



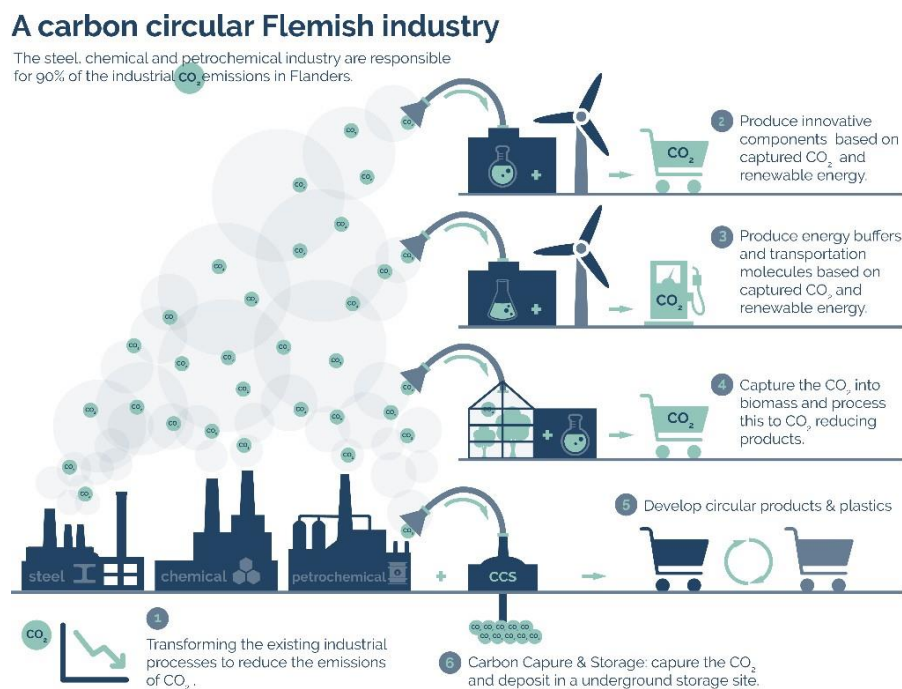
Manual for Early- Stage Innovation Projects within the MOONSHOT program

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0. Context

The Flemish minister for economy and innovation has launched in March 2019 the “Flanders industry innovation MOONSHOT program¹”, which is an ambitious, integrated and widely supported effort of 400 million EUR in innovation and research to make the Flemish industry (focusing in first instance on the chemical, petrochemical and steel sectors) succeed in the big leap that is required to successfully meet the climate and energy challenge.

With this long-term investment of 20 million EUR recurrent for the next 20 years, Flanders is challenging promising research to develop breakthrough technologies. Innovations that can demonstrate that they can significantly reduce CO₂ emissions, capture more CO₂, or improve CO₂ recovery and carbon circularity are eligible to receive further support in the MOONSHOT program. By fully re-thinking and transforming the current processes, it is feasible to greatly reduce the net emissions of CO₂. We also need to look for an efficient way to capture and (temporarily) store CO₂, initially at point sources/large emitters (CCS, Carbon Capture and Storage). Another necessary step to realize a carbon-circular industry is the ability to reuse CO₂ as a building block in the production process (CCU, Carbon Capture and Utilization), and this at a cost that is competitive with the use of fossil carbon sources (oil and gas). Other viable options are to capture CO₂ into biomass and subsequently process this biomass into added-value products, and/or to develop circular products (such as plastics).



However, many of the MOONSHOT-relevant technologies/processes shown above also depend on the availability of cheap, carbon-free electricity, heat and hydrogen for commercial success. This need for sustainable energy generation poses several challenges for the energy system: increasing electrification, increasing energy efficiency, and switching to carbon-free energy requires additional innovations. These challenges also need to be addressed.

¹<https://www.philippemuyters.be/nieuws/moonshot-van-400-miljoen-voor-co2-neutraal-vlaanderen>

The MOONSHOT innovation program, with the ambition to make Flanders carbon circular and low in CO₂ by 2050, is not only very challenging, but also offers an economic opportunity. With the technological breakthroughs and innovations that result from this, Flanders will position itself as a top region for research and innovation for the energy-intensive sectors.

The MOONSHOT innovation program is currently hosted by CATALISTI, the Flemish spearhead cluster for Chemistry & Plastics (www.catalisti.be). More background information concerning the MOONSHOT innovation program (such as the high-level objectives of the program and the specific objectives of the four MOONSHOT research trajectories) can be found on the MOONSHOT website (www.moonshotflanders.be) and in the context document "The Flemish industry carbon circular and low in CO₂ in 2050 through the development of marketable innovative technologies in Flanders by 2040". This document is available for download at the MOONSHOT website: www.moonshotflanders.be/downloads.

Within the MOONSHOT innovation program, funding is available for Early-Stage Innovation projects (i.e. so-called "MOONSHOT ESI" projects). The present manual outlines the basic characteristics of such projects, the handling of the submitted projects and the main assessment criteria that will be used for evaluation of the submitted proposals.

1. Basic characteristics of MOONSHOT ESI projects

1.1 Positioning and goals

An ESI project within the Flemish MOONSHOT innovation program involves innovative research that, in the event of scientific success, offers a prospect for later economic applications. It fits into a wider trajectory within the MOONSHOT innovation program and is not a "stand-alone" project.

A MOONSHOT ESI project is demand-driven and meets the needs identified and endorsed by the target group companies. The research presented in the project needs to be supported by companies either for industrial implementation by these companies or as support towards potential future products or technologies. The intended knowledge acquisition will take the MOONSHOT innovation roadmap a step further (i.e. further technical and substantive deepening of it) and the intended knowledge acquisition is urgent and important. The accumulated knowledge contributes to the realization of the strategic objectives of the MOONSHOT innovation program and its target group(s).

A MOONSHOT ESI project mainly concerns the execution of independent (non-directed) strategic basic research by research and knowledge dissemination organizations (as understood by the State Aid Framework for R&D&I²).

The implementation of economic applicability takes place either through collaboration with companies and transfer of knowledge to those companies or through direct valorisation via a spin-off of research partners. The aim is to contribute to an influx of new ideas and concepts that at a later stage can be the basis for a new generation of products, processes or services in industry.

MOONSHOT ESI projects are not aimed at knowledge dissemination, but at building up new knowledge that constitutes the start of a dialogue between the research organizations that conduct the research and either the industry, the market or venture capitalists aiming at valorisation of such new knowledge. Due to the large distance between the results and the implementation and the market, a successful MOONSHOT ESI project will in the first place produce results that can subsequently be translated into concrete applications of (or close to those of) companies or that follow other valorisation pathways (through further research, development and implementation).

The valorisation potential of a MOONSHOT ESI project consists of the contribution that the project can make in solving the problems (demand driven by the companies) that form the basis of the MOONSHOT innovation program or in creating new opportunities within the contours of the MOONSHOT innovation program³ with a perspective for economic value creation (supply driven by the research organizations).

1.2 Valorisation strategy: transfer to existing or to new companies

The most important basic valorization strategy in the design and implementation of a MOONSHOT ESI project is the transfer of the research results to (existing) companies. It is recommended to demonstrate applicability at multiple companies. If the project shows selectivity to a single company or a limited number of companies or is strongly embedded in the product range of a specific company, support as a (cooperative) R&D company project could be better suited.

² Framework for State Aid for Research and Development and Innovation (2022/C 414/01).

³ The context of the MOONSHOT innovation program, its high-level objectives and the specific objectives of the different MOONSHOT research trajectories can be found in the context document "The Flemish industry carbon circular and low in CO₂ in 2050 through the development of marketable innovative technologies in Flanders by 2040" and on the MOONSHOT website www.moonshotflanders.be.

After a successful MOONSHOT ESI project, further research, development and implementation trajectories of the results are on the agenda. In case the research is sufficiently mature, the focus shifts to the valorising agent or companies. These further trajectories may also be supported via other subsidy channels at VLAIO or via the set of tools for the spearhead clusters, such as (cooperative) R&D company projects, ICON projects, Baekeland mandates, etc.

1.3 Advisory Board

During the implementation of a MOONSHOT ESI project, an Advisory Board is mandatory:

- The Advisory Board is open to all interested companies, including companies located outside the Flemish region.
- The Advisory Board fulfills a sounding board function. The final responsibility with regard to steering of the project execution lies with the research consortium.
- If a company wishes to join the Advisory Board of a MOONSHOT ESI project, this requires – during the project execution – a commitment to substantive input and a time investment to participate in bilateral consultations with the project partners and/or meetings of the Advisory Board. A financial contribution is not a prerequisite but will be positively assessed during the evaluation of the project proposal.
- Companies wishing to participate in the Advisory Board of a MOONSHOT ESI project must substantiate their commitments on the basis of a motivated letter of intent (to be submitted to the MOONSHOT operational team, preferably prior to the deadline for submitting a MOONSHOT ESI project proposal). These statements form an integral part of a MOONSHOT ESI project proposal. The MOONSHOT operational team will organize the request for Letter of Intent (LOI) to the entire CATALISTI network and to all companies that previously signed LOIs for MOONSHOT projects. In addition, targeted communication to certain companies can be done after agreeing with the MOONSHOT operational team on who will take the lead (i.e., MOONSHOT operational team or consortium partner). In all cases, the same LOI template is used.
- It is essential that the company statements are well-motivated and are certainly not limited to a general declaration of interest. It must be explicitly stated what the specific added value of the expected project results is for the company concerned and what further development and implementation processes are feasible. If applicable, the commitment for the (voluntary) financial contribution must also be included here. The letter of intent for membership of the Advisory Board must be signed by a legal representative of the company (otherwise the letter will not be taken into account). This substantiates the internal support within the company for the engagement in the Advisory Board.
- The composition of the Advisory Board is preferably as complete as possible at the time of the project submission (including motivated declarations of intent).
- The project executors are the owners of the results. Any subsequent transfer of results should be carried out at prevailing market conditions. The transfer of results of research centres is open to all companies in the European Union, including those that are not a member of the Advisory Board.
- It is important to make agreements before the project submission on how intellectual property rights will be handled and to develop a vision with regard to a possible transfer of project results to users. During the project evaluation, much attention is paid to the feasibility of the application possibilities, and this feasibility depends, among other things, on a good understanding between the companies themselves.

1.4 Interaction with users before and during the MOONSHOT ESI project

It is important to provide sufficient interactions between the research organizations and the potential users of the project results, both during the preliminary phase of the MOONSHOT ESI project and during the execution phase of the MOONSHOT ESI project.

MOONSHOT ESI project preliminary stage

A MOONSHOT ESI full project proposal can only be elaborated upon approval of the project idea by the CATALISTI Industrial Expert Committee (MOT1-2-3) or Flux50 Board of Directors (MOT4). Project idea approval occurs via the submission of a Motivated Application Form to the MOONSHOT operational team (moonshot@catalisti.be). Information regarding the Motivated Application Form and the project idea selection procedure is available by contacting the MOONSHOT operational team (moonshot@catalisti.be).

In the assessment of MOONSHOT ESI project proposals, much emphasis is placed on active participation of companies from the earliest stages of the preparation of a project proposal. By interacting with interested companies in an early stage, the project proposal can address the real needs of the companies and as such the chances of future utilization of the results can be maximized. The MOONSHOT operational team will serve as a first point-of-contact for the applicants to interact with interested companies, and to set up a preparatory brainstorming together with companies. In addition, the MOONSHOT operational team can provide the researchers with information on how their research could offer added value to bottlenecks or opportunities for specific companies in the framework of the MOONSHOT innovation program.

MOONSHOT ESI project execution stage

During the project execution, a two-way dialogue between the researchers and the user field involved remains essential to realize the intended knowledge transfer from science to concrete applications. Companies can participate during the MOONSHOT ESI project execution as a member of the Advisory Board. However, companies cannot participate in the research consortium as funded co-applicants. A strong involvement of the companies and good interaction dynamics are crucial here.

During the duration of the ESI project, each year at least 1 Advisory Board meeting is organized by the project consortium. During this project-specific AB meeting, the research progress of the ESI project is presented to the AB members and discussed. Additionally, mid-term the ESI project, a meeting needs to be organized with the Advisory Board members to discuss the results from the sustainability assessment. This can be combined with the abovementioned yearly AB meetings. The specific goals of the discussion are (1) to discuss the updated research targets from the proposal phase and (2) to discuss follow-up trajectories with the Advisory Board members. The Advisory Board meetings need to be organized by the project partners and the project manager from CATALISTI/Flux50 needs to be informed.

In addition, other forms of interaction with companies are also positively appreciated, such as for instance:

- a (financial or "in kind") contribution from the companies;
- short company internships of researchers based on bilateral agreements;
- exchange of material, data, test specimens, test results, etc.

2. Project submitters (consortium) and users

2.1 Project submitters

A MOONSHOT ESI project proposal is submitted by at least three research groups from at least two different and non-dependent Flemish research organizations (according to art. II.2 and II.3 of the Higher Education Code⁴). A Flemish research organization is hereby defined as a research organization established in the Flemish Region (university, university college, research center, etc.).

The above organizations must fulfill the formal criteria of the definition of an organization for research and knowledge dissemination in the State Aid Framework for R&D&I², point 16ff and must prepare a 'Declaration of organization for research and knowledge dissemination'.

Any organization that meets, under the European definition, the criteria for organization for research

and knowledge dissemination and performance of non-economic activities, is admitted as a partner in ESIs. Each partner counts as a full partner and can act as lead applicant. One of the research organizations is designated as project coordinator. Furthermore, the following specific preconditions apply:

- The Interuniversity Institute for Microelectronics (imec), the Flemish Institute for Technological Research (VITO), the Flemish Interuniversity Institute for Biotechnology (VIB), Flanders Make, the Flemish Institute for the Sea (VLIZ) and the Flemish scientific institutions with an endowment from the Flemish government, must always submit a MOONSHOT ESI project proposal in collaboration with at least one other Flemish research organization.
- A Flemish university college always submits a MOONSHOT ESI project proposal, in collaboration with or at least after advice from the university within the association with which it is affiliated. Flemish university colleges of higher education must always submit a project proposal in collaboration with at least one other Flemish research organization.
- All applicants must upload a 'Declaration of organization for research and knowledge dissemination'. The letter of intent is signed by a legally valid representative of the research center in the e-portal.
- The main applicant appoints a coordinator. The coordinator must be employed by the main applicant and is responsible for the proper implementation of the project. The coordinator is the first point of contact for the MOONSHOT operational team. The main applicant ensures that the coordinator has sufficient time and experience to carry out this assignment properly. If the project is submitted by a project consortium, the main applicant represents the applicants towards the MOONSHOT operational team and VLAIO and, if awarded, coordinates the activities of the awarded project grant.

2.2 Non-Flemish partners

A Flemish research organization can also submit a project proposal with one or more non-Flemish research organizations. The project proposal must then demonstrate that the input is necessary for carrying out the research and achieving the valorization perspectives in Flanders. The sub-budget of the non-Flemish research organizations that are part of the consortium or who perform specific sub-tasks as third parties cannot cumulatively amount to more than 20% of the proposed project budget.

3. Supportable activities

The supportable activities for the research organizations include conducting the strategic basic research as such and also all activities associated with the intended valorization approach (meetings with the Advisory Board, preparation of patent applications, explorations of bilateral follow-up projects with companies, etc.). This implies that the deployment of people with a valorisation task is also included in a MOONSHOT ESI project⁵.

A work package (or task) "dissemination and valorisation" that groups the dissemination and valorisation activities in the research part is mandatory. This work package is aimed at the wide and collective dissemination of the results of the research, is limited in scope (max. 10% of the accepted project costs) and is carried out by the research centers (possibly in collaboration with the SPC).

Non-supportable activities in the context of a MOONSHOT ESI project are the further prototyping and further development of the project results obtained. Other supporting channels are available for these follow-up projects via VLAIO or via the spearhead cluster tools, e.g. ICON projects or (cooperative) R&D business projects.

⁴ Besluit van de Vlaamse Regering tot codificatie van de decretale bepalingen betreffende het hoger onderwijs (citeeropschrift: "Codex Hoger Onderwijs") (vlaanderen.be)

4. Project budget and support

4.1 Project duration and project budget

The project duration of a MOONSHOT “full” ESI project is a maximum of four years. The project can also have a shorter duration.

The project budget is a priori set at a maximum of 500 kEUR per year and per legal entity. In concrete terms, this means that 2 research groups from the same knowledge institution can jointly submit this maximum amount. If the project is carried out as a consortium, the project budget can be increased to a maximum of 500 kEUR per year multiplied by the number of legal entities that act as project applicants on condition that the project sub-budget for these project applicants is at least 15% of the total project budget.

Example: Two universities participate in a MOONSHOT “full” ESI project of 4 years in a budget ratio of 70%-30% between the partners. The maximum possible project budget then becomes theoretically 4 million euros instead of 2 million euros, but is **capped at 3 million EUR** anyway⁶.

This does not mean that a project partner must take up 15% of the project budget within a consortium. The modality of "minimum 15%" refers only to the consortium advantage that consists in that when this minimum is reached the global project budget can be increased by a maximum of 500 kEUR/year.

The sub-budget of the non-Flemish research organizations that are part of a consortium or who perform specific sub-tasks as third parties cannot cumulatively amount to more than 20% of the project budget.

4.2 Support

The support percentage for the part of a MOONSHOT ESI proposal executed by research organizations is 100% of the acceptable costs, provided that these research organizations fully meet the definition in the State Aid Framework for R&D&I point 16ff (organization for research and knowledge dissemination).

4.3 Cost model

For the design of the budget and the clarification of the acceptable costs, reference is made to VLAIO’s cost model and the available Excel template. The use of the available Excel file template for the project budget is mandatory. The template can be downloaded at the VLAIO and MOONSHOT websites:

Template budget application: <https://www.vlaio.be/nl/media/1763>

Guide to the cost model: <https://www.vlaio.be/nl/media/1761>

Specific points of attention for the MOONSHOT ESI projects:

- The total cost of the tasks proposed to be entrusted to subcontractors cannot exceed 30% of the proposed MOONSHOT ESI project budget.

⁵ This concerns persons who are directly integrated into the relevant research groups of the MOONSHOT ESI project consortium, and therefore not for persons employed in the interface services or services for research coordination and for which another form of financing is already available (cf. interface decision: decision of the Flemish Government of May 29th 2009 concerning the support of the Industrial Research Funds and the interface activities of associations in the Flemish Community).

⁶ As a guideline for the order of magnitude of a MOONSHOT ESI project budget, (1 to) 2 million euros is put forward for a four-year project with exceptions up to 3 million euros.

5. Use of the results - ownership issues

5.1 Owner of the results

The project applicants are the owners of the project results. In a consortium, each research partner owns its own results without being entitled to the results of the other partners. The provisions of Art. IV 48 of the Codex Higher Education.

5.2 Transfer of results to companies

As mentioned in the previous sections, the research partners are the sole owner of the project results. To reach the goals (KPIs) of MOONSHOT, a technology transfer of these results to (existing) companies/organisations will need to take place. CATALISTI and all research partners involved in MOONSHOT have developed a MOONSHOT ESI Collaboration Agreement based on the MOONSHOT IP Framework adopted by the MOONSHOT Governance Board with the goal to facilitate the adoption of the results by (existing) companies/organisations. This MOONSHOT ESI Collaboration Agreement facilitates access of companies/organisations to project results with the aim at best meeting the MOONSHOT goals, while also considering existing legislation on the transfer of results from research organizations to companies (including – without limitation – the State Aid Framework on R&D&I).

5.3 Technology Readiness Levels (TRL)

Technology Readiness Levels (TRLs) serve as a measure of the maturity level of certain technologies. This measurement system provides a common understanding of technology status and focuses on the entire innovation chain. By evaluating a technology project against the parameters for each Technology Readiness Level (see below), one can assign a TRL rating to the project based on its stage of progress. There are nine technology readiness levels: TRL 1 is the lowest and TRL 9 is the highest. The following TRL definitions apply:

- TRL 1 – basic principles observed
- TRL 2 – technology concept formulated
- TRL 3 – experimental proof of concept
- TRL 4 – technology validated in laboratory
- TRL 5 – technology validated in relevant environment (industrially relevant environment in case of key enabling technologies)
- TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in case of key enabling technologies)
- TRL 7 – system prototype demonstration in operational environment
- TRL 8 – system complete and qualified
- TRL 9 – actual system proven in operational environment (competitive manufacturing in case of key enabling technologies; or in space)

Applicants are requested to indicate the TRL at the start of the research project and the TRL they want to reach at the end of the project period. The primary purpose of requesting the TRLs is to provide the evaluators with a reference regarding the development status and intended progress of the application during the project phase. The intended progress at TRL level during a MOONSHOT ESI project can be different for applications in different domains. A priori, no desired start or end TRL level is imposed within the MOONSHOT ESI call.

5.4 Data management

From 1 October 2022, VLAIO will start using the Flemish Minimal Data Management Plan (DMP) for all clusters-Strategic Basic Research projects (cSBO), including Moonshot ESI projects. VLAIO agrees with the procedure of the Research Foundation (FWO) and asks that mandate holders of the ESI projects fill in the new FWO DMP template, which corresponds to the Flemish Minimum DMP.

You can find more information about data management in [Research Foundation - Flanders - Data Management Plan \(fwo.be\)](https://www.fwo.be/en/research-foundation-flanders-data-management-plan).

Data management encompasses the way in which research data is managed, from the date of creation or collection to when it is published or used and possibly stored for the long term. Data management is therefore an integral part of sound scientific research.

It includes procedures for the description of research data and metadata, their storage and long-term preservation, findability, designation of responsible persons, handling highly sensitive data and open access to and sharing of research data. VLAIO expects researchers to observe these procedures before, during and for at least five years after their research.

The DMP template that must be completed contains several points of attention regarding data management:

- the data types that the research will use and/or generate
- the provisions that have been made to store the data for at least 5 years after the end of the research
- possible reasons for deviating from the principle of data retention, sharing and from the minimum retention period of 5 years
- specific security measures for research data due to ethical issues
- other relevant data management issues.

If a proposal is approved, VLAIO will request a data management plan.

For all VLAIO cSBO projects (such as Moonshot ESI projects) submitted for funding from 1 October 2022, an initial DMP (<https://www.fwo.be/media/1023898/fwo-dmp-templatedocx.docx>) will be submitted within six months of the official start date of the project and must be submitted to the research coordination department of your own institution. The latter delivers VLAIO the information about the presence of the initial DMP. VLAIO follows the same procedure as FWO.

With the final report of the research project, researchers submit the final DMP together with the final report for the evaluation of the projects.

6. Assessment of the project application

6.1 Project evaluation procedure

The responsibility for generating and prioritizing high-quality ESI projects lies with the MOONSHOT operational team and its governing body (i.e., the MOONSHOT Governance Board).

Each eligible ESI project proposal is, in a first phase, evaluated by three international external academic experts on its scientific novelty and impact (external peer review). Each expert formulates a written evaluation of the proposal. The academic experts read the valorisation section and can provide feedback but will not evaluate or score this part of the proposal.

To avoid any conflict of interest, applicants may submit a shortlist to VLAIO of a maximum of 3 international external academic experts to be avoided. The short list should be specific, i.e., based on the name of the expert or particular organization to be challenged.

The written advice of experts is sent anonymously and in full to the applicants. The applicants have Manual for ESI projects within the Moonshot innovation program

the possibility to refute the expert opinion. The purpose of this rebuttal is to clarify misunderstandings arising from the external peer review process and/or to answer open questions.

In a second phase, all eligible project proposals are evaluated by the MOONSHOT Scientific Advisory Board (WAR, Wetenschappelijke Adviesraad), using well-defined selection criteria. The evaluation process is conducted in close cooperation with VLAIO. The WAR formulates for each project proposal a consolidated written advice, based on the expert evaluations generated in phase 1, the rebuttal provided by the applicants and the project proposal itself. The WAR mainly focuses its own evaluation and scoring on the valorisation part of the proposal, whereas it follows the evaluation of the international academic experts on the scientific impact (see phase 1 evaluation). Based on the aforementioned consolidated advice, the WAR makes up a ranking of all eligible projects, as advice to the MOONSHOT Governance Board.

The MOONSHOT Governance Board – based on the recommendations of the WAR – approves or rejects the project proposals.

The decision committee at the Fund for Innovation and Entrepreneurship decides on the funding of the projects approved by the MOONSHOT Governance Board as well as on the size of the support (applicable support percentages, acceptable activities - see European framework and VLAIO guidelines). A report is drawn up based on which the decision is taken. The full report will be sent to applicants together with the decision. The aid granted can also be made dependent on the fulfilment of specific conditions at the start or during the implementation of the project. These conditions may be of an organisational, substantive or financial nature.

The follow-up of the approved projects rests primarily with the MOONSHOT operational team. This team ensures that the projects are carried out in a high-quality manner and that the results of the research find their way to applications in Flemish industry.

6.2 Formal admissibility analysis

The following admissibility criteria apply:

- The project proposal “full ESI” must be submitted at the latest on the set limit date of June 7th 2024 and is complete and in accordance with the requirements of the application template.
- The research consortium is composed of actors from the target group and includes at least three research groups from at least two Flemish research organizations.
- The project proposal is accompanied by the necessary declarations from the applicant(s) and the participating partner(s) of the consortium. It also contains a signed term sheet between the participating consortium partners. With a planned transfer arrangement to existing companies, the proposal also contains the (financial) input of the companies from the Advisory Board (if applicable).
- There is no problem with project submitters in terms of financial capacity, compliance with government obligations, or the behavior in response to previous project proposals.

These admissibility criteria remain valid during the entire treatment procedure. The project proposals that are found to be inadmissible are not eligible for support and do not participate in the further selection.

6.3 Assessment criteria

MOONSHOT ESI project applications are assessed on three dimensions: (i) scientific quality, (ii) valorization axis and (iii) MOONSHOT-specific value. A full version of the selection criteria is included in Appendix A.

(i) Scientific value

The scientific quality will be assessed on the basis of three criteria:

- Scientific potential;
- Scientific approach/planning;
- Expertise and resources.

If a project proposal doesn't meet the minimum quality requirements on one of these criteria, it is not supported.

(ii) Valorization value

The valorization aspects will be assessed on the basis of three criteria:

- Potential applications;
- Follow-up process: vision, approach and feasibility;
- Competence/track record in terms of valorization.

If a project proposal doesn't meet the minimum quality requirements on one of these criteria, it will not be supported.

(iii) MOONSHOT-specific value

The fit with the MOONSHOT strategy/objectives will be evaluated based on three criteria:

- Strategic fit with high-level objectives of the MOONSHOT innovation program⁷;
- Potential scale of the impact on the KPIs of the relevant MOONSHOT research trajectories (MOTs);
- Importance for a wider group of industrial actors and companies in Flanders.

All submitted project proposals that meet the minimum quality requirements on both scientific and valorization value will also be ranked by the MOONSHOT Scientific Advisory Board based on the MOONSHOT-specific criteria. In case more project proposals are submitted than there is budget available for the MOONSHOT innovation program, this ranking will be used by the MOONSHOT Governance Board to finally select the projects – for which a positive support decision has been taken by the decision committee at the Fund for Innovation and Entrepreneurship – that will be financially supported.

7. Rights and obligations

7.1 Agreement

In the event of a positive decision on supportability by the decision committee at the Fund for Innovation and Entrepreneurship, the decision to award a funding will state the essential project information (maximum subsidy percentage and amount, start date, duration, objectives, etc.) and any special conditions. The Agreement is concluded at the time of that decision, unless the applicants indicate within a month after the decision to grant the funding has been sent that the project will not be started. To this end, the legally valid representative of the applicants' organization (or the authorized submitter) accepted the General Terms and Conditions for Innovation Support and any Program-specific Terms and Conditions when submitting. The Spearhead Cluster is a party in the Agreement because of its coordinating role and responsibility for the substantive follow-up for the projects supported by the budget of the earmarked resources. In connection with the substantive progress of the projects, the Spearhead Cluster will make the necessary agreements with the Beneficiaries of the projects.

The MOONSHOT operational team is responsible for the substantive follow-up of the implementation of the MOONSHOT ESI projects. To this end, the Recipients will regularly inform the Spearhead Cluster Manual for ESI projects within the Moonshot innovation program

about the implementation of the projects and the project results, as well as matters affecting the implementation of the project. The Beneficiaries make the necessary arrangements with the Spearhead Cluster to enable the Spearhead Cluster to bundle this report and submit it to the agency.

The Beneficiary's main commitment is a resource commitment: the Beneficiary will make the necessary efforts to achieve the described project objectives through utilization of the agreed resources through research and development activities and to use them for utilization in Flanders.

7.2 Collaboration agreement

As part of the project proposal, a term sheet in the form of Appendix C of the ESI project proposal template should not be changed when submitting a proposal.

The definitive collaboration agreement, signed by the legal representatives of the research organizations involved, must be sent to VLAIO within four months following the date of receipt of the support decision of the decision committee at the Fund for Innovation and Entrepreneurship (or the date of receipt of the final support decision by the MOONSHOT Governance Board in case more project proposals are submitted than there is budget available for the MOONSHOT innovation program).

The collaboration agreement must be substantially in line with the MOONSHOT ESI template and regulates at least the following aspects:

- Designation of a coordinator and a project manager;
- Indication of the research activities to be provided;
- Detailed cost calculation and payment modalities;
- Agreements with regard to property and licenses with regard to background knowledge and project results required for the implementation of the valorisation plan;
- Method of settling mutual disputes;
- Reporting obligations.

The collaboration agreement must be in accordance with the VLAIO agreement, and in particular with the provisions regarding utilization/valorization of the project results.

7.3 Publication on the FRIS portal

At the start of the project, the project coordinator provides a public summary of the project on the FRIS research portal (Flanders Research Information Space) of the Department of Economy, Science and Innovation of the Flemish Government, and updates this summary at the end of the project. Companies and non-profit organizations in Flanders and Europe are thus informed of ongoing and completed projects.

7.4. Follow-up, reporting and disbursement of support

If the project is approved, the beneficiary will have to report at regular intervals on the good scientific and valorisation progress of the project.

An annual meeting must be held in the presence of the members of the supervisory committee. VLAIO and the relevant spearhead cluster (or for MOONSHOT projects the MOONSHOT team) must be invited to this meeting and the minutes of the meeting must be provided to VLAIO. These minutes are an integral part of the mandatory reporting.

⁷ The high-level objectives of the MOONSHOT innovation program and the specific objectives of the different MOONSHOT research trajectories can be found in the context document "The Flemish industry carbon circular and low in CO₂ by 2050 through the development of marketable innovative technologies in Flanders by 2040".

Appendix A: Assessment Criteria for MOONSHOT ESI projects

(i) Scientific value

The scientific quality will be assessed based on three criteria. If a project proposal doesn't meet the minimum quality requirements on one of these criteria, it is not supported:

Scientific potential

- Do the scientific goals of the proposal offer a substantial added value relative to the international state-of-the-art and the ongoing research activities? Does the proposal build upon the international state-of-the-art?
- Can the proposal be qualified as basic research of high scientific quality with a good level of risk, challenge and inventiveness?
- Are the scientific project objectives intrinsically feasible (i.e., under the explicit adoption/assumption of a good research approach and a good research team)?

Scientific approach/planning

- Is the research approach (and the underlying work packages) elaborated in enough detail, and well-tuned to support the realization of the project objectives? Are there no significant gaps or shortcomings? Is the research approach/planning realistic for the duration of the project?
- Are the project planning/management processes elaborated in a clear and professional manner?
- Is the allocation of research tasks between the partners clear and appropriate (i.e., to what extent are the different tasks/responsibilities balanced between the different partners and will all partners substantially contribute)?
- Does the proposal contain clear objectives, KPIs, deliverables and milestones, and are these clearly linked to the different work packages identified in the work plan?
- Do the consortium partners have sufficient insight into the risks involved (and mitigation thereof) in the execution of the work plan/project, both for their own contribution to the research as for the integrated aspects?

Expertise and resources

- Is there a good balance between the research load and the requested manpower/resources?
- Is the competence and synergy within the consortium sufficient?
- *If applicable: which competencies, skill, expertise or cooperative consortium partner would need to complete the consortium (national of international) based on a gap analysis? How will these missing assets be acquired?*
- *If applicable: Are special research equipment or major subcontractors essential to carry out the research proposal in an efficient manner?*
- To what extent is the consortium international competitive (expertise, knowhow, materials, infrastructure)?

(ii) Valorization value

The valorization aspects will be assessed based on three criteria. If a proposal doesn't meet the minimum quality requirements on one of these criteria, it will not be supported:

Potential applications

- Does the proposal offer a range of applications with a clear strategic value for a number of industrial activities or does it have sufficient breakthrough value?
- To what extent does the proposal effectively respond to a demand of strategic importance for a group of companies and to what extent does it connect with the activities of this target group of companies? How will it bring (if successful) those companies into higher gear?
- Is the proposal sufficiently important for the group of companies to assume that successful results will effectively be picked up and exploited?

- Is there a clear match between the project implementation (research approach) and the valorization objectives?
- Does the proposal provide a clear distinction with the direct R&D horizon of one or a few actors? Does the proposal demonstrate a good potential for meaningful follow-up projects with a clear R&D dimension that are relevant for various companies?

Follow-up process: vision, approach and feasibility

- Does the proposal include a well-argued vision and approach towards valorization with a detailed valorization plan?
- Is the relevance of the proposal for potential users clear? Is a good involvement and interaction dynamics in a foreseeable future to be expected between target companies and the project consortium?
- Is an indication given of which company profiles will be required/ready to adopt the developed solutions?

Competence/track record in terms of valorization

- Do the partners of the consortium have a good track record regarding valorization and the transfer of research results?
- *If applicable: Do the young starting research teams involved in the proposal have clear valorization intentions?*
- Did previous or current SBO projects result in an intensive cooperation with companies towards targeted applications?

(iii) MOONSHOT-specific value

Beside the use of the above-given project-type (ESI) specific assessment criteria, project proposals also will be assessed on their strategic fit with the high-level objectives and their contribution to the KPIs of the MOONSHOT innovation program. In addition, the importance of the targeted innovation(s) for a wider group of companies in Flanders needs to be demonstrated.

Strategic fit with high-level objectives of the MOONSHOT innovation program

- Does the proposal clearly fit with the high-level objectives of the MOONSHOT innovation program (and its roadmap) and with the KPIs of the relevant MOONSHOT research trajectories (MOTs)?
- How well does the proposal consider socio-economic benefits and risks that the innovation entails?

Potential scale of the impact on the KPIs of the MOONSHOT research trajectories

- Does the proposal clearly describe how it will lead to (more) carbon circularity and/or CO₂ reduction/avoidance? What is the potential scale of the impact on the KPIs of the relevant MOONSHOT research trajectories (MOTs) (quantified estimation based on described influencing parameters)?
- Is evidence provided to substantiate (if appropriate: quantify) the expected impact? Does the proposal adequately reference other studies?

Importance for a wider group of companies in Flanders

- To what extent will the project results transcend the consortium involved and to what extent will they be useful for other companies within the target group(s)?
- To what extent can the (generic) project results be used for raising awareness among a broader group of stakeholders?

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