Next Generation Urban Areas

Integral approach for Next Generation Urban Areas (NGUA)

The Roadmap Next Economy contributes to the regional economic transition. With an integral approach in urban development we aim to reach synergy between the technological and social transition. With the project Next Generation Urban Areas we contribute to these transitions by creating futureproof urban and residential areas. In the Next Generation Urban Areas you can see and feel the NEXT society and the opportunities of technological innovations in different fields.

Project organization

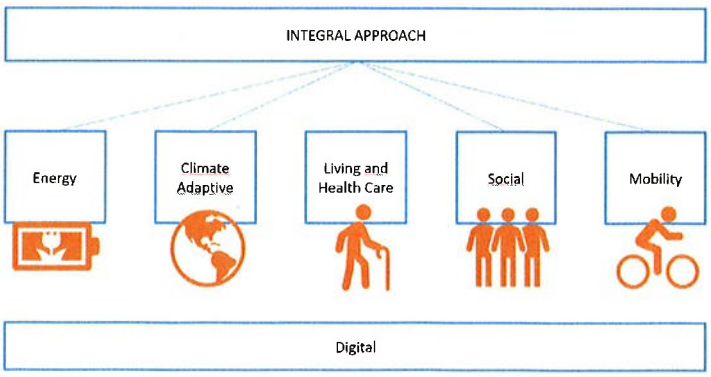
The housing association Woonstad Rotterdam initiates together with RNE the first pilot project Prinsenland, Next Generation Urban Area. We use a systemic approach in implementing new technologies and approaches to realize the targets. The integral approach focuses on system innovations (cross-overs) and facilitates (social) pilots and experiments which reinforce eachother The result is more than the total sum of the projects. Woonstad Rotterdam collaborates together with the municipality of Rotterdam to realize an integral approach in Prinsenland. They are the business case owners at this moment.

11 Next generation Urban Areas

Until 2035 RNE plans an NGUA approach for at least 11 Next Generation Urban Areas within the Metropolitan Area Rotterdam Den Hague. Each urban area contains about 7.500 dwellings.

Pilot neighborhood Prinsenland, Next Generation Urban Area

Prinsenland is a neighborhood in the northern part of Rotterdam. It has 9.700 inhabitants. Approximately more than twenty five percent of the inhabitants is above the age of 65. The neighborhood is a sub urban area with a lot of green space. Prinsenland contains around 6.176 dwellings, mainly apartment buildings and family houses. The dwellings are built in the 1960's, 1970's and 1990's with a low energy index. The integral approach of the project is shown in the next figure.



Vision Prinsenland, Next Generation Urban Area

Prinsenland is an urban area which contributes to the welfare and health of their residents, with an, as small as possible, eco-footprint. An area which offers inhabitants economical chances and social benefits. It's an area which gives the opportunity for the digital unimaginable.

The goals, investments and results of the project are listed below.

	Strategic goals	investments	results
Energy	Carbon neutral housing stock: without natural gas, optimal isolation, renewable energy generation and local buffering	Total investment €122 mln Not profitable €67 mln	• 100% housing stock sustainable • 50% of the energy generated local
Climate resilient	Climate resistant and circular neighborhood. Increasing water buffering and mute peak flows	Total investment €23 mln Not profitable €20mln	• Mute peak flows and heat stress • Increase the use of green in the neighborhood
Living and Care	Living longer, comfortable and independent at home	Total investment €8,6 mln Not profitable €8,4 mln	• 27% of the housing stock future proof to facilitate living longer independent, comfortable and safe at home
Social	A neighborhood where no one is involuntary lonely or not involved in society and inclusion for the inhabitants through digitalization	Total investment €1,8 mln Not profitable €1,4 mln	• 100% digital access for the residents • Reduce social isolation and increase participation
Mobility	Sustainable last mile transportation: accessible, shared and clean transportation.	Total investment €10 mln Not profitable €7 mln	• possibility of safe and sustainable last mile transportation

Project office costs:
€ 1,2 million per year

Total investment needed for this pilot project is € 219 million. Woonstad Rotterdam will invest € 54 million of this amount. The municipality of Rotterdam will also invest but at this moment the exact amount is not yet available.

Benefits and possible results of the Next Generation Urban Area pilot project:

Cooperation between stake- and shareholders in the neighborhood resulting in synergy and cross-overs effects in investments in buildings and the public urban area. Examples: CO_2 emission reduction and energy savings contribute to the affordability of the housing costs. Smart public nodes contribute to the safety of the living area. Technical adaption of homes for the elderly residents to stay until high age in their own houses and neighborhood. A digital platform will increase social participation, sharing and initiatives of the residents in the local area.

Examples: