



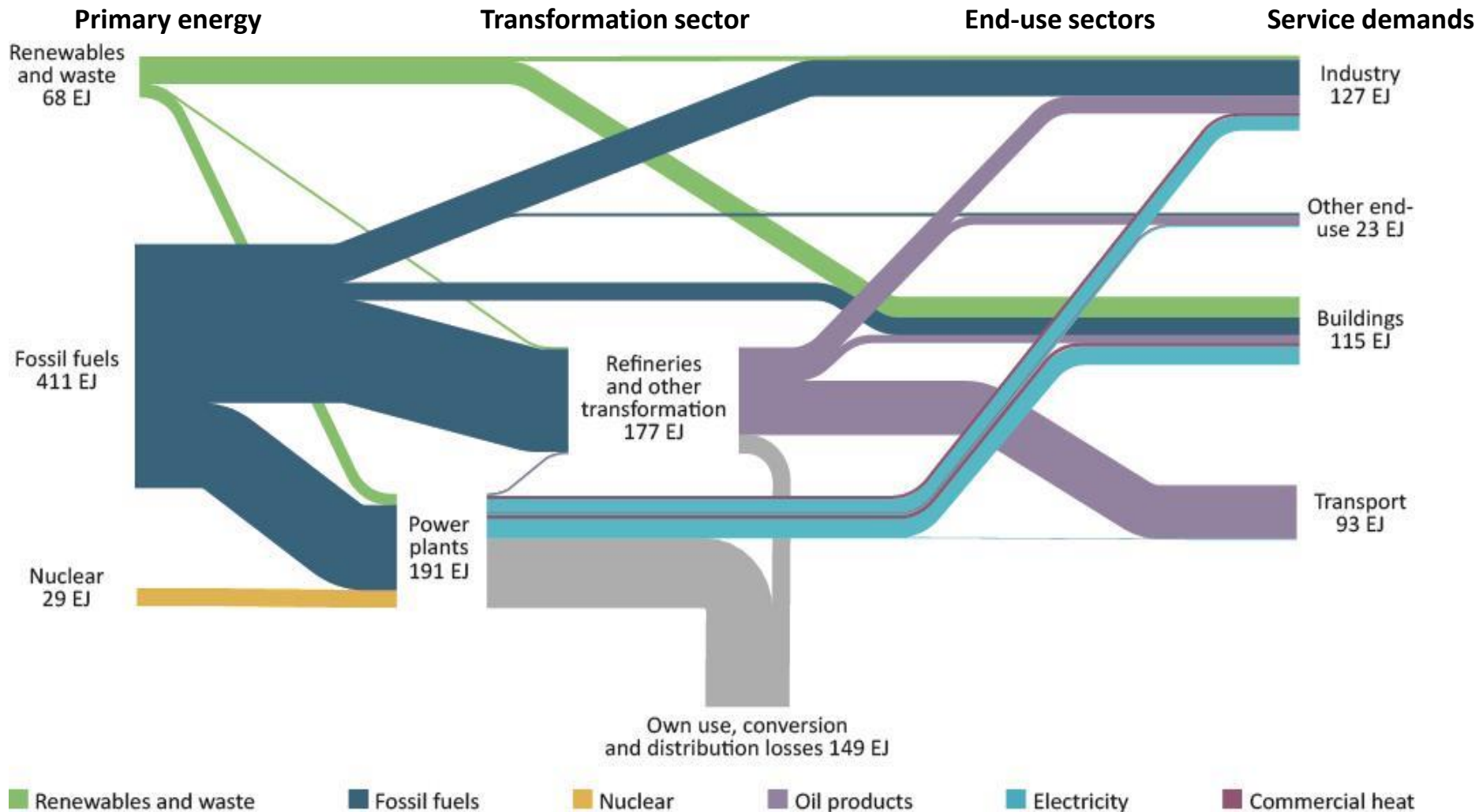
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# **ETP modelling approach**

## **CHP/DHC Collaborative meeting**

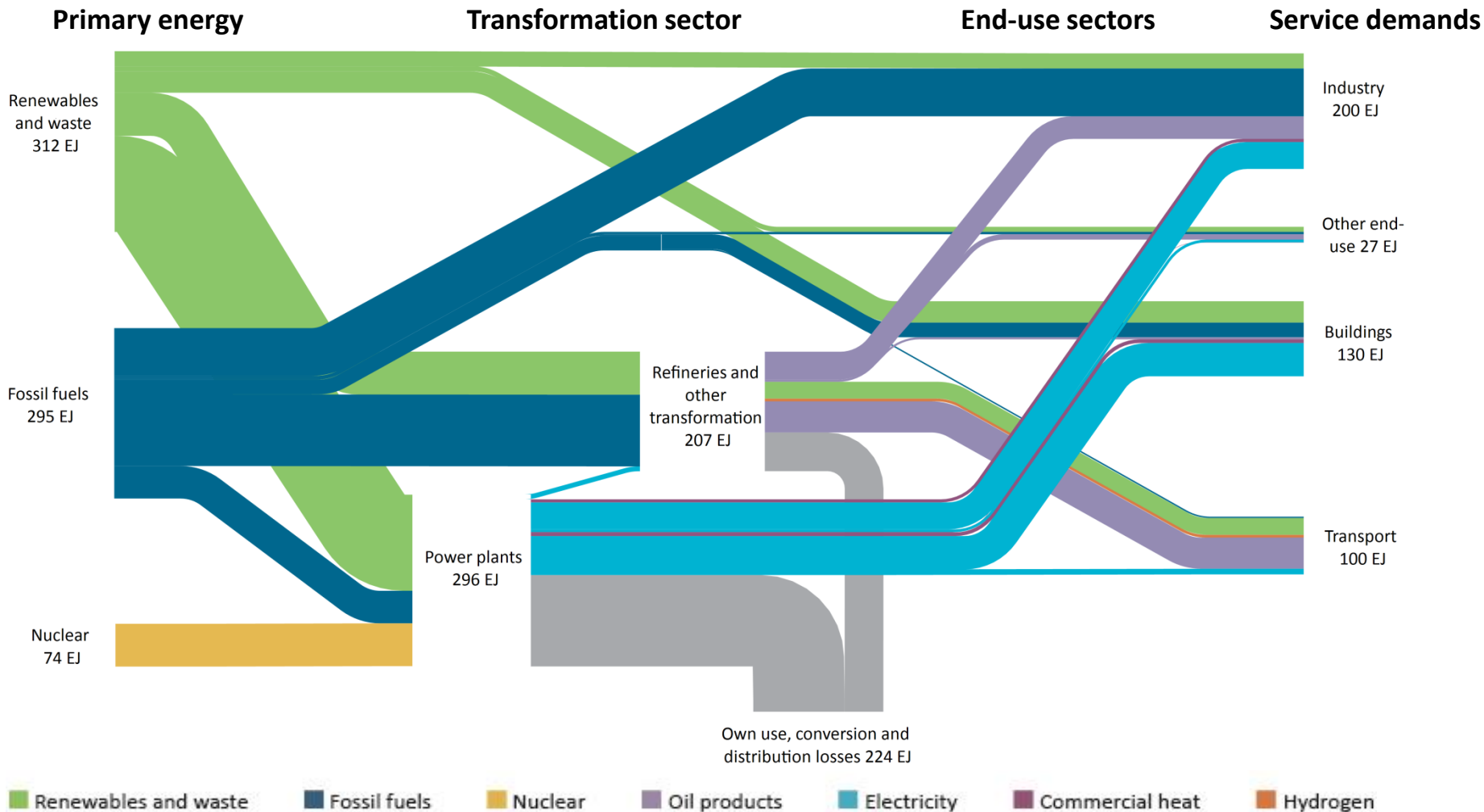
*Paris, 21 January 2016*

# How we generate our scenarios



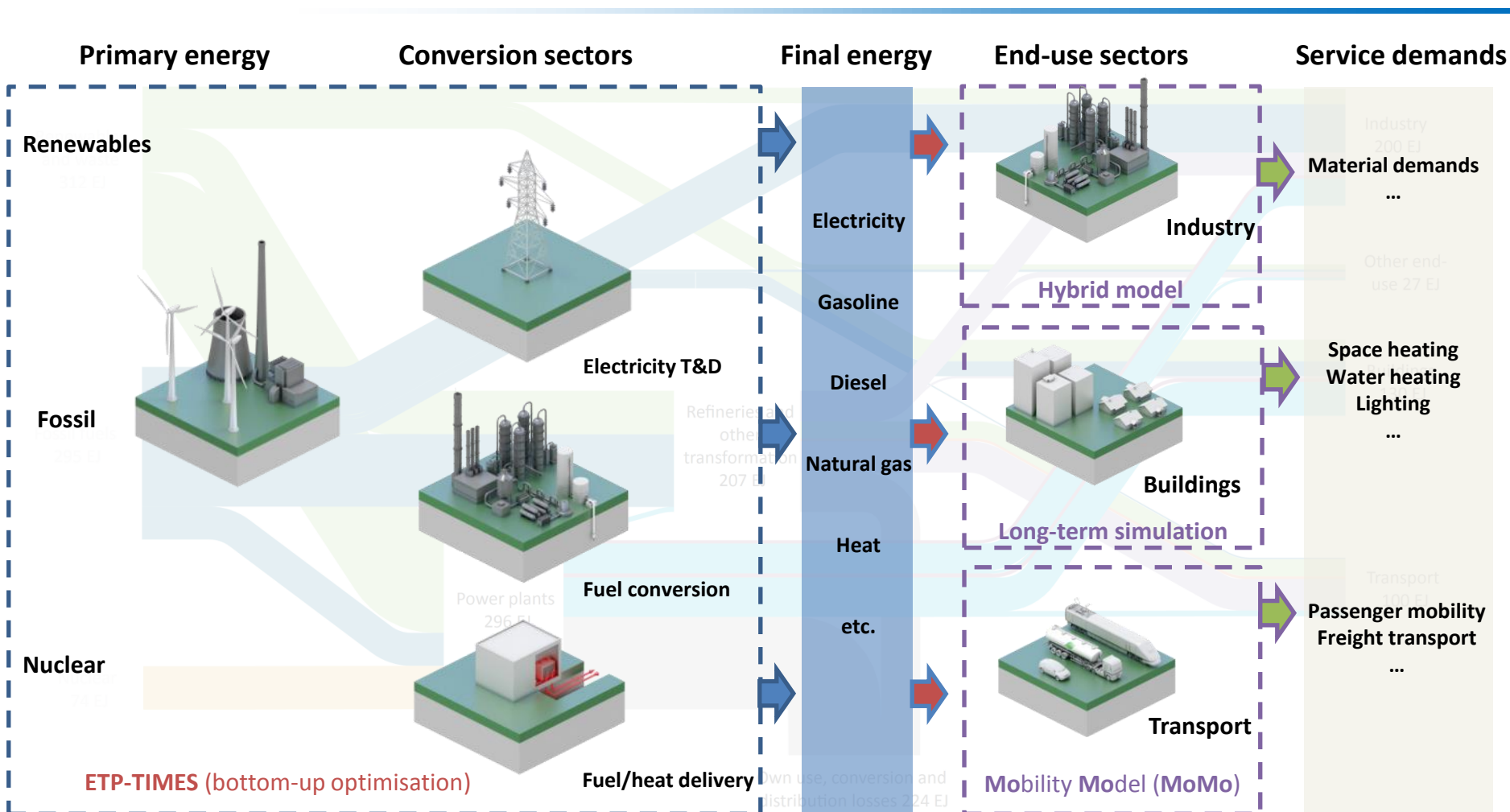
Global energy system today

# How we generate our scenarios



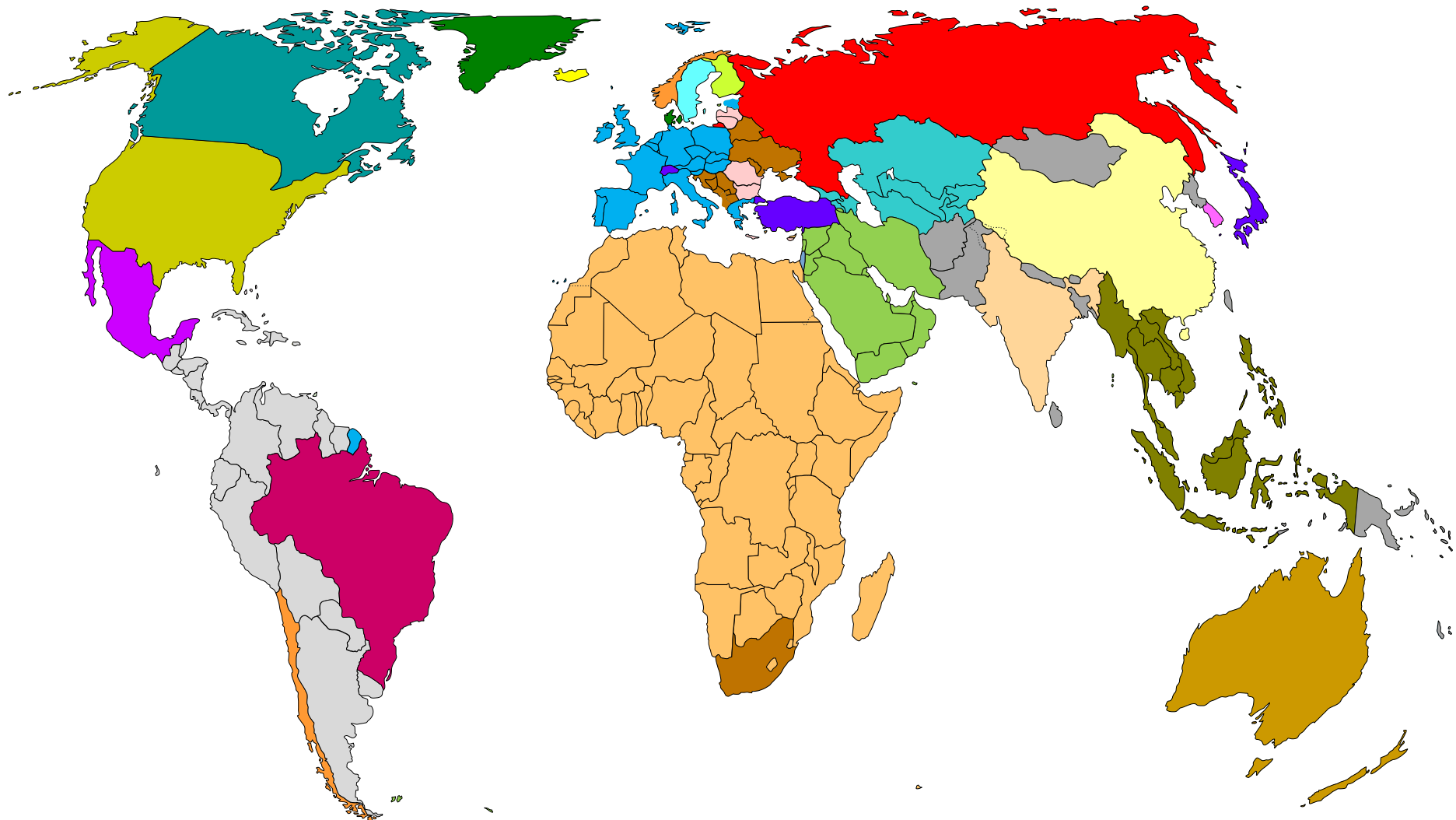
Global energy system in 2050

# How we generate our scenarios



ETP model finds cost effective investment and operation of energy technologies to meet energy service demands from now to 2050

# ETP model regions



28-region model  
28-region model



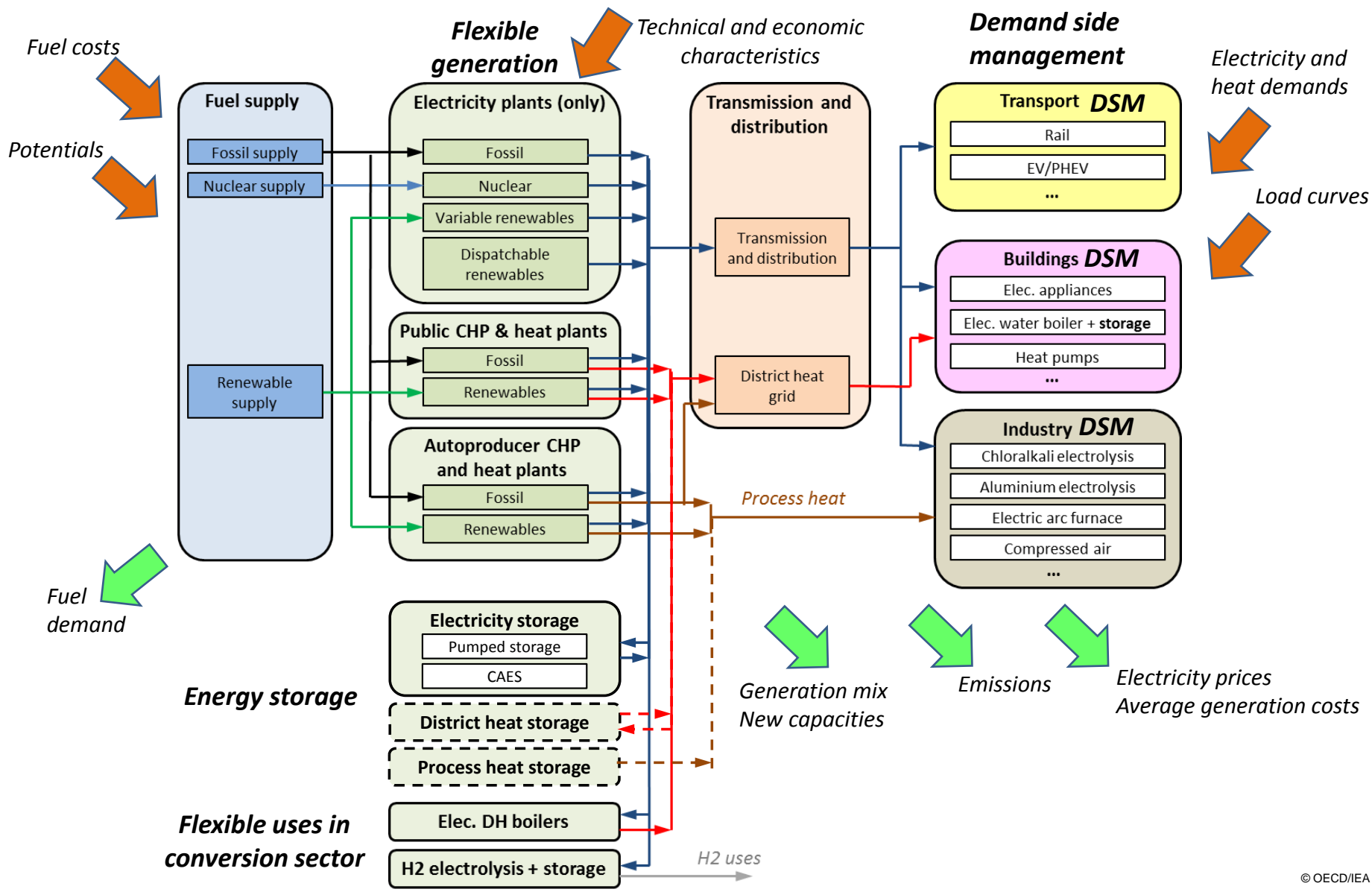
# **Supply-side and TIMES integration**

## **CHP/DHC Collaborative meeting**

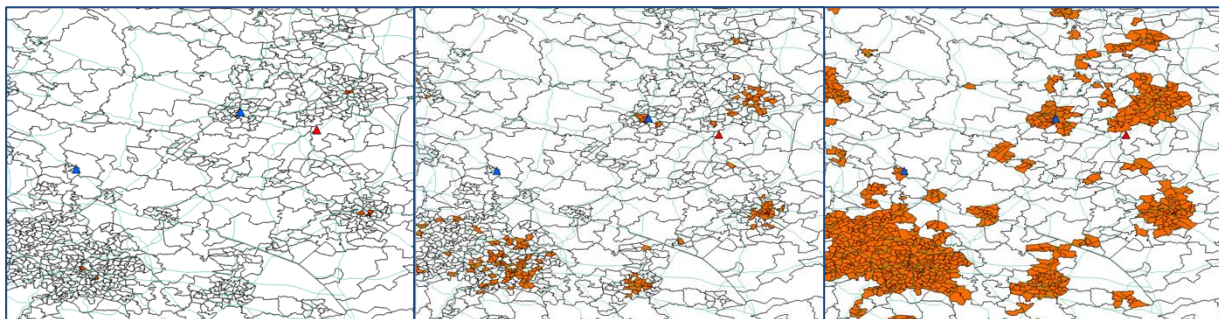
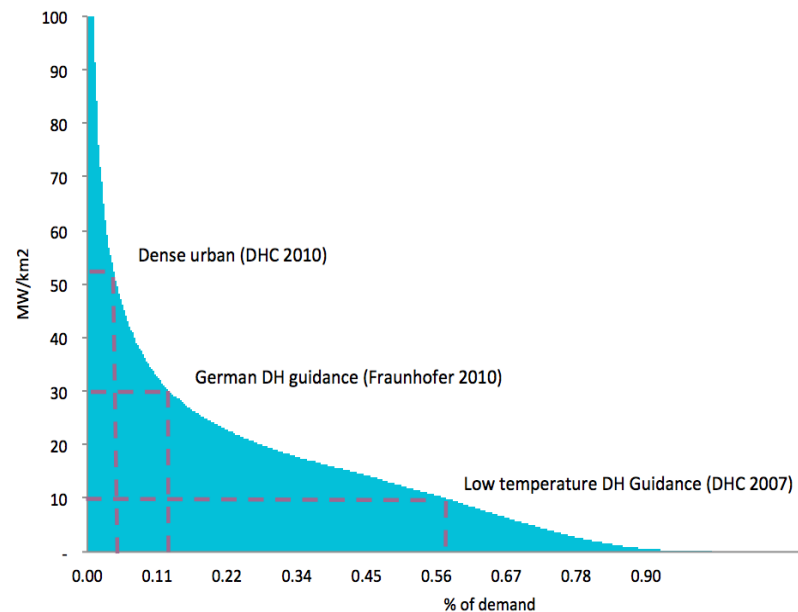
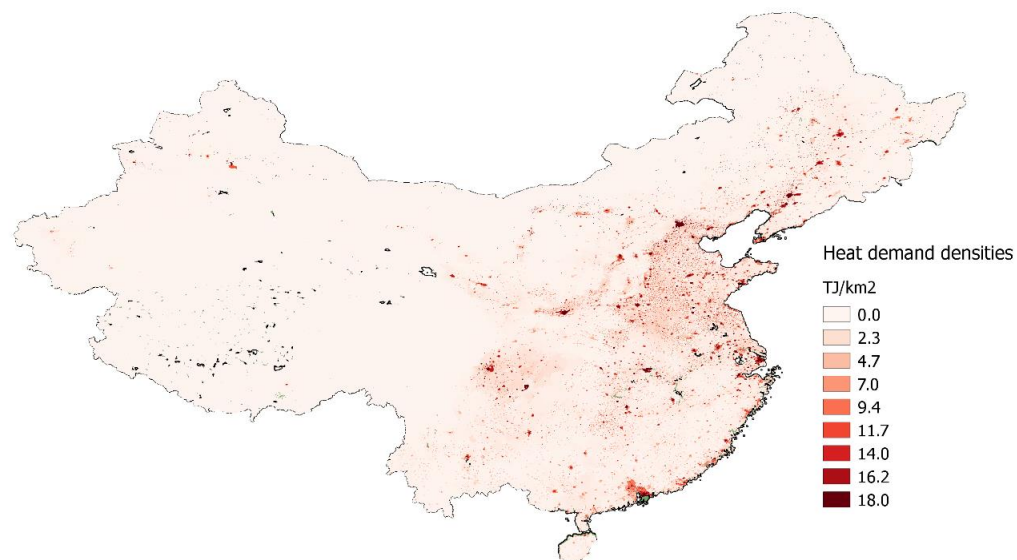
*Paris, 21 January 2016*

*Luis Munuera*

# Long-term ETP-TIMES model for the power sector (and linkages with heat, fuel production, DSM)



# Establish tranches of potential DH loads





# How the collaborative could assist

- **Revision of technology-economic input data for CHP/district heating**
  - Costs for heat and electricity technologies
  - Performance, efficiency
  - Costs for DH technology (e.g. distribution costs, heat exchangers)
- **Global energy investment report (recent cost tracking)**
- **Local heat mapping studies / economics of DH with new technologies**
- **Technology and economics of flexibility from power to heat**



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**Thanks!**

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