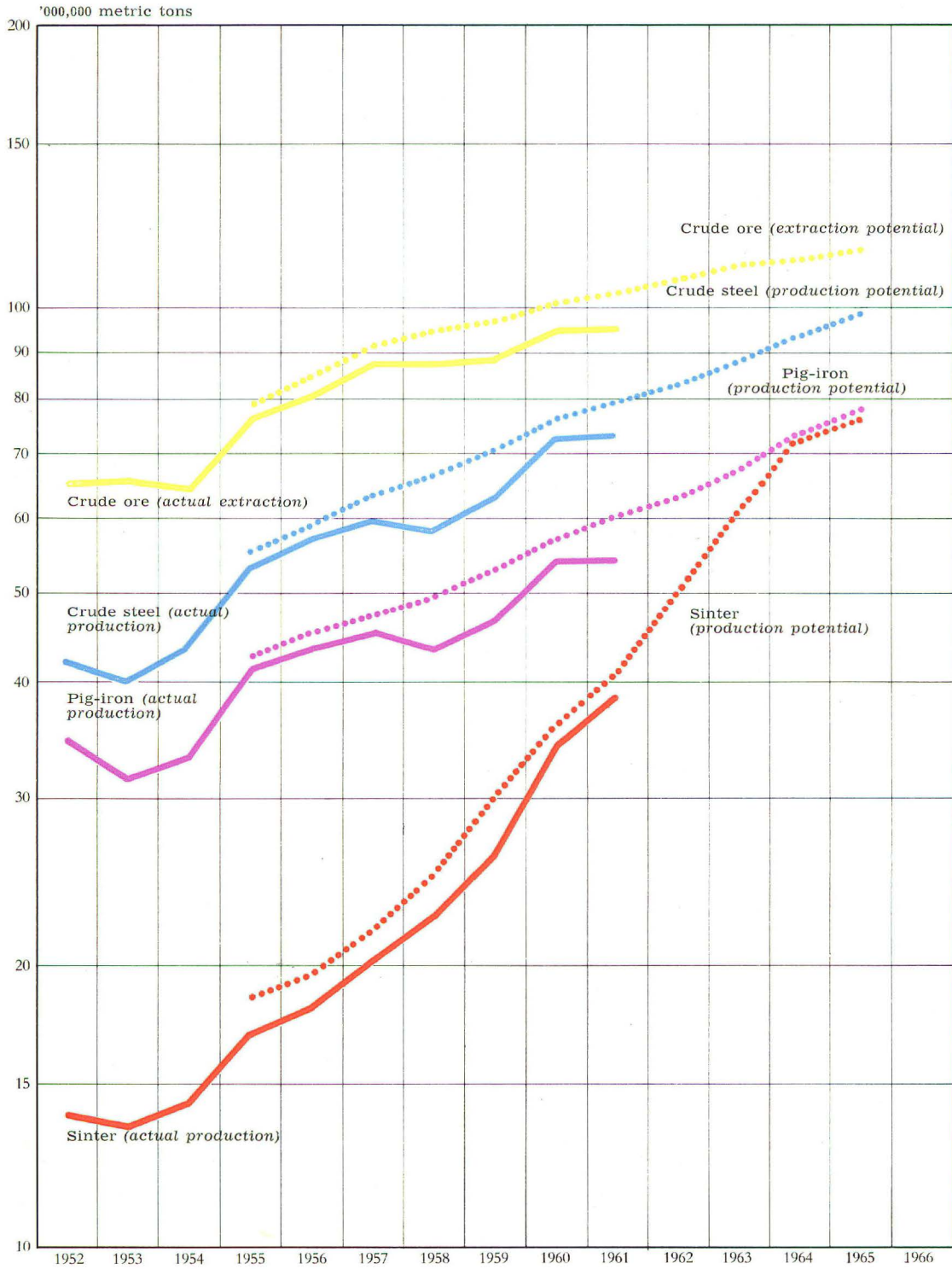
'000,000 metric tons

Product	Actual production		Production potential				
	1952	1961	1961	1962	1963	1964	1965
Coke (steelworks-owned coking-plants) <sup>1)</sup> .....	15.8	21.5	24.3	24.7	24.9	25.5	26.5
Sinter .....	14.0	39.0	42.8	50.8	62.0	73.4	77.2
Pig-iron .....	34.7	54.6	60.1	63.5	67.9	73.9	78.1

<sup>1)</sup> 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



**(b) Steel Production**

As regards the traditional steel-production processes (basic Bessemer, open-hearth and electric-furnace), capital expenditure in 1961 was about the same as in 1958 — higher than in 1959 and 1960, but lower than in 1957. Only in the case of electric-furnace capacity was it still above all earlier levels. The forecasts for 1962 indicate further stagnation in the basic Bessemer and open-hearth sectors, and further expansion in the electric-furnace sector.

Capital spending on oxygen steelmaking plant, on the contrary, is going up and up, since it accounts for something like half the total expenditure on steelworks capacity, both in the actual figures for 1961 and in the forecasts for 1962 and 1963; in 1960 its share was no more than 38 %, in 1959 17 %, and before that even less.

TABLE 19

**Capital Expenditure on Steelmaking Plant, by Production Processes,  
1954—1963**

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

Production process	Actual expenditure								Estimated expenditure (projects in progress or approved as at January 1, 1962)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Basic Bessemer .....	13.9	17.2	22.4	45.1	49.7	33.8	21.2	24.0	29.2	15.7
Open-hearth .....	20.1	30.7	53.9	51.6	27.4	17.6	29.1	44.8	37.2	13.3
Electric-furnace .....	10.1	15.3	17.2	16.4	10.6	8.5	11.1	20.6	24.5	17.3
L/D, Rotor and others			8.1	15.3	7.1	12.8	34.0	72.0	93.1	93.0
<b>Total</b>	<b>44.1</b>	<b>63.2</b>	<b>101.6</b>	<b>128.4</b>	<b>94.8</b>	<b>72.7</b>	<b>95.4</b>	<b>161.4</b>	<b>184.0</b>	<b>139.8</b>

Projects approved by the heads of Community enterprises as at January 1, 1962, should increase crude-steel production potential from 79.9 million metric tons in 1961 to 98.9 million in 1965.

Only a tiny proportion of the 19-million-ton increase planned over the next four years will be accounted for by the traditional steelmaking processes. The operations projected in the basic Bessemer sector will not suffice to maintain the production potential for this quality of steel at its present level: a drop of over 2 million metric tons is expected between 1961 and 1965 alone. Stagnation is forecast for open-hearth steel. The production potential for electric-furnace steel should increase by 1.6 million metric tons over the next four years, while that for oxygen-blown steel should go up, over the same period, by 18.8 million metric tons, and may confidently be expected to continue expanding thereafter.

TABLE 20

**Development of Crude-Steel Production Potential,  
by Production Processes**

*'000,000 metric tons*

Production process	Actual production		Production potential				
	1952	1961	1961	1962	1963	1964	1965
Basic Bessemer .....	23.0	35.4	38.0	38.6	38.4	36.5	35.8
Open-hearth .....	15.2	27.0	29.9	30.1	30.6	31.2	30.7
Electric-furnace .....	3.3	8.2	9.2	9.6	10.2	10.6	10.8
L/D, Rotor and others .....	0.3	2.6	2.8	4.9	9.0	14.6	21.6
<b>Total, crude steel</b>	<b>41.8</b>	<b>73.2</b>	<b>79.9</b>	<b>83.2</b>	<b>88.2</b>	<b>92.9</b>	<b>98.9</b>

From 1961 to 1965 the mean annual rate of increase is thus expected to be 5.5 %, notwithstanding the slackening of investment activity in respect of the traditional steelmaking processes, as a result of the exceptionally high rate of growth expected in the case of the oxygen steels.

Though fairly high, this rate of 5.5 % remains below that for actual production from 1952 to 1961 and that forecast for pig-iron production potential from 1961 to 1965. A slight improvement in the ratio of pig-iron to steel production potential can thus be forecast.

**FIGURE 9**  
**Pig-iron - Steel Ratio**  
 (kg of pig-iron per ton of crude steel)

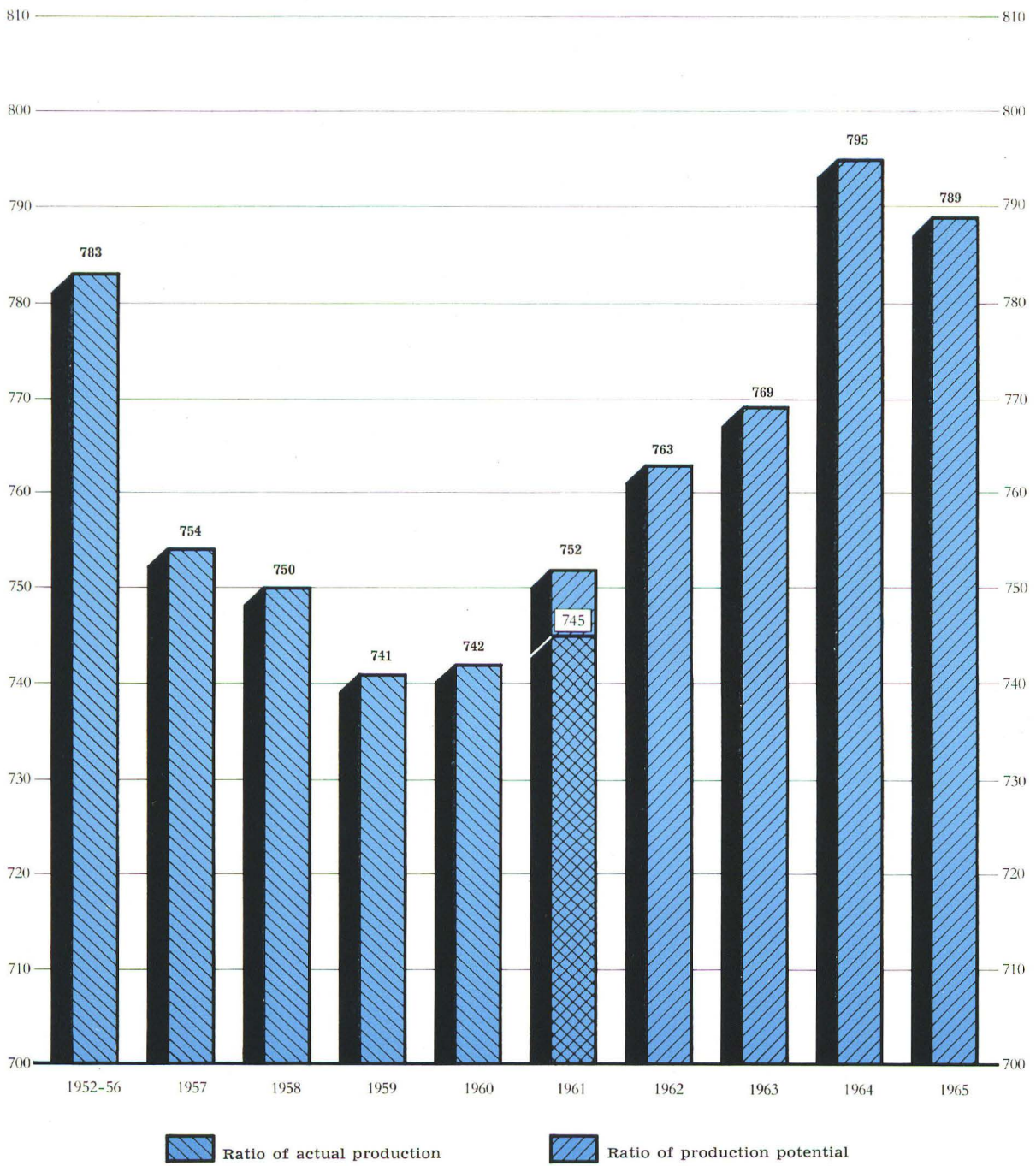




FIGURE 10

Actual Production and Production Potential of Crude Steel by Production Processes

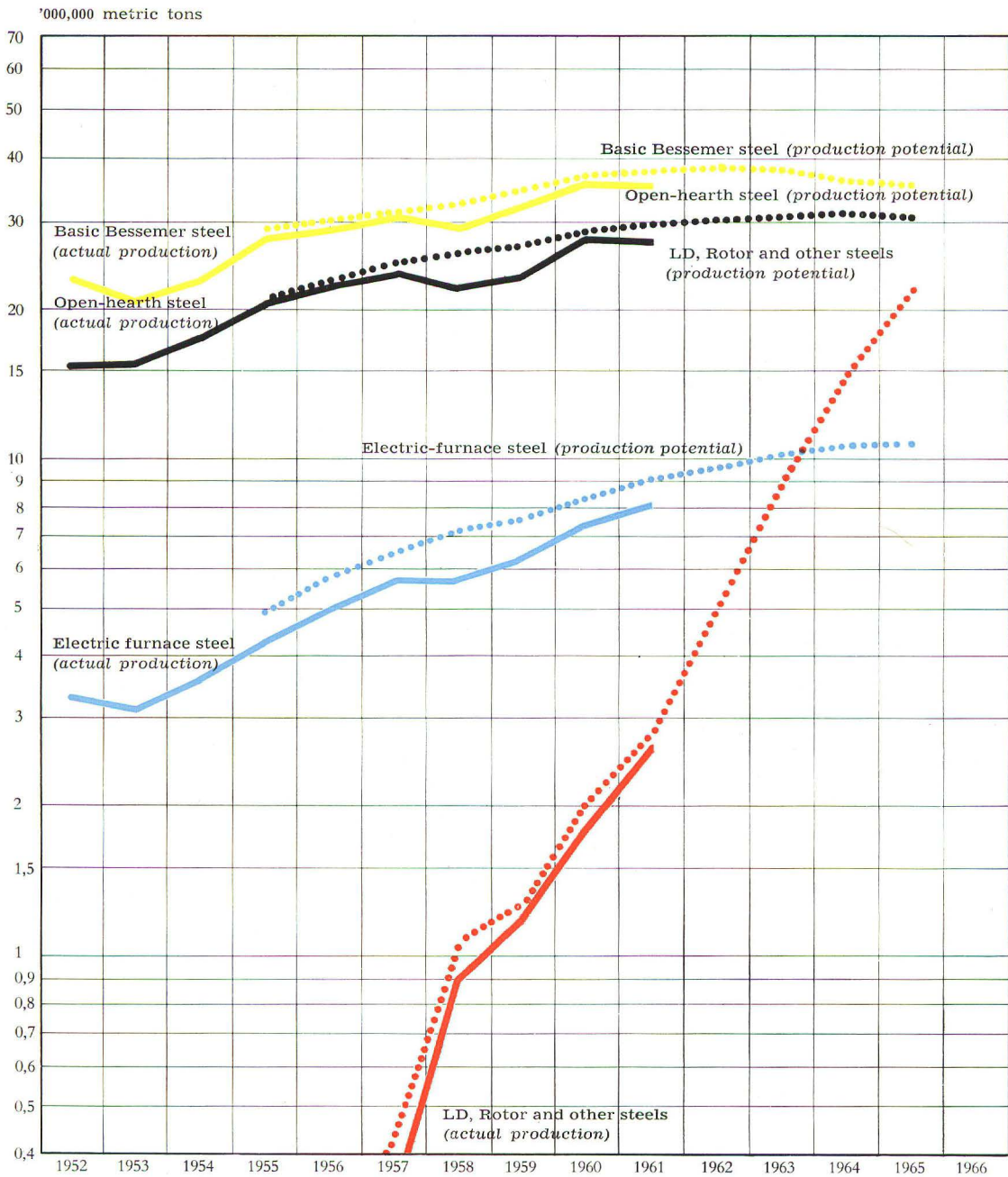


TABLE 21

**Mean Annual Rate of Development of Crude-Steel Production,  
by Production Processes**

Production process	%	
	Mean annual rate of increase in actual production 1952-1961	Mean annual rate of increase in production potential 1961-1965
<b>Pig-iron (for comparison)</b>	<b>5.2</b>	<b>6.8</b>
Basic Bessemer .....	4.9	-1.5
Open-hearth .....	6.6	0.7
Electric-furnace .....	10.6	4.3
L/D, Rotor and others .....	27.0	66.4
<b>Total, crude steel</b>	<b>6.4</b>	<b>5.5</b>

This being so, the share of open-hearth and still more of basic Bessemer steels in the production potential may be expected to diminish rapidly, yielding ground to the oxygen-blown processes.

TABLE 22

**Share of the Different Steel Production Processes  
in Total Production Potential in 1952, 1961 and 1965**

Production process	Actual production	Production potential	
	1952	Actual share 1961	Estimated share 1965
Basic Bessemer .....	55.0	47.6	36.1
Open-hearth.....	36.4	37.4	31.1
Electric-furnace.....	7.9	11.4	10.9
L/D, Rotor and others.....	0.7	3.6	21.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



**(c) Production of Rolled Products**

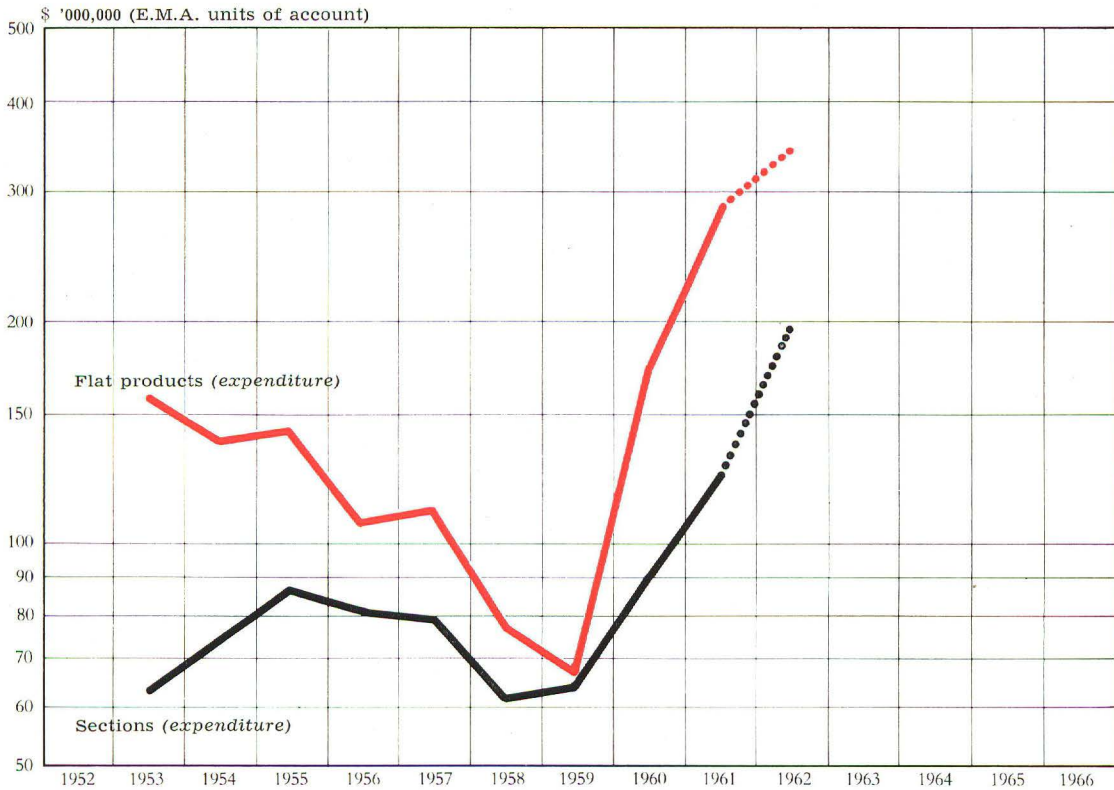
Capital expenditure on rolling-mills and ancillary plant accounted for approximately 58 % of total investment in the iron and steel industry in 1954 and 1955, 41 % in 1956 and 1957, and 33 % in 1958 and 1959. The figures for 1960 and 1961 show a sharp reversal of the trend, with the proportion now up again to over 46 %; in 1962 and 1963 it is definitely expected to rise above 48 %.

**TABLE 23**  
**Capital Expenditure on Rolling-Mills,**  
**1954—1963**

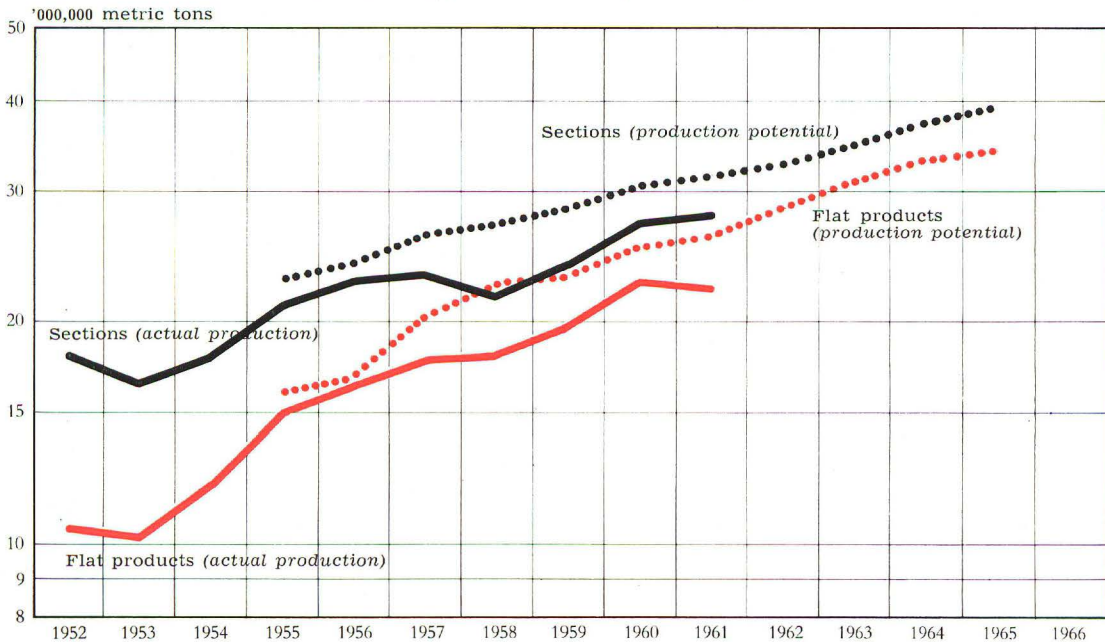
\$ '000,000 (E.M.A. units of account)

Type of mill	Actual expenditure								Estimated expenditure (projects in progress or approved as at January 1, 1962)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Heavy and medium-section mills	29.1	35.8	28.6	32.5	30.1	44.7	55.0	69.4	90.2	85.6
Small-bar mills .....	29.8	38.7	37.7	32.4	25.7	15.2	19.2	23.5	45.9	47.3
Wire mills .....	15.5	12.4	14.0	14.3	5.6	4.4	16.2	28.8	61.9	36.7
<i>Total, section mills</i>	<i>74.4</i>	<i>86.9</i>	<i>80.3</i>	<i>79.2</i>	<i>61.4</i>	<i>64.3</i>	<i>90.4</i>	<i>121.7</i>	<i>198.0</i>	<i>169.6</i>
Hoop and strip mills .....	13.6	12.5	5.6	12.5	5.7	2.8	4.3	5.1	17.4	16.6
Plate and universal mills .....	41.3	36.3	24.2	36.5	20.6	15.3	24.8	35.4	53.2	32.1
Hot sheet mills .....	4.3	3.6	1.8	2.0	2.3	3.2	3.7	6.0	5.1	0.7
Cold sheet mills .....	3.6	2.8	0.7	0.1	0.7	0.5	0.4	0.8	0.6	—
Hot wide-strip mills .....	31.6	35.8	30.3	31.9	16.2	16.0	27.5	68.8	110.3	89.3
Cold wide-strip mills .....	45.2	52.6	44.4	28.5	32.4	29.8	114.8	175.2	161.1	91.9
<i>Total, flat-product mills</i>	<i>139.6</i>	<i>143.6</i>	<i>107.0</i>	<i>111.5</i>	<i>77.9</i>	<i>67.6</i>	<i>175.5</i>	<i>291.3</i>	<i>347.7</i>	<i>230.6</i>
Blooming and slabbing mills .....	23.1	41.3	31.2	45.1	31.6	40.4	43.6	72.9	86.1	86.8
Miscellaneous .....	28.0	29.3	26.4	46.6	36.1	26.3	40.8	45.7	84.8	46.1
<b>Total</b>	<b>265.1</b>	<b>301.1</b>	<b>244.9</b>	<b>282.4</b>	<b>207.0</b>	<b>198.6</b>	<b>350.3</b>	<b>531.6</b>	<b>716.6</b>	<b>533.1</b>

FIGURE 11  
**Sections and Flat Products**  
 A — Capital expenditure



B — Actual production and production potential



From 1955 to 1959 capital expenditure on all types of rolling-mill declined fairly steadily, with the sole exception of the year 1957. The recovery which set in 1960 and continued in 1961 affected all the major sectors, except perhaps the smallbar mills. It was especially marked in the case of wide-strip mills: capital expenditure on these (both hot and cold) rose from 26 % of total expenditure on all types of mill and ancillary plant over the years 1954-1959 to 41 % in 1960 and 46 % in 1961. Further very substantial expenditure on all branches of the rolling-mill sector, and especially on wide-strip capacity, is forecast for 1962 and 1963.

TABLE 24

**Share of Different Types of Rolling-Mill in Capital Expenditure,  
1954—1963**

Type of mill	Average share 1954—1959	1960	1961	Estimated average share 1962—1963
Section mills .....	30	26	24	30
Flat-product mills .....	43	50	54	46
<i>(of which: wide-strip mills)</i> .....	(26)	(40)	(46)	(34)
Blooming and slabbing mills .....	14	12	14	14
Miscellaneous .....	13	12	8	10
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Between 1952 and 1961, actual production of sections and flats increased at a cumulative mean annual rate of 5.0 and 9.3 % respectively. Between 1961 and 1965, the corresponding rates of increase in production potential will be rather closer to one another: that for sections will go up slightly, mainly owing to expansion in respect of wire-rod (which is the only product for which the expected mean rate is appreciably higher than the mean rate recorded from 1952 to 1961, viz. 9.0 % as against 7.3 %), while that for flats will drop from 9.3 % to 7.0 % (though the rate for cold-reduced sheet will remain very high, at 15 %, as against a mean of 27 % for the past decade).

From 1961 to 1965, the share of flat products in the total production potential for finished rolled products will go up from 45.3 % to something like 46.9 %; in 1952 it was only 37 %. Over the same four years, the proportion of steel to be rolled in continuous and semi-continuous mills will rise from 50.5 % to 58.3 %: in 1961, as in 1960, actual production from this type of mill accounted for slightly over 50 % of total rolling-mill production.

TABLE 25

**Mean Annual Rate of Development of Production of Rolling-Mills,  
by Types of Finished Products**

Product	Actual production			Production potential		
	1952 (‘000,000 m.t.)	Cumula- tive mean annual rate of increase in %	1961 (‘000,000 m.t.)	1961 (‘000,000 m.t.)	Cumula- tive mean annual rate of increase in %	1965 (‘000,000 m.t.)
Heavy and light sections, incl. tube rounds and squares .....	15.2	+ 4.5	22.6	25.5	+ 4.5	30.4
Wire-rod .....	2.8	+ 7.3	5.4	6.1	+ 9.0	8.6
<i>Total, sections</i>	<i>18.0</i>	<i>+ 5.0</i>	<i>28.0</i>	<i>31.6</i>	<i>+ 5.4</i>	<i>39.0</i>
Hoop and strip and tube strip .....	2.3	+ 7.6	4.4	5.4	+ 3.8	6.3
Plate of 3 mm. and over .....	4.3	+ 7.2	8.0	9.5	+ 3.6	11.0
Hot-rolled sheet of under 3 mm. ....	3.1	— 2.1	2.5	3.2	— 0.9	3.0
Cold-rolled sheet of under 3 mm. ....	0.8	+26.9	7.5	8.1	+14.7	14.1
<i>Total, flat products</i>	<i>10.5</i>	<i>+ 9.3</i>	<i>22.4</i>	<i>26.2</i>	<i>+ 7.0</i>	<i>34.4</i>
<b>Total, rolled products</b>	<b>28.5</b>	<b>+ 6.5</b>	<b>50.4</b>	<b>57.8</b>	<b>+ 6.2</b>	<b>73.4</b>
<i>(of which: products rolled in continuous and semi-continuous mills). ....</i>	<i>(.)</i>	<i>(.)</i>	<i>(25.9)</i>	<i>(29.2)</i>	<i>(+10.0)</i>	<i>(42.8)</i>

Among the semi-finished products special mention must be made of those produced in coils on hot wide-strip mills (see Table XXII in Annex II). The production potential of these mills increased from 8.0 million metric tons in 1958 to 11.8 million in 1961; according to producers' forecast it is expected to be as high as 21.1 million in 1965.

**(d) General services**

Capital expenditure on power-generating plant and other general services has been increasing fairly steadily since 1954.

The 212.2 million dollar units of account invested in 1961 represent nearly three times the expenditure for 1954. According to producers' forecasts even this figure will be considerably exceeded in 1962.

**FIGURE 12**  
**Actual Production and Production Potential for the Various Categories**  
**of Finished Rolled Product**

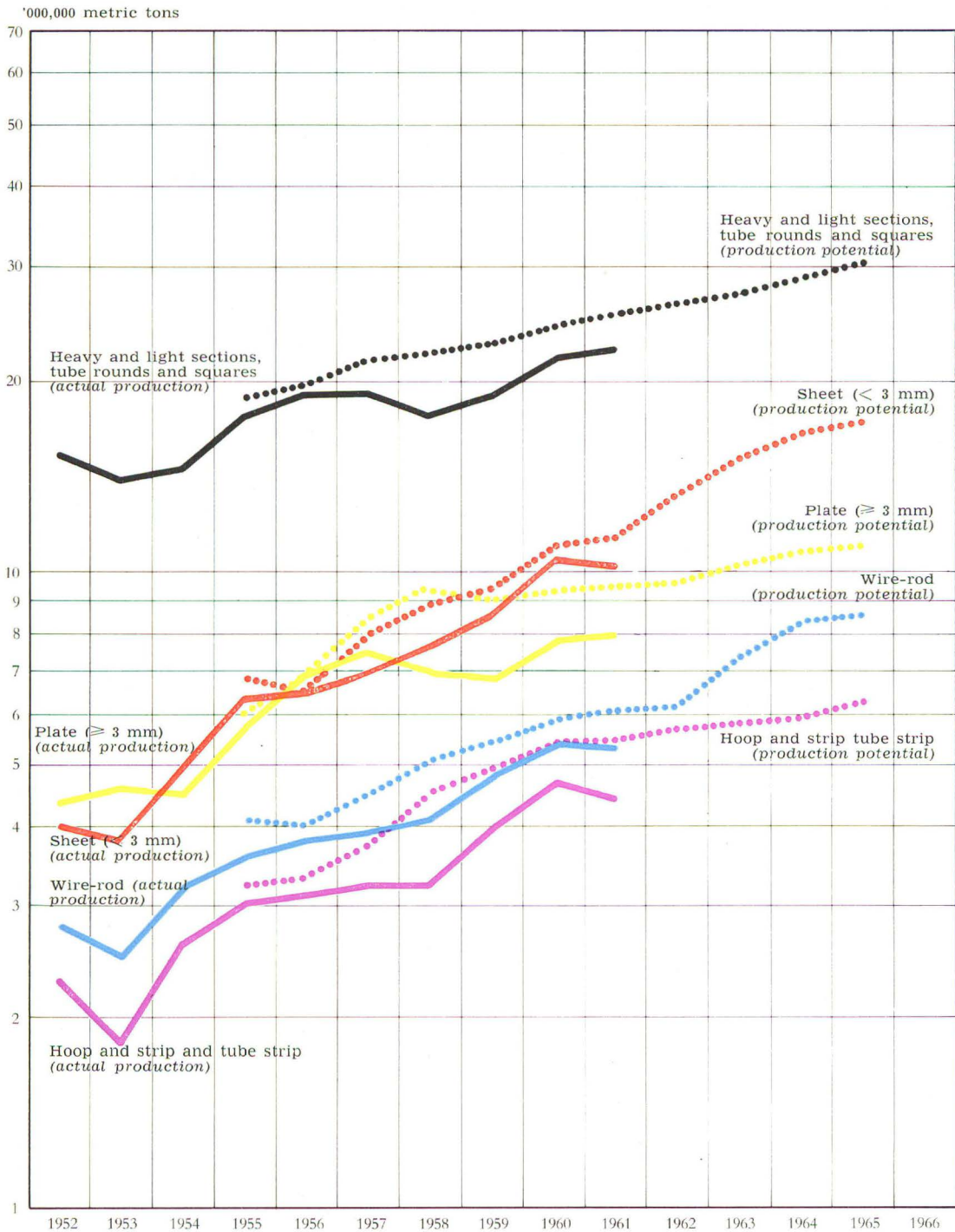
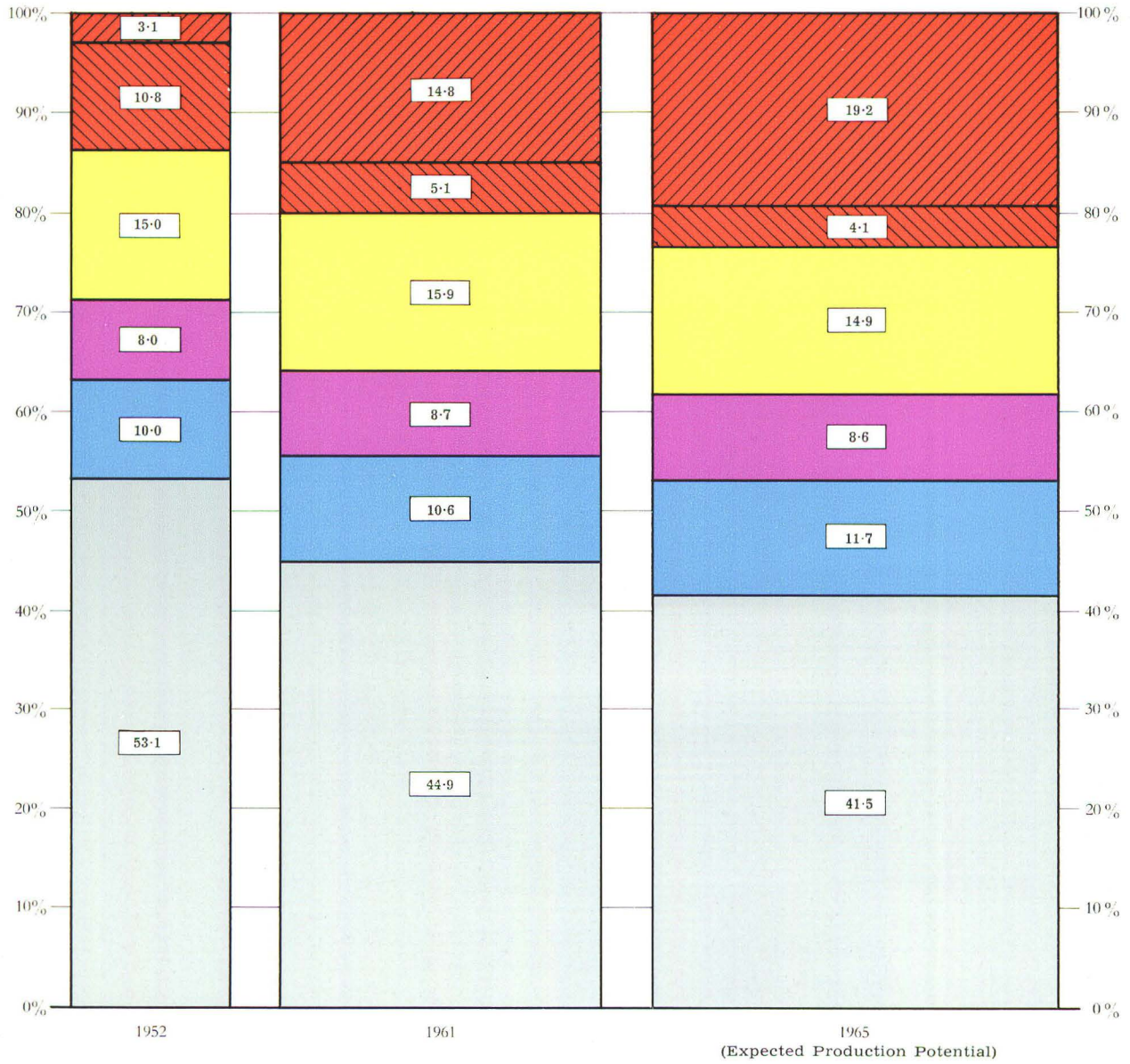




FIGURE 13

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



Heavy and light sections, tube rounds and squares

Wire-rod

Hoop and strip and tube strip

Plate (≥ 3 mm)

Hot-rolled sheet (< 3 mm)

Cold-reduced sheet (< 3 mm)

TABLE 26

**Capital Expenditure on the General Services  
of the Iron and Steel Industry, 1954—1963**

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

Type of installation	Actual expenditure								Estimated expenditure (projects in progress or approved as at January 1, 1962)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Power-generating plant and distribution networks	43.0	39.3	32.0	43.2	56.8	58.8	60.7	71.7	97.8	71.2
Miscellaneous.....	31.5	37.8	60.9	70.7	78.9	69.7	96.6	140.5	216.7	148.4
<b>Total</b>	<b>74.5</b>	<b>77.1</b>	<b>92.9</b>	<b>113.9</b>	<b>135.7</b>	<b>128.5</b>	<b>157.3</b>	<b>212.2</b>	<b>314.5</b>	<b>219.6</b>

The increase in capital expenditure is particularly marked in the case of the general services and that of civil-engineering operations in connection with the extension of existing works and the construction of new integrated works in coastal areas.

The effects of this capital expenditure on power-generating plant on the production potential for electric current were examined earlier in this report in connection with the expected development of pithead power-stations (cf. Section II, d and Fig. 5).



## V — CONCLUSIONS

The current forecasts for *hard-coal* production potential in the years ahead are lower than those given in the 1961 survey, which in their turn were lower than the 1960, 1959 and 1958 figures.

The 248 million metric tons indicated for 1965 may however be set against the Community's 1961 consumption of 247 million, of which 97.5 million was accounted for by the coking-plants and 44.5 million by the power-stations. The sales outlets for coal are becoming more and more concentrated on electricity production and the iron and steel industry.

Coal's share in the *production of thermal current* in 1965 is expected to be about 60 %; with that production increased to about 270,000 million kWh and specific consumption reduced to 0.4 kg/kWh, consumption by the Community power-stations might total approximately 65 million metric tons.

The maximum production of the *coking-plants* in 1965, given 96 % utilization of their aggregate production potential, may be expected to work out at about 85 million metric tons. This would represent an input of about 111 million metric tons of coking coal.

It is unlikely that demand from coke consumers other than the blast-furnaces and sintering-plants will go above its 1961 level of approximately 24 million metric tons. This would leave about 61 million metric tons available for the iron and steel industry.

Although the level of capital expenditure on the *iron-ore mines* remains relatively high, extraction potential in 1965 is unlikely to amount to much more than 115 million metric tons. This figure may in fact represent just about the extreme limit of Community extraction, since the trend is towards the closure of the least economic mines, both in Germany and in Western and Southern France. There will be a continuing large absolute and small relative increase in imports.

As regards the *iron and steel industry*, the results of the survey of January 1, 1962, confirm the indications contained in the General Objectives of the Community for 1965 (see *Journal Officiel des Communautés Européennes*, April 5, 1962).

As a result of the capital schemes effected and planned in the *pig-iron* sector, 1965 should, given 96 % utilization of production potential, see a maximum production of about 74 million metric tons of sintered ore and 75 million metric tons of pig-iron. The latter

figure is exactly that given in the General Objectives to correspond with upper-limit pig-iron requirements of 69 million metric tons.

If the target of a consumption of only 780 kg. of coke per metric ton of pig-iron is reached in 1965 (the rate was 883 kg. in 1960 and 857 in 1961), the blast-furnaces will need about 54 million metric tons of coke to produce 69 million metric tons of pig-iron. As noted above, availabilities of coke for the iron and steel industry are expected to total about 61 million metric tons: if we subtract the requirements of 54 million tons just referred to, the remainder comes to about 7 million, which exceeds the estimated demand from the sintering-plants.

Investment in the *steelworks* suggests a 1965 production potential of approximately 99 million metric tons — again the precise figure indicated in the General Objectives. Given a utilization rate of 96 %, maximum production would work out at 95 million tons, which squares very neatly with the estimated upper-limit demand of 94 million. The breakdown of potential by production processes may be reckoned at 36 % for basic Bessemer, 31 % for open-hearth, 11 % for electric furnace and 22 % of oxygen steels. This more or less tallies with the breakdown in the General Objectives, although the share of oxygen steelmaking plant (in operation or approved) is, on present evidence, rather smaller than the 26 % there suggested.

The *rolling-mill* sector accounts for close on half the capital expenditure of the iron and steel industry. The maximum-production estimates (assuming 96 % utilization of potential) nicely cover the requirements forecast in the General Objectives: the figures are, respectively, 37.4 and 36.4 million metric tons for sections (including 8.3 and 7.2 million for wire-rod), 33.0 and 32.6 million for finished flat products, and 20.3 and 18.4 million for wide strip.

Maximum production, however, being limited by the tonnages of crude steel in fact available, is usually smaller than the rated capacity of the installations as such. This circumstance serves to confirm the indications in the General Objectives, and especially those concerning the wide-strip mills in operation or approved, whose aggregate rated capacity in 1965 is put at as much as 36 million metric tons.

## **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, 1962;*

B — *Projects approved but not yet in progress on January 1, 1962;*

C — *Other projects planned to be started between January 1, 1962 and December 31, 1964.*

*In the case of the iron and steel industry except for 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 <sup>4)</sup>	4.00
Belgium/Luxembourg . . . . .	Bfr./Lfr.	50	50	50	50	50	50
France <sup>1)</sup> . . . . .	Ffr. <sup>2)</sup>	350	377 <sup>3)</sup>	420	4.93 <sup>2)</sup>	4.937 <sup>2)</sup>	4.937 <sup>2)</sup>
Italy . . . . .	Lit.	625	625	625	625	625	625
Netherlands . . . . .	Hfl.	3.80	3.80	3.80	3.80	3.65 <sup>5)</sup>	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 in force from March 4 to December 31, 1961 (3.62).

**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 1960 of only about 1.6 million metric tons (of which 0.7 million not shown in any official statistics), out of 228.9 million, *i. e.* less than 0.7 %.

**(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

A distinction has been drawn between *power-stations proper* and *power-generating plant at the mines*. The following definitions have been adopted.

*Power-stations proper* means all power-stations with a maximum electric capacity exceeding or likely to exceed 25,000 kW after completion of development projects of all types (A + B + C).

*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 auxiliaries 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, main-

tenance 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 of 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 1961. The production potentials mentioned in this report therefore exceed those actually declared by a certain percentage which varies from sector to sector but is in no case greater than 1.8 %.

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 1961. 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.



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<b>HARD-COAL COLLIERIES</b>
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**Investment**

*TABLE I*

**Capital Expenditure by Coalfields**

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

Coalfield	Actual expenditure								Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Ruhr .....	83.23	103.14	97.76	121.51	122.05	100.66	107.94	122.12	133.96	93.91
Aachen .....	9.07	8.61	7.62	7.37	12.54	10.78	8.51	10.34	9.53	8.19
Lower Saxony .....	4.09	2.60	3.39	5.41	5.34	6.03	4.01	4.34	4.36	2.72
Saar .....	15.16	11.97	16.21	19.80	18.76	15.39	19.55	24.21	25.64	21.09
Campine .....	13.45	12.89	17.20	18.33	17.01	9.52	6.95	6.48	10.11	9.13
Southern Belgium .....	24.58	22.87	25.19	27.22	21.46	13.81	9.54	9.18	13.36	7.73
Nord/Pas-de-Calais .....	38.42	36.86	30.69	29.63	24.94	25.27	31.57	23.12	18.99	15.81
Lorraine .....	28.07	27.84	27.16	26.73	21.43	16.40	18.83	14.42	14.19	16.20
Centre/Midi .....	12.84	10.35	10.21	11.30	11.14	9.78	8.52	7.57	5.22	5.58
Sulcis and La Thuile .....	1.28	2.40	0.17	1.60	1.12	0.55	1.00	0.61	0.59	0.56
Limburg .....	11.60	16.87	12.96	12.55	12.63	18.63	9.57	11.86	15.39	14.80
<b>Total</b> .....	<b>241.79</b>	<b>256.40</b>	<b>248.56</b>	<b>281.45</b>	<b>268.42</b>	<b>226.82</b>	<b>225.99</b>	<b>234.25</b>	<b>251.34</b>	<b>195.72</b>

<b>MINE-OWNED AND INDEPENDENT COKING-PLANTS <sup>1)</sup></b>
---

**Investment**

TABLE II

**Capital Expenditure by Areas**

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

Area	Actual expenditure								Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
<i>Mine-owned coking-plants ...</i>										
Ruhr .....	32.55	24.83	22.00	29.91	34.78	32.92	19.62	18.41	22.01	15.28
Aachen .....	1.43	0.34	1.37	4.65	1.18	0.55	0.31	1.12	0.52	0.59
Lower Saxony .....	0.01	0.05	0.06	—	—	—	—	—	—	—
Saar .....	2.31	2.03	3.73	5.60	11.39	7.98	2.26	1.03	3.39	5.86
Belgium and the Netherlands	9.70	4.85	4.18	3.34	3.05	3.49	1.08	1.42	3.11	2.00
Nord/Pas-de-Calais .....	7.29	7.61	5.40	8.17	8.00	6.78	5.02	5.87	5.60	5.33
Lorraine .....	13.55	12.01	8.81	5.69	2.07	1.64	4.15	11.05	11.05	8.82
Centre-Midi .....	1.01	0.50	0.68	2.12	2.93	2.44	1.25	1.27	1.34	0.60
<i>Total .....</i>	<i>67.85</i>	<i>52.22</i>	<i>46.23</i>	<i>59.48</i>	<i>63.40</i>	<i>55.80</i>	<i>33.69</i>	<i>40.17</i>	<i>47.02</i>	<i>38.48</i>
<i>Independent coking-plants</i>										
Belgium and the Netherlands	2.02	0.45	1.05	1.96	5.57	3.55	1.07	1.16	1.88	1.16
France <sup>2)</sup> .....	15.47	10.31	6.63	—	—	—	—	—	—	—
Italy .....	2.00	1.56	3.39	6.59	3.27	1.10	0.58	0.28	3.66	2.19
<i>Total .....</i>	<i>19.49</i>	<i>12.32</i>	<i>11.07</i>	<i>8.55</i>	<i>8.84</i>	<i>4.65</i>	<i>1.65</i>	<i>1.44</i>	<i>5.54</i>	<i>3.35</i>
<b>Grand Total .....</b>	<b>87.34</b>	<b>64.54</b>	<b>57.30</b>	<b>68.03</b>	<b>72.24</b>	<b>60.45</b>	<b>35.34</b>	<b>41.61</b>	<b>52.56</b>	<b>41.83</b>

<sup>1)</sup> Including low- and medium-temperature coking-plants.

<sup>2)</sup> Exclusive of Gaz de France from 1957.

<b>HARD-COAL BRIQUETTING-PLANTS</b>
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**Investment**

**TABLE III**  
**Capital Expenditure by Areas**

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

Area	Actual expenditure								Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Ruhr .....	0.85	2.42	0.96	0.91	0.50	1.05	0.22	0.12	1.50	1.13
Aachen .....	—	0.09	0.07	0.16	—	0.14	—	0.17	0.63	0.27
Lower Saxony .....	0.05	0.08	0.01	0.01	0.03	0.12	0.11	0.46	0.56	0.13
Southern Belgium .....	0.49	0.81	0.72	0.96	0.85	0.61	0.59	0.56	1.63	1.25
Nord/Pas-de-Calais .....	0.57	1.95	0.86	1.38	0.98	2.31	3.46	1.34	1.34	0.79
Centre/Midi .....	0.66	0.93	0.92	0.26	0.63	0.89	1.28	0.18	0.43	0.52
France (independent plants) .....	0.99	0.77	0.61	1.04	0.41	0.21	0.16	0.31	0.08	0.03
Limburg .....	0.24	0.27	0.36	0.02	0.06	0.05	1.26	0.37	0.71	0.80
<b>Total .....</b>	<b>3.85</b>	<b>7.32</b>	<b>4.51</b>	<b>4.74</b>	<b>3.46</b>	<b>5.38</b>	<b>7.08</b>	<b>3.51</b>	<b>6.88</b>	<b>4.92</b>

<b>PITHEAD POWER-STATIONS <sup>1)</sup></b>
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**Investment**

**TABLE IV**  
**Capital Expenditure by Areas**

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

Area	Actual expenditure								Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Ruhr .....	58.35	45.07	46.08	55.11	52.18	56.38	64.79	52.76	59.85	45.97
Aachen .....	0.66	0.73	0.58	0.31	0.55	0.99	4.51	6.44	8.24	0.60
Lower Saxony .....	5.67	0.98	0.28	1.09	0.86	0.32	0.07	0.18	0.55	3.00
Saar .....	1.89	4.96	6.36	7.55	6.00	5.68	9.65	8.10	8.36	8.34
Campine .....	3.44	2.87	3.22	2.62	3.00	3.44	4.03	7.56	0.85	1.50
Southern Belgium .....	5.00	1.59	11.65	12.90	23.40	24.41	10.03	9.02	7.67	1.96
Nord/Pas-de-Calais .....	8.90	10.72	11.81	15.07	10.51	7.45	4.36	7.36	13.68	10.51
Lorraine .....	11.21	5.70	9.50	11.26	15.48	7.81	1.97	1.93	1.15	2.26
Centre/Midi .....	9.63	3.21	1.58	4.80	10.30	6.44	2.84	1.06	0.13	0.10
Sulcis and La Thuile .....	3.41	1.57	0.16	0.45	0.88	0.05	0.03	2.78	23.52	49.20
Limburg .....	3.57	2.53	3.31	5.99	1.83	0.46	0.28	1.70	4.09	7.17
<b>Total .....</b>	<b>111.73</b>	<b>79.93</b>	<b>94.53</b>	<b>117.15</b>	<b>124.99</b>	<b>113.43</b>	<b>102.56</b>	<b>98.89</b>	<b>128.09</b>	<b>130.61</b>
<i>of which</i>										
for pithead power-stations ...	88.47	63.91	81.19	101.66	111.21	103.75	93.74	91.56	117.36	123.72
for power-generating plant at mines .....	23.26	16.02	13.34	15.49	13.78	9.68	8.82	7.33	10.73	6.88

<sup>1)</sup> Pithead power-stations proper and other power-generating plant at mines.

<b>HARD COAL</b>
------------------

**Extraction**

TABLE V

**Extraction and Extraction Potential by Coalfields**

*'000,000 metric tons net*

Coalfield	Actual extraction potential			Actual extraction 1961	Expected extraction potential			
	1954	1955	1961		1962	1963	1964	1965
Ruhr .....	124.32	127.68	125.05	115.60	125.20	126.89	126.77	127.20
Aachen .....	7.26	7.55	8.21	8.36	8.25	8.14	8.24	8.24
Lower Saxony .....	2.50	2.66	2.02	2.17	2.14	2.20	2.25	2.30
Saar .....	17.12	17.65	16.21	16.09	16.66	16.48	16.25	16.54
Campine .....	10.26	10.46	11.63	9.61	11.73	11.90	12.12	12.58
Southern Belgium .....	21.20	21.93	14.01	11.58	13.00	13.20	13.35	13.44
Nord/Pas-de-Calais .....	29.37	29.37	29.00	26.92	28.40	28.00	28.00	28.00
Lorraine .....	13.60	13.60	15.50	14.01	15.00	15.00	15.00	15.00
Centre/Midi .....	13.03	13.03	11.97	11.24	11.95	11.60	11.40	10.55
Sulcis and La Thuile .....	1.35	1.35	0.83	0.72	0.82	0.87	1.42	1.52
Limburg .....	12.98	12.98	12.38	12.62	12.82	12.68	12.68	12.69
<b>Total .....</b>	<b>252.99</b>	<b>258.26</b>	<b>246.81</b>	<b>228.92</b>	<b>245.97</b>	<b>246.96</b>	<b>247.48</b>	<b>248.06</b>

*N.B.* The above table does not take into account the extraction of some mines of small capacity (1.6 million metric tons in 1960 of which 0.7 million metric tons from the "small" German mines, which do not figure in the official production statistics).

<b>COKE</b>
-------------

**Production**

TABLE VI a

**Production and Production Capacity by Areas**

'000,000 metric tons

Area	Actual capacity				Actual production 1961 <sup>1)</sup>	Expected production			
	Beginning 1954	Beginning 1955	Beginning 1961	Beginning 1962		Beginning 1963	Beginning 1964	Beginning 1965	Beginning 1966
<i>Mine-owned coking-plants</i>									
Ruhr .....	35.50	36.13	40.89	39.22	31.87	38.88	38.95	39.33	40.77
Aachen <sup>2)</sup> .....	1.07	1.30	1.94	1.94	1.80	1.94	1.81	1.94	1.94
Lower Saxony .....	0.27	0.27	—	—	—	—	—	—	—
Saar .....	0.76	0.88	1.55	1.52	1.47	1.38	1.71	1.71	1.71
Belgium and the Netherlands .	3.57	4.43	4.51	4.33	4.25	4.36	4.35	4.36	4.36
Nord/Pas-de-Calais .....	3.76	3.70	4.91	5.01	4.78	5.28	5.93	5.89	5.89
Lorraine .....	0.67	0.66	1.87	1.90	1.88	2.68	3.07	3.07	3.07
Centre/Midi .....	0.59	0.57	0.83	0.86	0.81	0.95	0.95	0.95	0.95
<i>Total</i> .....	<i>46.19</i>	<i>47.94</i>	<i>56.50</i>	<i>54.78</i>	<i>46.86</i>	<i>55.47</i>	<i>56.77</i>	<i>57.25</i>	<i>58.69</i>
<i>Independent coking-plants</i>									
Belgium and the Netherlands .	1.62	1.81	1.92	1.64	1.52	1.64	1.64	1.64	1.64
France <sup>3)</sup> .....	1.68	1.85	—	—	—	—	—	—	—
Italy .....	1.74	1.77	2.52	2.45	1.86	2.52	2.46	2.61	2.61
<i>Total</i> .....	<i>5.04</i>	<i>5.43</i>	<i>4.44</i>	<i>4.09</i>	<i>3.38</i>	<i>4.16</i>	<i>4.10</i>	<i>4.25</i>	<i>4.25</i>
<i>Steelworks-owned coking-plants</i>									
Germany .....	7.71	8.16	11.12	10.87	9.28	11.08	10.82	10.96	10.79
Belgium and the Netherlands .	5.02	5.11	6.29	6.35	5.78	6.43	6.41	6.26	6.33
France .....	3.53	4.12	4.70	4.65	4.47	4.79	4.70	4.68	4.76
Italy .....	1.36	1.36	2.23	2.41	1.97	2.77	2.77	4.69	5.12
<i>Total</i> .....	<i>17.62</i>	<i>18.75</i>	<i>24.34</i>	<i>24.28</i>	<i>21.50</i>	<i>25.07</i>	<i>24.79</i>	<i>26.59</i>	<i>27.00</i>
<b>Grand Total</b> .....	<b>68.85</b>	<b>72.12</b>	<b>85.28</b>	<b>83.15</b>	<b>71.74</b>	<b>84.70</b>	<b>85.66</b>	<b>88.09</b>	<b>89.94</b>

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

<sup>2)</sup> Including electrode coke (140,000 metric tons produced in 1961).

<sup>3)</sup> Exclusive of Gaz de France after the beginning of 1955.





<b>COKING-PLANTS</b>
----------------------

**TABLE VI c**  
**Coal Input and Coke Output**  
**(Mine-Owned, Independent and Steelworks-Owned**  
**Coking-Plants)**

**Technical Data**

Type of coal	1954		1955		1960		1961	
	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%
Group V <sup>1)</sup> .....	62 341	78.9	70 770	77.9	70 900	73.7	71 978	75.0
Group VI <sup>1)</sup> .....	11 795	14.9	14 541	16.0	19 496	20.3	18 285	19.1
Other groups .....	4 680	5.9	5 215	5.7	4 985	5.2	4 915	5.1
Coke breeze and low-temperature coke breeze .....	228	0.3	366	0.4	788	0.8	727	0.8
<b>Total</b> .....	<b>79 044</b>	<b>100.0</b>	<b>90 892</b>	<b>100.0</b>	<b>96 169</b>	<b>100.0</b>	<b>95 905</b>	<b>100.0</b>
	'000 metric tons	output kg/t <sup>2)</sup>	'000 metric tons	output kg/t <sup>2)</sup>	'000 metric tons	output kg/t <sup>2)</sup>	'000 metric tons	output kg/t <sup>2)</sup>
Coke production .....	59 585	753.8	68 850	757.5	72 176	750.5	71 746	748.1
	metric tons	% of total input	metric tons	% of total input	metric tons	% of total input	metric tons	% of total input
Oil input .....	.	.	43 900	0.047	59 099	0.061	59 083	0.062

<sup>1)</sup> The breakdown between Groups V and VI is only approximate.

<sup>2)</sup> 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.

	1954	1955	1960	1961	
a) Coke-oven gas delivered .....	'000,000 stand. cub. metres	25 560	29 960	32 297	32 230
b) Gas output .....	stand. cub. metres per ton of wet-charged coal	323	330	336	336
c) Coke-oven gas delivered to outside enterprises or for consumption other than d) .....	'000,000 stand. cub. m. % of a) .....	17 749 (69.4)	20 335 (67.9)	22 665 (70.2)	22 359 (69.4)
d) Consumption for heating oven:					
1) Coke-oven gas .....	'000,000 stand. cub. m. % of 4) .....	7 911	9 625 (68.0)	9 632 (67.4)	9 871 (68.6)
2) Producer gas .....	'000,000 stand. cub. m. % of 4) .....	1 534	1 119 (7.9)	1 179 (8.2)	1 094 (7.6)
3) Blast-furnace and other gases .....	'000,000 stand. cub. m. % of 4) .....	.	3 408 (24.1)	3 489 (24.4)	3 434 (23.8)
4) Total consumption of gas for heating ovens .....	'000,000 stand. cub. m.	.	14 152 (100.0)	14 300 (100.0)	14 399 (100.0)
e) Specific consumption in kcal/kg. of dry-charged coal (assuming an average moisture content of 8 %) .....		.	728	695	702

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

<b>HARD-COAL BRIQUETTES</b>
-----------------------------

**Production**

*TABLE VII*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Ruhr .....	6.21	7.51	5.29	3.64	4.99	4.93	5.10	5.23
Aachen .....	0.52	0.54	0.72	0.69	0.74	0.74	0.74	0.74
Lower Saxony .....	0.41	0.51	0.50	0.54	0.52	0.52	0.52	0.52
Southern Belgium .....	2.51	2.24	2.12	1.11	2.39	2.53	2.62	2.72
Nord/Pas-de-Calais .....	5.00	4.57	4.05	3.23	4.17	4.21	4.35	4.04
Lorraine .....	—	—	—	—	—	—	—	—
Centre/Midi .....	2.16	2.19	1.86	1.73	1.86	1.85	1.82	1.78
Independent French plants .....	1.32	2.24	1.59	0.41	1.22	1.21	1.21	1.22
Limburg .....	1.29	1.33	1.33	1.19	1.43	1.46	1.46	1.46
<b>Total .....</b>	<b>19.42</b>	<b>21.13</b>	<b>17.46</b>	<b>12.54</b>	<b>17.32</b>	<b>17.45</b>	<b>17.82</b>	<b>17.71</b>

<b>ELECTRIC CURRENT</b>
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**Output**

*TABLE VIII*

**Output of Electric Current and Electric Capacity of Pithead Power-Stations <sup>1)</sup>**

Area	Actual electric capacity MW				Actual output 1961 000,000 kWh	Expected electric capacity MW			
	Begin-ning 1954	Begin-ning 1955	Begin-ning 1961	Begin-ning 1962		Begin-ning 1963	Begin-ning 1964	Begin-ning 1965	Begin-ning 1966
Ruhr .....	1 524	1 727	3 513	4 000	15 841	4 288	4 446	4 787	5 176
Aachen .....	116	116	120	122	570	272	272	272	272
Lower Saxony .....	63	113	94	92	411	92	92	210	210
Saar .....	243	298	463	462	2 006	623	761	761	761
Campine .....	233	253	419	407	1 308	407	407	387	387
Southern Belgium .....	376	388	810	793	3 374	918	918	918	918
Nord/Pas-de-Calais .....	856	856	1 321	1 321	4 965	1 166	1 281	1 329	1 329
Lorraine .....	375	475	686	686	2 736	686	675	675	675
Centre/Midi .....	377	459	565	565	1 921	565	559	559	559
Sulcis and La Thuile .....	—	—	64	64	296	64	544	784	784
Limburg .....	285	283	351	351	1 574	351	416	416	476
<b>Total</b> .....	<b>4 448</b>	<b>4 968</b>	<b>8 406</b>	<b>8 863</b>	<b>35 002</b>	<b>9 432</b>	<b>10 371</b>	<b>11 098</b>	<b>11 547</b>
<i>of which</i>									
pithead power-stations proper	.	.	7 777	8 312	33 006	8 898	9 868	10 619	11 077
other power-generating plant at mines .....	.	.	629	551	1 996	534	503	479	470

<sup>1)</sup> Pithead power-stations proper and other power-generating plant at mines.

TABLE IX a  
Specific Consumption of Coal 1961

C = Output of electric current in '000,000 kWh  
O = Maximum electric capacity in '000 kW (average at beginning 1961 - beginning 1962)  
H = Load-hours per annum (1960)<sup>2)</sup>

} by type of  
specific  
consumption

PITHEAD  
POWER-STATIONS<sup>1)</sup>

Technical Data

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	
	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H		
<i>Germany (Fed. Rep.)</i> .....																				
Ruhr .....	8 271	1 951	4 239	4 004	1 961	4 166	1 470	332	4 428	1 609	376	4 279	487	128	3 805	15 841	3 748	4 227	3 141	
Aachen .....	—	—	—	510	104	4 904	—	—	—	32	7	4 571	28	10	2 800	570	121	4 711	3 351	
Lower Saxony .....	—	—	—	411	86	4 779	—	—	—	—	—	—	—	—	—	411	86	4 779	3 377	
Saar .....	1 688	378	4 466	—	—	—	—	—	—	318	83	3 831	—	—	—	2 006	461	4 351	3 082	
<i>Total</i> .....	9 959	2 329	4 276	4 925	1 151	4 279	1 470	332	4 428	1 959	466	4 204	515	138	3 732	18 828	4 416	4 264	3 146	
<i>Belgium</i> .....																				
Campine .....	488	115	4 243	606	194	3 124	62	33	1 879	141	51	3 617	11	20	550	1 308	413	3 167	2 989	
Southern coalfields .....	2 946	627	4 699	229	50	4 580	97	42	2 310	102	73	1 397	—	—	—	3 374	792	4 260	2 746	
<i>Total</i> .....	3 434	742	4 628	835	244	3 422	159	75	2 120	243	124	1 960	11	20	550	4 682	1 205	3 885	2 814	
<i>France</i> .....																				
Nord/Pas-de-Calais .....	3 009	543	5 541	1 236	449	2 753	363	193	1 888	357	236	1 513	—	—	—	4 965	1 421	3 494	2 892	
Lorraine .....	872	200	4 360	1 845	430	4 291	2	45	44	—	—	—	17	11	1 545	2 736	686	3 988	3 176	
Centre-Midi .....	—	—	—	370	103	3 592	1 448	415	3 489	38	14	2 714	65	33	1 970	1 921	565	3 400	3 636	
<i>Total</i> .....	3 881	743	5 223	3 451	982	3 514	1 813	653	2 776	395	250	1 580	82	44	1 864	9 622	2 672	3 601	3 121	
<i>Italy</i> .....	—	—	—	—	—	—	296	64	4 625	—	—	—	—	—	—	296	64	4 625	3 538	
<i>Netherlands</i> .....	—	—	—	728	120	6 067	724	201	3 602	101	21	4 810	21	9	2 333	1 574	351	4 484	3 486	
<i>Grand Total</i> .....	17 274	3 814	4 529	9 939	2 497	3 980	4 462	1 325	3 368	2 698	861	3 134	629	211	2 981	35 002	8 708	4 020	3 113	

<sup>1)</sup> Pithead power-stations proper and other power-generating plant at mines.

<sup>2)</sup> The number of load-hours is calculated by dividing annual output by the average maximum electric capacity (i.e. the arithmetic mean between the electric capacity at the beginning of 1961 and 1962). 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, 1960. The number of load-hours represents an artificial index, based on the assumption that the stations were operating continuously under full load.

<b>PITHEAD POWER-STATIONS <sup>1)</sup></b>
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**Technical Data**

*TABLE IX b*

**Specific Consumption of Coal, 1954-1961**

	1954	1955	1956	1957	1958	1959	1960	1961
Average specific consumption in kcal/kWh .....	3780 <sup>2)</sup>	3703 <sup>2)</sup>	3649	3556	3492	3337	3227	3113 <sup>3)</sup>
Consumption of secondary products in % of consumption of coal (ton for ton) .....	...	88%	88%	88%	87%	87%	92%	92%
Load-hours per annum .....	4642	4761	4934	5036	4530	4185	3965	4020 <sup>3)</sup>

<sup>1)</sup> Pithead power-stations proper and other power-generating plant at mines.

<sup>2)</sup> Approximate figures.

<sup>3)</sup> See Table IXa 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%

.....

Forecast for beginning of 1965 91.9%

<b>B.K.B. AND LOW- TEMPERATURE BROWN-COAL COKE</b>
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**Investment and Production**

*TABLE X 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	1956	1957	1958	1959	1960	1961	1962	1963
Briquetting-plants .....	5.10	7.87	4.07	1.76	4.45	4.34	5.63	3.49	7.61	6.25
Low-temperature coking-plants ..	0.24	0.27	0.45	0.55	0.60	0.50	0.36	0.47	0.47	0.08
<b>Total .....</b>	<b>5.34</b>	<b>8.14</b>	<b>4.52</b>	<b>2.31</b>	<b>5.05</b>	<b>4.84</b>	<b>5.99</b>	<b>3.96</b>	<b>8.08</b>	<b>6.33</b>

*TABLE X b*

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

*'000,000 metric tons*

	Production potential		Production 1961	Expected production potential			
	1955	1961		1962	1963	1964	1965
B.K.B. ....	16.78	13.83	13.84	13.53	13.42	13.61	13.42
Low-temperature coke .....	0.62	0.59	0.60	0.59	0.59	0.59	0.59



<b>IRON-ORE INDUSTRY</b>
--------------------------

**Investment**

*TABLE XI*  
**Capital Expenditure by Orefields**

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

Orefield	Actual expenditure								Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Salzgitter, Ilsede, Harzvorland	2,21	4,73	4,90	3,54	5,78	6,53	5,29	5,49	8,48	7,09
Osnabrück, Weser-Wiehengebirge .....	1,15	0,70	0,39	0,75	0,52	0,52	0,64	0,75	0,70	0,08
Siegerland-Wied .....	2,20	1,30	2,25	2,18	0,99	0,85	0,48	1,37	1,16	0,93
Central and Southern Germany <sup>1)</sup>	0,83	0,77	0,54	0,53	0,86	0,83	0,93	0,54	0,18	—
Other German fields <sup>2)</sup> .....	0,73	1,25	1,17	1,36	1,58	1,58	1,22	1,73	1,42	2,02
Belgium .....	—	—	—	0,04	0,08	0,02	0,04	0,11	0,01	—
Eastern France .....	16,43	16,62	25,86	33,73	25,80	24,40	28,92	30,60	38,66	30,16
Western France .....	1,26	1,83	3,03	2,94	2,87	2,87	2,93	4,95	7,30	2,27
French-Centre/Midi .....	0,19	0,15	0,29	0,22	0,25	0,28	0,41	0,23	0,29	0,33
Italy .....	4,09	2,47	3,98	2,87	1,77	1,07	1,41	2,23	3,63	3,20
Luxembourg .....	0,37	0,88	1,45	1,64	0,68	1,32	0,94	1,22	1,85	1,01
<b>Total .....</b>	<b>29,46</b>	<b>30,70</b>	<b>43,86</b>	<b>49,80</b>	<b>41,18</b>	<b>40,27</b>	<b>43,21</b>	<b>49,22</b>	<b>63,68</b>	<b>47,09</b>

<sup>1)</sup> Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.

<sup>2)</sup> Doggererzgebiet, Kreideerzgebiet.

<b>IRON-ORE INDUSTRY</b>
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**Extraction**

*TABLE XII*

**Extraction and Extraction Potential by Orefields**

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

Orefield	Extraction potential			Actual extraction 1961	Expected extraction potential			
	1954	1955	1961		1962	1963	1964	1965
Salzgitter, Ilsede, Harzvorland .....	.	9.51	12.75	11.45	12.83	12.76	11.65	11.88
Osnabrück, Weser-Wiehengebirge ..	.	1.77	2.40	2.08	2.40	2.40	2.40	2.40
Siegerland-Wied .....	.	1.37	1.37	1.24	1.22	1.20	1.20	1.22
Central and Southern Germany <sup>1)</sup> ...	.	1.71	1.90	1.73	1.72	1.40	1.30	1.24
Other German fields <sup>2)</sup> .....	.	2.24	2.85	2.37	2.87	2.96	3.05	3.04
Belgium .....	.	0.11	0.26	0.11	0.23	0.23	0.23	0.23
Eastern France .....	.	48.34	65.77	62.40	69.12	72.29	74.84	77.38
Western France .....	.	4.13	6.01	4.62	6.22	6.91	6.94	6.96
French-Centre/Midi .....	.	0.35	0.41	0.39	0.44	0.47	0.47	0.43
Italy .....	.	2.66	2.35	2.06	2.44	2.49	2.63	2.65
Luxembourg .....	.	7.58	8.42	7.46	7.79	7.89	8.00	7.94
<b>Total</b> .....	.	<b>79.77</b>	<b>104.49</b>	<b>95.91</b>	<b>107.28</b>	<b>111.00</b>	<b>112.71</b>	<b>115.37</b>

<sup>1)</sup> Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.

<sup>2)</sup> Doggererzgebiet, Kreideerzgebiet.

<b>IRON AND STEEL INDUSTRY</b>
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**Total Investment**

**TABLE XIII**  
**Capital Expenditure by Areas**

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

Area	Actual expenditure								Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> .....		60.88	56.43	46.70	35.86	25.71	35.92	90.47	121.83	63.18
North Rhine/Westphalia .....	210.22	216.31	183.24	205.81	182.30	140.96	165.47	271.46	311.36	289.81
Southern Germany <sup>2)</sup> .....		12.00	11.28	15.61	8.50	2.33	27.71	18.01	19.18	7.62
Saar .....	15.61	19.41	34.96	46.17	27.93	37.23	40.84	41.72	42.40	18.21
Belgium .....	32.92	33.14	45.52	60.08	77.92	81.76	136.88	126.34	133.40	76.85
Lorraine .....		71.40	83.72	116.58	130.41	132.75	134.66	184.04	228.72	157.40
Northern France .....	125.86	22.54	33.63	42.89	37.70	35.79	74.24	153.11	176.29	67.19
France-other areas .....		14.27	23.88	30.29	32.84	21.77	23.15	35.40	38.19	22.11
Italy-coastal areas .....		10.35	23.48	43.24	33.07	46.01	43.78	56.48	212.87	237.33
Italy-other areas .....	35.85	25.56	28.48	35.91	36.45	18.14	19.40	50.27	110.79	59.16
Luxembourg .....	25.08	22.13	19.11	30.93	21.55	23.48	28.43	32.65	40.28	21.79
Netherlands .....	7.94	16.34	26.16	33.96	19.04	20.66	44.71	62.43	64.90	70.98
<b>Total</b> .....	<b>453.48</b>	<b>524.33</b>	<b>569.89</b>	<b>708.17</b>	<b>643.57</b>	<b>586.59</b>	<b>775.19</b>	<b>1122.38</b>	<b>1500.21</b>	<b>1091.63</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>STEELWORKS-OWNED COKING-PLANTS</b>
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**Investment**

*TABLE XIV 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	1956	1957	1958	1959	1960	1961	1962	1963	
Northern Germany <sup>1)</sup> .....		0.10	1.00	0.34	0.49	0.65	0.22	0.29	0.18	0.19	
North Rhine/Westphalia ...	5.23	1.53	2.40	4.81	9.24	11.13	1.03	0.82	0.44	0.39	
Southern Germany <sup>2)</sup> .....		0.14	2.08	3.13	0.41	—	0.06	0.04	—	—	
Saar .....		4.05	5.60	9.05	3.14	3.73	1.47	1.85	2.14	0.04	
Belgium .....	1.39	2.82	3.75	3.95	2.44	1.00	2.96	2.55	1.90	0.44	
Lorraine .....		5.10	5.94	3.85	2.73	2.11	3.75	7.95	8.75	2.70	
Northern France .....	9.29	—	0.07	—	0.12	0.14	0.30	0.40	0.10	—	
France-other areas .....		0.81	0.73	0.37	0.66	0.38	0.23	0.45	0.35	0.15	
Italy-coastal areas .....	—	—	0.13	2.11	4.34	2.76	1.04	3.27	14.06	14.38	
Italy-other areas .....	—	—	—	—	—	0.65	0.14	—	—	—	
Luxembourg .....	—	—	—	—	—	—	—	—	—	—	
Netherlands .....	2.08	5.39	0.63	0.35	0.98	2.38	0.28	0.60	1.75	1.70	
<b>Total .....</b>	<b>17.99</b>	<b>19.94</b>	<b>22.33</b>	<b>27.96</b>	<b>24.55</b>	<b>24.93</b>	<b>11.48</b>	<b>18.22</b>	<b>29.67</b>	<b>19.99</b>	

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>BURDEN PREPARATION</b>
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**Investment**

TABLE XIV 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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> . . . . .		2.69	5.47	1.46	3.57	2.89	0.95	0.43	1.91	3.25
North Rhine/Westphalia . . . . .	3.08	8.43	3.60	9.79	26.44	24.38	20.92	23.94	13.41	15.33
Southern Germany <sup>2)</sup> . . . . .		0.04	0.16	0.45	0.22	—	0.04	0.02	—	—
Saar . . . . .	0.12	0.03	0.35	1.41	0.94	2.98	9.57	3.64	2.26	1.78
Belgium . . . . .	0.10	0.27	3.60	8.47	8.32	16.25	19.29	13.75	13.53	5.71
Lorraine . . . . .		1.48	7.71	16.51	15.66	16.89	10.12	29.43	45.44	30.38
Northern France . . . . .	0.57	0.15	1.62	2.80	1.50	2.70	5.50	6.30	16.60	1.00
France-other areas . . . . .		0.01	0.78	3.27	2.57	0.49	0.03	2.35	3.47	3.60
Italy-coastal areas . . . . .		0.84	2.06	2.56	2.36	2.70	0.40	0.59	17.95	21.75
Italy-other areas . . . . .	0.61	0.17	0.15	0.32	0.15	0.02	0.03	0.46	0.03	—
Luxembourg . . . . .	7.11	6.13	3.25	3.61	4.54	2.96	2.92	8.28	10.48	2.58
Netherlands . . . . .	—	0.90	2.77	0.88	0.46	1.26	3.92	1.73	2.87	4.23
<b>Total . . . . .</b>	<b>11.59</b>	<b>21.14</b>	<b>31.52</b>	<b>51.53</b>	<b>66.73</b>	<b>73.52</b>	<b>73.69</b>	<b>90.92</b>	<b>127.95</b>	<b>89.61</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>BLAST-FURNACES</b>
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**Investment**

*TABLE XIV 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	1956	1957	1958	1959	1960	1961	1962	1963	
Northern Germany <sup>1)</sup> .....		0.26	3.02	9.76	8.13	4.14	3.91	4.15	9.20	1.07	
North Rhine/Westphalia ..	16.74	16.16	25.61	29.17	32.56	25.96	20.18	27.28	35.65	31.56	
Southern Germany <sup>2)</sup> .....		2.53	2.94	2.08	1.48	0.47	1.07	0.77	1.69	0.20	
Saar .....	1.92	1.56	2.46	3.50	4.72	5.52	3.33	2.11	5.84	6.41	
Belgium .....	7.34	5.83	10.37	8.57	11.06	8.77	7.89	14.41	11.76	7.35	
Lorraine.....		9.43	20.20	25.66	29.90	26.40	27.36	23.89	31.07	20.31	
Northern France .....	11.14	1.10	4.05	7.55	9.48	6.05	8.79	16.26	11.35	3.46	
France-other areas .....		0.71	1.15	3.90	4.62	1.68	0.92	0.99	1.38	0.37	
Italy-coastal areas.....		1.68	0.20	1.39	6.00	4.99	4.20	5.76	14.87	17.37	
Italy-other areas .....	0.59	0.08	0.61	1.25	1.42	0.68	0.34	0.71	0.03	—	
Luxembourg .....	2.01	2.33	3.67	3.64	2.98	2.60	4.57	4.58	2.09	0.14	
Netherlands .....	0.44	0.18	2.40	7.57	2.42	1.11	4.46	7.17	2.58	1.22	
<b>Total .....</b>	<b>40.18</b>	<b>41.85</b>	<b>76.68</b>	<b>104.04</b>	<b>114.77</b>	<b>88.37</b>	<b>87.02</b>	<b>108.08</b>	<b>127.51</b>	<b>89.46</b>	

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

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

**Investment**

*TABLE XIV 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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> . . . . .		3.05	9.49	11.56	12.19	7.68	5.08	4.87	11.29	4.51
North Rhine/Westphalia . . . . .	24.00	26.12	31.61	43.77	68.24	61.47	42.13	52.04	49.50	47.28
Southern Germany <sup>2)</sup> . . . . .		2.71	5.18	5.66	2.11	0.47	1.17	0.83	1.69	0.20
Saar . . . . .	3.09	5.64	8.41	13.96	8.80	12.23	14.37	7.60	10.24	8.23
Belgium . . . . .	8.83	8.92	17.72	20.99	21.82	26.02	30.14	30.71	27.19	13.50
Lorraine . . . . .		16.01	33.85	46.02	48.29	45.40	41.23	61.27	85.26	53.39
Northern France . . . . .	21.00	1.25	5.74	10.35	11.45	8.89	14.59	22.96	28.05	4.46
France-other areas . . . . .		1.53	2.66	7.54	7.50	2.55	1.18	3.79	5.20	4.12
Italy-coastal areas . . . . .		2.52	2.39	6.06	12.70	10.45	5.64	9.62	46.88	53.50
Italy-other areas . . . . .	1.20	0.25	0.76	1.57	1.57	1.35	0.51	1.17	0.06	—
Luxembourg . . . . .	9.12	8.46	6.92	7.25	7.52	5.56	7.49	12.86	12.57	2.72
Netherlands . . . . .	2.52	6.47	5.80	8.80	3.86	4.75	8.66	9.50	7.20	7.15
<b>Total . . . . .</b>	<b>69.76</b>	<b>82.93</b>	<b>130.53</b>	<b>183.53</b>	<b>206.05</b>	<b>186.82</b>	<b>172.19</b>	<b>217.22</b>	<b>285.13</b>	<b>199.06</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.



<b>BASIC BESSEMER STEELWORKS</b>
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**Investment**

*TABLE XV 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	1956	1957	1958	1959	1960	1961	1962	1963	
Northern Germany <sup>1)</sup> .....		2.99	1.74	2.02	0.83	0.32	0.34	1.11	0.23	—	
North Rhine/Westphalia ...	3.24	4.05	3.09	8.22	17.10	11.74	3.73	4.16	5.97	4.15	
Southern Germany <sup>2)</sup> .....		0.24	0.24	0.74	0.62	0.11	0.02	0.08	0.07	—	
Saar .....	0.40	1.36	3.87	6.01	5.53	3.90	3.20	3.07	6.29	0.13	
Belgium .....	1.75	2.57	3.25	10.95	14.32	7.49	6.43	6.43	7.77	4.47	
Lorraine.....		3.54	3.98	5.84	3.80	4.76	5.20	6.65	5.66	5.47	
Northern France .....	5.72	0.15	0.50	—	1.45	1.00	1.00	1.00	1.30	0.60	
France-other areas .....		0.20	0.50	1.00	0.60	0.52	0.30	0.64	0.51	0.20	
Italy-coastal areas.....		0.05	0.25	0.28	0.64	0.40	0.55	0.17	0.02	—	
Italy-other areas .....	0.16	—	—	—	—	0.07	—	—	—	—	
Luxembourg .....	2.64	2.10	5.00	10.05	4.80	3.50	0.41	0.74	1.37	0.63	
Netherlands .....	—	—	—	—	—	—	—	—	—	—	
<b>Total .....</b>	<b>13.91</b>	<b>17.25</b>	<b>22.43</b>	<b>45.11</b>	<b>49.69</b>	<b>33.81</b>	<b>21.18</b>	<b>24.05</b>	<b>29.19</b>	<b>15.65</b>	

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>OPEN-HEARTH STEELWORKS</b>
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**Investment**

TABLE XV 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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> . . . . .		2.92	7.87	6.18	0.98	0.84	4.09	9.78	9.00	3.08
North Rhine/Westphalia . . . . .	12.33	15.62	25.05	26.78	14.03	9.26	14.82	17.60	14.50	3.31
Southern Germany <sup>2)</sup> . . . . .		0.30	0.14	1.52	0.02	—	0.94	0.16	0.71	—
Saar . . . . .	0.47	0.08	1.46	0.32	0.78	0.35	0.33	0.23	0.07	—
Belgium . . . . .	0.30	0.05	0.24	0.53	0.60	0.19	0.26	0.22	0.38	0.09
Lorraine . . . . .		3.78	2.77	2.79	2.89	2.57	4.06	3.07	2.95	2.11
Northern France . . . . .	5.43	3.52	3.69	4.09	2.28	0.93	0.45	2.01	1.52	0.70
France-other areas . . . . .		0.21	2.05	0.40	0.21	0.11	0.72	1.17	0.63	—
Italy-coastal areas . . . . .		1.62	4.52	5.68	2.97	0.89	1.50	5.17	4.13	1.16
Italy-other areas . . . . .	1.38	0.82	1.37	1.41	1.49	0.80	0.83	3.07	1.61	1.72
Luxembourg . . . . .	—	—	—	—	—	—	—	—	—	—
Netherlands . . . . .	0.21	1.73	4.76	1.91	1.13	1.62	1.12	2.35	1.66	1.14
<b>Total . . . . .</b>	<b>20.12</b>	<b>30.65</b>	<b>53.92</b>	<b>51.61</b>	<b>27.38</b>	<b>17.56</b>	<b>29.12</b>	<b>44.83</b>	<b>37.16</b>	<b>13.31</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>ELECTRIC-FURNACE STEELWORKS</b>
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**Investment**

*TABLE XV c*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure								Estimated expenditure (projects in progress or approved)	
	1954 <sup>1)</sup>	1955 <sup>1)</sup>	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>2)</sup> . . . . .		0.05	0.61	—	—	0.38	0.74	-0.35	0.14	0.25
North Rhine/Westphalia . . . . .	5.42	9.76	8.47	8.30	2.57	1.02	1.65	6.52	2.36	1.73
Southern Germany <sup>3)</sup> . . . . .		—	—	0.13	—	—	—	0.03	0.75	0.75
Saar . . . . .	—	0.02	—	—	—	—	2.10	0.60	0.83	—
Belgium . . . . .	1.60	1.41	1.22	0.37	0.14	0.44	0.30	0.70	0.74	0.12
Lorraine . . . . .		—	0.18	0.04	1.48	1.34	0.75	1.00	0.78	2.03
Northern France . . . . .	1.14	1.22	0.07	—	—	—	0.71	1.03	0.29	—
France-other areas . . . . .		0.94	2.41	4.31	3.29	1.60	2.55	5.21	6.59	1.96
Italy-coastal areas . . . . .		—	—	—	—	0.03	0.35	0.66	2.05	1.00
Italy-other areas . . . . .	1.75	1.46	3.63	2.91	3.08	3.64	1.85	4.29	8.89	8.70
Luxembourg . . . . .	—	0.04	0.02	0.02	0.01	0.01	0.07	0.10	0.20	0.20
Netherlands . . . . .	0.15	0.17	0.56	0.34	0.02	—	0.04	0.08	0.90	0.55
<b>Total . . . . .</b>	<b>10.06</b>	<b>15.07</b>	<b>17.17</b>	<b>16.42</b>	<b>10.59</b>	<b>8.46</b>	<b>11.11</b>	<b>20.57</b>	<b>24.52</b>	<b>17.29</b>

<sup>1)</sup> For the years 1954-1955 including "other steelworks".

<sup>2)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>3)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>LD, ROTOR AND OTHER STEELWORKS</b>
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**Investment**

*TABLE XV 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 <sup>1)</sup>	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>2)</sup> .....	·	—	—	0.03	1.89	1.93	4.25	7.98	4.39	6.97
North Rhine/Westphalia ...	·	0.15	5.67	9.73	3.00	1.71	6.31	34.90	35.59	34.14
Southern Germany <sup>3)</sup> .....	·	—	—	—	—	—	—	0.04	—	—
Saar .....	·	—	—	—	—	0.83	1.74	1.91	0.15	—
Belgium .....	·	—	—	—	—	—	4.36	5.39	13.64	9.93
Lorraine.....	·	0.06	0.02	—	0.51	5.83	4.73	2.12	3.49	8.86
Northern France .....	·	—	—	—	—	—	5.00	9.60	9.00	2.60
France-other areas .....	·	—	0.16	—	—	—	—	—	—	—
Italy-coastal areas.....	·	—	—	—	—	—	—	0.01	20.28	26.58
Italy-other areas .....	·	—	—	—	—	—	—	—	—	—
Luxembourg .....	·	—	—	—	—	0.49	2.25	3.15	3.84	1.36
Netherlands .....	·	—	2.23	5.47	1.70	2.02	5.35	6.86	2.77	3.11
<b>Total .....</b>	·	<b>0.21</b>	<b>8.08</b>	<b>15.23</b>	<b>7.10</b>	<b>12.81</b>	<b>33.99</b>	<b>71.96</b>	<b>93.15</b>	<b>93.55</b>

<sup>1)</sup> For 1955, LD, Rotor and similar works only.

<sup>2)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>3)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>STEELWORKS - TOTAL</b>
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**Investment**

*TABLE XV 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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> .....		5.96	10.22	8.23	3.70	3.47	9.42	19.22	13.76	10.30
North Rhine/Westphalia ...	20.99	29.58	42.28	53.03	36.70	23.73	26.51	63.18	58.42	43.33
Southern Germany <sup>2)</sup> .....		0.54	0.39	2.39	0.64	0.11	0.96	0.31	1.53	0.75
Saar .....	0.87	1.46	5.33	6.33	6.31	5.08	7.37	5.81	7.34	0.13
Belgium .....	3.65	4.03	4.71	11.85	15.06	8.12	11.35	12.74	22.53	14.61
Lorraine.....		7.38	6.95	8.67	8.68	14.50	14.74	12.84	12.88	18.47
Northern France .....	12.29	4.89	4.26	4.09	3.73	1.93	7.16	13.64	12.11	3.90
France-other areas .....		1.35	5.12	5.71	4.10	2.23	3.57	7.02	7.73	2.16
Italy-coastal areas.....		1.67	4.77	5.96	3.61	1.32	2.40	6.01	26.48	28.74
Italy-other areas .....	3.29	2.28	5.00	4.32	4.57	4.51	2.68	7.36	10.50	10.42
Luxembourg .....	2.64	2.14	5.02	10.07	4.81	4.00	2.73	3.99	5.41	2.19
Netherlands .....	0.36	1.90	7.55	7.72	2.85	3.64	6.51	9.29	5.33	4.80
<b>Total</b> .....	<b>44.09</b>	<b>63.18</b>	<b>101.60</b>	<b>128.37</b>	<b>94.76</b>	<b>72.64</b>	<b>95.40</b>	<b>161.41</b>	<b>184.02</b>	<b>139.80</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>BLOOMING AND SLABBING MILLS</b>
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**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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> .....		9.42	0.31	0.19	0.86	1.46	0.63	2.76	6.21	9.75
North Rhine/Westphalia ...		20.84	17.12	19.66	11.35	6.17	12.06	21.44	19.19	23.51
Southern Germany <sup>2)</sup> .....		0.53	0.01	—	—	—	—	—	0.09	—
Saar .....		0.04	—	1.99	1.63	6.86	5.68	2.86	2.91	2.75
Belgium .....		1.11	1.75	6.43	4.08	4.14	8.91	5.03	9.58	9.43
Lorraine .....		3.21	4.03	3.98	3.40	3.58	4.97	12.98	9.10	3.39
Northern France .....		—	1.48	7.00	2.85	1.89	3.97	16.38	8.52	1.60
France-other areas .....		0.17	2.43	1.62	0.41	0.64	0.93	0.89	0.51	—
Italy-coastal areas .....		0.18	0.77	0.45	4.38	13.06	3.24	2.86	8.88	13.57
Italy-other areas .....		1.99	0.77	2.43	1.78	0.69	1.19	2.73	7.78	5.23
Luxembourg .....		2.76	0.54	0.51	0.18	0.25	0.24	1.53	4.42	4.04
Netherlands .....		1.09	1.95	0.83	0.67	1.63	1.78	3.39	8.91	13.55
<b>Total</b> .....	<b>23.10</b>	<b>41.34</b>	<b>31.16</b>	<b>45.09</b>	<b>31.59</b>	<b>40.37</b>	<b>43.60</b>	<b>72.85</b>	<b>86.10</b>	<b>86.82</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

## SECTION MILLS

## Investment

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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> .....	.	12.02	8.42	0.89	0.29	1.11	2.31	5.31	11.58	3.81
North Rhine/Westphalia . . .	.	38.20	21.71	17.93	9.12	10.85	15.33	24.11	55.71	61.53
Southern Germany <sup>2)</sup> . . . . .	.	2.85	0.82	0.65	0.61	0.22	0.57	0.66	0.99	0.66
Saar .....	.	8.12	15.63	12.25	2.95	6.39	7.30	15.15	10.36	2.44
Belgium .....	.	2.63	2.75	2.62	8.39	15.77	23.91	17.16	14.62	9.61
Lorraine.....	.	8.76	12.03	12.92	9.93	9.31	11.51	17.39	29.06	29.96
Northern France .....	.	1.61	2.31	3.60	3.51	3.78	4.76	15.82	18.97	1.27
France-other areas .....	.	3.85	5.75	8.96	7.77	2.54	2.88	4.68	5.60	2.03
Italy-coastal areas.....	.	0.32	0.22	0.32	0.36	0.80	4.52	5.47	19.67	19.27
Italy-other areas .....	.	8.29	10.30	13.70	14.93	5.10	2.58	3.57	6.54	5.92
Luxembourg .....	.	0.23	0.33	5.35	3.43	8.43	13.95	9.52	9.78	10.25
Netherlands .....	.	—	—	0.01	0.07	0.03	0.77	2.85	15.10	22.86
<b>Total .....</b>	<b>74.40</b>	<b>86.88</b>	<b>80.27</b>	<b>79.20</b>	<b>61.36</b>	<b>64.33</b>	<b>90.39</b>	<b>121.69</b>	<b>197.98</b>	<b>169.61</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>FLAT-PRODUCT MILLS</b>
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**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	1956	1957	1958	1959	1960	1961	1962	1963	
Northern Germany <sup>1)</sup> .....	.	23.26	19.74	17.01	11.00	7.41	12.85	47.56	54.57	19.40	
North Rhine/Westphalia ...	.	67.33	38.07	35.90	22.04	12.55	33.45	57.13	60.15	74.60	
Southern Germany <sup>2)</sup> .....	.	1.98	0.46	1.21	1.02	0.12	22.06	14.33	7.94	1.61	
Saar .....	.	0.44	1.10	5.75	0.40	0.36	0.27	0.19	2.46	1.14	
Belgium .....	.	7.59	7.33	3.35	11.74	12.48	36.94	34.17	29.30	15.60	
Lorraine.....	.	11.49	5.82	12.66	12.86	9.38	16.33	32.25	31.26	14.86	
Northern France .....	.	11.33	12.12	7.97	3.70	5.32	23.80	48.74	59.65	36.04	
France-other areas .....	.	3.86	3.51	2.15	3.01	3.74	5.30	7.23	5.61	7.16	
Italy-coastal areas.....	.	1.77	8.43	16.72	3.19	8.38	3.37	3.72	17.63	24.91	
Italy-other areas .....	.	7.09	6.07	3.54	4.71	2.87	5.50	27.60	74.16	30.46	
Luxembourg .....	.	4.42	0.38	0.29	0.31	0.07	1.01	1.09	0.96	0.06	
Netherlands .....	.	3.03	4.08	4.89	3.93	4.91	14.59	17.29	4.07	4.77	
<b>Total .....</b>		<b>139.60</b>	<b>143.59</b>	<b>107.11</b>	<b>111.44</b>	<b>77.91</b>	<b>67.59</b>	<b>175.47</b>	<b>291.30</b>	<b>347.76</b>	<b>230.61</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.



<b>ROLLING-MILLS - TOTAL <sup>1)</sup></b>
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**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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>2)</sup> .....		45.52	29.30	19.14	13.01	10.61	15.99	55.93	72.94	33.01
North Rhine/Westphalia ..	138.03	136.30	83.15	78.10	48.67	34.09	65.27	108.78	139.65	162.61
Southern Germany <sup>3)</sup> ...		6.75	2.32	3.43	3.35	0.45	24.13	15.57	14.02	5.50
Saar .....	8.00	9.80	17.78	20.54	5.79	13.74	13.56	18.69	16.80	6.96
Belgium .....	15.57	13.80	16.63	16.05	27.22	34.26	77.74	66.68	67.80	41.14
Lorraine.....		29.63	23.97	36.71	33.91	26.26	37.51	70.65	87.36	57.22
Northern France .....	64.00	13.52	17.55	24.50	14.36	13.67	35.26	85.50	98.80	49.60
France-other areas .....		9.23	12.24	13.56	14.03	12.11	13.07	16.37	15.22	11.30
Italy-coastal areas.....		4.52	13.97	25.06	11.26	26.39	20.86	15.43	61.09	66.73
Italy-other areas .....	25.39	18.69	17.80	24.47	23.32	9.23	10.09	35.14	90.92	42.19
Luxembourg .....	11.21	8.40	3.27	9.30	5.23	10.52	16.02	12.95	17.18	14.51
Netherlands .....	2.95	4.92	6.91	11.48	6.90	7.31	20.80	29.88	34.75	42.36
<b>Total .....</b>	<b>265.15</b>	<b>301.08</b>	<b>244.89</b>	<b>282.34</b>	<b>207.05</b>	<b>198.64</b>	<b>350.30</b>	<b>531.57</b>	<b>716.53</b>	<b>533.13</b>

<sup>1)</sup> Including ancillary and auxiliary plants.<sup>2)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.<sup>3)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**STEELWORKS-OWNED  
POWER-GENERATING  
PLANTS AND DISTRIBUTION NETWORKS**

**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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> .....	14.83	4.07	1.99	2.10	1.83	1.88	2.13	3.96	13.47	9.16
North Rhine/Westphalia ..		12.19	8.91	9.27	9.56	6.01	11.70	17.43	24.42	15.13
Southern Germany <sup>2)</sup> .....		1.24	2.62	2.85	1.40	0.40	0.87	0.26	0.86	0.56
Saar .....	0.88	0.57	1.02	2.29	2.61	0.68	1.44	2.99	2.21	2.83
Belgium .....	2.35	2.86	1.59	4.48	7.06	7.26	9.08	5.87	4.70	2.26
Lorraine.....	21.15	12.45	9.02	14.17	22.87	30.36	23.33	18.33	18.52	16.58
Northern France.....		0.67	0.60	0.39	0.53	0.81	2.33	5.19	3.69	0.20
France-other areas .....		0.79	1.28	1.60	2.14	2.26	2.01	2.07	3.07	0.76
Italy-coastal areas.....	1.20	0.38	0.72	1.08	3.57	5.70	5.04	7.83	15.63	15.33
Italy-other areas .....		1.10	0.53	1.28	1.27	0.76	0.49	0.71	0.83	0.47
Luxembourg .....	1.32	2.30	2.51	2.21	1.74	0.88	0.41	1.23	1.99	1.10
Netherlands .....	1.25	0.69	1.18	1.48	2.24	1.80	1.85	5.83	8.43	6.81
<b>Total .....</b>	<b>42.98</b>	<b>39.31</b>	<b>31.97</b>	<b>43.20</b>	<b>56.82</b>	<b>58.80</b>	<b>60.68</b>	<b>71.70</b>	<b>97.82</b>	<b>71.19</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>MISCELLANEOUS (IRON AND STEEL WORKS)</b>
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**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	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> .....	.	2.28	5.43	5.67	5.13	2.07	3.30	6.49	10.37	6.20
North Rhine/Westphalia ..	12.37	12.12	17.29	21.64	19.13	15.66	19.86	30.03	39.37	21.46
Southern Germany <sup>2)</sup> .....		0.76	0.77	1.28	1.00	0.90	0.58	1.04	1.08	0.61
Saar .....	2.77	1.94	2.42	3.05	4.42	5.50	4.10	6.63	5.81	0.06
Belgium .....	2.52	3.53	4.87	6.71	6.76	6.10	8.57	10.34	11.18	5.34
Lorraine.....		5.93	9.93	11.01	16.66	16.23	17.85	20.95	24.70	11.74
Northern France .....	7.42	2.21	5.48	3.56	7.98	10.49	14.90	25.82	33.64	9.03
France-other areas .....		1.37	2.58	1.88	4.72	2.62	3.32	6.15	6.97	3.77
Italy-coastal areas.....		1.26	1.63	5.08	1.93	2.15	9.84	17.59	62.79	73.03
Italy-other areas .....	4.77	3.24	4.39	4.27	5.72	2.29	5.63	5.89	8.48	6.08
Luxembourg .....	0.79	0.83	1.39	2.10	2.25	2.52	1.78	1.62	3.13	1.27
Netherlands .....	0.86	2.36	4.72	4.48	3.19	3.16	6.89	7.93	9.19	9.86
<b>Total .....</b>	<b>31.50</b>	<b>37.83</b>	<b>60.90</b>	<b>70.73</b>	<b>78.89</b>	<b>69.69</b>	<b>96.62</b>	<b>140.48</b>	<b>216.71</b>	<b>148.45</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**GENERAL SERVICES  
(IRON AND STEEL  
WORKS) TOTAL**

**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	1955	1956	1957	1958	1959	1960	1961	1962	1963
Northern Germany <sup>1)</sup> . . . . .		6.35	7.42	7.77	6.96	3.95	5.43	10.45	23.84	15.36
North Rhine/Westphalia . . . . .	27.20	24.31	26.20	30.91	28.69	21.67	31.56	47.46	63.79	36.59
Southern Germany <sup>2)</sup> . . . . .		2.00	3.39	4.13	2.40	1.30	1.45	1.30	1.94	1.17
Saar . . . . .	3.65	2.51	3.44	5.34	7.03	6.18	5.54	9.62	8.02	2.89
Belgium . . . . .	4.87	6.39	6.46	11.19	13.82	13.36	17.65	16.21	15.88	7.60
Lorraine . . . . .		18.38	18.95	25.18	39.53	46.59	41.18	39.28	43.22	28.32
Northern France . . . . .	28.57	2.88	6.08	3.95	8.51	11.30	17.23	31.01	37.33	9.23
France-other areas . . . . .	2.16	2.16	3.86	3.48	6.86	4.88	5.33	8.22	10.04	4.53
Italy-coastal areas . . . . .		1.64	2.35	6.16	5.50	7.85	14.88	25.42	78.42	88.36
Italy-other areas . . . . .	5.97	4.34	4.92	5.55	6.99	3.05	6.12	6.60	9.31	6.55
Luxembourg . . . . .	2.11	3.13	3.90	4.31	3.99	3.40	2.19	2.85	5.12	2.37
Netherlands . . . . .	2.11	3.05	5.90	5.96	5.43	4.96	8.74	13.76	17.62	16.67
<b>Total . . . . .</b>	<b>74.48</b>	<b>77.14</b>	<b>92.87</b>	<b>113.93</b>	<b>135.71</b>	<b>128.49</b>	<b>157.30</b>	<b>212.18</b>	<b>314.53</b>	<b>219.64</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>SINTER</b>
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**Production**

*TABLE XVIII a*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	0.70	2.15	2.13	2.28	2.32	3.22	3.22
North Rhine/Westphalia .....	.	8.74	15.65	14.44	17.41	17.61	18.23	18.81
Southern Germany <sup>2)</sup> .....	.	0.13	0.31	0.27	0.32	0.33	0.33	0.33
Saar .....	.	3.19	4.40	4.40	5.30	5.30	5.60	5.60
Belgium .....	.	0.74	4.26	3.22	5.70	7.75	8.92	8.92
Lorraine .....	.	1.75	6.25	5.54	9.05	14.21	17.99	19.74
Northern France .....	.	0.13	1.24	1.14	1.56	2.75	3.05	3.05
France - other areas .....	.	0.04	0.73	0.72	0.74	0.74	1.36	1.36
Italy - coastal areas .....	.	1.37	2.19	1.97	2.20	2.78	5.10	6.56
Italy - other areas .....	.	0.47	0.64	0.42	0.65	0.65	0.67	0.67
Luxembourg .....	.	1.22	3.07	2.97	3.52	5.14	5.50	5.50
Netherlands .....	.	—	1.95	1.81	2.10	2.45	3.40	3.40
<b>Total</b> .....	.	<b>18.48</b>	<b>42.84</b>	<b>39.03</b>	<b>50.83</b>	<b>62.03</b>	<b>73.37</b>	<b>77.16</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>PIG-IRON</b>
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**Production**

*TABLE XVIII b*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	2.14	3.64	3.25	3.80	3.86	4.51	4.69
North Rhine/Westphalia .....	.	13.81	19.51	17.55	20.88	22.10	23.18	24.08
Southern Germany <sup>2)</sup> .....	.	1.12	1.37	1.17	1.39	1.43	1.43	1.43
Saar .....	.	2.99	3.69	3.46	3.69	3.84	4.00	4.00
Belgium .....	.	5.52	7.46	6.46	7.65	8.50	8.87	9.07
Lorraine .....	.	8.44	11.80	10.81	12.34	13.01	13.88	14.70
Northern France .....	.	2.02	2.58	2.33	2.87	3.69	4.20	4.22
France - other areas .....	.	0.92	1.33	1.26	1.27	1.31	1.35	1.26
Italy - coastal areas .....	.	1.35	2.67	2.64	3.27	3.51	5.31	7.29
Italy - other areas .....	.	0.42	0.63	0.45	0.61	0.61	0.64	0.64
Luxembourg .....	.	3.11	3.91	3.78	4.01	4.19	4.28	4.28
Netherlands .....	.	0.67	1.47	1.46	1.70	1.80	2.20	2.40
<b>Total</b> .....	.	<b>42.51</b>	<b>60.06</b>	<b>54.62</b>	<b>63.48</b>	<b>67.85</b>	<b>73.85</b>	<b>78.06</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>BASIC BESSEMER STEEL</b>
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**Production**

*TABLE XIX a*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	0.99	1.94	1.71	1.83	1.74	1.36	1.06
North Rhine/Westphalia .....	.	8.01	10.18	9.32	9.92	8.97	8.23	7.37
Southern Germany <sup>2)</sup> .....	.	0.43	0.59	0.51	0.59	0.56	0.56	0.56
Saar .....	.	2.51	2.93	2.83	2.93	2.98	3.08	3.08
Belgium .....	.	5.18	6.76	5.97	6.93	7.43	7.28	7.22
Lorraine .....	.	6.67	8.93	8.55	9.55	9.61	9.61	10.08
Northern France .....	.	1.12	1.45	1.40	1.54	1.57	1.57	1.57
France - other areas .....	.	0.34	0.46	0.45	0.46	0.50	0.54	0.56
Italy - coastal areas .....	.	0.36	0.67	0.63	0.67	0.75	—	—
Italy - other areas .....	—	—	—	—	—	—	—	—
Luxembourg .....	.	3.20	4.12	4.04	4.17	4.30	4.31	4.23
Netherlands .....	—	—	—	—	—	—	—	—
<b>Total</b> .....	.	<b>28.81</b>	<b>38.03</b>	<b>35.41</b>	<b>38.59</b>	<b>38.41</b>	<b>36.54</b>	<b>35.73</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>OPEN-HEARTH STEEL</b>
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**Production**

*TABLE XIX b*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	1.32	2.35	2.08	2.46	2.71	2.99	3.07
North Rhine/Westphalia .....	.	9.24	13.01	11.67	12.99	13.14	13.36	12.88
Southern Germany <sup>2)</sup> .....	.	0.91	1.01	0.86	0.83	0.82	0.82	0.82
Saar .....	.	0.72	0.89	0.84	0.94	0.95	1.00	1.00
Belgium .....	.	0.72	0.82	0.54	0.75	0.73	0.73	0.73
Lorraine .....	.	1.82	2.42	2.29	2.45	2.49	2.49	2.49
Northern France .....	.	1.49	2.33	2.20	2.38	2.46	2.50	2.48
France - other areas .....	.	0.94	0.59	0.57	0.61	0.56	0.55	0.55
Italy - coastal areas .....	.	1.44	3.06	2.96	3.21	3.35	3.35	3.25
Italy - other areas .....	.	1.74	2.21	2.03	2.27	2.23	2.23	2.28
Luxembourg .....	—	—	—	—	—	—	—	—
Netherlands .....	.	0.87	1.22	1.02	1.17	1.18	1.18	1.18
<b>Total</b> .....	.	<b>21.21</b>	<b>29.91</b>	<b>27.06</b>	<b>30.06</b>	<b>30.62</b>	<b>31.20</b>	<b>30.73</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.



<b>ELECTRIC-FURNACE STEEL</b>
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**Production**

TABLE XIX c

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955 <sup>1)</sup>	1961		1962	1963	1964	1965
Northern Germany <sup>2)</sup> .....	.	0.09	0.20	0.19	0.20	0.20	0.20	0.20
North Rhine/Westphalia .....	.	0.86	2.07	1.92	2.32	2.37	2.42	2.42
Southern Germany <sup>3)</sup> .....	.	0.13	0.15	0.13	0.15	0.15	0.20	0.20
Saar .....	.	0.07	0.13	0.13	0.17	0.17	0.17	0.17
Belgium .....	.	0.41	0.64	0.46	0.65	0.65	0.65	0.65
Lorraine .....	.	0.29	0.40	0.38	0.40	0.41	0.55	0.53
Northern France .....	.	0.16	0.22	0.20	0.24	0.25	0.25	0.28
France - other areas .....	.	0.62	1.19	0.98	1.22	1.28	1.29	1.37
Italy - coastal areas .....	.	0.21	0.35	0.34	0.36	0.38	0.43	0.43
Italy - other areas .....	.	1.92	3.48	3.17	3.54	4.00	4.06	4.17
Luxembourg .....	.	0.07	0.09	0.08	0.09	0.09	0.09	0.09
Netherlands .....	.	0.14	0.22	0.20	0.23	0.29	0.29	0.29
<b>Total</b> .....	.	<b>4.97</b>	<b>9.14</b>	<b>8.18</b>	<b>9.57</b>	<b>10.24</b>	<b>10.60</b>	<b>10.80</b>

<sup>1)</sup> For 1955, including "other steels".

<sup>2)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>3)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>LD, ROTOR AND OTHER STEELS</b>
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**Production**

*TABLE XIX d*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	.	0.21	0.16	0.40	0.52	0.89	1.70
North Rhine/Westphalia .....	.	.	1.13	0.98	2.23	4.06	5.15	8.47
Southern Germany <sup>2)</sup> .....	.	.	0.01	0.01	0.01	0.04	0.04	0.04
Saar .....	.	.	0.12	0.12	0.16	0.18	0.18	0.18
Belgium .....	.	.	0.03	0.03	0.03	0.78	1.46	1.72
Lorraine .....	.	.	0.35	0.34	0.60	0.67	0.82	0.87
Northern France .....	.	.	0.17	0.15	0.33	1.29	1.74	1.74
France - other areas .....	.	.	0.05	0.04	0.05	0.05	0.05	0.05
Italy - coastal areas .....	.	.	—	—	—	—	2.50	4.85
Italy - other areas .....	.	.	—	—	—	—	—	—
Luxembourg .....	.	.	—	—	0.04	0.12	0.25	0.35
Netherlands .....	.	.	0.75	0.75	1.10	1.25	1.50	1.65
<b>Total</b> .....	.	.	<b>2.82</b>	<b>2.58</b>	<b>4.95</b>	<b>8.96</b>	<b>14.58</b>	<b>21.62</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>STEEL - TOTAL</b>
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**Production**

*TABLE XIX c*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	2.40	4.70	4.14	4.89	5.17	5.44	6.03
North Rhine/Westphalia .....	.	18.11	26.39	23.89	27.46	28.54	29.16	31.14
Southern Germany <sup>2)</sup> .....	.	1.47	1.76	1.51	1.58	1.57	1.62	1.62
Saar .....	.	3.30	4.07	3.92	4.20	4.28	4.43	4.43
Belgium .....	.	6.31	8.25	7.00	8.36	9.59	10.12	10.32
Lorraine .....	.	8.76	12.10	11.56	13.00	13.18	13.47	13.97
Northern France .....	.	2.77	4.17	3.95	4.49	5.57	6.06	6.07
France - other areas .....	.	1.90	2.29	2.04	2.34	2.39	2.43	2.53
Italy - coastal areas .....	.	2.01	4.08	3.93	4.24	4.48	6.28	8.53
Italy - other areas .....	.	3.66	5.69	5.20	5.81	6.23	6.29	6.45
Luxembourg .....	.	3.27	4.21	4.12	4.30	4.51	4.65	4.67
Netherlands .....	.	1.01	2.19	1.97	2.50	2.72	2.97	3.12
<b>Total</b> .....	.	<b>54.97</b>	<b>79.90</b>	<b>73.23</b>	<b>83.17</b>	<b>88.23</b>	<b>92.92</b>	<b>98.88</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>SECTIONS</b>
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**Production**

*TABLE XX a*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	1.00	1.44	1.37	1.44	1.59	1.84	1.95
North Rhine/Westphalia .....	.	6.41	9.10	8.12	9.33	9.81	10.37	10.88
Southern Germany <sup>2)</sup> .....	.	0.56	0.76	0.63	0.76	0.77	0.78	0.78
Saar .....	.	1.55	2.12	2.00	2.24	2.52	2.78	2.78
Belgium .....	.	2.95	3.43	2.77	3.75	4.16	4.35	4.44
Lorraine .....	.	3.95	5.48	4.85	5.53	5.61	6.10	6.25
Northern France .....	.	1.14	1.20	1.11	1.34	1.76	1.87	1.87
France - other areas .....	.	0.87	1.14	0.97	1.18	1.20	1.24	1.31
Italy - coastal areas .....	.	0.76	1.14	1.03	1.13	1.21	1.28	1.88
Italy - other areas .....	.	1.69	3.44	2.88	3.45	3.61	3.69	3.74
Luxembourg .....	.	1.78	2.14	2.09	2.22	2.25	2.34	2.40
Netherlands .....	.	0.16	0.20	0.17	0.23	0.23	0.51	0.76
<b>Total</b> .....	.	<b>22.82</b>	<b>31.59</b>	<b>27.99</b>	<b>32.60</b>	<b>34.72</b>	<b>37.15</b>	<b>39.04</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>FLAT PRODUCTS</b>
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**Production**

TABLE XX b

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	0.40	1.19	1.02	1.27	1.55	1.94	2.00
North Rhine/Westphalia .....	.	5.36	8.65	6.77	9.27	9.71	9.98	10.33
Southern Germany <sup>2)</sup> .....	.	0.67	0.96	0.77	1.22	1.40	1.46	1.49
Saar .....	.	0.73	0.88	0.78	0.90	0.92	0.95	1.00
Belgium .....	.	1.90	2.39	2.02	2.61	3.00	3.21	3.36
Lorraine .....	.	2.22	4.29	3.99	4.43	4.54	4.75	4.77
Northern France .....	.	1.04	1.96	1.75	2.14	2.43	2.60	2.75
France - other areas .....	.	0.71	0.47	0.44	0.50	0.53	0.55	0.58
Italy - coastal areas .....	.	0.65	1.65	1.58	1.72	2.01	2.39	2.78
Italy - other areas .....	.	0.90	1.58	1.21	1.74	2.10	2.35	2.45
Luxembourg .....	.	0.71	1.01	0.95	1.02	1.08	1.09	1.08
Netherlands .....	.	0.71	1.16	1.14	1.65	1.76	1.78	1.78
<b>Total</b> .....	<b>.</b>	<b>16.00</b>	<b>26.19</b>	<b>22.42</b>	<b>28.47</b>	<b>31.03</b>	<b>33.05</b>	<b>34.37</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>FINISHED ROLLED PRODUCTS - TOTAL</b>
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**Production**

TABLE XX c

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	1.40	2.63	2.39	2.70	3.14	3.78	3.95
North Rhine/Westphalia .....	.	11.77	17.75	14.89	18.60	19.52	20.35	21.21
Southern Germany <sup>2)</sup> .....	.	1.23	1.72	1.40	1.98	2.17	2.24	2.27
Saar .....	.	2.28	3.00	2.78	3.14	3.44	3.73	3.78
Belgium .....	.	4.85	5.82	4.79	6.36	7.16	7.56	7.80
Lorraine .....	.	6.16	9.77	8.84	9.96	10.15	10.85	11.02
Northern France .....	.	2.18	3.16	2.86	3.48	4.19	4.47	4.62
France - other areas .....	.	1.58	1.61	1.41	1.68	1.73	1.79	1.89
Italy - coastal areas .....	.	1.42	2.79	2.61	2.85	3.22	3.67	4.66
Italy - other areas .....	.	2.60	5.02	4.09	5.19	5.71	6.04	6.19
Luxembourg .....	.	2.48	3.15	3.04	3.24	3.33	3.43	3.48
Netherlands .....	.	0.87	1.36	1.31	1.88	1.99	2.29	2.54
<b>Total</b> .....	.	<b>38.82</b>	<b>57.78</b>	<b>50.41</b>	<b>61.07</b>	<b>65.75</b>	<b>70.20</b>	<b>73.41</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>HEAVY AND LIGHT SECTIONS (INCLUDING TUBE ROUNDS AND SQUARES)</b>
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**Production**

TABLE XXI a

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	1.00	1.44	1.37	1.44	1.49	1.54	1.65
North Rhine/Westphalia .....	.	5.07	7.08	6.37	7.24	7.39	7.85	8.31
Southern Germany <sup>2)</sup> .....	.	0.56	0.74	0.60	0.74	0.75	0.76	0.76
Saar .....	.	1.29	1.73	1.69	1.85	2.07	2.26	2.26
Belgium .....	.	2.42	2.73	2.16	3.08	3.24	3.35	3.44
Lorraine .....	.	3.45	3.88	3.41	3.92	3.95	4.06	4.19
Northern France .....	.	0.87	1.20	1.11	1.34	1.43	1.51	1.51
France - other areas .....	.	0.56	0.91	0.75	0.95	0.97	1.01	1.08
Italy - coastal areas .....	.	0.71	1.02	0.92	1.05	1.11	1.16	1.74
Italy - other areas .....	.	1.24	2.81	2.34	2.80	2.95	3.03	3.08
Luxembourg .....	.	1.52	1.89	1.87	1.92	1.92	2.01	2.07
Netherlands .....	.	0.06	0.08	0.04	0.11	0.11	0.26	0.38
<b>Total</b> .....	.	<b>18.75</b>	<b>25.51</b>	<b>22.63</b>	<b>26.44</b>	<b>27.38</b>	<b>28.80</b>	<b>30.47</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

<b>WIRE-ROD</b>
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**Production**

TABLE XXI b

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	—	—	—	—	0.10	0.30	0.30
North Rhine/Westphalia .....	.	1.34	2.02	1.75	2.09	2.42	2.52	2.57
Southern Germany <sup>2)</sup> .....	.	—	0.02	0.03	0.02	0.02	0.02	0.02
Saar .....	.	0.25	0.39	0.31	0.39	0.45	0.52	0.52
Belgium .....	.	0.54	0.70	0.61	0.67	0.92	1.00	1.00
Lorraine .....	.	0.90	1.60	1.44	1.61	1.66	2.04	2.06
Northern France .....	.	—	—	—	—	0.33	0.36	0.36
France - other areas .....	.	0.18	0.23	0.22	0.23	0.23	0.23	0.23
Italy - coastal areas .....	.	0.05	0.12	0.11	0.08	0.10	0.12	0.14
Italy - other areas .....	.	0.45	0.63	0.54	0.65	0.66	0.66	0.66
Luxembourg .....	.	0.26	0.25	0.22	0.30	0.33	0.33	0.33
Netherlands .....	.	0.10	0.12	0.13	0.12	0.12	0.25	0.38
<b>Total</b> .....	.	<b>4.07</b>	<b>6.08</b>	<b>5.36</b>	<b>6.16</b>	<b>7.34</b>	<b>8.35</b>	<b>8.57</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.



<b>HOOP AND STRIP AND TUBE STRIP</b>
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**Production**

*TABLE XXI c*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	—	—	—	—	—	—	—
North Rhine/Westphalia .....	.	1.45	2.41	1.80	2.61	2.62	2.62	2.98
Southern Germany <sup>2)</sup> .....	.	0.02	0.03	0.02	0.04	0.04	0.04	0.04
Saar .....	.	0.19	0.29	0.23	0.31	0.33	0.34	0.34
Belgium .....	.	0.31	0.38	0.29	0.38	0.38	0.38	0.38
Lorraine .....	.	0.62	1.03	0.95	1.04	1.11	1.15	1.16
Northern France .....	.	—	0.02	0.02	—	—	—	—
France - other areas .....	.	0.01	0.01	0.01	0.01	0.03	0.03	0.03
Italy - coastal areas .....	.	0.08	0.21	0.20	0.25	0.25	0.31	0.33
Italy - other areas .....	.	0.12	0.36	0.26	0.38	0.33	0.33	0.33
Luxembourg .....	.	0.36	0.58	0.54	0.59	0.63	0.64	0.61
Netherlands .....	.	0.06	0.08	0.07	0.06	0.06	0.08	0.08
<b>Total</b> .....	.	<b>3.22</b>	<b>5.40</b>	<b>4.39</b>	<b>5.67</b>	<b>5.78</b>	<b>5.92</b>	<b>6.28</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**PLATE  $\geq$  3 mm.  
(INCLUDING  
WIDE FLAT STEEL)**

**Production**

*TABLE XXI d*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	0.40	0.84	0.75	0.84	0.84	0.84	0.84
North Rhine/Westphalia .....	.	2.37	3.78	3.00	3.82	4.08	4.13	4.14
Southern Germany <sup>2)</sup> .....	.	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Saar .....	.	0.35	0.54	0.51	0.54	0.58	0.60	0.65
Belgium .....	.	0.72	0.82	0.63	0.78	0.89	1.00	1.05
Lorraine .....	.	0.56	1.12	1.00	1.09	1.10	1.15	1.16
Northern France .....	.	0.36	0.48	0.46	0.50	0.59	0.58	0.58
France - other areas .....	.	0.19	0.11	0.09	0.12	0.13	0.14	0.14
Italy - coastal areas .....	.	0.26	0.57	0.54	0.61	0.75	1.02	1.21
Italy - other areas .....	.	0.37	0.63	0.41	0.64	0.63	0.65	0.56
Luxembourg .....	.	0.11	0.14	0.13	0.14	0.16	0.16	0.17
Netherlands .....	.	0.29	0.45	0.45	0.45	0.44	0.44	0.44
<b>Total</b> .....	.	<b>6.00</b>	<b>9.51</b>	<b>8.00</b>	<b>9.56</b>	<b>10.22</b>	<b>10.74</b>	<b>10.97</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**HOT-ROLLED SHEET**  
**< 3 mm.**

**Production**

TABLE XXI e

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	—	0.02	0.01	0.02	0.02	0.02	0.02
North Rhine/Westphalia .....	.	1.05	1.01	0.77	1.02	1.03	1.00	0.98
Southern Germany <sup>2)</sup> .....	.	0.42	0.38	0.31	0.33	0.33	0.33	0.33
Saar .....	.	0.11	0.05	0.04	0.05	0.01	0.01	0.01
Belgium .....	.	0.50	0.37	0.29	0.36	0.27	0.27	0.27
Lorraine .....	.	0.16	0.57	0.47	0.56	0.53	0.50	0.50
Northern France .....	.	0.27	0.37	0.29	0.38	0.38	0.38	0.38
France - other areas .....	.	0.61	0.12	0.12	0.12	0.12	0.12	0.12
Italy - coastal areas .....	.	0.09	0.14	0.14	0.07	0.10	0.15	0.33
Italy - other areas .....	.	0.19	0.10	0.10	0.10	0.10	0.10	0.10
Luxembourg .....	.	—	—	—	—	—	—	—
Netherlands .....	.	0.03	0.02	0.02	0.08	—	—	—
<b>Total</b> .....	.	<b>3.43</b>	<b>3.15</b>	<b>2.56</b>	<b>3.09</b>	<b>2.89</b>	<b>2.88</b>	<b>3.04</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**COLD-REDUCED SHEET**  
**< 3 mm.**

**Production**

TABLE XXI /

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955	1961		1962	1963	1964	1965
Northern Germany <sup>1)</sup> .....	.	—	0.33	0.26	0.41	0.69	1.08	1.14
North Rhine/Westphalia .....	.	0.49	1.45	1.20	1.82	1.98	2.23	2.23
Southern Germany <sup>2)</sup> .....	.	0.21	0.52	0.41	0.82	1.00	1.06	1.09
Saar .....	.	0.09	—	—	—	—	—	—
Belgium .....	.	0.37	0.82	0.81	1.09	1.46	1.56	1.66
Lorraine .....	.	0.60	1.57	1.57	1.74	1.80	1.95	1.95
Northern France .....	.	0.03	1.09	0.98	1.26	1.46	1.64	1.79
France - other areas .....	.	0.55	0.23	0.22	0.25	0.25	0.26	0.29
Italy - coastal areas .....	.	0.23	0.73	0.70	0.79	0.91	0.91	0.91
Italy - other areas .....	.	0.22	0.49	0.44	0.62	1.04	1.27	1.46
Luxembourg .....	.	0.23	0.29	0.28	0.29	0.29	0.29	0.30
Netherlands .....	.	0.34	0.61	0.60	1.06	1.26	1.26	1.26
<b>Total</b> .....	.	<b>3.36</b>	<b>8.13</b>	<b>7.47</b>	<b>10.15</b>	<b>12.14</b>	<b>13.51</b>	<b>14.08</b>

<sup>1)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

<sup>2)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

## COILS

## Production

TABLE XXII

## Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1961	Expected production potential			
	1954	1955 <sup>1)</sup>	1961		1962	1963	1964	1965
Northern Germany <sup>2)</sup> .....	.	295	530	472	610	865	1 510	1 670
North Rhine/Westphalia .....	.	1 705	2 896	2 082	3 287	3 727	4 227	6 147
Southern Germany <sup>3)</sup> .....	.	—	—	—	—	—	—	—
Saar .....	.	—	—	—	—	—	—	—
Belgium .....	.	1 000	1 375	1 225	1 400	1 920	2 320	2 760
Lorraine .....	.	1 495	2 100	2 078	2 250	2 360	2 360	2 360
Northern France .....	.	1 045	1 550	1 492	1 560	1 705	2 380	2 490
France - other areas .....	.	100	72	69	72	72	72	72
Italy - coastal areas .....	.	905	1 400	1 339	1 400	1 760	2 170	2 960
Italy - other areas .....	.	240	340	66	395	520	750	750
Luxembourg .....	.	400	515	357	520	550	550	560
Netherlands .....	.	770	1 040	943	1 250	1 380	1 380	1 380
<b>Total</b> .....	.	<b>7 955</b>	<b>11 818</b>	<b>10 123</b>	<b>12 744</b>	<b>14 859</b>	<b>17 719</b>	<b>21 149</b>

<sup>1)</sup> Figures for 1955 are approximations only.<sup>2)</sup> Schleswig-Holstein, Lower Saxony, Hamburg, Bremen,<sup>3)</sup> Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.