

# Welcome to the workshop!

## Sustainable Infrastructure and Energy Commodities for Sector Integration

02-03 Dec 2021, online



# Workshop objectives

- Address research challenges related to:
  - how to model hydrogen production and transportation networks,
  - the effect of carbon price regulation on the sustainability of commodities,
  - fuel switching in sectors (electrical heating, electrical cooking),
  - sector integration (Industry – transport – heating – electricity)
  - ...
- Day 1: Stakeholder perspectives
- Day 2: Research and modelling insights

## 2<sup>nd</sup> Dec. programme workshop: Stakeholder perspectives

12:00 – 12:05	Connect to the workshop
12:05 – 12:15	Welcome to workshop 1: Infrastructure and Energy - Anne Neumann (E.ON Energy Research Center)
12:15 – 13:55	Session I: Industry perspectives - Norway Energy H. transition towards Ulrik Olbjørn (Equinor) - Modelling challenges Ehrenmann (ENGIE) - Main challenges in Luise (EDF) - Securing energy supply Elisabeth Alne Hagen (E.ON Energy Research Center)  Panel discussion moderated by Asgeir Tomasgard (NTNU)
13:55 – 14:15	Digital coffee break
14:15 – 15:00	Session II: EFECT, call for proposals - EFECT: vision, objectives and goals - EFECT process and governance - Discussion on stakeholder perspectives
15:00 – 15:15	Digital coffee break
15:15 – 16:15	Session III: Policy perspectives - The revision of the infrastructure in the European Commission - Governance and the role of stakeholders Tooraj Jamasb (IEA)  Panel discussion moderated by Asgeir Tomasgard (NTNU)
16:15 – 16:30	Summary and conclusions - Hans Auer (TU Wien)
16:30	End of workshop day 1

## 3<sup>rd</sup> Dec. programme workshop: Research & Modelling insights

09:00 – 09:05	Connect to the workshop
09:05 – 09:10	Welcome to workshop day 2: Research perspectives on Sustainable Infrastructure and Energy Commodities for Sector Integration - Pedro Crespo del Granado (NTNU)
09:10 – 10:10	Session I: Showcasing EFECT member's research, part I - Cross-border infrastructure projects (long-term investment modeling with a focus on cross-border infrastructure for industrial systems), Frank Meinke-Hubény (VITO) - Hydrogen use in the European energy system (results from the openENTRANCE project and an outlook to the new project on "Open-Source Modeling of Renewable Hydrogen Generation for Germany and Europe"), Konstantin Löffler (TU Berlin) - The Spine Toolbox and detailed sector modelling, including infrastructure, Juha Kiviluoma (VTT)
10:10 – 10:30	Digital coffee break
10:30 – 11:10	Session II: Showcasing EFECT member's research, part II - Modelling sector coupling using the Any-MOD energy system framework: applications to sustainable infrastructure planning for electricity transmission, natural gas and heating networks, Leonard Göke (TU Berlin) - The value of large-scale offshore distribution islands - Benefits of sector coupling and multi-country connections using the example of Bornholm energy island, Alexandra Lüth (Copenhagen School of Energy Infrastructure)
11:10 – 11:30	Summary and conclusions Workshop day 2 - Pao-Yu Oei (Europa Universität Flensburg)
11:30	End of workshop day 2

# Workshop format

- 3 sessions today
  - Industry perspective
  - Policy perspective
  - Call for contributions and stakeholder input
  
- Short 15 min presentations
- Guided panel discussion
- Participants can ask via chat & raise hands



## **Day 1 – Session 1: Industry perspectives**

Ulrik Olbjørn (equinor)

Andreas Ehrenmann (engie)

Renato Luise (edf)

Elisabeth Alne Hendriks (gassco)

Panel moderator: Paul Deanne (ucc)

Coffee Break

**Start again: 14:15**



## Day 1 – Session 2: EFECT, call for contributions and stakeholder inputs

Anne Neumann (ntnu)

Pedro Crespo del Granado (ntnu)

... and ...

👉 you 👈

Source: [www.emojipedia.org](http://www.emojipedia.org)

## What is EFECT?

- Initiative established in 2021 by leading European universities and research organizations working in energy and climate modelling, as well as relevant stakeholders.
- EFECT will contribute to collaborative modelling exercises with the aim of better understanding the ground-breaking energy and climate transition in Europe.
- EFECT focuses on open and transparent modelling processes and the development of tools open for use by all stakeholders.

## Vision

- Contribute to modelling activities with a relevance for understanding the ground-breaking energy and climate transition in Europe.
- Contribute to open, transparent and democratic modelling processes.
- Be relevant for policy making as well as corporate decision-making in Europe.
- Have a technology-neutral perspective.
- Facilitate continuous involvement of stakeholders (e.g., industry, NGO's, policy makers, governmental organisations, etc.).
- Have a broad geographical representation in Europe.
- Have a focus on interdisciplinarity (e.g., by inclusion of aspects related to the social sciences and humanities).
- Bring the European energy and climate modelling community together (by preparation of joint publications, organization of events for discussion of modelling results, etc.).

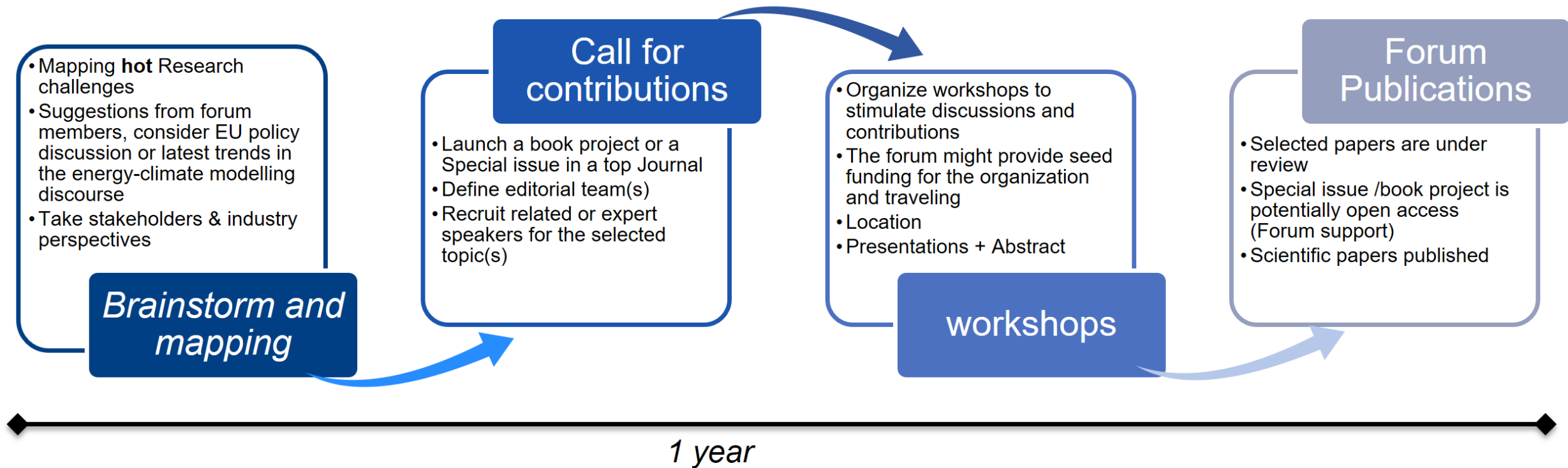
## Current Management Structure

	Reponsible for	Who
<b>Forum Director</b>	Leading the Management Group and Secretariat	
<b>Management Group</b>	Setting the research agenda for EFECT and research quality assurance	
<b>Secretariat</b>	EFECT's administration	
<b>Stakeholder committee</b>	Recruitment of stakeholders and management of stakeholder group	

**We invite participation from members for all groups, self-nominations are possible 😊**

## Modelling missions

- Each year EFECT will launch a modelling mission addressing a key question in the landscape of European energy transition strategies for climate neutrality.
- Our first modelling mission (2021-2022): «Sustainable Infrastructure and Energy Commodities for Sector Integration».



# Call for contributions

## Call for Contributions to a Special Issue “Sustainable Infrastructure and Energy Commodities for Sector Integration”

This Special Issue sets out to address – but is not limited to – the following research challenges:

- How to model hydrogen production and transportation networks.
- The interplay of sustainability criteria for bioenergies and production of industrial base products – is there a future in Europe for fossil fuel production?
- The effect of carbon price regulation on sustainability of commodities (i.e., hydrogen, biofuels).
- The role of citizens in developing new infrastructure (i.e. public resistance against the underground storage of carbon or the increased investment and construction activity in wind turbines).
- Fuel switching in sectors (electrical heating, electrical cooking).
- Stranded natural gas assets or reuse of it for transporting natural gas.
- Sector integration: Industry – transport – heating – electricity.

We encourage explorations within **all research areas in the general scope of energy economics, including financial theory, risk analysis and insurance, econometrics, operations research, renewables, micro and macroeconomics**, among others.

The purpose of this special issue is to bring together a collection of high-quality research papers that propose solutions to practical regulatory problems. Papers **can be theoretical, empirical, experimental, or based on literature reviews or case studies**. The papers can examine any of the questions/issues mentioned above, either directly or indirectly.

To stimulate high quality submissions, the guest editors of the special issue **will organize two open workshops (one in Brussels and one in Trondheim)** to gather the interest of the community. The workshops will bring together key stakeholders and researchers in Europe to present latest research related to the special issue. The workshops will: i) stimulate high quality submissions, ii) provide feedback to authors before submission and have discussions with peers, and iii) present the papers submitted to gain further insights and position latest energy policy recommendations.

Guest Editors: Anne Neumann, Daniel Huppmann, Pedro Crespo del Granado

Expected Dates for Initial Submissions: 28 February 2022 (tbc)

Expected Dates for Reviewing and Revision: 31 July 2022 (tbc)

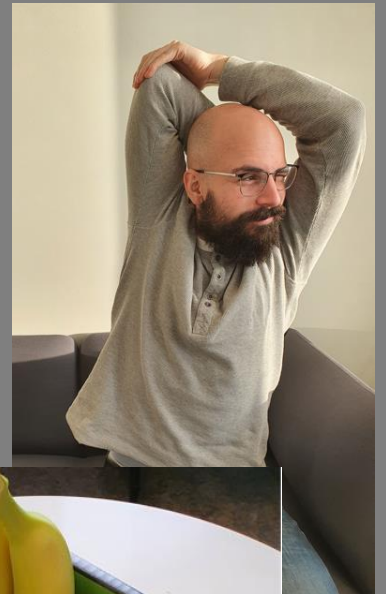
Expected Final Acceptance Date: 30 September 2022 (tbc)

## Stakeholder input

👉 you 👈

Revitalize

Start again: 15:15



## **Day 1 – Session 3: Policy perspectives**

Tomasz Bak (dg ener)

Tooraj Jamasb (csei)

Panel moderators:

Sandrine Charousset (edf) and Asgeir Tomasgard (ntnu)

## **Day 1: Summary and conclusions**

Hans Auer (tu wien)



**Thank you for your participation.  
Day 2 starts tomorrow at 9am.**