



Manual for Strategic Basic Research for Clusters within the MOONSHOT innovation program: cSBOs

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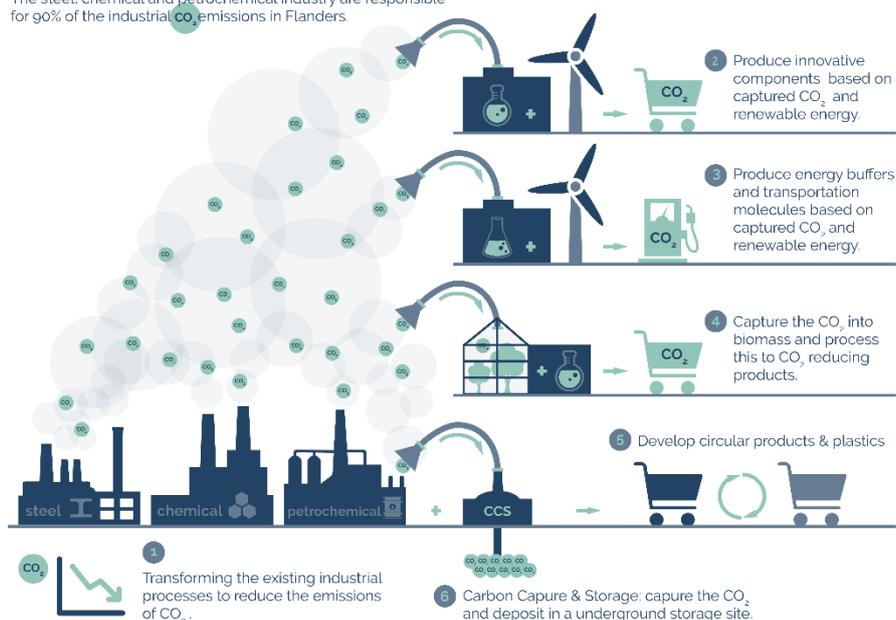
Context

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).

A carbon circular Flemish industry

The steel, chemical and petrochemical industry are responsible for 90% of the industrial CO₂ emissions in Flanders.



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 a number of challenges for the energy system: increasing electrification, increasing energy efficiency, and switching to carbon-free energy require additional innovations. These challenges also need to be addressed.

¹<https://www.philippemuyters.be/nieuws/moonshot-van-400-miljoen-voor-co2-neutraal-vlaanderen?pg=nieuws/archief/2019&page=0#views-row-8>

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 Strategic Basic Research for Clusters projects (i.e. so-called "MOONSHOT cSBO" 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

1.1 Positioning and goals

A Strategic Basic Research for Clusters (cSBO) 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 cSBO 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 cSBO project mainly concerns the execution of independent (non-directed) strategic basic research by research and knowledge dissemination organizations in accordance with the rules of the R&D&I Framework Regulations².

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 the "inventors". 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 the business world.

MOONSHOT cSBO projects are not aimed at knowledge dissemination, but at building up new knowledge where the aim of the research project is to start a dialogue between the research organizations that conduct the research and either the industry, the market or venture capitalists. Valorisation processes can be started from this dialogue. Due to the large distance from the implementation and the market, a successful MOONSHOT cSBO project will in the first place produce results that are subsequently translated into concrete applications at or near companies or valorisation vehicles via further research, development and implementation processes.

The valorisation potential of a MOONSHOT cSBO 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 created companies

The most important basic valorization strategy in the design and implementation of a MOONSHOT cSBO 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

² Framework Regulation (No 2014 /C 198/01) of June 27th, 2014, on state aid for research, development and innovation.

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.

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.

After a successful MOONSHOT cSBO 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 the Agency for Innovation and Entrepreneurship 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 project implementation of a MOONSHOT cSBO 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 executive research organizations.
- If a company wishes to join the Advisory Board of a MOONSHOT cSBO project, this requires – during the project execution – a commitment to substantive input and a time investment to participate in bilateral consultations with the project executors 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 cSBO 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 cSBO project proposal). These statements form an integral part of a MOONSHOT cSBO project proposal. The MOONSHOT operational team will organize the request for letter of intent to potentially interested companies.
- It is essential that the 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. Companies can, however, from the outset of the project, negotiate a “first right of negotiation” or a right of first refusal with the executing research organizations.
- In order not to disrupt the dynamics of the Advisory Board, non-exclusive access to the results is preferable. However, this is not feasible in a number of sectors. That is why an exclusive license or transfer is not excluded a priori as long as this does not disturb the dynamics of the Advisory Board. This is possible, for example, in a situation where the members of the Advisory Board are active in complementary areas of application, where a certain company acquires exclusivity in its own niche without requesting exclusivity in other areas of application.
- 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. That is why, especially with companies that are active in overlapping areas of application with possible exclusivity, it is appropriate to explain this vision in the project application.

1.4 Transfer of results to companies

As mentioned in the previous section, the executing research organizations are the sole owner of the project results. Nevertheless, to reach the goals (KPIs) of the MOONSHOT, these results will need to be adopted by (existing) companies/organisations. CATALISTI and all research organisations involved in the MOONSHOT are in the progress of developing a MOONSHOT IP Framework with the goal to facilitate the adoption of the results by (existing) companies/organisations. This Framework will take into account existing legislation on the transfer of results from research organizations to companies (e.g. EU Framework Regulation on R&D&I) and will stimulate the use of non-exclusive licenses to maximize the potential benefit for the MOONSHOT goals.

1.5 Setting up a project: interaction with users before and during the MOONSHOT cSBO 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 cSBO project and during the execution phase of the MOONSHOT cSBO project.

MOONSHOT cSBO project preliminary stage

When setting up a MOONSHOT cSBO project proposal, it is mandatory that researchers contact the MOONSHOT operational team (www.moonshotflanders.be/contact/) before writing a full proposal. In this way, their project idea can first be tested against the general MOONSHOT objectives and the objectives of the relevant MOONSHOT trajectories⁴. In addition, the potential contribution to the main impact goal of the MOONSHOT innovation program can also be roughly assessed. To this end, a procedure has been set up to identify and challenge project ideas. This procedure, which is based on “MOONSHOT research trajectories” and corresponding core teams, is explained in more detail on the MOONSHOT website (<https://moonshotflanders.be/project-procedure/>).

In the assessment of MOONSHOT cSBO 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 cSBO project execution

During the project execution, a two-way dialogue between the researchers and the user field involved remains essential in order to realize the intended knowledge transfer from science to concrete applications. Companies can participate during the MOONSHOT cSBO project execution as a member of the supervisory committee (without receiving subsidy). A strong involvement of the companies and good interaction dynamics are crucial here.

⁴ Please consult the MOONSHOT website and 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” in which more information on the MOONSHOT objectives can be found.

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. Basic characteristics of MOONSHOT cSBO projects

2.1 Project submitters (consortium)

A MOONSHOT cSBO project proposal is submitted by at least three research groups from at least two different and non-dependent Flemish research organizations. A Flemish research organization is hereby defined as a research organization established in the Flemish Region (university, university college, research center, etc.) as well as a Flemish university or Flemish university college established in the Brussels-Capital Region.

The above organizations must fulfill the formal criteria as defined in the definition of an organization for research and knowledge dissemination in the R&D&I Framework Regulation², point 15ee. Knowledge institutions and strategic research centers should not specifically demonstrate this, the other research centers must prepare a Declaration by the Research Organization.

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 cSBO project proposal in collaboration with at least one other Flemish research organization.
- A Flemish university college always submits a MOONSHOT cSBO 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.

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.

2.3 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 cSBO project⁵.

Non-supportable activities in the context of a MOONSHOT cSBO project are the further prototyping and further development and dissemination 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.

2.4 Project duration and project budget

The project duration of a MOONSHOT “full” cSBO project is a maximum of four years.

The project budget is a priori set at a maximum of 500 kEUR per year. 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 1: Two universities participate in a MOONSHOT “full” cSBO 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.

2.5 Support

The support percentage for the part of a MOONSHOT cSBO proposal executed by research organizations is 100% of the acceptable costs, provided that these research organizations fully meet the definition in the R&D&I Framework Regulation point 15see (organization for research and knowledge dissemination).

2.6 Cost model

The way in which the project budget is built up and which costs are acceptable is explained in detail in the VLAIO document "Acceptable costs in innovation aid projects". An Excel template is available to prepare the budget. Its use is mandatory. Both documents are available on the VLAIO website:

- <https://www.vlaio.be/nl/andere-doelgroepen/projecten-voor-speerpuntclusters/aanvraagprocedure> → Document “Aanvaardbare kosten in innovatiesteun-projecten”;

⁵ This concerns persons who are directly integrated into the relevant research groups of the MOONSHOT cSBO 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 cSBO project budget, (1 to) 2 million euros is put forward for a four-year project with exceptions up to 3 million euros.

- <https://www.vlaio.be/nl/andere-doelgroepen/projecten-voor-speerpuntclusters/aanvraagprocedure> → Template “projectbegroting o&o-project”.

Other costs

A realistic estimate of the costs is provided with the application. The level of detail required for the motivation of the direct other costs is limited for a MOONSHOT cSBO project to a listing of the major categories and their related costs (e.g. materials/raw materials, IT costs, travel/accommodation costs, depreciation of research equipment, subcontracting, etc.). The share of subcontracting (< 8500 EUR) in the other direct costs must be clearly specified.

Subcontracting

From 8500 EUR on, a subcontract must be isolated from the other costs and the need for subcontracting must be justified.

Large costs

In exceptional cases, a MOONSHOT cSBO project may allow a particularly large cost to be deducted from the other costs and placed in a separate section. This always happens after consultation with VLAIO. This large cost is only accepted if it is necessary for the project and if it cannot be processed in any other way (direct costs, subcontracting).

Specific points for attention for MOONSHOT cSBO projects

- The total cost of the tasks proposed to be entrusted to subcontractors cannot exceed 30% of the proposed MOONSHOT cSBO project budget.
- It is assumed that in the vast majority of cases, the sum of the other costs and the (possible) subcontracting can be limited to the maximum amount of 40 kEUR per person-year. In the event of deviations, explicit justification is required. Such deviations will only be exceptionally accepted.
- If a MOONSHOT cSBO project proposal is submitted by a consortium consisting of at least three research organizations, the maximum amounts specified in the MOONSHOT cSBO Manual for the proposed project budget (see Section 2.4) can be increased by 5% for covering the coordination costs. These costs are integrated in the requested personnel and other costs. However, please note that for MOONSHOT “full” cSBO projects submitted in 2021, the project budget is capped at 3 million euros.

3. Handling of project application

3.1 Formal admissibility analysis

The following eligibility criteria apply:

- The project proposal “full cSBO” must be submitted at the latest on the set limit date (June 15, 2021) 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 legally-signed agreement note (see further 3.4) 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 supervisory committee (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.

3.2 Project evaluation

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

Each eligible “ full cSBO” project proposal is, in a first phase, evaluated by three international external experts. Each expert formulates a written evaluation of the proposal.

In a second phase, all eligible project proposals are evaluated by the MOONSHOT Scientific Advisory Board (WAR, Wetenschappelijke Adviesraad), using well-defined selection criteria (see Section 3.3). 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. 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 Hermes Fund 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).

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.

3.3 Assessment criteria

MOONSHOT cSBO project applications are assessed on three dimensions: (i) scientific quality, (ii) valorization axis and (iii) MOONSHOT-specific value.

(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 on the basis of 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 Hermes Fund – that will be financially supported.

A full version of the selection criteria is included in Appendix B.

3.4 Rights and obligations

Agreement

In the event of a positive decision on supportability by the decision committee at the Hermes Fund, the decision to award a subsidy 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 subsidy 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 Spearhead Cluster is responsible for the substantive follow-up of the implementation of the projects. To this end, the Recipients will regularly inform the Spearhead Cluster 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.

Collaboration agreement

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 in 2050 through the development of marketable innovative technologies in Flanders by 2040".

As part of the project proposal, an agreement note ("term sheet" or provisional collaboration agreement) between the participating consortium partners (in the case of several legal parties in the consortium) is requested. This note should at least contain the mutually-agreed agreements in the field of the budget and staffing, management and distribution of the IPR, and the vision and approach on valorization. This note is drawn up in good prior interaction with the TTO departments and is included in the application template.

The definitive collaboration agreement, signed by the legal representatives of the research organizations involved, must be sent to the Agency for Innovation and Entrepreneurship within four months following the date of receipt of the support decision of the decision committee at the Hermes Fund (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 regulate 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 user rights with regard to the use of 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.

Appendix B: Assessment Criteria for MOONSHOT cSBO projects

(i) Scientific value

The scientific quality will be assessed on the basis of 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 or 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 on the basis of 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 has it 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 (cSBO) 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?

Agentschap
Innoveren & Ondernemen
Koning Albert II-laan 35 bus 12
1030 Brussel
www.vlaio.be