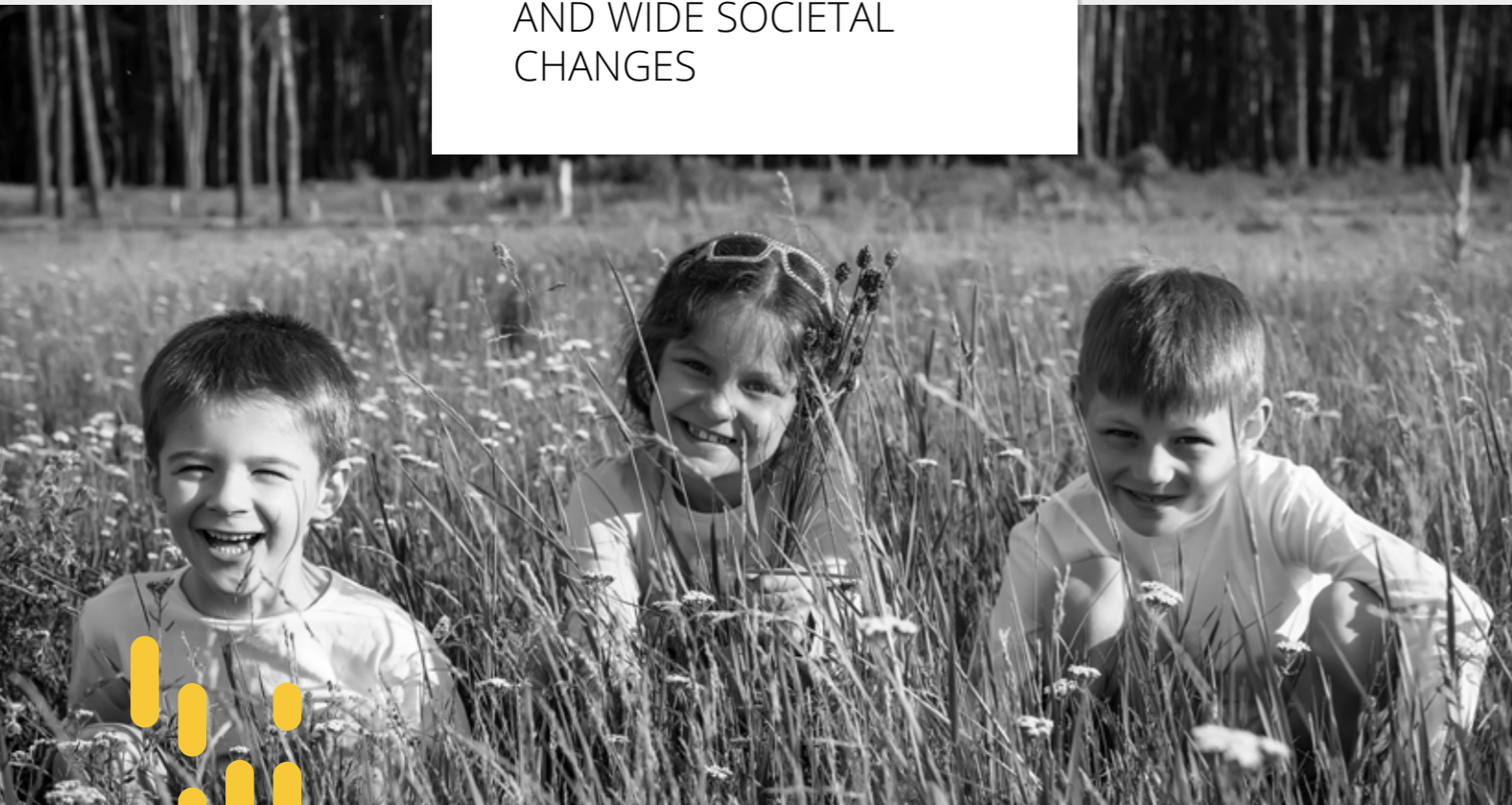




## RESEARCH AREA 1

### DEEP DECARBONISATION AND WIDE SOCIETAL CHANGES



#### WHAT IS THIS RESEARCH AREA ABOUT?

Achieving deep decarbonisation and wide changes in society means more than implementing individual technologies for individual sectors. In addition to old and new technologies to achieve a more sustainable society, we focus on: everyday practice, energy cultures, institutions, social relations, consumer behaviour, and political processes.

Development and implementation of new technologies cannot be studied in isolation, but as part of major changes in society. Sustainability transitions in general, and energy transitions in particular, are socio-technical processes.

The transition provides an opportunity to create new and fair systems, institutions and practices. Achieving this will require inclusive and democratic processes, and the development of new forms of community participation.

## AGAINST THE WIND

“Some people are not being heard. Their opinions are often ignored by the decisionmakers,” says researcher Marius Korsnes.

That’s how controversies often start, for example when placing wind turbines on land. The Sami people have been especially ill-treated. Reindeer grazing areas have been occupied by wind parks in some areas like Fosen in Trøndelag county. The Supreme Court recently decided that indigenous rights of Sami people were violated through the wind park concession given there.

“Many researchers are already looking into those controversies now, so we decided to go more in depth on conflicts in other locations, like the island Frøya”, says NTNU researcher and leader of research area 1, Marius Korsnes. He has also been heavily involved in the research sprints and other activities in NTRANS use case 1, in close cooperation with IFE researcher Pernille Seljom.



Frøya Vindpark on the island Frøya. (Photo: Marius Korsnes/NTNU)

## FIELD WORK ON THE ISLAND FRØYA

During 2021 Korsnes and master's student Marte Austenå went on a field trip to Frøya in Trøndelag county to collect research data.

"The field work and the interviews we did on Frøya are also important for my master's thesis," says Austenå.

"We interviewed people in the Frøya community, which is very affected by the debate on wind power." Korsnes continues: "The debate is polarized and has led to division among people on the island. We wanted to talk to people on both sides of the conflict, but it was hard to find people who were in favour of wind turbines. Also neutral people were difficult to reach."

The opposition against wind power on the island is strong, and has affected the Norwegian debate for almost 20 years.

## EGO VERSUS COMMUNITY

One of the "pro wind farm" locals said: "Today we are more concerned with taking care of ourselves, me and what I want and what I need. This contrasts to the post war-period, when they were building communities – and surely, they sacrificed nature to build".

"Our temporary findings also show that this camp considers wind energy a necessary evil, and that renewable energy is needed to cope with climate change.

The local islanders opposing the wind farm pointed to distrust in the licensing process, and failing to preserve nature and species. They were also disappointed with the mitigating measures taken. The focus on economic growth that sacrificed nature was another great concern on that side of the conflict."

## WHAT CAN WE LEARN FROM THE FRØYA CONFLICTS?

"Controversy can be an important arena for understanding participatory processes," says Korsnes.

"Frøya has shown and created engagement for the resistance movement against wind power, with nationwide effects. One of our findings points at the role of the local municipality in such processes. In instances where about half the local population is against a project, it might not be a great idea to accept the project even with a slight majority. It is therefore important to look at each case individually and ask: how can we avoid polarization when local communities are so divided?" Korsnes also points out that we would have to take a closer look at the licensing process, which in several cases has been lengthy and potentially unfair.



Field work on Frøya: Marte Austenå joined Korsnes (both NTNU-KULT) in fieldwork on Frøya. Here in front of the Frøya Vindpark entrance. (Photo: Marius Korsnes)

## EVENTS ON CONFLICTS AND JUST TRANSITION

**3 March 2021:** "Land use conflicts in the transition to the low-emission and zero-emission society". This webinar was moderated by Hans Jakob Walnum, Western Norway Research Institute, Vestlandsforskning, and was attended by more than 70 people in total.

[The programme and presentations are available here](#) (in Norwegian).

**29 April 2021:** "Can participation and inclusion deliver just energy transitions?" This workshop was part of NTNU Energy Transition Week, and had participants from our user partners and also a number of international ones, like Jason Chilvers, University of East Anglia. Tomas Moe Skjølvold was chair. [See more about the workshop](#)

**7 December 2021:** Workshop: "The Norwegian wind controversy"

This was also a popular event, and had both physical and virtual attendees, around 70 in total. Organised in cooperation with FME NorthWind. Moderators were Marius Korsnes and Sara Heidenreich. [See the programme and the presentations in the NTRANS event calendar](#) (in Norwegian).

## MAKING THE SMART GRID



By Tomas Moe Skjølvold, Ida Marie Henriksen, Berit Kristoffersen, Johannes Hojem, Iva Stoykova

This report analyses 30 pilot and demonstration projects that advance smart grids with flexible consumption and high levels of renewable energy production in Norway. The report

investigates pilot and demonstration projects as key sites in the production of future societies. Such projects are usually evaluated based on techno-economic criteria, while their contribution to broader societal processes tends to be overlooked. This report explores how they contribute to the shaping of energy transitions and societies, and provide recommendations based on this analysis. Read more about this report on page 42 in this report.

[See the report here](#)



NTNU researcher Marius Korsnes. (Photo: Silje Nårstad/NTRANS)

## MARIUS KORSNES AWARDED AN ERC GRANT



Christmas 2021 came early for Marius Korsnes: He got the joyful message that he would be awarded an ERC Starting Grant from the European Research Council (ERC). He will explore the concept of "sufficiency" when it comes to urban,

sustainable food in China.

[Read more in Norwegian SciTech News](#)  
[Eller les den på norsk i Gemini](#)

(Photo by: Vibeke Ann Pettersen/NTRANS)

## THREE WORK PACKAGES IN RESEARCH AREA 1

- **Work package 1:** The role of citizens, public engagement, and culture in deep decarbonization  
Lead: Sara Heidenreich and Christian Klöckner, NTNU
- **Work package 2:** Controversies, conflicting visions, and value trade-offs  
Lead: Ragnhild Freng Dale and Hans Jakob Walnum, Western Norway Research Institute
- **Work package 3:** Governance through research, pilots and experimentation  
Lead: Tomas Moe Skjølvold and Ida Marie Henriksen, NTNU