

**Accounts for primary material flows by branches  
and material categories  
-methodological concepts, results and applications-**

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## **1. Introduction**

### **1.1 Objective of the paper**

This paper presents first preliminary results of the new accounting module Primary Material Flow Accounts (PMFA). This module is part of the German system of material flow accounts. The PMFA supply data on primary material flows in a NAMEA<sup>1</sup>-type breakdown (branches and private households) and by material categories. The new sub-module enhances the data of the economy-wide material flow accounts<sup>2</sup> by providing a more detailed breakdown of the input side, i.e. of the extraction of raw materials from the domestic environment and of the imports of materials from the rest of the world. The breakdown by economic branches and private households facilitates to establish a link between the material inputs from the environment (and the rest of the world) to the economy and the causing economic activities. The cross-tabulation of economic activities and material categories helps to establish a closer relationship between economic activities and environmental problems as far as they are related to specific material flows. The paper concentrates on providing disaggregated accounting data for the head-line indicator “raw material productivity” of the German Strategy on Sustainable Development. In this paper the data are used to derive eco-efficiency indicators by branches for specific material categories and to study the relationship between economic development and use of primary material by a decomposition analysis. Both approaches, by linking environmental and economic topics, can be viewed as a contribution to an integrated analysis of sustainable development.

### **1.2 Material flow accounts and sustainable development**

In the political field Material Flow Accounts (MFA) seem to draw attention concerning the resource protection target. At the international level the recent initiative of the OECD environmental ministers and the OECD council for establishing an OECD-wide system of comparable material flow accounts may highlight the increasing importance of MFA. The data to be created by those efforts will among others serve as a statistical background for the so-called 3R-initiative (Reduce - Reuse - Recycle) which was announced on the G8 summit in June 2004 as a new high-level political initiative as part of a policy towards sustainable development. In 2003 the commission of the European Union launched a “Thematic strategy on sustainable use of natural resources”.

Material flows are also an important issue for a policy on sustainable development at the national level in Germany. In the “National Strategy on Sustainable Development” quite a number of indicators out of 21 headline indicators are related to material flows, like the use of raw materials and energy (including the proportion of renewable energy sources) as well as to the emission of green house gases and air pollution. One indicator of the national strategy to be dealt with below in more detail is the indicator raw material productivity.

Sustainable development requires a holistic policy approach. That type of policy puts much stress on the linkages between the different strategy topics. The subject of policy for sustainable development is rather co-ordination of the different sector policies with the objective of finding a balance between conflicting goals. Decisions on measures aiming on the improvement of one indicator in the same time have to consider the effects that may occur on the other relevant goals of the overall strategy for sus-

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1 National Accounting Matrices including Environmental Accounts)

2 Statistical Office of the European Communities (2001): Economy-wide material flow accounts and derived indicators – A methodological guide, Luxemburg.

tainable development. The rather complex analytical tools required for that type of policy approach demand a homogeneous and coherent database depicting the interdependencies between different topics and related indicators. The System of National Accounts (SNA) forms together with its satellite systems Environmental-Economic Accounts (EEA) and Socio-Economic Accounts (SEA) an expanded accounting data set. Such an expanded data set is, by forming an integrated database, an ideal framework to meet the requirements for an analysis and for a policy on sustainable development. One central classification of the accounting system, which is shared commonly by all three sub-systems, is the NAMEA-type breakdown by economic activities. Others are the subdivision of consumption of private households by use categories and of the private households by household-types.

The MFA itself are one of the central modules of the Integrated System of the Environmental-Economic Accounts<sup>3</sup> (SEEA). In the German Strategy on Sustainable Development the indicators on material flows are embedded into the German MFA, i.e. they can be directly derived from the MFA by aggregation. Besides the MFA-indicators, a considerable proportion of the other indicators of the German National Strategy for Sustainable Development, like the indicators on land use, on transport, a number of economic indicators and some social indicators are already embedded or are on their way to be embedded into the accounting system.

## **2 Methodological concept of German primary material flow accounts**

### **2.1 The system of material flow accounts**

MFA are an integrated part of a rather comprehensive accounting system (SNA, EEA and SEA). The PMFA are a sub-module of the system of MFA. The MFA, as a module of the EEA, are designed to describe in physical units (mainly tons) the material flows that are associated with the economic production and consumption activities. They concentrate on material flows between the economy and the environment, but flows within the economy are also covered. As the definitions and concepts of the MFA are fully compatible with the demarcations of the national accounts, the physical data can be combined in hybrid analytical approaches with the respective monetary accounting data on the economy.

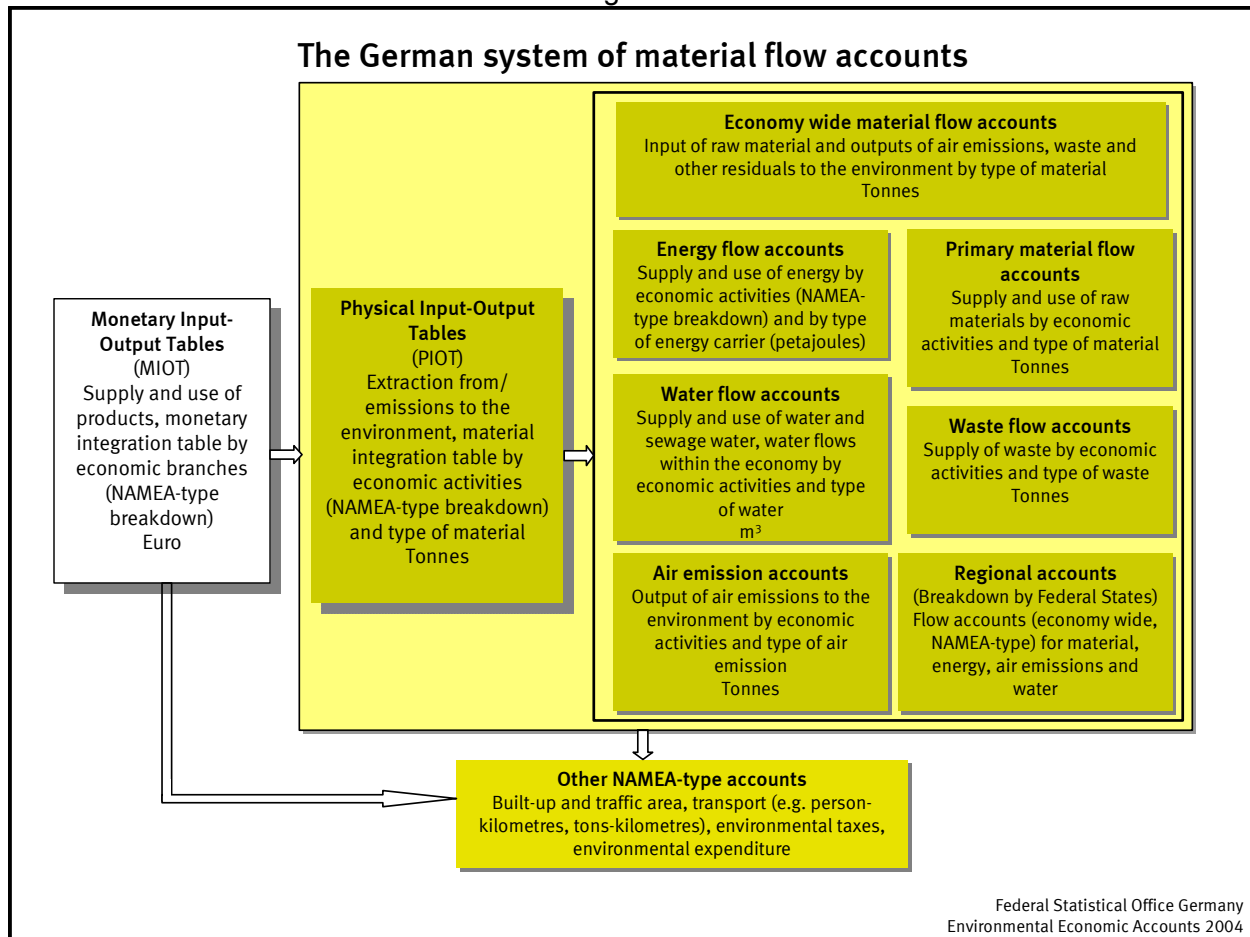
The MFA are the most advanced part of the German system of EEA. The system of the German of MFA is shown in figure 1. The monetary input-output tables (MIOT) of the national accounts are the conceptual starting point of the material flow accounts. The physical input-output tables provide the conceptual framework for the system of material flow accounts. The physical input-output tables (PIOT) mirror the monetary tables in physical terms (tons and other units like joules for energy), but in addition and as the most important feature widen the scope of the monetary tables by an inclusion of the material flows between the economy and the environment. The PIOT contain, like the MIOT, tables on the supply and use of products, but moreover include inputs from the environment to the economy (mainly raw materials, ecosystem inputs) and outputs from the economy to the environment (residuals: air emissions, waste and wastewater emissions and other outputs to the environment). The tables also comprise material integration tables in a detailed breakdown by economic production and consumption activities (NAMEA-type breakdown) and type of material. Such they provide a most complete, systematic and rather detailed description of the material flows related to the economic activities. The first German PIOT was compiled ten years ago as the first approach of its kind world wide. The tables for the year 1990

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<sup>3</sup> UN/EC/International Monetary Fund/OECD/World Bank(2003): Handbook of National Accounting, Integrated Environmental and Economic Accounting 2003, Final Draft prior to official editing.

were later complemented by another set of PIOT for the year 1995. In principle the PIOT are covering the whole system of physical flow accounts. But the calculation of PIOT is rather resource consuming so that PIOT can not be compiled on an annual basis, but only in longer intervals. Therefore a number of conceptually closely related sub-modules to the PIOT on important selected topics have been developed for the current observation on an annual basis.

Figure 1



As already mentioned, PMFA are one of these sub-modules. Others are the economy wide material flow accounts as well as a number of NAMEA-type accounts like the energy flow accounts, the water flow accounts, the air emission accounts, the waste flow accounts and the regional physical flow accounts. The annual sub-modules together provide a rather comprehensive and coherent picture of the material interactions within the economic system as well as between the economy and the environment. The data can be combined with each other and with the respective data of the monetary accounts as well as with data from other modules of the environmental economic accounts.

The economy wide material flow accounts comprise the whole physical economy and their system boundaries are fully compatible to PIOT. The accounts show inputs of material by type of material from the environment and the rest of the world to the economy and the outputs of material from the economy to the environment and the rest of the world on the level of the national economy.

The PMFA enhance the data of the economy-wide material flow accounts by providing a more detailed breakdown of main components of the input side, i.e. of the domestic extraction of used raw materials and the imports of materials.

The energy flow accounts cover the supply and use of energy by economic activities and type of energy carrier in joules. The air emission accounts show the output of air emissions by economic activities and type of air emission. The waste flow accounts cover the supply of waste by economic activities and type of waste. Due to a fundamental change in the German primary waste statistics the time series could not be continued beyond 1995. But it is hoped that the issue can be taken up as soon as the statistical results according to the European waste statistics regulation are available. The water flow accounts show the input and output of water and the water flows within the economy in a breakdown by economic activities and type of water. Regional physical flow accounts by Federal States are being developed by a working group of the statistical offices of the German Federal States (Länder). The whole system of NAMEA-type material flow accounts is supplemented by a number of other NAMEA-type flow accounts in Germany. In that type of accounts issues like the use of built-up and traffic area, transport (e.g. passenger-kilometres, ton-kilometres), environmental taxes as well as environmental expenditures are covered.

## **2.2 Concept of primary material flow accounts**

As already mentioned, the PMFA enhance the data of the economy-wide material flow accounts by providing a more detailed breakdown of the used domestic extraction of raw materials and the imports of materials. The sub-module, by providing a detailed breakdown by economic branches, helps to establish a link between material inputs (by material categories) to the economy and the causing economic activities.

Primary material is defined as the domestic extraction of used raw material and the imports. Unused materials, mainly mining overburden, are not considered. The input of water is also excluded from the PMFA and dealt with in specific water flow accounts. The output side of the MFA is widely covered by the sub-modules on air emissions, waste and wastewater. Compared to the PIOT where all material flows which are occurring in the different steps of the production process are included, in the PMFA in principle only primary material - i.e. material entering the domestic economy - is regarded. The PMFA are comprised of supply and use tables for primary material. In addition a table on exported material – which is regarded as primary material from the point of view of the rest of the world - and use tables for primary products are included.

The supply tables on primary material contain the used raw materials extracted from the domestic environment by type of raw material and the imported products by homogeneous product groups. The use tables on primary material show the use of primary material by homogeneous production branches and private households.

As the raw material extracting or primary production branches (agriculture (excluding cultivated animals) and mining) play a special role in the production chain, the use tables for primary material have to be supplemented by use tables for primary products for analytical purposes. Primary products are comprised of domestic primary products and imported products. As far as the imports are concerned primary products are identical with primary materials. In the case of domestic flows primary products cover the output of the primary production branches, supplemented by direct extraction of raw materials by private households and by non-primary production branches.

The role of the primary production branches is to withdraw raw materials from the domestic environment. In a strict conceptual sense the raw material (primary material) is an input from the domestic environment to the primary production branches. The

output of the primary production branches is already considered as a raw product (secondary material). All the other branches use the output of primary production branches together with other products in their production processes, in which they transform the inputs into other products and residuals.

Under an analytical perspective it is important to relate the use of primary material to the economic driving forces. That means the use of primary material has to be related to the economic demand. The most straightforward approach would be, to calculate the ratio between the direct input of primary material of a single branch and its output at constant prices<sup>4</sup>, e.g. measured as gross value added. Such a relationship may be needed for calculating sectoral eco-efficiency indicators or for a decomposition analysis. But according to the use table for primary material the primary production branches are the only users of primary material from the domestic environment. Relating the raw material input of these branches to their output is analytically rather meaningless, as the output of the primary production branches is the raw product in monetary terms which is widely identical with the input of used raw material in physical terms. However the “economic users” (the direct driving forces) are those branches which directly use the output of the primary production branches. In opposite to this, the primary production branches can be seen rather as agents acting on behalf of the direct users of the raw products. So what is needed from an analytical perspective is to put the relationship between the use of primary products by the “economic users” and their output in concrete terms. Such data can be provided by the use tables for primary products. For the analytical exercises done below, only the use tables for primary products are suitable. Therefore the use tables applied in this paper refer exclusively to primary products and not primary materials.

The tables are subdivided into 72 homogeneous production branches and the following categories of used raw materials:

**Table: Classification of primary material**

Domestic extraction
Abiotic raw materials from the domestic environment
Fossil fuels
Coal, energetic peat
Crude oil, Natural gas
Metal ores
Other minerals
Biomass
Biomass from agriculture and hunting
Biomass from forestry
Biomass from fishing
Imports
Abiotic products
Fossil fuels
Coal, energetic peat
Crude oil, Natural gas
Coking plant and mineral oil products
Metal ores and their products
Other mineral products
Chemical products
Machines and other equipment
Vehicles
Other products
Biotic products
Agricultural and hunting products
Forestry products
Fishery products

<sup>4</sup> A more developed alternative is, to look at the cumulated inputs over the whole production chain for the different products or categories of final demand. The cumulated inputs can be estimated by using the input-output model.

The imported products are also subdivided according to the degree of processing. Three steps are regarded: raw products, semi-processed and processed products.

The data of PMFA, like the other sub-modules, can be used for various analytical purposes. The system provides sectoral indicators, like the use of primary material by individual economic branches. Combined with the respective monetary data, sectoral eco-efficiency indicators (e.g. use of primary product per unit gross value added) can be calculated. Moreover decomposition analyses can be carried out, e.g. by breaking down the development of an indicator into the factors economic growth, structural development and efficiency of the individual branches. Another application is the calculation of cumulated inputs over the whole production chain for the different products or categories of final demand (indirect effects) by combining the physical data on inputs of primary material or products with the data of the monetary input-output tables. This approach can for example be used for estimating the indirect or hidden flows that are related to the direct import or export flows. A more complex manner of utilising this data is to apply them together with monetary data from the national accounts in environmental economic modelling approaches.

The first step of developing PMFA for Germany focused on providing disaggregated accounting data for the headline indicator of the National Strategy on Sustainable Development on “raw material productivity” (gross domestic product at constant prices per unit of raw materials). The exact definition of the denominator is: abiotic raw materials extracted from the domestic environment (used) and abiotic imports in tons. The data for the indicator is taken from the MFA module economy wide material flow accounts. The definition corresponds to the MFA indicator direct material inputs (DMI), but is restricted to abiotic inputs, i.e. biotic inputs are excluded. The data and analysis presented below refer to the restricted definition of the strategy’s headline indicator.

### **3. Sources and calculation methods**

The supply side of abiotic primary material is very well covered by data in physical terms. Different statistical sources are used for the calculation of domestic extraction of raw materials and the import. For the compilation of domestic extraction of raw materials in a detailed break down by type of material mainly the surveys on mining and quarrying are used, supplemented by reports of professional associations and some other sources on materials and small establishments not covered in the official survey. The figures for the import and export flows in a detailed breakdown by products can be obtained from the foreign trade statistics. The figures which are mainly available in different physical units have to be converted into kilograms. In the foreign trade statistics imported products are also subdivided according to the degree of processing into the categories “raw products”, “semi-processed products” and “processed products” plus other categories like “packing materials”, “imported waste” and “other materials”.

For the calculation of the use tables detailed internal data from the monetary input-output tables can be implemented.

Regarding the compilation of the tables on use of primary materials by homogeneous production branches and private households different approaches are necessary for raw material from domestic environment and for the imports. The domestic raw materials can be rather easily assigned to the respective primary production branches. No information is available on the direct extraction of abiotic raw materials by private households and by non-primary production branches. Therefore these flows had to be neglected. The imported products were assigned to the using economic activities by

the relationship of the monetary supply and use matrix (72 homogeneous product groups by 72 homogeneous production branches). In the future the assignment should be improved by using a more detailed breakdown for a number of product groups which are relevant in quantitative terms.

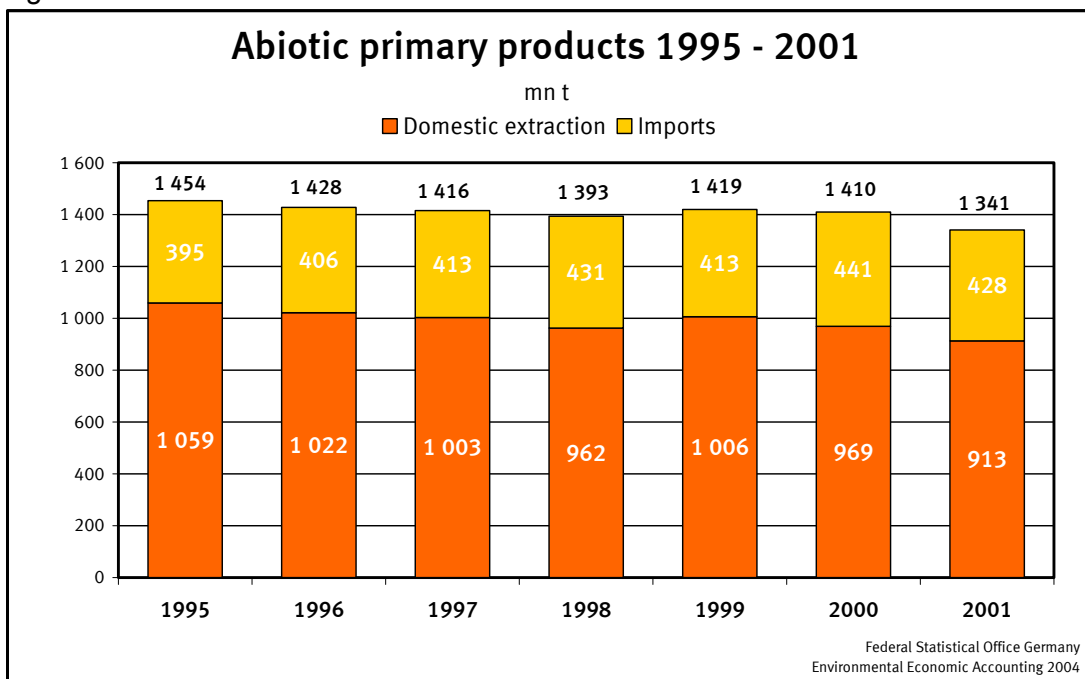
For the compilation of the use tables for primary products by homogeneous production branches and private households, as far as the imported products are concerned the data are identical with the figures from the tables for primary material. But for assigning the output of the primary production branches to the economic activities a special approach had to be developed. As the monetary interrelationships from the MIOT on the basis of the 72 X 72 matrix are not sufficiently reflecting the physical relationships, much more detailed data had to be utilised. Therefore internal material from the national accounts on the use of raw product categories (about 30 out of approximately 2000 product categories) by economic activities in monetary terms were taken.

#### 4. Results

##### 4.1 Supply of primary material und use of primary products by branches and material categories

As shown in figure 2 the supply or input of primary material was reduced by 113 million tons (-7,8 %) between 1995 and 2001. This reduction is caused by the decrease in the domestic raw material extraction by 146 million tons (-13.8 %) while on the other hand imports rose by 22 million tons (8.4 %).

Figure 2



The exports of abiotic materials were increased by 47.4 million tons (see annex, table 1), i.e. the exports measured in weight units grew slightly faster than the imports.

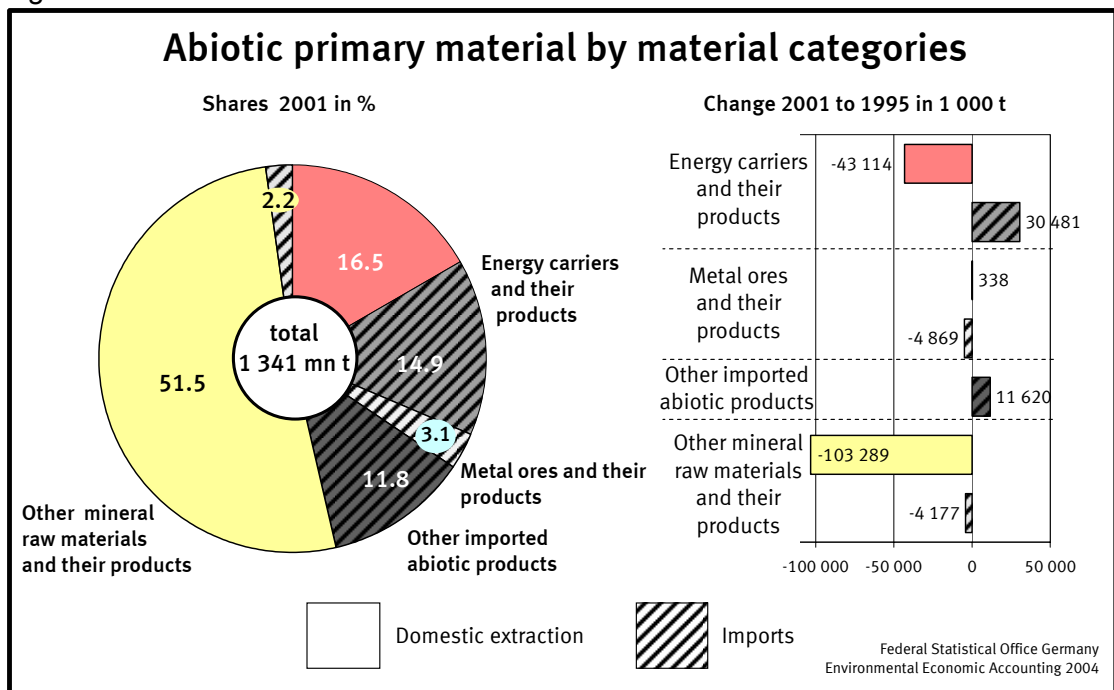
A considerable proportion of the imported and exported materials are processed or semi-processed products and not raw products. The material rucksacks of the processed products remain in the producing country. Such, the figures of the external trade flows reflect the pressure on the environment only partially. The total pressure



effects can only be covered by estimating raw material equivalents for the imports and exports. The data of the PMFA in principle offer a data base for those calculations. But for arriving at reliable figures, further methodological research is required.

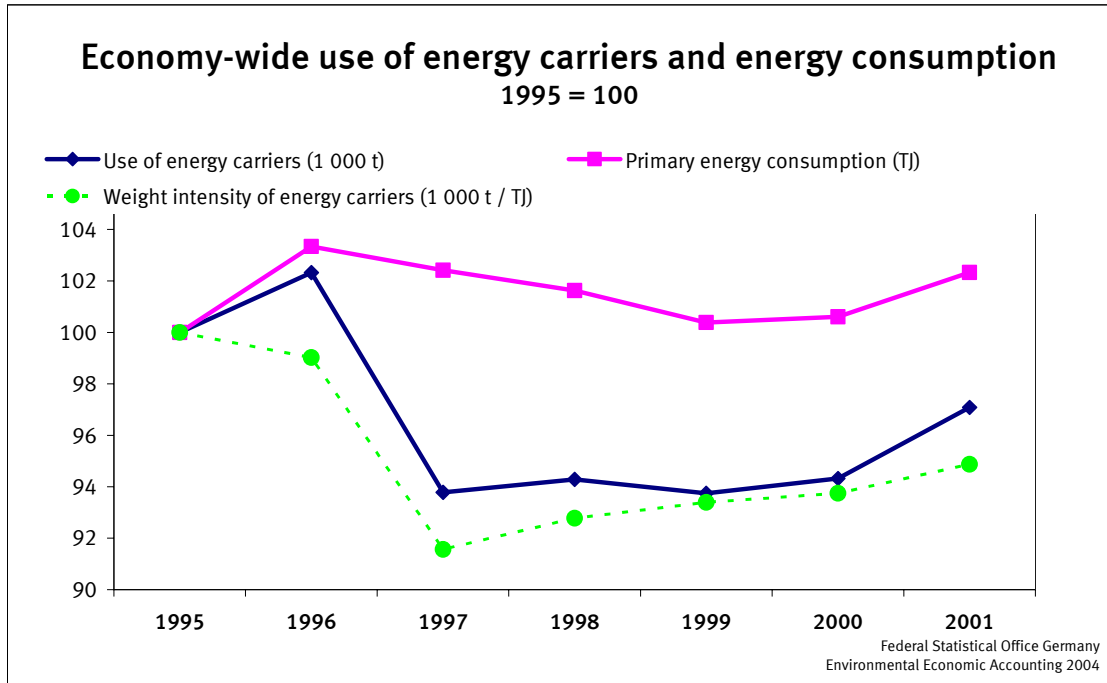
Figure 3 shows the subdivision of primary products into material categories. Energy carriers (coal, raw oil and gas), metal ores and other mineral raw materials (sand, stones, gravel etc.) are abiotic raw materials that are domestically extracted as well as imported. Other imported abiotic goods are abiotic semi-finished and finished products. The pie chart shows the huge share of domestically extracted other mineral raw materials on the total primary materials (54.9 %). Looking at the changes from 2001 to 1995 both, domestically extracted and imported other mineral raw materials were being reduced over time. The decrease of other domestic mineral raw materials by 103 million tons made the highest contribution to the total reduction of 113 million tons. The amount of energy carriers from domestic extraction fell by 43 million tons. But this decrease was accompanied by an increase of imported energy carriers by 30 million tons.

Figure 3



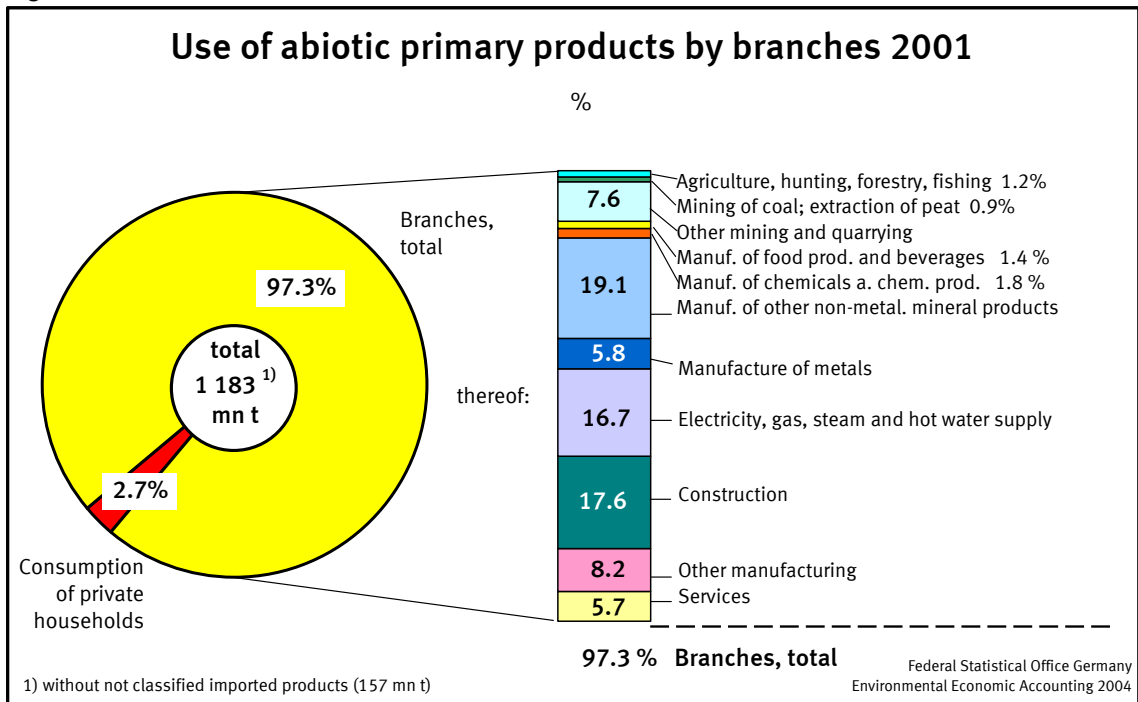
For energy carriers an exclusive representation in weight units can be misleading, as depending on the type of energy carrier, the relationship between the energy content measured in energy resp. work units (joules) and its weight can be quite different. Between different carriers the energy content in energy units in general is more relevant from the consumer's point of view and there exists a widely substitutional relationship between the different types of energy carriers. Figure 4 shows the development of the use of energy carriers in weight units and in energy units. Measured in weight units, a decrease of energy use by 2.9 % from 1995 to 2001 can be observed, whereas regarding energy units there was an increase by 2.3 %. The reason is a shift to a less weight intensive energy carrier mix, as it is reflected in the energy intensity, defined as the ratio between both variables described in tons per joules.

Figure 4:



The use of primary products is shown in figure 5. A breakdown of the direct use of primary products by economic activities shows a share of less than 3 % for the consumption of the private households, whereas the productions branches use more than 97 %. Among the production branches substantial direct users of abiotic primary products are “Manufacturing of other non-metallic products with a share of 19.1 % and “Construction” with a share of 17.6 % on the total of industries followed by “Electricity, gas, steam and hot water supply” (16.7 %) and “Other mining and quarrying” (7.6 %).

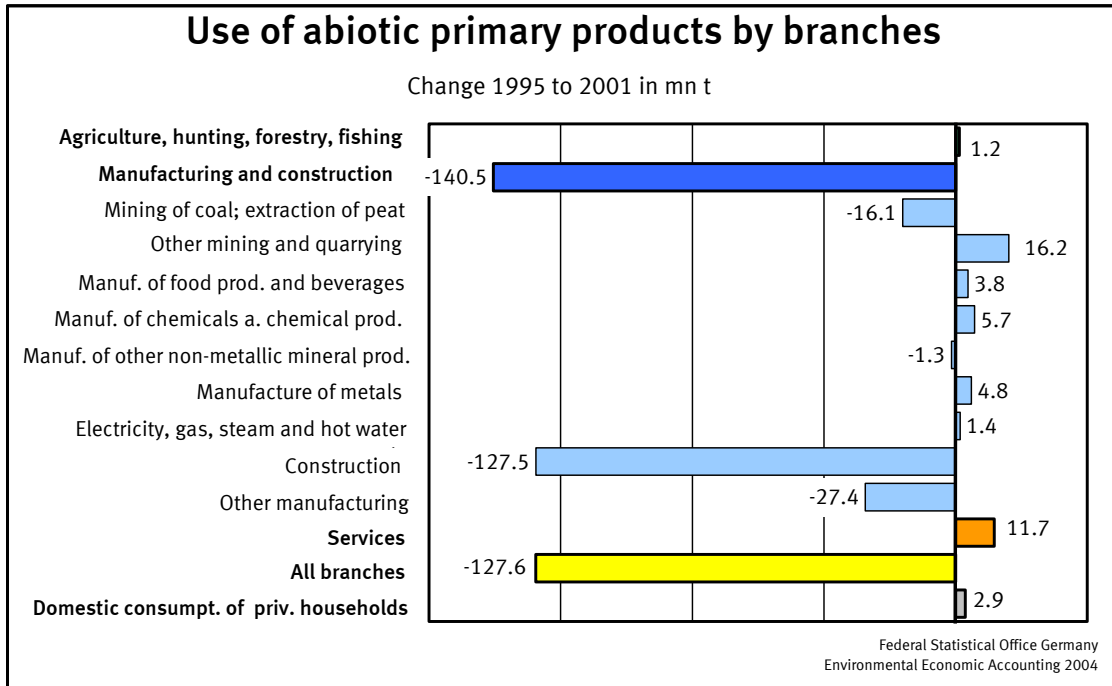
Figure 5



As shown in figure 6, the decline of the use of primary products in production processes between 1995 and 2001 (-128 million tons resp. -10.0 %) is dominated by the

reduction of material use of the construction branch by 128 million tons (- 35 %), whereas the other branches in absolute terms only show comparatively small decreases or increases.

Figure 6

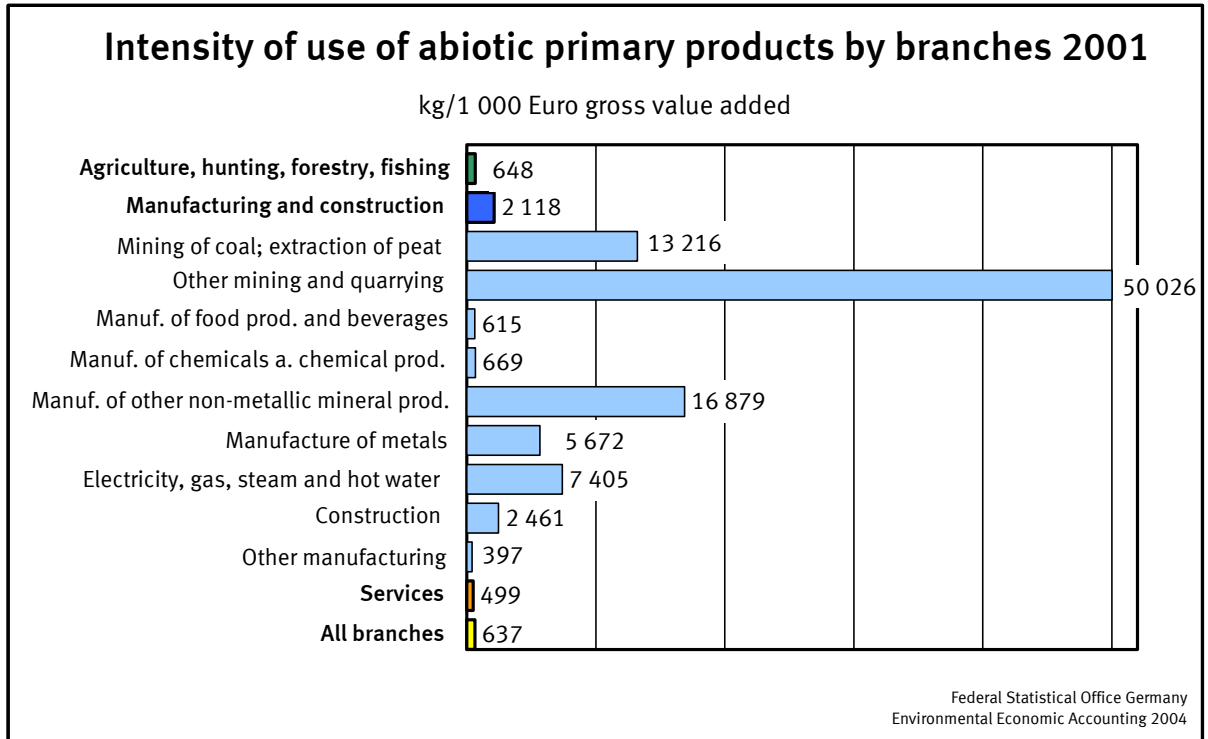


#### 4.2 Intensity of use of primary products

In figure 7 the branch-specific use of abiotic primary products is related to its gross value added for the year 2001. The aim of the National Strategy on Sustainable Development is to double the economy-wide raw material productivity, i.e. the efficiency of the use of abiotic primary material has to be increased substantially. The development of efficiency can either be calculated by productivities, measured as gross value added or gross domestic product per abiotic primary products or by intensities (Primary products per gross value added). Figure 7 deals with intensities.

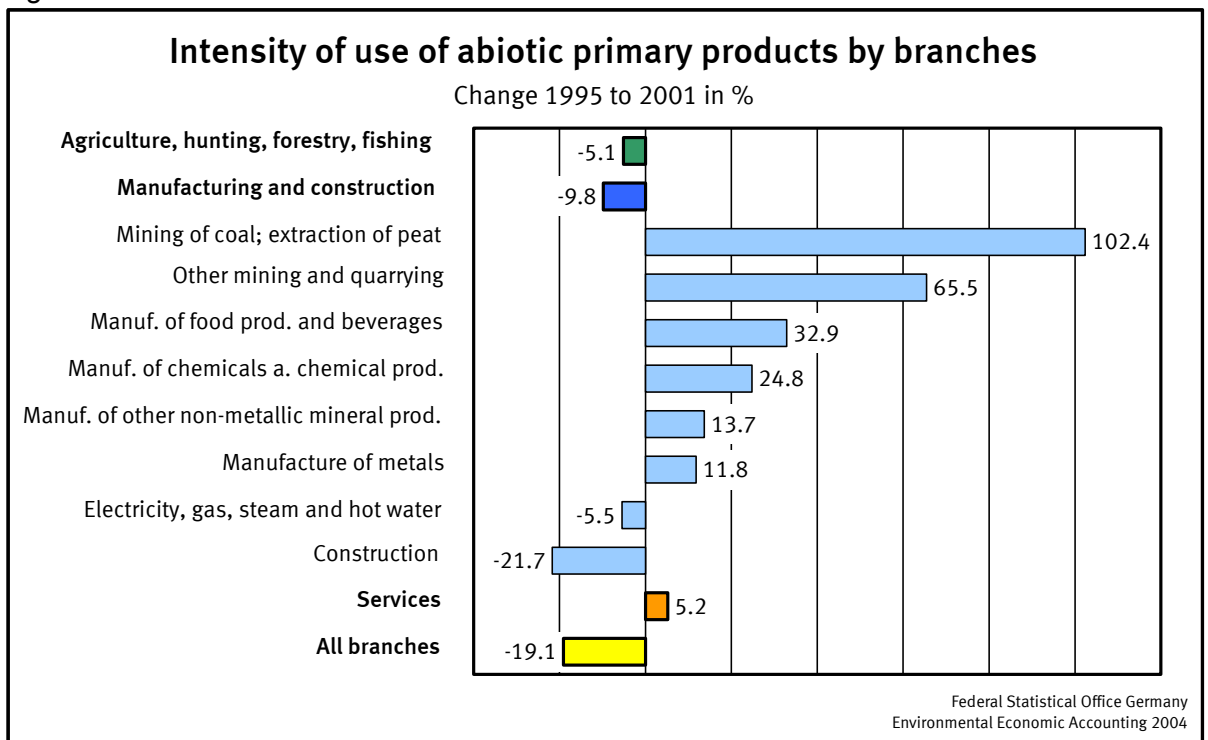
The primary product intensity in different branches is, depending on different technical conditions, quite heterogeneous. "Other mining and quarrying" achieves the highest primary material intensity with 50,026 tons per million Euro. Other production branches with high primary material intensity are "Mining of coal, extraction of peat" (13,216 tons per million Euro), "Manufacturing of other non-metallic mineral products" (16,879 tons per million Euro) and "Electricity, gas, steam and hot water (7,405 tons per million Euro). Against this, the average material intensity for all branches reaches 637 tons per million Euro gross value added. This makes clear that the development of the economy-wide material efficiency is mainly dominated by the development of the share and the material efficiency of some few material intensive branches.

Figure 7



The development of the individual primary product intensities between 1995 and 2001 was non-uniform (see figure 8). While the intensity in the service branches rose by 5.2 %, the reduction in the manufacturing and construction branches achieved 9.8 %.

Figure 8



The overall development of the primary product intensity was mainly influenced by fluctuations in demand for raw materials for the construction industry.

### 4.3 Decomposition analysis

The data on use of abiotic primary products in a detailed breakdown by economic activities can also be utilised for estimating the influence of different factors on the overall development of the material use. A suitable instrument for this purpose is the decomposition analysis. Decomposition is a mathematical tool used to describe the degree to which the input or withdrawal of individual influencing factors may be responsible for trends in the dependent overall impact. The starting point is a depiction of the dependent value (in the present case the use of abiotic primary products) as a product of the observed influencing values. Decomposition analysis transfers this multiplicative starting equation into an additive equation that disassembles the observed time series showing the change of use of primary products into the effects of the individual influencing factors. Each individual effect describes how the use of primary products would have developed if only the factor under consideration would have changed<sup>5</sup>. The individual effects may have different signs: The negative effect of a factor may be compensated for by the positive impact of other factors. In the interpretation of the results, account should be taken of the limits posed by such an analysis. Thus, for instance, the influencing factors included in the analysis are externally defined, and it is presumed that the individual factors do not influence one another. To this extent, the results can merely provide a rough assessment of the magnitudes that are relevant in each case.

In the analysis below only the development of the use of primary products by production branches was analysed, as the share of the private households of less than 3 % can be rather neglected.

With regard to the production branches three factors in particular are considered to be of specific interest:

- material intensity of the individual homogeneous production branches as an approximate measure of the efficiency of material use. The intensity is measured as the ratio of the use of primary products per gross value added of the respective branch,
- the economic structure, expressed as the percentage of the branch-specific gross value added to the total gross value added, and
- economic growth, quantified by the development of the total gross value added.

In particular by distinguishing between primary product intensity (efficiency) and economic structure, it is possible to analyse the degree to which from a macroeconomic point of view the decreasing primary product intensity of the homogeneous branches impacts more by reducing the intensity of individual branches or via a structural change towards branches which use less primary products.

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<sup>5</sup> See: Seibel S. (2003): Decomposition analysis of carbon-dioxide emission changes in Germany - conceptual frameworks and empirical results, Working papers and studies, European Communities.  
[http://www.destatis.de/allg/e/veroe/proser4senv\\_e.htm](http://www.destatis.de/allg/e/veroe/proser4senv_e.htm)

Figure 9

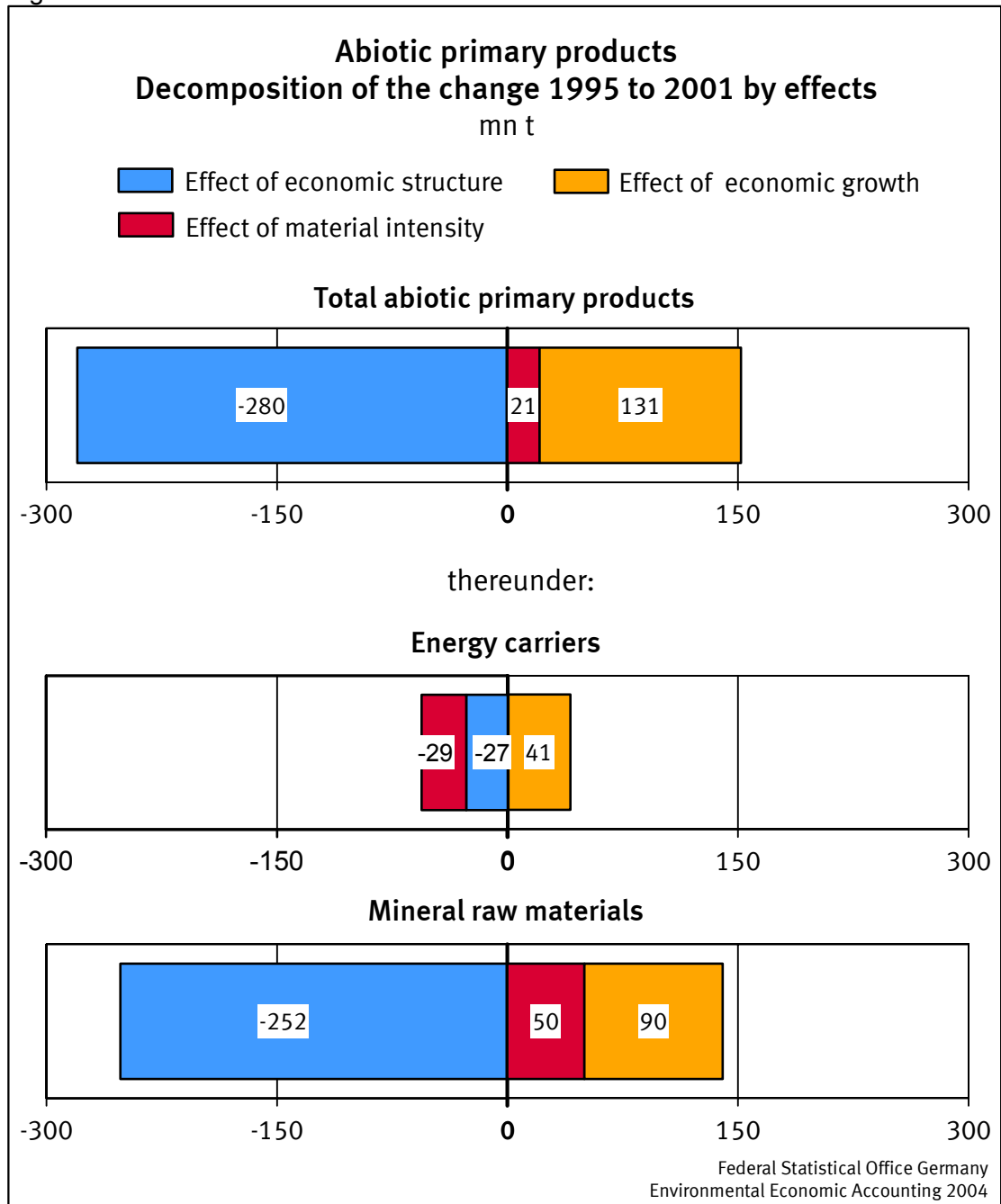


Figure 9 shows the results of the analysis differentiated into the total abiotic primary products used for production, of energy carriers and of mineral products.

Between 1995 and 2001 the total use of primary products decreased by 128 million tons. Both, economic growth and the development of material intensity led arithmetically to an increase of material use. The growth effect accounted 131 million tons and the influence of the intensity effect was 21 million tons. Against this, the structural change led to an abatement of material use by 280 million tons. The abating effect of the economic structure is reflecting the increasing relative importance of less material-intensive branches and the parallel drop in material-intensive production branches, like manufacturing and construction. It is rather remarkable that the compound effect of the development of the material efficiency in the individual branches had a burdening impact on overall material use. Hence, the improvement of the overall productivity goes back only to a structural effect.

Regarding the sub-categories energy carriers and mineral products a differentiated picture is revealed. For energy carriers the structural effect accounted for -27 million tons. The intensity effect led – in contrast to the development of total abiotic primary products - to a decrease in energy carrier use by 29 million tons against a growth effect of 41 million tons. The decreasing intensity effect for energy carriers goes mainly back to a shift to a less weight intensive energy carrier mix (see also chapter 4.1 and figure 4). The intensity effect and the economic structure effect overcompensated the economic growth effect and led to a decline of the use of energy carriers by 15 million tons.

The use of mineral products use was reduced by 113 million tons between 1995 and 2001. The influencing three effects' characteristics are in size and direction similar to the underlying total abiotic primary products. The decrease in the use of mineral products goes back to a strong structural effect of -252 million tons. The decreasing overall efficiency had an burdening effect of 50 million tons. The grows effect accounted for 90 million tons.

## **5. Outlook**

The supply and use tables for primary material and products are going to be kept as a tool for further and more detailed analyses of material flows, of which analyses for homogenous production branches and analyses of indirect material flows are most important. As a first step the data of the module will be completed by calculating also use tables for biotic primary products like wood and agricultural products.

Regarding analytical applications an important tool to be applied with primary material is the calculation of indirect effects by combining physical data with monetary input-output tables, e.g. for estimating raw material equivalents for imports and exports. That approach is already a proven standard tool with respect to energy use, air emissions and land use. But for primary products the standard model is not applicable, as the "average assumption" used for the calculation is not appropriate. The approach carries among others the assumption that the monetary use structure of the output of a branch represents the physical relations in a sufficient manner. But there are a number of "homogeneous branches" the output of which may not be homogeneous at all in weight terms and where the receiving branches do not use the "average output". One example may be the product group non-ferrous metals. The issue has to be investigated branch by branch in detail. For a number of relevant product groups the existing monetary input-output tables have to be enhanced by subdividing the cells symmetrically. Another issue to be solved in this connection may be the case of imported products which are not produced in the domestic economy. The production relations for those products are not represented in the domestic tables, and therefore the rucksacks can not be properly estimated by applying the input-output approach exclusively.

## Register of tables

Table1	Economy wide input of abiotic primary material	mn. tons
Table2	Use of abiotic primary products from domestic extraction and imports by homogenous branches of production and private households	1 000 tons
Table3	Use of energy carriers from domestic extraction and imports by homogenous branches of production and private households	1 000 tons
Table4	Use of other mineral raw products and their products from domestic extraction and imports by homogenous branches of production and private households	1 000 tons
Table5	Intensity of use of abiotic primary products	kg / 1 000 EUR
Table6	Intensity of use of energy carriers	kg / 1 000 EUR
Table7	Intensity of use of other mineral raw products and their products	kg / 1 000 EUR



**Table 1: Economy wide input of abiotic primary material**

mn. tons

Subject	1995	1996	1997	1998	1999	2000	2001	Change 1995 to 2001
Domestic extraction of abiotic raw materials	1 058.8	1 021.8	1 002.8	962.0	1 006.5	969.1	912.7	- 146.1
Energy carriers	265.0	255.3	243.2	226.5	220.3	220.1	221.9	- 43.1
Metal ores	0.1	0.1	0.2	0.6	0.6	0.5	0.4	0.3
Other mineral raw materials	793.7	766.4	759.4	734.9	785.5	748.4	690.4	- 103.3
Imports of abiotic raw materials and products	395.0	406.4	412.8	431.4	413.0	440.7	428.0	33.1
Energy carriers	168.7	188.5	163.5	182.4	186.2	188.9	199.1	30.5
Metal ores and their products	47.0	42.1	44.8	50.5	42.9	50.9	42.2	- 4.9
Other mineral raw products and their products	33.1	32.2	31.5	28.9	29.1	32.2	28.9	- 4.2
Other products	146.2	143.6	172.9	169.6	154.7	168.7	157.8	11.6
Domestic extraction and imports	1 453.7	1 428.2	1 415.6	1 393.4	1 419.5	1 409.8	1 340.7	- 113.0
Energy carriers	433.7	443.8	406.7	408.9	406.6	409.0	421.0	- 12.6
Metal ores and their products	47.1	42.2	45.0	51.1	43.5	51.3	42.6	- 4.5
Other mineral raw products and their products	826.8	798.6	790.9	763.8	814.7	780.7	719.3	- 107.5
Other products	146.2	143.6	172.9	169.6	154.7	168.7	157.8	11.6
memorandum item.								
Exports of abiotic products	165.4	178.5	188.3	193.3	194.9	210.1	212.7	47.4
Primary energy consumption (PJ)	14 269	14 746	14 614	14 501	14 324	14 356	14 602	...
Weight intensity of energy carriers (tons / Tj)	30.4	30.1	27.8	28.2	28.4	28.5	28.8	...

**Table 2: Use of abiotic primary products from domestic extraction and imports by homogenous branches of production and private households**

1 000 tons

No.	CPA	Homogenous branches	1995	1996	1997
1	01	Products of agriculture, hunting and related services .....	12 099	12 897	13 042
2	02	Products of forestry, logging and related services .....	2 497	2 728	2 761
3	05	Fish and other fishing products; services incidental to fishing .....	214	252	258
4	10	Coal and lignite; peat .....	28 394	26 052	20 420
5	11	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	1 096	1 347	1 058
6	12	Uranium and thorium ores .....	0	0	0
7	13	Metal ores .....	76	24	26
8	14	Other mining and quarrying products .....	85 013	69 782	59 838
9	15.1 - 15.8	Food products .....	14 002	15 590	16 667
10	15.9	Beverages .....	357	411	330
11	16	Tobacco products .....	23	38	26
12	17	Textiles .....	461	504	462
13	18	Wearing apparel; furs .....	48	50	17
14	19	Leather and leather products .....	24	25	15
15	20	Wood and products of wood, cork (except furniture) and plaiting materials .....	146	181	202
16	21.1	Pulp, paper and paperboard .....	4 339	4 150	4 385
17	21.2	Articles of paper and paperboard .....	384	457	451
18	22.1	Books, newspapers and other printed matter and recorded media .....	37	50	40
19	22.2 - 22.3	Printing services, reproduction services of recorded media .....	219	246	196
20	23	Coke, refined petroleum products and nuclear fuels .....	121 623	121 129	104 807
21	24.4	Pharmaceutical products .....	409	516	585
22	24 (ohne 24.4)	Chemical products, except pharmaceutical products .....	17 927	18 367	18 600
23	25.1	Rubber products .....	197	215	191
24	25.2	Plastic products .....	349	372	361
25	26.1	Glass and glass products .....	21 978	21 768	21 306
26	26.2 - 26.8	Other non-metallic mineral products, except glass and glass products .....	235 682	224 954	218 083
27	27.1 - 27.3	Iron and steel, ferro-alloys and tubes .....	40 967	41 321	47 383
28	27.4	Basic precious metals and metals clad with precious metals .....	23 042	21 477	21 058
29	27.5	Foundry work services .....	4 770	4 822	4 715
30	28	Fabricated metal products, except machinery and equipment .....	4 180	4 417	4 050
31	29	Machinery and equipment n.e.c. ....	1 675	1 760	1 415
32	30	Office machinery and computers .....	37	39	40
33	31	Electrical machinery and apparatus n.e.c. ....	2 153	1 892	1 543
34	32	Radio, television and communication equipment and apparatus .....	121	126	118
35	33	Medical, precision and optical instruments, watches and clocks .....	439	501	450
36	34	Motor vehicles, trailers and semi-trailers .....	1 769	1 937	1 592
37	35	Other transport equipment .....	351	336	315
38	36	Furniture; other manufactured goods n.e.c. ....	1 654	1 654	1 361
39	37	Secondary raw materials .....	30	32	33
40	40.1, 40.3	Electrical energy, steam and hot water .....	221 604	217 499	212 145
41	40.2	Gas .....	426	486	791
42	41	Collected and purified water, distribution services of water .....	78	91	96
43	45.1 - 45.2	Site preparation work, structural and civil engineering work .....	362 782	356 011	362 686
44	45.3 - 45.5	Building installation and building completion work .....	574	613	592
45	50	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	313	356	280
46	51	Wholesale trade and commission trade services .....	505	581	504
47	52	Retail trade services; repair services of personal and household goods .....	1 024	1 193	1 062
48	55	Hotel and restaurant services .....	2 248	2 370	2 245
49	60.1	Railway transport services .....	1 995	2 097	2 146
50	60.2 - 60.3	Other land transport services; transport services via pipelines .....	14	26	16
51	61	Water transport services .....	0	45	0
52	62	Air transport services .....	0	0	0
53	63	Supporting and auxiliary transport services; travel agency services .....	39	42	33
54	64	Post and telecommunication services .....	98	117	100
55	65	Financial intermediation services .....	200	230	205
56	66	Insurance and pension funding services, except social security services .....	136	160	120
57	67	Services auxiliary to financial intermediation .....	38	42	32
58	70	Real estate services <sup>4)</sup> .....	38	42	32
59	71	Renting services of machinery and equipment without operator .....	13	25	15
60	72	Computer and related services .....	66	72	64
61	73	Research and development services .....	152	141	99
62	74	Other business services .....	555	640	588
63	75.1 - 75.2	Public administration and defence services .....	40 881	40 214	40 619
64	75.3	Compulsory social security services .....	90	84	54
65	80	Education services .....	934	1 073	885
66	85	Health and social work services .....	1 441	1 669	1 517
67	90	Sewage and refuse disposal services, sanitation and similar services .....	12 994	13 018	13 617
68	91	Membership organisation services n.e.c. ....	120	142	126
69	92	Recreational, cultural and sporting services .....	206	239	226
70	93	Other services .....	2	13	2
71	95	Private households with employed persons .....	0	0	0
72	99	Services of extraterritorial organisations and corporations .....	0	0	0
73		<b>All homogenous branches.....</b>	<b>1 278 350</b>	<b>1 241 748</b>	<b>1 209 100</b>
74		Consumption of Private Households.....	29 187	42 850	33 541
75		Not classified products.....	146 197	143 591	172 931
76		<b>All homogenous branches and consumption of Private Households.....</b>	<b>1 453 735</b>	<b>1 428 189</b>	<b>1 415 572</b>

**Table 2: Use of abiotic primary products from domestic extraction and imports by homogeneous branches of production and private households**

1 000 tons

No.	Homogenous branches	1998	1999	2000	2001
1	Products of agriculture, hunting and related services .....	12 885	13 600	13 897	13 245
2	Products of forestry, logging and related services .....	2 808	2 932	2 747	2 541
3	Fish and other fishing products; services incidental to fishing .....	280	290	192	190
4	Coal and lignite; peat .....	16 402	14 721	14 413	12 344
5	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	953	694	865	873
6	Uranium and thorium ores .....	0	0	0	0
7	Metal ores .....	1	1	1	1
8	Other mining and quarrying products .....	...	117 170	110 492	101 252
9	Food products .....	16 015	17 838	17 215	17 309
10	Beverages .....	305	524	833	820
11	Tobacco products .....	25	25	56	55
12	Textiles .....	427	705	1 087	1 098
13	Wearing apparel; furs .....	16	37	36	35
14	Leather and leather products .....	15	24	56	55
15	Wood and products of wood, cork (except furniture) and plaiting materials .....	181	277	461	466
16	Pulp, paper and paperboard .....	8 411	9 987	11 586	11 549
17	Articles of paper and paperboard .....	410	742	1 360	1 360
18	Books, newspapers and other printed matter and recorded media .....	40	69	121	120
19	Printing services, reproduction services of recorded media .....	180	266	408	406
20	Coke, refined petroleum products and nuclear fuels .....	116 368	98 910	82 299	81 172
21	Pharmaceutical products .....	500	687	827	798
22	Chemical products, except pharmaceutical products .....	16 957	20 102	23 291	23 253
23	Rubber products .....	194	314	543	538
24	Plastic products .....	341	501	797	798
25	Glass and glass products .....	20 819	22 237	21 336	20 570
26	Other non-metallic mineral products, except glass and glass products .....	252 376	268 160	255 591	235 834
27	Iron and steel, ferro-alloys and tubes .....	48 743	40 897	47 836	42 418
28	Basic precious metals and metals clad with precious metals .....	26 247	24 513	28 586	23 994
29	Foundry work services .....	5 326	5 226	5 767	5 425
30	Fabricated metal products, except machinery and equipment .....	4 207	4 952	6 160	5 919
31	Machinery and equipment n.e.c. ....	1 337	1 652	2 339	2 260
32	Office machinery and computers .....	27	37	68	67
33	Electrical machinery and apparatus n.e.c. ....	1 560	1 921	2 122	2 113
34	Radio, television and communication equipment and apparatus .....	114	171	273	270
35	Medical, precision and optical instruments, watches and clocks .....	445	489	611	597
36	Motor vehicles, trailers and semi-trailers .....	1 653	2 393	3 656	3 600
37	Other transport equipment .....	253	395	684	681
38	Furniture; other manufactured goods n.e.c. ....	1 349	1 344	1 549	1 424
39	Secondary raw materials .....	33	52	104	103
40	Electrical energy, steam and hot water .....	202 878	203 324	210 017	222 446
41	Gas .....	934	1 151	984	976
42	Collected and purified water, distribution services of water .....	98	99	180	166
43	Site preparation work, structural and civil engineering work .....	345 703	269 099	257 180	234 972
44	Building installation and building completion work .....	587	701	867	834
45	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	287	440	672	665
46	Wholesale trade and commission trade services .....	463	759	1 412	1 407
47	Retail trade services; repair services of personal and household goods .....	1 006	1 655	2 759	2 751
48	Hotel and restaurant services .....	2 248	2 732	3 172	3 164
49	Railway transport services .....	2 039	2 255	2 320	2 133
50	Other land transport services; transport services via pipelines .....	16	26	67	67
51	Water transport services .....	0	0	0	0
52	Air transport services .....	0	0	0	0
53	Supporting and auxiliary transport services; travel agency services .....	33	51	93	93
54	Post and telecommunication services .....	98	208	417	415
55	Financial intermediation services .....	205	306	545	543
56	Insurance and pension funding services, except social security services .....	120	186	299	298
57	Services auxiliary to financial intermediation .....	32	61	113	113
58	Real estate services <sup>4)</sup> .....	32	51	92	92
59	Renting services of machinery and equipment without operator .....	15	14	45	45
60	Computer and related services .....	64	112	216	215
61	Research and development services .....	89	104	166	165
62	Other business services .....	563	946	1 640	1 634
63	Public administration and defence services .....	42 383	44 328	44 434	40 797
64	Compulsory social security services .....	48	64	105	104
65	Education services .....	870	1 255	1 948	1 942
66	Health and social work services .....	1 436	1 989	2 865	2 861
67	Sewage and refuse disposal services, sanitation and similar services .....	14 797	16 409	16 418	15 340
68	Membership organisation services n.e.c. ....	126	201	346	345
69	Recreational, cultural and sporting services .....	211	347	628	625
70	Other services .....	2	13	23	23
71	Private households with employed persons .....	0	0	0	0
72	Services of extraterritorial organisations and corporations .....	0	0	0	0
73	<b>All homogenous branches.....</b>	<b>1 183 698</b>	<b>1 223 741</b>	<b>1 210 292</b>	<b>1 150 785</b>
74	Consumption of Private Households.....	40 109	40 982	30 775	32 123
75	Not classified products.....	169 605	154 731	168 713	157 818
76	<b>All homogenous branches and consumption of Private Households.....</b>	<b>1 393 413</b>	<b>1 419 453</b>	<b>1 409 779</b>	<b>1 340 725</b>

**Table 3: Use of energy carriers from domestic extraction and imports by homogenous branches of production and private households**

1 000 tons

No.	CPA	Homogenous branches	1995	1996	1997
1	01	Products of agriculture, hunting and related services .....	662	840	609
2	02	Products of forestry, logging and related services .....	9	7	9
3	05	Fish and other fishing products; services incidental to fishing .....	1	1	1
4	10	Coal and lignite; peat .....	24 114	22 236	18 668
5	11	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	1 096	1 347	1 058
6	12	Uranium and thorium ores .....	0	0	0
7	13	Metal ores .....	3	2	2
8	14	Other mining and quarrying products .....	465	433	314
9	15.1 - 15.8	Food products .....	1 867	2 188	2 168
10	15.9	Beverages .....	357	411	330
11	16	Tobacco products .....	23	38	26
12	17	Textiles .....	461	504	462
13	18	Wearing apparel; furs .....	48	50	17
14	19	Leather and leather products .....	24	25	15
15	20	Wood and products of wood, cork (except furniture) and plaiting materials .....	146	181	202
16	21.1	Pulp, paper and paperboard .....	2 131	2 167	2 236
17	21.2	Articles of paper and paperboard .....	384	457	451
18	22.1	Books, newspapers and other printed matter and recorded media .....	37	50	40
19	22.2 - 22.3	Printing services, reproduction services of recorded media .....	219	246	196
20	23	Coke, refined petroleum products and nuclear fuels .....	121 448	120 926	104 601
21	24.4	Pharmaceutical products .....	135	159	162
22	24 (ohne 24.4)	Chemical products, except pharmaceutical products .....	8 074	7 966	7 843
23	25.1	Rubber products .....	197	215	191
24	25.2	Plastic products .....	349	372	361
25	26.1	Glass and glass products .....	906	975	915
26	26.2 - 26.8	Other non-metallic mineral products, except glass and glass products .....	3 403	3 603	3 605
27	27.1 - 27.3	Iron and steel, ferro-alloys and tubes .....	3 525	3 513	3 980
28	27.4	Basic precious metals and metals clad with precious metals .....	707	738	744
29	27.5	Foundry work services .....	250	256	224
30	28	Fabricated metal products, except machinery and equipment .....	976	1 092	838
31	29	Machinery and equipment n.e.c. ....	839	923	664
32	30	Office machinery and computers .....	37	39	40
33	31	Electrical machinery and apparatus n.e.c. ....	347	390	329
34	32	Radio, television and communication equipment and apparatus .....	121	126	118
35	33	Medical, precision and optical instruments, watches and clocks .....	109	115	84
36	34	Motor vehicles, trailers and semi-trailers .....	1 060	1 219	1 078
37	35	Other transport equipment .....	195	248	315
38	36	Furniture; other manufactured goods n.e.c. ....	136	144	125
39	37	Secondary raw materials .....	30	32	33
40	40.1, 40.3	Electrical energy, steam and hot water .....	221 604	217 499	212 145
41	40.2	Gas .....	426	486	791
42	41	Collected and purified water, distribution services of water .....	0	0	0
43	45.1 - 45.2	Site preparation work, structural and civil engineering work .....	194	186	172
44	45.3 - 45.5	Building installation and building completion work .....	100	101	84
45	50	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	235	278	233
46	51	Wholesale trade and commission trade services .....	505	581	504
47	52	Retail trade services; repair services of personal and household goods .....	1 024	1 193	1 062
48	55	Hotel and restaurant services .....	605	693	597
49	60.1	Railway transport services .....	73	129	59
50	60.2 - 60.3	Other land transport services; transport services via pipelines .....	14	26	16
51	61	Water transport services .....	0	45	0
52	62	Air transport services .....	0	0	0
53	63	Supporting and auxiliary transport services; travel agency services .....	39	42	33
54	64	Post and telecommunication services .....	98	117	100
55	65	Financial intermediation services .....	200	230	205
56	66	Insurance and pension funding services, except social security services .....	136	160	120
57	67	Services auxiliary to financial intermediation .....	38	42	32
58	70	Real estate services <sup>4)</sup> .....	38	42	32
59	71	Renting services of machinery and equipment without operator .....	13	25	15
60	72	Computer and related services .....	66	72	64
61	73	Research and development services .....	152	141	99
62	74	Other business services .....	555	640	588
63	75.1 - 75.2	Public administration and defence services .....	1 395	1 537	1 124
64	75.3	Compulsory social security services .....	90	84	54
65	80	Education services .....	841	933	756
66	85	Health and social work services .....	1 041	1 195	977
67	90	Sewage and refuse disposal services, sanitation and similar services .....	31	32	32
68	91	Membership organisation services n.e.c. ....	120	142	126
69	92	Recreational, cultural and sporting services .....	206	239	226
70	93	Other services .....	2	13	2
71	95	Private households with employed persons .....	0	0	0
72	99	Services of extraterritorial organisations and corporations .....	0	0	0
73		<b>All homogenous branches.....</b>	<b>404 735</b>	<b>401 139</b>	<b>373 297</b>
74		Consumption of Private Households.....	28 932	42 617	33 410
75		<b>All homogenous branches and consumption of Private Households.....</b>	<b>433 667</b>	<b>443 756</b>	<b>406 708</b>

**Table 3: Use of energy carriers from domestic extraction and imports by homogenous branches of production and private households**

1 000 tons

No.	Homogenous branches	1998	1999	2000	2001
1	Products of agriculture, hunting and related services .....	554	710	1 120	1 339
2	Products of forestry, logging and related services .....	3	4	3	3
3	Fish and other fishing products; services incidental to fishing .....	0	0	0	0
4	Coal and lignite; peat .....	14 860	13 455	13 176	11 235
5	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	953	694	865	873
6	Uranium and thorium ores .....	0	0	0	0
7	Metal ores .....	1	1	1	1
8	Other mining and quarrying products .....	289	372	444	543
9	Food products .....	2 041	3 165	3 878	4 018
10	Beverages .....	305	524	833	820
11	Tobacco products .....	25	25	56	55
12	Textiles .....	427	705	1 087	1 098
13	Wearing apparel; furs .....	16	37	36	35
14	Leather and leather products .....	15	24	56	55
15	Wood and products of wood, cork (except furniture) and plaiting materials .....	181	277	461	466
16	Pulp, paper and paperboard .....	1 912	2 915	4 679	4 823
17	Articles of paper and paperboard .....	410	742	1 360	1 360
18	Books, newspapers and other printed matter and recorded media .....	40	69	121	120
19	Printing services, reproduction services of recorded media .....	180	266	408	406
20	Coke, refined petroleum products and nuclear fuels .....	116 158	98 700	82 098	80 985
21	Pharmaceutical products .....	150	235	379	378
22	Chemical products, except pharmaceutical products .....	6 542	9 095	11 925	12 278
23	Rubber products .....	194	314	543	538
24	Plastic products .....	341	501	797	798
25	Glass and glass products .....	876	1 156	1 544	1 535
26	Other non-metallic mineral products, except glass and glass products .....	3 184	4 045	5 148	5 645
27	Iron and steel, ferro-alloys and tubes .....	3 979	4 956	6 293	6 171
28	Basic precious metals and metals clad with precious metals .....	715	1 126	1 733	1 726
29	Foundry work services .....	235	338	532	525
30	Fabricated metal products, except machinery and equipment .....	840	1 353	2 252	2 229
31	Machinery and equipment n.e.c. ....	651	1 010	1 683	1 666
32	Office machinery and computers .....	27	37	68	67
33	Electrical machinery and apparatus n.e.c. ....	334	551	967	954
34	Radio, television and communication equipment and apparatus .....	114	171	273	270
35	Medical, precision and optical instruments, watches and clocks .....	81	120	180	179
36	Motor vehicles, trailers and semi-trailers .....	1 146	1 850	2 980	2 988
37	Other transport equipment .....	253	395	684	681
38	Furniture; other manufactured goods n.e.c. ....	121	179	259	256
39	Secondary raw materials .....	33	52	104	103
40	Electrical energy, steam and hot water .....	202 878	203 324	210 017	222 446
41	Gas .....	934	1 151	984	976
42	Collected and purified water, distribution services of water .....	0	0	0	0
43	Site preparation work, structural and civil engineering work .....	147	236	312	345
44	Building installation and building completion work .....	72	82	125	148
45	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	231	384	621	619
46	Wholesale trade and commission trade services .....	463	759	1 412	1 407
47	Retail trade services; repair services of personal and household goods .....	1 006	1 655	2 759	2 751
48	Hotel and restaurant services .....	553	907	1 547	1 542
49	Railway transport services .....	55	85	146	144
50	Other land transport services; transport services via pipelines .....	16	26	67	67
51	Water transport services .....	0	0	0	0
52	Air transport services .....	0	0	0	0
53	Supporting and auxiliary transport services; travel agency services .....	33	51	93	93
54	Post and telecommunication services .....	98	208	417	415
55	Financial intermediation services .....	205	306	545	543
56	Insurance and pension funding services, except social security services .....	120	186	299	298
57	Services auxiliary to financial intermediation .....	32	61	113	113
58	Real estate services <sup>4)</sup> .....	32	51	92	92
59	Renting services of machinery and equipment without operator .....	15	14	45	45
60	Computer and related services .....	64	112	216	215
61	Research and development services .....	89	104	166	165
62	Other business services .....	563	946	1 640	1 634
63	Public administration and defence services .....	1 065	1 642	2 526	2 545
64	Compulsory social security services .....	48	64	105	104
65	Education services .....	718	1 098	1 757	1 752
66	Health and social work services .....	900	1 433	2 339	2 335
67	Sewage and refuse disposal services, sanitation and similar services .....	19	38	69	69
68	Membership organisation services n.e.c. ....	126	201	346	345
69	Recreational, cultural and sporting services .....	211	347	628	625
70	Other services .....	2	13	23	23
71	Private households with employed persons .....	0	0	0	0
72	Services of extritorial organisations and corporations .....	0	0	0	0
73	<b>All homogenous branches.....</b>	<b>368 881</b>	<b>365 650</b>	<b>378 439</b>	<b>389 080</b>
74	Consumption of Private Households.....	40 015	40 912	30 585	31 953
75	<b>All homogenous branches and consumption of Private Households.....</b>	<b>408 897</b>	<b>406 562</b>	<b>409 024</b>	<b>421 033</b>

**Table 4: Use of mineral raw products and their products from domestic extraction and imports by homogenous branches of production and private households**

1 000 tons

No.	CPA	Homogenous branches	1995	1996	1997
1	01	Products of agriculture, hunting and related services .....	11 437	12 057	12 434
2	02	Products of forestry, logging and related services .....	2 488	2 721	2 752
3	05	Fish and other fishing products; services incidental to fishing .....	214	251	257
4	10	Coal and lignite; peat .....	4 280	3 816	1 751
5	11	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	0	0	0
6	12	Uranium and thorium ores .....	0	0	0
7	13	Metal ores .....	73	22	25
8	14	Other mining and quarrying products .....	84 548	69 349	59 524
9	15.1 - 15.8	Food products .....	12 135	13 402	14 499
10	15.9	Beverages .....	0	0	0
11	16	Tobacco products .....	0	0	0
12	17	Textiles .....	0	0	0
13	18	Wearing apparel; furs .....	0	0	0
14	19	Leather and leather products .....	0	0	0
15	20	Wood and products of wood, cork (except furniture) and plaiting materials .....	0	0	0
16	21.1	Pulp, paper and paperboard .....	2 208	1 983	2 149
17	21.2	Articles of paper and paperboard .....	0	0	0
18	22.1	Books, newspapers and other printed matter and recorded media .....	0	0	0
19	22.2 - 22.3	Printing services, reproduction services of recorded media .....	0	0	0
20	23	Coke, refined petroleum products and nuclear fuels .....	175	202	206
21	24.4	Pharmaceutical products .....	275	357	423
22	24 (ohne 24.4)	Chemical products, except pharmaceutical products .....	9 853	10 401	10 757
23	25.1	Rubber products .....	0	0	0
24	25.2	Plastic products .....	0	0	0
25	26.1	Glass and glass products .....	21 072	20 793	20 391
26	26.2 - 26.8	Other non-metallic mineral products, except glass and glass products .....	232 279	221 351	214 478
27	27.1 - 27.3	Iron and steel, ferro-alloys and tubes .....	37 441	37 808	43 403
28	27.4	Basic precious metals and metals clad with precious metals .....	22 335	20 739	20 314
29	27.5	Foundry work services .....	4 520	4 566	4 492
30	28	Fabricated metal products, except machinery and equipment .....	3 204	3 325	3 212
31	29	Machinery and equipment n.e.c. ....	836	837	752
32	30	Office machinery and computers .....	0	0	0
33	31	Electrical machinery and apparatus n.e.c. ....	1 806	1 502	1 214
34	32	Radio, television and communication equipment and apparatus .....	0	0	0
35	33	Medical, precision and optical instruments, watches and clocks .....	330	386	366
36	34	Motor vehicles, trailers and semi-trailers .....	709	718	514
37	35	Other transport equipment .....	156	88	0
38	36	Furniture; other manufactured goods n.e.c. ....	1 518	1 510	1 237
39	37	Secondary raw materials .....	0	0	0
40	40.1, 40.3	Electrical energy, steam and hot water .....	0	0	0
41	40.2	Gas .....	0	0	0
42	41	Collected and purified water, distribution services of water .....	78	91	96
43	45.1 - 45.2	Site preparation work, structural and civil engineering work .....	362 587	355 824	362 513
44	45.3 - 45.5	Building installation and building completion work .....	474	512	508
45	50	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	78	78	47
46	51	Wholesale trade and commission trade services .....	0	0	0
47	52	Retail trade services; repair services of personal and household goods .....	0	0	0
48	55	Hotel and restaurant services .....	1 643	1 677	1 648
49	60.1	Railway transport services .....	1 922	1 968	2 087
50	60.2 - 60.3	Other land transport services; transport services via pipelines .....	0	0	0
51	61	Water transport services .....	0	0	0
52	62	Air transport services .....	0	0	0
53	63	Supporting and auxiliary transport services; travel agency services .....	0	0	0
54	64	Post and telecommunication services .....	0	0	0
55	65	Financial intermediation services .....	0	0	0
56	66	Insurance and pension funding services, except social security services .....	0	0	0
57	67	Services auxiliary to financial intermediation .....	0	0	0
58	70	Real estate services <sup>4)</sup> .....	0	0	0
59	71	Renting services of machinery and equipment without operator .....	0	0	0
60	72	Computer and related services .....	0	0	0
61	73	Research and development services .....	0	0	0
62	74	Other business services .....	0	0	0
63	75.1 - 75.2	Public administration and defence services .....	39 486	38 677	39 495
64	75.3	Compulsory social security services .....	0	0	0
65	80	Education services .....	93	140	129
66	85	Health and social work services .....	399	474	541
67	90	Sewage and refuse disposal services, sanitation and similar services .....	12 963	12 986	13 585
68	91	Membership organisation services n.e.c. ....	0	0	0
69	92	Recreational, cultural and sporting services .....	0	0	0
70	93	Other services .....	0	0	0
71	95	Private households with employed persons .....	0	0	0
72	99	Services of extraterritorial organisations and corporations .....	0	0	0
73		<b>All homogenous branches.....</b>	<b>873 616</b>	<b>840 609</b>	<b>835 802</b>
74		Consumption of Private Households.....	256	233	130
75		<b>All homogenous branches and consumption of Private Households.....</b>	<b>873 871</b>	<b>840 842</b>	<b>835 933</b>

**Table 4: Use of mineral raw products and their products from domestic extraction and imports by homogenous branches of production and private households**

1 000 tons

No.	Homogenous branches	1998	1999	2000	2001
1	Products of agriculture, hunting and related services .....	12 330	12 891	12 777	11 905
2	Products of forestry, logging and related services .....	2 805	2 928	2 744	2 538
3	Fish and other fishing products; services incidental to fishing .....	280	290	191	190
4	Coal and lignite; peat .....	1 542	1 266	1 237	1 109
5	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	0	0	0	0
6	Uranium and thorium ores .....	0	0	0	0
7	Metal ores .....	0	0	0	0
8	Other mining and quarrying products .....	...	116 798	110 048	100 708
9	Food products .....	13 974	14 673	13 337	13 292
10	Beverages .....	0	0	0	0
11	Tobacco products .....	0	0	0	0
12	Textiles .....	0	0	0	0
13	Wearing apparel; furs .....	0	0	0	0
14	Leather and leather products .....	0	0	0	0
15	Wood and products of wood, cork (except furniture) and plaiting materials .....	0	0	0	0
16	Pulp, paper and paperboard .....	6 499	7 072	6 907	6 726
17	Articles of paper and paperboard .....	0	0	0	0
18	Books, newspapers and other printed matter and recorded media .....	0	0	0	0
19	Printing services, reproduction services of recorded media .....	0	0	0	0
20	Coke, refined petroleum products and nuclear fuels .....	210	210	201	186
21	Pharmaceutical products .....	350	452	449	420
22	Chemical products, except pharmaceutical products .....	10 415	11 007	11 366	10 976
23	Rubber products .....	0	0	0	0
24	Plastic products .....	0	0	0	0
25	Glass and glass products .....	19 943	21 081	19 791	19 035
26	Other non-metallic mineral products, except glass and glass products .....	249 192	264 116	250 443	230 188
27	Iron and steel, ferro-alloys and tubes .....	44 763	35 941	41 543	36 247
28	Basic precious metals and metals clad with precious metals .....	25 532	23 387	26 853	22 269
29	Foundry work services .....	5 091	4 888	5 235	4 899
30	Fabricated metal products, except machinery and equipment .....	3 368	3 599	3 908	3 690
31	Machinery and equipment n.e.c. ....	686	643	656	594
32	Office machinery and computers .....	0	0	0	0
33	Electrical machinery and apparatus n.e.c. ....	1 226	1 371	1 155	1 160
34	Radio, television and communication equipment and apparatus .....	0	0	0	0
35	Medical, precision and optical instruments, watches and clocks .....	364	369	431	418
36	Motor vehicles, trailers and semi-trailers .....	507	544	676	612
37	Other transport equipment .....	0	0	0	0
38	Furniture; other manufactured goods n.e.c. ....	1 228	1 165	1 290	1 168
39	Secondary raw materials .....	0	0	0	0
40	Electrical energy, steam and hot water .....	0	0	0	0
41	Gas .....	0	0	0	0
42	Collected and purified water, distribution services of water .....	98	99	180	166
43	Site preparation work, structural and civil engineering work .....	345 556	268 863	256 868	234 627
44	Building installation and building completion work .....	516	619	742	686
45	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	56	56	51	46
46	Wholesale trade and commission trade services .....	0	0	0	0
47	Retail trade services; repair services of personal and household goods .....	0	0	0	0
48	Hotel and restaurant services .....	1 695	1 825	1 625	1 622
49	Railway transport services .....	1 984	2 170	2 173	1 988
50	Other land transport services; transport services via pipelines .....	0	0	0	0
51	Water transport services .....	0	0	0	0
52	Air transport services .....	0	0	0	0
53	Supporting and auxiliary transport services; travel agency services .....	0	0	0	0
54	Post and telecommunication services .....	0	0	0	0
55	Financial intermediation services .....	0	0	0	0
56	Insurance and pension funding services, except social security services .....	0	0	0	0
57	Services auxiliary to financial intermediation .....	0	0	0	0
58	Real estate services <sup>4)</sup> .....	0	0	0	0
59	Renting services of machinery and equipment without operator .....	0	0	0	0
60	Computer and related services .....	0	0	0	0
61	Research and development services .....	0	0	0	0
62	Other business services .....	0	0	0	0
63	Public administration and defence services .....	41 317	42 686	41 907	38 253
64	Compulsory social security services .....	0	0	0	0
65	Education services .....	152	156	191	190
66	Health and social work services .....	536	556	526	526
67	Sewage and refuse disposal services, sanitation and similar services .....	14 777	16 371	16 348	15 271
68	Membership organisation services n.e.c. ....	0	0	0	0
69	Recreational, cultural and sporting services .....	0	0	0	0
70	Other services .....	0	0	0	0
71	Private households with employed persons .....	0	0	0	0
72	Services of extraterritorial organisations and corporations .....	0	0	0	0
73	<b>All homogenous branches.....</b>	<b>814 817</b>	<b>858 090</b>	<b>831 852</b>	<b>761 705</b>
74	Consumption of Private Households.....	94	70	189	169
75	<b>All homogenous branches and consumption of Private Households.....</b>	<b>814 911</b>	<b>858 160</b>	<b>832 042</b>	<b>761 874</b>

**Table 5: Intensity of use of abiotic primary products**  
kg / 1 000 EUR gross value added at prices of 1995

No.	CPA	Homogenous branches	1995	1997	2000	2001
1	01	Products of agriculture, hunting and related services .....	594	603	595	568
2	02	Products of forestry, logging and related services .....	2 190	2 288	2 421	2 200
3	05	Fish and other fishing products; services incidental to fishing .....	1 269	1 441	1 058	1 258
4	10	Coal and lignite; peat .....	6 530	8 779	10 179	13 216
5	11	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	1 070	1 620	1 521	2 438
6	12	Uranium and thorium ores .....	-	-	-	-
7	13	Metal ores .....	-	-	-	-
8	14	Other mining and quarrying products .....	30 232	27 754	51 826	50 026
9	15.1 - 15.8	Food products .....	537	650	602	667
10	15.9	Beverages .....	72	74	212	234
11	16	Tobacco products .....	15	20	37	33
12	17	Textiles .....	80	87	217	225
13	18	Wearing apparel; furs .....	14	6	13	14
14	19	Leather and leather products .....	23	15	61	63
15	20	Wood and products of wood, cork (except furniture) and plaiting materials .....	17	24	56	63
16	21.1	Pulp, paper and paperboard .....	1 678	1 045	2 795	2 998
17	21.2	Articles of paper and paperboard .....	86	106	306	313
18	22.1	Books, newspapers and other printed matter and recorded media .....	4	4	15	17
19	22.2 - 22.3	Printing services, reproduction services of recorded media .....	18	18	37	39
20	23	Coke, refined petroleum products and nuclear fuels .....	...	81 372	...	81 826
21	24.4	Pharmaceutical products .....	53	93	125	107
22	24 (ohne 24.4)	Chemical products, except pharmaceutical products .....	677	641	857	815
23	25.1	Rubber products .....	58	51	131	131
24	25.2	Plastic products .....	25	24	55	55
25	26.1	Glass and glass products .....	5 746	5 319	4 647	4 587
26	26.2 - 26.8	Other non-metallic mineral products, except glass and glass products .....	17 414	18 721	21 662	22 026
27	27.1 - 27.3	Iron and steel, ferro-alloys and tubes .....	4 823	5 745	6 091	5 059
28	27.4	Basic precious metals and metals clad with precious metals .....	8 604	6 115	14 819	11 837
29	27.5	Foundry work services .....	1 487	1 494	1 854	1 645
30	28	Fabricated metal products, except machinery and equipment .....	123	128	174	170
31	29	Machinery and equipment n.e.c. ....	32	27	43	40
32	30	Office machinery and computers .....	12	12	13	16
33	31	Electrical machinery and apparatus n.e.c. ....	85	63	74	84
34	32	Radio, television and communication equipment and apparatus .....	17	14	21	28
35	33	Medical, precision and optical instruments, watches and clocks .....	33	33	39	38
36	34	Motor vehicles, trailers and semi-trailers .....	45	39	99	82
37	35	Other transport equipment .....	73	49	92	77
38	36	Furniture; other manufactured goods n.e.c. ....	150	131	163	162
39	37	Secondary raw materials .....	60	65	173	154
40	40.1, 40.3	Electrical energy, steam and hot water .....	9 451	8 749	7 831	8 397
41	40.2	Gas .....	87	190	254	265
42	41	Collected and purified water, distribution services of water .....	16	19	33	31
43	45.1 - 45.2	Site preparation work, structural and civil engineering work .....	5 730	6 125	4 772	4 704
44	45.3 - 45.5	Building installation and building completion work .....	11	12	18	18
45	50	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	12	11	25	25
46	51	Wholesale trade and commission trade services .....	5	5	14	14
47	52	Retail trade services; repair services of personal and household goods .....	13	14	34	34
48	55	Hotel and restaurant services .....	101	107	152	144
49	60.1	Railway transport services .....	238	273	289	246
50	60.2 - 60.3	Other land transport services; transport services via pipelines .....	1	1	3	3
51	61	Water transport services .....	0	0	0	0
52	62	Air transport services .....	0	0	0	0
53	63	Supporting and auxiliary transport services; travel agency services .....	2	2	5	4
54	64	Post and telecommunication services .....	2	2	5	5
55	65	Financial intermediation services .....	...	...	...	...
56	66	Insurance and pension funding services, except social security services .....	9	9	37	32
57	67	Services auxiliary to financial intermediation .....	5	4	11	11
58	70	Real estate services <sup>4)</sup> .....	0	0	0	0
59	71	Renting services of machinery and equipment without operator .....	0	0	1	1
60	72	Computer and related services .....	3	2	5	4
61	73	Research and development services .....	26	15	19	22
62	74	Other business services .....	4	4	10	9
63	75.1 - 75.2	Public administration and defence services .....	413	411	458	427
64	75.3	Compulsory social security services .....	7	4	8	8
65	80	Education services .....	13	12	27	27
66	85	Health and social work services .....	14	14	24	23
67	90	Sewage and refuse disposal services, sanitation and similar services .....	1 047	1 191	1 662	1 596
68	91	Membership organisation services n.e.c. ....	9	9	24	24
69	92	Recreational, cultural and sporting services .....	7	7	17	17
70	93	Other services .....	0	0	1	1
71	95	Private households with employed persons .....	0	0	0	0
72	99	Services of extraterritorial organisations and corporations .....	-	-	-	-
73		<b>All homogenous branches.....</b>	<b>787</b>	<b>727</b>	<b>677</b>	<b>637</b>



**Table 6: Intensity of use of energy carriers**  
kg / 1 000 EUR gross value added at prices of 1995

No.	CPA	Homogenous branches	1995	1997	2000	2001
1	01	Products of agriculture, hunting and related services .....	33	28	48	57
2	02	Products of forestry, logging and related services .....	8	7	3	2
3	05	Fish and other fishing products; services incidental to fishing .....	4	4	2	3
4	10	Coal and lignite; peat .....	5 546	8 026	9 305	12 029
5	11	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	1 070	1 620	1 521	2 438
6	12	Uranium and thorium ores .....	-	-	-	-
7	13	Metal ores .....	-	-	-	-
8	14	Other mining and quarrying products .....	165	146	208	269
9	15.1 - 15.8	Food products .....	72	85	136	155
10	15.9	Beverages .....	72	74	212	234
11	16	Tobacco products .....	15	20	37	33
12	17	Textiles .....	80	87	217	225
13	18	Wearing apparel; furs .....	14	6	13	14
14	19	Leather and leather products .....	23	15	61	63
15	20	Wood and products of wood, cork (except furniture) and plaiting materials .....	17	24	56	63
16	21.1	Pulp, paper and paperboard .....	824	533	1 129	1 252
17	21.2	Articles of paper and paperboard .....	86	106	306	313
18	22.1	Books, newspapers and other printed matter and recorded media .....	4	4	15	17
19	22.2 - 22.3	Printing services, reproduction services of recorded media .....	18	18	37	39
20	23	Coke, refined petroleum products and nuclear fuels .....	...	81 212	145 563	81 638
21	24.4	Pharmaceutical products .....	17	26	57	51
22	24 (ohne 24.4)	Chemical products, except pharmaceutical products .....	305	270	439	430
23	25.1	Rubber products .....	58	51	131	131
24	25.2	Plastic products .....	25	24	55	55
25	26.1	Glass and glass products .....	237	228	336	342
26	26.2 - 26.8	Other non-metallic mineral products, except glass and glass products .....	251	309	436	527
27	27.1 - 27.3	Iron and steel, ferro-alloys and tubes .....	415	483	801	736
28	27.4	Basic precious metals and metals clad with precious metals .....	264	216	898	851
29	27.5	Foundry work services .....	78	71	171	159
30	28	Fabricated metal products, except machinery and equipment .....	29	26	64	64
31	29	Machinery and equipment n.e.c. ....	16	13	31	30
32	30	Office machinery and computers .....	12	12	13	16
33	31	Electrical machinery and apparatus n.e.c. ....	14	14	34	38
34	32	Radio, television and communication equipment and apparatus .....	17	14	21	28
35	33	Medical, precision and optical instruments, watches and clocks .....	8	6	12	11
36	34	Motor vehicles, trailers and semi-trailers .....	27	27	80	68
37	35	Other transport equipment .....	41	49	92	77
38	36	Furniture; other manufactured goods n.e.c. ....	12	12	27	29
39	37	Secondary raw materials .....	60	65	173	154
40	40.1, 40.3	Electrical energy, steam and hot water .....	9 451	8 749	7 831	8 397
41	40.2	Gas .....	87	190	254	265
42	41	Collected and purified water, distribution services of water .....	0	0	0	0
43	45.1 - 45.2	Site preparation work, structural and civil engineering work .....	3	3	6	7
44	45.3 - 45.5	Building installation and building completion work .....	2	2	3	3
45	50	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	9	9	23	23
46	51	Wholesale trade and commission trade services .....	5	5	14	14
47	52	Retail trade services; repair services of personal and household goods .....	13	14	34	34
48	55	Hotel and restaurant services .....	27	29	74	70
49	60.1	Railway transport services .....	9	7	18	17
50	60.2 - 60.3	Other land transport services; transport services via pipelines .....	1	1	3	3
51	61	Water transport services .....	0	0	0	0
52	62	Air transport services .....	0	0	0	0
53	63	Supporting and auxiliary transport services; travel agency services .....	2	2	5	4
54	64	Post and telecommunication services .....	2	2	5	5
55	65	Financial intermediation services .....	- 32	- 28	- 54	- 36
56	66	Insurance and pension funding services, except social security services .....	9	9	37	32
57	67	Services auxiliary to financial intermediation .....	5	4	11	11
58	70	Real estate services <sup>4)</sup> .....	0	0	0	0
59	71	Renting services of machinery and equipment without operator .....	0	0	1	1
60	72	Computer and related services .....	3	2	5	4
61	73	Research and development services .....	26	15	19	22
62	74	Other business services .....	4	4	10	9
63	75.1 - 75.2	Public administration and defence services .....	14	11	26	27
64	75.3	Compulsory social security services .....	7	4	8	8
65	80	Education services .....	12	10	24	24
66	85	Health and social work services .....	10	9	20	19
67	90	Sewage and refuse disposal services, sanitation and similar services .....	3	3	7	7
68	91	Membership organisation services n.e.c. ....	9	9	24	24
69	92	Recreational, cultural and sporting services .....	7	7	17	17
70	93	Other services .....	0	0	1	1
71	95	Private households with employed persons .....	0	0	0	0
72	99	Services of extraterritorial organisations and corporations .....	-	-	-	-
73		<b>All homogenous branches.....</b>	<b>249</b>	<b>224</b>	<b>212</b>	<b>215</b>

**Table 7: Intensity of use of mineral raw products and their products**  
kg / 1 000 EUR gross value added at prices of 1995

No.	CPA	Homogenous branches	1995	1997	2000	2001
1	01	Products of agriculture, hunting and related services .....	562	575	547	510
2	02	Products of forestry, logging and related services .....	2 182	2 280	2 418	2 197
3	05	Fish and other fishing products; services incidental to fishing .....	1 265	1 438	1 056	1 256
4	10	Coal and lignite; peat .....	984	753	874	1 187
5	11	Crude petroleum and natural gas; services incidental to oil and gas extraction .....	0	0	0	0
6	12	Uranium and thorium ores .....	-	-	-	-
7	13	Metal ores .....	-	-	-	-
8	14	Other mining and quarrying products .....	30 067	27 609	51 617	49 757
9	15.1 - 15.8	Food products .....	465	565	466	512
10	15.9	Beverages .....	0	0	0	0
11	16	Tobacco products .....	0	0	0	0
12	17	Textiles .....	0	0	0	0
13	18	Wearing apparel; furs .....	0	0	0	0
14	19	Leather and leather products .....	0	0	0	0
15	20	Wood and products of wood, cork (except furniture) and plaiting materials .....	0	0	0	0
16	21.1	Pulp, paper and paperboard .....	854	512	1 666	1 746
17	21.2	Articles of paper and paperboard .....	0	0	0	0
18	22.1	Books, newspapers and other printed matter and recorded media .....	0	0	0	0
19	22.2 - 22.3	Printing services, reproduction services of recorded media .....	0	0	0	0
20	23	Coke, refined petroleum products and nuclear fuels .....	...	160	357	188
21	24.4	Pharmaceutical products .....	36	68	68	57
22	24 (ohne 24.4)	Chemical products, except pharmaceutical products .....	372	371	418	385
23	25.1	Rubber products .....	0	0	0	0
24	25.2	Plastic products .....	0	0	0	0
25	26.1	Glass and glass products .....	5 509	5 090	4 311	4 245
26	26.2 - 26.8	Other non-metallic mineral products, except glass and glass products .....	17 163	18 412	21 226	21 499
27	27.1 - 27.3	Iron and steel, ferro-alloys and tubes .....	4 408	5 263	5 290	4 323
28	27.4	Basic precious metals and metals clad with precious metals .....	8 340	5 898	13 921	10 986
29	27.5	Foundry work services .....	1 409	1 423	1 683	1 486
30	28	Fabricated metal products, except machinery and equipment .....	95	101	111	106
31	29	Machinery and equipment n.e.c. ....	16	14	12	11
32	30	Office machinery and computers .....	0	0	0	0
33	31	Electrical machinery and apparatus n.e.c. ....	71	50	40	46
34	32	Radio, television and communication equipment and apparatus .....	0	0	0	0
35	33	Medical, precision and optical instruments, watches and clocks .....	24	27	28	26
36	34	Motor vehicles, trailers and semi-trailers .....	18	13	18	14
37	35	Other transport equipment .....	32	0	0	0
38	36	Furniture; other manufactured goods n.e.c. ....	137	119	136	133
39	37	Secondary raw materials .....	0	0	0	0
40	40.1, 40.3	Electrical energy, steam and hot water .....	0	0	0	0
41	40.2	Gas .....	0	0	0	0
42	41	Collected and purified water, distribution services of water .....	16	19	33	31
43	45.1 - 45.2	Site preparation work, structural and civil engineering work .....	5 727	6 122	4 767	4 697
44	45.3 - 45.5	Building installation and building completion work .....	9	10	15	15
45	50	Trade and repair services of motor vehicles; retail sale of automotive fuel .....	3	2	2	2
46	51	Wholesale trade and commission trade services .....	0	0	0	0
47	52	Retail trade services; repair services of personal and household goods .....	0	0	0	0
48	55	Hotel and restaurant services .....	74	79	78	74
49	60.1	Railway transport services .....	229	265	271	230
50	60.2 - 60.3	Other land transport services; transport services via pipelines .....	0	0	0	0
51	61	Water transport services .....	0	0	0	0
52	62	Air transport services .....	0	0	0	0
53	63	Supporting and auxiliary transport services; travel agency services .....	0	0	0	0
54	64	Post and telecommunication services .....	0	0	0	0
55	65	Financial intermediation services .....	0	0	0	0
56	66	Insurance and pension funding services, except social security services .....	0	0	0	0
57	67	Services auxiliary to financial intermediation .....	0	0	0	0
58	70	Real estate services <sup>4)</sup> .....	0	0	0	0
59	71	Renting services of machinery and equipment without operator .....	0	0	0	0
60	72	Computer and related services .....	0	0	0	0
61	73	Research and development services .....	0	0	0	0
62	74	Other business services .....	0	0	0	0
63	75.1 - 75.2	Public administration and defence services .....	399	400	432	400
64	75.3	Compulsory social security services .....	0	0	0	0
65	80	Education services .....	1	2	3	3
66	85	Health and social work services .....	4	5	4	4
67	90	Sewage and refuse disposal services, sanitation and similar services .....	1 045	1 188	1 655	1 589
68	91	Membership organisation services n.e.c. ....	0	0	0	0
69	92	Recreational, cultural and sporting services .....	0	0	0	0
70	93	Other services .....	0	0	0	0
71	95	Private households with employed persons .....	0	0	0	0
72	99	Services of extraterritorial organisations and corporations .....	-	-	-	-
73		<b>All homogenous branches.....</b>	<b>538</b>	<b>502</b>	<b>466</b>	<b>422</b>