

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



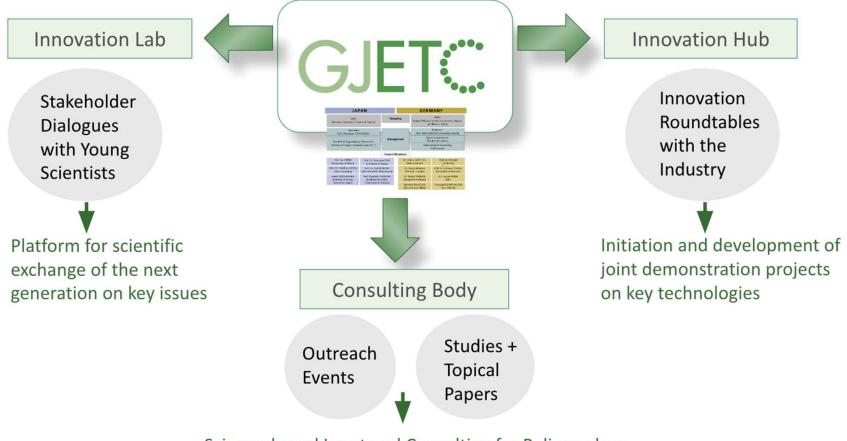
A role model for international cooperation on climate and environmental issues since 2016





Concept and functions





Science-based Input and Consulting for Policymakers

Concept and functions

(U3 Innovations)



| JAPAN | | | GERMANY | | |
|---|---|------------|--|---|--|
| METI Ministry of Economy, Trade and Industry | | Financing | | BMWK Federal Ministry for Economic Affairs and Climate Action | |
| Co-Chair: Prof. Tatsuya TERAZAWA (IEEJ) | | Management | | Co-Chair: Dr. Stefan THOMAS (Wuppertal Institute) Scientific Secretariat: | |
| Scientific & Organizational Secretariat: Institute of Energy Economics Japan (IEEJ) | | | | Wuppertal Institute Organization & Consulting: ECOS Consult | |
| | | | Principal Advisor: Prof. Peter HENNICKE Council Members | | |
| Prof. Yasumasa FUJII (University of Tokyo) | Prof. Jun ARIMA (University of Tokyo) | | | rin GOLDAMMER emoine Institute) | Dr. Harry LEHMANN (PTX Lab – Lusatia) |
| Prof. Makoto NIREI (University of Tokyo) | Prof. Yasuo TAKAHASHI (Institute for Global Environmental Studies) Junichi OGASAWARA (Institute of Energy | | | Andreas LOESCHEL um University) | Dr. Felix C. MATTHES (Oeko Institute) |
| Prof. Dr. Toshiharu IKAGA (Keio University) | | | | red RAUSCHEN entrum NRW) | Dr. Carsten ROLLE (BDI Fed. of German Ind.) |
| Sumiko TAKEUCHI | | | Prof. Mi | randa SCHREURS | Dr. Christine WOERLEN |

Economics Japan)

(Techn. Univ. of Munich)

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GJET...

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

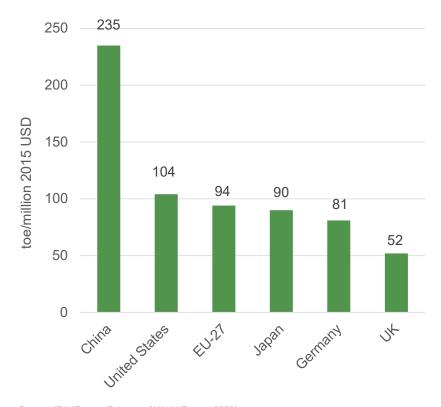


International efforts needed in any case, e.g. JETPs

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

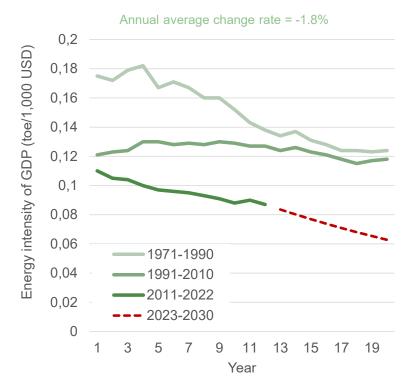


Energy intensity of GDP (2021)



Source: IEA "Energy Balance of World Energy 2023"

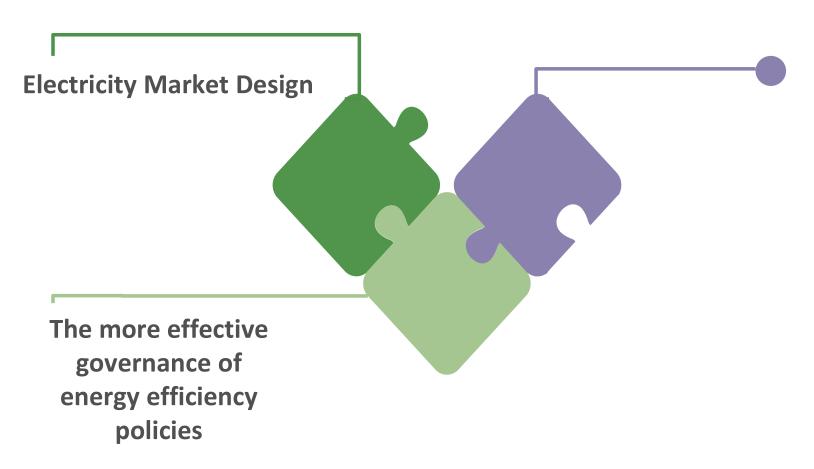
Change of energy intensity in Japan



Source: IEA "Energy Balance of World Energy 2023"

Findings from the current GJETC study topics





Green Industrial Plan and the GX Transformation





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 committments
- 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 \rightarrow 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 – <u>stefan.thomas@wupperinst.org</u> Tatsuya Terazawa - <u>tatsuya.terazawa@tky.ieej.or.jp</u>