



RESULTS AND LESSONS LEARNED

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Table of Contents

1	Project Background and Objectives	3
1.1	Project Development Units as a municipal model	3
1.2	The main tasks of PDUs	3
1.3	From planning to investment decision.....	4
2	Three PDUs – one common approach	5
2.1	PDU Fyn	5
2.2	PDU Trekantområdet	5
2.3	PDU Sønderborg.....	6
3	Investments and climate impacts	6
3.1	Breakdown by solution.....	7
3.2	Energy and climate impacts	8
3.3	Documentation and assessment of the project’s contribution	8
4	Cooperation, capacity and continuation.....	9
4.1	Strengthened local coordination.....	9
4.2	Lessons learnt and application in other local authorities	9
4.3	Sustainability after the project period	10
5	European relevance and conclusions.....	11
5.1	Link to the EU framework	11
5.2	Key lessons learnt.....	11
5.3	Conclusion	12

1 Background and Objectives of the Project

Decarbonising domestic heating is a key part of the EU's and national climate strategies. In Denmark, local authorities have drawn up climate and heating plans, and the key technologies are mature and available. However, this does not mean that the projects are implemented automatically.

Local heating projects continue to be hampered by a lack of coordination, fragmented decision-making processes and limited capacity to develop projects through to an investment decision.

COHEAT was launched to bridge the gap between planning and implementation. The project aimed to strengthen local authorities' capacity to promote investment in green heating and energy renovation through the establishment of project development units, also known as PDUs, in the Region of Southern Denmark (PDU = Project Development Unit).

The aim was to mobilise private and collective investment by breaking down non-technical barriers and strengthening coordination between local authorities, utility companies, financial institutions, homeowners and other relevant stakeholders. COHEAT did not finance the infrastructure itself. Instead, the project improved the conditions enabling others to make and implement investment decisions.

1.1 Project Development Units as a municipal model



The COHEAT project established three sub-regional project development units: PDU Fyn, PDU Trekantområdet and PDU Sønderborg. These units comprised a total of seven investing local authorities. A further 15 local authorities participated in learning and dissemination activities with a view to applying the project's lessons learnt.

The PDUs were municipally-based platforms for project development and coordination. They were not new authorities and did not take over responsibilities from the local authorities or utility companies. Instead, they brought together the activities necessary to take a project from the planning stage to investment.

1.2 The PDUs' main tasks

- ✓ Coordination of municipal heating planning and infrastructure development.
- ✓ Targeted information, advice and public engagement.
- ✓ Collaboration with district heating companies and technology and service providers.
- ✓ Dialogue and coordination with financial institutions.

- ✓ Screening and development of projects relating to district heating, heat pumps, thermal networks and energy refurbishment.
- ✓ Systematic monitoring and documentation of mobilised investments.

1.3 From planning to investment decision

The PDUs did not make the investment decisions themselves. They improved the basis for decision-making by providing clarity on relevant solutions, timetables, economics and financing options. At the same time, they coordinated information from local authorities, utility companies, consultants and financial stakeholders. This reduced uncertainty for homeowners and other investors.

The process can be described as a chain: heating planning sets the direction; project development and coordination make the options concrete; homeowners and project owners make informed decisions; the investments are implemented; and the investments generate energy and climate benefits.

The model was not based on any one specific technology. It could be adapted to areas with district heating, rural areas with individual heating solutions, and villages where local collective systems might be relevant. This flexibility was important because local conditions and national framework conditions changed during the project period.

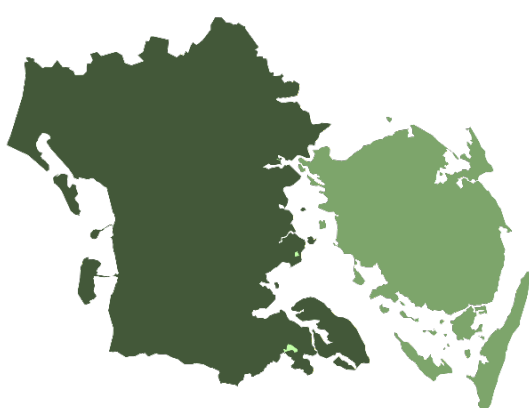


Stakeholder meeting

2 Three PDUs – one common approach

The three PDUs worked according to a common model, but the results varied depending on local conditions, the maturity of the infrastructure and the applicable framework conditions. These differences demonstrate the model's adaptability and do not in themselves reflect differences in the quality of the initiatives.

2.1 PDU Fyn



PDU Fyn covered the municipalities of Nyborg, Svendborg, Assens and Faaborg-Midtfyn. The area comprises both towns with potential for district heating expansion and rural areas where homes were still heated with oil or gas. This required a combination of collective and individual solutions.

District heating became the largest investment category. Inter-municipal coordination made it possible to share experiences and apply common methods for engaging with residents, screening

and documentation. At the same time, targeted information and advisory activities contributed to investments in energy renovation. Work on the Termonet project reached an advanced stage and established a technical and organisational foundation for further development.

2.2 PDU Trekantområdet



The PDU Triangle Area comprised the municipalities of Middelfart and Kolding. Here, a large proportion of the investment was mobilised through the expansion of the district heating network. Public engagement was carried out in close coordination with the planning and implementation of the district heating projects, ensuring that homeowners received information at relevant stages of the process.

Data-driven screening was used to prioritise areas with high potential for heating conversion. The district heating projects were supported, amongst other things, by municipal guarantees

in connection with loans through KommuneKredit. Investments in energy renovation were also mobilised, but district heating accounted for by far the largest share.

2.3 PDU Sønderborg



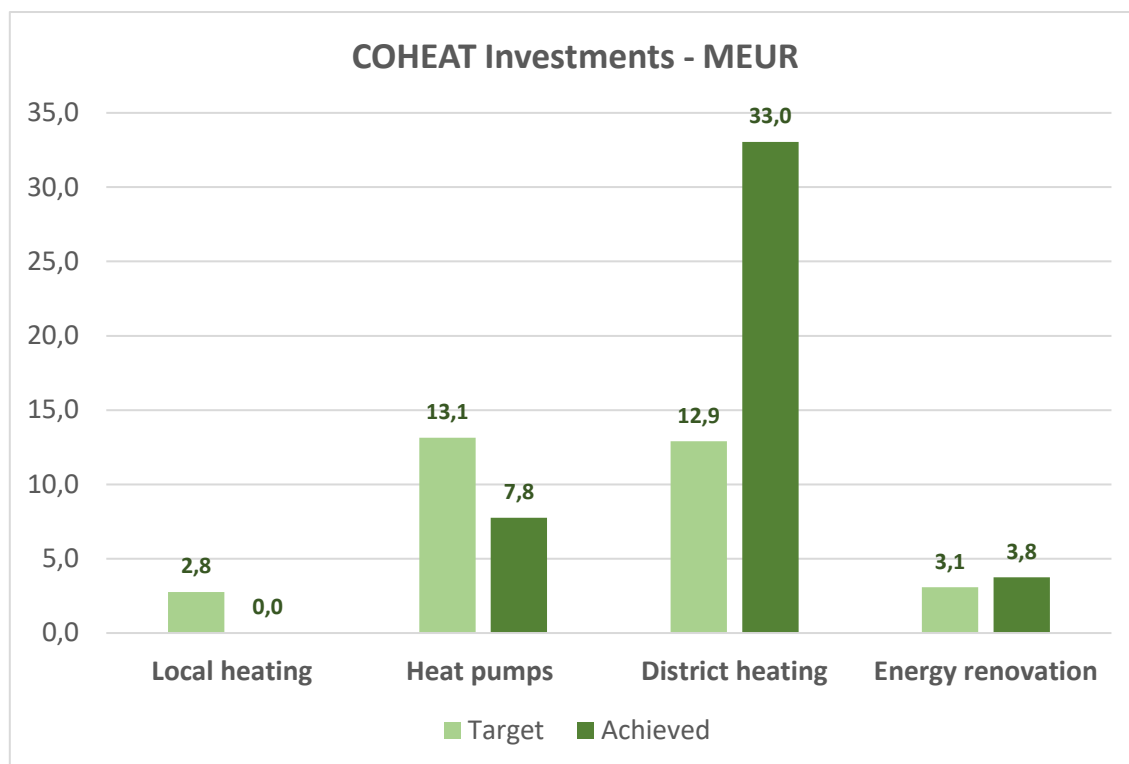
PDU Sønderborg built on the municipality's long-standing climate efforts and the existing collaborative structures surrounding ProjectZero. This provided a strong organisational foundation and the opportunity to work with a range of solutions.

District heating expansion was central, but investments were also mobilised for individual heat pumps in areas without district heating and for energy-efficient refurbishment of homes. The

PDU was able to integrate project development into the existing local climate efforts, thereby creating continuity and trust amongst the stakeholders involved.

3 Investments and climate impacts

The project's objective was to mobilise investments totalling **EUR 31.87 million** between November 2022 and October 2025. By the end of the project, investments totalling **EUR 44.57 million** had been mobilised and documented. This corresponds to approximately 140 per cent of the original target.



3.1 Breakdown by solution

The investments mobilised included the expansion of district heating, energy refurbishment of private homes and the installation of individual heat pumps.

District heating constituted the largest category. This reflected both local project opportunities and the national prioritisation of district heating in areas where the solution was socio-economically advantageous.



Investments in **energy refurbishment** were promoted through data-driven targeting, personal contact, public meetings, and technical and financial guidance, which reduced homeowners' uncertainty regarding investment decisions.



Investment in **individual heat pumps** was more limited than originally anticipated. In areas with plans for district heating, many homeowners chose to postpone an individual investment. In areas where district heating was not an option, heat pumps remained a viable solution.



Local collective solutions such as 'Termonet' reached an advanced stage of preparation in several villages. Technical studies, public engagement and analyses of organisational and financing models were carried out. However, no final investment decisions were taken within the project period. Experience shows the need for clear frameworks for ownership, long-term operational responsibility and financing. At the same time, the work provides a basis for further developing the projects and improving the framework conditions.



Presentation of district heating solutions

3.2 Energy and climate impacts

The investments mobilised result in annual savings of 28,297 MWh of primary energy and annual reductions of 5,544 tonnes of CO₂ equivalents. The effects stem primarily from the replacement of oil and gas boilers, the expansion of district heating, the installation of heat pumps and improvements to the energy efficiency of buildings.

The calculations are based on standardised methods and conservative assumptions. They include only documented investments that could be linked to COHEAT's activities. No extrapolation has been made to other or future investments. The results should therefore be regarded as a conservative estimate of the annual impact of the mobilised investments.

Primary energy savings	28,297 compared with 37,477 MWh/year
Reduction in greenhouse gas emissions	5,544 versus 6,742 tonnes/year

3.3 Documentation and assessment of the project's contribution

Investments were not automatically attributed to COHEAT simply because they took place in a participating municipality. The documentation included, amongst other things, contracts and invoices for public infrastructure, municipal management statements, declarations of truth and accuracy from homeowners, and checks against relevant registers. This approach strengthens the credibility of the results.



Public meetings

4 Cooperation, capacity and sustainability

COHEAT's results extend beyond the investment amount. The project strengthened the municipalities' capacity to develop and implement projects and established working methods that can be used after the project period.

4.1 Strengthened local coordination

The PDUs improved coordination between municipal departments and created greater coherence between heating planning, public engagement and infrastructure development. Collaboration with district heating companies became more structured, and financial stakeholders were involved in the dialogue on the heating transition and energy renovation.

The targeted public engagement went beyond providing general information. The local authorities used their knowledge of buildings, geographical areas and infrastructure timetables to tailor their communication. This gave homeowners a clearer basis for making decisions at the right time.

4.2 Lessons learnt and application in other local authorities

A further 15 local authorities took part in the project's learning activities. Four thematic events were held, attended by more than 100 participants from local authorities, utility companies, financial institutions and professional organisations. These events provided a forum for discussing results, barriers and limitations.

COHEAT compiled methods for citizen engagement, screening, documentation, financial dialogue and follow-up into a toolbox (the COHEAT Toolbox). The tools are not tied to any one technology or any specific local authority. They can be used in whole or in part and adapted to local conditions.

4.3 Continuation after the project period

The long-term value of the PDU model lies in its municipal and organisational anchoring. Workflows, collaborative relationships and documentation methods can be continued as part of the municipalities' day-to-day work. Dedicated funding can strengthen capacity, but the core approach depends primarily on local prioritisation and sufficient resources.

The project also provided input for the development of the national framework. Experience with Termonet, for example, shows how unclear rules regarding organisation, operation and funding can prevent technically sound projects from reaching an investment decision. Municipal project development can break down many barriers, but cannot replace clear and stable framework conditions.



COHEAT workshop with the financial sector

5 European relevance and conclusions

The challenge addressed by COHEAT is not unique to the Region of Southern Denmark. Many European local authorities have climate and heating plans and access to mature technical solutions but lack the local capacity to translate these plans into projects and investments.

5.1 Link to the EU framework

The PDU model can support the implementation of the EU's energy and climate legislation. The Energy Efficiency Directive intensifies efforts to achieve energy savings. The Buildings Directive increases the need for renovation and local support structures. The Renewable Energy Directive promotes renewable heating and cooling. The Social Climate Fund is intended to support vulnerable households affected by the transition.

Financial support schemes are important, but they do not, on their own, ensure that investments are carried out. There is also a need for local guidance, coordination and project development. The PDU model shows how this capacity can be organised within existing local authority structures

5.2 Key lessons

- Project development should be embedded within the local authorities' organisation and day-to-day work.
- Public engagement should be coordinated with heating planning and the infrastructure timetable.
- Financial stakeholders should be involved at an early stage and in a systematic manner.
- New collective solutions require clear rules and sustainable models for ownership, operation and financing.
- Documentation and careful attribution are crucial for credible results.
- The model should be adapted to local conditions rather than copied directly.

5.3 Conclusion

COHEAT demonstrates that municipally-based project development units can mobilise significant private and collective investment without direct subsidies for the infrastructure. By creating coherence between planning, project development, financing, infrastructure and citizen involvement, the project contributed to documented investments totalling **EUR 44.57 million**.

The project's key lesson is that the heating transition is not merely a technical task. It also requires local capacity to bring stakeholders together, improve the basis for decision-making and drive projects towards investment. The PDU model provides local authorities and regions with a practical approach that can be adapted to different circumstances and used to accelerate the transition to green heating.

