For our Environment

Umwelt Bundesamt

EIONET Webinar „Targets for Resource Efficiency“

Economy wide targets on resource use – the continuous development of raw material productivity in Germany

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Fundamental Aspects, Sustainablity Strategies and Scenarios, Sustainable Resource Use

Economic Challenges for Germany

- Materials account for 43% of costs in German manufacturing sector
- Rising and volatile prices
  - 85% of German entrepreneurs report a moderate or even dramatic rise in material costs in last 8 years
  - 97% expect rising costs in future
- Germany depends on imports
  - 66,8 % of metals imported in 2010
- Secure resources supply and resource efficiency

National Strategy for Sustainable Development „Perspectives for Germany“

Sets the main route on resource efficiency policy:

Decoupling of economic growth and resource consumption and absolute reduction of resource use and its impact on the environment

- Doubling of the abiotic material productivity by 2020 based on 1994 (indicator GDP/abiotic DMI)
- Doubling energy productivity by 2020 compared to 1990
  (indicator GDP/TPES)
- Reduction of land sealing to the daily growth of 30 ha in 2020
  (indicator increase in sealed area per ha and day)

Abiotic material productivity

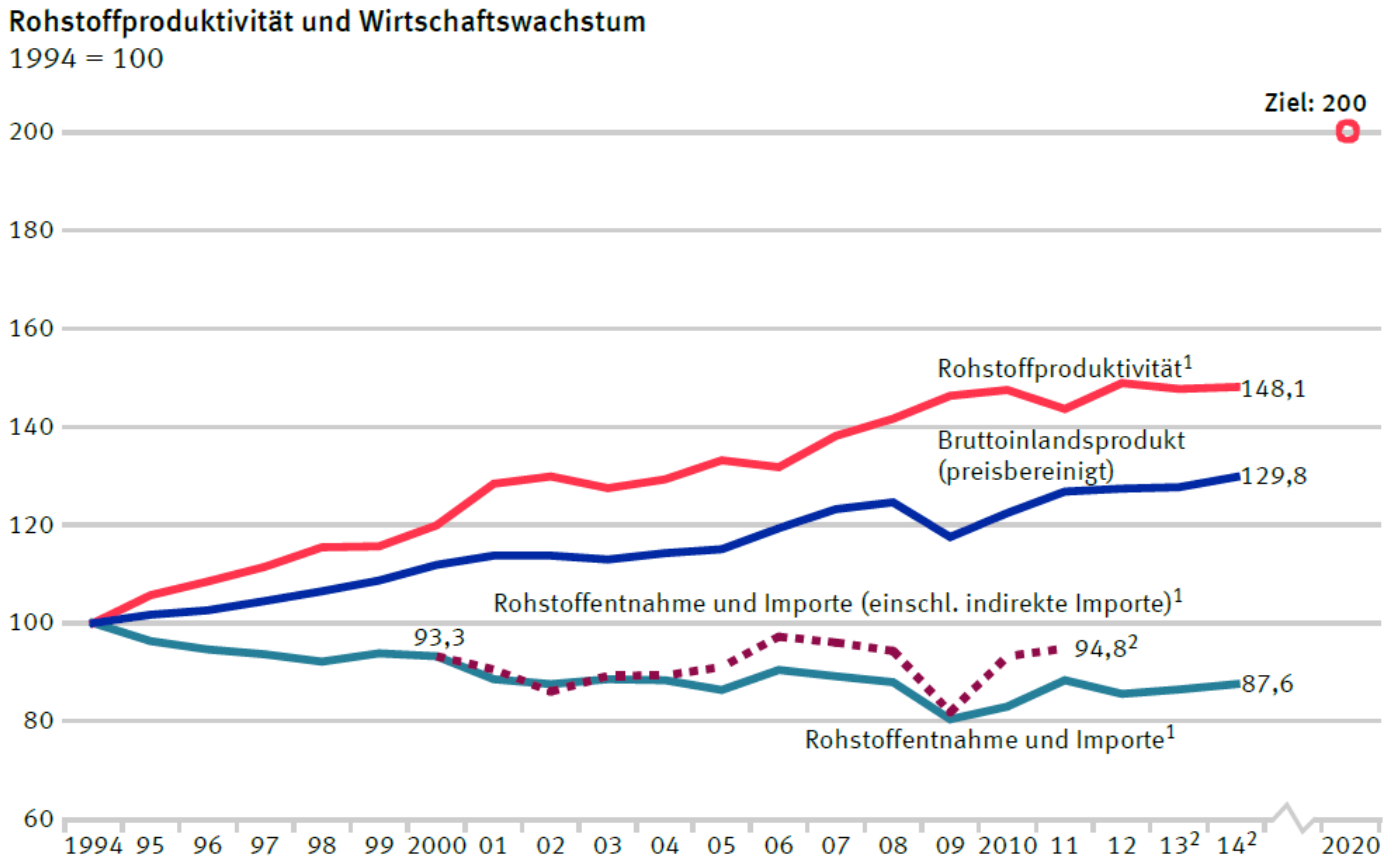
Components

- Gross domestic product
- Abiotic Direct Material Input (abiotic DMI)
  - Domestic raw material extraction
  - Imports of raw materials, semi-manufactured and finished products

Why “abiotic” DMI?

- DMI as indicator to estimate the material use of German economy within its borders
- Dependency on abiotic raw materials e.g. metals
- At time of development biomass was seen as renewable and nearly unlimited available
- Substitution of abiotic material by biomass should be reflected

Abiotic Material Productivity



1 Abiotisch. 2 Vorläufige Daten, Rechenstand: September 2015.

Source: Destatis(2015): Umweltökonomische Gesamtrechnung – Nachhaltige Entwicklung in Deutschland Indikatoren zu Umwelt und Ökonomie

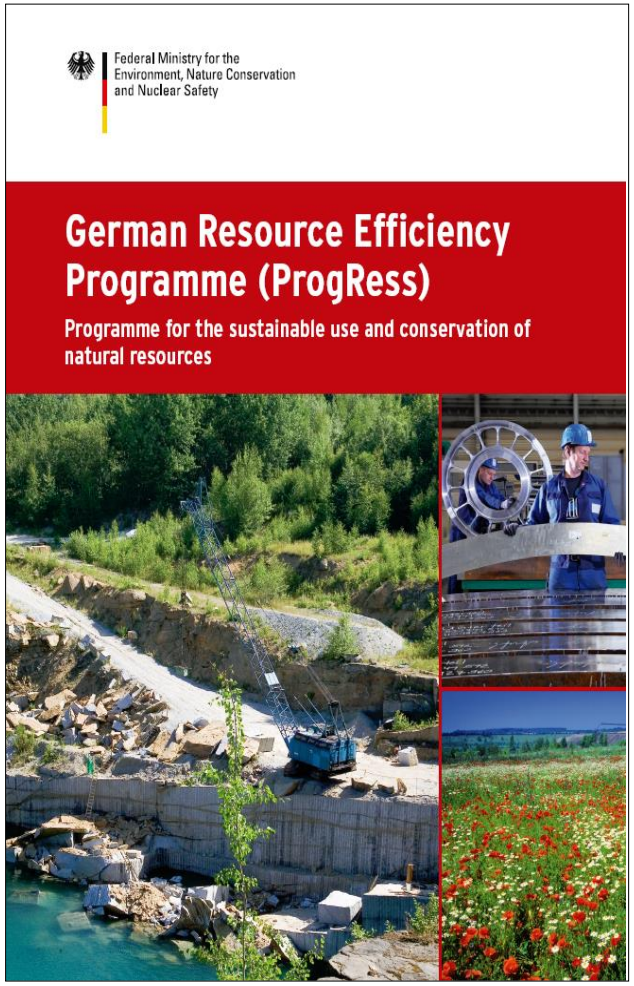
The German Resource Efficiency Programme (ProgRess)

Adopted 29 February 2012 by entire government and update in March 2016

Goals:

- **Decouple** economic growth from resource use
- **Reduce** environmental impacts of resource use
- **Improve** the sustainability and competitiveness of the German industry

- **Doubling of the abiotic material productivity by 2020 based on 1994 (indicator GDP/abiotic DMI)**



ProgRess: Guiding Principles

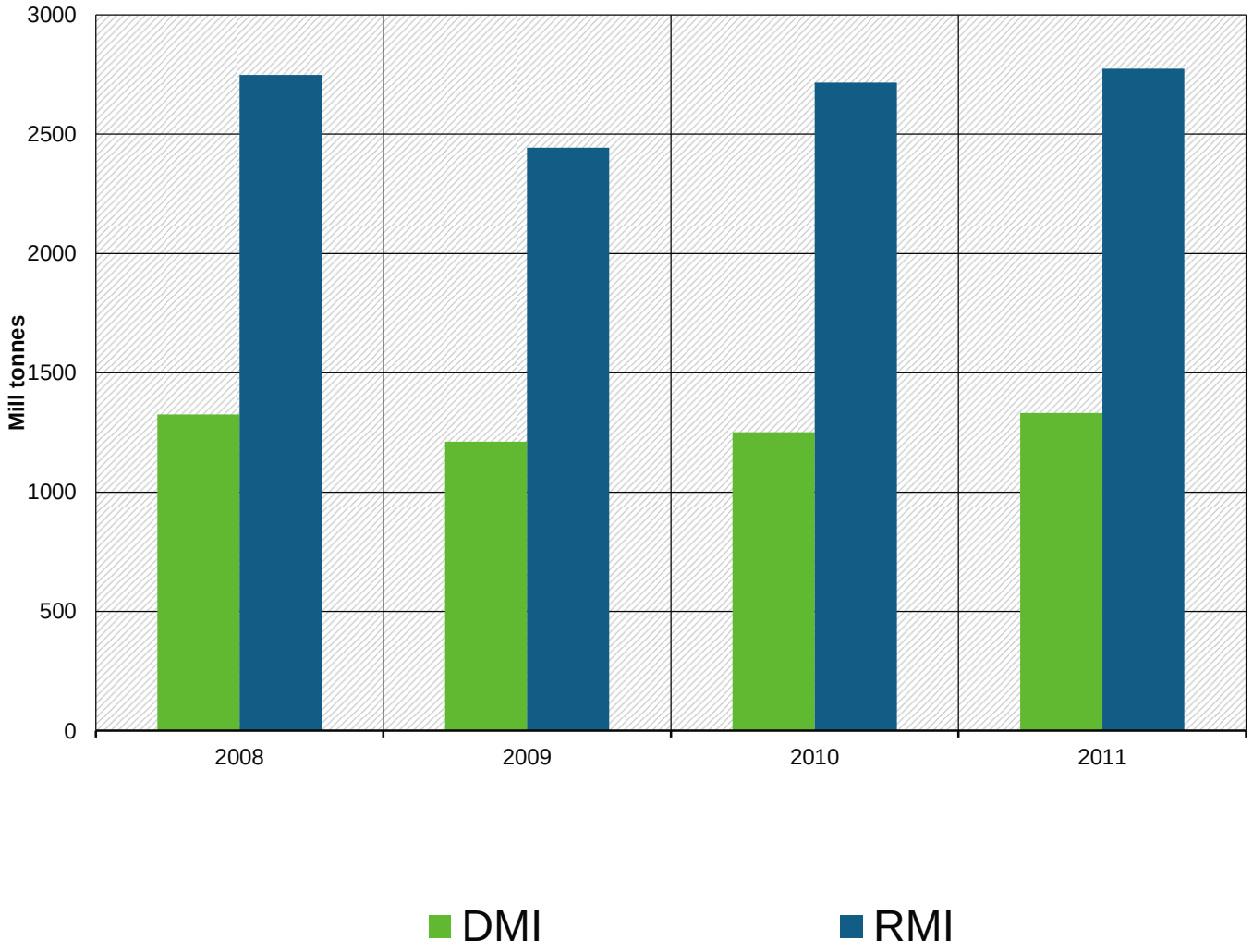
Guiding principle 1:
Joining ecological necessities **with** economic opportunities**, innovation support and social responsibility**

Guiding principle 2:
Viewing global responsibility **as a key focus of our national resource policy**

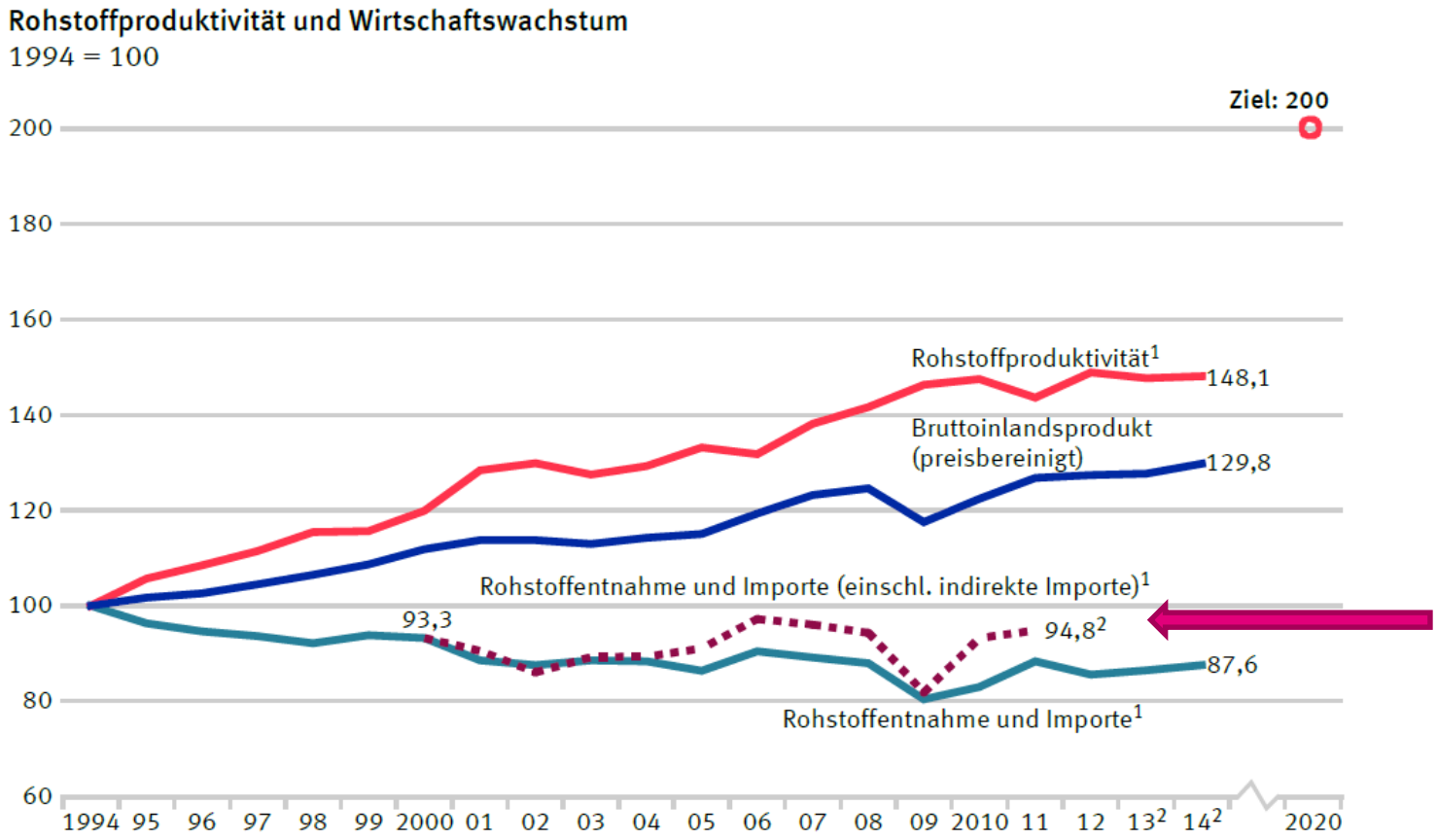
Guiding principle 3:
Gradually making economic and production practices in Germany less dependent **on primary resources, developing and expanding** closed cycle management

Guiding principle 4:
Securing sustainable resource use for the long term by guiding society towards quality growth

Comparision of DMI and RMI



Abiotic Material Productivity plus RMI



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Targets in ProgRess II

New indicator: Total Raw Material Productivity

- Gross Domestic Product + monetary value of imports (raw materials, semi-manufactured and finished products)
- Raw Material Input (including biomass)

Targets

- Doubling of the abiotic material productivity by 2020 based on 1994 (indicator GDP/abiotic DMI)
- Extrapolation of the development of total raw material productivity from 2000-2010 until 2030
- Plus targets on circular economy

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Thank you for your attention!

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http://www.umweltbundesamt.de/themen/abfall-ressourcen

European Resources Forum 2016
http://www.resourcesforum.eu

Conference Decarbonisation and Resource Efficiency – 100% Renewable Energy and more
https://www.umweltbundesamt.de/en/conference-decarbonisation-ressource-efficiency