

## CONCEPT HOUSE VILLAGE

The building sector has gained lots of know-how and experience in sustainability in the past 20 years. New engineering concepts can achieve spectacular results. The effectivity of these concepts depends on how they are implemented in the building process and how future residents use them. Unlike most other products, such as smart phones and computers, the most expensive product we ever use — our home — is rarely tested before it is launched on the market.

To speed up innovation and increase effectivity, it is important to try out concepts first, on site, before introducing them to the market. What problems do we run into? Will a concept fit in with users' daily routines? Will it encourage sustainable behaviour? Will interaction between the home, facilities and users truly lead to radical advances in sustainability? Until recently, the ability to study concepts in a real life situation was not available in the Netherlands, but now it is, in the Concept House Village.

The object of Concept House Village is to function as a 'living lab' so that we can test sustainable living concepts in various kinds of prototype housing. Concept House Village will develop and test many innovative models for the Dutch housing market and eventually, after a few years, dismantle them again so that we have simulated the entire housing life cycle. This will be an international showpiece of building research and innovation and a prime example of sustainable city development.

### PARTNERS

Concept House Village is located in Heijplaat village, which RDM ('Rotterdamsche Droogdok Maatschappij' or Rotterdam Dry Dock Company) built for its employees in the last century. Again, in this century, RDM is helping to build a village at Heijplaat. Initiated by CityPorts Academy Rotterdam, Concept



House Village is now under construction by a consortium made up of Rotterdam University, Woonbron and TU Delft. Project management is run from the RDM Campus.

The construction of prototype housing projects is a collaborative effort on the part of companies, knowledge institutions, public institutions and (collective) private contractors. All these parties are involved in innovation in the built environment in both new housing and existing urban developments.

### PROTOTYPE HOUSING

Concept House Village is expected to develop into a building and knowledge community within a period of four to eight years. The intended result is ten to twenty prototypes of sustainable living in the New Village, situated on sites made suitable for experimental housing, given the legal status of a 'free zone', and connected to the municipal infrastructure and utilities. Working together, construction companies and students will have the chance to design, build and test their prototypes as well as use them for (behavioural) research. Once the design and build phases are complete, visitors will be allowed in to see the prototypes in action.

The houses will be a showcase for the latest technological applications in sustainable energy, water, sanitation and intelligent homes (home automation) on both building and district levels. In addition, Concept House Village will facilitate the development and testing of innovations in public spaces and the surrounding infrastructure. Practical tests will take place while students and Heijplaat villagers are living in the houses.

### PRACTICAL RESEARCH

Concept House Village offers research opportunities in:

- ♦ innovations in the built environment: innovative prototype housing, construction elements, techniques and sustainable materials, new applications for public areas, process innovation and forms of collaboration;
- ♦ sustainable behaviour in the built environment;
- ♦ the effect of the building process on current and future users (residents), clients and other stakeholders.

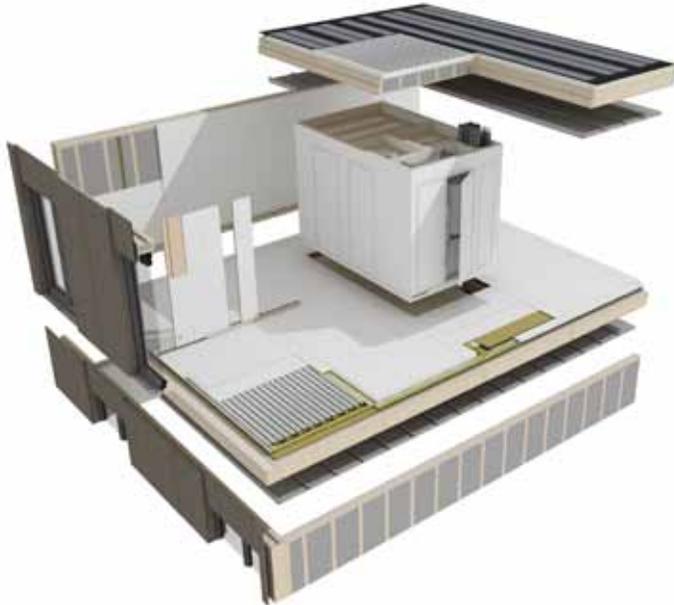
For participating contractors, besides a housing site, the arrangement includes the educational and research resources of TU Delft and Rotterdam University. Specific agreements

on the design and implementation of these resources can be made for each prototype housing project. TU Delft and Rotterdam University offer contractors the use of their former machinery hall, the Innovation Dock at RDM Campus and other research and educational facilities to enable (sub) projects and prototyping. Both institutions will communicate research results internationally via their own networks.

Because the knowledge gained will be broadly communicated and distributed, the results will not be solely available to interested parties in the building and installation branch, but also to many others, including policymakers involved in urban planning, for example. The development and transfer of knowledge is instrumental to the project approach of the Concept House Village.

## PLANNING

Concept House Village is a multiyear project, with parties signing up to work together for four years at least, and with the option of eight years. In 2011, the current housing in Heijplaat will be demolished and the land will be prepared for construction so that the first prototype house can be built. Concept House Village will see four prototype houses in development between 2012 and 2013.



## RDM CAMPUS

Concept House Village is under construction near the RDM Campus, where knowledge institutions and companies are working together in an open environment on sustainable technical innovations in the fields of building, mobility, energy, maintenance, design and architecture. Under the slogan Research, Design & Manufacturing, RDM Campus has everything required to fulfil the needs of companies, such as:

- ♦ research and design facilities (Albeda College and Rotterdam University);
- ♦ first-rate machinery for prototyping;
- ♦ a network of top partners, including TU Delft, TNO, Syntens and the Rabobank;
- ♦ start-up facilities via the Dnamo incubator;
- ♦ site rentals and office space;
- ♦ a conference centre and meeting facilities.

## MORE INFORMATION

For more information, visit [www.rdmcampus.nl/english](http://www.rdmcampus.nl/english) or contact RDM Campus:

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# RDM CAMPUS

## CONCEPT HOUSE VILLAGE

CONCEPT HOUSE VILLAGE IS A COLLABORATION BETWEEN:



GRAPHIC DESIGN: STUDIO LEÓN & LOES, ROTTERDAM

