

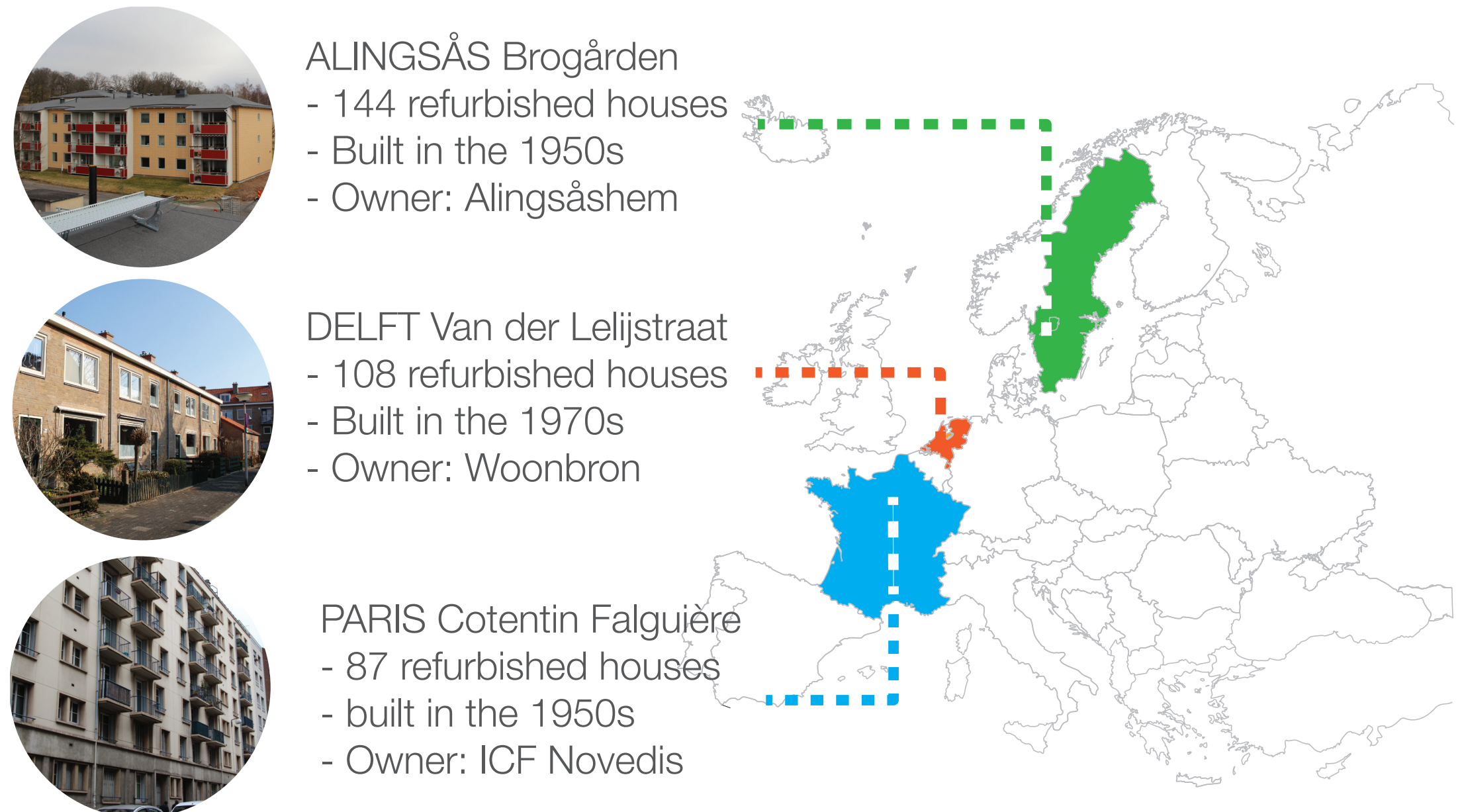
MARKET POTENTIAL FOR DEEP ENERGY RETROFIT IN SOCIAL HOUSING

BEEM-UP  WWW.BEEM-UP.EU



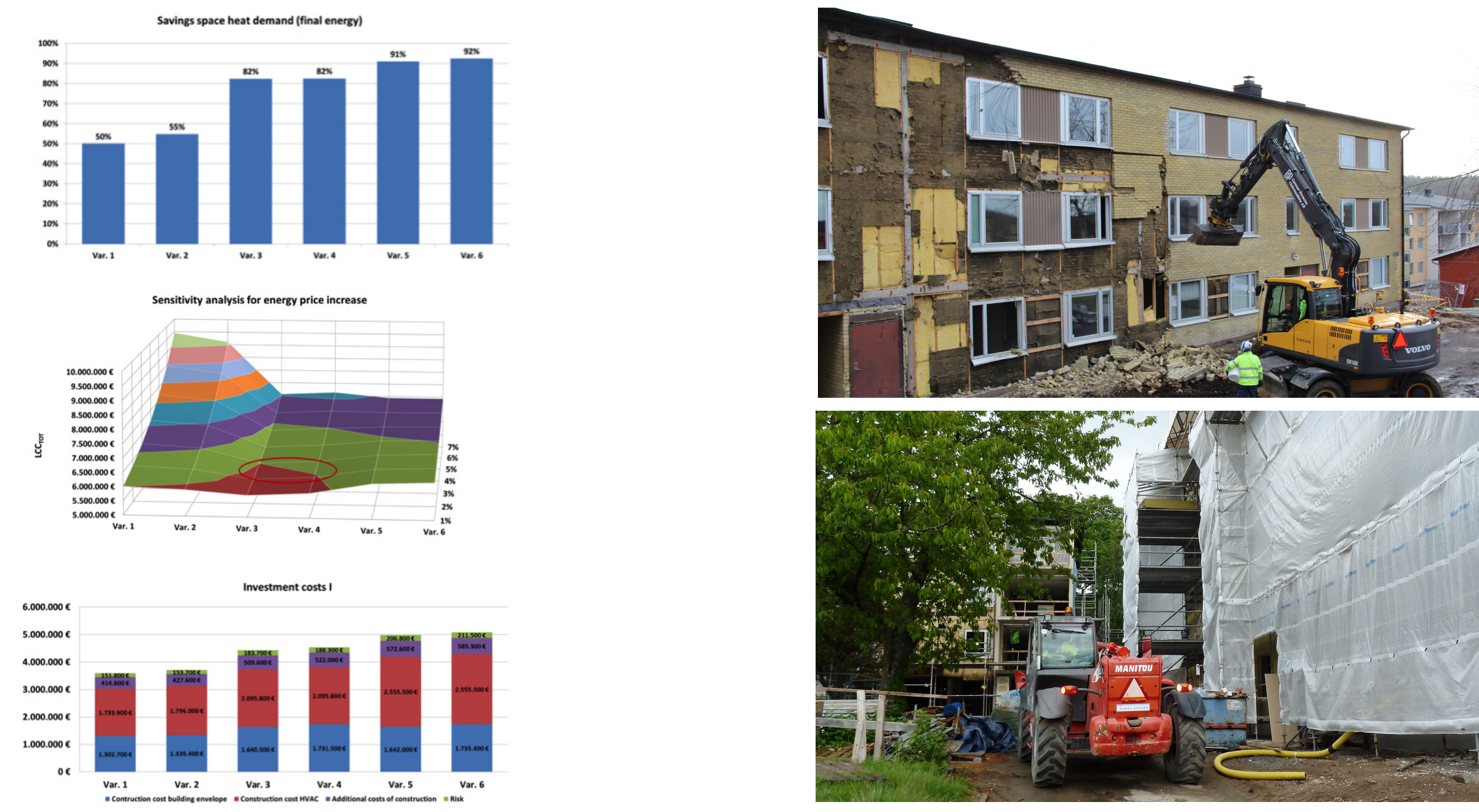
BUILDING ENERGY EFFICIENCY FOR MASSIVE MARKET UPTAKE

BEEM-UP demonstrates the economic, social and technical feasibility of retrofitting initiatives, drastically reducing the energy consumption in existing buildings.



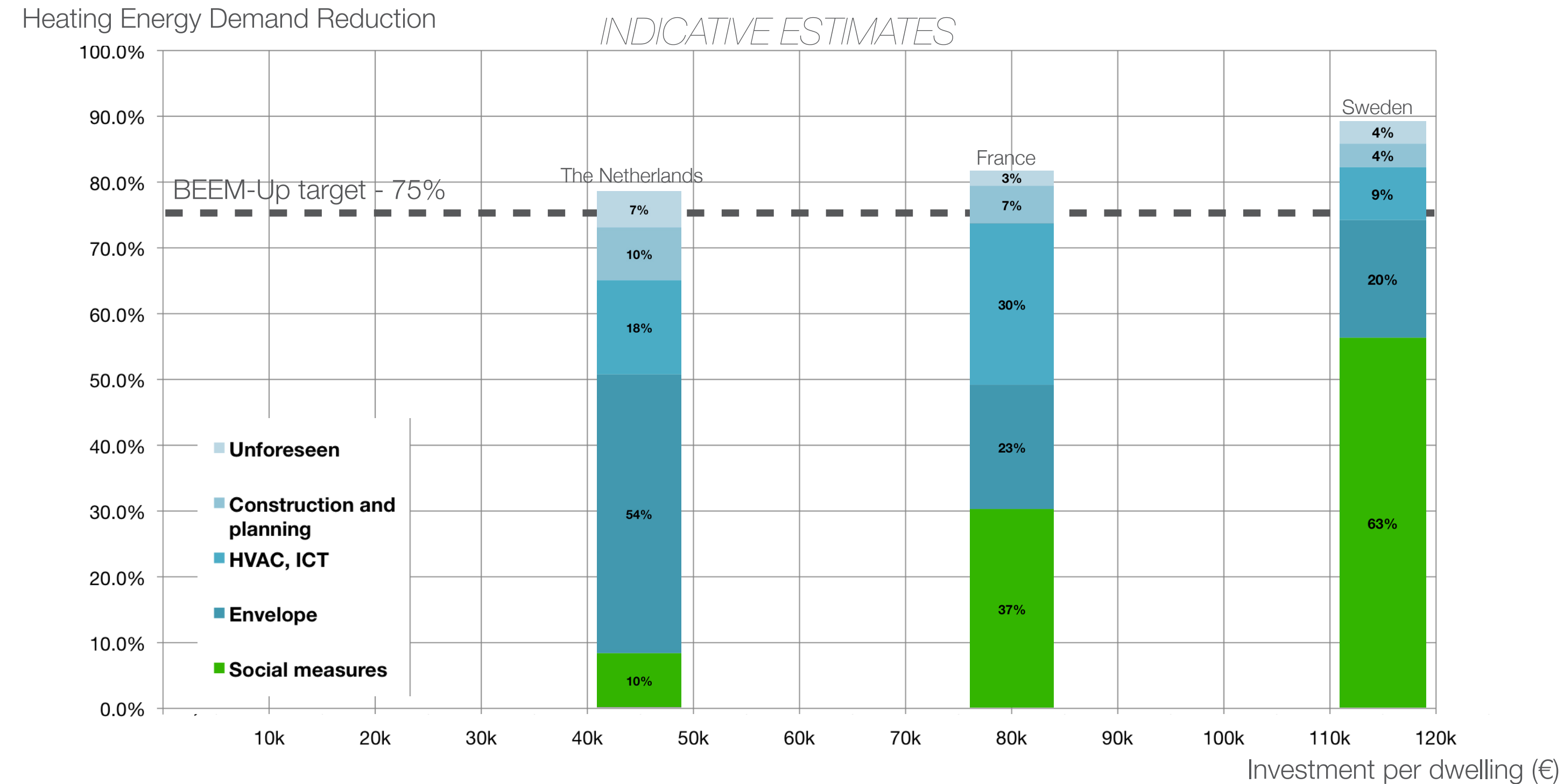
Deploying a four-dimensional approach of static (building envelop improvement), active (ICT systems), social (tenants involvement) and financial measures (innovative financing instruments), the consortium aims to identify cost-effective 'solution packages' that go beyond 75% heating energy demand reduction.

MULTIPLE VARIANTS OF TECHNICAL MEASURES WERE ANALYSED



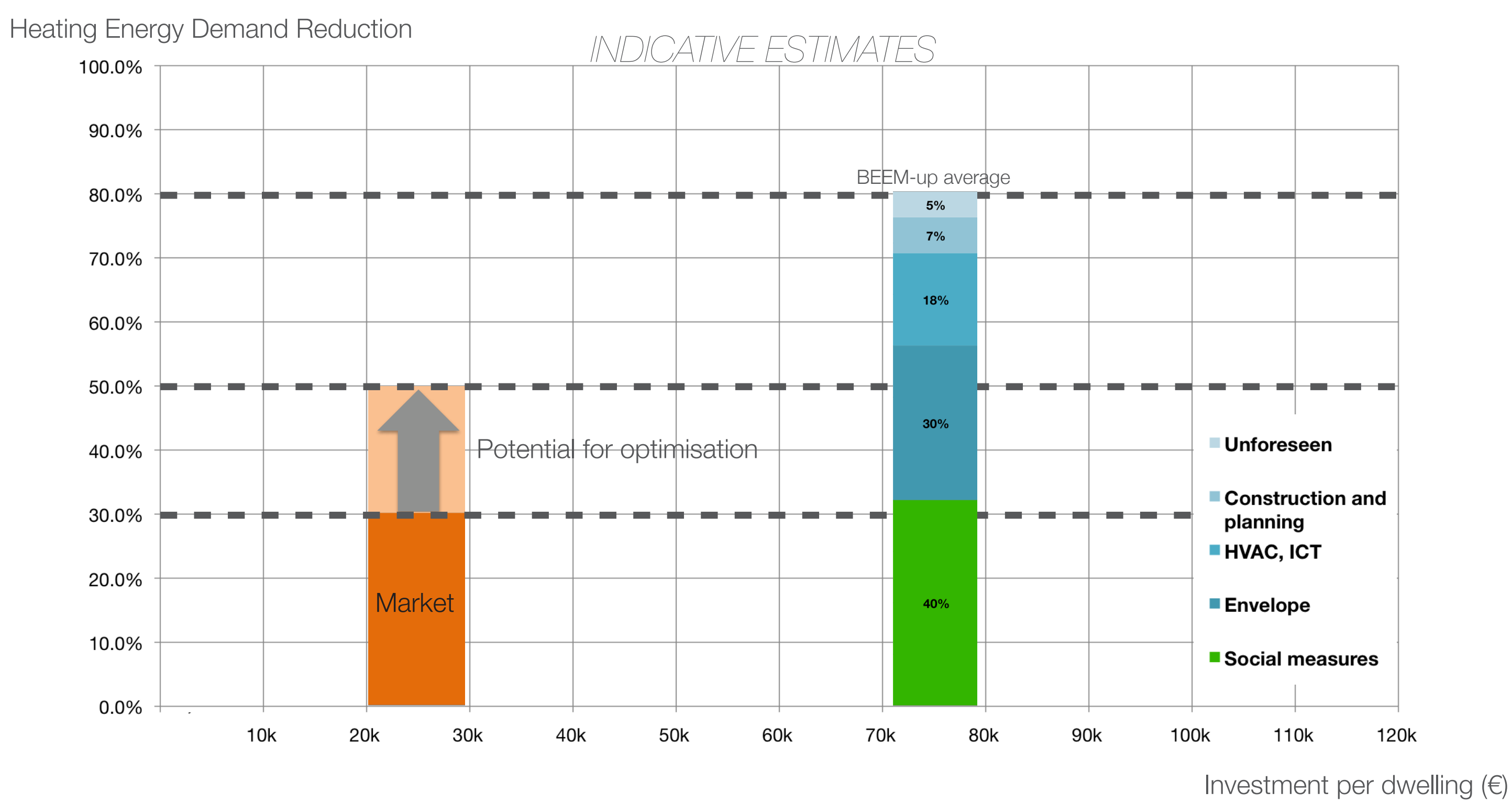
Six different technology packages have been analysed for each pilot site in order to choose the most optimal scenarios for refurbishment. Life Cycle Cost analysis has been performed. The most cost-effective technology packages have been implemented in the pilot sites.

PRELIMINARY ESTIMATES OF THE ENERGY DEMAND REDUCTION



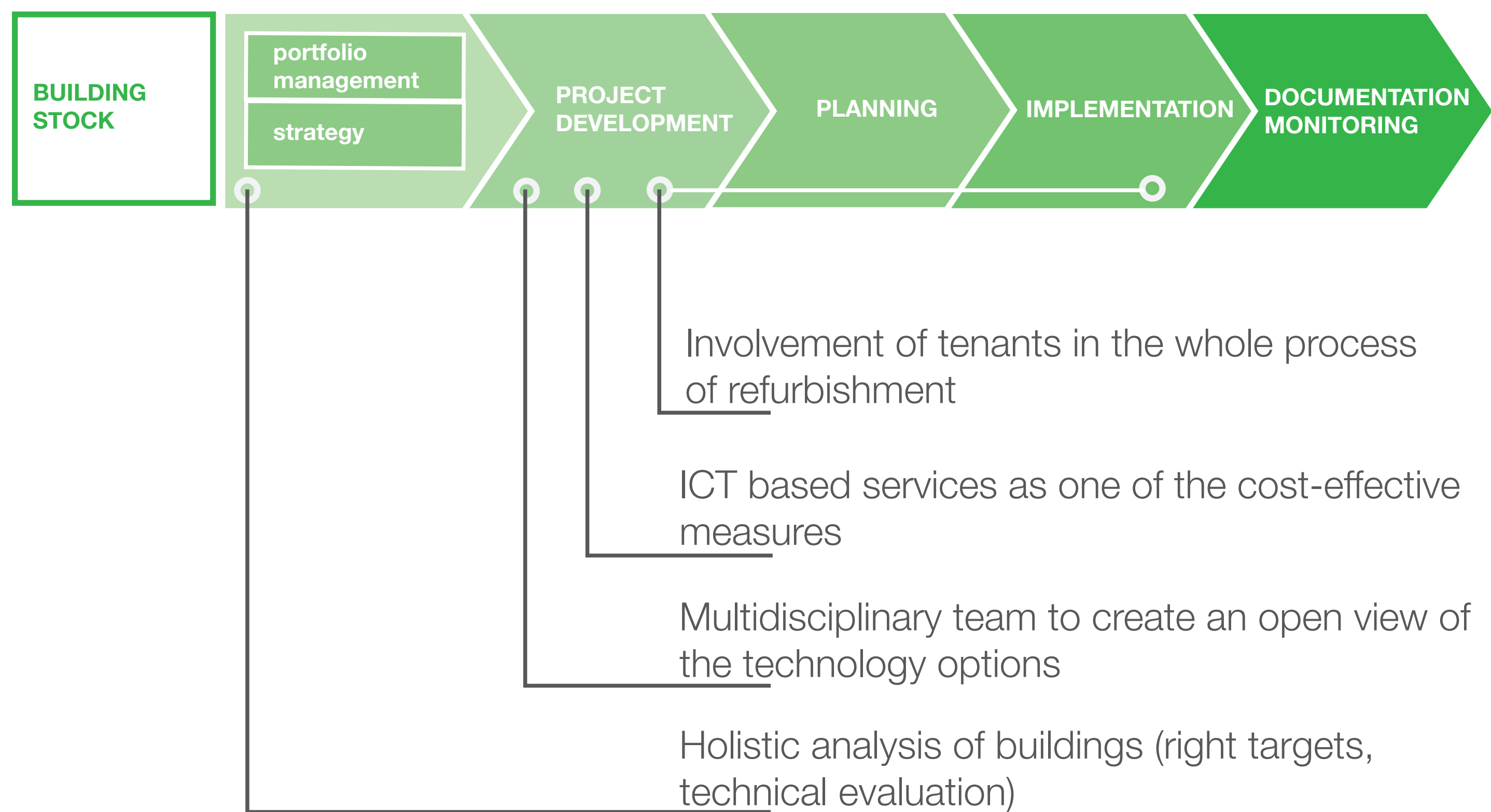
According to our estimates we went beyond the project target achieving 87% in Sweden 84% in France and 78% in the Netherlands. Investment costs vary significantly between 40.000 € till 115.000 € per dwelling. Within refurbishment projects a substantial part of the investment is spent on social measures (kitchen, gardens, wallpaper etc)

CURRENT MARKET VS. CONDITIONS FOR DEEP REFURBISHMENT



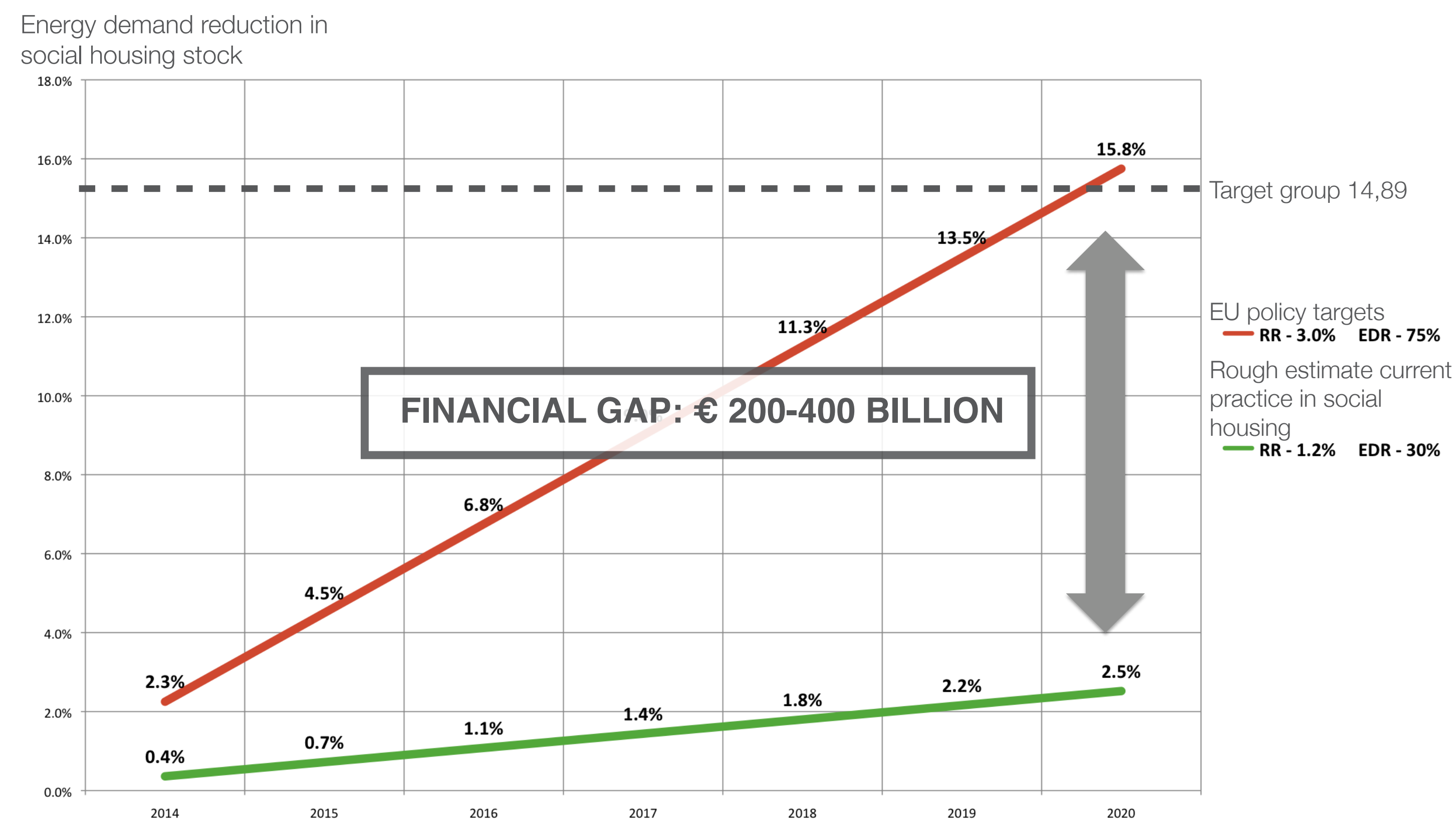
An average refurbishment in Europe achieves 20-30% energy demand reduction. A substantial gap between the current market practice and a deep energy refurbishment is mainly explained by limited investment capacity of building owners. Preliminary project results indicate a potential for optimising an investment allowing for the higher energy efficiency.

HOW TO OPTIMISE THE INVESTMENT IN REFURBISHMENT?



BEEM-UP identifies preliminary lessons-learned within the process of refurbishment which have a great impact on the overall building performance.

(2020 TARGET – 20% ENERGY EFFICIENCY) 5% ACHIEVED, 15% TO GO...



Social housing plays an important role in achieving EU targets. Financial support from governments seem to be necessarily for a large scale uptake of retrofit. In order to engage governments in financial support of retrofitting, detailed information about the current market status is needed.