

## Summary

This final report describes the activities performed in the frame of the assignment 'Literature Study: influence of global megatrends and their impact on the environment in the Flanders region' (2012/ALMC/MIRA/05) as requested by VMM-MIRA.

The MIRA-project 'Megatrends' is conducted in the frame of the Flanders Environmental Report, which aims to identify possible environmental developments in the Flemish region in view of existing or anticipated policy interventions. Assuming that societal developments in Flanders and their impact on the environment cannot be seen in isolation from the global changes, the key question is to identify which global development will need to be taken into account to assure adequate and successful environmental policies. Thus the project aims for a systemic analysis of global megatrends from an environmental point of view and with a time horizon 2030-2050.

The present literature study results in a set of factsheets which will be instrumental for panel discussions with experts on the impact of megatrends on the environment in Flanders. Organisation and design of this second phase in the project will be subject of a different assignment. This report provides a comprehensive description of the analytical process leading up to the design and development of the factsheets.

The basis for this assignment is a study of the European Environment Agency (EEA): 'The European Environment – State and Outlook 2010 – Assessment of Global Megatrends', which identifies and describes eleven megatrends. In the frame of this literature study, the relevance of these eleven trends was verified against ten other recently published studies with a time horizon 2020-2050. The analysis resulted in the definition of six megatrends which were considered of key relevance with regard to the translation of their impact on Flanders:

1. Changing demographic balances;
2. Increasing speed of technological development and its unforeseen impacts;
3. Scarcity of natural resources;
4. From a uni-polar to a multi-polar world;
5. Climate change;
6. Increasing fragility of systems.

The following step to develop the factsheets was to analyse how these six megatrends might influence the Flemish society and more specifically how this might translate into risks and opportunities for the environment in the Flemish region. This is essentially a qualitative analysis because it is impossible to make any quantitative estimates due to the very long time horizon (2030-2050), the absence of specific facts regarding the impact of megatrends in Flanders and the inherent complexity and interactivity of the megatrends.

As a conceptual tool to translate and graphically visualise the impact of wide-reaching global megatrends on a regional level, a simplified qualitative systems diagram was developed (System Flanders). This was based on relevant information from a wide range of sources (most of which were policy-supporting studies) with a specific focus on Flanders. In total, twenty five studies have been screened for this step.

A factsheet was developed for each of the six megatrends. This consisted of six pages (A3 format) and was structured as follows:

- Title and description of the megatrend, weak signals and wildcards;
- Impact of the megatrend at global and/or European level;
- Relevance of this megatrend in and for the Flemish society;
- Systemic variables linking megatrends to effects on the environment;
- Impact of the megatrend on the Flemish environment;

- Systems map for this megatrends for Flanders.

Factsheets also identify interactions between megatrends, their underlying driving forces and the systemic variables that are the cause for environmental effects in Flanders. Factsheets can also be mounted side by side to allow for a systemic and visual comparison of the six megatrends.