FROM NER300 TO THE INNOVATION FUND

Knowledge-sharing for innovative clean tech projects

26 February - 10:00 CET

Knowledge-sharing, communication and dissemination

- ***Knowledge-sharing*** is the information to be shared and activities to be undertaken by the project at the different project stages in order to de-risk the innovative technologies or solutions with regard to scaling up to a commercial size and to accelerate deployment and commercialisation of the technologies.
- ***Communication and dissemination*** are the communication and dissemination activities that the applicant plans to undertake to promote the project and the technologies, products or business models that are being demonstrated.

The knowledge-sharing (KS) template

- To collect relevant knowledge generated from Innovation Fund projects after grant award
- Applicants are welcome to provide additional indicators specific to their project and innovative technologies, which they are willing to share knowledge on.
- Applicants are encouraged to foresee both quantitative indicators and qualitative elements.
- The quality and extent of the knowledge-sharing plan will be assessed under scalability.
- If the proposal is successful, the beneficiary will be reporting on all general knowledge-sharing elements and all specific knowledge-sharing elements identified at the time of the application.

Knowledge-sharing levels

- **Level 1 (L1)** recipients are all Innovation Fund projects in the relevant sector, and any other project which has agreed to share the same level of detail of information with INEA and the Commission services responsible for implementation of the Innovation Fund
- **Level 2 (L2)** recipients are the wider technology community (e.g. other potential users of the technology/the solution/the business model etc.), the Commission, Member States, researchers, non-governmental organisations (NGOs), international organisations and other projects and, where appropriate, the public.
- **Aggregation and anonymization:** The Commission may decide when appropriate, to aggregate Level 1 relevant knowledge to be shared at or beyond Level 1 recipients (i.e. at Level 2), with the objective that the result cannot be ascribed to individual projects, organisations or persons.

Aggregation and anonymisation

- The Commission may aggregate relevant knowledge and disseminate it when it contributes to the overall goals of the knowledge-sharing (de-risking of the innovative technologies with regard to scaling up to commercial size; acceleration of the deployment; increasing the undertaking of, and confidence in, the innovative technologies by the wider public; maintenance of a competitive market.)
- Aggregation may take place:
  - Where specific data and information is considered important to be communicated at a broader level, this can be aggregated in a manner that 'de-sensitizes' information considered to be too commercially sensitive to be released on a general level (e.g. cost breakdown);
  - Where it is considered important to aggregate knowledge in order to communicate best practice in a more general area between similar projects (e.g. good practice in developing health and safety plans);
  - Where relevant knowledge is considered important to be communicated at a broader level, however the information is of a highly technical nature, and thus may need simplified in order to make it accessible.

Contents

- General project details
- Contact details of the person responsible for the knowledge-sharing report
- A1 Technical Set-up and Performance (L1)
- A2 Technical Set-up and Performance (L2)
- B Actual GHG emission avoidance (mostly L2)
- C Cost and revenues (L1)
- D1 Project Management (L1)
- D2 Project Management (L2)
- E Environmental Impact (L2)
- F Health and Safety (L2)

Knowledge sharing aspects

reporting frequency

- Knowledge-sharing reports: **large-scale projects**: *annually, but we may consider to limit to:*
  - *1 report after financial close or after any milestone linked to payment*
  - *1 report after entry into operation or after any milestone linked to payment*
  - *and annually after entry into operation*
- Knowledge-sharing reports: **small-scale projects**: 3 reports:
  - *after financial close*
  - *after entry into operation*
  - *after end of project*

A1 Technical Set-up and Performance (L1)	At application	Agreed at grant award	At financial close	At entry into operation	Annual period X
A1.1 Technical description					
Overview of technology and related infrastructure					
Block-flow diagram of the system					
Innovative aspects of the project					
A1.1.1 Technology 1					
Description of design					
Deviations	n/a				
Details of sub-installation 1					
A1.2 Construction / installation process					
Construction and installation					
Installation technologies used					
Challenges and limitations					
Connections and interfaces with existing facilities, other plants, installations, pipelines, grid					
A1.3 Resource and Yield Assessment					
Input (raw material)					
Deviations Input (raw material) quantitative					
Reasons for deviations	n/a				
Yield (final principal product) quantitative					
Deviations Yield (final product)	n/a				
Reliability and downtime					
Reasons for deviations	n/a				
A1.4 Summary of remote communication devices and instrumentation used					
Deviations	n/a				
A1.5 Monitoring					
Description of monitoring methodology					
A1.6 Operation and maintenance					
Corrective maintenance	n/a				
Preventive maintenance					
Project specific technical parameters					
A1.7 Suitability for scaling-up					
Suitability for scaling-up					
Potential for cost reductions					

A2 Technical Set-up and Performance (L2)	At application	Agreed at grant award	At financial close	At entry into operation	Annual period X
Plant design summary					
Operating approach					
Construction / installation process					
Monthly performance					
Reliability and causes of downtime					
Average annual savings					
Impacts of any changes to operating conditions and/or product(s) made					
Data acquisition methods, accuracy of data					
Principal products produced					
Energy used, produced and exported					
Quality of product					
Power quality					
Raw materials used					
Energy used, imported and produced					
Estimate of efficiency and losses per input					
Questions for further research. Describe also any limitations to the current innovative items or technologies, and how such innovations can be further developed					
Project specific technical parameters					

Excerpts of the draft template

CCS, PV, BIO, GEO
To be developed: OCN, Hydro, Energy storage

Energy intensive industries		
A1 Technical Set-up and Performance (L1)		
A1.1.1 Summary of the technology deployed and plant description		
List all intermediary and principal products of the	**Hydrogen**	Fill in the fields relevant to your project. If not relevant, mark as n/a and explain why.
The production capacity achieved (in tonnes of p per annum)		Please provide all data that is quantitative also in separate clearly marked tabs
NACE2 codes of the products related to the mair		
The energy demand per tonne of principal produ	A1 Technical Set-up and Performance (L1)	If no change, please mark same as previous period
The feedstock/reductant demand (if applicable) p product(s)	A1.1 Hydrogen production technology	Descr detaile
The raw material requirements per unit of princip		
If this project is a sub process or retrofit of an exi provide separately the above information respect total process or for the process pre-retrofit	Primary energy source(s)	wind, geothe ocean treatm
A1.1.2 Carbon capture and storage/utilisation		
A1.1.3 Hydrogen production and use	Secondary energy source(s)	electri
Overview of hydrogen demand	Conversion technology	Water memb
Overview of hydrogen production		Bioma
A1.3 Energy and materials demand		Bioma
A1.3.1 Summary of energy demand		Therm
A1.3.3 Summary of imports and exports of heat, energy carriers		Photo
A1.3.4 Summary of materials demand		Photo
A1.1.3 Summary of waste-streams and by-produ		Microb
Identify the types and amounts of by-products an can be used		Fossil Steam
If applicable, provide the emission profiles to air		reform
If applicable, provide the amount and compositio and any capture and reuse processes.	Summary of design	Examp differe
If applicable, provide the amount and temperatur heat from the plant, and any reuse and/or upgrad		* tech
If this project is a sub process or retrofit of an exi provide separately the above information respect total process or for the process pre-retrofit		* man * size * total * syste * cell a * balar plant
Project specific technical parameters		

Wind energy	Fill in the fields relevant to your project. If not relevant, mark as n/a and explain why.
	Please provide all data that is quantitative also in separate clearly marked tabs
A1 Technical Set-up and Performance (L1)	If no change, please mark same as previous period
A1.1.1 Turbine technology	
A1.1.2 Summary of wind turbine design	A summary of the wind turbine design, including detailed description of * turbine blades, * hub, * drive train and housing/nacelle, * generator, * tower, * foundation * connections * electrical conversion plant (transformer, converters etc.) contained within turbine
	Foundations: * technical description of the wind turbine structural foundation solution(s), including transition piece where applicable, including design basis, dimensions, tolerances, corrosion protection and other relevant aspects. Comment on any deviations from the design phase and reasons therefore. * details of 'J tubes' or alternative method for connecting inter-array export cables to foundation * description of the monthly average site conditions experienced during the implementation of the project, including (wave and wind) * details of method used for connecting inter-array export cables between the seabed and foundation/turbine * average water depth and distance from shore

B GHG emission avoidance (L2)
Absolute GHG emission avoidance
Relative GHG emission avoidance
Per unit of product
Actual absolute GHG emission avoidance
Type(s) of modal(s) used in transportation, frequency and distance
[EII] Quantities of de minimis and minor inputs
[EII/RES/Energy storage] Hourly profiles for use and feed-in of grid electricity
[EII/Energy storage] Hourly profiles for generation of electricity delivered to the project from PPAs
[EII/Energy storage] Hourly profiles for avoided curtailment based on final physical notifications of co-located RES plants or grid operator instructions.
[RES] Energy generated by hour, based on the actual load factor, and technology efficiency per operating hour
[Bioenergy] Type of bio-based fuel used (refer to annexes V and VI of the RED2). Any pre-treatment(s) of biomass before processing. How is sustainability of biomass ensured?
[Energy storage] Hourly profiles for provided system services
Project specific technical parameters
Actual relative GHG emission avoidance (L1)
Actual GHG emissions per unit of product (L1)
Maximum potential absolute GHG emission avoidance
Maximum potential relative GHG emission avoidance

E Environmental Impact (L2)
Visual impact on landscape
Cultural heritage
Communication networks
Connecting to the national grid
Nature and biodiversity
Geology, aquifers and water sources
Emissions to the environment
Raw materials (primary and secondary)
Waste and circularity
Soil
Climate change adaptation
Other environmental impacts
Questions for further research
Project specific technical parameters

E Health and Safety (L2)
E.1 Health and safety design details
E.2 Monitoring systems to track safety
E.3 Safety incidents
E.4 Health issues
E.5 Near misses

Excerpts of the draft template

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C Cost and revenues (L1)
C1 Total investment costs to date [€]
development costs
capital equipment
site infrastructure
construction, installation
commissioning
intangible assets (incl. technology license)
grid / pipeline connection
other
Deviations
C2 Operating costs in the previous operative year [€]:
inputs (raw materials)
operation and maintenance
services
staff costs
overheads
waste disposal
local rates and taxes
insurance
other
Deviations
C3 Cost per unit of output
Cost per unit of output (CPUP) during IF monitoring period
Cost per unit of output (CPUP) over the plant/installation lifetime
C4 Revenues
Revenues main products
Revenues by-products
Avoided costs

Excerpts of the draft template

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D1 Project Management (L1)
D1.1 Lessons learned finance
Technical documentation
Business plan
Value chain certainty
Earlier pilots
Finance
D1.2 Permits and consents
Lessons learned from permitting
Market and regulatory barriers
D1.3 Project planning issues
Risks and mitigation measures
Deviations from key milestones
D1.4 Project management team
Roles and governance model
Changes in the consortium
Social inclusion, gender and race equality
D1.5 Stakeholder engagement, including public communication strategies
Communication objectives
Target groups selected and number of stakeholders reached
Methods of communication
Timing/frequency of stakeholder engagement
Challenges faced and lessons learned
Project specific technical parameters

D2 Project Management (L2)
D2.1 Aggregated information
Finance
Challenges encountered in relation to securing of project's funding and how have they been addressed? *What type of financial support from Member States or other European Union funds or mechanism were sought, and what were challenges encountered (if any) to achieving financial close?* *Lessons learned and experiences in how to finance, insure and minimise financial risks for this type of projects*

Excerpts of the draft template

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Questions for possible feedback on the template

- **What type** of technical, economic, project management, environmental, regulatory and permitting information will be **most useful** to share with other projects from the sector in order to speed up the **uptake** of the innovative technologies and to **advance** the regulatory environment without at the same time compromising the legitimate IPRs, the competitiveness and the first-mover advantage of the companies involved in the projects?
- Are there any important aspects **missing** in the various sections?
- Is the information requested at similar **level of detail** in the different sector tabs?
- Do we need to simplify the KS template for the small-scale projects? If yes, how?

Questions for possible feedback on the knowledge-sharing activities

- What types of knowledge-sharing activities should INEA organise for projects benefiting from Innovation Fund (and other EU programmes) and for the general public?
- What should be the form of knowledge sharing tools that would be useful for the market?
- How can synergies be obtained from linking to other programmes and networks?

Calendar

3 July 20	**Launch First Call large-scale projects** EUR 1 billion
29 Oct 20	**Submission 1st stage**
26 Feb 21	**KS event and exchange with stakeholders**
10 Mar 21	**Feedback on KS template**
End Mar 21	**Invitation 2nd stage**
23 June 21	**Submission 2nd stage**
Nov 21	**Invitation for grant preparation**
Q1 23	**First KS reports large-scale projects**

Launch of call for Small-scale projects EUR 100 million	1 Dec
Deadline submissions	10 Mar 21
Invitation for grant preparation	Sept 21
First KS reports small-scale projects	Q1 23

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Next steps

- Template will be uploaded on the webpage of the event and sent to IFEG for feedback by 10 March 2021
- Final template becomes part of the application documents for 2nd stage of applications under the large-scale call
- First knowledge-sharing reports and activities: as of 2023

Thank you

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