

## Abstract Template

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**Organisation :** CITTA IDEALE

**Short description:**

Consultancy for climate proof spatial planning and design, sustainable planning and energy landscapes. Groningen Area, the Netherlands

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**Presentation title:** The integration of climate adaptation in spatial planning: design and methodology. Experiences in Groningen province

### Executive Summary of your Abstract:

In the province of Groningen regional adaptation strategies and spatial mitigation strategies are researched. Several adaptation themes and the energy potentials are mapped and integrated in spatial proposals for the region. Besides the content advise has been developed on adjustments of the planning processes.

### Abstract:

In order to anticipate future climate change we need to adapt spatially to the changes from now on. This is the reason why the province of Groningen wanted to integrate climate adaptation strategies in its spatial plan for the region and wants to combine this with spatial mitigation (i.e. energy production). In the research project Hotspot Climate Proof Groningen this was the central topic. For several themes (agriculture, energy, watermanagement, watersupply, nature and coastal defence the most optimal adaptation solutions were designed on maps and according a new developed methodology subsequently integrated on one climate adaptation map of Groningen. After this integration the map was put against several unexpected and extreme scenarios in order to find out how robust the proposed measures were. Out of this confrontation of climate adaptation measures and future scenarios two spatial adaptation scenarios arose, which marked the edges of a possible future for the province. Special attention was given in the research to energy, as a spatial contributor to mitigate climate change and as a topic that could very well be combined with adaptation strategies.

The search for adaptation strategies and solutions led to an alternative view on the planning process as well. In regular spatial planning the scope of the plan is normally around 10 years, while climate change and energy supply have to deal with much wider time horizons. The short-term oriented 'blueprint' planning system, which solves tame problems, is not useful to tackle wicked problems, which change over time, are complex and interconnected. For these kind of issues another planning paradigm is required. The research developed a planning approach in which a wicked bypass is introduced: swarm planning.

**Resumé:** I am trained as a landscape architect and main experience lies in sustainable urban and regional planning and design. Latest job was program manager climate adaptation and regional planning for the province of Groningen. I am working on my PhD in the same field both in Wageningen University and Delft University of Technology. I recently started my own company, CITTA IDEALE, for advise on sustainable planning, climate proof designs and energy landscapes. I wrote two books (Tegenhouden of Meebewegen (in Dutch and Adaptation to Climate Change: A Spatial Challenge), have written many articles and have given many lectures on climate adaptation, energy supply and spatial planning.

**Recommended reading:** Adaptation to climate change: a spatial challenge (R. Roggema, Springer publishers), [www.klimaatbestendiggroningen.nl](http://www.klimaatbestendiggroningen.nl), [www.climatechangesspatialplanning.nl](http://www.climatechangesspatialplanning.nl)