Converging Energy Technologies CET2022

Oskarshamn, Sweden



# Hosting SMRs – challenges of new nuclear development in local communities

Yves D'Eer

**CET2022, 21st September 2022** 





Formally established in the year 2000 to promote local democracy in nuclear energy governance to ensure:

- Safety
- Transparency and local participation
- Sustainable development





### Objectives of GMF

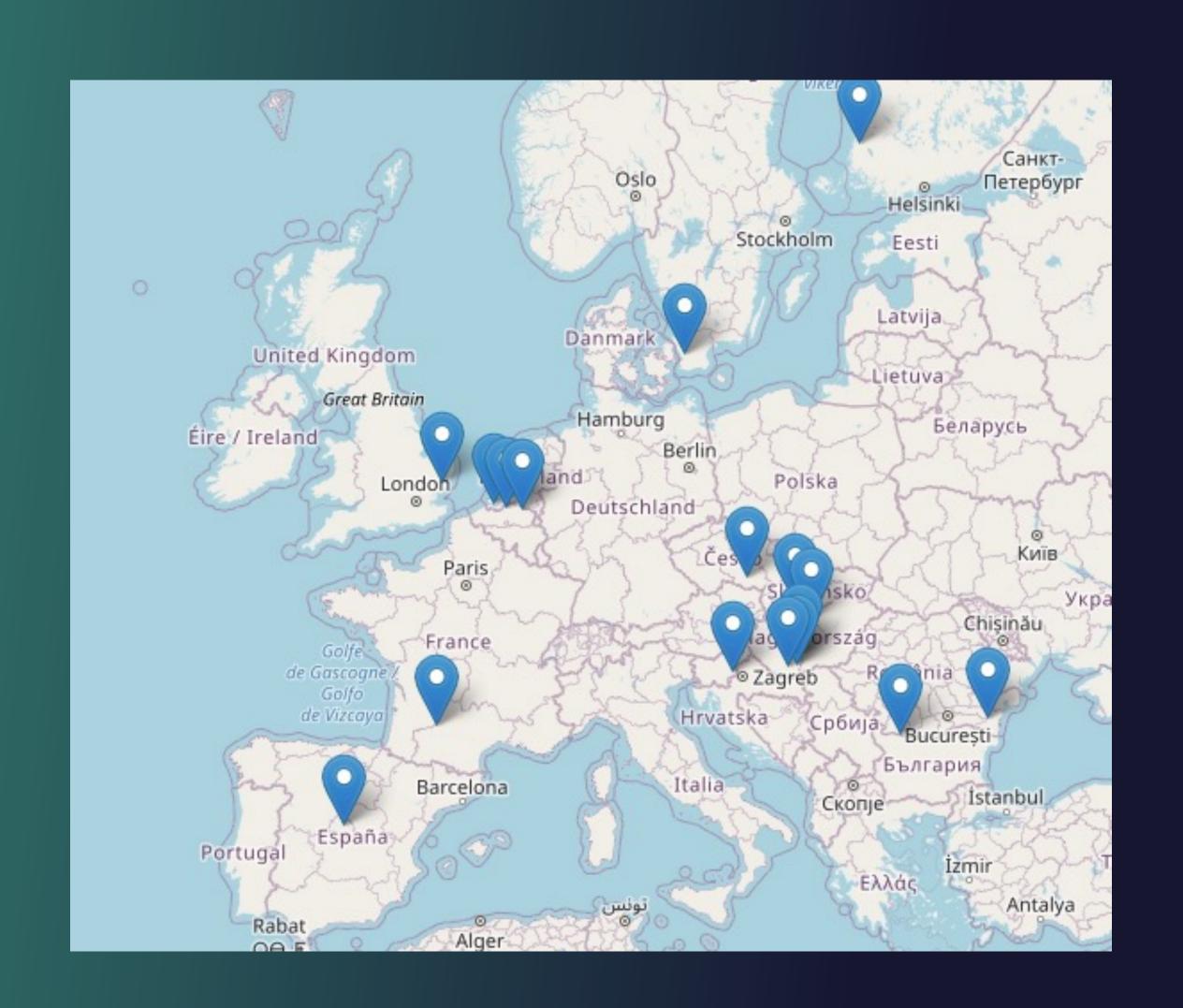
- Raise the voice of local actors in the nuclear arena at national and European levels
- Improve knowledge and exchange of experience between nuclear municipalities
- Promote transparency and public engagement with regard to nuclear decision-making
- Seek to influence policy and strategy related to nuclear energy matters in Europe



GMF meeting in Krsko, Slovenia (May 2022)

### > Our members







#### Some of our activities

Collaboration with European projects and organisations and international projects



Civil Society group of EURAD





Annual Foratom meeting, 14 June 2021



Technical Meetings on local communities and radioactive waste management (2018 & 2019)



Steering Committee of European Nuclear Energy Forum (ENEF)









Steering Committee of the EU project on Nuclear & Radiological Emergency Preparedness and Response (2021-2022)



Workshop on the social impacts of nuclear decommissioning and closure, 15 July 2022



## Potential for new nuclear development

#### **CET2022**

#### Conference brief

The rapid integration of renewables within the energy system in combination with the event of new technologies like small nuclear reactors (SMR) are transforming tomorrow's energy system. The conference will present new energy technologies and their system aspects at national, regional, and local level with emphasis on the convergence of SMR with renewables, hydrogen production and CO2 storage.

### Public dialogue on advanced nuclear technologies

Engagement report

July 2021





UK Research and Innovation

#### Sweden to study SMRs at Ringhals

Mon, Jul 11, 2022, 7:00PM Nuclear News





Hosting New Nuclear Development

### The Netherlands opens the door to new nuclear with €5bn

In December 2021, the new Dutch government presented its coalition agreement. One of its most notable measures is the ambition to construct two new nuclear power plants.



ECONOMIE

#### Tribune Libre

«Faisons de Fessenheim la terre d'excellence du nucléaire de demain!» La tribune de Rafik Smati et Claude Brender

Par Rafik Smati et Claude Brender 28 octobre 2021 à 12h45



Nous proposons de faire de Fessenheim le site de référence des SMR de demain, et d'y construire sans tarder deux réacteurs-démonstrateurs,



Rafik Smati et Claude Brender DR

Le 29 juin 2020, la centrale nucléaire de Fessenheim était déconnectée du réseau

#### Joint venture formed to spur SMR deployment in Sweden

15 February 2021



Uniper Sweden, LeadCold and the Royal Institute of Technology (KTH) are collaborating to explore the possibility of constructing a demonstration LeadCold SEALER lead-cooled small modular reactor (SMR) at Sweden's Oskarshamn plant site by 2030. The partners have also applied for funding towards building a non-nuclear prototype at Oskarshamn for testing and verifying materials and technology.



## Opportunities - in existing nuclear local communities you can find:



- Existing grid-facilities, delivery routes, security, safety, safeguard, EP&R, ...
- Openness to host new energy (nuclear) technologies and even ambassadorship
- Potential support if the necessary (safety/regulatory, social, economic, environmental) requirements are fulfilled
- \* Experience, know how and competences in the field of nuclear
- Good practice in nuclear local governance in some European countries
- Closeness to existing (on-site) storage and disposal facilities. Co-locating advanced nuclear projects (SMR, GEN4, ...) diversifies nuclear presence and ensures viability and resiliences.







- Current loss of nuclear competences and knowledge
- A Moving beyond technical issues to practically address feelings, perceptions and concerns
- Balancing risks and benefits in a transparent way
- Communicating uncertainties openly
- Engaging with local communities from the start
- Correct licensing vs. entangled in red tape





### Proposal for collaboration

- SMF offers an added value for legislators, policy-makers and industry as the municipalities:
  - \* are potential hosting communities (e.g. available sites from decommissioning NPPs)
  - are the entry point to co-operate with local/regional services. GMF can facilitate this process.
  - offer collaboration to:
    - co- develop a workable framework for SMR development in Europe
    - co-develop guidelines for Emergency Preparedness and Response (EP&R) in the new nuclear developments
    - help harmonize off-site planning in European countries

