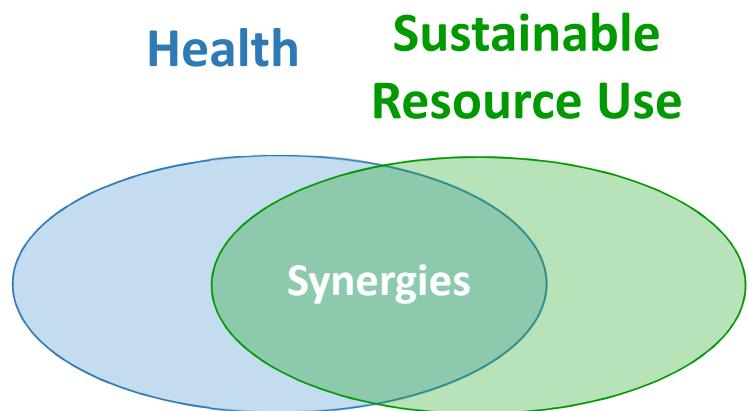


**Introduction – Quantitative results of the UBA research project:
Sustainable Resource Use in the German Health Sector**

Project carried out on behalf of the German Environment Agency (6/2017–8/2020)
by Fraunhofer ISI, K. Ostertag, T. Bratan, C. Gandenberger, B. Hüsing, M. Pfaff

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UBA research project “Sustainable Resource Use in the German Health Sector”



Consumption of raw materials causes environmental problems:

- global consumption of raw materials has more than tripled since the 1970s
- already accounts for about 50 % of greenhouse gas emissions
- responsible for more than 90 % of biodiversity loss
- German per capita consumption of raw materials: 16.1 tonnes (2014)
 - 100 % above global average
 - 10 % above European average

Starting point of the project: UBA Resource Report for Germany 2016

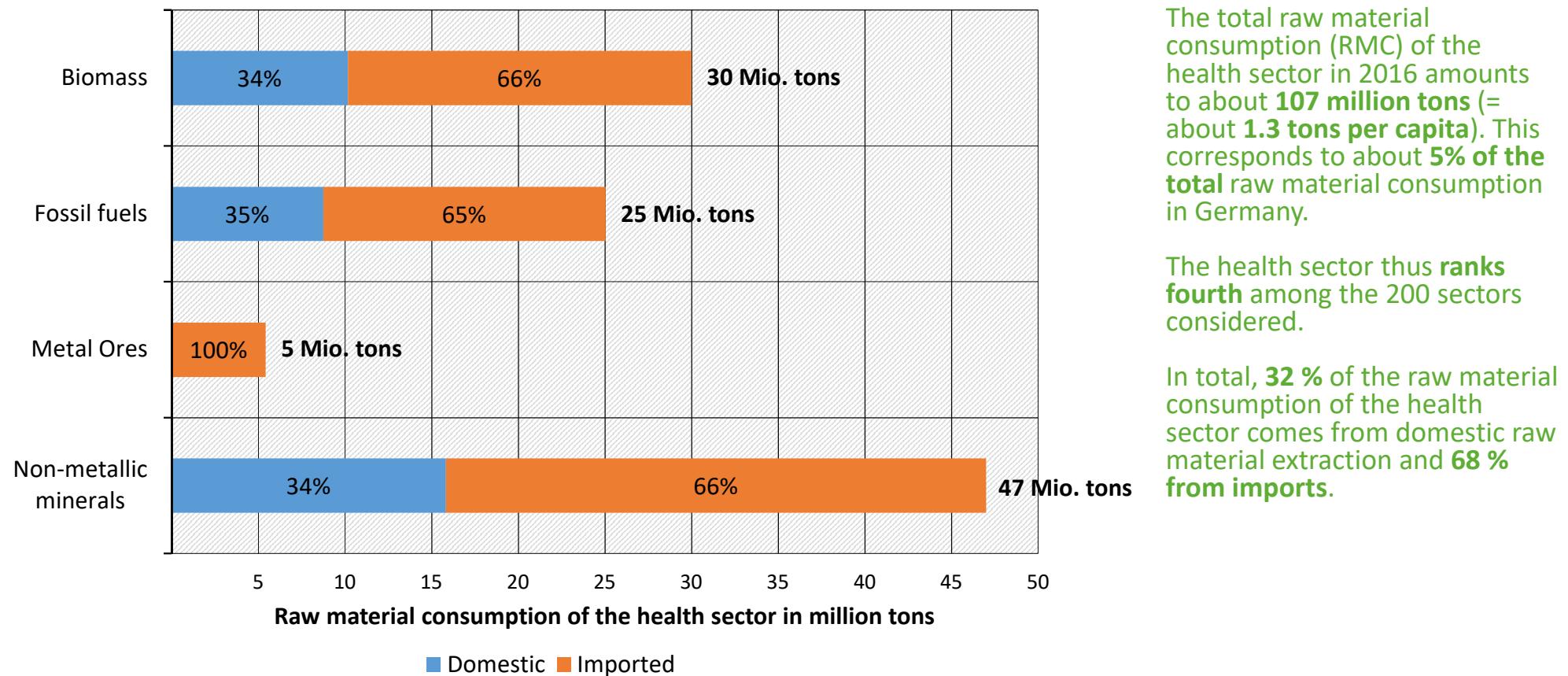
- Health sector accounts for a significant share of total resource consumption
- The health sector's share of total raw material consumption has been rising significantly for years

AIM OF THE RESEARCH PROJECT:

FINDING SYNERGIES BETWEEN THE POLICY AREAS HEALTH AND SUSTAINABLE RESOURCE USE

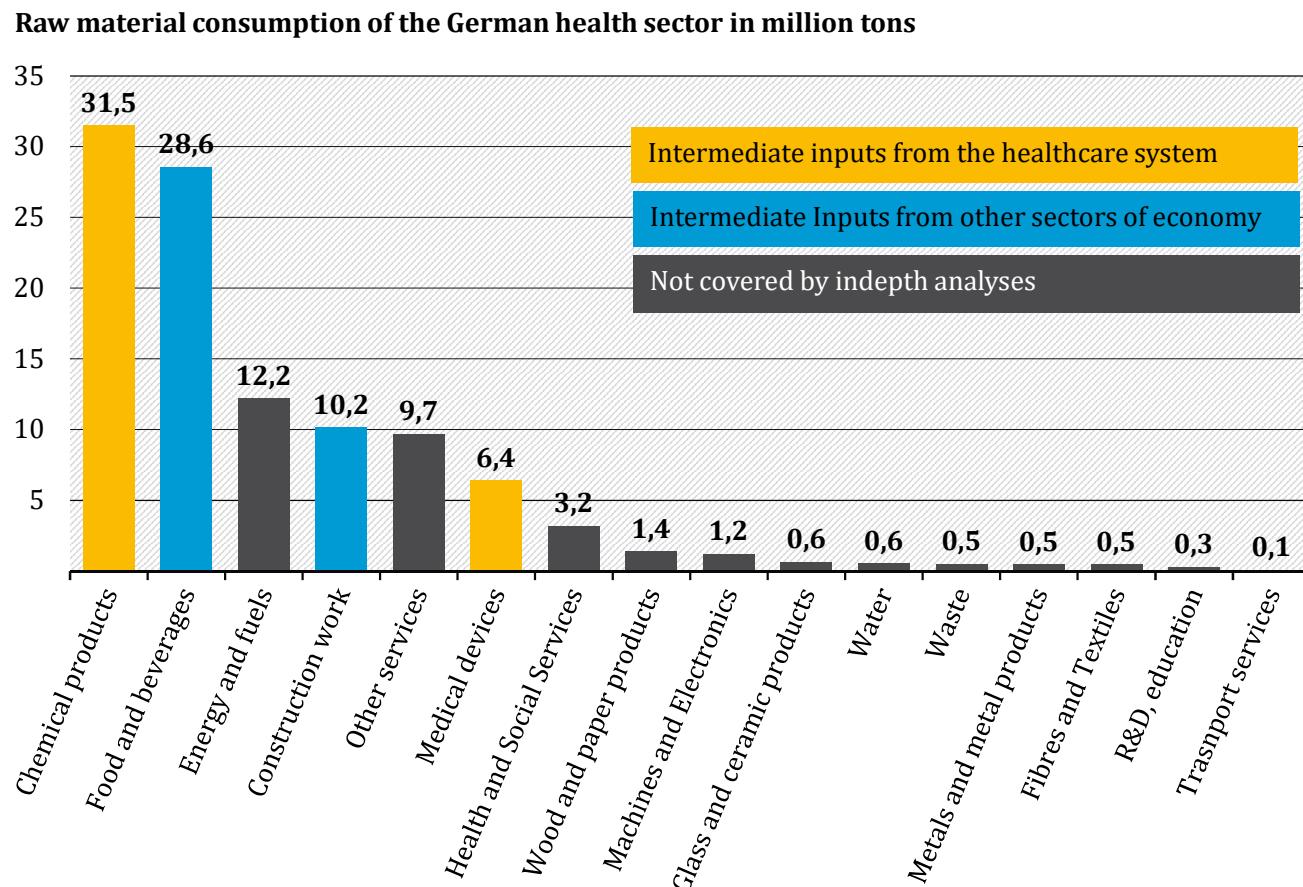
Source: Fraunhofer ISI, Final Report 2020

Overview of the raw material consumption of the German health sector (2016)



Source: Fraunhofer ISI, Final Report 2020

Intermediate consumption of raw materials by the health sector (2016)



At 31 %, the largest use of raw materials in the health sector is through intermediate consumption in the form of **chemical products**.

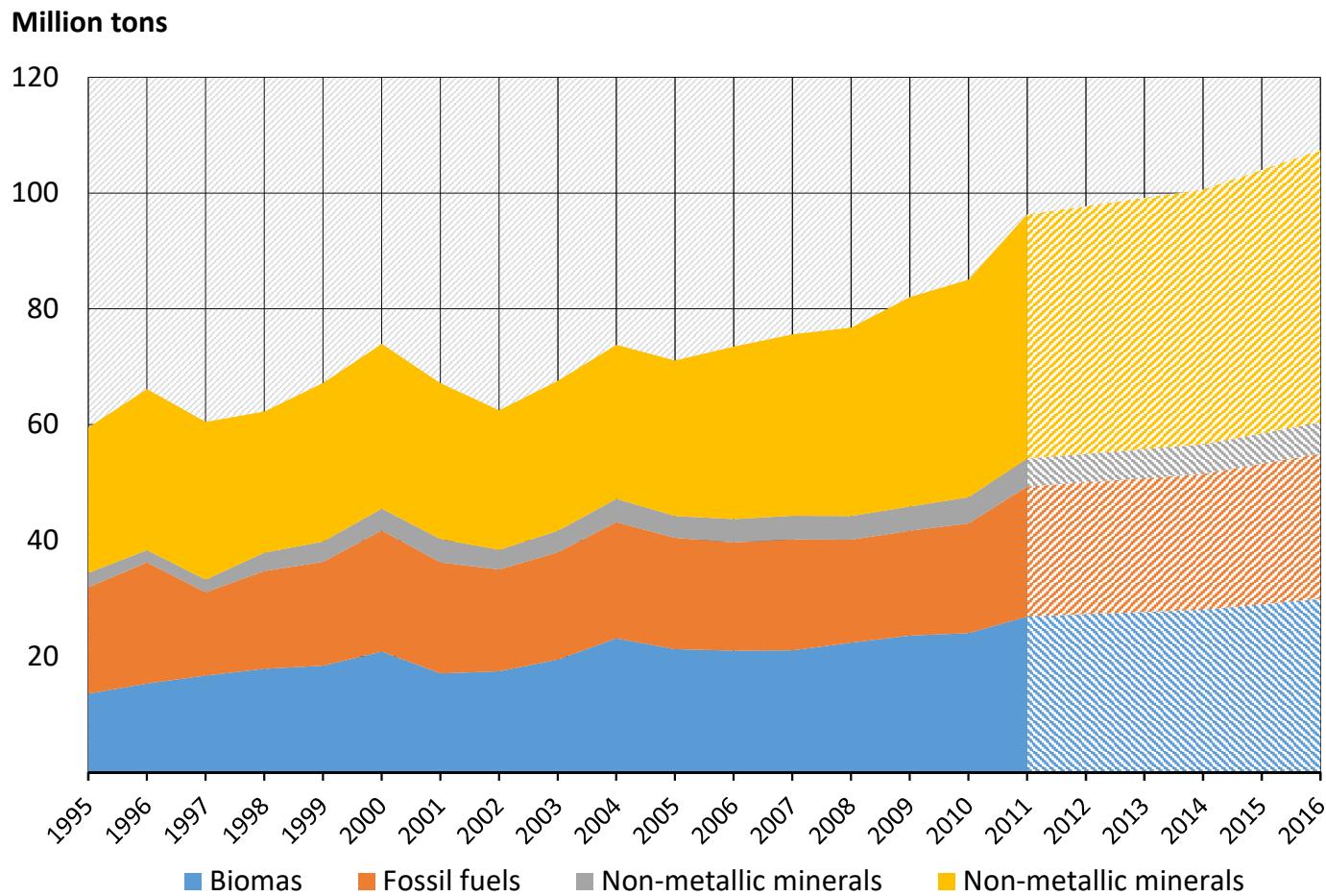
The health care system also includes **medical equipment**, which accounts for about 6 % of its total raw material consumption.

In second place is the **food and drink** sector with about 29 %.

Construction work accounts for about 10 % of the total raw material consumption of the health sector, **energy and fuels** for 12 %.

Source: Fraunhofer ISI, Final Report 2020

Time trend of raw material consumption in the health sector by raw material categories



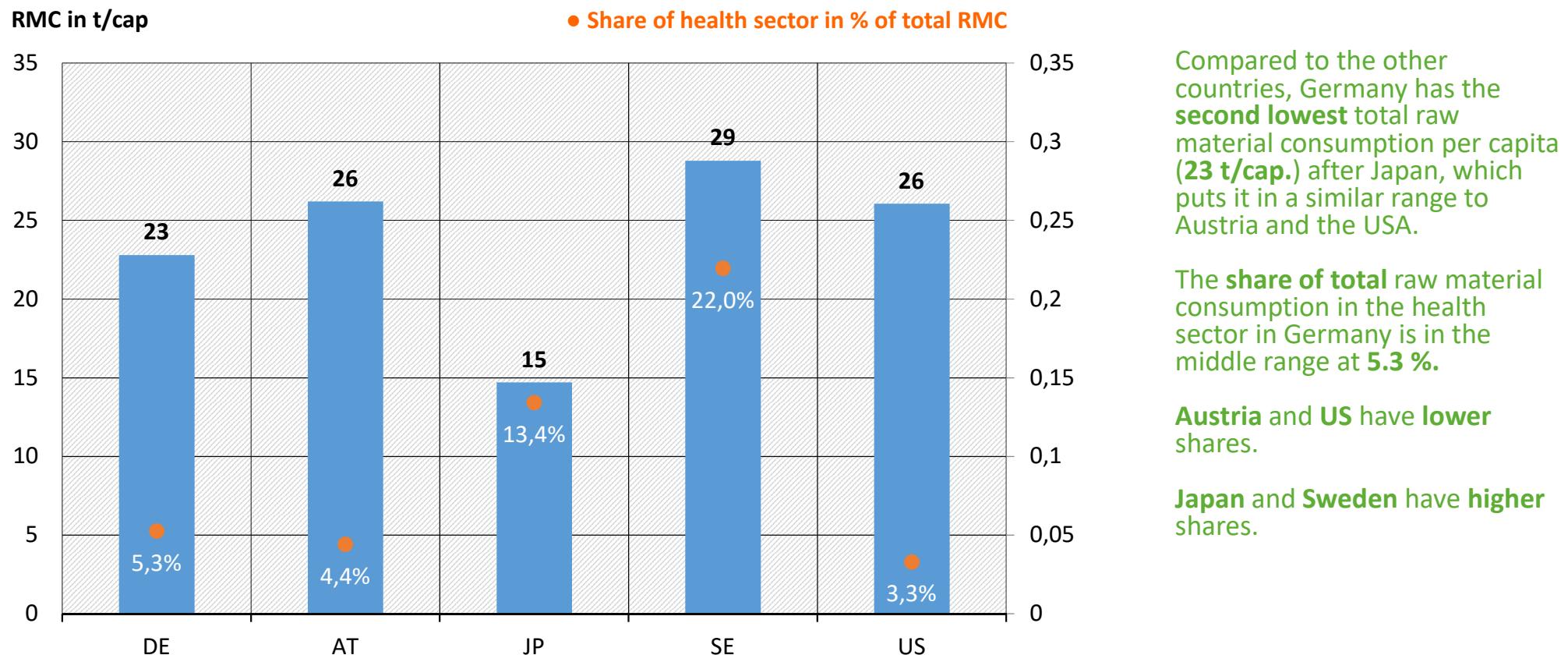
In the period between 1995 and 2016, the consumption of raw materials in the German health sector **increase from just under 60 to 107 million tonnes, i.e. by around 80 %**, with the figures extrapolated linearly from 2011 onwards.

Among them, the consumption of biomass and **metal ores** has more than **doubled**, while the consumption of **non-metallic minerals** has increase by about **90 %** and the use of **fossil fuels** by about **40 %**.

In contrast to developments in the health sector, Germany's **overall consumption** of raw materials has tended to **decrease** slightly since 1995.

Source: Fraunhofer ISI, Final Report 2020

Country comparison of total raw material consumption (RMC) in the health sector



Source: Fraunhofer ISI, Final Report 2020

Many thanks for your attention !

**Umwelt
Bundesamt**

Parallel session 5: Sustainability, climate protection and resource efficiency in the health sector

Christopher Manstein, German Environment Agency (UBA)

- Dr. Tanja Bratan, Fraunhofer Institute for System and Innovation Research
- Dr. Ulli Weisz, Institute of Social Ecology
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