

Climate Resilience and Related Costs on Electricity Infrastructure in Europe

PROPOSING CLIMATE HAZARDS DATASET

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Photos: Swiss RE (2017)



Climate Hazards Dataset: Rationale

A reference point for the development of the new climate adaptation and resilience measures



Mapping and structuring climate hazards and their impacts on electricity grid infrastructure across Europe



Providing potential corresponding adaptation and resilience measures

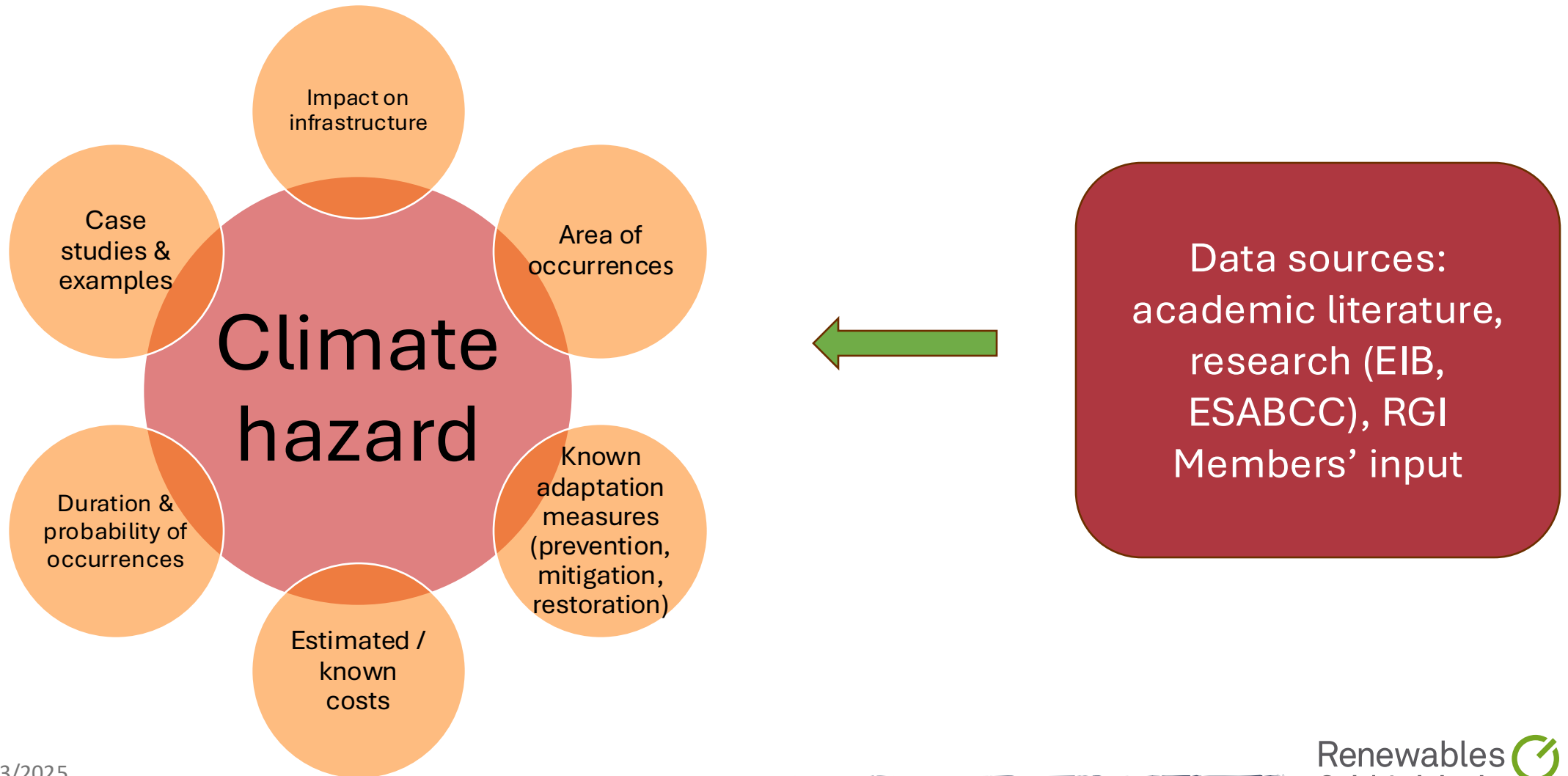


Assessing costs of impacts and solutions



Providing case studies and additional knowledge-base

Climate hazards dataset: Key elements



Climate Impacts and Related Costs on Electricity Infrastructure in Europe

[illegible]

- [illegible]

Climate hazards dataset: Data gaps

Probability of
occurrences

Partial data available

Down time &
repair time

No data available

Adaptation
measures

Partial data available

Data sources
(e.g., Digital
Twins)

Partial data available

Climate hazards dataset: Data gaps

Costs

Little to partial data available



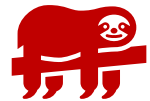
Damage / transmission loss



Estimated investments before / after (e.g., €/kW)



Mitigation measures (as CAPEX?)



Inaction (refraining from addressing hazards / specific hazards)



Indirect costs (OPEX?):

- Labour hours & equipment wearing
- Expected shortage of materials / raw materials