

Too little, too late?

Learning Experiment

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climate-kic.org



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1. Problem Description

“Psychologists sometimes call climate change ‘the problem from hell’: the causes are so intertwined with modern life that we are all complicit and the doom scenarios about a collapsing civilization and an uninhabitable earth are beyond our imagination.”

(De Groene Amsterdammer. Tielbeke, J.)

Climate change is increasingly affecting social and ecological systems, ruled by complex interconnections that demand urgent attention in the 21st century. It is no longer a case of scientific prediction, but a stark reality that climate change is leading to loss of glaciers, sea level rise, more intense and frequent droughts and heat waves, changes in precipitation and storms patterns, extinction of biodiversity, ocean acidification, and so on¹. These effects on the planetarium dynamics are having a direct harmful impact on society and economy and are reflected in human health, transportation, agriculture and food security, energy, massive migrations, among others².

It’s becoming increasingly harder to deny that human beings are the main responsible and dominant cause of global warming from the mid-20th century onwards. We have entered a new geological era, shaped by human activity: The Anthropocene. Human economic activities have led to an exponential increase of greenhouse gases, that are linked to the rise of the Earth’s temperature, which is driving us into unknown and dangerous territory.

Along with these concerns, many questions arise regarding the approach required to achieve a carbon neutral economy, and to change not just the collective mindsets, but furthermore, the societal behaviour in how to address this transition. There is not a single isolated way to tackle this challenge, but instead a holistic system approach is required. In this way, the various layers in society interconnect and support each other to perform activities, while respecting the planetarium boundaries.

In order to connect those layers in society, the individuals that represent these must come together first, understand and work on their mutual needs, challenges and opportunities. Education has been a key element in our society to unify diverse groups of individuals, build the

¹ NASA. Global climate change. URL: <https://climate.nasa.gov/effects/>

² Global change. URL: <https://www.globalchange.gov/climate-change/impacts-society>

knowledge and skills to unblock barriers, create value (material and/or non-material), and moreover shape behaviours in the short and long run.

However, the way to educate nowadays is not entirely without obstacles. This is especially relevant when considering how best to train the next generation of professionals, that adequately prepares them for the challenges of the 21st century. The Willem de Kooning Academie (WdKA) in Rotterdam is ready to confront this challenge.

2. Solution

On 17 December 2019, the *WdKA*, with the support of *EIT Climate-KIC*, organized a **Learning Experiment** in Rotterdam Zuid. The aim of this event was to create a dynamic learning environment, in which the participants worked together on a single goal: to develop students with a new palette of 'climate change proof' skills that would directly affect the city of Rotterdam, in the short and long term.

This *experiment* convoked around 40 participants, who represented multiple stakeholder groups of the city of Rotterdam, such as: academic institutions (MBO, HBO, WO levels), designers, local entrepreneurial businesses, policy makers and experts on the field.

The day kicked off with the inspiring presentations of Henk Oosterling, Derk Loorback and Irene Fortuyn. These groups of experts shed light on the relevance of shifting from the Ego to the Eco-thinking, in which the individual is not in the centre of the picture but is part of a complex-interconnected system. They also presented how an individual is able to alter the society to which he or she belongs and contributes towards a more sustainable future. An example of how these challenges are approached, was presented by *Ketter&CO*. This organization connects different stakeholders, to explore and unlock the potential of a spatial area, as they are doing it through the project 'Land & Hand'.

During the afternoon, several activities were set, with the aim of spark discussions among the participants to identify the challenges and opportunities that would enable the development of new capabilities in the students of higher education (MBO, HBO, WO), to mitigate and adapt to climate change locally.

During this *Learning Experiment*, stakeholders came up with two main solutions:

- To collaborate along the different educational levels, with the support of the Municipality of Rotterdam, to enrich the overall understanding of the varied curricula and the demands of climate change.

- To create educational projects around climate change that allow a transdisciplinary approach, through ‘learning by doing’, while connecting students enrolled in different academic levels, in the city of Rotterdam. In this way, the professionals of tomorrow will gain the knowledge and skills required to solve the increasing challenges faced by our society on this century.

3. Impact

- This *Learning Experiment* has planted the seed among several stakeholders, that includes both public and private sectors of the city of Rotterdam, to continue working hand to hand on local opportunities, towards the construction of a more sustainable society and city.
 - On February 2020, *WdKA* has organized a second phase experiment, that will exclusively involve representatives of the Municipality of Rotterdam and policy makers, to discuss together the opportunities in the public sector to support the education system, for the training of students that are ready to tackle climate change.
 - Several projects have been discussed and set for 2020, between the educative institutes *WdKA* (HBO) and *Albeda* (MBO), to work together on practical solutions around sustainable fashion, food production, and social campaigns.
- By creating transdisciplinary educational projects, the academic institutes involved would satisfy the demands of young students to learn and work on real challenges around climate change, that request distinct knowledge, abilities and approaches.
- These initiatives could lead to important transformations of the curricula of several education institutes in the MBO, HBO and WO system, which helps them adapt to the needs of the 21st century, and prepare professionals who are ready to play an active role in climate change mitigation and adaptation.
- By going forward with the implementation of the solutions shared above, the city of Rotterdam, its members and institutes are acting according to the Sustainable Development Goals (SDGs) defined by the United Nations, and agreed worldwide in 2015. The main SDGs addressed are: Sustainable cities & communities, Climate action, and Partnership for the goals.

4. Learnings

4.1 On the Outcomes of the Learning Experiment

Enablers

- There is a great will from the different stakeholders (represented by private and public actors) in the education system, to understand and learn from each other, and to collaborate on common projects that train students and generate a direct social impact, by using a transdisciplinary learning approach.
- There is a progressive demand from students in MBO, HBO and WO to increase their knowledge and improve their competences that allow them to tackle climate change from their field of studies.

Barriers

- Numerous elements, such as the rigidity of the academic calendar, curriculum, policies and regulations that apply to the different academic institutes, make rapid and successful collaboration difficult among education institutes.
- Transforming the curriculum or adapting regulations in the education system, is normally a demanding and lengthy process, commonly challenged by resistance from actors who oppose those changes.

4.2 On the Dynamic of the Learning Experiment

- In order to count on the majority participation of attendees during the experiment, and make the most of it, it is better to set a half day program that engages participants from the beginning until the end.
- Due to the complexity of the topic to be discussed during the Learning Experiment, it is highly important to have the support of a moderator familiar with the topic, who is able to lead and guide the conversations among participants.
- The co-creation process is enriched when participants feel they are in a neutral, safe and diverse environment, that includes participants from a wide range of ages, gender, sectors, interests, knowledge, etc.

5. The role of EIT Climate-KIC

Over the last years, *EIT Climate-KIC* has assembled a great variety of entrepreneurial organizations and public institutes. On this occasion, *EIT Climate-KIC* supported and funded the organisation of the *Learning Experiment*, led by the *Willem de Kooning Academie*.

This event brought together relevant actors in the network of the educational system, to find opportunities and act holistically towards climate change mitigation and adaptation, in the city of Rotterdam.

For more information on this project, please visit the website of the [*Willem de Kooning Academie*](#).