



GJETC Council Meeting, 15 February 2024

Welcome to the „Meet the Co-Chairs“

Dr. Stefan Thomas

Prof. Tatsuya Terazawa

The German-Japanese Energy Transition Council (GJETC) at a glance

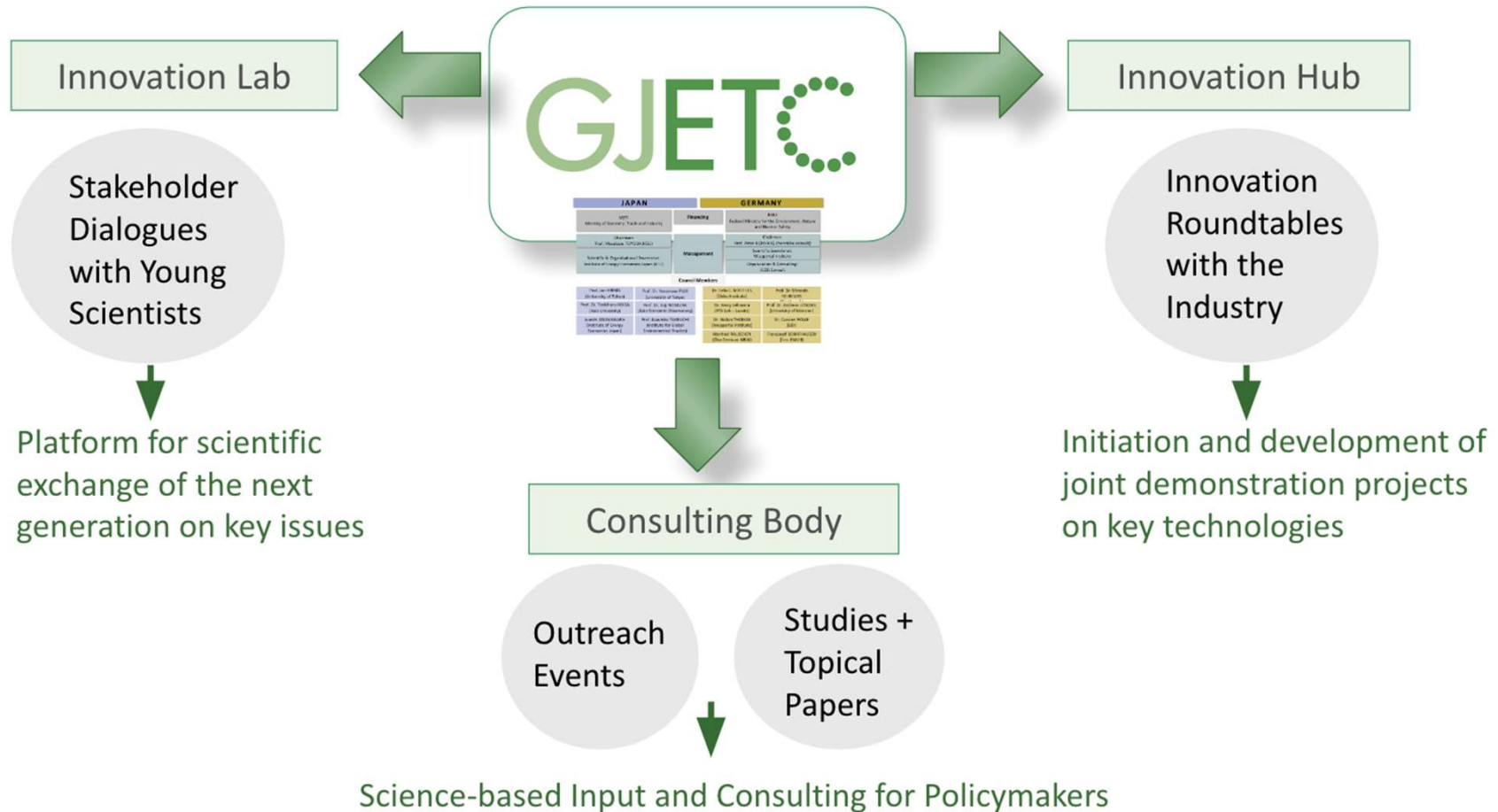


A role model for international cooperation on climate and environmental issues since 2016

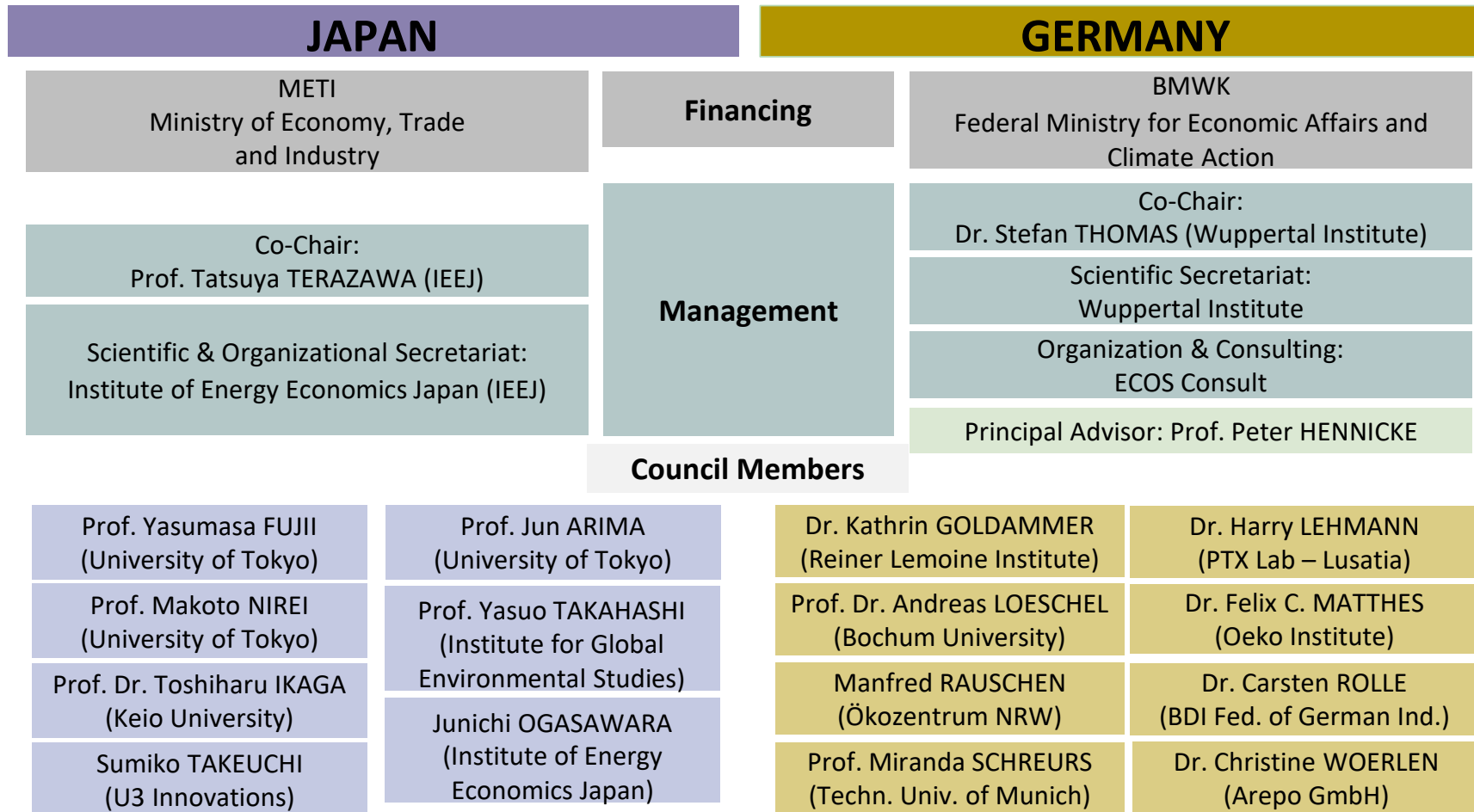


Concept and functions

GJETC



Concept and functions



COP-28 (CMA.5) calls on RES, EE, and fossil fuels (Germany)



- *Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030 and*
- *Transitioning away from fossil fuels in energy systems*
- **Fossil fuel target feasible in Germany**
- **RES and EE target 2030 feasible for Germany domestically?**

Situation in Germany

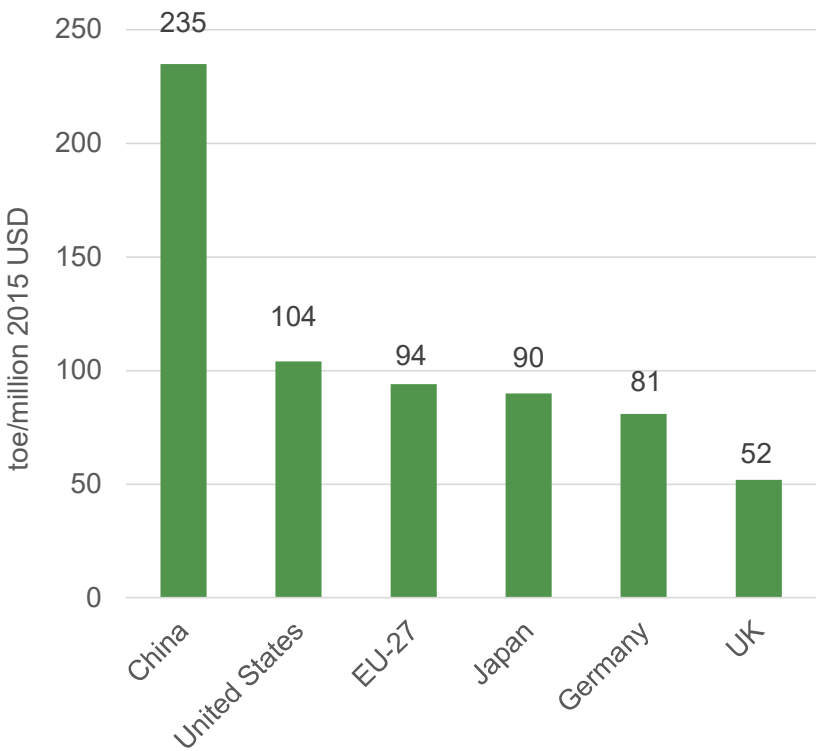
- RES for Electricity: 600 TWh (80%) by 2030 of estimated total gross demand of 750 TWh
→ Base year 2022: 235 TWh x3 => 705 TWh = 94%
- RES in total: Target for 2030 ca. 40%, base year 2020: 18 %; x3 = 54%?
- Capacity! Final energy 2020: 417 TWh x3 => 1,251 TWh of 1,867 TWh (EnEfG) => 67%!
- Energy Efficiency: final energy productivity increase 2008-16: 1.1 %/yr
⇔ EnEfG target means ca. 2.5%/yr at 0.5 %/yr of GDP growth

 **International efforts needed in any case, e.g. JETPs**

How can we double the speed of energy intensity improvement? (Japan)

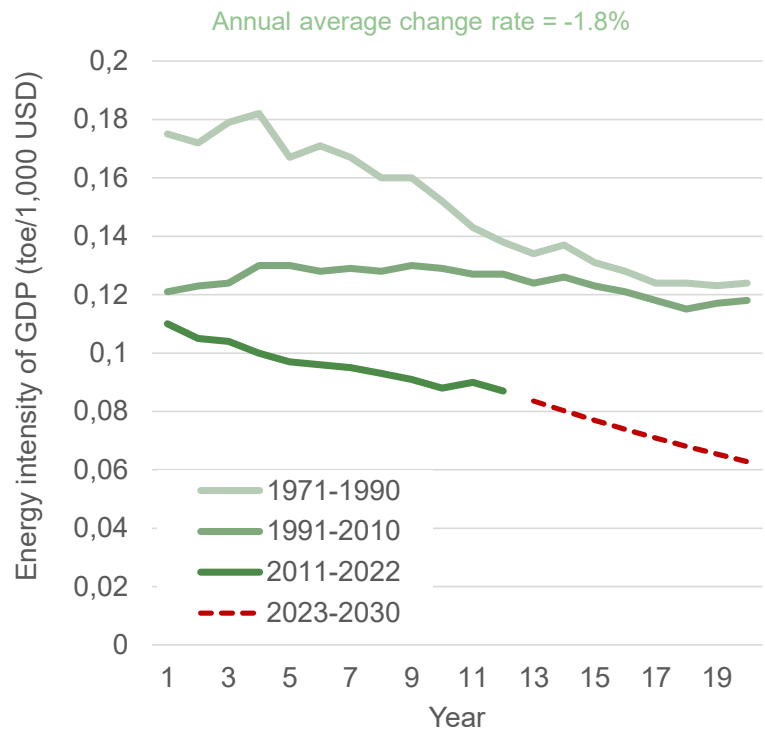


Energy intensity of GDP (2021)



Source: IEA "Energy Balance of World Energy 2023"

Change of energy intensity in Japan



Source: IEA "Energy Balance of World Energy 2023"

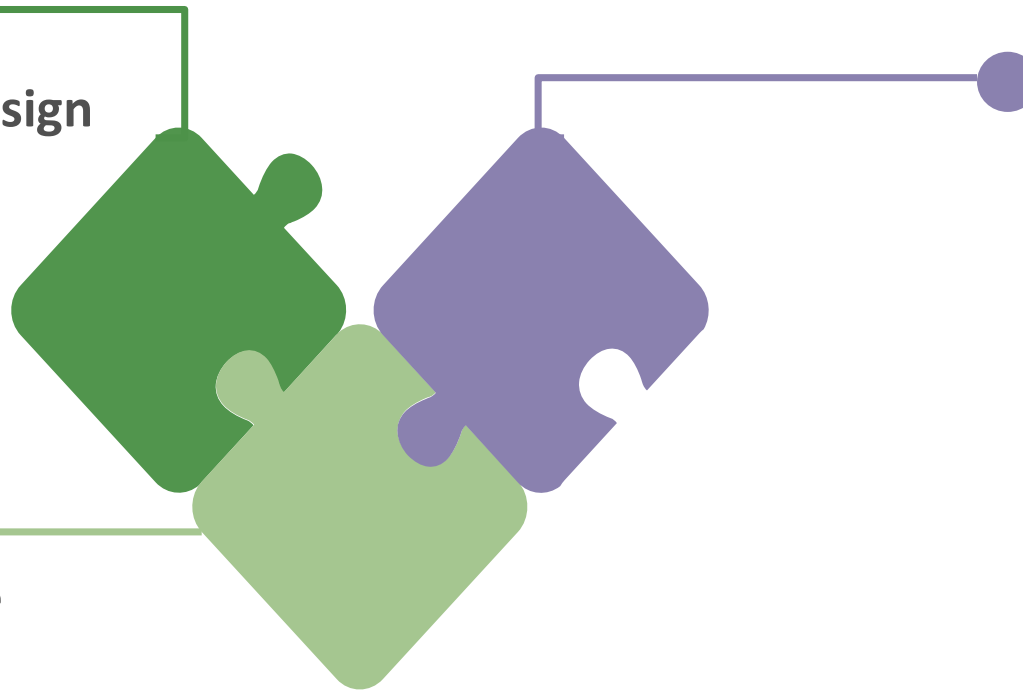
Findings from the current GJETC study topics



Electricity Market Design

Green Industrial
Plan and the GX
Transformation

The more effective
governance of
energy efficiency
policies



Electricity Market Design

Learnings/Findings

- Capacity market in Japan; introduction of capacity market in Germany planned → learn?
- Introduction of various instruments to stimulate investments in demand-side flexibilities and storage

(Remaining) challenges

- Expansion of RES (need for critical minerals)
→ increase flexibility
- Increase storage capacities

The more effective governance of energy efficiency policies



Learnings/Findings

- Germany = network of organizations → voluntary commitments
- Japan = assigning an expert

(Remaining) challenges

- Both countries still need to improve their efforts → need for new energy efficiency strategy
- Concrete roadmap
- Strong organizations (governance agencies; one-stop-shops for investors) from national to local level

Green Industrial Plan and the GX Transformation

Learnings/Findings

- Strong efforts in both countries to push for transformation to green economy
- Focus on (financial) incentives, few negative incentives or regulations

(Remaining) challenges

- global development (China/USA)
- Carbon pricing instruments/maintaining (regional) competitiveness
- Limits to green industry policies?

Added value of cooperation between Germany and Japan



1. becoming frontrunners → joint efforts to stop global warming
2. induce controversial discussions among experts in both countries
3. mutual understanding and learning



For further information please visit gjetc.org

Thank you for your attention

Dr. Stefan Thomas – stefan.thomas@wupperinst.org

Tatsuya Terazawa - tatsuya.terazawa@tky.iecej.or.jp