

Guide for Applicants – INNOCHEMBIO

Version history:

Version 2 (31.07.2025)

Changelog:

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Previously: The eligibility statement and a reference letter form can be found at <https://taltech.ee/en/innochembio/application-process>

Currently: The eligibility statement form can be found at <https://taltech.ee/en/innochembio/application-process>

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Previously: For the reference letters, a specific form is downloadable on the programme webpage. If you are applying for two different positions, you have to upload two different motivation letters, respectively in the different application forms. All eligible candidates, who do not use the aforementioned reference letter form, will risk scoring less points if the provided reference letter(s) do not address our questions.

Currently: For the recommendation letters, questions are provided on the programme webpage, in order to ensure comparability of the recommendation letters. If you are applying for two different positions, you have to upload two different motivation letters. All eligible candidates, will risk scoring less points if the provided recommendation letter(s) do not address our questions.

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1. Description of the Programme

The main objective of “Innovative Chemistry and Biotechnology for a Sustainable Future” (INNOCHEMBIO) is to train future experts of sustainable chemistry and biotechnology, helping Europe to take the next steps in the green transition. It is a 48-month interdisciplinary, international and intersectoral doctoral training programme offered by Tallinn University of Technology (TalTech) and National Institute of Chemical Physics and Biophysics (NICPB) in cooperation with different academic and private sector partners, which will assist in providing secondment opportunities. During this period, the candidates will receive discipline-specific training both in Estonia and abroad by working on their research project; broader training through courses offered at TalTech and by our partners; and experience working in the private sector in the form of internships, offering candidates a comprehensive understanding of the R&D landscape. The candidates are also expected to attend conferences in order to network and present their results on an international level.

INNOCHEMBIO will achieve its objectives by offering fellowships and recruiting 15 PhD candidates. To meet the objectives of the programme, the candidates have a variety of topics to choose from. The selected PhD candidates will receive extensive training from TalTech, focusing on both their specific fields and transferable skills. Notably, several training activities will be specifically designed within INNOCHEMBIO to enhance entrepreneurship skills and knowledge on green technologies. As a result of the training, the candidates will become experts in their specific fields and can thereby reduce the environmental impact of the chemical and agricultural industries, offer eco-friendly analytical techniques, and assess the safety of new materials.

The applicants can select up to two research topics connected to specific supervisory teams with a preference order. Candidates are employed as Early Stage Researchers during their study period, meaning a salary will be guaranteed for the entire nominal duration of the doctoral programme. Applicants are evaluated and ranked based on their academic abilities, achievements and motivation according to the documents submitted to the competition. The programme applies strict equal opportunity principles for candidates’ selection and recruitment – as only academic excellence and motivation matter.

2. Description of the application process and its timeline

INNOCHEMBIO aims at recruiting the best PhD candidates in all disciplinary fields contributing to addressing the challenge of sustainability in chemistry and biotechnology. The recruitment and selection procedures will be open, transparent and merit based, without penalization for career breaks or non-linear, multi-career and hybrid paths.

The programme follows a specific schedule built according to the different stages of the application and selection process. The timeline is illustrated on Figure 1. If, and only if, some positions are not filled, INNOCHEMBIO has a back-up call planned at the start of 2026 to fill those positions.

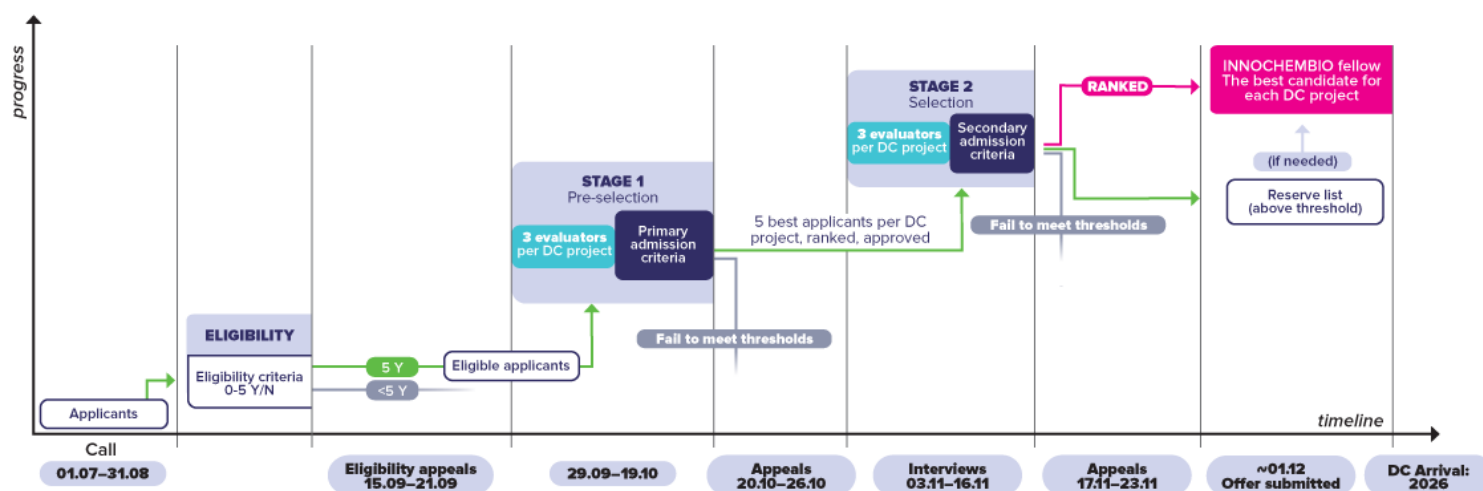


Figure 1. Timeline of the application process, (Y=yes, N=no).

Applications are accepted only through the official application platform Glowbase, <https://taltech.glowbase.com/login>. It is not possible to apply by e-mail. The candidate can submit up to 2 applications, marking also their preference order in the eligibility statement form.

All applications will first go through an eligibility check based on compliance with the INNOCHEMBIO programme and the internal rules of TalTech. The applicants will be informed of their eligibility (completeness of application file, adherence to mobility rule, research level, adherence to security requirements) by e-mail after the call closure and the revision of the submitted documents. Only eligible applicants will be evaluated at the pre-selection round (Stage 1). Independent evaluators will rank all eligible candidates for each respective position based on the information and documents provided. For each position the top 5 ranked applicants will proceed to the selection phase (stage 2). Independent evaluators will conduct interviews with these candidates, compose a final ranking based on the interviews and for each position the best candidate will receive a conditional offer to join the programme. After each step (Eligibility, Stage 1 and Stage 2), the candidates will have 1 week to submit an appeal for the corresponding step and 1 week is allocated for the processing of this appeal.

3. How to apply

Please note that the INNOCHEMBIO programme and application process has some alterations compared to TalTech's other PhD programmes and typical admissions process (<https://taltech.ee/en/phd-admission>). Notably: the requirement for additional documents and the possibility to apply to 2 positions. Read the position description carefully and include all required documents/materials with your application.

Filling in your application at Glowbase:

1. You will be asked to create an account, during this process please add your contact information which will automatically be added to your application (this can be edited before submission).
2. Fill in the missing fields in the following sections: **Questionnaire** (Including *motivation letter*), **Position** (select the positions you are applying to in order of your preference), **Research field** (Chemistry and biotechnology).
3. Under **Degrees**, respectively for both *Bachelor's* and *Master's degree*, upload both of your diplomas. (If you have completed your coursework at an institution that directly awards a

MSc degree without a BSc degree, please create and upload a document stating this and for our benefit please include a link to the corresponding study programme).

4. Under **Additional documents**: upload *your CV*, both of *your transcript of records*, *proof of English proficiency*, *Passport copy* (copy of the identification page of your passport or official Estonian identification document), *letters of recommendation*, your filled out and signed *eligibility statement*, motivation letter corresponding to your second choice (if you apply to 2 positions).
5. Check that you have everything needed. If the application has not been submitted, it can be edited, even after logging out of the system, however, after submission, the application cannot be changed. Take note: only submitted applications can be evaluated.
6. Submit your application.

The *eligibility statement form* can be found at <https://taltech.ee/en/innochembio/application-process>

All submitted documents must be high quality, easily readable files in PDF format (max 1 MB per document).

4. Eligibility criteria and selection process

Candidates that fulfil the MSCA mobility rules for Horizon Europe Work Programme 2023-2024 can apply to INNOCHEMBIO – meaning, the applicants must not have resided or carried out their main activity (work, studies, etc.) in Estonia for more than 12 months in the 3 years immediately preceding the deadline of the programme's call. Additionally, as the work will be carried out mainly in Estonia, the applicant must ensure that they are eligible for and ready to apply for a visa, if needed. It should be kept in mind that AI-generated text is not allowed in any parts of the application documents, all such documents will not be evaluated.

In order to participate in the application process and subsequently in the INNOCHEMBIO programme, the candidate must fulfil five eligibility criteria (corresponding to 5Y on Figure 1):

- 1) provide all the required documents and information by the given deadlines (see below),
- 2) adhere to the MSCA mobility rule – the candidate has not resided in Estonia more than 12 months in the 36 months prior to the deadline (31.08.2022-31.08.2025),
- 3) must hold an MSc degree (or equivalent, corresponding to an MSc degree within the EU) in an area related to the chosen research topic,
- 4) must demonstrate proficiency in English with an official language test (e.g. TOEFL or equivalent) certificate unless they have earned an English-medium higher education degree,
- 5) must not have obtained an academic degree higher than MSc.

The candidate must submit the necessary documents, which are listed in Table 1, in order to fulfil the previously listed five eligibility criteria – the documents provide the basis for the decision-making. After submission of the documents, the applicant should receive an automatically generated email acknowledging receipt of the submitted application from Glowbase. This email does not constitute validation of eligibility or selection for the programme.

Table 1. Application documents

	Document and/or information
1	CV, including all relevant information on earlier career and if applicable: list of publications, details of any Intellectual Property Rights (IPR), patents, design applications and similar, list of relevant research projects and projects' applications
2	1-page motivation letter for INNOCHEMBIO and the chosen research topic
3	(Translated to English) copies of degree certificates and transcripts of study records. NB! According to TalTech rules to finish the admission process original degree certificate and official transcript of study records or certified copies thereof must be provided.
4	Scanned copy of a valid photo identification document (national ID, passport or equivalent)
5	Contact information: e-mail address, phone number, address in country of residence
6	Recommendation letters from one supervisor and one professor/lecturer
7	Filled out eligibility statement form

The CV must present the academic achievements of the candidate, focusing on relevant parameters like list of publications, patents, etc., participation in relevant research projects and applications, etc. As the information in the CV is used for several evaluation criteria, it is advised to bring out all relevant science-related pursuits. More points will be awarded to those candidates that show activism in R&D or science-related activities. For the recommendation letters, questions are provided on the programme webpage, in order to ensure comparability of the recommendation letters. If you are applying for two different positions, you have to upload two different motivation letters. All eligible candidates, will risk scoring less points if the provided recommendation letter(s) do not address our questions. As INNOCHEMBIO aims to recruit the top candidates, there are thresholds for some application criteria – these are described in description of the evaluation stages.

By signing the eligibility statement form, the candidate confirms the information provided is accurate. Providing false information will result in the application being automatically rejected.

After passing the presented conditions, the candidate will proceed to the pre-selection stage.

During stage 1 and 2 the criteria will be scored on the following scale (half-marks are allowed): 0 – Fail, 1 – Poor, 2 – Fair, 3 – Good, 4 – Very Good, 5 – Excellent. However, the criteria will have different weights towards the final score.

Stage 1, the pre-selection phase: an evaluation panel consisting of three independent experts will evaluate the applications and establish a ranking – each expert will do an independent review leading to a final mark of up to 100. The final score will be the average score among the panel. As a result, up to 5 best applicants are selected for further evaluation for each research position in Stage 2.

The motivation letter must not exceed one A4 page. In case the candidate is applying for two positions, they must submit two different motivation letters, to which the same conditions apply.

The criteria for the assessment during the pre-selection phase (Stage 1) with the respective thresholds are presented in Table 2.

Table 2. Primary admission criteria

	Criterion	Subcategories (and points awarded) and explanations	Subscore	Multiplier	Total points
1	Study record	0-5: the average grade of MSc or equivalent studies (<i>threshold: 3</i>) 0-5: the grade of MSc thesis, final exam or equivalent (<i>threshold: 3</i>)	0 – 10	3	30
2	Relevant professional experience	0-5: Relevant practical experience in the field related to the chosen topic 0-5: Participation in scientific projects, teaching/supervision experience 0-5: Scientific publication record (as author or co-author), evaluated by quality, quantity, and contribution; number of pending or awarded patents and similar IPR; oral presentations and posters in scientific conferences, seminars, etc	0 – 15	2	30
3	Motivation	Motivation letter's relevancy with the selected research topic (<i>threshold: 3</i>)	0 – 5	4	20
4	Further education	Participation in advanced courses, seminars, summer schools, and experience abroad (additional points)	0 – 5	1	5
5	Recommendations	Evaluations from one supervisor and one professor/lecturer	0 – 5	2	10
6	Activism	Involvement in non-academic science activities (e.g., science popularization).	0 – 5	1	5
		TOTAL	100		

As stated in Table 2, in study record, both the average grade of MSc or equivalent studies as well as the grade of MSc thesis (both used as averages), final exam or equivalent need to have a value of 3 or higher on a 5-point scale (this corresponds to 60% of the maximum obtained mark). The motivation letter must also obtain an evaluation of 3 or higher and must show motivation towards the specific PhD project and demonstrate interest in the working group and its subjects. This means, that it must be topic-specific, not general and vague – the applicant must demonstrate a clear interest towards the specific topic they are applying for. Applicants who fail to meet this requirement will not be ranked. Under relevant professional experience the candidate is expected to describe their practical experience, participation in projects, teaching, scientific publication record, etc. Examples also include, but are not limited to, organizing workshops or preparatory courses for science competitions, conferences etc. On the [website](#) of the programme there is a list of questions that must be addressed in the recommendation letters. If the recommendation letter does not include answers to those questions, it will not be awarded maximum points.

Following the evaluation in Stage 1, by the end of October 2025, each applicant will receive an email from the Research Administration Office informing them of the outcome of their evaluation (retained, reserve list, proceed), notably their ranking position for their chosen research topics and the decision about advancing to Stage 2. Based on expert evaluations, the average score of each primary or secondary admission criteria category and the applicant's rank will be communicated to the applicant. If not ranked or eligible, then the reason will be provided.

Stage 2, the selection, is carried out as an interview via videoconference. The selected candidates are expected to prepare a 10-minute presentation that describes their vision and general plan for the successful completion of the project. This is followed by a Q&A session by the interview panel, consisting of three experts and an HR representative (who will observe that a correct procedure is followed but will not participate in the evaluation).

Each applicant must complete the ethics self-assessment questionnaire (found on the INNOCHEMBIO [website](#)) and submit it for inspection before the interview.

Each interview panel will prepare a list of common questions that will be asked to each applicant to ensure equal treatment. Additional questions may arise from the presentation and interview. If needed, the ethics self-assessment questionnaire will also be discussed. The panels will evaluate each interviewed applicant based on the secondary criteria and establish the final ranking for that position. More detailed instructions on this step will be sent to those candidates selected for the interview.

The *secondary admission criteria* of the recruitment include:

- Background knowledge of biosciences, chemistry, or physics at the academic level,
- Specific knowledge of and experience in the fields relevant to the chosen topic,
- Motivation and vision expressed for the chosen topic.

Table 3. Secondary admission criteria description

	Criterion	Subscore	Multiplier	Points
1	Background knowledge of biosciences, chemistry, or physics at the academic level	0 – 5	6	0 – 30
2	Specific knowledge of and experience in the fields relevant to the chosen topic	0 – 5	7	0 – 35
3	Motivation and vision expressed for the chosen topic	0 – 5	7	0 – 35
	TOTAL	100 (threshold: 60)		

Each member of the Interview Panel will provide an assessment on a scale of up to 100. A ranking will be established with the average mark and the best candidates will be selected from this list. The final ranking after the interviews will be established by a consensus meeting of the evaluators, and the best applicant will be offered a position, which will be communicated via e-mail by the Research Administration Office. The applicants will receive short individual feedback from the evaluators, justifying their decision.

Stage 2 will have an overall threshold of 60 points, if an applicant's total score is lower than the threshold, then the applicant will not be ranked and thus will not receive an offer (only ranked applicants can receive an offer). Ranked applicants will be placed on the reserve list.

In the beginning of December 2025, the highest-ranking applicants will receive a conditional offer letter for admission into the INNOCHEMBIO programme (response time 2 weeks), the other applicants with scores above threshold values will be placed on the reserve list. In case an applicant has declined our conditional offer, the offer will be made to the next highest ranked applicant on the reserve list.

5. After receiving PhD position offer

We kindly ask you to respond to the offer within two weeks. Failure to reply within the given timeframe will be taken as a rejection of the offer.

Importantly, after you have confirmed your acceptance of the offer, you will be asked to provide certified true copies (and certified translations to English, if the original document has not been issued in English) of your academic qualification documents. In some cases—generally for EU countries—electronic copies may be accepted. However, in most cases (typically for non-EU countries), physical documents must be sent to TalTech. This depends on the procedures of both the applicant's alma mater and TalTech. Please note that the 'letter of acceptance' cannot be issued without these documents, so all applicants must be prepared to complete this process.

As this step and the next steps do not have significant alterations to our typical admission process, you can get more details here: <https://taltech.ee/en/phd-admission>. You can also find requirements for certified true copies on the page.

6. Appeals

After every step of the application procedure, applicants will receive feedback on their application and have a 7-day period for that specific step to submit a justified appeal by contacting the INNOCHEMBIO Management Board by [email](#) and sending a filled form. The redress procedure will be used to address procedural and administrative errors, but not to question the evaluation panel's decisions, ratings, or comments, unless you can demonstrate that they have made factual errors.

The applicant whose application has been evaluated as ineligible must justify their request and specify the point(s) they wish to be addressed or clarified. It should be kept in mind that only those applications will be re-assessed with clear evidence of a factual shortcoming in application evaluation and only regarding that shortcoming. An appeal form will be downloadable from the INNOCHEMBIO website by the end of the call. Appeals will be resolved within 7 days of the appeal submission deadline.

7. Appointment conditions for selected doctoral researchers

Work contract and salary

The selected Doctoral Candidate (DC) will be offered a four-year (48-month), fixed-term, full-time employment contract by either TalTech or NICPB, starting at the latest by June 2026, in the position of Early Stage Researcher (ESR). The gross monthly salary will be €2500, paid on the last working day of each month.

The employment contract is based on a 40-hour work week, providing ESRs with flexibility in planning their working hours.

ESRs participating in the programme will be subject to the same social security regulations that apply to all employees in Estonia.

ESRs are expected to complete their PhD degree within four years of full-time study/work. Accordingly, non-EU citizens will be granted a residence permit for the full duration of the programme (four years).

There are no tuition fees for doctoral studies. Research costs are covered by the programme.

Each DC will receive a relocation allowance of €3587 to assist the relocation process. This is an add on to the gross salary and will be taxed accordingly.

Additionally, each DC will receive a mobility allowance (long-term) to carry out the secondment to their co-supervisor's lab and funding for short-term mobility (i.e. conference attendance).

Responsibilities of the doctoral researchers in the programme

ESRs have the same rights and obligations as all employees of TalTech or NICPB. In addition to being committed to completing a PhD within four years, ESRs must adhere to the [Regulations of Tallinn University of Technology for Doctoral Studies](#) and additionally fully participate in all activities associated with the INNOCHEMBIO programme.

The doctoral study programme at TalTech includes 30 ECTS of coursework: 12 ECTS in transferable skills and 18 ECTS in professional proficiency ([study plan](#)). In addition, the INNOCHEMBIO programme includes compulsory training in leadership and team management, research ethics, IPR, and business strategies, among others. ESRs are also expected to participate in annual workshops where they present their research progress.

All ESRs will engage directly with the private sector and are required to complete at least a short-term internship at a company related to their research. Furthermore, each ESR will spend 6 to 16 months in the laboratory of their international co-supervisor (outside Estonia). Participation in at least one international scientific conference per year is also expected (with the use of short-term mobility allowance).

Each ESR must write and defend a doctoral thesis based on three peer-reviewed scientific articles published in ISI-indexed journals. If one of these articles is of high impact and the ESR is the first author, permission may be granted to defend the thesis with only two publications. In any case, the ESR must be the first author on at least one article.

Together with their supervisors, ESRs will develop an individual Career Development Plan (CDP) at the beginning of the project. Progress toward the CDP will be evaluated annually through attestations. A committee appointed by the Dean will review the ESR's academic and research achievements, future plans, and participation in all required activities, including internships, travels, seminars, and coursework. Based on this review, the committee will provide feedback and recommendations for updating the CDP.

8. Expectations for the candidates

In general, the expectations for successful candidates are the same as for regular admissions at TalTech. However, there are some additional conditions:

- The critical requirement for the application is the eligibility of obtaining a visa, as the research will be carried out in Estonia.
- The candidates are asked not to contact the supervisors directly prior to being admitted to INNOCHEMBIO.
- The project must comply with the following open science requirements. However, depending on the topics, the condition of “as open as possible, as closed as necessary” will prevail. There is also an obligation of creating a Data Management Plan (DMP) for all projects that generate or reuse data, to be established at the start of the project.

9. Communication of results

After the completion of the evaluation procedure, details about the participation activity will be uploaded on the INNOCHEMBIO website. Data will be presented anonymously, showing the number of applicants, average scores and statistics.

10. Contact

The INNOCHEMBIO webpage is the main source of information about the programme. Please visit <https://taltech.ee/en/innochembio> for more information. You can refer to the <https://taltech.ee/en/innochembio/faq> page or contact the team via innochembio@taltech.ee.

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