

# Green2050

## Core Team Workshop

March 9<sup>th</sup>, 2022

NTNU  
Norwegian University of  
Science and Technology  
Faculty of Engineering  
Department of Civil and Environmental  
Engineering



Omstilling til karbonnøytralt bygget miljø

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## Green2050 – Core team workshop March 9th, 2022

Green2050 - Centre for Green Shift in the Built Environment held a get-to-know-each other dinner and workshop on March 9<sup>th</sup> at Scandic Lerkendal in Trondheim. The main ambition of the event was social – bringing main researchers from different fields together, forming a platform on which to enhance future cooperation within the context of Green2050.

### Agenda

16:30 Mingling  
17:00 Welcome by Vikas Thakur  
17:05 Video – Green2050  
17:10 Welcome by Ingvald Strømme  
17:20 Speed-dating with Green2050 – the Green2050 talks  
18:00 Working with the industry – what is most relevant for you?  
18:45 Summary of the discussion  
19:00 Dinner

### Welcome and introduction

In his introduction, Vikas Thakur focused on the need for altering the current approach for funding of research porting on the built environment – and in particular the need for increased research in light of the challenges brought by climate changes, and the ensuing need for a green shift (including both climate mitigation and -adaptation efforts).

Key here is the shift from the steady stream of applications to the Research Council of Norway with increasingly low success rate, to industry-led initiatives with a significantly higher potential for success. Key ingredients in such ventures are significant size of the projects and active involvement from researchers from a wide variety of fields. Following this, Thakur outlined how the organization of Green2050 – with its board structure, broad scientific approach, and multiple-faculty involvement – was conceived to address exactly this type of ventures.

Ingvald Strømme followed up on this argument, by presenting a selection of success stories following the pattern of organization described by Thakur. Strømme underlined how intra-disciplinary work and close cooperation with industrial and public actors is needed to achieve the ambitions outlined.

### Workshop

The main event of the evening was the two-part workshop amongst the participants of the Green2050 core team. The first of these parts consisted in a short presentation amongst participants, before venturing into the question of the potential for so-called Green2050-talks. The format for such proposed talks is not landed; the discussion ported on the potential contribution of the different participants to such an undertaking, in light of titles, main proposed content, most relevant target groups and other themes within the general frame of Green2050. Based on the feedback from the participants, the Centre management team will come back with proposals for

development of the idea of such talks (whether it will include webinars, using existing channels such as Friday Talks, Let's talk Innovation, other formats or a combination).

The second part of the workshop focussed on how to address challenges and potential areas for cooperation as identified by the industry. The list of seven main priorities from industry created in the meeting of September 21<sup>st</sup> (and reported in the minutes thereof) formed the basis for the discussion. Participants were encouraged, based on their own interests and research activities, to single out the most relevant of the proposals for themes suggested by industry. Further, this second part of the workshop aimed to identify the main challenges that will face Green2050 in the foreseeable future.

## Industry interest

The interest for the proposals coming from the industry proved to be relatively well distributed amongst the participants.

Following this, there seems to be a widespread understanding that Green2050 is a good arena both for observing the needs of the industry in matters of research, but also for acting as an arena for pushing research further and to benefit from overlaps between different groups. Such active coordination is essential for supporting effective innovation.

In addition to the identification of potential areas of interest for proposals coming from the industry, several proposals for new areas of interest for cooperation and multidisciplinary research came up, from several groups. Most notable of these were, firstly, the need for an increased attention given to **new business models** and links to business cases. There is an urgent need to show to the industry that the green shift actually involves some highly interesting business propositions. Secondly, several groups identified the need for a **greater involvement of social sciences in the research programs** as a key to future success. Adjusting the built environment to an ageing population was for instance mentioned as a future research topic with high impact and relevance for the centre. In general, the **use and interactions with buildings by users** and others should be equally important as the physical state of structures.

On an overall level, it was pointed out that the needs identified by the industry in the seven proposals discussed were all situated on a relatively practical level. All ventures aiming to improve the built environment is in need for a common language to understand the condition one is facing, be it common vocabulary or analytic framework. One example of the need for such a common language is Digital Twin. It is a crucial topic, but may have different meaning/perspective in different contexts (context-based information representation).

Efforts to foster such pluri-disciplinary common understanding – thereby creating opportunity conditions for multidisciplinary research efforts – is crucial for achieving long-term impacts for Green2050. A good, practical way to proceed towards such common understanding is the development of research-based education and training material within the structure of the centre.

## Challenges

As witnessed by the optimistic ambiance during the gathering, the participants equally expressed concerns.

Firstly, the ambitions of Green2050 are ambitious. This involves needs at several levels.

1. There is a need to classify the needs of the industry in a structured workflow and develop projects on basis of these.
2. There is the question of how to keep the momentum of interest for the involved partners.
3. There should be a clear policy on which projects that should be registered under the umbrella of our Centre, and to which pillar they belong.
4. In order to avoid unnecessary noise, there is a constant need for Green2050 to position its activity with that of other centres and initiatives across NTNU and beyond.
5. The set-up of the Centre implies a certain bias towards certain main industry actors. SVV is, for instance, heavily present in the startup phase of the centre, we should be careful with relying to heavily on such single actors.
6. The financing of the activities within the Centre will be a concern. There is a need for creating work-forms that enable as rapid a creation of projects as possible.

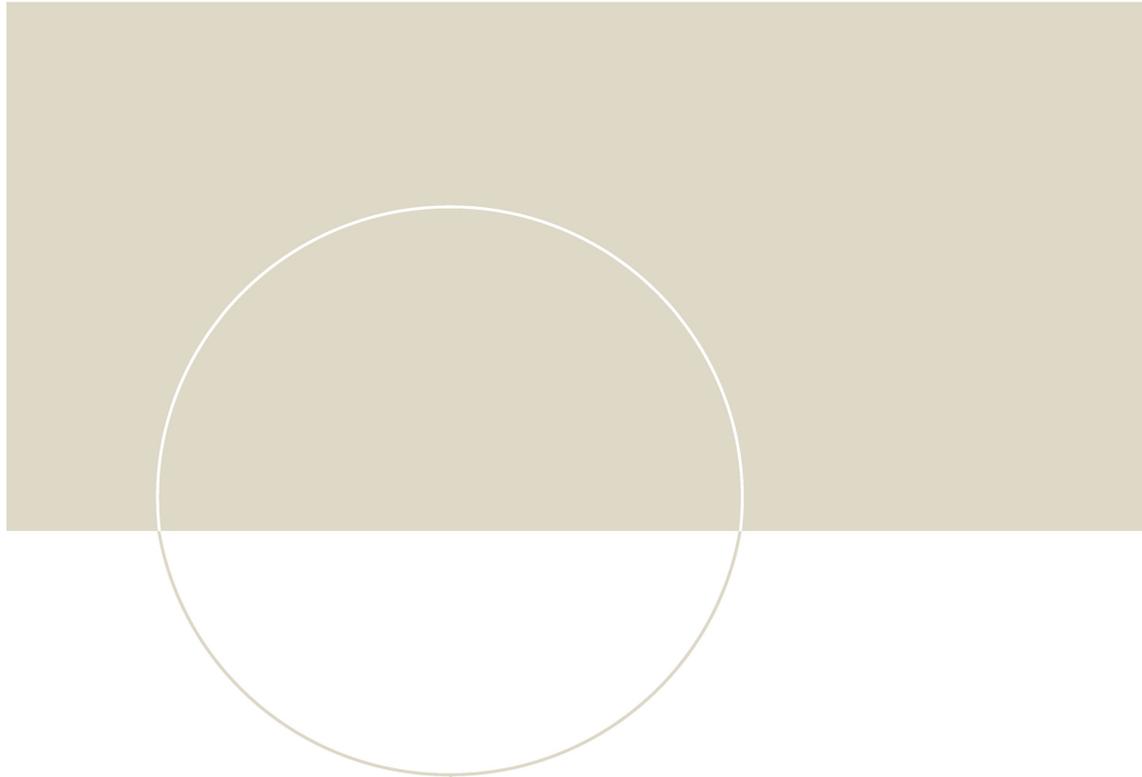
On a practical level, the difference between national and international levels in the composition of project teams was lifted. Cross-disciplinary groups are an advantage in internal calls and in national calls but should be broken in EU calls to cope with international groups (this is a potential challenge requiring coordination).

To address these challenges, there is a constant need for evaluation to adjust continuously. Equally, making the Centre a hub for exchange of expertise and collaboration, including in particular with concerns for international collaboration, will make Green2050 attractive for researchers across all NTNU. Following in the same line of thought, establishing dialogue with key decision makers will make the Centre attractive to researchers ambitioning their research to have an impact. Such an attractivity also should include concerns for education – Green2050 should not limit its educational efforts to solely PhDs, but also include masters- and bachelor candidates.

## Cooperation

Green2050 is initiated by NTNU with experts from a wide variety of fields. Collaboration is best through joint projects, strengthened and encouraged with periodic meetings and workshops. Such cooperation is in fact crucial; there is a tradeoff between robustness (adaptation to unknown/unexpected changes) and efficiency (optimality for specific scenarios) is not sufficiently emphasized as an overall goal. Coordinated cooperation efforts has earlier been found to be a constructive way to dealing with such challenges. It is equally crucial to ensure that cooperation is non only internal to the university – there is a need for close cooperation throughout, and Green2050 is no exception to this rule.

A key part of these cooperation efforts is to have an overview over the competencies existing, with continuous update. As such, a mapping our resources is necessary for clarifying how they can be of use for partners. To the extent possible, active use of bachelor - and master students can serve to smoothen such processes considerably. They can equally be used actively across disciplinary borders, increasing the impact of the research carried out.



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