



# GUIDE FOR APPLICANTS

## INN-PRESSME 1st Open Call

*Submission of applications starts on 1<sup>st</sup> of December 2022*

*Submission deadline: 30th of January 2023, at 17:00 Brussels Time*



**Do you already develop/provide (or aim to) products based on sustainable bio-materials?**

*and/or*

**Do you have a novel/innovative product based on bio-materials in mind?**

*If your answer to any of the questions above is “yes”...*

**...why not making your product more eco-friendly**, thus contributing to reduce the negative impact of using fossil-based raw materials?

**...and why not achieving this by using natural fibers, ligno-cellulosic materials or bioplastics as the core material?**



If the questions above have caught your attention, please continue reading, what follows could be of interest for you...

**INN-PRESSME can help for the scaling-up you are looking for!**

**INN-PRESSME OPEN-CALL**



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## 1. Basic Information about INN-PRESSME

### 1.1. What is INN-PRESSME?

INN-PRESSME is an Open Innovation Test Bed (OITB) aiming at developing services along the entire value chain to help the integration of sustainable biomaterials into industrial processes.

The project aims to set up a European OITB allowing companies to scale up nano-enabled bio-based materials from lab scale (TRL4-5) to pre-industrial scale (TRL7) by improving processes and material characteristics (formulation, composition...). The OITB will also enhance industrial and market uptake of bio-based materials increasing their circularity and sustainability.

The INN-PRESSME project, coordinated by VTT (Finland), gathers 27 partners, including 8 early-adopters, to implement a sustainable OITB to upscale biomaterials (both conversion of feedstocks and bio-resources and formulation of nano-enabled biomaterials) and processes from TRL 4-5 to 6-7.

Some other relevant data about the project:

- **Project full name:** open **INN**ovation ecosystem for sustainable **Pl**ant-based nano-enabled biomate**R**ials deploy**m**ent for packaging, tran**S**port and con**SuME**r goods
- **Project grant agreement number:** 952972
- **Call identifier:** H2020-NMBP- TO-IND-2020-twostage (Topic: DT-NMBP-04-2020 - Open Innovation Test Beds for nano-enabled bio-based materials)
- **Website:** <https://www.inn-pressme.eu/>
- **Project partners:** <https://www.inn-pressme.eu/about-us/>

### 1.2. Background of the project

Main challenges for the development of bio-based materials are linked to the higher cost of production in many product categories, driven by high feedstock prices and/or due to technologies that have not yet been optimised and to biomass feedstock composition variability which increases the complexity of upstream and downstream processes with especially challenging purification steps.<sup>1</sup>

Therefore, for the wider spread use and market penetration of nano-enabled biomaterials, industry needs to address several key challenges:<sup>2</sup>

- Obtain sustainable and reliable feedstocks to feed existing and new value chains;
- Optimise conversion, formulation and processing of biomaterials;
- Improve nanoparticles dispersion and stabilisation for homogeneous materials;

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<sup>1</sup> Suschem, SIRA, 2019

<sup>2</sup> Strategic Innovation and Research Agenda (SIRA) of SUSCHEM – November 2019.



- Reduce the time required for certification of new nano-enabled biomaterials and products and facilitate market entry by the development of existing and new supply chains;
- Address (nano)safety, health and environmental issues around materials;
- Provide assessments on life cycle and techno-economics;
- Facilitate access, training and logistics to SMEs towards novel nano-enabled biomaterials through cost-effective and versatile open access facilities to enable the scaling-up, with data sharing platforms;
- Awake industry and consumer awareness around the benefits of nano-enabled bio-based products.

Due to these challenges, there is no established market yet for the use of bio-based materials and solutions and the few related market value chains that actually do exist are fragmented in terms of both raw materials, technology, and geography.

**INN-PRESSME** is an integrated ecosystem based on 16 pilot lines (PLs), offering a wide and flexible range of possibilities for feedstock conversion, materials development and upgrading as well as product processing/transformation suitable for final application in sectors such as packaging, transport/automotive, and consumer goods. Complementarily, technical, and market-oriented services will be available in order to secure the smooth transition of the new material concepts to the market. Technical services will cover the fields of eco-design and circular economy assessment (major emphasis in 2<sup>nd</sup> life use, recyclability and biodegradability studies), fast-accurate and reliable characterisation and nanosafety studies, among others; market-oriented services will provide support in innovation management, market replication and training, together with Support for funding (easing SMEs' access to funding) and Product certification advice (consortium counts on partners' experts in this field for packaging, automotive, and consumer goods).

## 2. What we offer

The Open Call will support applicants by providing up to 70% co-funding to their individual Innovation Concept Project. This means that 70% of the costs will be covered by INN-PRESSME and the rest (30%) will be covered by the applicant. The INN-PRESSME partners will provide to the open-call winners services valued from 50,000 to 100,000 euros per project, consisting of person-months dedicated to subsidies activities. The final amount will be specified during the negotiation of the Service Delivery Plan for the selected cases.

The first Open Call will select between 5 and 9 "*Innovation Concepts*" (there will be a second Open Call and the objective is to select in total about 12-15 "*Innovation Concepts*"). The funded projects will have access to pilot lines with cutting-edge technologies to bring innovation in the biobased materials sector. See in the figure below the list of pilot lines. A more detailed description of pilot lines (and linked services) is included on the [INN-PRESSME digital platform](#) (you have to register to get access to it).



**CONVersion of feedstock and bio-resources, intermediate products**

**PL1-VTT-CNF (VTT):** Cellulose NanoFibril and Microfibrillated Cellulose processing.

**PL2-RISE-CNC (RISE):** Cellulose NanoCrystal processing.

**PL6-GNA-CNM (GNANOMAT):** Production/application of graphene and carbon-based materials.

**PL4-IWN-NF (IWNIRZ):** Processing & modification of natural microfibrils.

**PL3-POL-PHA (Polymaris):** PHA powder production from marine bacteria.

**PL7-VTT-PLAX (VTT):** Conversion of starch based lactic acid to PLAX dispersion.

**FORMulation and processing of raw materials to deliver inter-mediate bio-based materials**

**PL5-CID-INK (CIDETEC):** Formulation of functional nanocellulose-based inks and slurries

**PL8-CEA-POUD (CEA):** Formulation of bio-based compounds for nano-composites.

**PL9-IPC-METEOR (IPC):** Compounding and processing of nano-enabled bio-materials.

**PL10-FISC-NP (FRAUNHOFER):** Bio-based lacquers with nanoparticle synthesis, Roll2Roll application plant.

**PL11-FICT-FOAM (FRAUNHOFER):** Nano-functionalised bio-based foams/foam beads.

**Transformation & PROCessing of nano-enabled bio-based materials**

**PL12-CID-COAT (CIDETEC):** Continuous coating line for electrodes/electrolytes.

**PL13-CEA-PICTIC (CEA):** Large surface Sheet2Sheet printing for printed intelligence.

**PL14-VTT-SutCo (VTT):** Continuous coating and Surface treatment Concept line for webs (Roll2Roll).

**PL15-IPC-MULTINANO (IPC):** Films nano-texturing by multi-nanolayering co-extrusion and extrusion calendaring.

**PL16-AITP-3DP (AITIIP):** Processing of nanoenabled biobased materials by additive manufacturing technologies.

The project can last for a **maximum of 9 months** and can use a maximum of 100 k euros in in-kind effort from OITB as pilot and other services. As stated above, 30% of the total cost of the project is provided by the candidate in person-month, consumables and travels. The rest (70%, or max 100 k euros) will be provided by INNPRESSME, in form of services linked to the pilot lines and some other complementary services. Most of the man efforts will be invested by the pilot-lines owners, which will be supported by other project partners providing complementary technical and market-oriented services, such as:

Technical services:

- Testing & quality control
- Nano safety
- Prototyping & small series production
- Recycling
- Eco-design, LCA, LCCA

Market-oriented services:

- Support for funding
- Business & legal consultancy
- Standardisation & certification
- Training



### 3. Dates/Schedule

- **Application period:**
  - From 1<sup>st</sup> of December to 30<sup>th</sup> of January, 2023.
  - Partners need to do a **pre-registration with some general information about the company/consortium.**
- **Eligibility check (communication to those proposals which are considered not eligible):**
  - Before the 15<sup>th</sup> of February, 2023.
- **Evaluation period:**
  - From 16<sup>th</sup> of February to 24<sup>th</sup> of March, 2023.
- **Submission of letters communicating the evaluation results and informing who are the pre-selected applicants:** 31<sup>st</sup> of March, 2023.
- **Signature of Contract Agreements:** 30<sup>th</sup> of June, 2023.
- **Start of experiments:** 1st of September, 2023.
- **End of experiments:** 30th of May, 2024 as latest.

### 4. Eligible Applicants

The eligibility of all applications which were submitted before the deadline via our online application form will be checked. By submitting a proposal to the INNPRESSME platform you declare that to your knowledge there are no conflicts of interest which might affect the objectivity of your proposal's evaluation. The list of INNPRESSME partners can be found here: <https://www.inn-pressme.eu/about-us/>.

#### 4.1. Who are we looking for?

The call is open to:

- SMEs, start-ups, and Mid-caps (see definitions below), but also large industrial companies;
- For profit and non-profit organisations;
- Tech (innovative companies) or non-tech (traditional industries);
- For any product from all activities/fields/sectors that could benefit from greener solutions based on bio-materials;
- One partner or a consortium of max 2 industrial partners.

Type of company		Staff headcount	(and) Turnover	(and/or) Balance sheet total
<b>Mid-cap</b>		< 3,000	N.A.	N.A.
<b>SME</b>	<b>Medium-sized</b>	< 250	≤ 50M€	≤ 43M€
	<b>Small</b>	< 50	≤ 10M€	≤ 10M€
	<b>Micro</b>	< 10	≤ 2M€	≤ 2M€



You can consult the guide of the [SME definition](#) to check if you are a SME in accordance with the SME definition of the European Union. You can also use the [self-assessment questionnaire](#).

The Innovation Concept projects must be proposed by legal entities registered prior to the launch of the 1<sup>st</sup> Open Call of INN-PRESSME, established in:

- The Members States of the European Union and its Overseas Countries and Territories;
- United Kingdom
- Associated Countries to Horizon 2020: Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Moldova, Montenegro, North Macedonia, Norway, Serbia, Switzerland, Tunisia, Turkey, and Ukraine.

For more information about Horizon 2020 country profiles see: [Horizon 2020 country profiles \(europa.eu\)](#).

The INN-PRESSME industrial partners (or their affiliates or employees, permanent collaborators) CANNOT participate in the Open Call and cannot be involved in a consortium in order to avoid any double funding concerns.

You can contact us to check if you are eligible for the Open Call through the email [open-call1@inn-pressme.eu](mailto:open-call1@inn-pressme.eu).

#### 4.2. What type of activities can be funded?

Proposals have to be focused on small scale collaborative projects for development, testing, demonstration and/or verification of a new bio-based material, technology or product, with enhanced properties.

The proposals aiming to reach Technology Readiness Level (TRL) 6-7, starting from TRL 4-5, are preferred.

The applicant's ideas will have to answer specific industry challenges, ensuring market's relevance and future uptake.

#### 4.3. Other general rules

- The proposal will be kept confidential by the members of the consortium. Nonetheless, it is recommended not to disclosed confidential or sensitive information. The access to this type of information could be crucial to start experiments, so INN-PRESSME will sign with the customer/s a contract including confidentiality clauses.
- Relation between the new test cases and the OITB will be regulated with dedicated contracts.
- English is the only acceptable language. Proposals submitted in any other language will not be evaluated!





- Font of the body text of the proposal is Times New Roman. The minimum size allowed is 11 points. Standard character spacing and a minimum of single line spacing needs to be employed, in A4 page format. All margins (left, right, top and bottom) need to be at least 20 mm. Maximum length allowed is 5 pages.
- Figures, schemes and photos are encouraged to be provided to make clearer the aim of the proposal, whilst they do not exceed the maximum length above indicated (no annexes are allowed).

## 5. Evaluation criteria and process

The submitted proposals will be evaluated by the Evaluation Board composed of 4-5 evaluators. They will be experts, with experience in research and innovation and business, and preferably with experience in proposal evaluation process. They will be selected by the INN-PRESSME partners and could also belong to the consortium.

**EXCELLENCE** (level of innovation, viability, etc): Score ranging from 0 to 5. The following aspects will be evaluated:

- **Ambition:** Applicants have to provide a description of the problem to overcome and/or the challenges to be addressed and how the proposed project goes beyond the state of the art.
- **Innovation:** Provision of a detailed description of the final part to be developed in collaboration with the INNPRESSME project (including a description of the functionality, size, etc.). It should be explained how it will solve the challenges described above and how the INNPRESSME services will help. It has to be mentioned if the applicant/s has/have background knowledge including Intellectual Property Rights related to this final demo part.
- **Regulation, standardization, and certification issues:** Will the final prototype part/demonstrator be subjected to any policies and/or regulatory requirements? Is there a need for standardization or certification related matters? It has to be explained if they will be tackled.
- **Soundness of the approach:** It has to be demonstrated the soundness and credibility of the proposed methodology.

**IMPACT** (economic –for company business, addressable market size-, social, environmental, technological). Score ranging from 0 to 5. It has to be evaluated the following aspects:

- **Market opportunity and competition:** It should be clearly shown what the applicant wants to do, the target market/s and if the new/improved product has a market potential. A description of the competitive advantage of the applicant's solution versus those from competitors has to be provided.
- **Commercial strategy and scaling up potential:** It has to be explained in detail how the applicant/s will penetrate the target market(s); what channels, resources and tools will



be used for it and the time required. Also it should be identified the expected results to be exploited.

- A description of the Return of Investment (RoI) and the global economic value creation has to be provided.
- Other expected impacts: A detailed description of any societal, environmental, and economic impacts outside your company itself needs to be described.

**QUALITY and EFFICIENCY of the IMPLEMENTATION.** Score ranging from 0 to 5. Next points will be evaluated:

- Work plan description: Is there a description of the proposed work plan (key inputs, deliverables, tasks titles and time schedule, together with the role that the INN-PRESSME pilot lines will play in it)?
- Team: Demonstrate your management and leadership skills plus your ability to bring new concepts and ideas into the market.
- Budget estimation: A description of the dedication to project (person-month or number of hours and the related final cost) by the team above described has to be delivered. It has to be completed with a description with other internal resources the applicant will allocate to the Innovation Concept project (e.g. expenses in consumables, travel costs). If the proposal contains the participation of two companies, budget distribution and resource allocation to fulfil the described tasks has to be explained, too.
- TRL level: It has to be provided a description of the TRL positioning of your proposed solution and the change from current state during the project (e.g. from a laboratory verified component – TRL4 – to demonstration in relevant industrial environment – TRL7).
- Risk management: A description of most relevant techno-economic and management risks has to be provided, together with a proposal of suitable mitigation strategies.

For Excellence, Impact and Quality and efficiency of the implementation the next values will be considered to score the proposal:

Value	Comment
0	Very Poor, proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
1	Poor, criterion is inadequately addressed or there are serious inherent weaknesses.
2	Fair, proposal broadly addresses the criterion, but there are significant weaknesses.
3	Good, proposal addresses the criterion well, but a number of shortcomings are present.



4	Very good, proposal addresses the criterion very well, but a small number of shortcomings are present.
5	Excellent, proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

The maximum overall score is 15. The threshold for Excellence, Impact and Implementation criteria is 3 and the overall threshold 10. Proposals failing to achieve the threshold score per individual criteria and the overall threshold will be rejected.

Proposals will be ranked according to the overall scores in descending order.

## 6. Steps to be followed for application

Are you interested in applying to the Call? Please follow the next steps to apply:

- Have a look to the **INN-PRESSME pilot-lines and technologies portfolio** on the project website ([https://www.inn-pressme.eu/pilot\\_line/](https://www.inn-pressme.eu/pilot_line/));
- **Register to participate** in the 1<sup>st</sup> Open Call. You have to complete the information indicated below;
- Download the **Application Form**;
- Fill and submit the application form through the website within the application period (deadline 30<sup>th</sup> of January 2023).

Is your project in line with what INN-PRESSME is looking for? Not 100% sure? You can consult sections 1 and 2, together with Annex I, as well as the [project website](#). Applicants can contact the INN-PRESSME consortium through the email [open-call1@inn-pressme.eu](mailto:open-call1@inn-pressme.eu) for advice and guidance, too. The information that is shared will be treated in a totally confidential manner, although we recommend that you do not share sensitive information. Contacting us should serve only to solve doubts about the proposal form and call conditions.

### Registration Form:

**COMPANY INFORMATION (coordinator in case of an innovation concept submitted by a consortium of 2 partners):**

- **Company's name:**
- **Company Registration Number:**
- **Date of Registration:**
- **Size (Number of employees):**
- **Annual turnover (in millions of €):**

**REGISTERED COMPANY ADDRESS:**

- **Street:**
- **Post code:**
- **City:**
- **Country of registration:**

**APPLICANT CONTACT DETAILS:**

- **Contact name:**



- **First name:**
- **Last name:**
- **Position in Company:**
- **Email Address:**
- **Telephone Number:**

**ADDITIONAL:**

- **Will the innovation concept be submitted by a consortium of 2 partners?** Yes or Not.
- **2<sup>nd</sup> partner's company name:** (if it is submitted by only 1 partner indicate n/a)
- **2<sup>nd</sup> partner's company registration number:** (if it is submitted by only 1 partner indicate n/a)
- **How did you learn about INN-PRESSME?** E.g. from one of the project partners, from its webpage, from social media, at a conference etc.

Please look for the template in the INN-PRESSME's platform.

## 7. Successful proposals: Steps before test experiments start

In case you are pre-selected to be the beneficiary, you need to sign the Contract Agreement with the INN-PRESSME Consortium. The Contract Agreement will define:

- a) Purpose and scope of the services;
- b) Work Plan, including milestones and deliverables and what the beneficiary agrees to do (both resources and activities);
- c) Access rights for implementation (including customer access condition to facilities and services) and for exploitation;
- d) Results ownership;
- e) Non-disclosure of information; and
- f) Point of Contact with INN-PRESSME (see next section).

Before signing the Contract Agreement, the pre-selected entities must provide documents (within one/two weeks) regarding your formal status. The INN-PRESSME consortium will proceed to a verification of these documents to make sure you are eligible. Pre-selected beneficiaries should be able to provide some basic information regarding your registration and financial data. If you do not deliver the requested documents on time, without a clear and reasonable justification, we will have to exclude you from the further formal assessment. Another applicant from the Reserve list will then replace you.

## 8. Rules for the management of selected projects

During the test experiments and services provision, you will have a Single Point of Contact, who will be responsible of keeping you informed about the status of the work. The Point of Contact will monitor the progress of the work and organize necessary follow-up meetings with you, at least 1 every month. In these meetings other contact persons involved in the collaboration could also participate when necessary. All these meetings will have some notes, prepared by the Point of Contact, which will at least reflect the agreements reached and the most outstanding in terms of the progress made since the last meeting.



## 9. Miscellaneous

- Any matters not covered by this Guide will be governed by Belgian law and rules related to the Horizon 2020 programme and European Union grants regulations.
- We are obliged to keep all the applicants' data confidential. However, to avoid any doubts, you are entirely responsible to indicate what information is confidential.
- Your IPR will remain your property.
- For the selected beneficiaries, the agreement will include the set of obligations towards the European Commission, such as:
  - Promotion of the project
  - Giving visibility to the EU funding
  - Understanding potential controls by the European Authorities, such as European Commission (EC) or European Court of Auditors (ECA) or European Anti-fraud Office (OLAF)
  - Provision of non-confidential information on the project (e.g. summary, main achievements).
- The INN-PRESSME Consortium might cancel the call at any time, change its provisions or extend it. In this case we will inform all applicants about such change.
- Signature of the Contract agreement (see section 7) is an initial condition to establish any obligations among applicants and any INN-PRESSME Consortium partners.