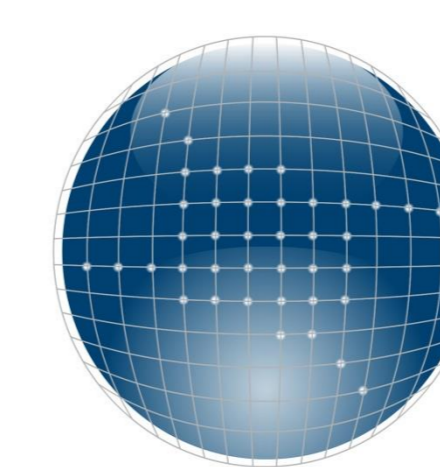


# IEA DHC ANNEX TS3 HYBRID ENERGY NETWORKS



## IRED 2018

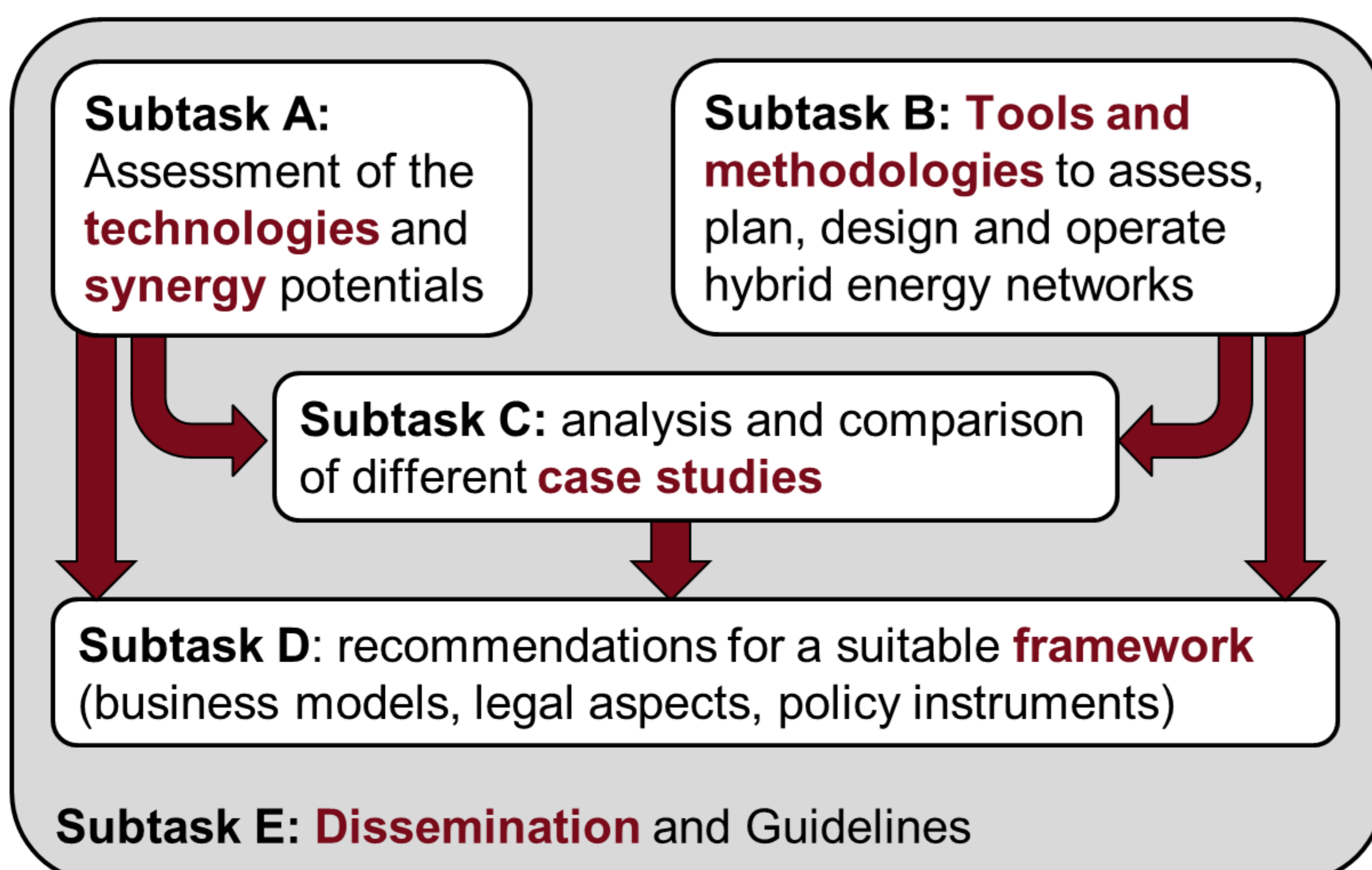
International Conference on Integration of Renewable and Distributed Energy Resources

### District heating and cooling networks in an integrated energy system context

The integration of district heating and cooling (DHC), electricity and gas networks into a hybrid energy network (HEN) is enabling the transformation, storage and distribution of energy and thus creating synergies that cannot be realized by only considering the individual networks. However, a high degree of hybridization also creates obstacles, e.g. a higher competition between the different domains.

Aim of the Annex is to promote the opportunities and to overcome the challenges for district heating and cooling (DHC) networks in an integrated energy system context.

The Annex provides a holistic approach for assessing, planning and operating HEN, considering both technical (system configuration, operational strategy) and strategic aspects (business model, regulatory frame).



### What are the outcomes?

The primary result of the Annex is a guidebook highlighting the relevant results of the different subtasks and thus providing a holistic understanding of all aspects leading to optimal planning and operation of DHC networks within a hybrid energy system on an international level. This includes:

1. Analyses of the available HEN technologies and synergies based on sample scenarios applicable in different countries
2. An overview of international case studies and the individual challenges as well as applied solutions
3. An assessment of the different methodological approaches and tools available for evaluation, design and optimization of hybrid energy networks
4. Recommendation on business models, market design and regulations enabling the optimal realization of HEN

### How it works?

The activities in the Annex are funded through a task-sharing approach, where each participant contributes resources in-kind (for example personnel or materials).

The task-sharing approach allows to connect existing national and international projects via the international platform and thus benefit from international experience and exchange.

### What we offer?

- An unique opportunity for networking between international experts from academia and industry,
- Dedicated know-how exchange at industry workshops and special sessions at key conferences
- An intensive cooperation with the International Smart Grids Action Network (and others)

### For whom?

- Utilities, energy suppliers & network operators (DHC, electricity, gas)
- Policy makers & regulative bodies
- R&D institutions and consultancies

### How do I get involved?

The project is open to new participants during its whole runtime, however, an early involvement enables a deep interaction with the other participants.

To join the project participants need to bring completed, ongoing or upcoming projects that address hybrid energy networks with a focus on DHC in the participants own country. Furthermore resources for processing the project results (e.g. translation) and participating in the workshops as well as special secessions are required.

### Time line:

2017	2018	2019	2020	2021	2022
Definition Phase	Preparation phase	Working Phase			Rep. phase

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