Procurement Guide for 4th Generation District Heating and Cooling

Julien Joubert – Energy Cities – 09 Dec 2019

Main messages

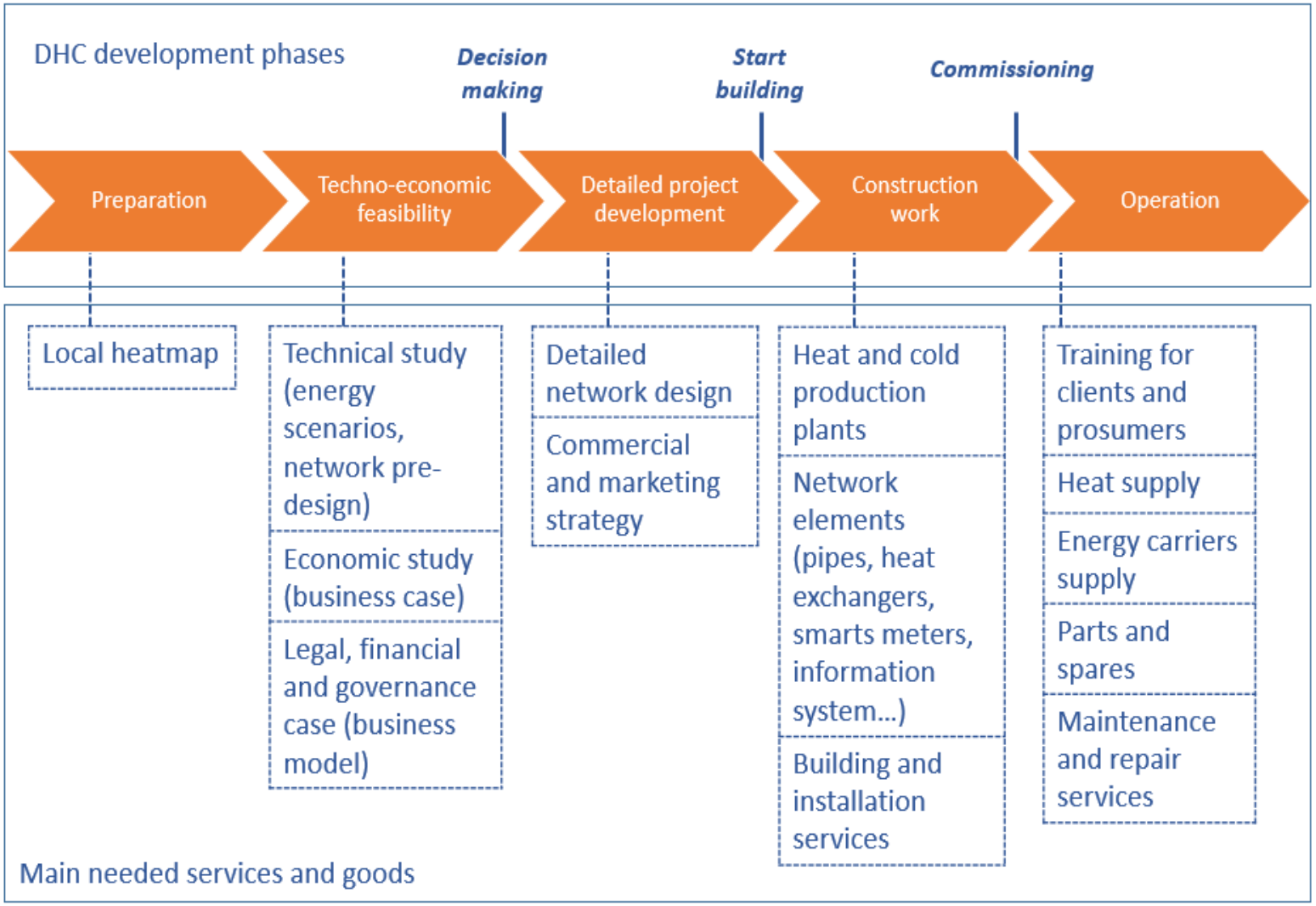
1. Differentiate procurement steps and project development steps

2. Choose procurement procedures adapted to your business models and types of projects

3. Carefully identified the key goods and services you need for 4th DHC networks:
   - Local heat map
   - Techno-economic feasibility studies including legal, financial and governance case
   - Training for clients and prosumers
   - Heat supply

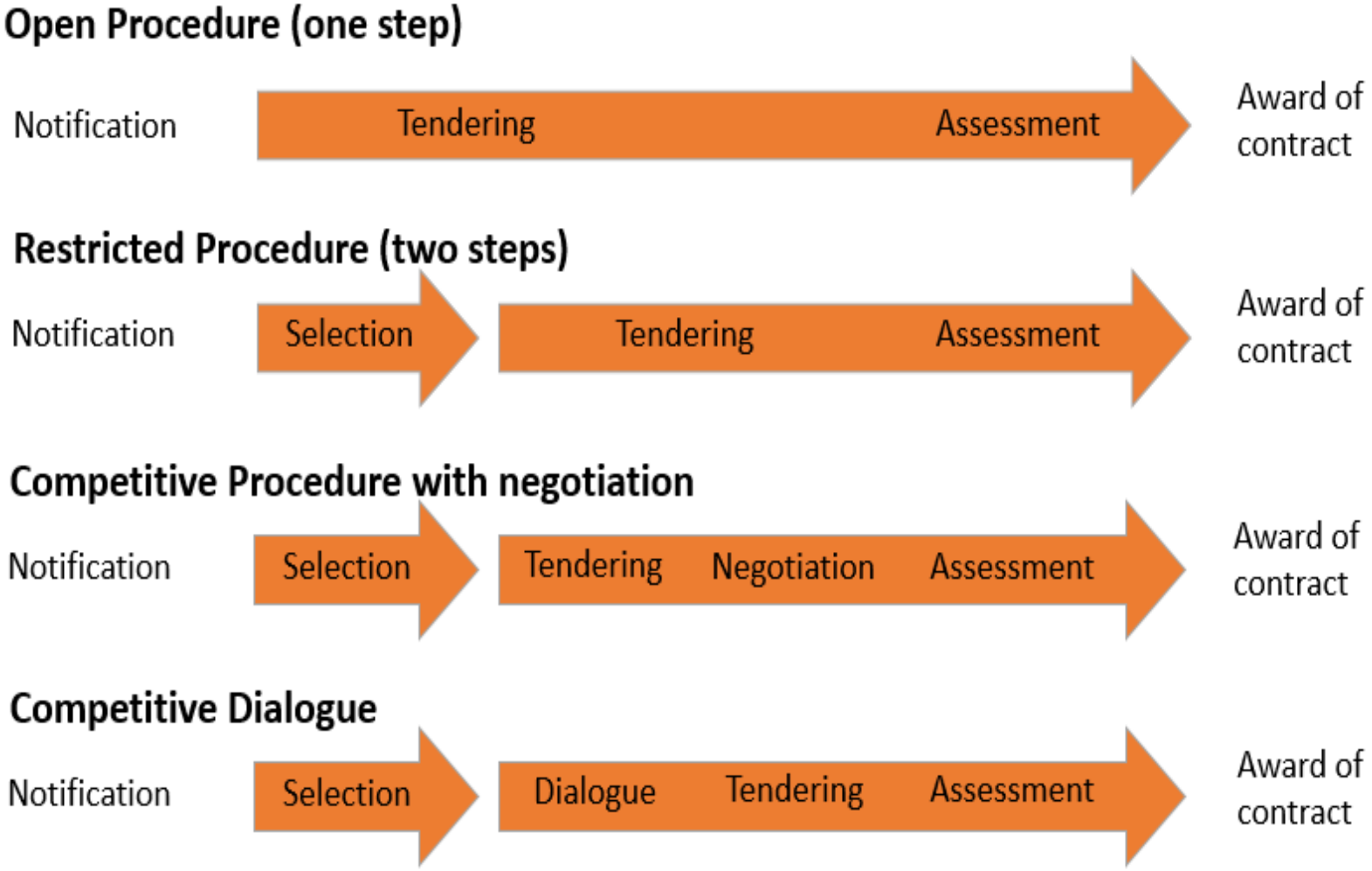
Project development steps

Interreg North-West Europe
HeatNet NWE



Procurement procedures

Interreg North-West Europe
HeatNet NWE
European Regional Development Fund



Procurement steps

Interreg North-West Europe HeatNet NWE

European Regional Development Fund

Define your needs (services, products)

Develop a sourcing strategy

Select the tendering procedure

Establish requirements, minimum expectations

Technical, legal, financial

Define scoring criteria

Lifecycle cost approach is critical to be used

Publish the tender and engage with potential suppliers

Invite candidates who have prequalified for dialogue and negotiations (in processes where applicable)

Test tenderers' capability to deliver the contract (in processes where applicable)

Respond to questions

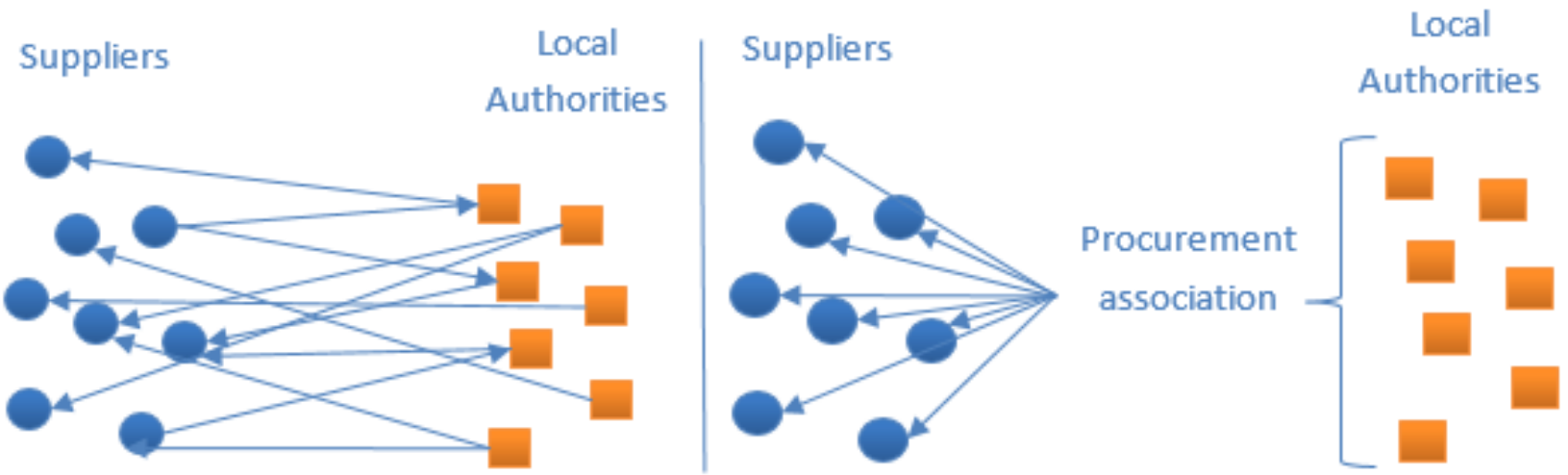
Provide feedback to all candidates (if applicable)

Evaluate bids against scoring criteria defined and select winning contractor

Observe standstill period (if applicable) and award contract

Procurement strategies

- Project Team and Steering Committee
- Joint procurement
- Engaging Suppliers
- Risk management



Schematic organisation of the usual market on the left and with a procurement association on the right

Local heat map

Key success factors

Identification heat sources

Current and projected heat and cold consumption of buildings

A lot of different data sources

Breaking down organisational communication barriers

Procurement procedure

Open or a restricted procedure usually

Stakeholders' engagement

Municipal departments (incl. energy, urban planning, facility managers…)

Utility and industrial companies

Local energy agency

Social landlords

Providers

Engineering consulting companies specialized in energy management and energy planning with special competencies in Geographic Information System (GIS)

Local and regional energy agency

Technical study

Key success factors

Heat temperatures of sources and demands

Matching supply and demand on short, medium and long-term

Impacts in terms of energy, air quality, costs…

City energy master planning

Ask 2-3 scenarios

Digitalisation

Procurement procedure

open or restricted procedure

competitive procedure with negotiation

Stakeholders' engagement

As soon as possible

Same than local heat map +

Industrial and commercial building owners

Providers

engineering consulting companies specialized in renewable energy sources and low temperature technologies

Key success factors

CAPEX and OPEX of different scenarios

net present value or internal rate of return

Sensitivity tests

Business models depending on

- key objectives
- attitude to risk
- the level of control desired
- regulatory compliance requirements
- access to finance
- desired rate of return on the investment

Procurement procedure

open or restricted procedure

competitive procedure with negotiation

Economic study

Stakeholders' engagement

As soon as possible

Strong political involvement

Providers

engineering consulting companies with competencies in project financing

consulting companies specialized in market analysis and technical projects

Case study
Aberdeen City Council

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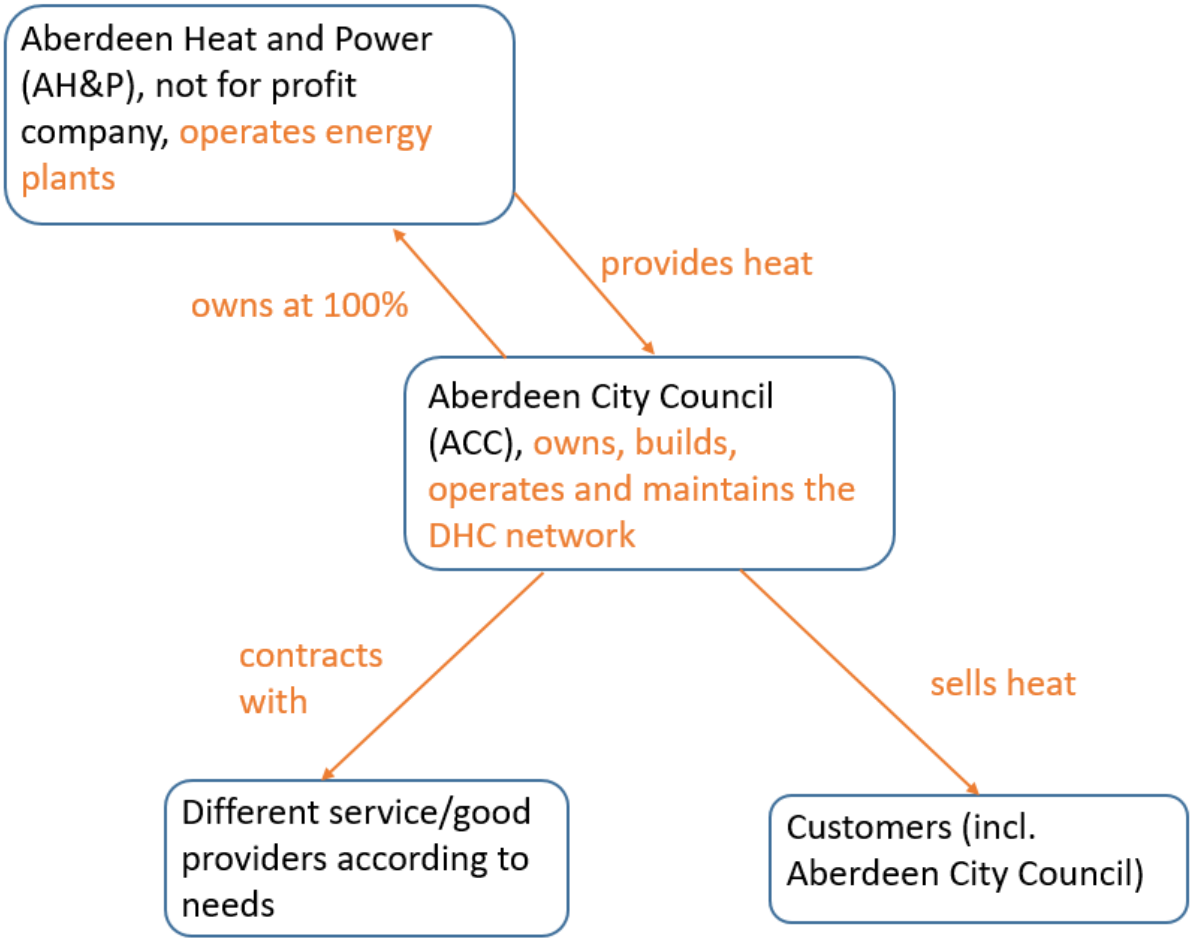
Organisational chart of the business model of the Aberdeen 4DHC Project



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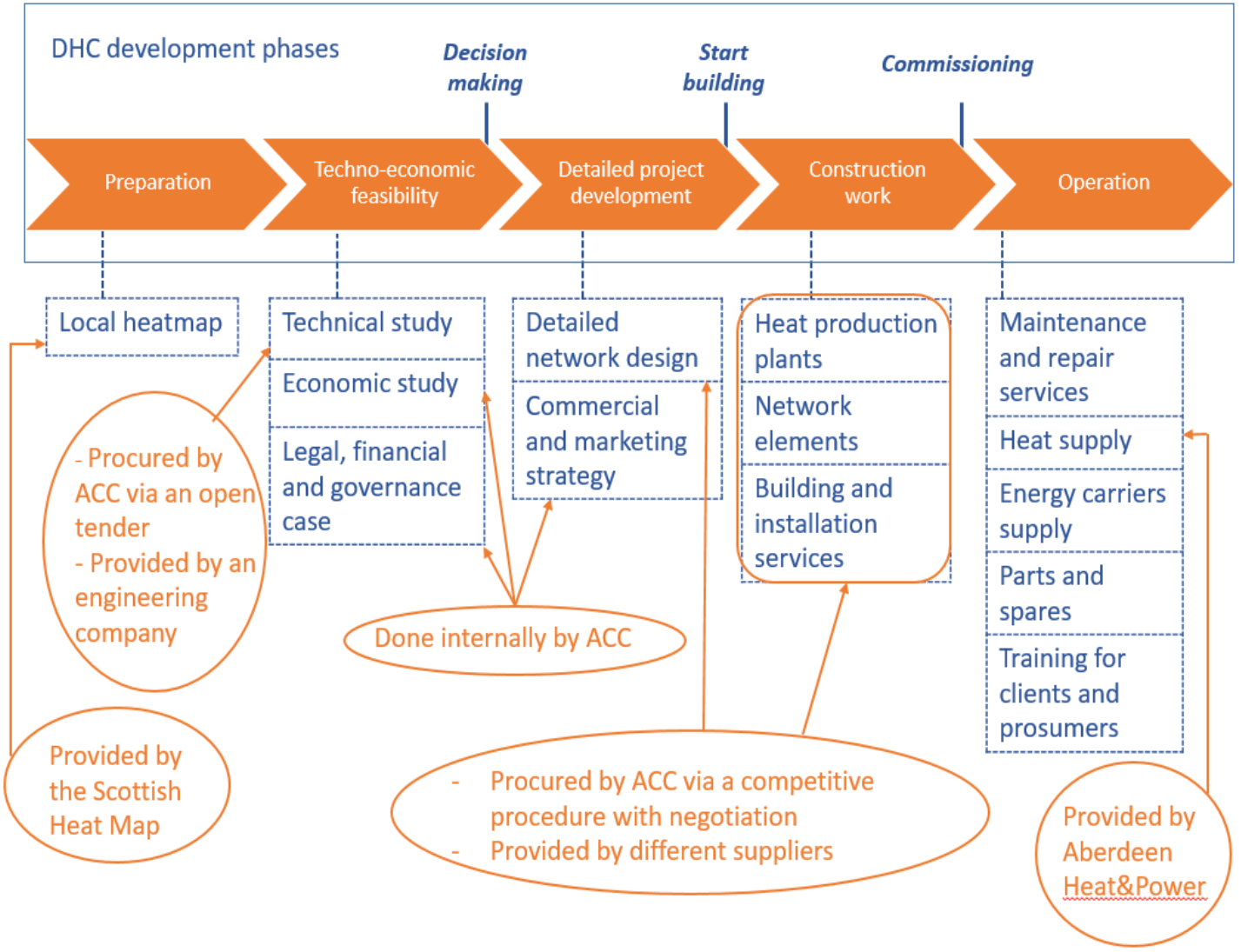
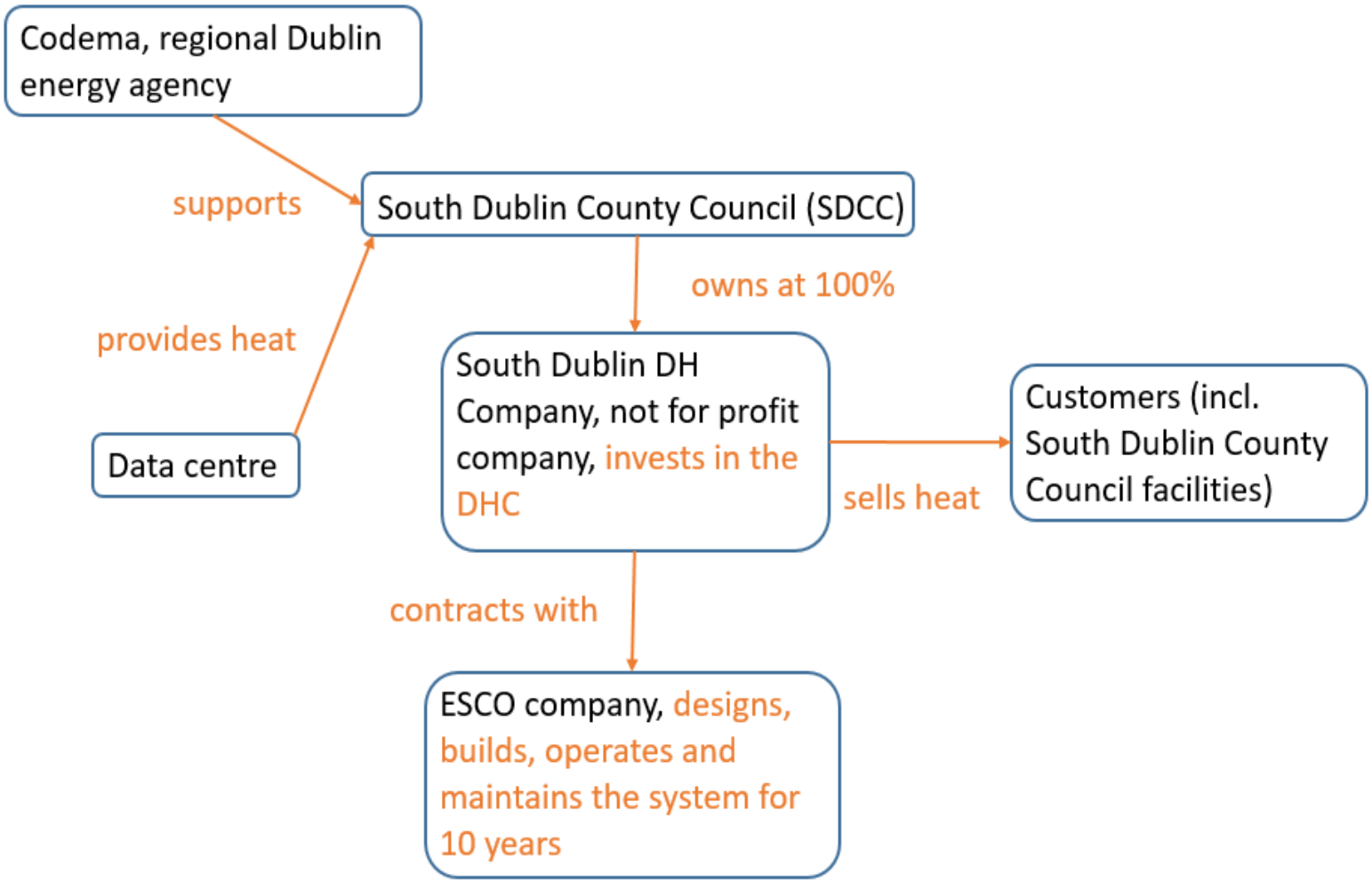


Case study
South Dublin City Council



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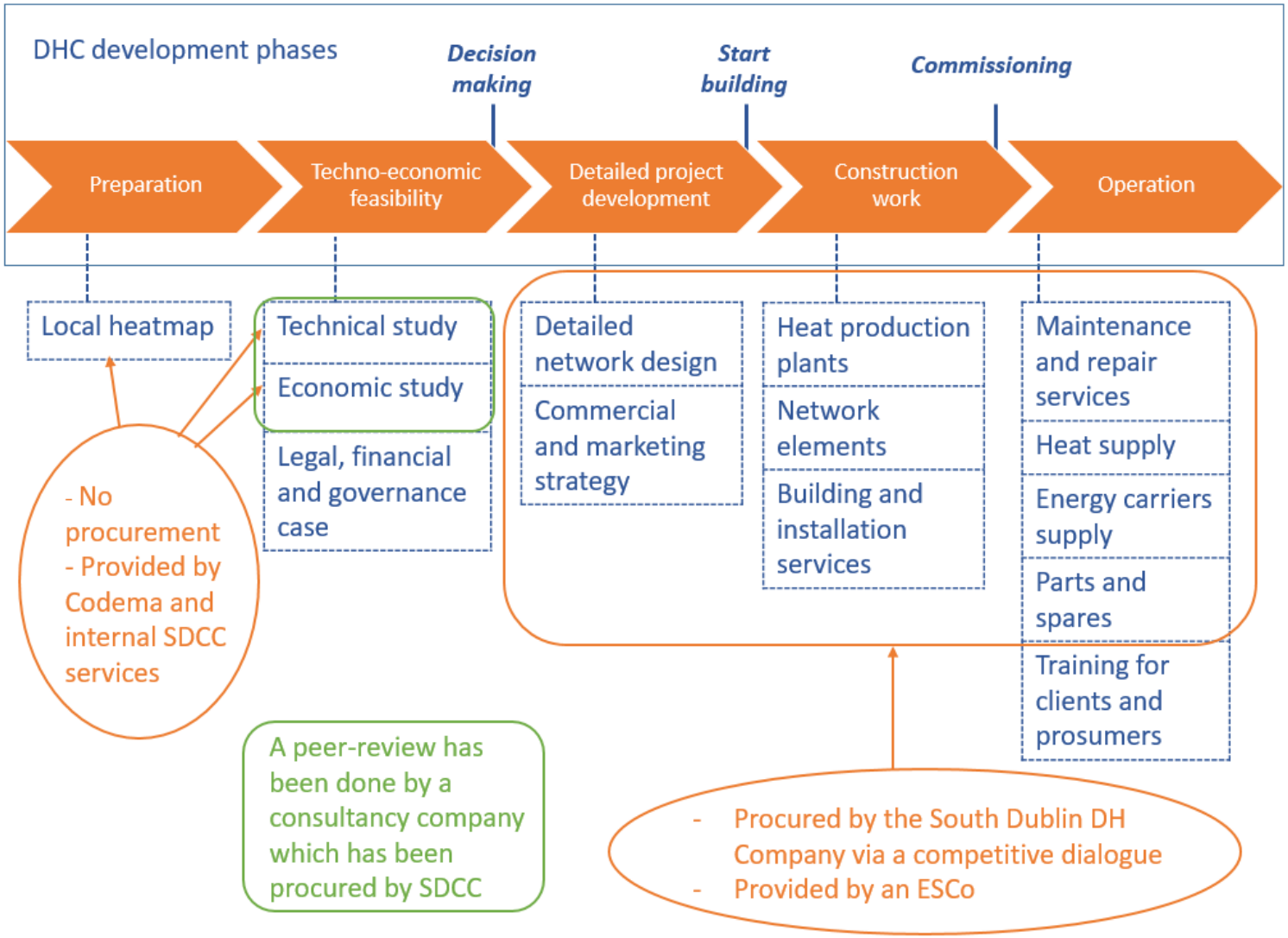

To go further

Case studies

List of resources to find providers

Things to keep in mind

- about 4DHC development
- about procurement process

Download the guide here!

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European Regional Development Fund

Thank you!