

# Green Economy Report NRW 2017

Brussels, 4 July 2018  
Dr. Jan-Philipp Kramer, Head of Brussels-Office, Prognos AG



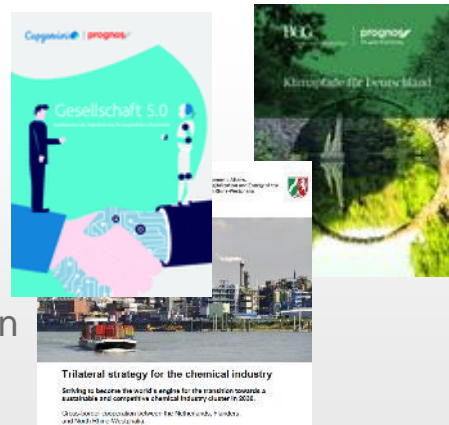
## About us

### Prognos analyses long term developments ...

- Prognos Economic Outlook®
- German Economy Report 2040
- World Transport Report 2040

### develops and evaluates strategies...

- Future policy frameworks (ESIF, R&I)
- Smart Specialisation Strategies
- Sector reports (green economy, chemicals, mobility...)
- Strategic scientific support on sustainability aspects, energy transition etc.



### ... and current trends and priorities,

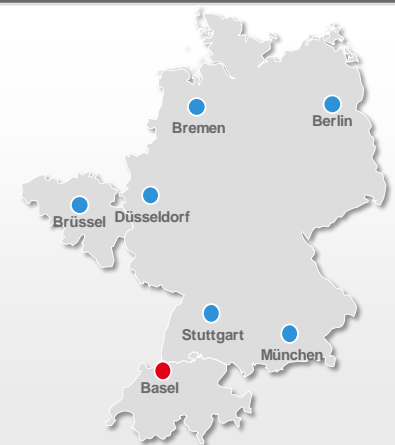
Prognos Future Atlas & Digitalisation Compass

Status Report Circular Economy DE

Trend Report “Digital State”

### ... for clients across Europe.

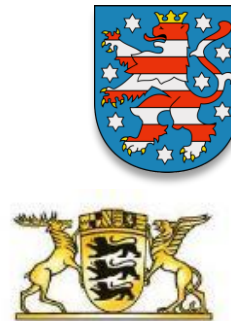
- approximately 150 experts at 8 locations
- ...founded in Basel in 1959,
- ..with Berlin being our centre at Federal level,
- ...and Brussels being our “gateway” to Europe



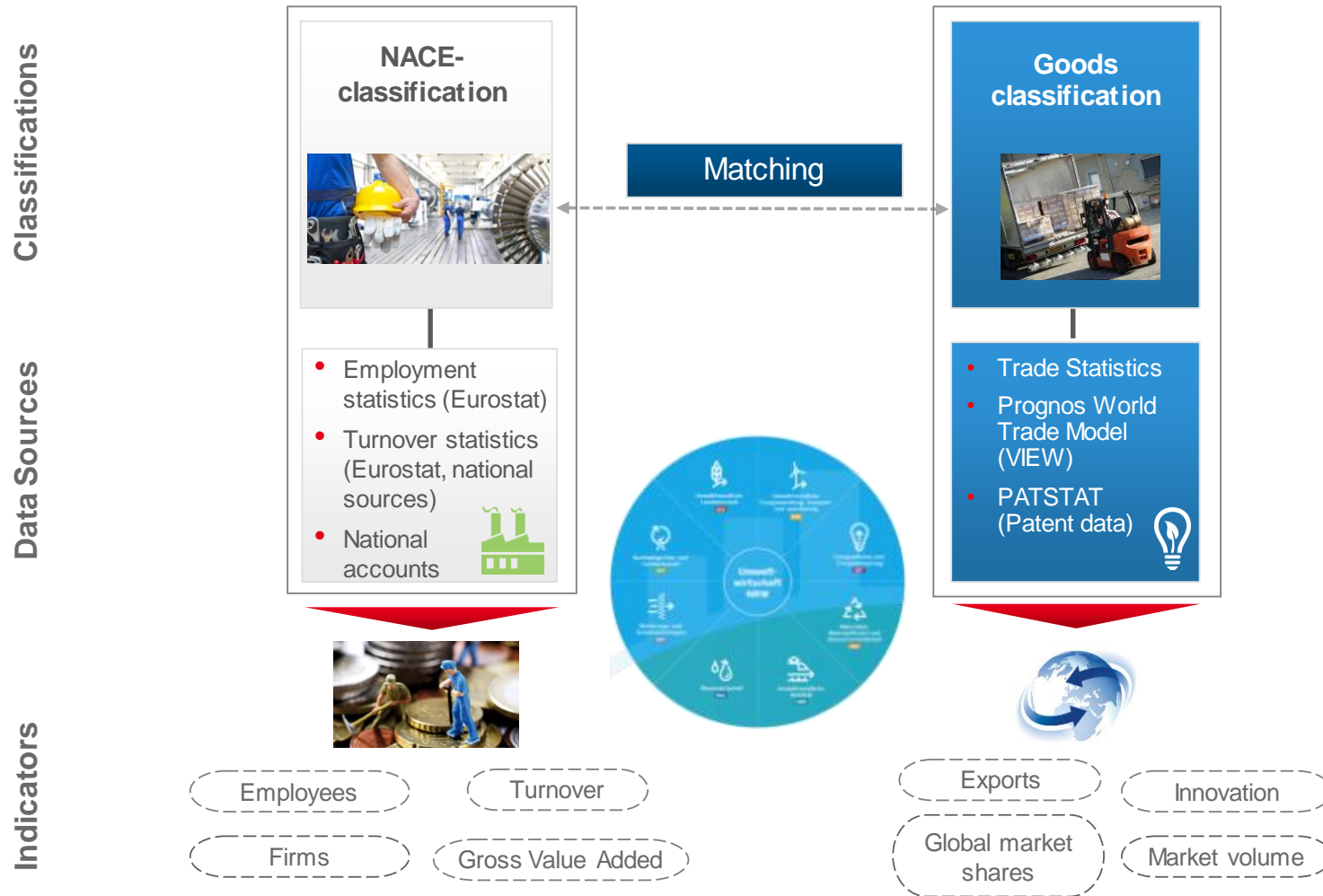
*envigos* – a proven model to depict the goods and services of the Green Economy



- ▶ Collection of data on **employment, turnover and international trade**
- ▶ Detailed account at the level of **sub-markets, market segments and technology fields**
- ▶ Shows the **Green Economy** in relation to the **overall economy**
- ▶ Can be applied **regionally to globally**
- ▶ Assessment of specific **development trends**



Model for environmental industry, goods & services – *envigos*



- ▶ Prognos Model for environmental industry, goods and services
- ▶ Ability to simultaneously display relevant sectors and goods procurement of the cross-sectoral industry “Green Economy“
- ▶ Enables to anchor central data sources such as the economic classification (NACE 2008) and the Goods Statistics (GP 2009) as an integrative basis
- ▶ Establishes the economic relevance and importance based on regionalized sectoral data such as employment and turnover.

# Importance of the Green Economy in North Rhine-Westphalia



**27.7 bn. €**

Gross value added (2015)



**+ 18.1 % Growth**  
+ 3.4 % p.a. (2010 – 2015)



**66.3 bn. €**

Turnover (2015)

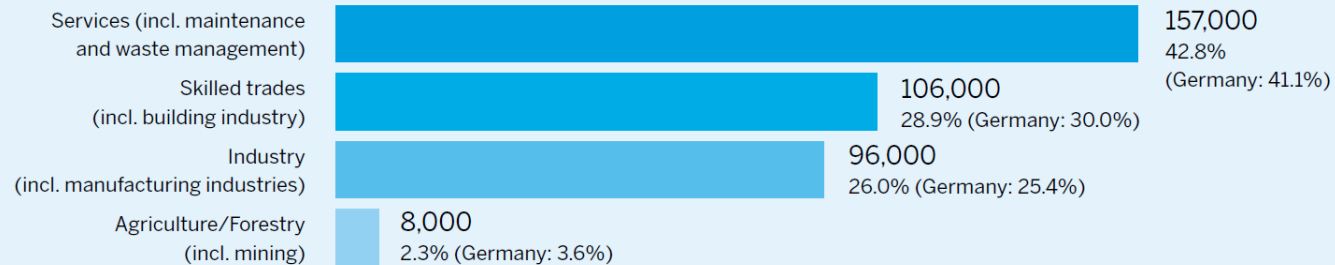


**+ 5.2 % Growth**  
+ 1 % p.a. (2010 – 2015)



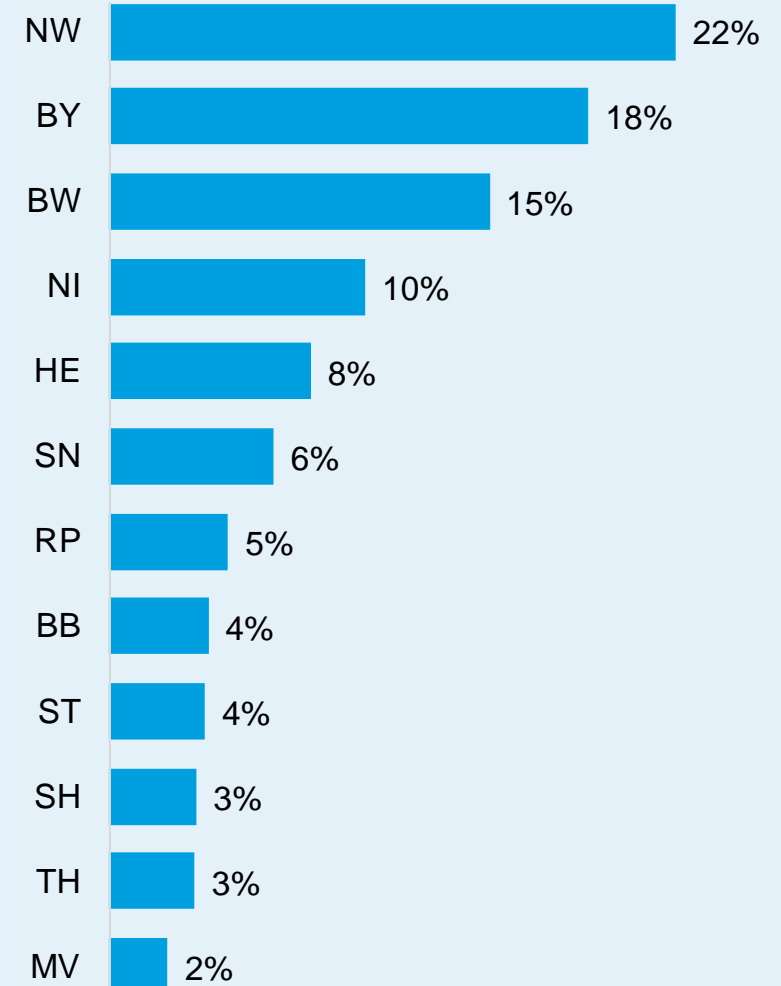
**368,000 employed persons**  
(2016) ▶ **+ 10.2 % Growth**  
+ 1.6 % p.a. (2010 – 2016)

## Employment structure of the Green Economy by sector



Source: BA, IT.NRW, own calculations

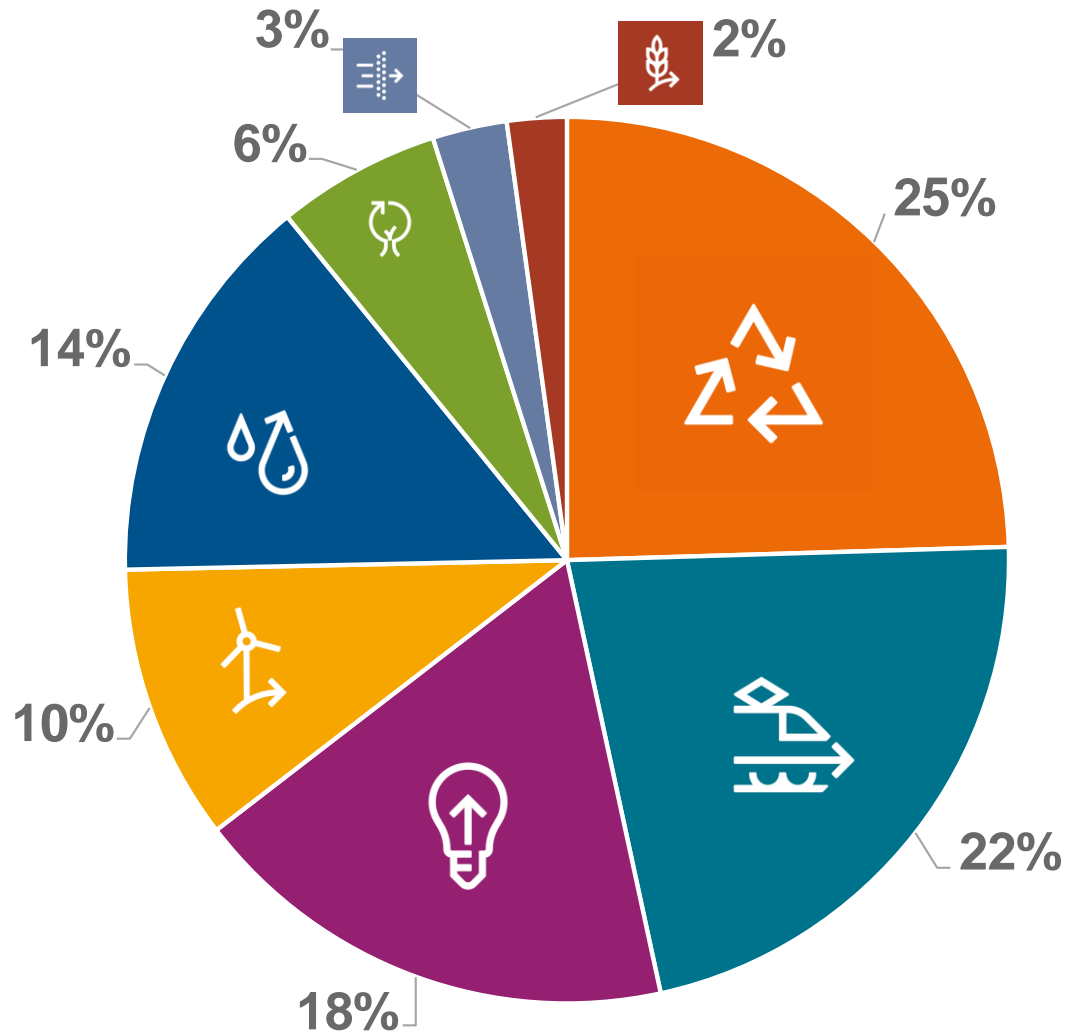
## Share of the national Green Economy employment by state\*



\* Excluding 3 city-states and the state Saarland, including only employees subject to social security contribution



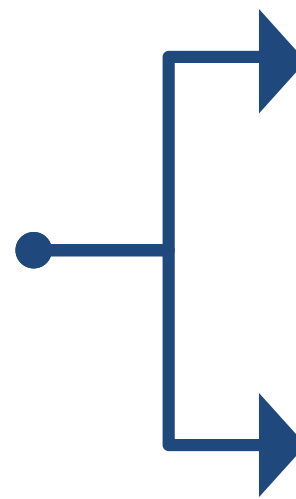
### Employment share by submarket (2016)



- Materials, material efficiency and resource management
- Green mobility
- Energy efficiency and energy conservation
- Environmentally friendly energy conversion transportation and storage
- Water and sewage systems and management
- Sustainable forest management and wood industry
- Pollution monitoring, migration and restoration technologies
- Environmentally friendly farming



# International markets of the Green Economy



**Exports** from NRW  
and Germany

World market &  
**import volume** of  
global markets



© iStock - fatchoi

▶ **10.4 bn. €**  
export volume (2016)

**69 % of exports go to EU  
Member States** (2016)

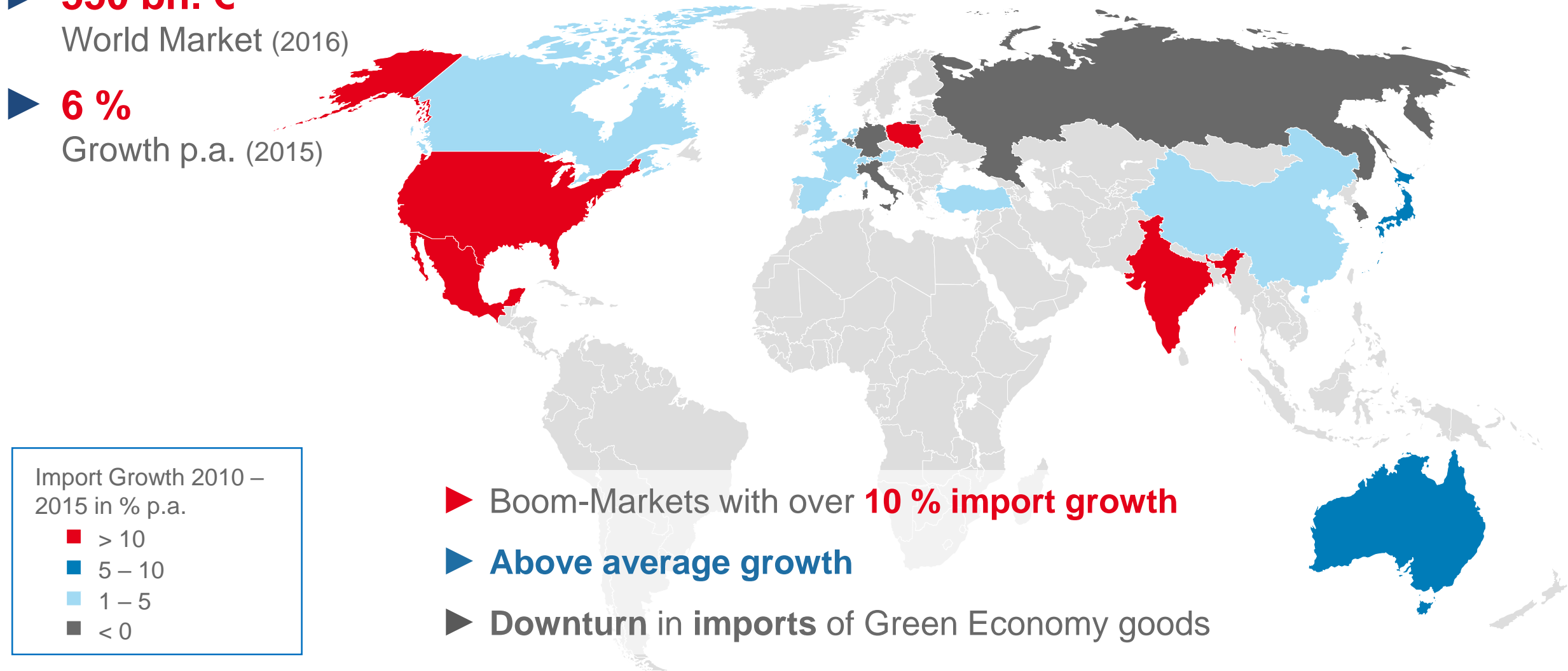
▶ **5.8 %**  
of NRW's exports (2016)



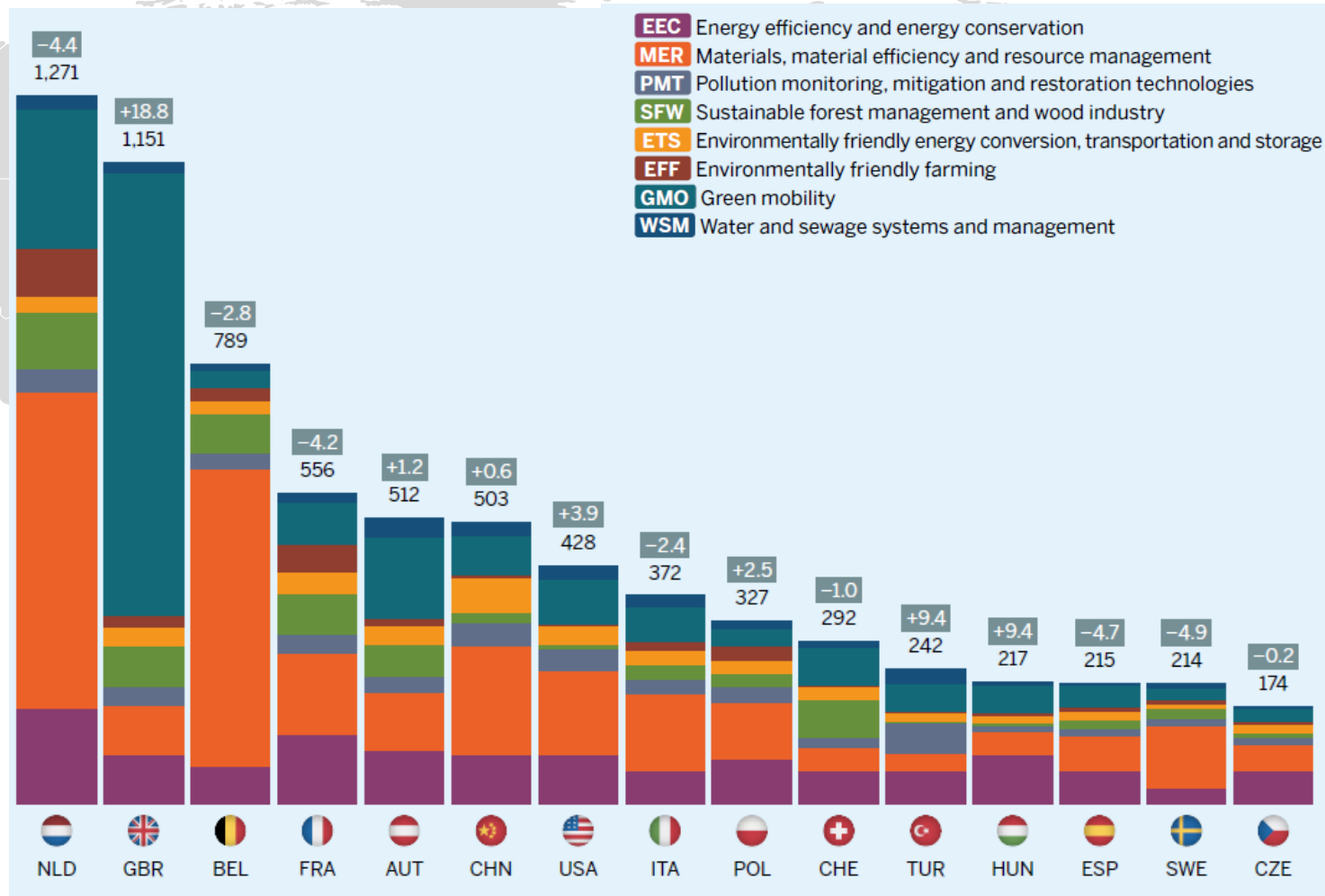
Source: Destatis, own calculations Prognos 2017

▶ **550 bn. €**  
World Market (2016)

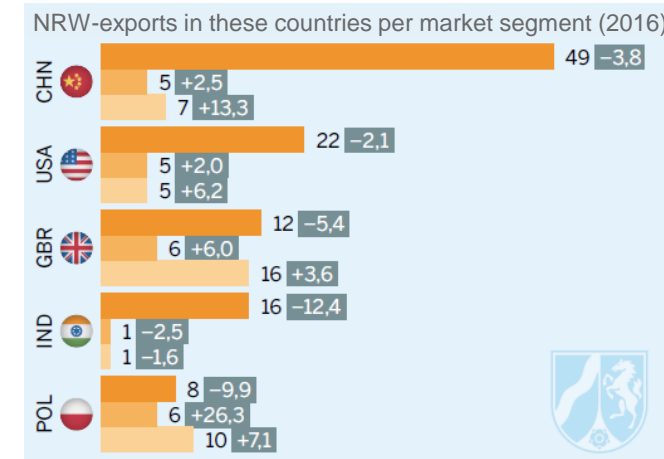
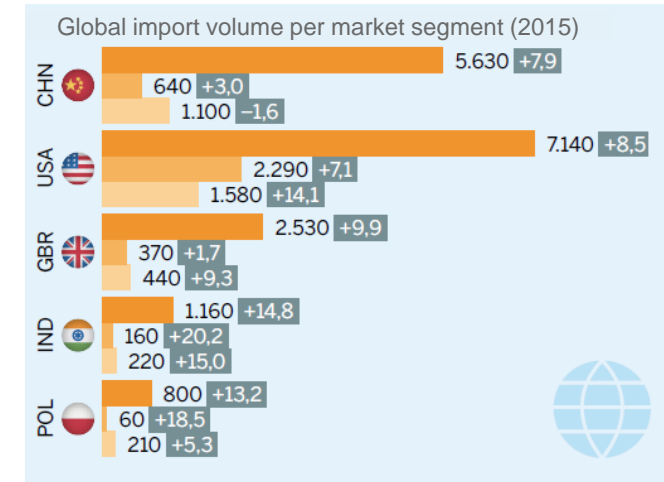
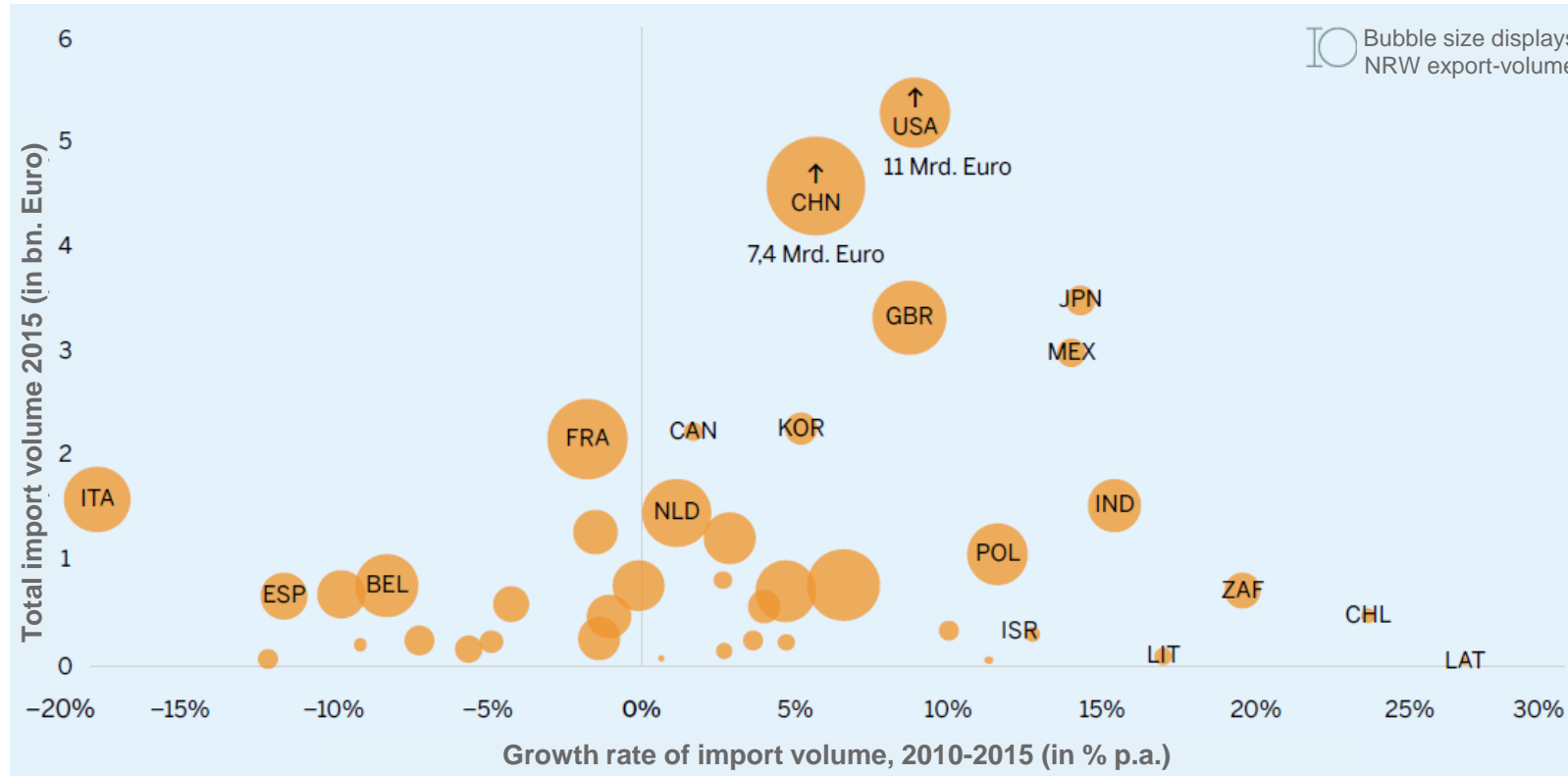
▶ **6 %**  
Growth p.a. (2015)



## NRW's Green Economy exports by submarket and country (Top 15) (in mio. € and 2010-2016 % p.a.)



## Size and development of sales markets in the sub-market “Environmentally friendly energy conversion, transportation and storage”



# Innovations in the North Rhine-Westphalian Green Economy



**Patented inventions** of  
the Green Economy



**Big Data**  
Analysis

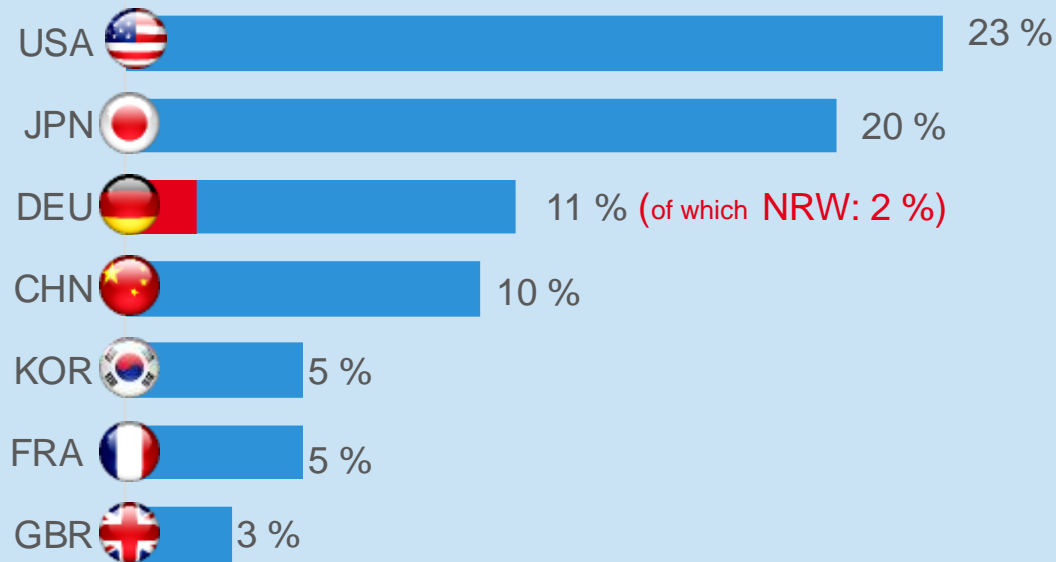


Display of the **innovative capability** of the  
Green Economy in NRW



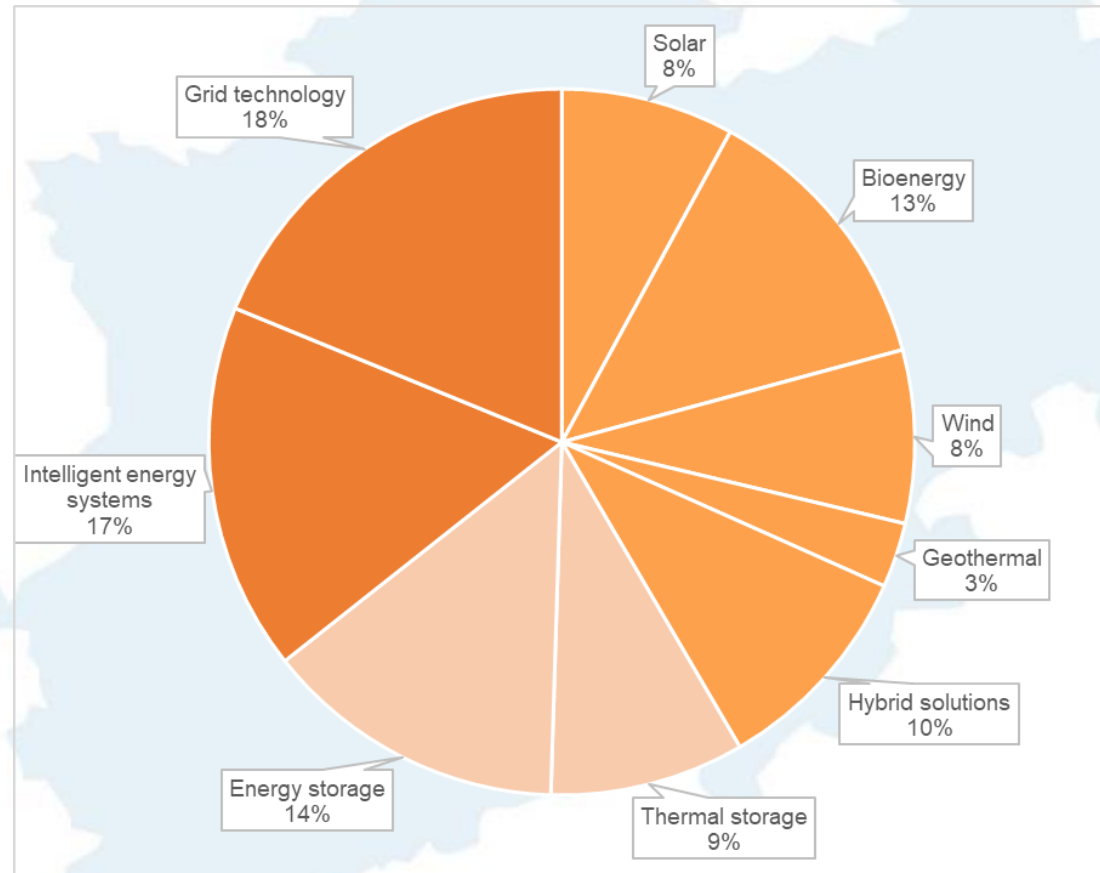


## Share of global patent registrations by country in the Green Economy, 2014



- ▶ **China is catching up and will overtake us** – from 6 % to 10 % (2010 – 2014)
- ▶ **Japan and Korea are asian market leaders** in digital controlling and IT
- ▶ **NRW – Innovation driver** in Germany
- ▶ NRW - Share increased above average in **Green Mobility** und **Sustainable Forest Management and Wood Industry**

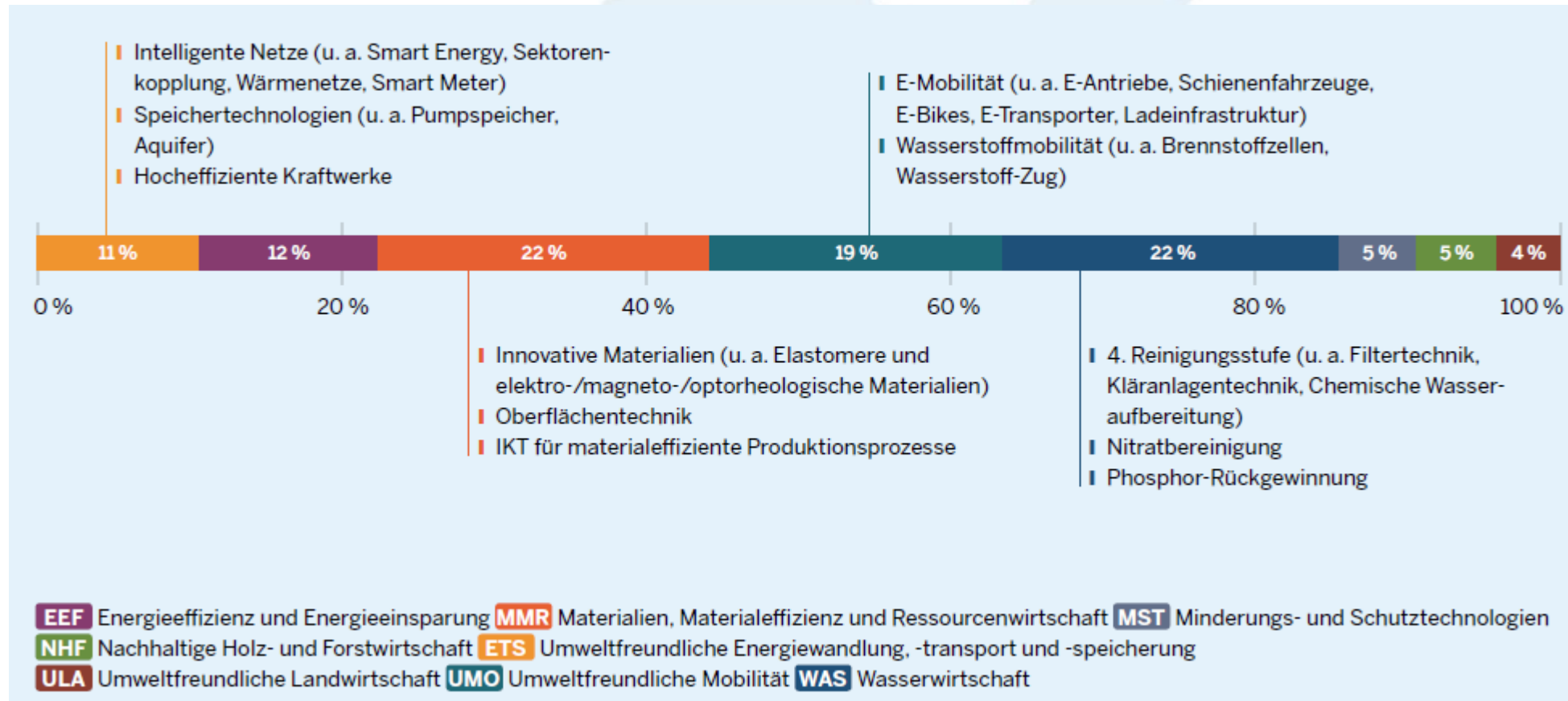
## Innovation foci in the sub-market Environmentally friendly energy conversion, transport and storage



■ Renewable Energy ■ Energy Storage Technology ■ Intelligent Energy Systems and Grid Technologies



## Metropolitan Area – Ruhr: Innovation fields & patent share



## Green Economy – Some conclusions

- ▶ NRW well positioned with a **reporting system, strategy process and network platform** in place
- ▶ Green Economy, as a cross-sector, is a highly **meaningful & competitive economic factor**
- ▶ Green Economy perceived by many stakeholders as **enabler for economic transformation**

## Topics for the discussion

- ▶ What role should the Green Economy play in the context of the discussion about a **Circular Economy**?
- ▶ How relevant is the **enabler function** and should this be measured more explicitly?
- ▶ Is there room for a **harmonised classification**?
- ▶ What other fields of **practical utilisation** of the results in the EU context exist?

NRW Green Economy Website and Video: <https://www.umweltwirtschaft.nrw.de/willkommen/>



Thank you very much for your interest!



## Providing Orientation.

Prognos AG – European Centre for  
Economic Research and Strategy Consulting.

---

prognos | Rue de la Loi 155 | 1040 Brussels

---

**Dr. Jan-Philipp Kramer**

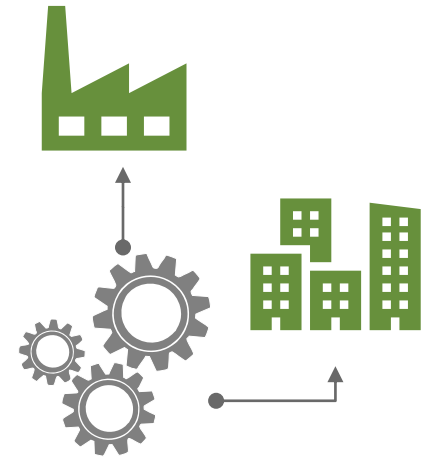
Head of Brussels Office

Tel: + 49-173-2925335

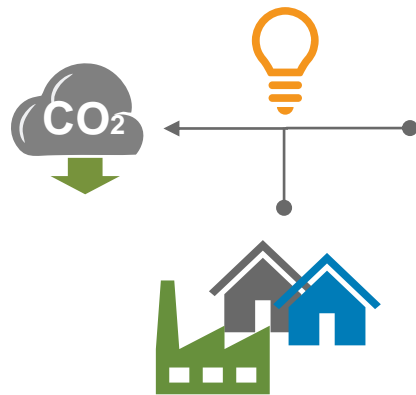
E-Mail: [jan.kramer@prognos.com](mailto:jan.kramer@prognos.com)



Industrial System Components



Increase in **Energy Efficiency** and **Reduction of Greenhouse Gases**



Closing of **Materials Cycles**

