

Environmental Pressures from German Imports and Exports Embodied Energy and CO₂-Emissions of Goods

Walter Radermacher

President of the Federal Statistical Office, Germany

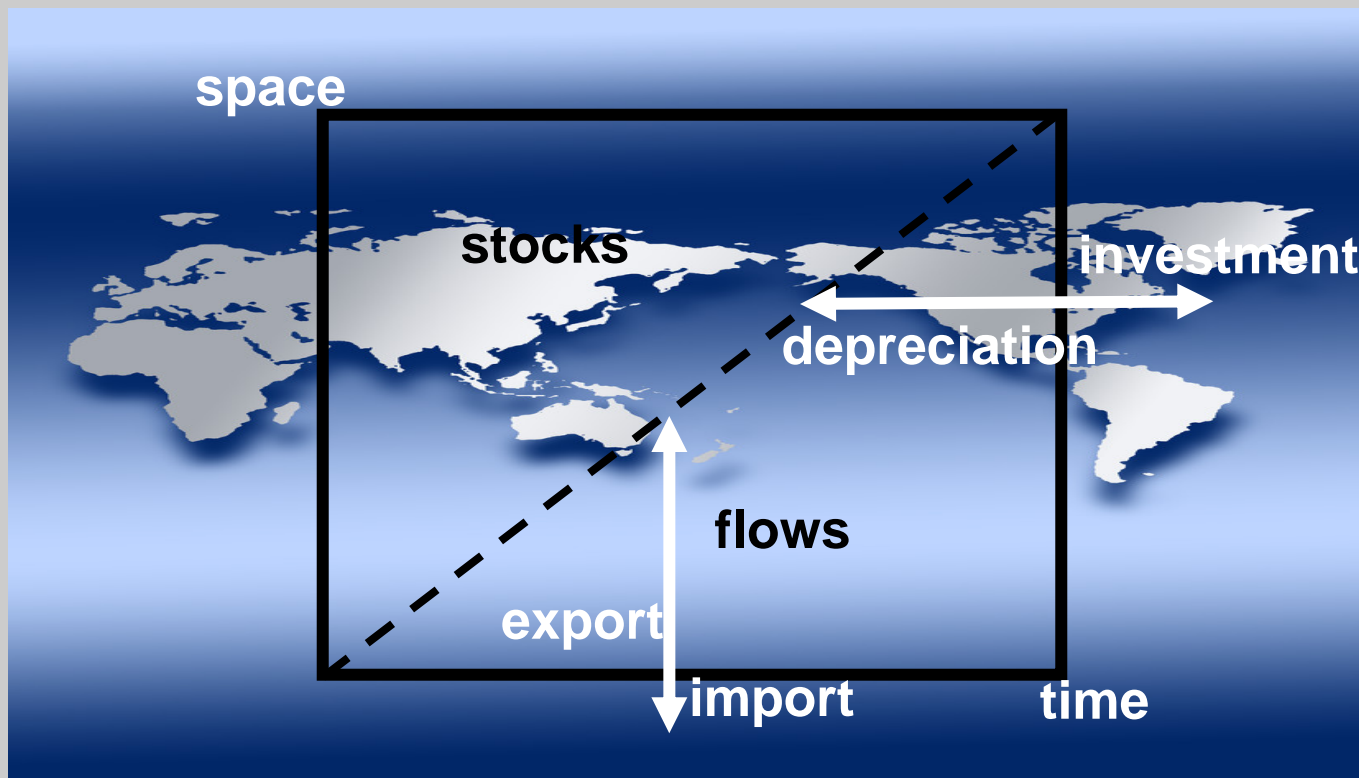
Conference on “Climate Change and Official Statistics”

14-16 April 2008, Oslo

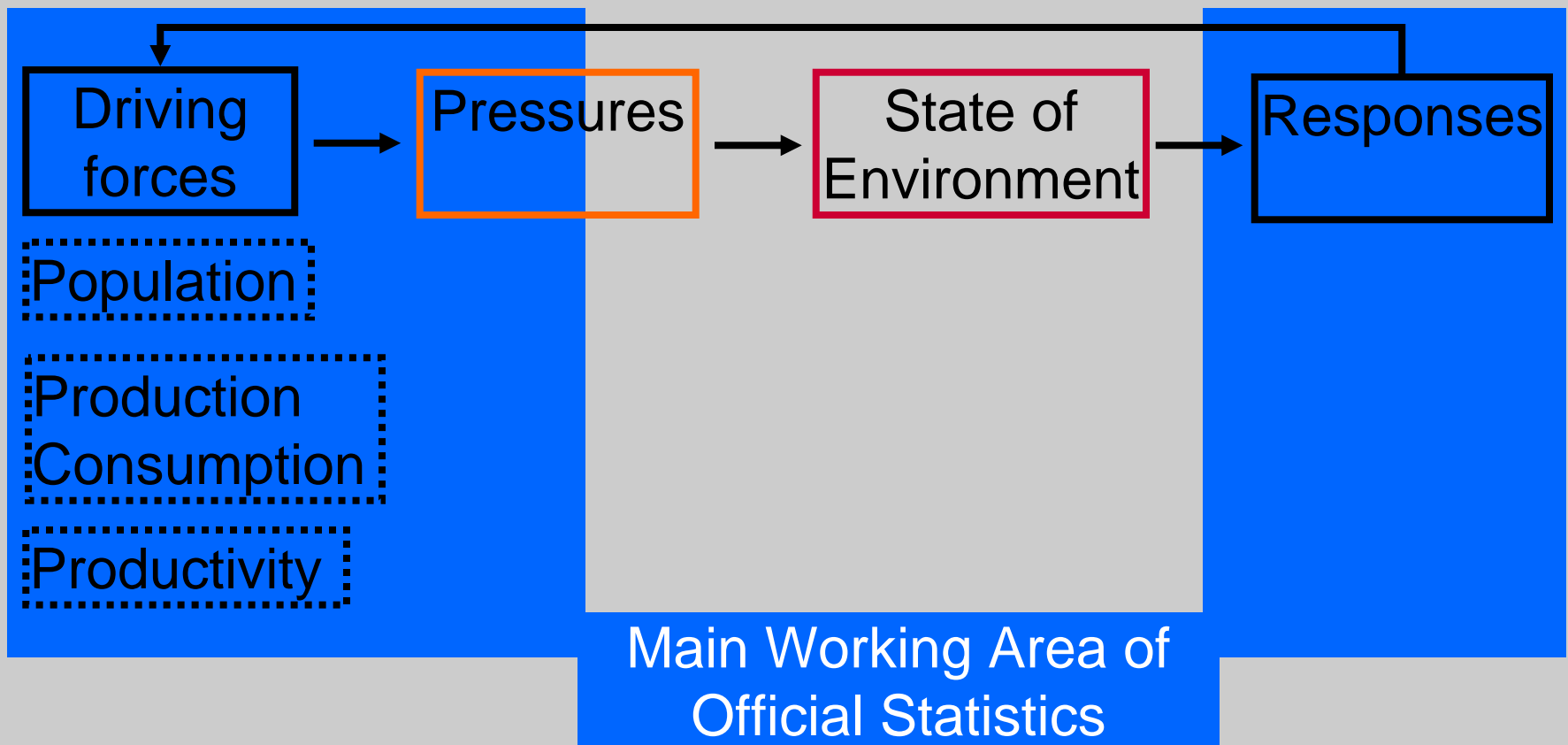
The World in Figures?

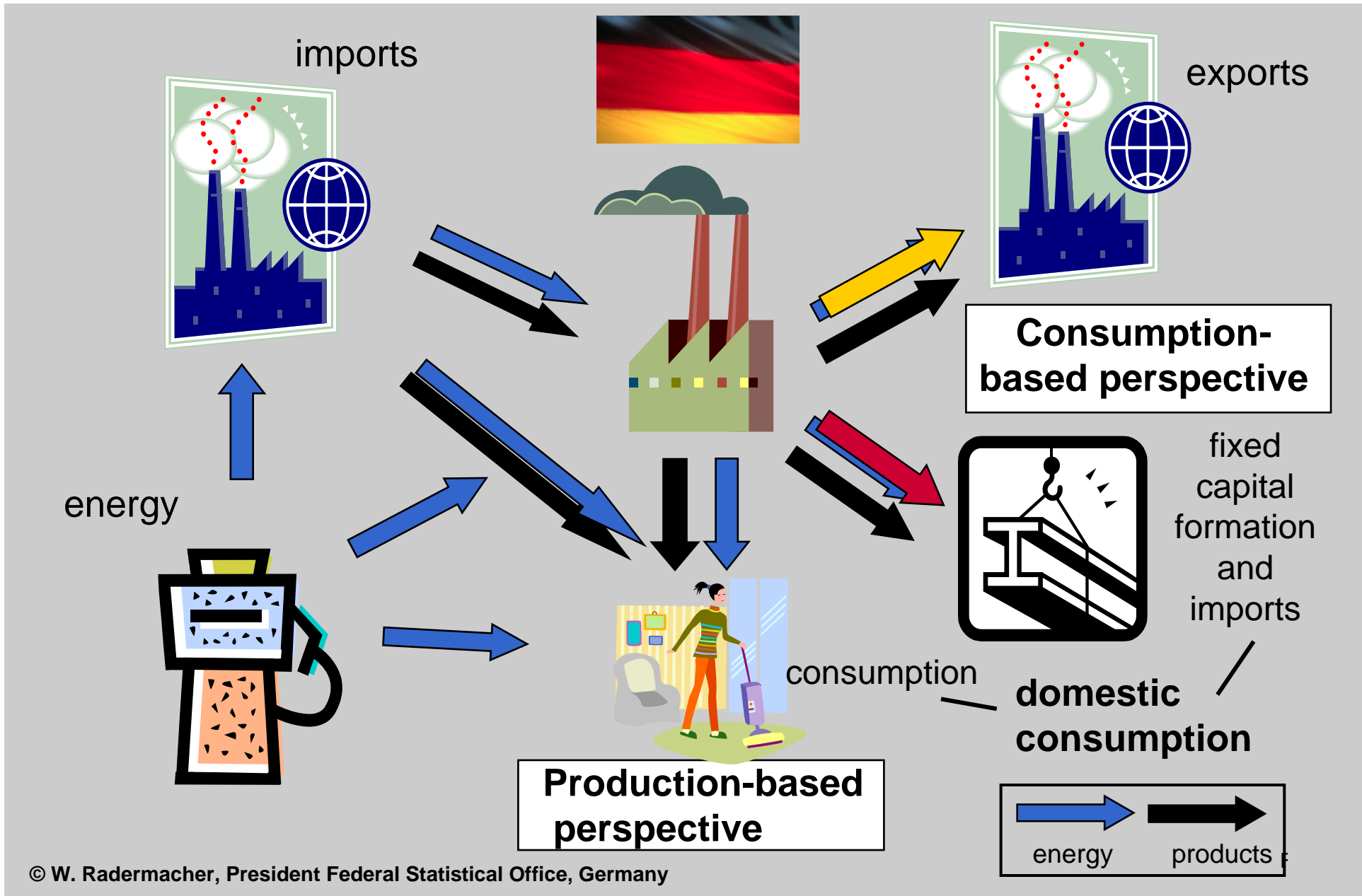


The Economic System in Statistics: A “flat” projection



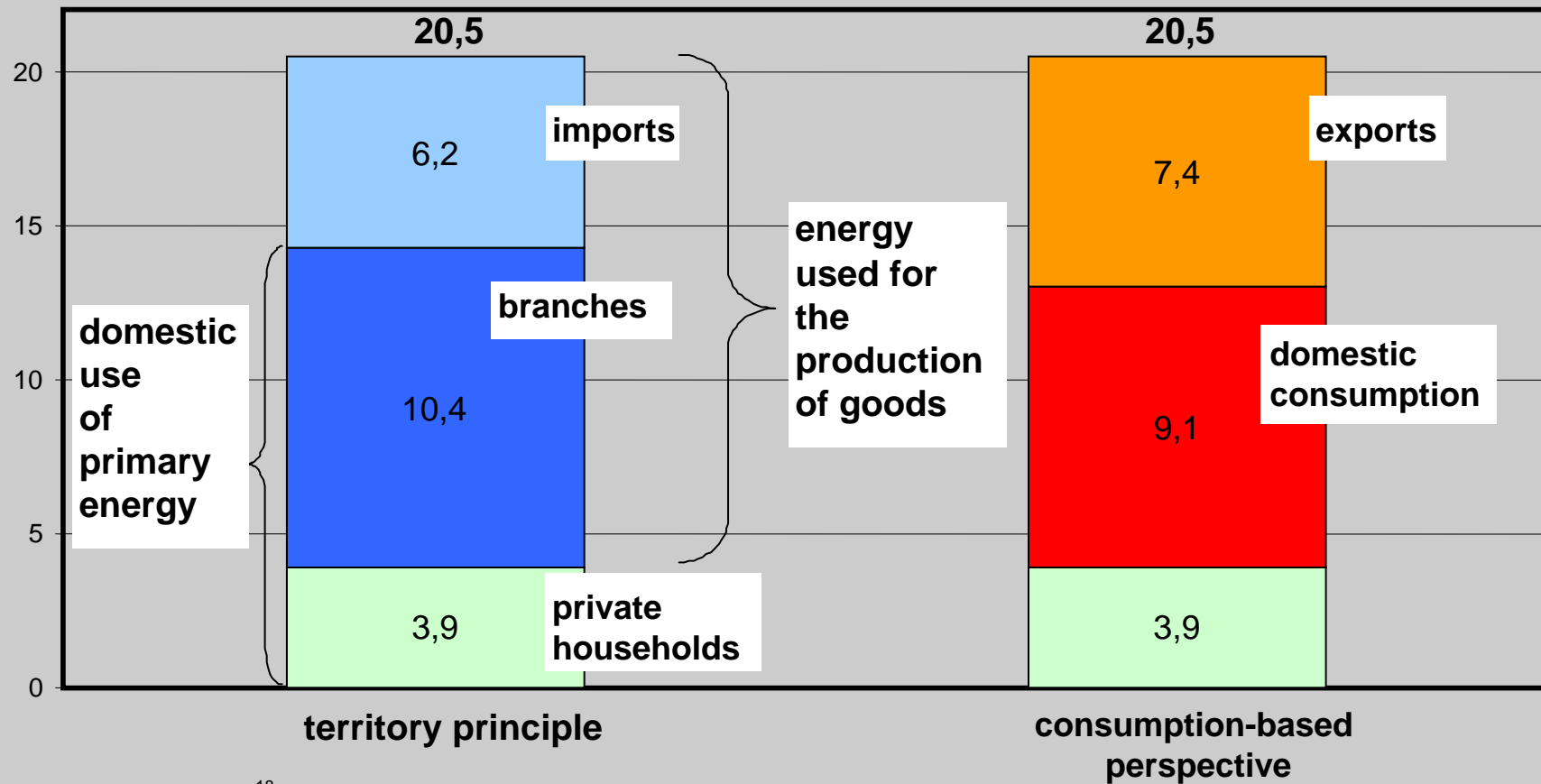
Official Statistics and Environment





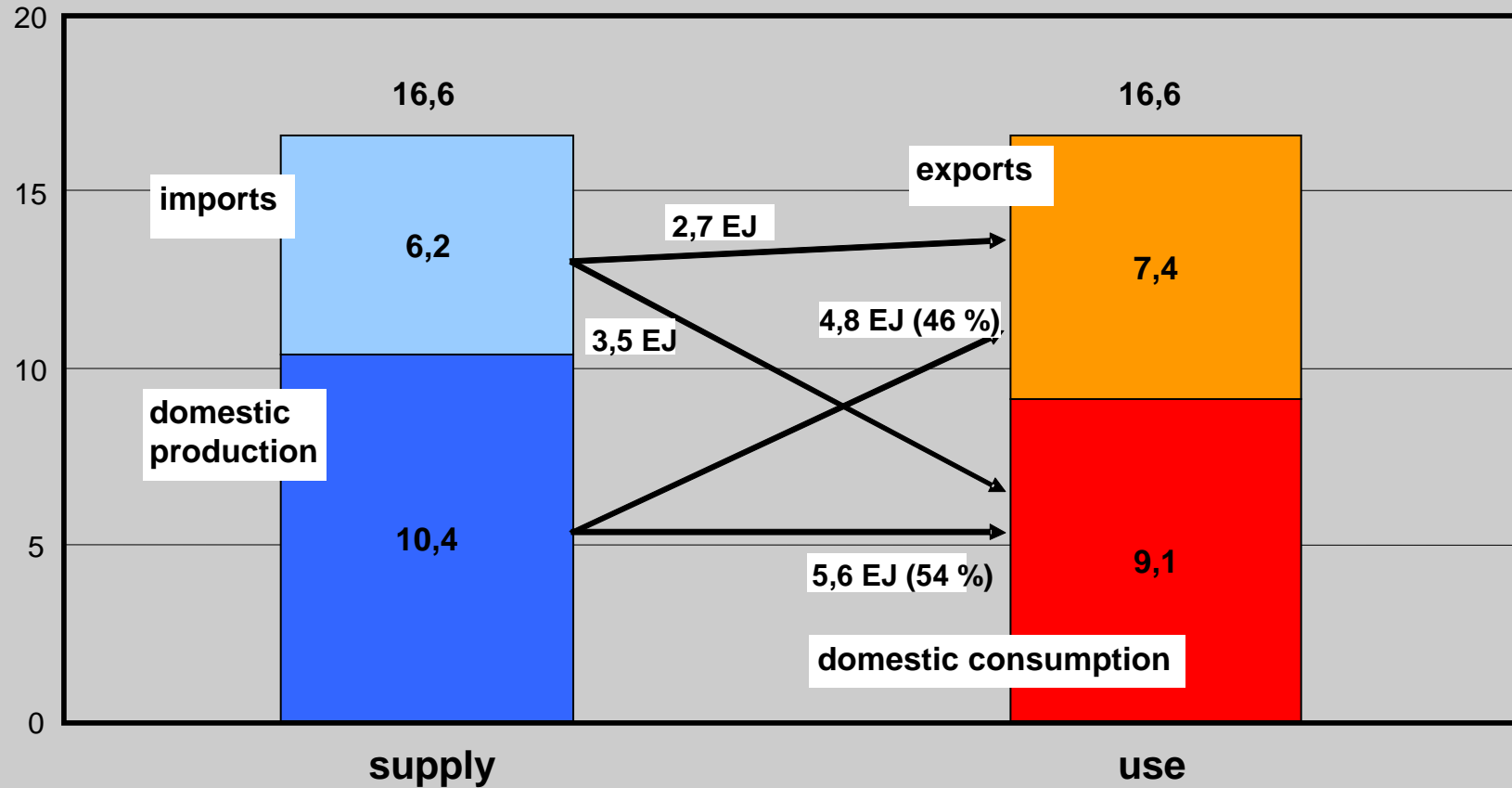
Energy consumption and energy used for the production of goods 2004

exajoule*)



*) 1 Exajoule = 1 EJ = 10¹⁸ Joule

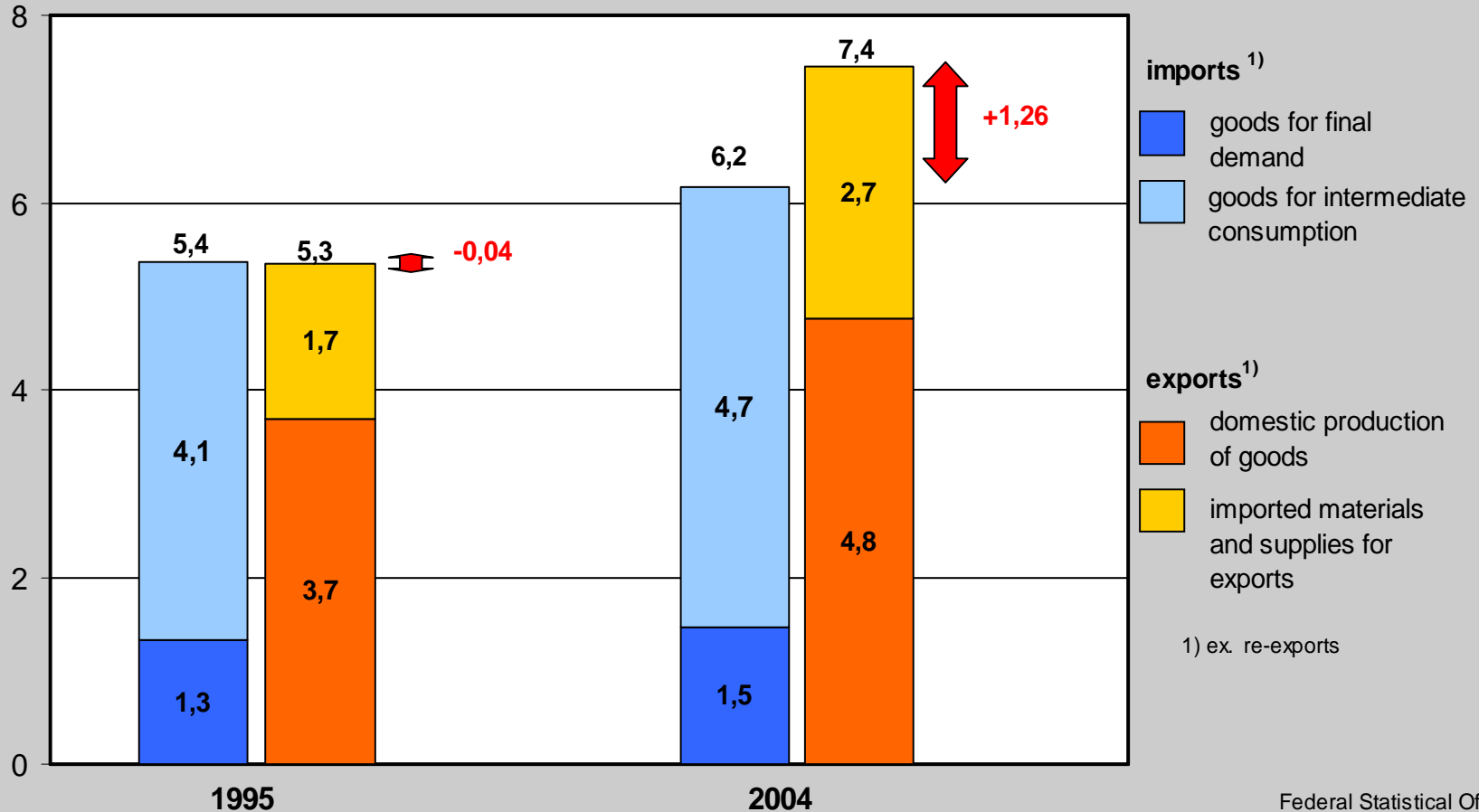
Energy used for the production of goods 2004 in exajoule *)



*) 1 exajoule = 1 EJ = 10¹⁸ Joule

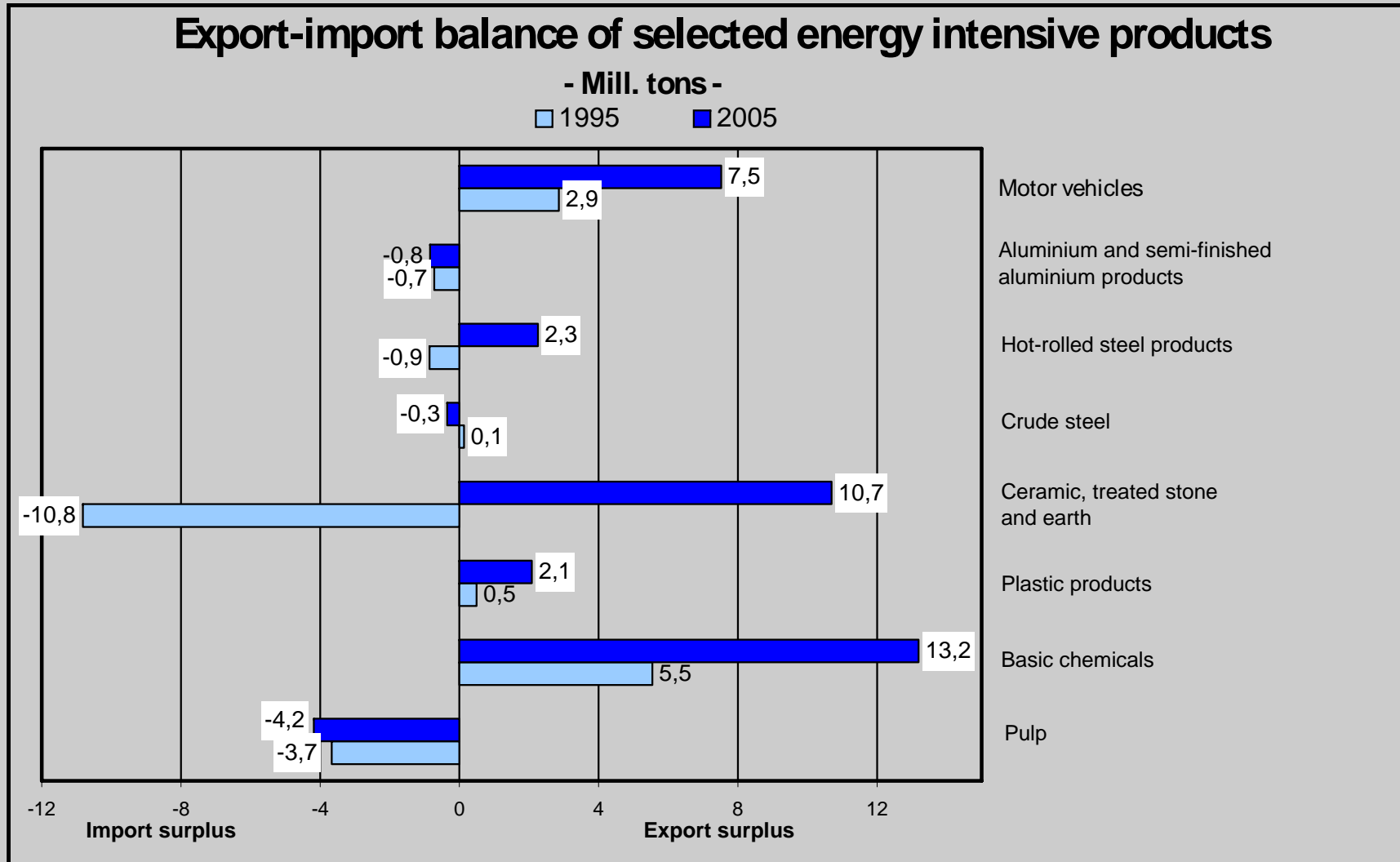
Energy content of imports and exports in Exajoule*)

Exajoule



- imports** ¹⁾
- goods for final demand
 - goods for intermediate consumption
- exports** ¹⁾
- domestic production of goods
 - imported materials and supplies for exports
- 1) ex. re-exports

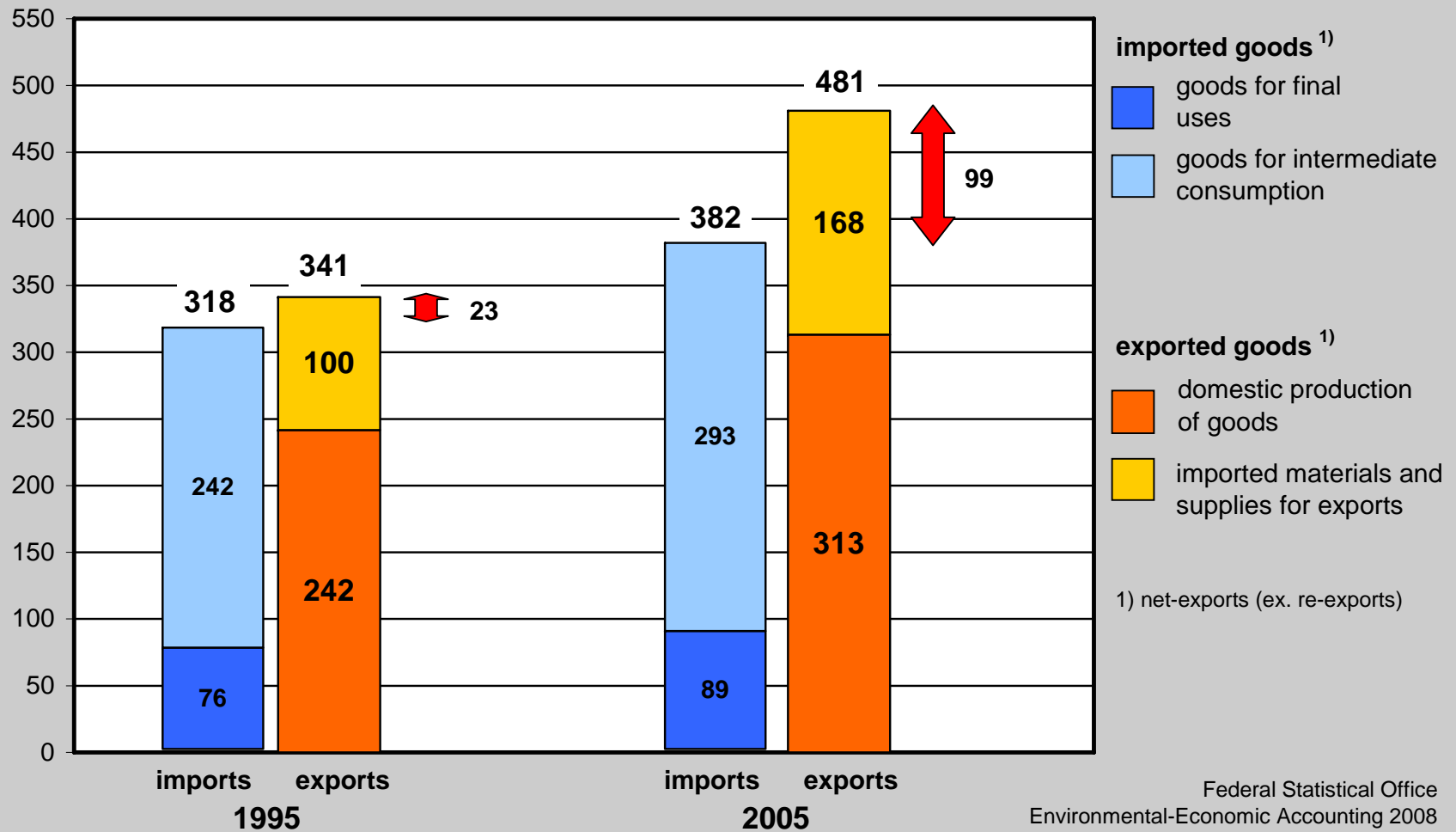
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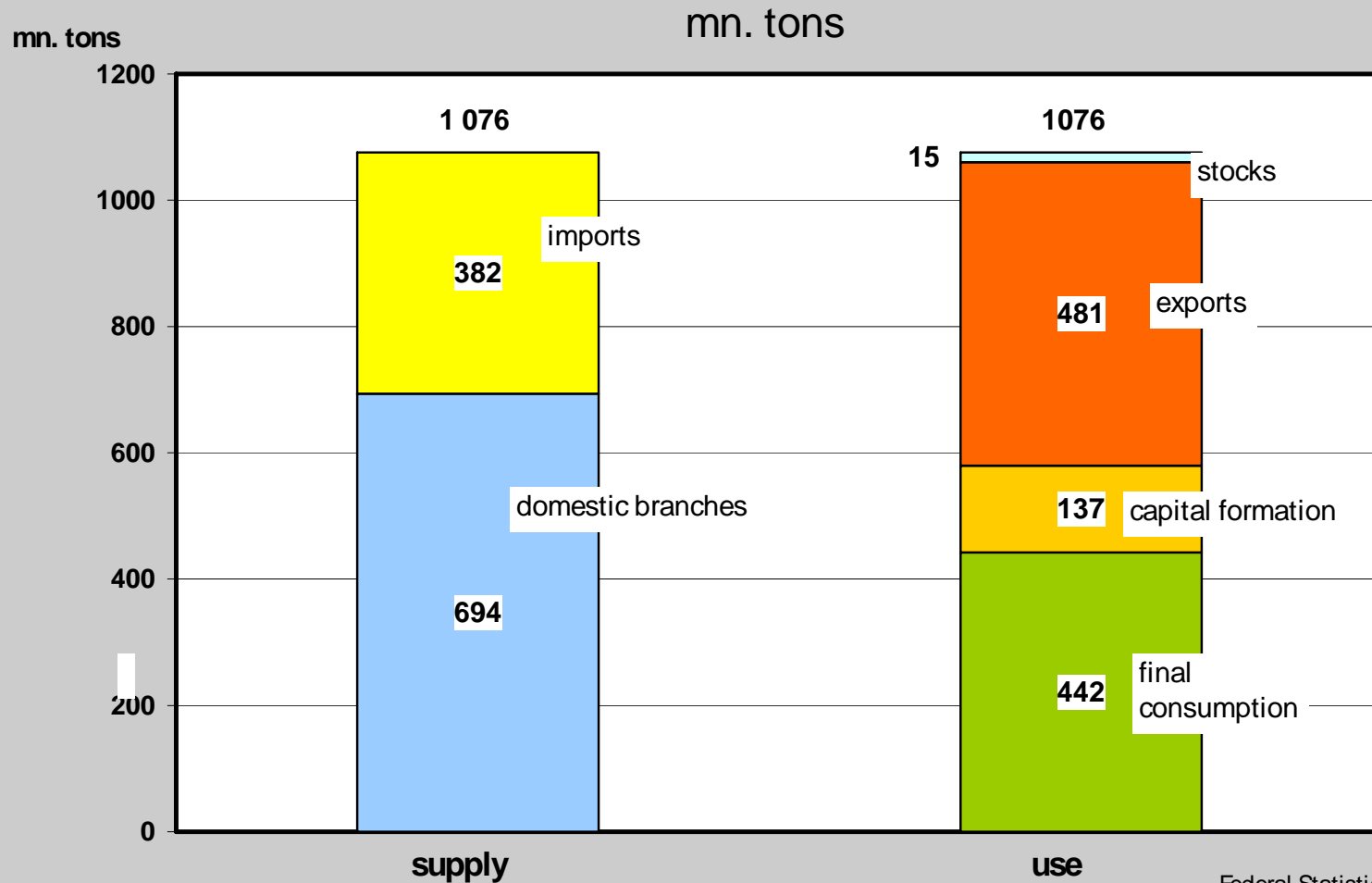
Embodied CO₂ emissions of imports and exports by purpose

in mn. tonnes

mn. tonnes



Embodied CO₂ emissions in Germany 2005



Federal Statistical Office of Germany
Environmental-Economic Accounts 2008

Messages

Energy input for production in Germany is higher than for domestic consumption

Between 1995 bis 2004 increase of energy input for export was higher than for import

Energy-intensive industries cannot be identified to be shifting abroad

CO₂ emissions are significantly higher in production of export goods than in the production of imported goods

CO₂ emissions of domestic production are by 16% higher than CO₂ emissions of domestic consumption (increasing share since 1995)

National targets for reducing CO₂ emissions should take this difference into account

Next steps for official statistics

Provide the resources for an adequate quality of official statistics

Make sure that the necessary basic data is available

Broaden the accounting systems

- environment, sustainability, R&D, human capital etc.
- core system and satellite systems

Agree on indicator sets based on available information

Develop standards/handbooks on international level

Build up databases for the analyses of transboundary flows (especially with view to the problem of climate change)

Further recommendations

Official statistics contribute to the public debate but cannot be the only provider of information

Make a clear distinction between tasks of statistical offices and of research institutes

Enhance a close cooperation with science and model builders

Intensify the working relationship between national statistical institutes and international organisations

Thank you for your attention!

Walter Radermacher

Telefon: +49 (0)611 / 75 21 00

walter.radermacher@destatis.de

www.destatis.de