Fraunhofer
ISI

Umwelt Bundesamt

Resources and Health Care

Conserving resources in the health care sector – exploiting synergies between the policy fields of resource conservation and health care (FKZ-No. 3717 31 104 0)
Contractor: Fraunhofer ISI, duration: June 2017 – June 2020

Project objectives

The objective is to analyze and utilize the synergies and potentials between the policy fields of resource conservation and health care.

The project begins by calculating how much the health care sector contributes to total raw material consumption in Germany in order to identify important levers to improve resource efficiency. In another step, stakeholders who can play a significant role in improving resource efficiency in the German health care sector are identified and involved in the project, i.a. through workshops. In addition, good practice cases are collected.

Preliminary results

Calculations of direct and indirect resource consumption based on extended input-output tables show that the health care sector accounted for approx. 5 % of German raw material consumption (RMC) or 96 million tonnes in 2011. A large proportion of these raw materials are imported from abroad (Figure 1).
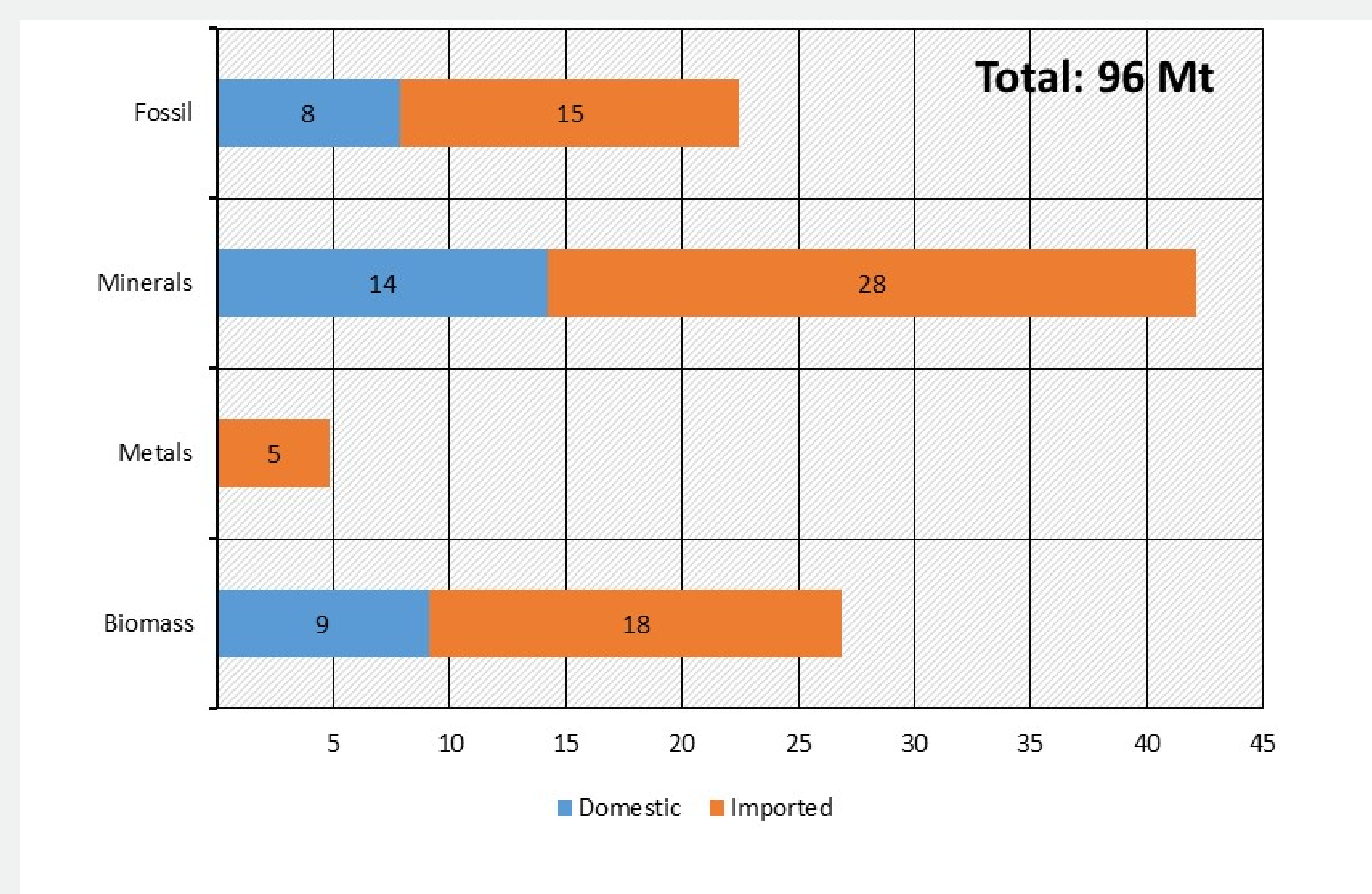

Figure 1: Consumption of raw materials in the German heath care sector in 2011 (Source: EXIOBASE, Fraunhofer ISI calculations)
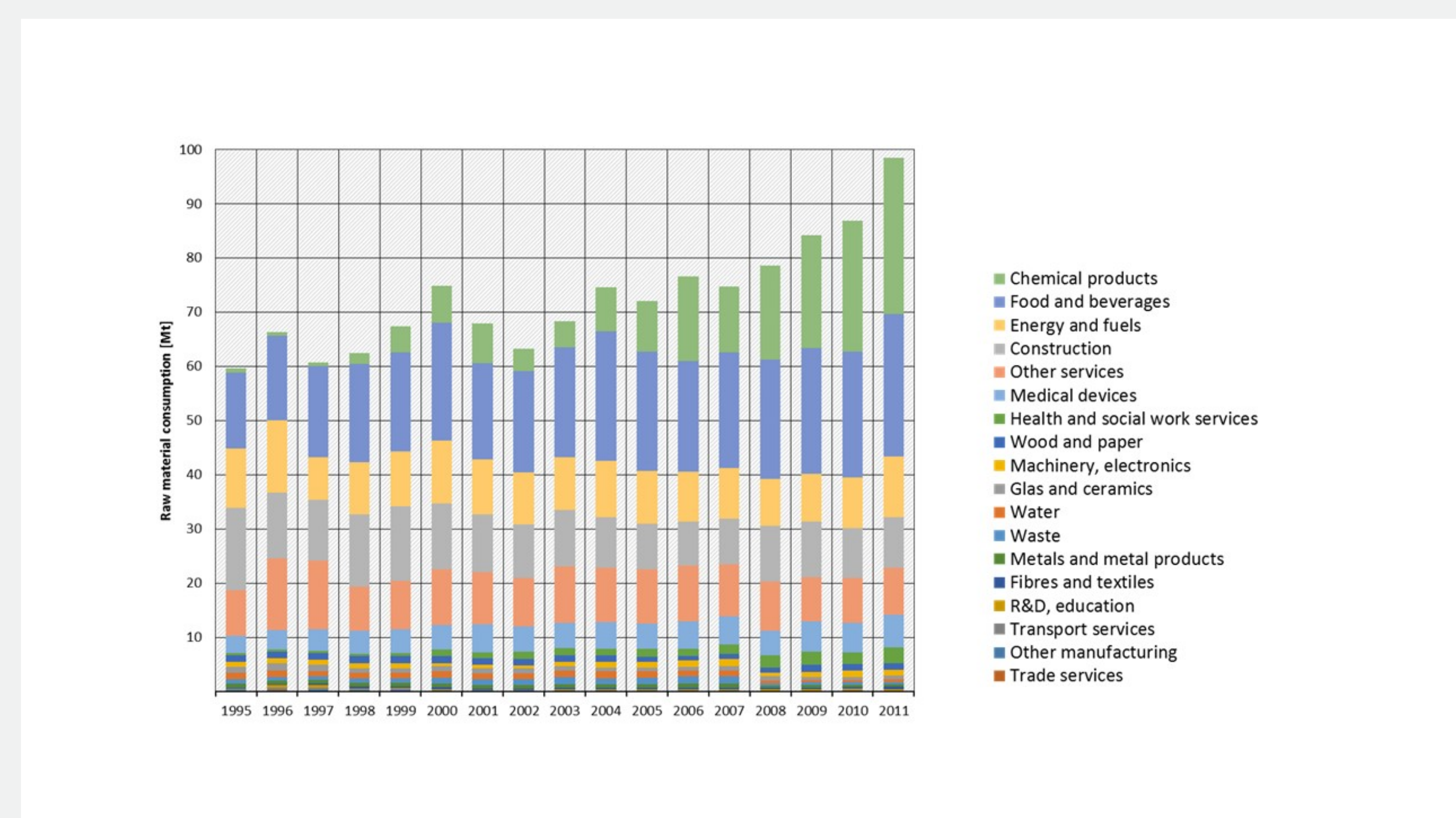

Figure 2: Development of the consumption of raw materials in the German health care sector over time, differentiated by input sectors (Source: EXIOBASE; Fraunhofer ISI calculations)

The health care sector's most important resource-relevant inputs are chemicals (including pharmaceuticals), food and beverages, energy, construction activities and medical devices (Figure 2).

Stakeholders

The structures and institutions of Germany's health care system are documented in a stakeholder analysis. Figure 3 shows the different stages of value creation in the health care system. The actual health care sector providing inpatient and outpatient services forms the core of this system. However, the upstream stages of the value chain are also very important when analyzing resource consumption. The shaded sections show the classification in the production statistics.
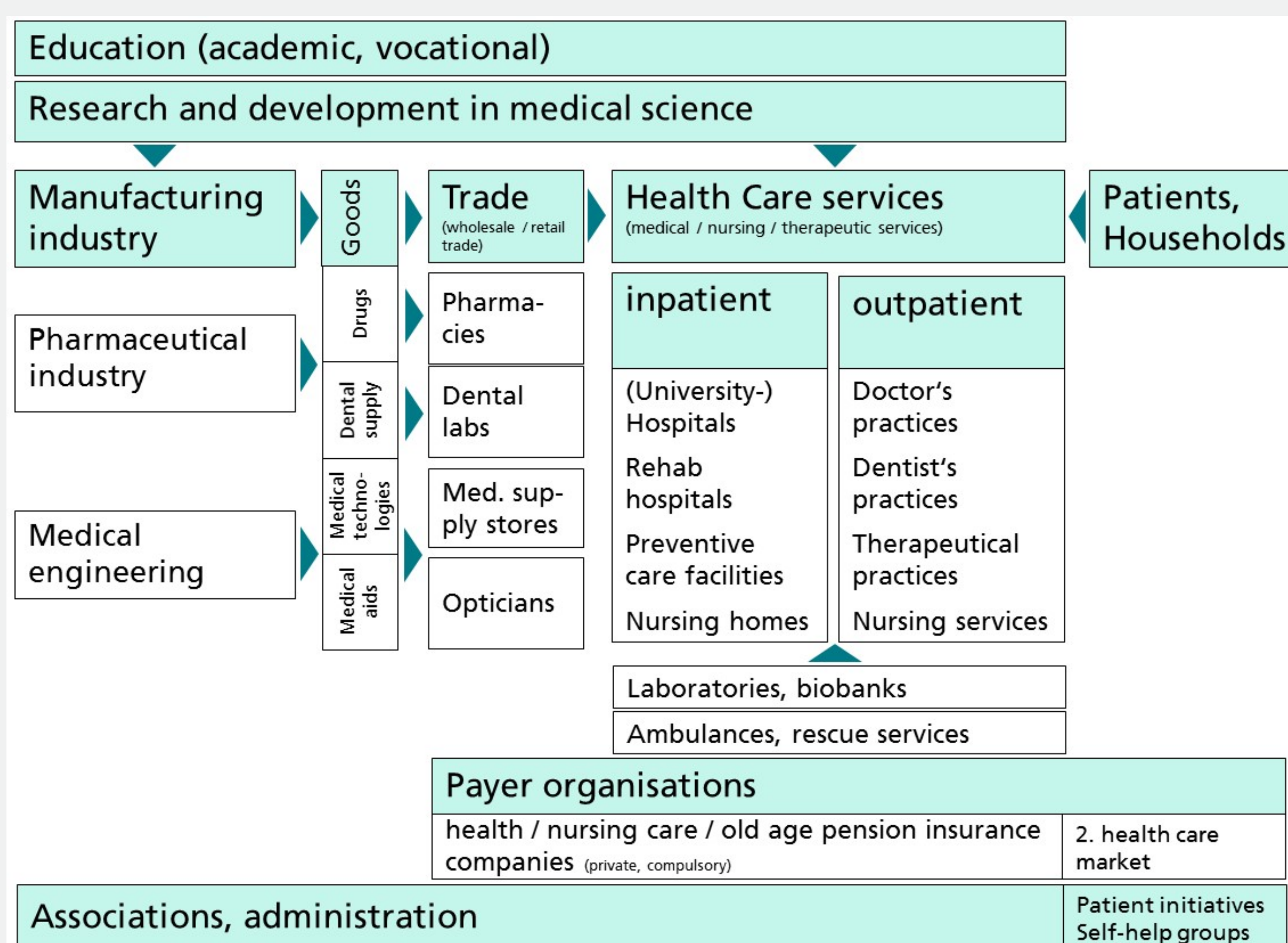

Figure 3: Structures and institutions in Germany's health care system (Source: Fraunhofer ISI)

The analyses reveal that there are a number of stakeholders in the German health sector who are already active in conserving resources and protecting the environment. However, this topic receives little attention from the wider majority. The degree to which the existing activities in the health sector are already interconnected with environmental policy processes is also still rather low.