

NextGen Microfluidics

Next generation test bed for upscaling of microfluidic devices based on nano-enabled surfaces and membranes

Open Call for Proposals

Guidelines for Applicants (Version 3v0 - Jan 2023)

Application submission starts on: 21 June 2021

Applications will be continuously reviewed

Call closing: September 2023

"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862092".



1. Content

1. Content.....	2
2. Scope of the NextGenMicrofluidics Open Call	3
3. Rules and Conditions.....	4
Eligibility Criteria	4
Project Duration	5
Financial Support.....	5
Language	5
Multiple submissions.....	6
Connected services.....	6
Ethical issues.....	6
Data protection	6
Other	6
4. Proposal Submission.....	7
Overall Process	7
1 - Registration of interest.....	7
2 - Single Entry Point & Business Coach	7
3 – Concept Phase	7
4 – Work Statement	8
5 - Contract.....	8
6 - Project Execution & Follow-Up	8
Proposal Description Language and Length	9
5. Proposal Evaluation and Selection	9
Evaluation Team	9
Evaluation Criteria	9
Excellence of innovation and approach (sample questions)	9
Impact / Market Success (sample questions).....	9
Quality & Excellence of implementation (sample questions):	10
Selection & Scoring.....	10
6. Additional Information	10
Obligations of selected applicants	10
Dissemination and Promotion.....	11
Intellectual Property Rights (IPR)	11
Complaints.....	11

“This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862092”.



2. Scope of the NextGenMicrofluidics Open Call

The NextGenMicrofluidics Open Call provides development support services in the field of Microfluidics to SME or LE (Companies, Customers). The aim is to accelerate the development and commercialization of innovative solutions enabled through fully foil based microfluidic chips (lab-on-a-foil systems) or microfluidic composite devices with foil based components. Services will also accelerate innovation & production cycles from prototypes to piloting to large volume production.

Proposals submitted by companies (commercial customers) must focus on applications that have already been validated in a relevant environment (Technology Readiness Level of TRL4 or higher¹) and require services from one or more of the following technological domains:

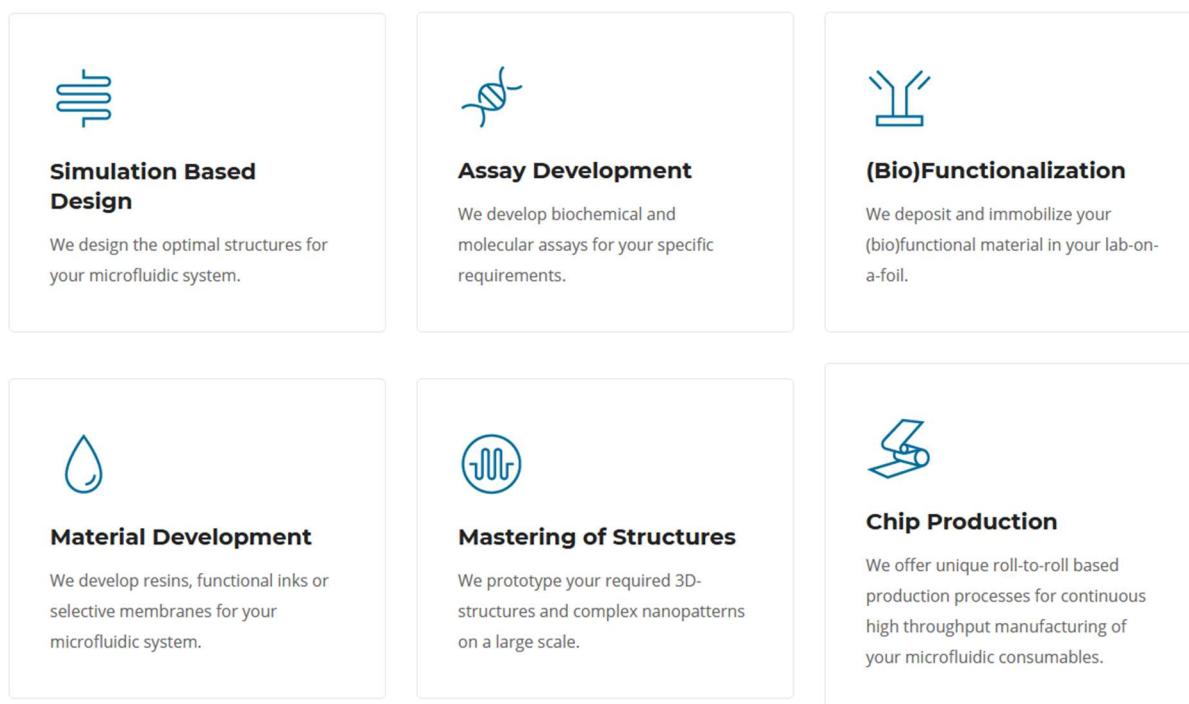


Figure 1: Technological domains of services provided by NextGenMicrofluidics

The Call has been designed to provide funding vouchers of up to EUR 200.000 to support applicants in accessing competences and know-how, primarily through expert service acquisition and access to state-of-the-art technology facilities.

The Call will be open from 21. June 2021 and applicants will be able to apply anytime. Any submitted proposal will be processed by the Microfluidics Innovation Hub on behalf of the NGM.

The number of selected proposals depends on the evaluation and ranking as outlined in “[Proposal Evaluation and Selection](#)”

A total budget of EUR 1.500.000 is allocated to support projects proposed / requested by Companies.

¹ https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016_2017/annexes/h2020-wp1617-annex-g-trl_en.pdf

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 862092”.



3. Rules and Conditions

All applicants will have to abide by all general requirements described in Sections from 1 to 12 of Eligibility Criteria in order to be considered eligible for the Open Call.

Eligibility Criteria

Applicants must be Companies (SME² or LE) and fulfil all of the following criteria in order to have a project proposal evaluated for NextGenMicrofluidics support:

1. Companies must have a European identity, i.e. a significant R&D and production presence within the EU (Member States of the European Union (EU), including their overseas departments; H2020 Associated Countries including but not limited to the UK and Switzerland)
2. Companies are legally recognised (have 'legal personality') and need to have to qualify for H2020 funding;
3. The companies applying should not have had convictions for fraudulent behaviour, other financial irregularities, unethical or illegal business practices;
4. The participating companies should not have been declared bankrupt or have initiated bankruptcy procedures;
5. Companies are not under liquidation or is not an enterprise under difficulty according to the Commission Regulation No 651/2014, art. 2.18.
6. Companies are not excluded from the possibility of obtaining EU funding under the provisions of both national and EU law, or by a decision of either national or EU authority,
7. The Open Call Demonstration Case Proposal submitted for evaluation must be complete, i.e. all of the required information is provided,
8. Companies and the proposed NextGenMicrofluidics project partners must confirm their agreement with a shared understanding about the IPR issues (related to foreground and background know-how),
9. Proposals should address technologies which are currently demonstrated to be at TRL4 or higher,
10. Companies must confirm that their legal officers have an understanding about the conditions of the contract document should the Open Call Demonstration Case Project be approved for support,
11. Companies must confirm their agreement with the final content of the Innovation Project Proposal to be submitted for evaluation by the NextGenMicrofluidics representatives in accordance with the evaluation criteria.
12. Companies shall not have any actual or/and potential conflict of interest with the NextGenMicrofluidics selection process and during the whole project implementation. All cases of conflict of interest will be assessed case by case.

In case of selection for funding, official documents issued by the relevant national authorities to prove compliance with these conditions should be provided as part of the contracting process with the NextGenMicrofluidics project.

UK entities remain eligible for grants and procurement procedures as if the UK was a member state for the entirety of the Horizon 2020 framework programme.

² <https://ec.europa.eu/docsroom/documents/42921>

"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862092".



Project Duration

Projects are expected to have a duration between 6 - 12 months. Exceptions may occur if sufficiently justified, as long as the end of the project is set until the end of the NextGenMicrofluidics project.

Financial Support

Any European company may be supported. European SMEs may receive a subsidy of 75%-92% of their Open Call Demonstration Case project (EUR 5.000 cash contribution for the first EUR 60.000 of project costs and 75% subsidy for costs above EUR 60.000). Large-scale European enterprises (LE) receive a 50% subsidy based on the total project cost.

The financial support will only be used to finance services from the Consortium. The customer will not receive any financial support.

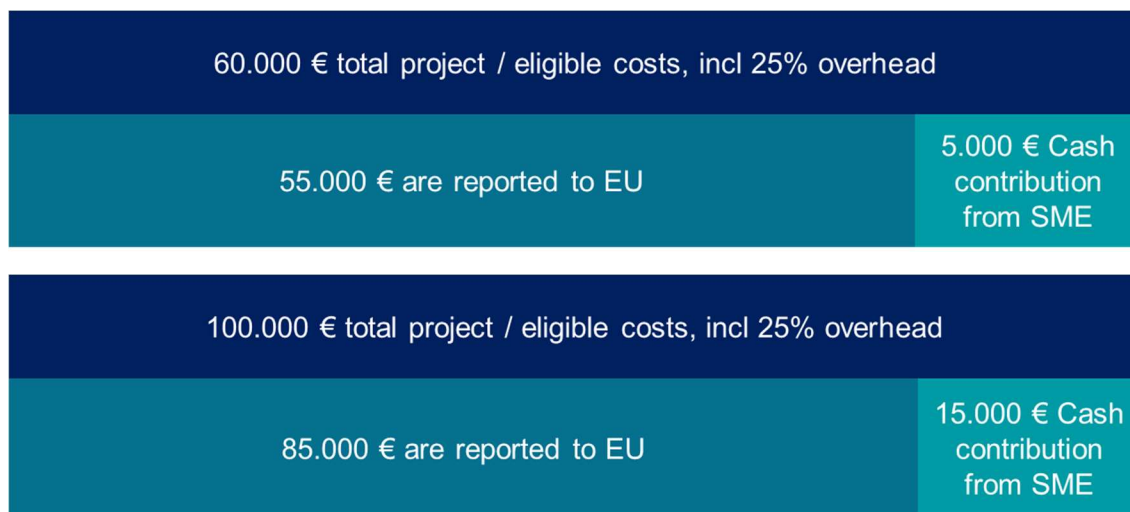


Figure 2: Examples for the budget distribution for a project for an SME of 60.000 project costs (upper scheme) as well as a 100.000 € project (lower scheme). In the 60 000 € project the applicant's cash contribution amounts 5.000 €. The contribution for a 100.000 € project consists of 5.000 € for the first 60 000 € plus another 25% of the remaining 40 000 € - summing up to a total cash contribution of 15.000 €.



Figure 3: Example for the budget distribution for a project for an LE of 100.000 project costs. The applicant's cash contribution amounts 50.000 €.

Language

English is the official language for the NextGenMicrofluidics Open Calls. The proposal must be in English in all its mandatory parts in order to be eligible. English is also the only official language during the whole length of the proposal, evaluation and contracting process. This means that all communication will be in English and all deliverables will only be accepted if in English.

"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862092".



Multiple submissions

Any company will be able to apply with as many projects as wished, but no project can be funded twice by NextGenMicrofluidics. In addition, no company may receive services valued more than 200.000 EUR from the NextGenMicrofluidics project. The rules for financial support apply cumulative, e.g.:

- 1st project, services valued at EUR 60.000: company contribution = 5.000 €
- 2nd project, services valued at EUR 60.000: company contribution = 15.000 €

Connected services

Only projects with service contributions from at least 2 partners from the Open Innovation Test Bed – OITB can be supported.

Ethical issues

NextGenMicrofluidics complies with the fundamental ethical issues particularly those outlined in the “European Code of Conduct for Research Integrity”.

All proposals have to submit a self-assessment ethics questionnaire, available in the Proposal Template, to confirm that their proposal does or does not have ethical issues.

If any of the questions in the template are answered with “Yes”, the NextGenMicrofluidics Single Entry Point (Microfluidics Innovation Hub - MIH) may check during the proposal preparation if this declaration is in line with the contents of the proposal itself and reserves itself the right to contact the companies for clarification and eventually take necessary steps depending on the ethical issues.

Data protection

NextGenMicrofluidics complies with the European policies regarding data protection and privacy. Each applicant is responsible to respect European policies regarding data protection and privacy in particular to be compliant with General Data Protection Regulation (GDPR).

All data that are involved (collected, generated, stored) or processed into an awarded project must be GDPR compliant and therefore completely anonymized beforehand. The NextGenMicrofluidics Coordinator JOANNEUM RESEARCH (JR), will act as Data Controller for data submitted on the application for these purposes. Please note that minimum information will be requested, restraining it to the minimum data needed to deliver the evaluation procedure or the activities envisaged in the proposal. Please refer to www.nextgenmicrofluidics.eu to check the NextGenMicrofluidics data privacy policy and security measures.

Other

Each applicant must ensure that:

- The Project is based on original work and any foreseen developments are free from third party rights, or they are clearly stated (assurance of freedom to operate).
- The Project is not excluded under the provisions of article 19 of Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 (ethics).

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 862092”.



4. Proposal Submission

Overall Process

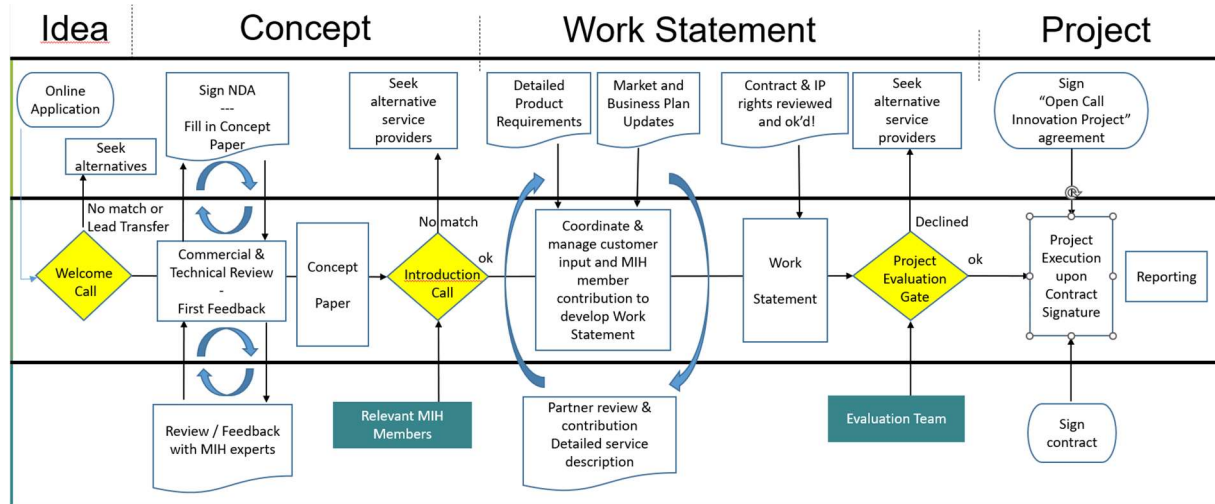


Figure 4: Process and timeline for proposal and evaluation of OCDC

1 - Registration of interest

A company must make a formal initial request for services using the online registration form on the NextGenMicrofluidics website <https://www.nextgenmicrofluidics.eu/open-call/>

2 - Single Entry Point & Business Coach

The open call in NextGenMicrofluidics will be processed by the project partner Microfluidics Innovation Hub (MIH). This partner serves as the Single Entry Point to all services of the project's service portfolio. All registrations of interest must therefore come through the MIH. All applications are assigned to a Business Coach for rapid follow-up. During a first personal call ("Welcome Call") the eligibility criteria will be checked.

3 – Concept Phase

Once qualified as a "potential" Open Call Demonstration Case (OCDC) the applicant is asked to fill in a detailed application form to clarify his need in more detail. In the course of submitting additional information an NDA shall be signed between the company and the consortium. The details of the request (product requirements, market and business case) are used to identify and appoint the most suitable technical experts from the OITB partners to enter into in-depth discussion with the company about the potential project under NDA.

Information required from a customer in regard to the product requirements (technology request) include:

- Describe your current technical solution (Microfluidic device or assay)?
- What do you want to improve? What is the microfluidic device that should be scaled up with industrial manufacturing technologies

"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862092".



- What should the requested service / technology improve? Why?
- Which service domain is required (simulation based design, assay development, (bio)functionalization, material development, mastering of structures, chip production, complete process integration)
- Specify the relevant technical data and requirements to be taken into account by the prospective partner? (e.g. temperature, pressure, dimension, biological, chemical, etc.)
- Comparison with state-of-the-art technologies where appropriate
- What is the required manufacturing throughput for a future product ramp up (how many pieces per year)
- Certification standards required

Information required from a customer in regard to the market and business case:

- Problem to be addressed
- Solution / Value Proposition / Product or Services
- Market and Competition, route to market
- Organisation and management
- Short financial planning

The outcome of the concept phase is a “Concept Paper” that includes both commercial as well as technical information from the applicant. The Concept Paper will be distributed among the MIH/NGM members for review for the upcoming “Introduction Call”. During the Introduction Call the Applicant shall introduce his case and MIH members will ask questions to understand their potential area of contribution. In case MIH members are capable and available to provide services needed to address the customers challenge all relevant parties enter into the Work Statement phase.

4 – Work Statement

All MIH/NGM partners that registered for the Applicant’s challenge will closely cooperate with the Applicant on a detailed Work Statement addressing any open questions from the Concept Phase and defining technical requirements, partner services, applicant contribution, costs and duration.

Furthermore the Applicant is asked to review the Open Call Innovation Project Agreement which covers the legal aspects of the cooperation. All open questions shall be settled prior to the Project Evaluation Gate meeting.

The final Work Statement agreed between all members and the applicant will be provided to an Evaluation Team to decide if the proposal will be finally accepted. (Project Evaluation Gate)

5 - Contract

When an OCDC is approved for support, the next step is to prepare and sign the Open Call Innovation Project agreement between all parties.

6 - Project Execution & Follow-Up

Once the contract is signed, the project commences with a formal kick-off meeting between all parties involved in the project. The MIH will coordinate partners and manage the project together with a lead partner from the NextGenMicrofluidics consortium. Furthermore the MIH stays in continuous contact for post-project follow-up on impact and to make connections with manufacturing pilot lines and Venture Capital organisations where appropriate for full commercial exploitation of the innovation.

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 862092”.



Proposal Description Language and Length

Applicants should download the Proposal Template from the Open Call website (as a Microsoft-Word file) and follow the structure provided. The proposal has to be written in English and submitted under a word format. Proposals in any other language or format will not be considered eligible.

5. Proposal Evaluation and Selection

Evaluation Team

A Jury that consists of up to 5 persons including a member of the Executive Board, 2 Technical Expert, 1 Business Expert and depending on the case a member of the Business Advice and Decision Team of the NextGenMicrofluidics project will review the Work Statement.

Not taking part in the evaluation are:

- partners involved in an Open Call demonstration case (OCDC) proposal
- Partners with a conflict of interest

The Evaluation Team may be advised by the members of the Business Advice and Decision Team (BAndT). These members would specifically evaluate the business case (market success, credibility & commitment of the company). The evaluation results of the BAndT members will be made available to the Evaluation Team and guide the final decision.

Evaluation Criteria

The selection of proposals is based on 4 evaluation criteria (all criteria are weighted):

- | | |
|--|-----|
| • Excellence of innovation | 30% |
| • Impact / Market success | 40% |
| • Quality & Excellence of implementation | 30% |

Excellence of innovation and approach (sample questions)

- Does the product solve a problem? (
- Are customers willing to pay for it?
- Is the competitive advantage reasonably sustainable?
- Does the solution already exist on the market?
- Has sufficient proof of concept been demonstrated?
- And others

Impact / Market Success (sample questions)

- Is the overall business model reasonable, well thought through and consistent?
- Is there a clear roadmap towards a successful market launch?
- Does the applicant have sufficient and sufficiently skilled resources to support development and launch of the product?
- Is the solution scalable?
- And others

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 862092”.



Quality & Excellence of implementation (sample questions):

- Are the technical requirements clearly described by all participants?
- Is the project plan solid and well thought through?
- Is the risk level well described and acceptable to all participants?
- Are the proposed NGM partners well positioned to carry out the developments?
- Are regulatory aspects addressed?

Selection & Scoring

Each evaluator scores a criterion with a value from 0 (under-performed) to 5 (excellent). The score is multiplied with the weight of each criterion and an average of all scores is calculated.

The individual average score for each criterion should be higher than 3 in 5. The overall total should be at least 3. All projects reaching this threshold can be accepted. The project start depends on capacities of partner after agreement with the customer.

0 - The information provided is definitely insufficient, hence we cannot at all rate the chance of success

1 - Poor: The criterion is addressed very weakly, we see a lot of serious weaknesses and shortcomings

2 - Fair: While the proposal broadly addresses the criterion there are still significant weaknesses

3 - Good: The proposal addresses the criterion well, although a few open topics still need more attention

4 - Very Good: Criterion are widely met, however certain improvements are still possible

5 - Excellent: All relevant aspects are sufficiently and successfully addressed, any shortcomings are minor

Half Point scores may be given.

6. Additional Information

Obligations of selected applicants

Applicants that do not submit a first draft Concept Paper within 90 days after officially applying may be set on-hold or even excluded from the process if no reasonable explanation can be provided to the MIH. Resuming the process or re-application is possible.

Each selected applicant will sign a so-called Open Call Innovation Agreement with JOANNEUM RESEARCH Forschungsgesellschaft mbH (JR), on behalf of the NextGenMicrofluidics Consortium. The services provided are partly funded from the funds of the European Project NextGenMicrofluidics and the Consortium is managing the funds according to the Grant Agreement Number 862092 signed with the European Commission.

“This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862092”.



The contract will include the set of obligations that the applicants have towards the European Commission. It is the task of the applicant to satisfy these obligations and of the Consortium partners to inform the applicants about them.

Dissemination and Promotion

In regard to promoting the action and giving visibility to the EU funding, any communication activity related to the action (including in electronic form, via social media, etc.), any publicity, including at a conference or seminar, or any type of information or promotional material (brochure, leaflet, poster, presentation, etc.) must:

- display the EU emblem and the NextGenMicrofluidics logo
- include the following text: “This project has indirectly received funding from the European Union’s Horizon 2020 research and innovation programme under project NextGenMicrofluidics (grant agreement No 862092)”

Specific guidelines for communication will be provided in the contract.

Intellectual Property Rights (IPR)

There are no IPR obligations toward the European Commission (EC). All results and IPR generated within the projects are owned by the beneficiary that generates it. The contract will introduce provisions concerning joint ownership of the results of the selected projects, if applicable. This will be assessed and negotiated case by case.

Complaints

Upon reception of the evaluation feedback, applicants will have the possibility to submit complaints to the MIH.

The complaint procedure is not meant to question the judgement made by the evaluators; it will look at procedural shortcomings and – in rare cases – factual errors.

Complaint requests must be raised within 7 working days from the date of the evaluation feedback sent by the MH. If a complaint is submitted after that deadline it will be rejected without further examination.

Complaint request must be sent by email to office@microfluidicsinnovationhub.com;

An initial reply will be sent to complainants no later than two weeks after the deadline for complaint requests. This initial reply will indicate when a definitive reply will be provided. A complaint committee may be convened to examine the peer review evaluation process for the case in question. The committee’s role is to ensure a coherent interpretation of requests and equal treatment of applicants. The complaint committee itself, however, will not re-evaluate the proposal, but it will examine the eligibility of the complaints and factual arguments and claims of the complaints. Depending on the nature of the complaint, the committee may review the evaluation report and individual comments. In the light of its review, the committee will recommend an action. Only, if there is clear evidence of a shortcoming that could affect the eventual funding decision, it is possible that all or part of the proposal will be re-evaluated.

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 862092”.

