

Iceland and the Energy Transition

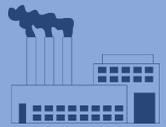
Gudni A Jóhannesson
Dir. Gen. Orkustofnun
The Icelandic Energy Authority



Emissions

- International from Iceland
- Land based
- ETS emissions
- Emissions subject to national commitments

Iceland 2014



2.074.000 t



861.000 t



748.000 t



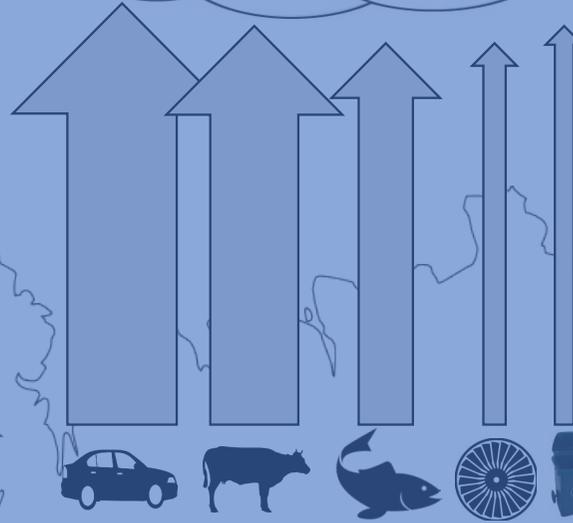
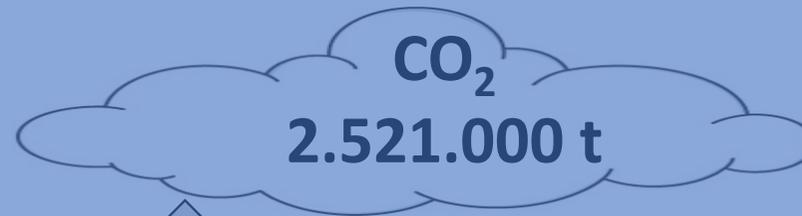
450.000 t



207.000 t



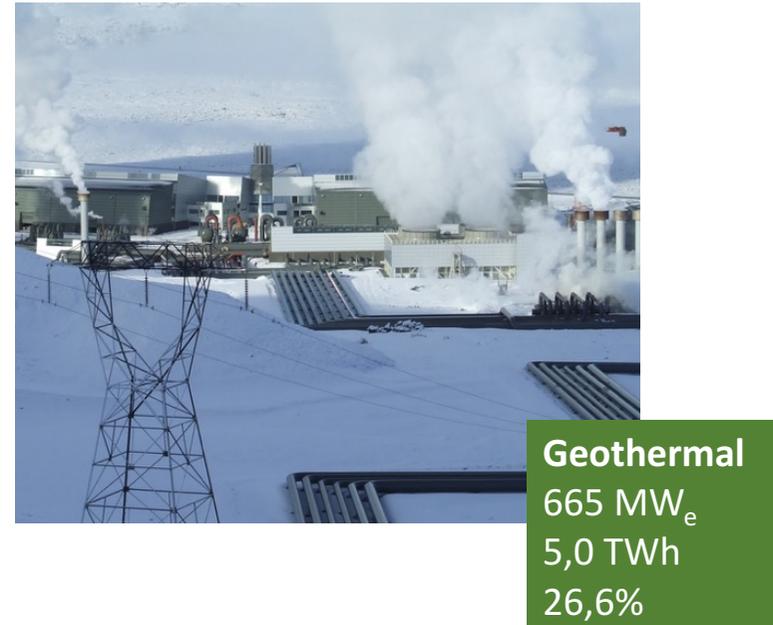
244.000 t



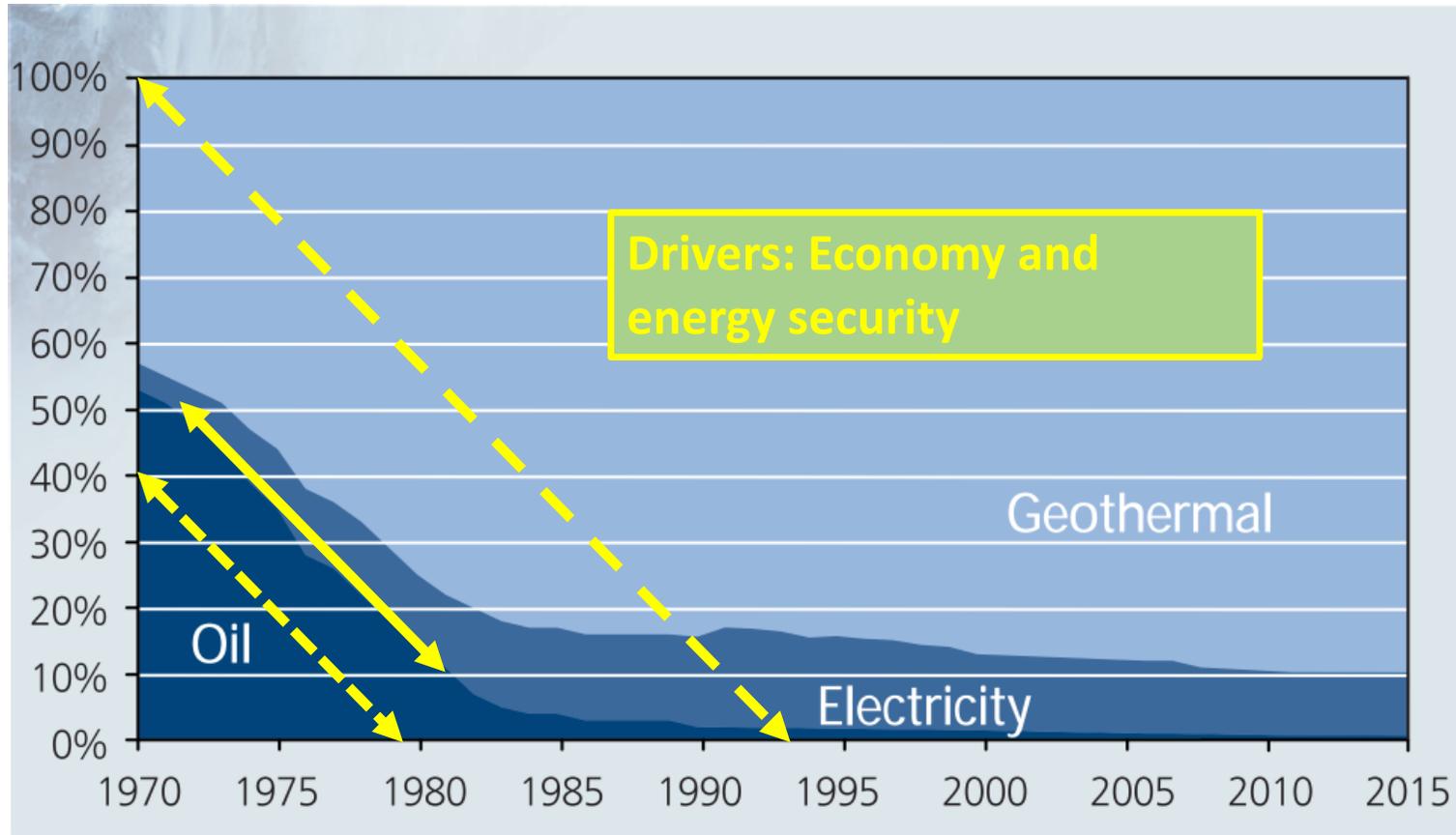
Höf: Sigurður Friðleifsson

Electricity Generation and Use 2015

Total use:	18,8 TWh	
General use:	3,4 TWh	18,3%
Large industries:	14,4 TWh	76,4%
System loss and plant use:	1 TWh	5,3%



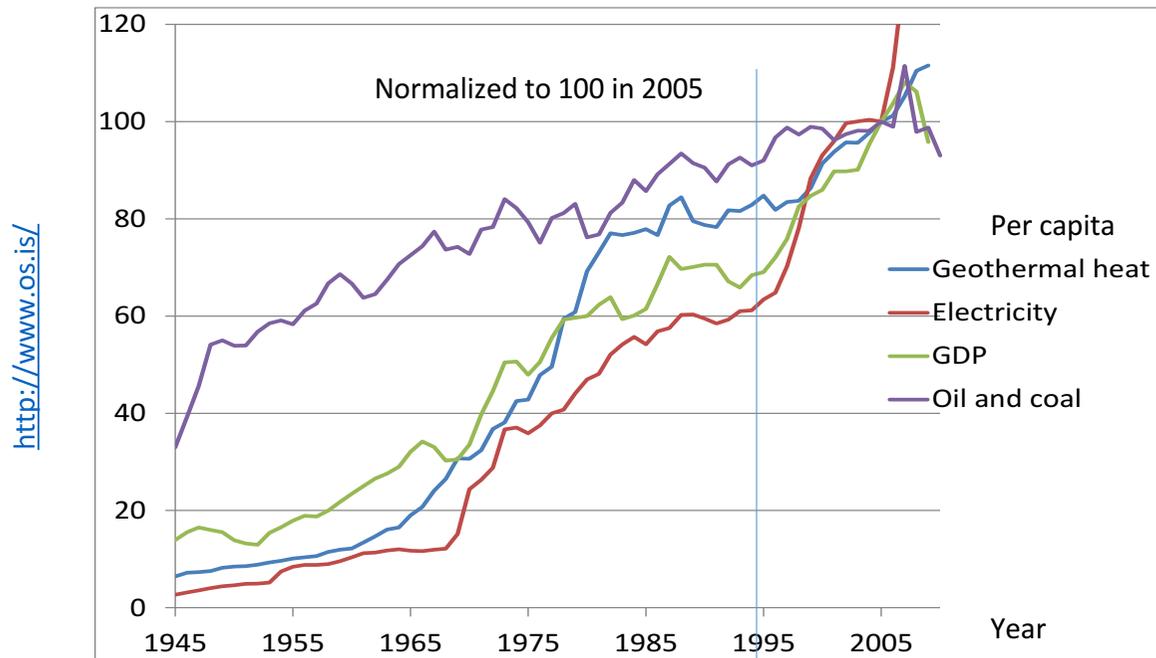
ICELAND - Space Heating by Source



> 4%/year

Source: Orkustofnun

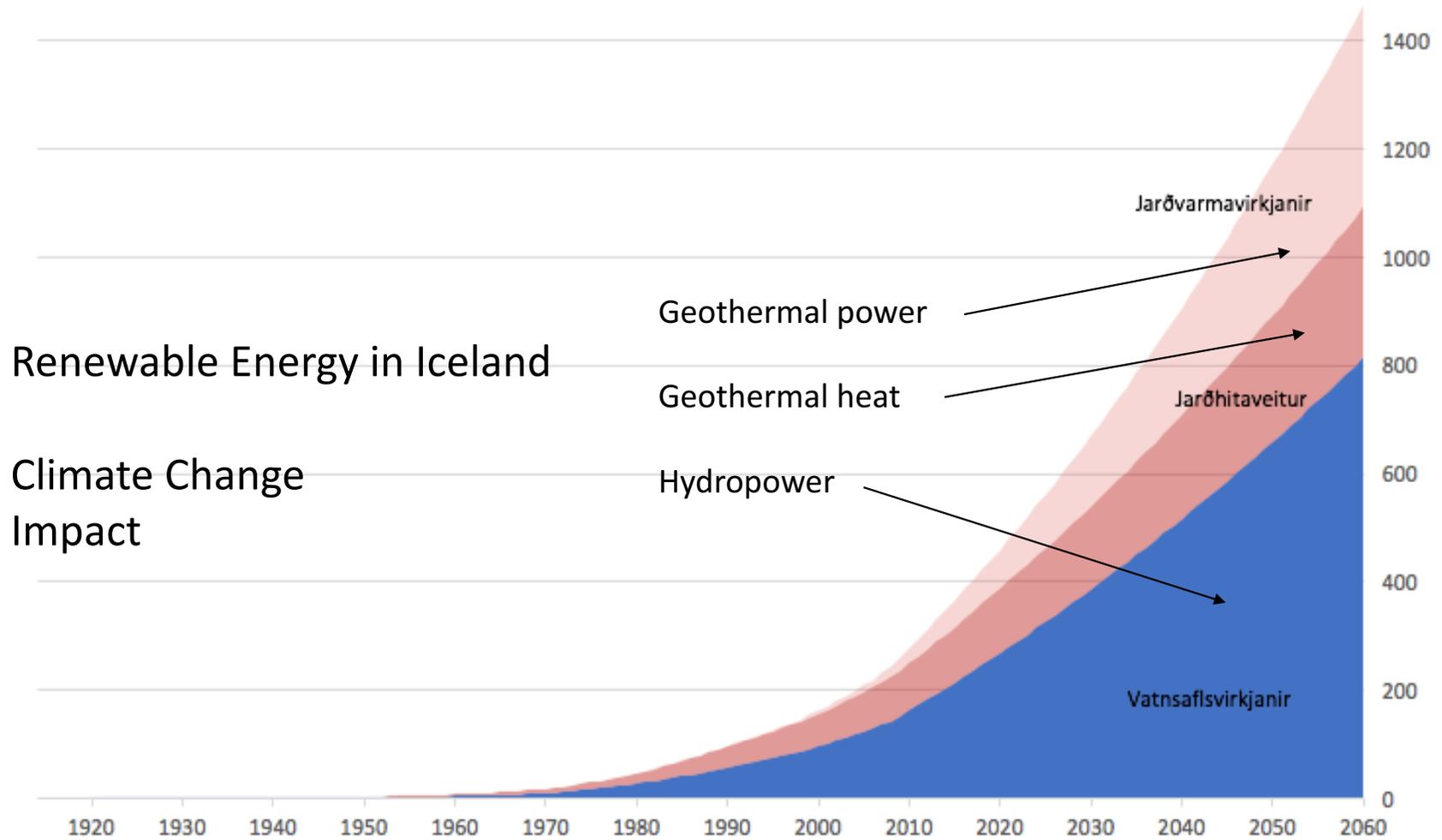
ICELAND 1945 - 2010



<http://www2.stjr.is/frr/thst/rit/sogulegt/english.htm>

ICELAND Accumulated CO₂ savings using renewable energy instead of oil. New development with 0,3 TWh/year from present to 2060

Mt CO₂



Renewable Energy in Iceland

Climate Change Impact

Geothermal power

Geothermal heat

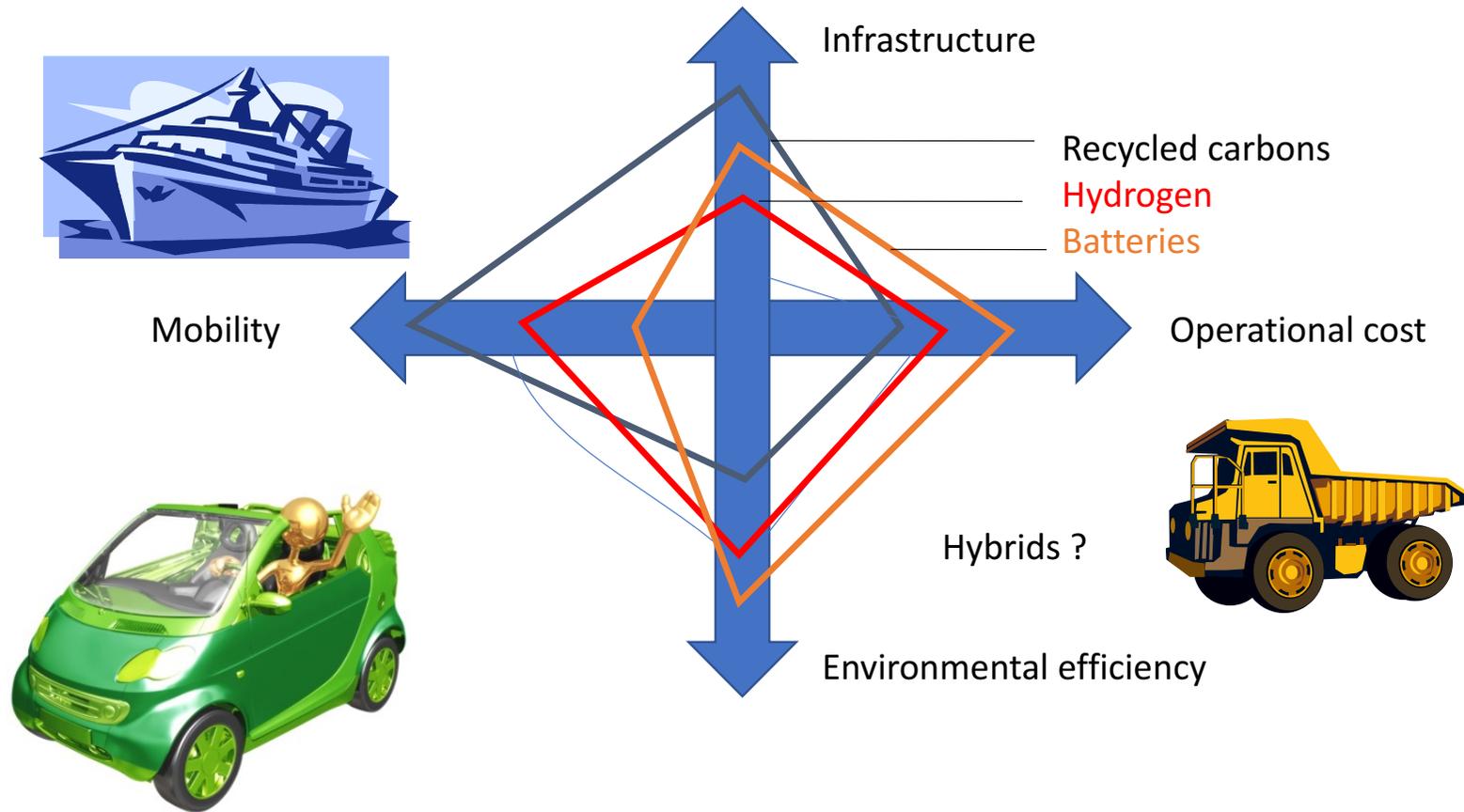
Hydropower

Jarðvarmavirkjanir

Jarðhitaveitur

Vatnsaflsvirkjanir

The Alternative Fuel Race



Parliamentary Resolution – 31/5 2017

Energy Transition – Action Plan

Valid until 2030 – revisited every fifth year

- **Transition from fossil fuels to renewable energy**

- Saving energy
- Energy security
- Trade balance
- Local pollution
- Global emissions



- **Present use of renewable energy sources is 70 % of total energy use**

- **Paramount goals**

- Front edge technologies for renewable energy use in all relevant fields
- From 6% of land based communications to 10 % 2020 and to 40 % 2030
- From 0,1 % of the fishing fleet to 10 % of the oceanic sector in 2030

Economical Incitement

- Subsidies and tax reductions promoting energy transition and energy savings
- *Consumers and businesses will be initiated to choose eco friendly technology and renewable energy sources that in turn will promote increased production of renewable fuels.*
- *Government support will have clear time limits to enhance decision making and long term planning for investors.*
- *Support for production and use of domestically produced fuels and other energy carriers to reduce import need, create new jobs and increase energy security.*
- *Government support will in time be adjusted to reflect the increased competitiveness and market development for the relevant products and technical solutions*



Infrastructure

- Building up necessary infrastructures for the energy transition
- Adequate distribution of service points to guarantee continuous travelling with vehicles using ecofriendly energy carriers latest 2025
- Harbor grid infrastructure that can serve land power to all ships in 2025



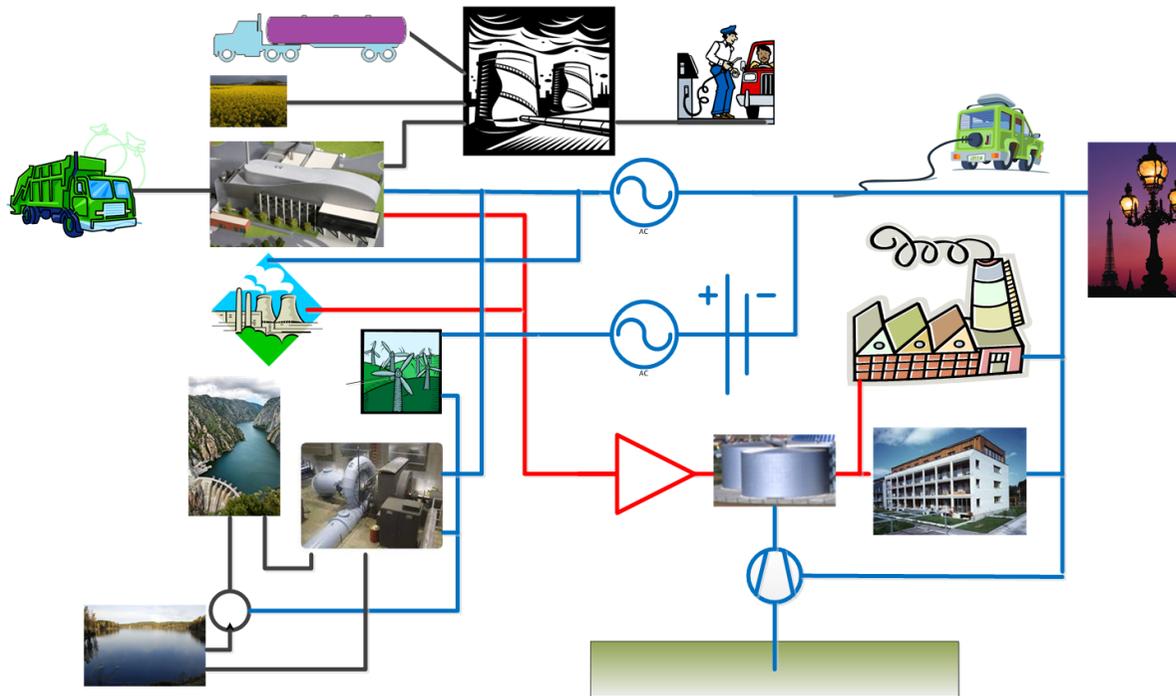
Energy saving

- Incitement for energy saving in all areas
- Better efficiency for conventional technologies for less emissions, better utilisation of the resources and to prepare for the energy transition
- Focus on improved efficiency both for use of fossil and renewable energy carriers



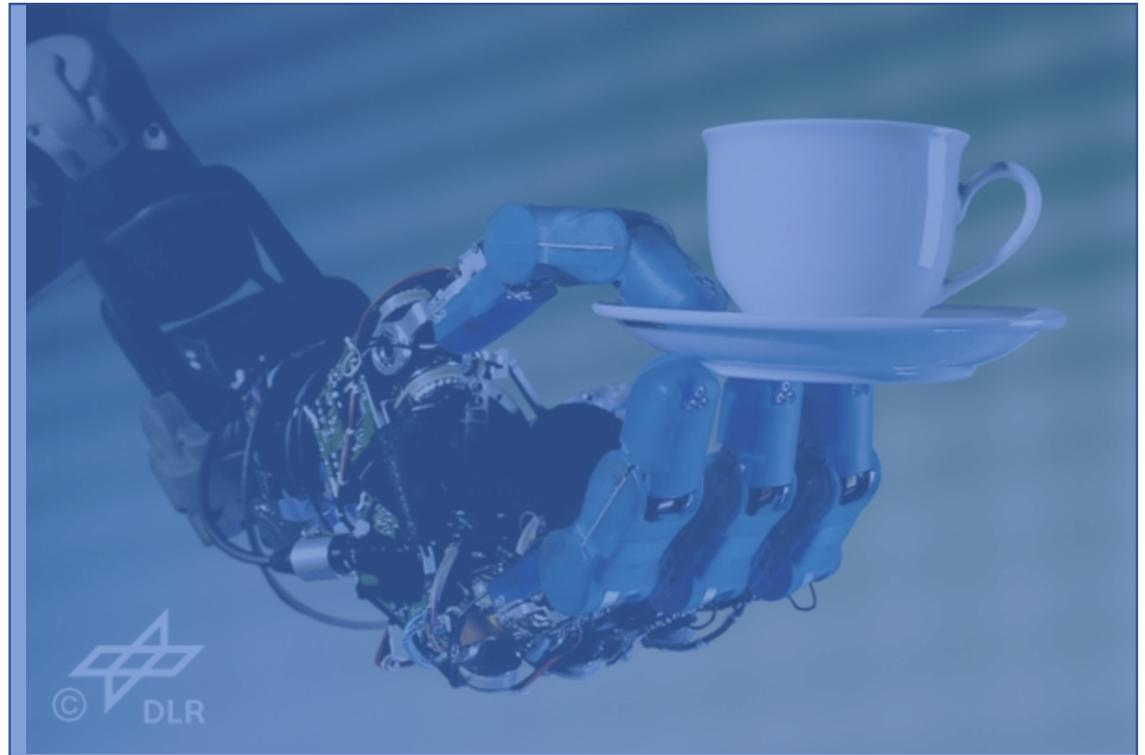
Cooperation

- Enhanced cooperation and synchronisation between public administration, the community and and the corporate sector in programs for better energy efficiency and energy transition



The infrastructure for progress

- Support for
 - Research and development
 - Technical innovation
 - Business development
 - International co-operation and participation in relevant international projects



<http://electronicsmaker.com/research-and-development-in-robotics>

Thank you for your
concern for my
habitat

