

What

The JePPIX Pilot Line is looking for innovative partners who are interested in and motivated for bringing a PIC-based product to the market, thereby demonstrating the capabilities of indium phosphide (InP) technologies made in Europe and showcasing the competences available in the InP PIC ecosystem. Companies that want to take their InP Photonic Integrated Circuits (PICs) based prototype into (pre-)production can request financial support to reduce project costs and thereby lower business risk.

The JePPIX Pilot Line will serve 15 selected projects with a total budget of up to €1.2M. The types of activities that qualify for receiving support must be related to adoption of new products, services and business models enabled by and containing InP PICs.

Applicants selected for the financial support program receive:

- Access to industrial prototyping and pre-commercial manufacturing services of InP Photonic Integrated Circuits technology;
- Benefit from pilot line marketing and dissemination activities featuring the applicant activities and results;
- Customized support (based on their needs) to:
 - o Design their own PICs
 - o Have their pre-commercial run of PICs delivered
 - o Testing;
- A maximum of €160k worth of technical services delivered directly by software, design, foundry and/or testing services of the JePPIX Pilot Line.
 - o *Please note that the financial support can only cover 50% maximum of the total price of the technical service package from the JePPIX pilot line. A minimum of 50% of the technical service package price is paid by the customer. For example, if the cost of the project will be €160k, then €80k will be funded by the JePPIX Pilot line and €80k will be covered by the applicant.*

Why

The objective of this initiative is to provide support to innovative businesses and catalyze their transition to industrial prototyping and pre-commercial production of high-performance InP PICs. To maximize the impact, the JePPIX Pilot Line will demonstrate and showcase its capabilities through the success stories of the financial support participants. This helps to increase market awareness of the European-based InP technology and gain traction in new, as well as established, market segments.

Europe has pioneered the concept of multi-project wafer (MPW) runs for InP PICs over the last 15 years. By sharing process development and fabrication costs, a versatile technology platform has been created for proof-of-concept and prototype-level research and development. The JePPIX Pilot Line now targets to bridge the gap towards commercialization of InP PIC-based products, by showing manufacturability aligning the full supply chain from design and software solutions to testing and verification.

Efforts within the Pilot Line are targeted to establish a seamless product development environment for PIC-based products:

- offering expert support and consultation to educate and bridge potential knowledge gaps;
- establishing data and design standards to support the interoperability of services;
- introduction of manufacturing grade PDKs with specified metrics;
- increase stability of PIC manufacturing processes to accelerate and scale production;
- development of automated testing routines and facilities for performance validation.

In this regard, the Jeppix Pilot line is much more than a fabrication process; it offers an ecosystem formed by experienced partners covering design, characterization, expert consultancy, and software support among others. The use of a generic fabrication process means that process development up to TRL7 has already been done, and extensive test data have been obtained to support design tools through a manufacturing-grade Process Design Kit (PDK). This means that you accelerate your time to market, and lower your development costs. Moreover, your runs - combined with the other customers' runs - keep generating data, so the process keeps on getting more robust and reliable.

Who

Prioritization of funding will focus on projects showing high potential for exploitation of results. This includes but is not limited to projected traction in the target market, competitiveness and innovation potential. Applications can be submitted at various initial Technology Readiness Level (TRL) stages of the product or application but should present a credible and feasible business and product development plan towards pre-production within the project period, and how the Pilot Line contributes there by assessing the feasibility of manufacturability. Specifically, applicants should address the objective of transitioning their PIC-based projects / R&D projects up to pre-industrial prototype readiness level (TRL7), i.e., showing manufacturability, in any market segment.

While the JePPIX pilot line is open to any organisation, selection for the financial support program is based on specific eligibility criteria. The program is open to:

- EU-based companies of any size. (Please check the list of EU-based countries in appendix 1.) (1);
- Applicants who are currently exploring InP PIC technology and are ready to scale-up their internal programs to perform product development towards TRL7 (2) in any market segment;
- Companies who are willing to share high-level information about the use of PICs, applications, etc. to be used as (successful) user demonstrator cases, for further exploitation of the Pilot Line.

Please take note of the following:

- *Pure research activity and development of a proof of concept only will not be supported by the JePPIX Pilot Line financial support program;*
- *One product prototype per one applicant can only receive support once.*

*(1) For the UK based companies: The UK left the EU on 31 January 2020. There is now a transition period until the end of 2020 while the UK and EU negotiate additional arrangements. UK participants will continue to receive EU grant funding for the lifetime of individual Horizon 2020 projects, including projects finishing after the transition period ends at the end of 2020. European Commission's general notice for UK applicants: "In conformity with the EU-UK Withdrawal Agreement[1], the UK and persons or entities established in the UK continue to be eligible to receive Union funds under actions carried out in direct, indirect or shared management, which implement Union programs and activities committed under the MFF 2014-2020 until the closure of those Union programs and activities. Restrictions may, however, apply for security-related reasons or concerning financial instruments. When such restrictions apply, these will be clearly specified in the call for proposals." For more information, please check the links below:<https://www.gov.uk/government/publications/continued-uk-participation-in-eu-programmes/eu-funded-programmes-under-the-withdrawal-agreement>;
<https://www.ukri.org/research/international/ukri-europe/>.*

(2) See definition of TRL in Appendix 4

When

The call is open continuously and applicants can apply anytime until the resources have been used up. Any submitted application will be evaluated in the nearest cut-off date. Information on cut-off deadline will be provided by scouts. Applicants will be notified with an evaluation 1 month after cut-off.

How

If you are interested in applying to the financial support program, please follow the steps listed below before submitting your application.

1. Read the documents below (Application Guidelines and Details & Criteria), containing all information about the financial support program.
2. Make sure that you satisfy the eligibility criteria.
3. Register through the registration portal.
4. Download the Application Form in the registration portal.
5. Complete the Application Form, save it as a PDF file, upload it and submit it through the portal.

Applications will only be accepted in English.

Process: Evaluation Criteria, Selection & Timing

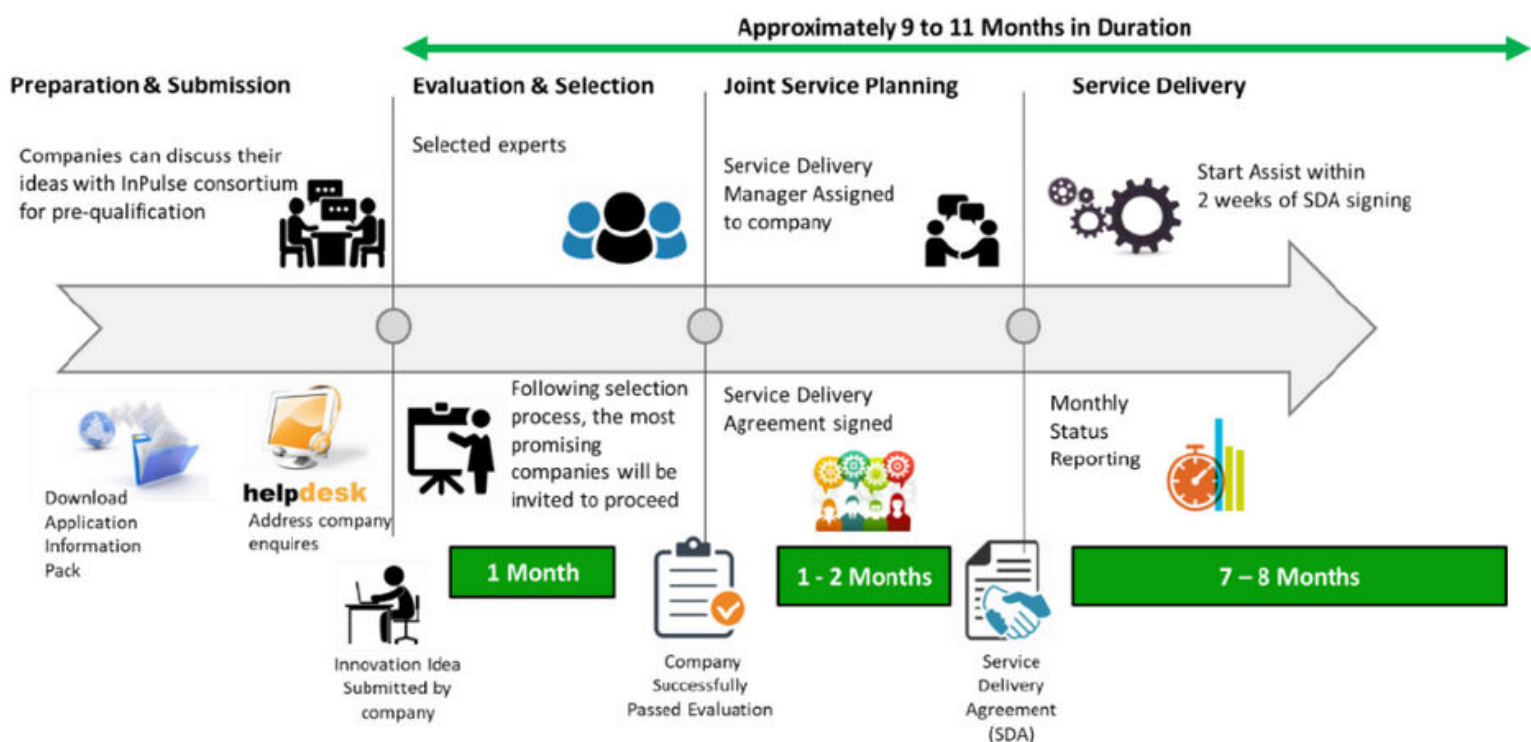


Figure 1. All steps of the financial support program

Any submitted demonstrator program application will be evaluated in the nearest future cut-off by the Evaluation Panel composed of 4 evaluators. You may request up to four JePPIX partners to be excluded as reviewers in the evaluation of your proposal.

All submitted demonstrator program applications will be evaluated (scores ranging from 0 to 5) according to the following criteria:

- Concept
- Implementation
- Impact

The maximum overall score is 15. The standard threshold for individual criteria is 3, and the standard overall threshold, applying to the sum of the three individual scores, is 9. The average of the 4 scores given by evaluators per section and total will be calculated for each application. Application failing to achieve the threshold score per individual criteria and the overall threshold will be rejected. Applications will be ranked according to the overall scores in descending order.

The most successful applications, having passed the evaluation, will be offered the chance to negotiate and sign the Service Delivery Agreement (SDA) with the Service Delivery Manager assigned by the JePPIX Pilot Line. Evaluation will be returned approximately 4 weeks after the submission deadline. The entire process from application submission until the end of service delivery, i.e., delivering the (tested) PICs, will take 9 to 11 months.