Toespraak/Speech **Adriaan Visser** (wethouder Rotterdam/Vice-Mayor of Rotterdam) Opening IABR–2014–URBAN BY NATURE– 28 – 05 – 2014 Rotterdam

Ladies and gentlemen,

The International Architecture Biennale Rotterdam has become a genuine Rotterdam tradition. It has proven to be an innovative platform to outline new perspectives and opportunities for our city.

Previous editions led to specific plans for water management and urban planning. By translating visions into plans, we inspire other cities around the world. Across the globe, cities are searching for ways to realize a resilient economic future.

Let me focus on *urban metabolism*, one of the Project Ateliers of the biennale. Urban metabolism is a response to a number of global trends. One of them is urbanization. A vast majority of people worldwide will soon be living in cities.

The other trend consists of global issues like resource scarcity, energy shortage, food shortage, environmental issues and climate change. These trends will have an impact on Rotterdam. But they also create opportunities for cities.

A circular economy is a response to these trends. One of the keys of a circular economy is to stop thinking in terms of *waste* and start thinking in terms of *commodities*. As a result, opportunities for new investments and new jobs arise.

The transformation from a linear to a circular economy is already underway in this region, particularly in areas where different economic clusters collaborate successfully. A striking example is the heating network. It is created by recovering the *waste product* heat and giving it back to Rotterdam's inhabitants and businesses. This network can be expanded, because a lot of waste product heat is still dumped into the river.

The Port of Rotterdam also provides the important Dutch greenhouse sector of the Westland with CO_2 . An industrial waste product, but a fertilizer for plants.

'Urban mining': recovering raw materials from sewage, the river, or urban waste flows, can provide a real breeding ground for agriculture in the region or the city. Urban mining can also provide us with a strong position in the future commodity market. In the distant future, a link with the pharmaceutical industry is likely. Also the sewers are full of raw materials, for medical products for instance. Partners in the wastewater chain are already working on extracting raw materials from wastewater, such as phosphorus.

These examples show that large flows crossing the city, like waste, heat, river sediment, and cargo, will yield revenue models that combine sustainable and economic prospects for Rotterdam.

Within a few decades, the port of Rotterdam will be a logistic hub for the import and export of raw materials and recycling of waste materials. In the city itself, buildings and houses are no longer only consuming energy, but also producing energy, coupled with local energy storage.

These are actual, relatively short-term developments that will affect the city and change its infrastructure.

The knowledge resulting from the Project Ateliers contribute to a strong, attractive and resilient city. A city that will inspire other cities worldwide. I wish all participants an inspiring and successful biennale.