



Netherlands Enterprise Agency

Mission-oriented  
Research,  
Development and  
Innovation.

## **MOOI-SIGOHE**

System-oriented solutions  
towards integration of large-  
scale renewable electricity  
production.

Kick-Off, March 31<sup>st</sup> 2021

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## **MOOI: a mission-oriented approach to innovation**

- Integrally developed solutions.  
Moving away from separate product-innovations
- Multidisciplinary collaboration  
(throughout the value chain)
- Active sharing and dissemination of knowledge



# Goals of the MOOI-SIGOHE.

System-oriented solutions towards integration of large-scale renewable electricity production.

- Development of system-oriented solutions that
  - Increase the adaptability and flexibility of
  - Large-scale electricity production from solar and wind
  - Applicable in the Netherlands
- 
- First application in 2030
  - At minimal societal costs
  - With optimal environmental integration



# Interpretating the MOOI-SIGOHE goals (1)

- **System-oriented solution**  
Solutions regarding aspects ranging from production tot end-use are integrally developed towards a shared result.
- **Increasing adaptability and flexibility, through**
  - Transportation / connection,
  - Storage and conversion,
  - Flexible production
  - Matching supply and demand
- **Large-scale electricity production**  
Solutions involving renewable production over 1 MW and with potential to scale-up to over 1 GW
- **Applicable in the Netherlands**
  - Solar energy: on rooftops, on land, on water and on infrastructure
  - Wind energy: offshore and on land
  - Industrial and other large power consumption



## Interpretating the MOOI-SIGOHE goals (2)

- First application in 2030
  - Demonstration in an operational, commercial and relevant setting
  - Large-scale implementation is not yet required
- Against minimal societal costs
  - Not only the economic perspective, but also
  - Effects on the system costs of the energy system
  - And environmental effects
- Optimal environmental integration
  - Broad public support
  - Integration of technical and non-technical aspects
- Develop at least 2 out of 4 links in the chain:
  - Large-scale electricity production (**Mandatory**)
  - Transportation/distribution
  - Storage/conversion
  - End-use



# MOOI: supported activities

- Industrial Research (IO)
- Experimental Development (EO)
  - Pilot-projects are allowed
- Other project activities (OP)
  - Must contribute to the project-goal and are not; 'feasibility studies', fundamental research, 'IO' or 'EO'.
  - Examples:
    - participation of local residents,
    - pre-sorting on market introduction,
    - knowledge integration and dissemination,
    - education and training
  - De-minimis certificate: for business and economical research by organizations



# MOOI ranking criteria

- Ranking based on criteria, by an advisory committee
  - Goal
  - Innovation
  - Success rate in the markets and society
  - Quality of the project
  - Quality of the consortium (with a minimum of 3 companies)
- Each criterion is awarded between 1 and 10 points
- Projects are rejected if any criterion gets less than 6 points
- 0,5 to 1 bonus point is awarded for additional involvement by companies



## **Excluded** from the MOOI-SIGOHE

- Small-scale solar-PV systems in residential areas (<15kWp)
- Next generation wind turbine technology
- Market system from MMIP1 (research towards market models)
- Building sustainable ships
- Other renewable electricity sources on land or offshore (only solar-PV and wind are allowed)
- Projects which primarily focus on cost reductions which are feasible before 2030.  
For these for the HER+ scheme is applicable
- Fundamental research





# Subsidy rates

## EO, IO and OP by businesses:

- 60% for small businesses
- 50% for medium-sized businesses
- 40% for large businesses
- **-15%** when actual cooperation is absent

## Non-economic activities and other non-economic project activities by research organizations

- 80% for research institutes
- TO2, Universiteiten en Hoge Scholen  
TO2: Deltares, Wageningen University & Research, MARIN, NLR, TNO.



## Requirements of MOOI-SIGOHE (1)

- Project comprises a minimum of € 2 million in eligible costs
- Project receives a maximum of € 4 million in subsidy
- Minimum subsidies per participant €25.000
- Consortium minimum 3 unrelated participants
- Research organizations can make up no more than 65% of the total eligible costs
- OP makes up a maximum of 5% of the total eligible costs, <€350.000 per MOOI-project and <€200.000 per business
- Project duration: maximum of 4 years
- Pre-applications relate to a maximum of one final project-application

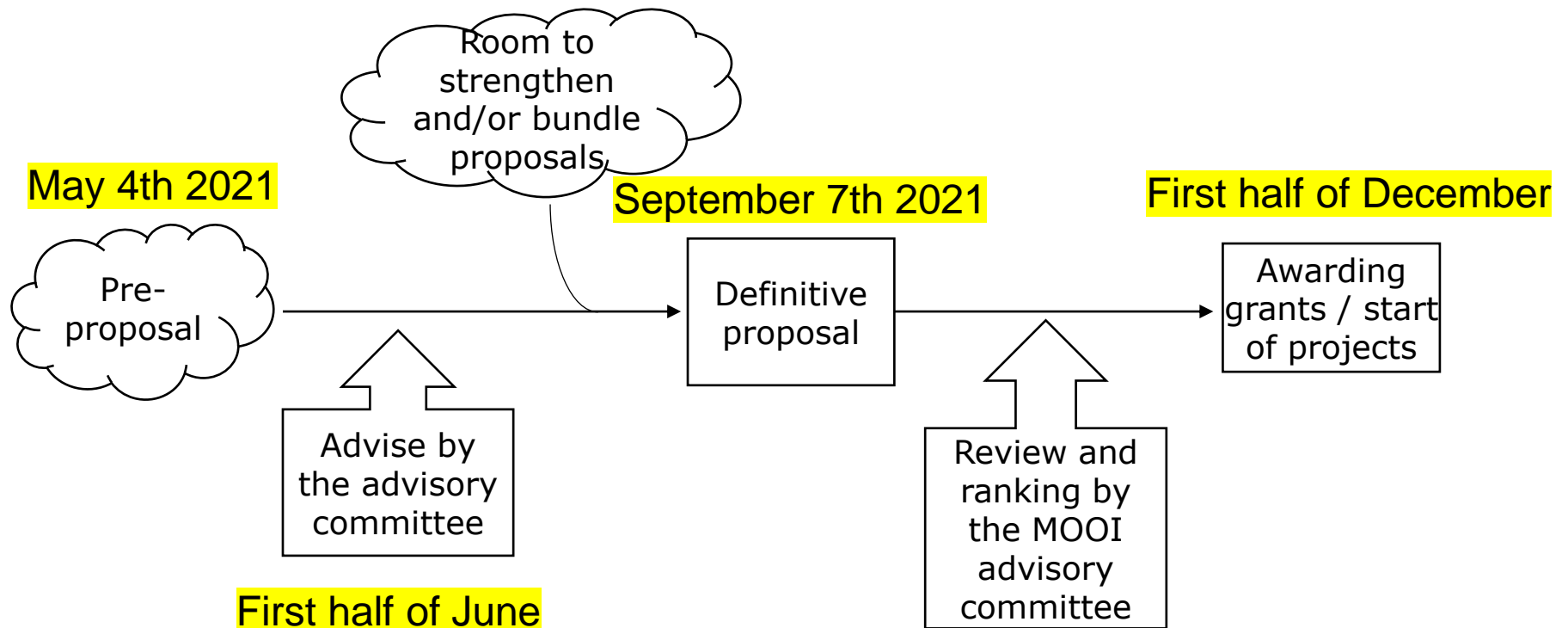


## Requirements of MOOI-SIGOHE (2)

- Sufficient confidence in technical feasibility
- Sufficient confidence in economical feasibility
- Sufficient confidence in the financial sustainability of the private investments by the project-partners
- Project-proposal contains milestones and SMART (Specific, Measurable, Acceptable, Realistic, Time-bound) indicators as to track the progress of the project
- Starting date: after submission and within the six months after the grant has been awarded
- Regarding research organizations: a collaboration agreement is required before the start of the project
- Application must be complete
- Budget MOOI-SIGOHE: €13,8 million



# MOOI-SIGOHE proces en planning: 2-fasen tender



**To submit your final proposal, e-Herkenning level 3 is required!**



## MOOI organisation

- Executed RVO on behalf of the Ministry of Economic Affairs and Climate Policy
- MOOI-coordinators
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- Secretary's office: [energie-innovatie@rvo.nl](mailto:energie-innovatie@rvo.nl)
- Committee advises RVO regarding pre-proposals and final submissions
- More information regarding MOOI: [www.rvo.nl/mooi](http://www.rvo.nl/mooi)
  - Specifically regarding MOOI-SIGOHE: <https://www.rvo.nl/subsidie-en-financieringswijzer/mooi/mooi-sigohe>
  - Contains information regarding dates and deadlines
  - Details regarding pre-proposals, definitive proposals and how to submit them through [www.mijnrvo.nl](http://www.mijnrvo.nl).
  - To submit your definitive proposal, e-Herkenning level 3 is required!
- TKI's of Top sector Energy facilitate matchmaking
- Which scheme is appropriate? Have your idea tested: [Projectidee toetsen Subsidie energie-innovatie | RVO.nl | Rijksdienst](#)



## **MOOI-SIGOHE DISCLAIMER**

This presentation of March 31, 2021 is based on a provisional unpublished version of the MOOI-SIGOHE scheme.

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You can only derive rights from the definitive published MOOI-SIGOHE scheme.