

# Adaptive Circular Cities project

## *Making the right investments for a sustainable urban environment*

In collaboration with the Dutch Ministry of Economic Affairs, the leading Dutch research institutes Deltares, TNO, DLO and ECN have combined forces to address major challenges for urban areas:

- Implementing climate change mitigation
- Adaptation to climate changes and sea level rise
- Sustainable use of natural resources and ecosystems
- Finding alternatives for valuable resources
- Transition to circular economies.

### **Objective**

The individual institutes all have their own specialties and each one has an extensive portfolio of research projects and innovative solutions that deal with the challenges mentioned above. The objective of the Adaptive Circular Cities project is to develop innovative combinations of these solutions with significant added value, using the state of the art expertise, tools and models that the institutes have to offer. Optimal combinations should simultaneously contribute to climate change mitigation, climate change adaptation and resource efficiency. Also, the business case for this combination should be sound and an attractive alternative to 'traditional' sectorial investments, for which no integral analysis of issues and possible solutions is made.

### **Prominent showcases**

To reach the objective, a number of ambitious, serious and prominent cases are analyzed. Both inside and outside the Netherlands. For example: a new urban development in a former industrial area of Amsterdam; the large scale redevelopment of the central part of the city of Utrecht and (re)developments in the city of Almere. Cases in other cities, like Rotterdam, Ho Chi Minh City, Hong Kong and Singapore, are under consideration.

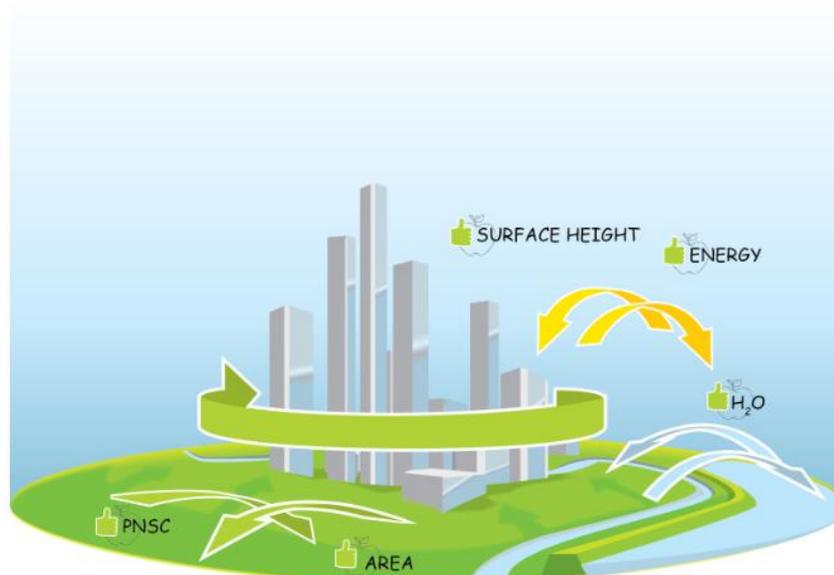
The project delivers tailor made advice for these cases. But because of the representativeness of the chosen cases, project results will also be generically usable for other cases, in other cities.

### **Workpackages and research subjects**

The project is divided in workpackages in which a number of closely related subjects are addressed in an integral manner:

- Water, food and energy (water supply; food production; new water urban water cycle; energy efficiency; thermal energy from the subsurface and surface water)
- Safe, sanitary and healthy (flood safety & flood defense; water nuisance; water quality; air pollution; blue-green infrastructure; ecosystem services; quality of living environment)

- Construction and infrastructure (circular, biobased building materials; building on soft soils and preventing subsidence risks; ...)



### Target groups

The project is aimed at several target groups. The reports about the applied tools, methods and their results will appeal to consultants and design professionals. Advice about effective solutions and new combinations of techniques, accompanied by business cases, are aimed at (local) governments, municipalities and entrepreneurs. Decision makers are served with condensed advice about how cross sectorial investments can contribute to several goals and are beneficial for various stakeholders.

### Budget and timeframe

The institutes created a budget of 1.3 million Euros for the ACC, which is supplemented with co-financing from a variety of stakeholders. The project started January 2015 and will end in December 2015.

### Contact

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