

# Project TwoPager | EuroTeQaThon III

## PROJECT DETAILS

**Challenge Collaborator:** Tallinn University of Technology (TalTech)

**Team name:** 4Evolution

**Team slogan:** Empowering Energy Efficiency 4 Everyone

**Team members**



Hamidreza Zarrinkafsh	PhD in the Design of Green Urban Digital Twins	TalTech
Phil-Yannick Borkenhagen	Master Computer Systems Engineering	TalTech
Dominik Beckers	PhD in Governance of Smart City Transitions	TalTech

*What is the target problem for your project (in one sentence)?*

At the current speed of renovation, the EU will miss its target of decarbonising the building sector by 2050 and renovating existing building stock due to cumbersome renovation processes, inaccessible or unattractive financing schemes and a disintegrated renovation supply chain.

*How do you solve it (in max. three sentences)?*

We are an End2End energy efficiency solutions provider that orchestrates the entire renovation process of buildings. By focussing on solutions that improve energy efficiency, we offer quick and uncomplicated planning services, organisational coordination with key stakeholders such as contractors and auditors, legal and administrative advice, post-renovation maintenance as well as financing of renovation projects through various means, such as on-bill schemes facilitated through utility companies.

## Potential for impact

4EVOLUTION support renovations for more energy-efficient dwellings and makes them more accessible to more households in Estonia and Europe. Especially those households that do not possess the time, know-how or resources to manage renovation processes benefit from our solutions both, in terms of management as well as financing, which we aim to provide through our own in-house crowdfund. We thereby also offer green and socially-responsible investment opportunities to interested investors. Ultimately, not only households and investors benefit, but the environment and society at large thanks to improved energy efficiency of our building stock.

## Innovation

Today, services and solution providers exist for several stages of the renovation process. Our End2End solution integrates all different stages and offers a comprehensive package that covers all different lifecycle stages. In terms of financing, bank loans are still the most common means used by households. However, they are oftentimes unattractive or altogether inaccessible to many households. Through our crowdfunding approach, combined with a utility-on-bill scheme facilitated by utility companies, through which households can pay back their renovation costs through the utility savings that have been enabled thanks to their renovation, we make energy-efficiency renovation more accessible and appealing to more households.

## Feasibility

To make our project feasible, we need to engage several key stakeholder groups, most importantly contractors / building companies, utility companies, auditors, legal experts and technical / data experts. The relationship with these stakeholders and the concentration of their expertise under one roof is our main competitive advantage and the backbone of our infrastructure. As we're holding only few physical assets and provide a service rather than a product, we consider the seed capital needed to be moderate. In our first full year of operation (2024), we aim at 20 ongoing and/or ongoing full-scale renovation projects, plus an additional 30 item-based projects (e.g. installation of heat pumps) in Estonia. In the medium- to long-run, we want to enter the European market and provide our services internationally.

## Inclusivity

All of the listed stakeholders are involved in the solution developments process. The main focus lies on integrating their already existing capacities and services into our End2End solution. All key stakeholders have already been consulted, and their feedback integrated into our business idea. For instance, we limited our main customer target group in line with construction companies' and utility companies' business models and commercial targets.



**Dominik**  
Business  
Development  
Expert



**Hamidreza**  
Subject  
Matter  
Expert



**Phil**  
Platform  
Expert

