Guide for Applicants

Technology Transfer Experiments

2nd Open Call

(2nd edition 2022)

Open date for proposals: 2 May 2022 at 00:00 CEST (Brussels Time).

Deadline: 29 July 2022 at 17:00 CEST (Brussels Time).

Version 1 29/04/2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 951998. PULSATE is supported by the Photonics Public Private Partnership.

EXECUTIVE SUMMARY

This document summarises the rules and conditions to be applied for the Financial Support to Third Parties (FSTP) funding scheme to support experiments through the open calls within the PULSATE project. The document is addressed to potential applicants for the **2nd Technology Transfer Experiments Open Call** and aims at being a practical guideline for a successful application.

DOCUMENT HISTORY

Version	Author(s)	Changes	Date
1	PULSATE OC Team	Document published	29/04/2022

Abbreviations

TTE: Technology Transfer Experiment
EC: European Commission
KPIs: Key Performance Indicators
OC: Open Call
SME: Small and Medium Enterprise
LBAAM: Laser-Based Advanced & Additive Manufacturing
FAQ: Frequently asked questions
SGA: Sub Grant Agreement
FSTP: Funding Support to third parties

TABLE OF CONTENTS

EXECUTIVE SUMMARY **2**
DOCUMENT HISTORY **2**
1 BASIC INFO ABOUT PULSATE **5**
2 WHAT DO WE OFFER? **5**
3 ELIGIBILITY CRITERIA **6**
3.1 CONSORTIUM COMPOSITION 6
3.2 WHO ARE WE LOOKING FOR? 7
3.3 TYPE OF ACTIVITY 7
3.4 TRL LEVEL 9
3.5 HOW TO APPLY 10
4 HOW WILL WE EVALUATE YOUR PROPOSAL? (SELECTION PROCESS) **11**
4.1 ELIGIBILITY CHECK 11
4.2 EXPERTS EVALUATION 12
4.3 CONSENSUS MEETING 13
4.4 JURY DAY 14
4.5 FORMAL CHECK 14
4.6 TECHNOLOGY TRANSER EXPERIMENTS PROCESS - TENTATIVE SCHEDULE 15
5 SUPPORT PROGRAMME AND PAYMENT ARRANGEMENTS **15**
6 COMMUNICATION AND SUPPORT **16**
6.1 HOW CAN WE HELP YOU? 16
6.2 COMPLAINTS 16
7 LAST BUT NOT LEAST - FINAL PROVISIONS **17**
8 EXTRA HINTS BEFORE YOU SUBMIT YOUR PROPOSAL **17**
ANNEX 1: PROCESSING OF PERSONAL DATA **18**
ANNEX 2: SHORT DESCRIPTION OF PULSATE TECHNICAL EXPERTISE **20**

LIST OF FIGURES

Figure 1 PULSATE Consortium partners 5
Figure 2 TTEs consortium composition (roles) 6
Figure 3 PULSATE TTEs 2nd Open Call selection process 11
Figure 4 PULSATE 2nd TTE Process - tentative schedule 15
Figure 5 PULSATE TTE 2nd batch schedule 15

LIST OF TABLES

Table 1 SMEs and Slightly bigger definition 7

1 BASIC INFO ABOUT PULSATE

PULSATE is a part of the Horizon2020 programme called I4MS funded by the European Commission with the goal to accelerate the design, development and uptake of advanced digital technologies by the European Manufacturing industry to empower personalised products and to facilitate cost-effective small-scale production.

One of these digitalisation technologies that PULSATE project is focused on is **Laser-Based Advanced & Additive Manufacturing (LBAAM)**. To boost and support the uptake, PULSATE will select high potential Technology Transfer Experiments (TTEs) to accelerate the design, development and uptake of Laser Based Advanced & Additive Manufacturing (LBAAM) by European industry – especially SMEs.

PULSATE project brings together a strong consortium comprising six competence centres (AIMEN, FTMC, MTC, SINTEF, Fraunhofer and CEA) with high-level expertise in LBAAM and digitisation, the European Photonics Industry Consortium (EPIC) to support the acceleration of EU innovative scale-up initiatives, and two highly innovative SMEs (CLESGO & Fundingbox) to establish and support the Digital Agora platform, maintain a Marketplace of digital services and to manage the mechanisms of financial support to selected companies and the connection with DIHs across all Europe.

Figure 1 PULSATE Consortium partners

We invite you to join us at our Helpdesk space to ask your questions and solve your doubts. For further information about the PULSATE project, please visit our website or send us an email to pulsate.help@fundingbox.com.

2 WHAT DO WE OFFER?

PULSATE will select up to 10 high potential Technology Transfer Experiments (TTEs) to accelerate the design, development and uptake of Laser Based Advanced & Additive Manufacturing (LBAAM) by European industry – especially SMEs. The experiment is an end-user-relevant case study:

- Demonstrating the use of LBAAM and the benefits it brings to the value chain from the end-user to the technology provider.
- Addressing SME business problems by using LBAAM. When the experiment is successfully concluded, it is resulting in a success story, inspiring the Industry community.

Selected Experiments will take part in a 13-month support programme that will start in Jan/Feb 2023 through which they will receive:

- Up to 150 000 EUR as a lump sum for execution of the experiment

● A full set of technical and business mentoring services to scale up the experiments (see section 5/Annex II for full description of services available).

The main results achieved from the execution of the experiments will include the development of innovative laser-based equipment, processes, ancillary equipment and software, looking for solutions particularly adapted to flexible production environments, typical in SMEs, and the digital tools which improve the productivity, flexibility and traceability, lowering the entry barriers.

As a reference, we invite you to review the list of Technology Transfer Experiments selected in 1st Open Call

3 ELIGIBILITY CRITERIA

3.1 CONSORTIUM COMPOSITION

ROLES

The TTEs have to be proposed by a Consortium of **minimum 2** companies acting as:

- Technology provider (System Integrators): any entity which designs, builds or rebuilds, programs, installs, modifies, distributes, or supplies systems and/or technology for LBAAM.
- Adopter / End User (Manufacturing Company): any entity that deals with the physical or chemical transformation of materials or components into new products.

At least one of the experiment partners must act as the Adopter / End User (Manufacturing Company) see Figure 2:

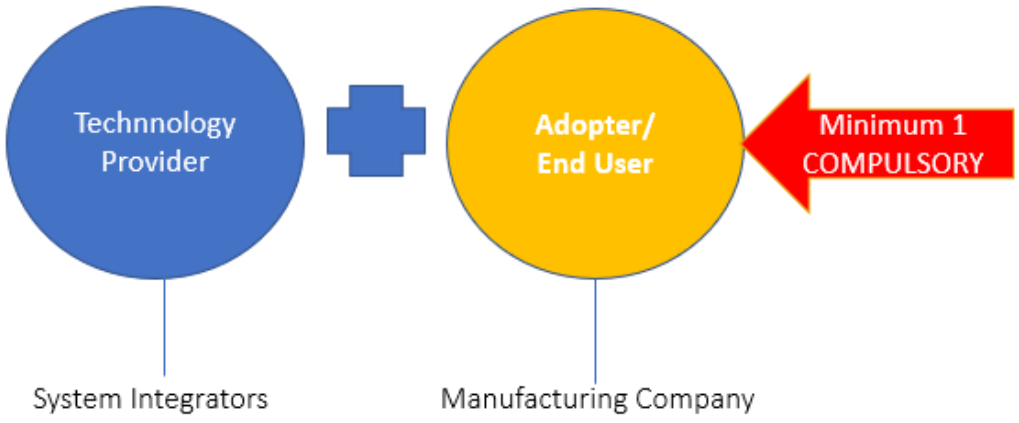

Figure 2 TTEs consortium composition (roles)

The PULSATE project partners (or their affiliates or employees) CANNOT be involved in the TTEs.

In case you do not have a partner to apply with, you can publish your need in dedicated PULSATE community or join on of the matchmaking events organized by PULSATE Team.

LEGAL

3.2 WHO ARE WE LOOKING FOR?

LEGAL STATUS: Only registered legal entities with SME and/or Slightly Bigger status can be beneficiaries of this Open Call. **All companies involved in Technology Transfer Experiment must fulfil the criteria of an SMEs and/or Slightly Bigger definition (Table 1).**

Criteria/Legal Status	SME[1]	Slightly Bigger
Headcount in Annual Work Unit (AWU)	less than 250	less than 500
Annual turnover	less or equal to 50 million EUR OR annual balance sheet total less or equal to 43 million €.	less or equal to 100 million EUR OR annual balance sheet total less or equal to 86 million €.

Table 1 SMEs and Slightly bigger definition

Note: Entities that are Research and Technology Organisations (RTOs)[2] are not eligible for this Open Call.

ELIGIBLE COUNTRIES: All experiment consortium members must be legally established in the following countries and territories (hereafter collectively identified as the 'Eligible Countries') to be eligible to receive funding:

- The Member States of the European Union and their Overseas Countries and Territories (OCT)
- Associated Countries to Horizon 2020
- United Kingdom of Great Britain and Northern Ireland

TECHNOLOGY

3.3 TYPE OF ACTIVITY

Experiments should address the development and implementation of technology and systems applicable to laser-based equipment for Advanced and Additive Manufacturing market, within the following areas of experimentation:

3.3.1 Laser equipment integration, interoperability and robust automation

As noncontact processing tools, lasers enable high control, precision and monitoring of the subtractive and additive process, fully compatible with flexible manufacturing workstation architectures. PULSATE TTE experiments will favour the development of innovative hardware for efficient laser-based manufacturing and complying with best practices for implementation

[1] An SME will be considered as such if it complies with the Commission Recommendation 2003/361/EC. Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation: https://ec.europa.eu/growth/smes/sme-definition_en

[2] Research and Technology Organisation is an entity, such as a university or research institute, irrespective of its legal status (organised under public or private law) or way of financing, whose primary goal is to conduct fundamental research, industrial research or experimental development and to disseminate their results by way of teaching, publication or technology transfer; all profits are reinvested in these activities, the dissemination of their results or teaching.

TECHNOLOGY

The handling, shaping and delivering of the laser beam, combined with its digitisation, results in the most versatile and flexible machine tools, ready for the next generation of manufacturing. PULSATE developments in laser equipment for high productivity will include digital beam handling such as digital phase modulation, high-speed scanner-based energy modulation, interference patterning and a variety of motorized optics, where the consortium has vast experience.

Example of activities:

- Integration of a laser-based AM equipment requiring specific hardware or software development to fit the end-user specific production process (ERP interoperability, post-process automation, etc.)

3.3.2 Technology for cost-effective laser-based manufacturing

The implementation cost of laser technologies has consistently been a barrier to the introduction of lasers in many manufacturing processes. Not only the laser equipment itself (sources, optics, processing heads) are typically expensive and with costly consumables, but they impose strict demands on the surrounding environment, including safety, quality of supply (cooling water, clean air, etc..), and ancillary systems.

TTE experiments in this area must propose solutions to lower the investment, maintenance or running cost of a manufacturing process, either by proposing alternative low-cost laser equipment or by introducing new technology (hardware, software or system concept design) which reduces the operational costs or demands of the process while assuring the required production throughput and quality. Clear economic benefits must be demonstrated and quantified for a typical manufacturing scenario of a target type of SME manufacturing company.

Examples of activities:

- Machine vision and AI used to reduce the demands of the movement system of a laser welding cell, thus enabling the use of low-cost robotic manipulators.
- Fibre delivery for processes which previously required complex optical setups in a cleanroom environment.
- Developments to integrate a specific laser in AM machines to accelerate the building process, and thus reduce the cost.
- Example of TTE Experiment from 1st support programme

3.3.3 First part right and zero-defect laser-based production

Light is at the same time the manufacturing energy source, and a means for diagnosis and quality control. Multimode, multicore optical fibres are envisaged to transmit laser power together with metrology data, process signals and information from the processing head, transforming the laser-matter interaction area in a data-rich environment which can be fed in real-time to its digital twin for documentation, data assurance and adaptive control. PULSATE TTE experiment will favour the development of unique solutions for monitoring and control using image processing and AI-based process optimisation.

Example of activities:

- Developing and integrating monitoring and control technologies inside laser-based AM machines to control the part during the build cycle.
- Example of TTE Experiment from 1st support programme

3.3.4 Flexible technology for small to large batches

Laser technology was introduced in manufacturing with the promise of boosting flexibility. Its strong automation potential, noncontact operation, and the enormous versatility of the laser itself make it a very attractive tool for extremely flexible automation. Nevertheless, the first industrial laser implementations have been in very repetitive and standardized, high productivity environments, like in traditional steel blanking or autobody making, so most available laser systems are very process-centric with limited flexibility to face the current tendencies towards size-one batches and mass customisation.

TTE experiments in this area will develop laser system architectures, hardware and/or software which enhance the flexibility of the laser systems ranging from single pieces to mass customization, reducing the gap between prototyping and full-scale production, reducing the costs of diversity, the lead time for brand new products, enabling a laser-based freely variable batch production paradigm.

Example of activities:

- Developing post-processing laser technologies for controlling and sorting AM parts (small batches with high variability of parts)
- Developing seamless integration of a multi-process head (cutting, welding, drilling, heat treatment) into a flexible robotic laser cell.
- Implementing scanner-based laser multi-processing on 3D parts with arbitrary shapes.

3.3.5 From CAD to PLM: data integration and flow

PULSATE will exploit the intrinsic digital core of LBAAM, making them ready for Digital Twin approaches, and enabling a complete digital footprint from design to end of the life cycle. A holistic system approach is promoted, integrating and connects a series of complex data-driven events along the entire workflow (Digital Thread), enabling robust system control. Secure communication and data exchange will be considered, as well as the capability to facilitate roundtrips between digital models and corresponding physical objects. Additionally, LBAAM approaches include recent breakthroughs as 4D Printing, which is a mean to enable smart and Internet of Things (IoT) functionalities in manufactured products-.

Example of activities: Developing a feedback loop using laser information from the AM machine to adjust printing in real-time.

3.4 TRL LEVEL

Proposals should address technologies which are currently assumed from TRL5 to TRL7[3]:

- **TRL5** Technology validated in a relevant environment (industrially relevant environment in the case of key enabling technologies)

[3] Official EC TRLs definition is available under the link:
https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

- **TRL 6** technology demonstrated in a relevant environment (industrially relevant environment in the case of key enabling technologies)
- **TRL7.** system prototype demonstration in an operational environment.

3.5 HOW TO APPLY

When applying to PULSATE open call, please consider the following conditions:

3.5.1 Have a European dimension

Your proposal should have a clear European dimension meaning that it should prove the possibility to accelerate the design, development and uptake of Laser-Based Advanced & Additive Manufacturing (LBAAM) by European industry – especially SMEs – notably in sectors where digital technologies are underexploited.

3.5.2 Be on time

We will evaluate only proposals submitted through the online form https://pulsate-tte.fundingbox.com/ before the deadline July 29, 2022, at 17:00 CEST (Brussels Time). Upon receipt of your proposal, the system will send you a confirmation of the submission.

3.5.3 Be exhaustive

Have you answered all the sections of the application form? It won't be possible to add any information after the deadline. However, you will be able to modify your application after the proposal is submitted as long as it is done before the deadline.

3.5.4 Number of proposals per company

i. Companies may participate, as a coordinating entity of TTE consortium, only in one (1) TTE proposal per 2nd TTE Open Call. It is the TTE´s coordinating entity responsibility to set up the proposal and submit it to the application form though the FBOX platform.

ii. Companies may participate in up to a maximum of three (3) accepted experiments in 2nd TTE Open Call under the condition that the total accumulated budget does not exceed €100.000 per company in all PULSATE, I4MS and SAE Open Calls.[4]

3.5.5 English language

Your proposal must be written in **English** in all mandatory parts to be eligible. Only parts written in English will be evaluated.

3.5.6 Conflict of interest

We will take into consideration the existence of the potential **conflict of interest** among you and PULSATE Consortium partners. PULSATE consortium partners, their affiliated entities, employees and permanent collaborators cannot take part in the PULSATE Programme. All cases of potential conflict of interest will be assessed on a case-by-case basis.

OTHER

[4] In case the maximum funding limit per company is exceeded in the 2nd TTE Open Call, the proposal with the highest score from the external evaluator´s ranking will be selected.

OTHER

3.5.7 Healthy finances

Healthy finances and a clean sheet are a must: we don't accept entities that are under liquidation or are an enterprise under difficulty according to the Commission Regulation No 651/2014, art. 2.18, or that are excluded from the possibility of obtaining EU funding under the provisions of both national and EU law, or by a decision of both national and EU authority.

3.5.8 Originality of the proposal

It is your proposal: your project should be based on your original work or your right to use the resources included in the proposal must be clear. Going forward, any foreseen developments must be free from third party rights, or those third-party rights must be clearly stated.

3.5.9 Funding limits

Pay attention to funding limits: Entities participating should have not received more than 100 000 EUR via open calls (FSTP) from H2020 I4MS[5] and SAE projects (including PULSATE project).

4 HOW WILL WE EVALUATE YOUR PROPOSAL? (SELECTION PROCESS)

Our evaluation process is transparent, fair and equal to all participants. Your project will be evaluated in 5 steps before the signature of the Sub Grant agreement, as presented below:

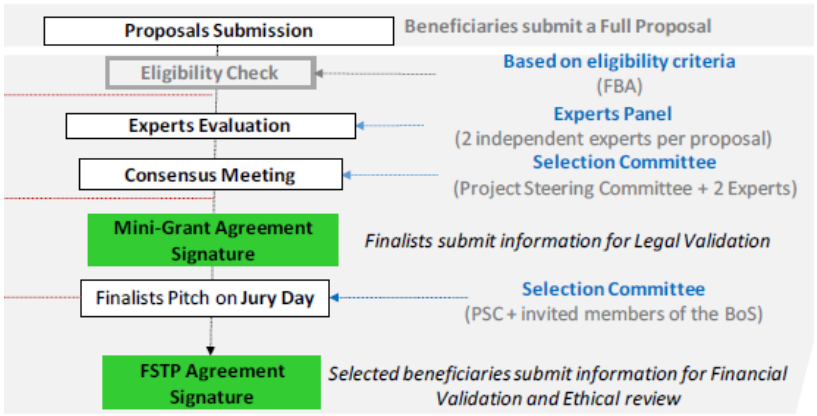

Figure 3 PULSATE TTEs 2nd Open Call selection process

4.1 ELIGIBILITY CHECK

In order to be eligible for evaluation, applications will be checked for compliance with the ELIGIBILITY CRITERIA (as listed in Section 3 of this Guide for Applicants).

Your proposal will be admissible for the next phase if:

- it is complete, readable and in English in all mandatory sections,
- it has been submitted via the online form https://pulsate-tte.fundingbox.com/ before the July 29th, 2022, at 17:00 CEST (Brussels Time),
- it fulfils the eligibility criteria specified in Section 3,

[5] Note: the limit applies also to beneficiaries funded under previous PULSATE Open Calls

- it includes the properly filled declaration of honour included in the application form,
- you have not exceeded the proposals submission or funding limits.

The proposals that do not comply with the above criteria will be excluded. We will inform you about the results of this first eligibility check soon after the deadline.

4.2 EXPERTS EVALUATION

Proposals will be evaluated by 2 external, independent experts (selected by PULSATE consortium) with wide expertise in the photonics industry.

External Evaluators will evaluate and score the **Excellence, Impact and Implementation sections of the proposal** within the following evaluation criteria:

1) EXCELLENCE

- Technology description and TRL level: applicants should describe the technology that will be developed though experiment and confirm its current TRL level.
- Objectives & Ambition: Clarity on how the experiment will address selected experimentation area. Potential of the experiment outcome and the consortium ambition to execute it.
- Innovation: The applicants need to demonstrate to what extent their proposed Experiment is beyond the State of the Art and describe the innovative approach (e.g., ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models).

2) IMPACT

- Value Proposition and Competition: Applicants should describe the market potential of the product/process developed through the experiment. How does it solve a problem for a specific market segment or customer group? What are the main competing products/services on the market and how your solution will differentiate from them?
- Commercial Strategy: The applicants need to describe what KPIs are important for each experiment consortium partner business operations, who are the main customers and how the business will improve thanks to experiment implementation.
- Scalability and European Dimension: applicants should demonstrate if technology developed though experiments can be applied in other industries/potential end-users processes and how they plan to exploit the assessment/adoption results and promote the LBAAM adoption to other European SMEs and manufacturing industry
- Social and Economic Impact: Environment and low carbon economy contribution, Equal Opportunities, Social impact

3) IMPLEMENTATION

- Team: the team need to demonstrate their management and leadership qualities, their ability to take a concept from ideas to market, their capacity to carry through their ideas and understand the dynamics of the market they are trying to tap into. The team should be balanced, a cross-functional team, fully dedicated to the project and with a strong background and skills base.

- Appropriateness of the work plan: each experiment should provide a tentative list of tasks per TTE consortium partner per each phase of the Support Programme (described in section 5 of this guide)
- KPIs: applicants should confirm that KPIs they want to achieve are feasible with the work plan and that they are ambitious.
- Risk Assessment: each applicant should identify the risks of a technology plan and indicate the mitigation measures.
- Resources needed: describe what kind of support and services are expected from PULSATE during the development and execution of the pilot (Support in process and product development, Access to Infrastructure, Business development support)
- Budget: applicants should include information about costs expected for each consortium partner for TTE experiment implementation and requested funding (up to 70% of costs). Requested funding limits should be respected (up to 150k per experiment and up to 100k per legal entity). The consistency between costs and the expected work of the experiment will be part of the evaluation of experiments.[6]
- Ethical Issues: applicants should confirm if there are any ethical issues which might occur and how they propose to mitigate them.

Each evaluator will rank the application assigning a score from 0 to 5 for each criterion that will result in the Individual Evaluation Report. The final score will be calculated as an average of the individual assessments provided by the Evaluators.

Thresholds needed to pass to the next stage are:

For each individual criterion (Excellence, Impact and Implementation)	minimum threshold is **3 out of 5 points**
For a total sum of all criteria scores	minimum threshold is **10 out of 15 points**

If scores on a proposal show significant divergence between the two reviewers, a third reviewer will be involved to provide an additional independent assessment of this proposal. The final score on each criterion will be given by the average of the two most similar scores.

Ties will be solved using the following criteria, in order:

A) Impact Score B) Implementation Score C) Excellence Score D) Gender balance E) Date of submission: earlier submitted proposals go first.[7]

4.3 CONSENSUS MEETING

The Selection Committee will decide by consensus (⅔ majority votes will be considered consensus, too) on the list of companies to be invited to the Jury Day. The discussion will be based on the ranking obtained as a result of the External Evaluation.

[6] Example of TTE budget is included in the FAQ document.

[7] Please note that only the application's last edit will be considered.

Main criteria evaluated by the Selection Committee in this phase is the strategic approach of the proposals in terms of the project philosophy. Any proposal submitted must have a positive and tangible impact on the overall objective of the PULSATE project.

Whilst normally the highest-ranked proposals will be invited to Jury Day, the Selection Committee might have fair reasons for objecting to a specific third party, like the alignment with PULSATE goals and scope, the ability to achieve the highest impact possible, commercial competition, as well as the existence of significant ethical concerns or a potential conflict of interest. In this case, the choice may pass to the next-ranked proposal.

The exact number of proposals approved will be decided based on the overall quality of the proposals.

4.4 JURY DAY

Before the Jury Day: Each experiment invited to Jury Day will be requested some basic legal information to confirm that the legal entities engaged in the proposal exist and to prepare the Mini-Grant Agreement which will be signed with selected experiments before the Jury Day event.

Each consortium will receive a mini-grant to cover the travel expenses to the Jury. This mini-grant will be paid as a lump sum of €1 000 per each experiment attending the Jury Day. It will be paid against attendance validation and signature of the Mini-Grant Agreement with the PULSATE Consortium.[8]

During the Jury Day: Each experiment will have an individual slot in which they will present their proposal and answer a round of questions from the members of the Selection Committee and PULSATE Advisory Board.

The 'Selection Committee' members will score pitching experiments from 0-5 according to the following criteria: Market opportunity, Technology capacity, Sectors addressed, the Team.

The Selection Committee will decide by consensus (⅔ majority votes will be considered consensus, too) and based on the Jury Day ranking results on the Provisional List of FSTP Sub-grantees and Reserve List.

The exact number of proposals approved will be decided based on the overall quality of the proposals. The list of experiments selected during the Jury Day and the 'Reserve List' will be sent to the European Commission for validation before the Formal Check process begins.

4.5 FORMAL CHECK

In order to join the PULSATE support programme, each experiment will be requested to sign the Sub Grant Agreement with the Coordinator of PULSATE project (AIMEN). Before that, each pre-selected experiment will need to provide documents regarding the formal status of each consortium member (for the details please check our Frequently Asked Questions Document). The PULSATE team will proceed to a verification of these documents to make sure each pre-selected Experiment is eligible.

All experiments are requested to provide documents within the deadline; otherwise, they might be excluded from the further formal assessment and next experiment from the reserve list will be invited.

[8] If the Jury Day is held online, the mini-grant will not be applicable.

4.6 TECHNOLOGY TRANSER EXPERIMENTS PROCESS - TENTATIVE SCHEDULE

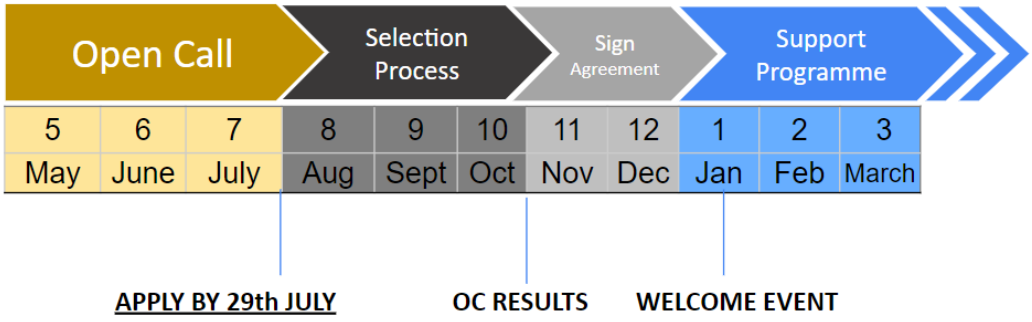

Figure 4 PULSATE 2nd TTE Process - tentative schedule

5 SUPPORT PROGRAMME AND PAYMENT ARRANGEMENTS

Once your eligibility has been confirmed following the formal check and the Sub-Grant Agreement signature, Technology Transfer Experiment consortium partners will become an official beneficiary of the PULSATE programme and each Experiment should understand with advance on how the support programme will be implemented and how the grant works.

The support programme will last 13 months and will be divided into three stages:

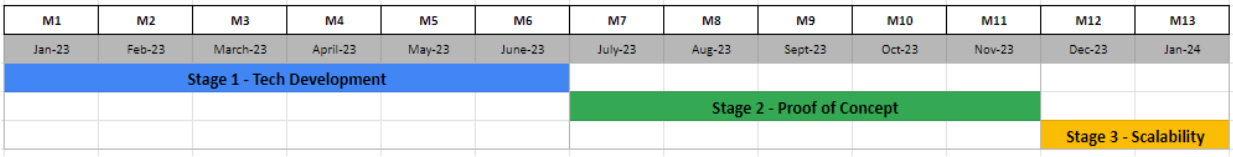

Figure 5 PULSATE TTE 2nd batch schedule

At the beginning of the programme, the assigned mentors from PULSATE Consortium will support Experiments in preparation of the Individual Mentoring Plan (IMP). The IMP should detail:

- the project scope and tasks
- deliverables and KPIs to be achieved at each stage
- experiment budget breakdown by Stage
- details for the technical support required from the PULSATE.

During all support programme mentors will provide technical and business guidance to experiments though regular meetings. At the end of each Stage mentors will review and experiment progress to confirm if it can pass to the next stage and receive corresponding grant.

What is provided?

- **PULSATE partners mentoring support**: Technical (see Annex 2 SHORT DESCRIPTION OF PULSATE TECHNICAL EXPERTISE) and Business (starting from Stage 3).

- **PULSATE Grant**: [9]lump sum of up to 150k EUR per Experiment.

LUMP SUM: lump-sum is a simplified method of settling expenses in projects financed from Horizon 2020 funds. It means that grantee is not required to present strictly defined accounting documents to prove the cost incurred (e.g., invoices), but is obliged to **demonstrate the implementation of the project in line with the milestones set** for the Project. Simply speaking it means that we will assess your progress and quality of your work during Milestone Reviews, not your accountancy. Nevertheless, it does not release you from the obligation to collect documentation to confirm the costs under fiscal regulation.

70% FUNDING RATE: The requested grant is calculated with funding rate that is the 70% of costs declared for experiment execution. This means that if you present a budget with a total cost of EUR 214 000, the maximum grant you will receive will be EUR 150 000 (70% of total cost).

FUNDING LIMITS: 70% of the requested funding should not exceed:

A) EUR 150 000 per experiment
B) EUR 100 000 per company from H2020 I4MS[10] and SAE projects (including PULSATE project).

6 COMMUNICATION AND SUPPORT

6.1 HOW CAN WE HELP YOU?

If you have questions regarding the Open Call, you can:

- post your question in the Open Call Helpdesk
- read all supportive documents in Get Help section
- join one of our Open Call webinars

6.2 COMPLAINTS

If, after receiving the results of one of the evaluation phases (when foreseen), you consider that a mistake has been made you can send us your complaint. To do so please send us your complaint in English by email to pulsate.help@fundingbox.com including the following information:

- your contact details (including e-mail address),
- the subject of the complaint,
- information and evidence regarding the alleged breach.

You have **3 calendar days** to submit your complaint starting the day after the communication about the results of the eligibility criteria evaluation was sent. We will review your complaint within no more than seven calendar days from its reception. If we need more time to assess your complaint, we will inform you by email about the extension.

We will not review anonymous complaints as well as complaints with incomplete information. Please take into account that the evaluation is run by experts in the photonics industry, and we do not

[9] Please read FAQ for more details about budget calculation, instalments and references to costs estimation
[10] Note: the limit applies also to beneficiaries funded under previous PULSATE Open Calls

interfere with their assessment, therefore we will not evaluate complaints related to the results of the evaluation other than related to the mistakes in the evaluation of the eligibility criteria.

7 LAST BUT NOT LEAST - FINAL PROVISIONS

Any matters not covered by this Guide will be governed by Belgium law and rules related to the H2020 and EU grants.

Please take into account that we make our best effort to keep all provided data confidential; however, for the avoidance of doubt, you are solely responsible to indicate your confidential information as such.

Your IPR will remain your property.

The PULSATE Consortium might cancel the call at any time, change its provisions or extend it, in such case, we will inform all applicants about such change. Signature of the Sub grant Agreement is an initial condition to establish any obligations among applicants and any Consortium partners (with respect to the obligation of confidentiality of the application).

8 EXTRA HINTS BEFORE YOU SUBMIT YOUR PROPOSAL

A proposal takes time and effort, and we know it. Here are a few crucial points you should read before submitting your proposal.

- Did you present your project in a way that will convince evaluators? Not sure if you did? Go back to this section.
- Is your project fulfilling all eligibility requirements described in the Guide? Check again this section.
- Do you need extra help? Contact us at pulsate.help@fundingbox.com

And as a bonus: You can read our R.E.C.I.P.E. for an outstanding European Funding Opportunity application for additional advice. Good luck!

Did not find what you were looking for?

You may want to check our Frequently Asked Questions Section.

ANNEX 1: PROCESSING OF PERSONAL DATA

The data controller is FundingBox Accelerator sp. z o.o. (Al. Jerozolimskie 136, 02-305 Warsaw, Poland). In all matters regarding personal data, you can contact us using the following email address: privacy@fundingbox.com.

PURPOSES, LEGAL BASIS AND PROCESSING PERIOD		
The purpose of processing	Legal basis for processing	Period
To run an Open Call and collect data necessary to evaluate applications submitted in the Open Call	The legal basis for processing is the indispensability to implement the legitimate interest of the data controller, consisting in fulfilling the obligations laid down in the Grant Agreement (Article 6, paragraph 1 (f) of GDPR in this respect).	6 years from the end of the year in which the Project ended.
To realize the Project goals described in the Grant Agreement (communication, reporting, collaborating with other project partners)	The legal basis for processing is indispensability to implement the legitimate interest of the data controller, consisting in effectively participating in the project and fulfilling the obligations laid down in the Grant Agreement (Article 6, paragraph 1 (f) of GDPR in this respect).	6 years from the end of the year in which the Project ended
In order to consider potential complaints	The legal basis for processing is indispensability to implement the legitimate interest of the data controller fulfilling the obligations laid down in the Grant Agreement (Article 6, paragraph 1 (f) of GDPR in this respect).	6 years from the end of the year in which the Project ended
In order to possibly establish and enforce claims or defend against them	The legal basis of the processing is the legitimate interest of the data controller consisting of the protection of its rights (Article 6, paragraph 1 (f) of GDPR in this respect).	6 years from the end of the year in which the Project ended

DATA RECEIVERS

Data controller will transfer personal data only to trusted recipients such as entities belonging to the FundingBox's capital group, evaluators, IT service providers, accountants, law firms, postal and courier companies (who process personal data on the controller's behalf).

To realize the Project data can be transferred also to Project Partners (complete list of the project partners is available at the email address: privacy@fundingbox.com), European Commission and other affiliated entities.

RIGHTS OF DATA SUBJECT

Since we process your personal data, you have the right to:

1) request access to your personal data,

2) demand the rectification of your personal data,

3) request to remove or limit the processing of your personal data,

4) complain with the supervisory authority (The President of the Personal Data Protection Office, Warsaw, Poland).

You also have a right to object to processing of your personal data (according to the Article 21 of GDPR).

INFORMATION ABOUT VOLUNTARY OR OBLIGATORY DATA PROVISION

Providing data is voluntary, although it is necessary to participate in the Open Call. Without providing your data, it is not possible to contact you and evaluate the application.

ANNEX 2: SHORT DESCRIPTION OF PULSATE TECHNICAL EXPERTISE

A short overview of key areas of technical expertise is offered by the PULSATE partners network to the selected Technology Transfer Experiments.

KEY AREA	CC	AREAS OF EXPERTISE OFFERED BY PULSATE CONSORTIUM
Micro/ nano fabrication	AIMEN	Knowledge and know-how on ultrafast laser micro and nano-structuring
	FTMC	Know-how on functional surface fabrication by lasers, 3D laser processing, process upscaling utilising various multi-beam approaches and various characterisation tools
	MTC	Know-how on laser surface texturing for functionalisation (tribology, hydrophobic, anti-icing, etc.), shock peening for post-processing and deep machining
Additive Manufacturing	AIMEN	Know-how on process control and monitoring (data-driven pipeline, multispectral embedded imaging control systems), topology optimisation, new feedstock materials, offline path planning.
	SINTEF	Knowledge on part/product design for AM, re-design, selection of materials and processes.
	CEA	Expertise in performing data analytics, process monitoring (layer per layer control) and NDT for part/product acceptance/certification.
	FRA	Know-how on laser process development for metals, composites and hybrid materials
	FTMC	Expertise on multi-material metal 3D printing (LMD) and powder bed fusion.
	MTC	Know-how in design and manufacturing optimisation for AM processes (Powder bed, SLM, EBM, polymer AM, binder jet AM, DED, cladding)
High Power Laser-based Manufacturing	AIMEN	Knowledge and know-how on laser beam shaping, online process monitoring of 3D complex geometries, heat characterisation and performance, toughness HSS weld metal optimisation, online laser welding with IR imaging, adaptive path planning for laser cladding repair and variable spot
	FRA	Laser cladding with powder and wire materials (DE 102010018686 and DE102018202797), expertise on localised temperature measurement for process monitoring (EP1693141) and know-how on laser beam shaping and laser control for rapid positioning (2D bema oscillation for cutting and welding)

	MTC	Know-how in laser surface processing (optimisation for laser texturing, laser cleaning, laser polishing) and laser drilling, cutting and welding). Know-how in laser drilling, cutting and welding (dissimilar joining and cladding, gas shielding).
LBAAM Digitalization	AIMEN	Advanced modelling, simulation and data analytics (AI and ML), digital design for AM. Expertise on developing end-to-end solutions, digital twins and a digital thread for AM (DED). Embedded control and monitoring systems.
	SINTEF	Variable materials and anisotropies (V-rep and IgA digital tools) and isogeometric analysis.
	MTC	Expertise in the digitization of laser-based processing (digital platform and technologies suited to LBAAM), M&S (process parameters and factory level optimisation), control and monitoring (end-to-end). Data analytics, visualization, and interoperability. Automation (collaborative & advanced robots).
	FRA	Knowledge of applying Artificial Intelligence solutions to improve data analytics