

Socioeconomic footprint of the energy transition: a global perspective with focus on systems integration

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Need for a global and systemic vision linked to local realities

- Global challenges
 - Climate change
 - Resource depletion / Biodiversity loss
 - Inequalities
- Systemic elements
 - Structural socioeconomic drivers
 - Strong feedback loops

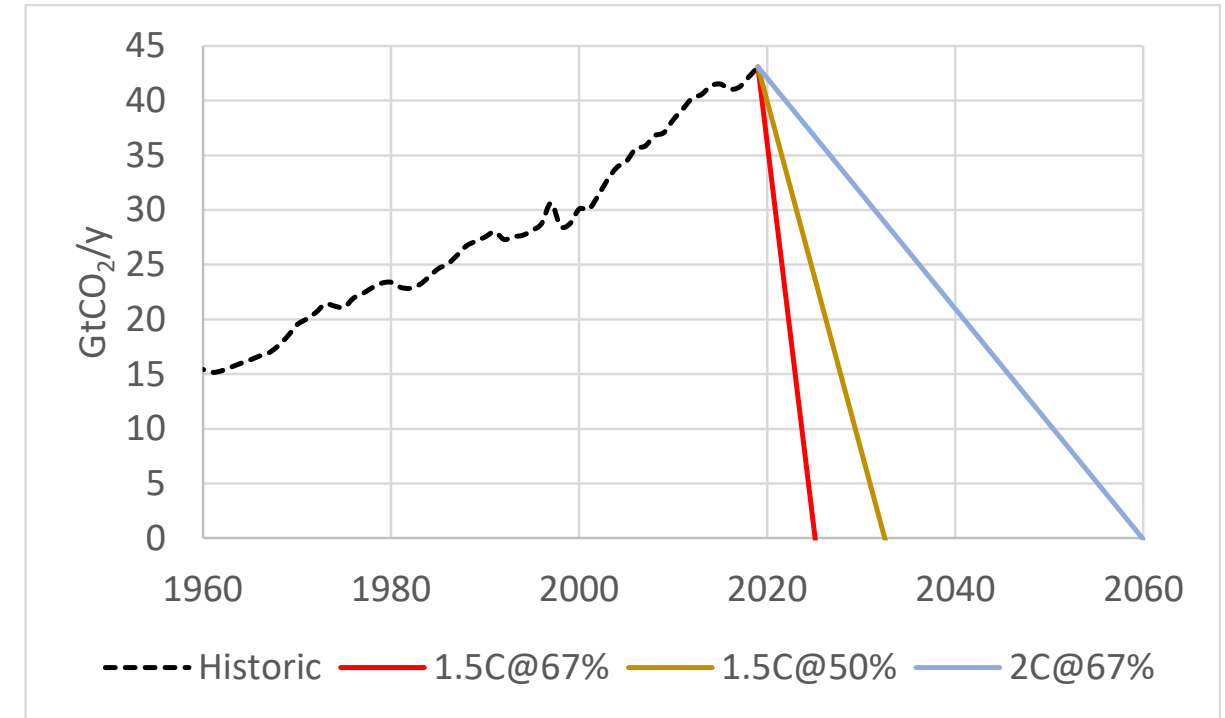
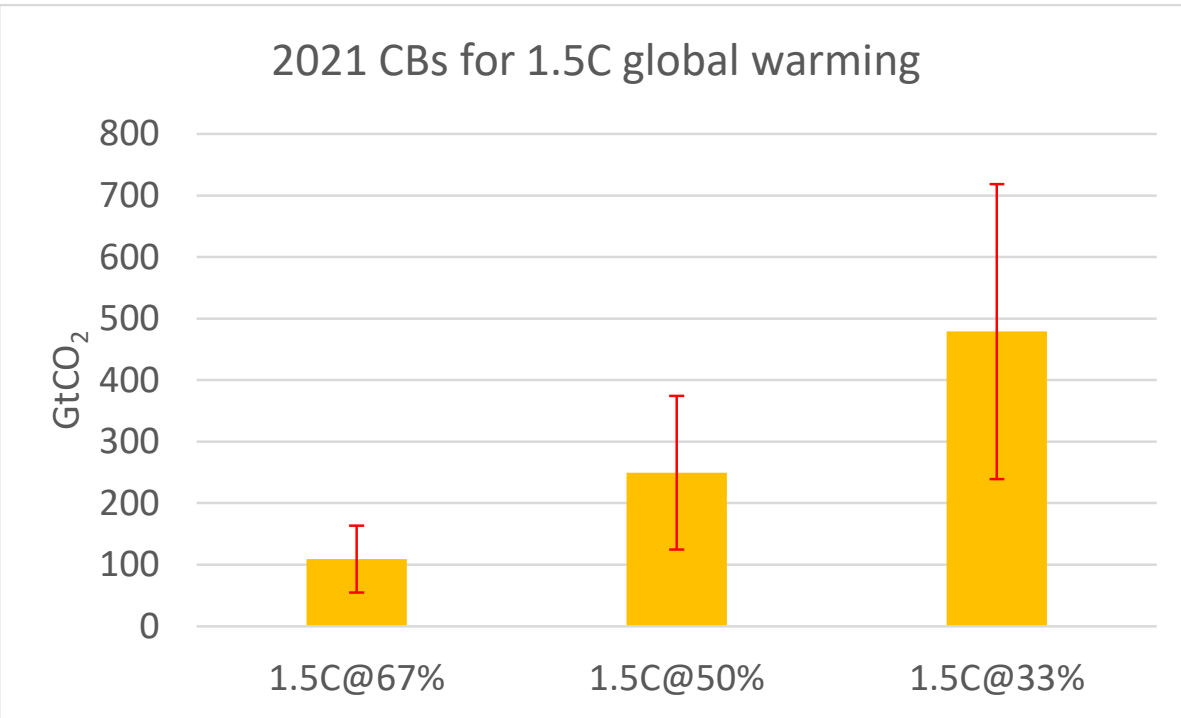


Stand-alone country-level or regional sustainable and resilient transitions do not exist



Need for global transition insights with regional resolution

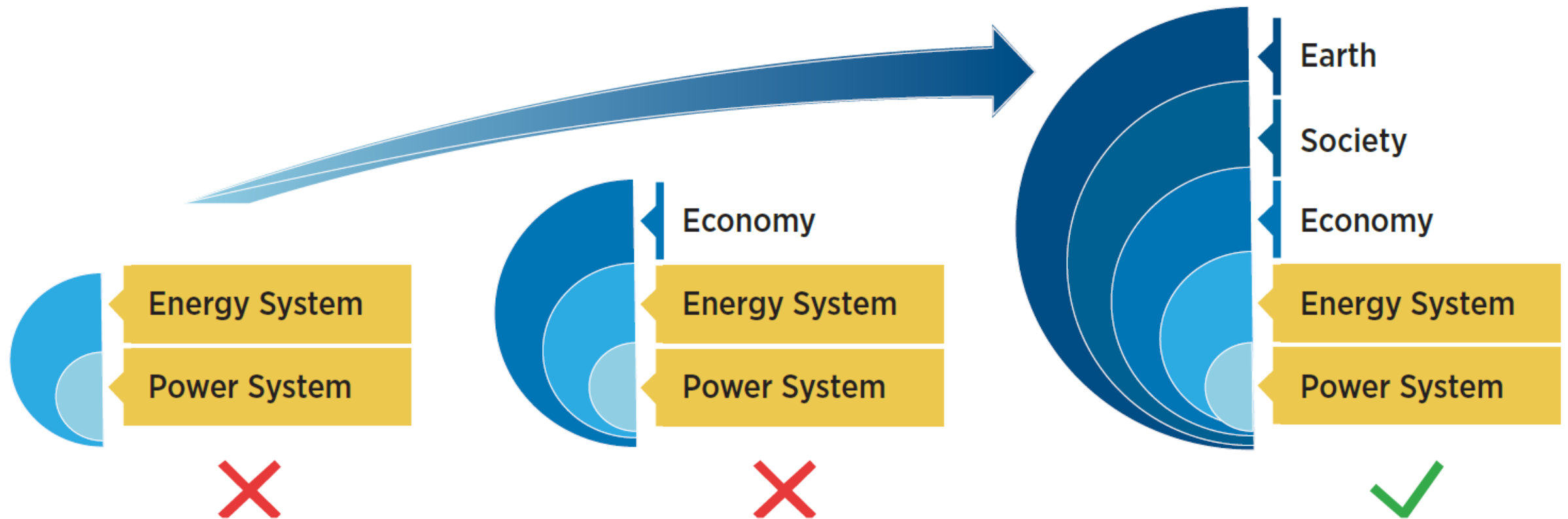




Limiting global warming to 1.5C – 2C requires unprecedented global, collaborative and focused action:

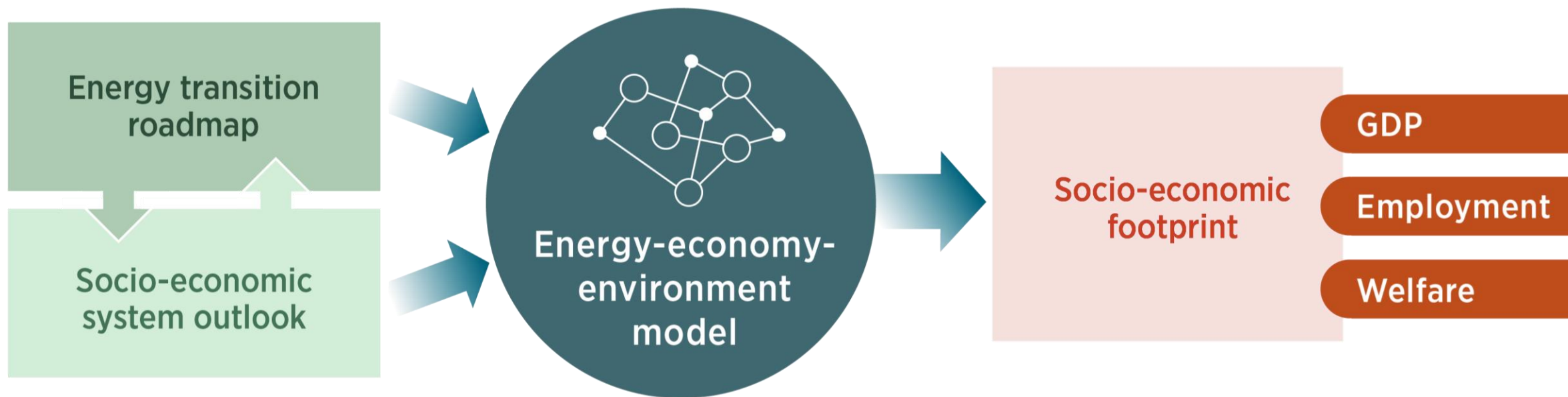
Insights into socioeconomic levers and impacts are a cornerstone of successful transitions

A systemic approach to the energy transition



Roadmaps/scenarios exist only on paper.

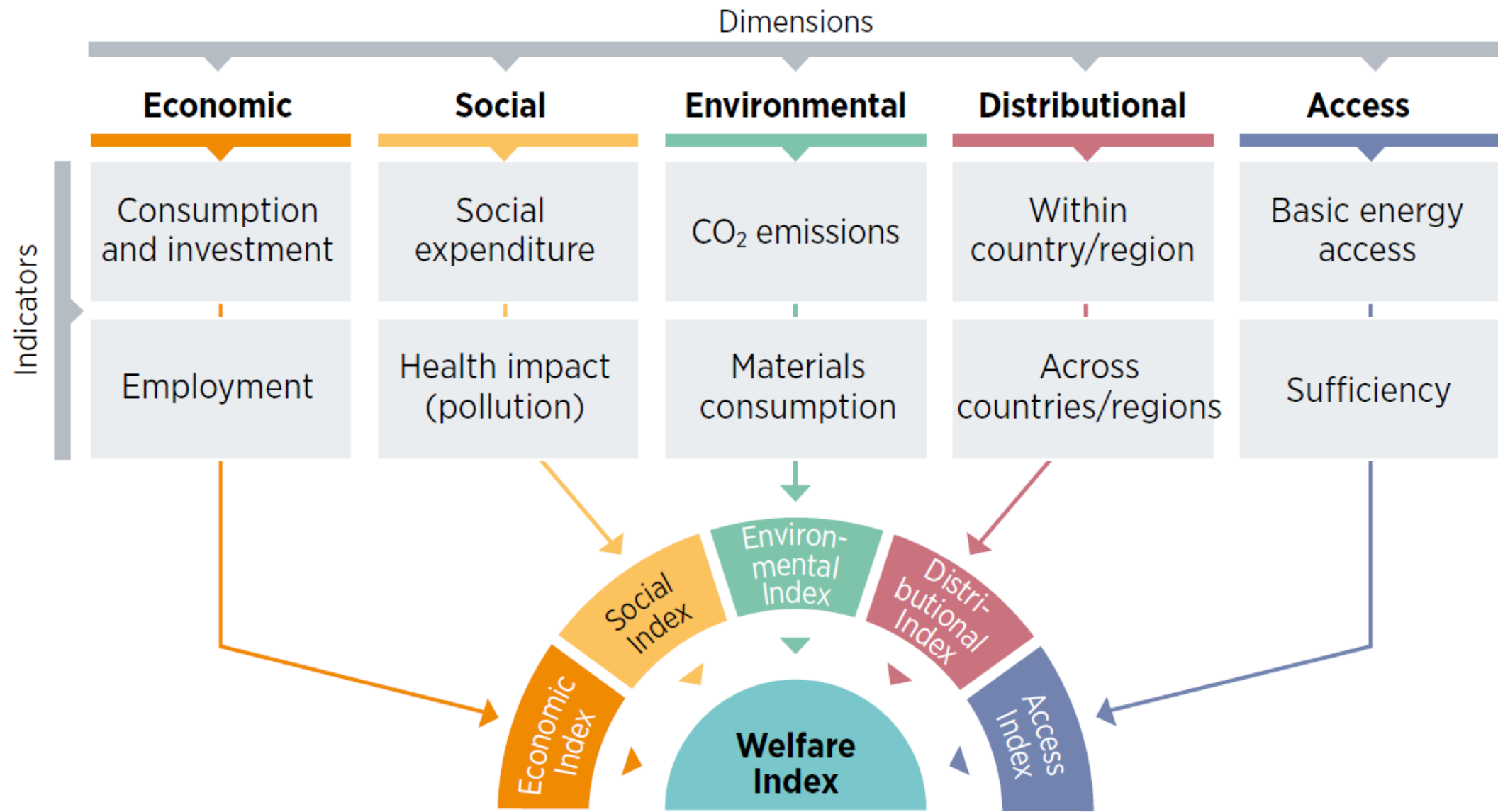
Advancing a sustainable and resilient transition requires gaining insights on systemic outcomes



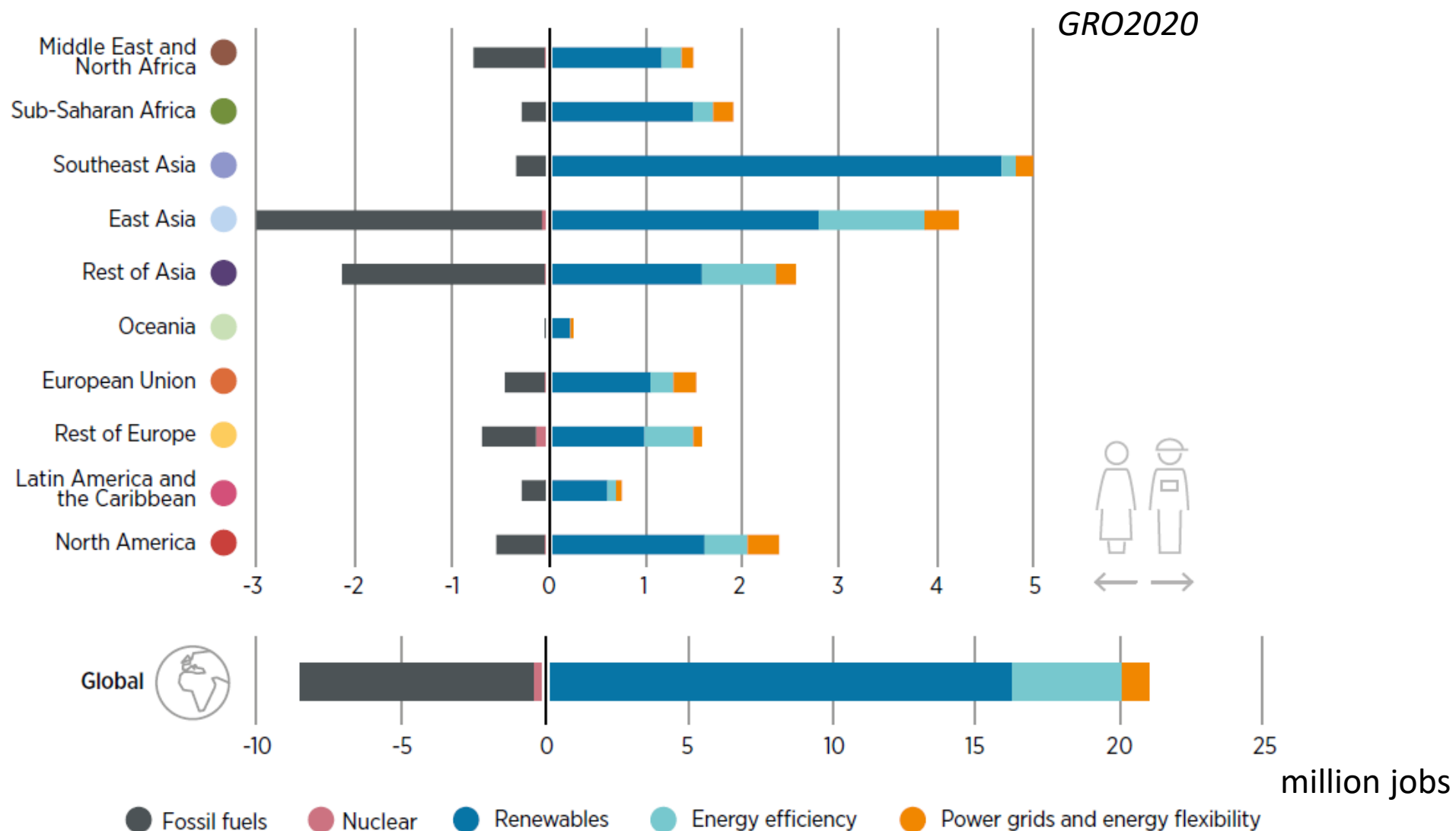
Enabling the transition and unlocking its potential requires gaining insight and fostering synergies between the energy and socio-economic systems.

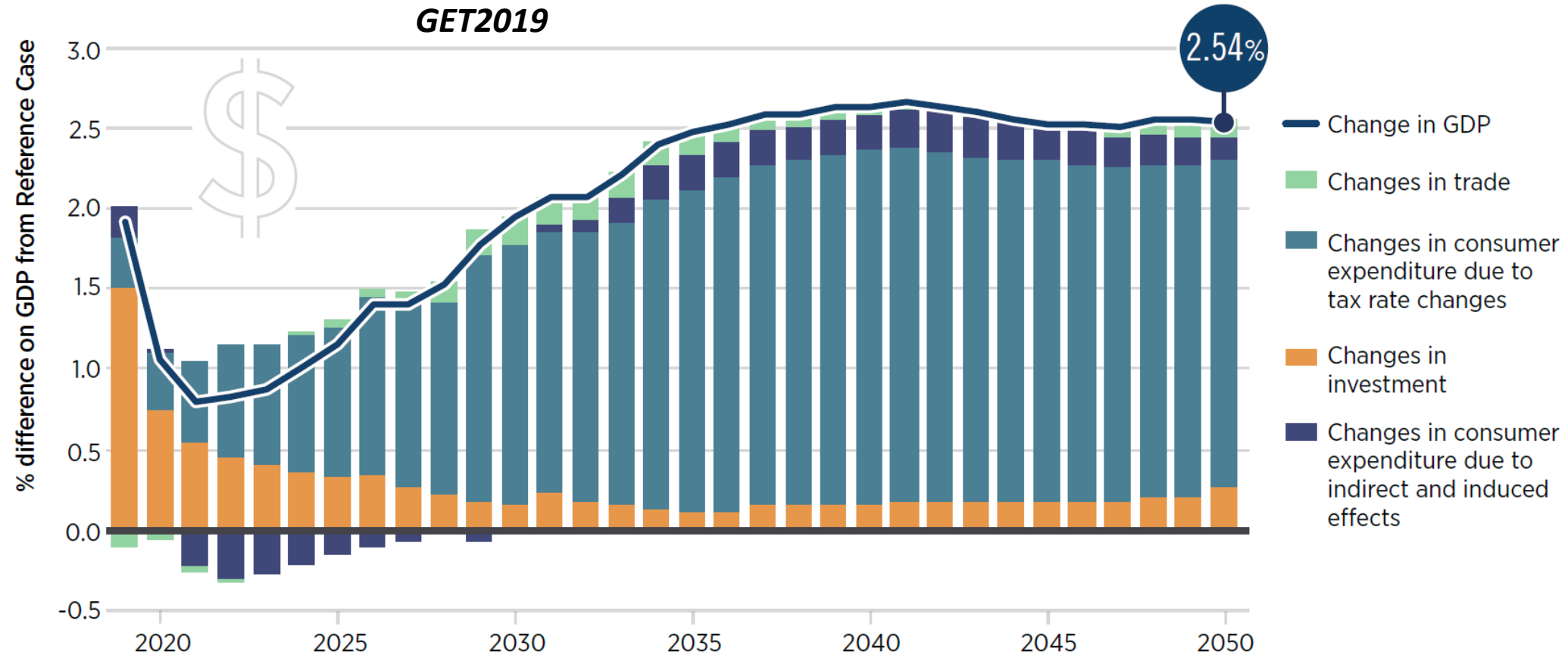
Transition planning must look beyond the energy system and address the structural socio-economic aspects upon which sustainability and resiliency depend.

IRENA's Energy Transition Welfare Index



Difference in energy sector employment in 2050 between the Transforming Energy and Planned Energy scenarios, by region and sector





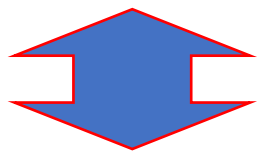
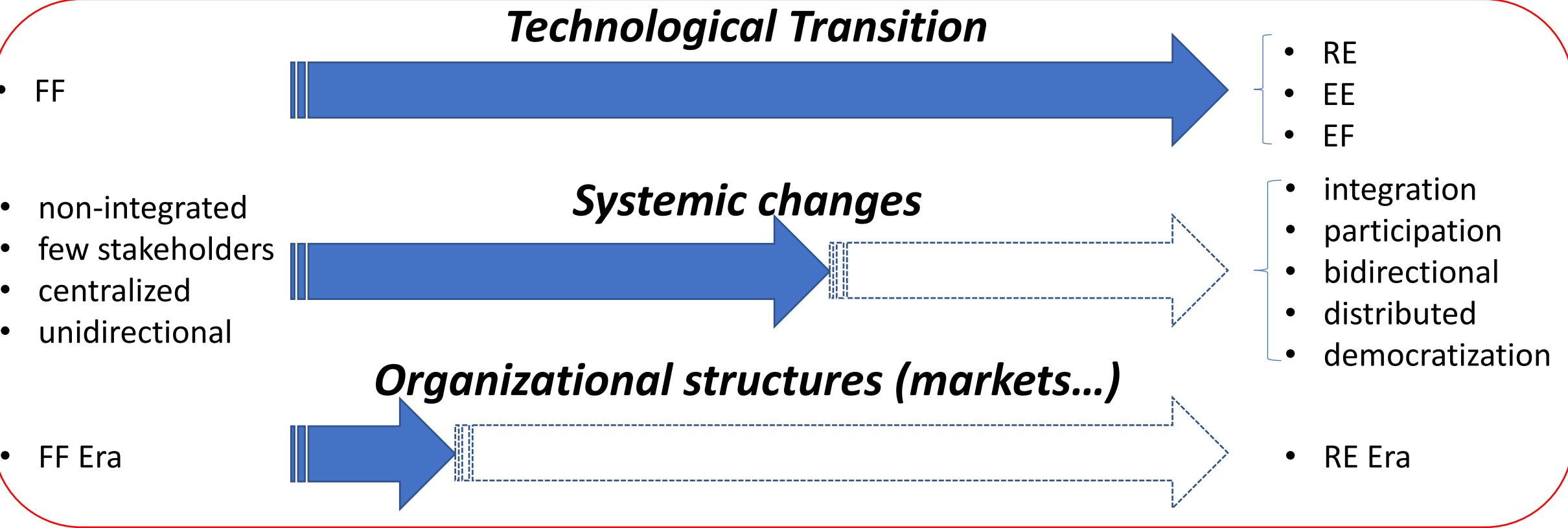
Source: IRENA, GET, 2019

Relevance of policy inputs:

- Fiscal policies, including carbon pricing and revenue recycling are important drivers of GDP results, but attention needs to be paid to its distributional impact.*

Unequal advance in the different transition layers

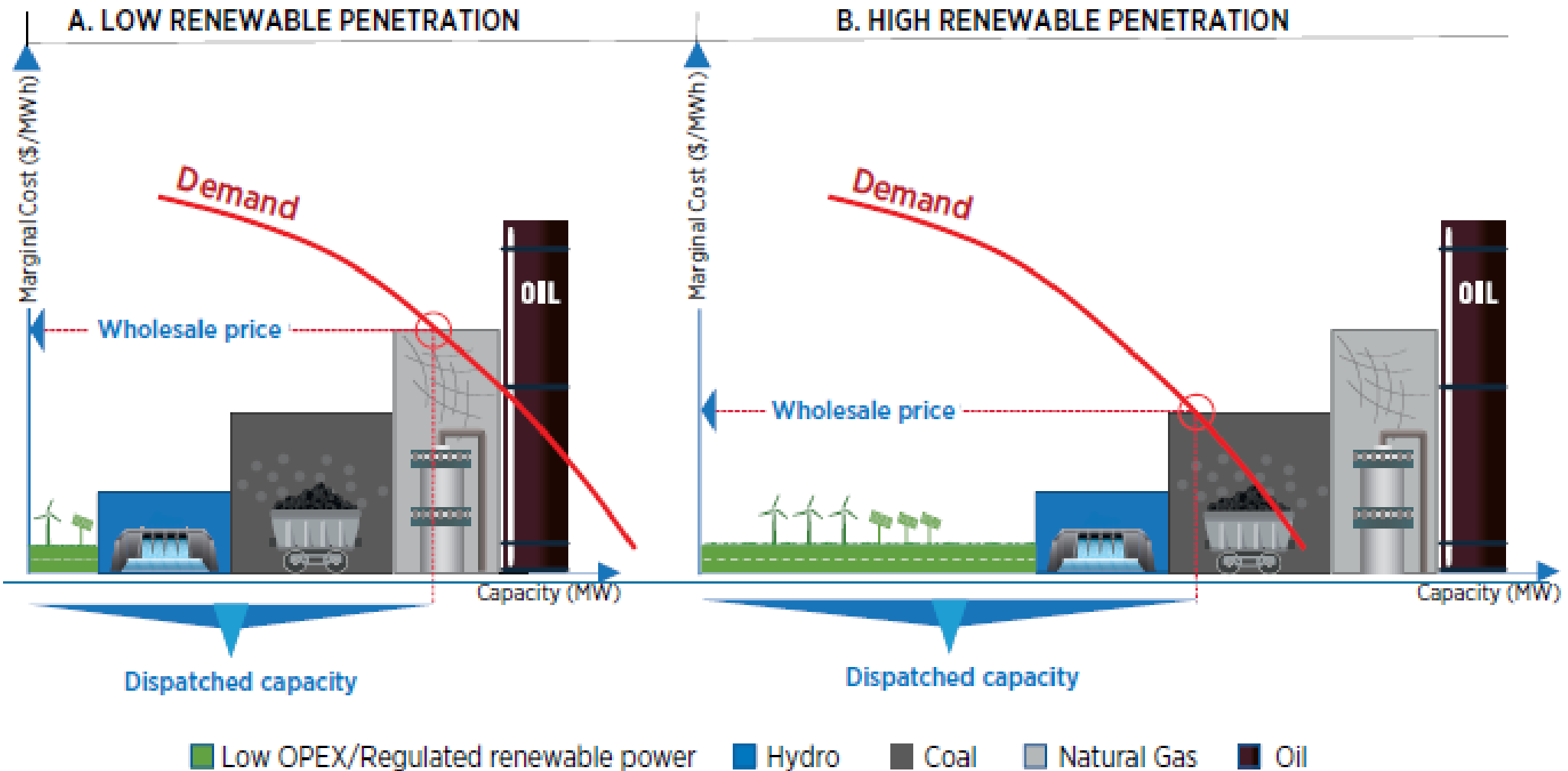
Energy Transition



wider systemic links and feedbacks

- Earth and Climate
- Society
- Economy

Power sector: Wholesale market misalignments

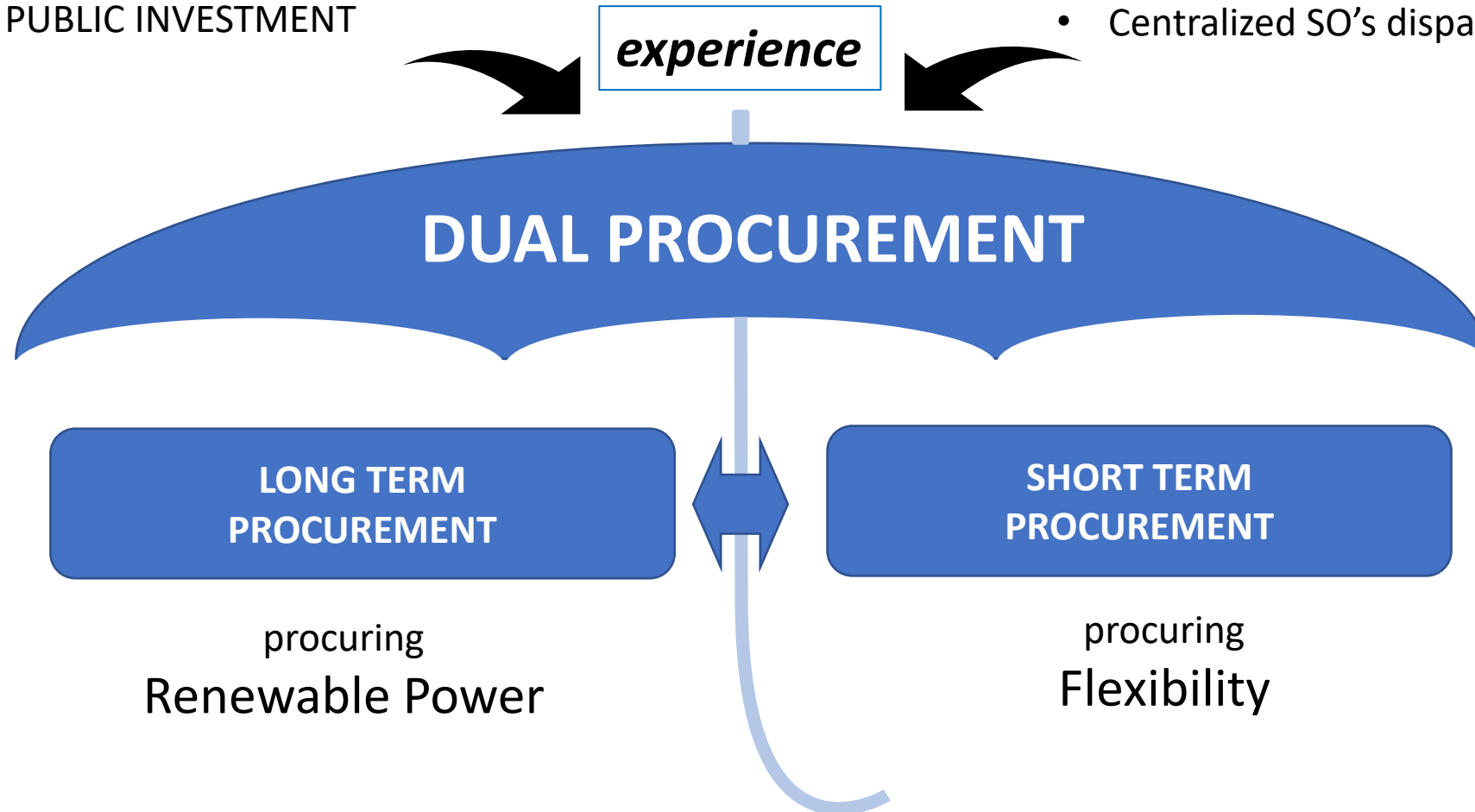


To provide a stable framework:

- SUPPORT MECHANISMS (FiT, FiP, PPA)
- Direct PUBLIC INVESTMENT

To match supply and demand:

- WHOLESALE AND RETAIL MARKETS
- Centralized SO's dispatch



Thank you!



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