

T.I.M.E. Projects 2023-2024



Top International
Managers in Engineering

Application Form

Deadline for submission: **January 19th, 2024**

Please submit the completed form to: **gwenaelle.guillerm@time-association.org**

Applications must be submitted by e-mail only. You are required to attach a scanned copy of a Letter of Support signed by the Head of your Institution.

Please remember that T.I.M.E. promotes international cooperation and therefore only applications from consortia of at least three T.I.M.E. members in three different countries can be accepted.

You will be notified of the results of the selection after the Advisory Committee meeting on **February 2023**. Projects run from February 2023 to January 2024.

Title of Project	
T.I.M.E International Specialization in Industrial & System Engineering	
Acronym (if any)	
SIE (pronounced 'easy')	
Details of the Applicant	
Name of Institution(s)	Polytechnique Montréal (PolyMTL) Instituto Superior Técnico Lisboa (IST) Lunds Universitet (LTH) Universidade de Sao Paulo (USP)
Faculty/Department/Office	Polytechnique Montréal International (POINT) Department of Mathematics and Industrial Engineering
Contact Person/s and Details	Julie Defretin and Delphine Julien Strategic Advisors, Polytechnique Montréal International point@polymtl.ca
Summary of the Project (max. 2000 characters)	
<p>Providing students with a solid international experience to help them develop the skills and abilities necessary for their future professional and personal life is at the centre of our universities' training and student mobility initiatives. Since 2019, bilateral exchange agreements between Polytechnique Montréal, Instituto Superior Técnico Lisboa, Lunds Universitet and Universidade de São Paulo have allowed close to 100 students to spend a semester abroad and draw the benefits of international mobility. Exchanges between our four universities show a particular trend for exchanges within industrial engineering programmes. This reciprocity in a specific field of engineering led us to propose the creation of an innovative programme with the aims of 1) promoting student mobility; 2) encouraging links between students and the industry; and 3) strengthening university partnerships within the T.I.M.E network.</p> <p>With partners located on both sides of the Atlantic and representing the North & South of each continent, PolyMTL, IST, LTH & USP propose to create a 2-semester International Specialization in Industrial Engineering (ISIE) consisting in an international mobility, as well as an industrial engineering hackathon.</p>	

Students will have the opportunity to complete 2 semesters in 2 of the consortium's universities, following a programme built on each partner's specialization in the field of industrial engineering. In addition, a 2-day Industrial Engineering Hackathon will be set up, bringing together ISIE students for a hybrid-mode event supervised by academic coordinators. We aim to have an industrial partner sponsor this event and propose a capstone project, allowing students to work collaboratively on an industrial challenge and devise an innovative solution for a real-world problem. This gives students a chance to bring their inter-cultural, leadership and management skills alive and get real industry feedback on their proposal in a 'safe space'.

To ensure the success of the ISIE programme, we aim to organize several virtual coordination meetings, and at least one in-person meeting, for which we request T.I.M.E financial support.

Reason for applying for T.I.M.E. funding (max. 2000 characters)

In compliance with T.I.M.E.'s mission and key objectives, this project will support student mobility through a short, structured study programme, as well as encourage academic-industry links via the promotion of industrial engineering specializations and an industrial engineering hackathon event. This will strengthen and complement students' academic training with both an industrial and intercultural experience.

Coordinating the setup of this programme requires:

- setting up complementary curriculum in each partner institutions;
- designing the content of the hackathon and the preparation of each partner universities' team;
- preparing recruitment and communication material.

If classical student mobility between our institutions is active and working well, collaboration between our faculties, for research or academic activities, is still limited. To ensure its success, we think that strengthening the links between the academic coordinators of the programme is essential. The costs of travel due to the distance and the different time zones of our four locations are additional challenges. Consequently, we are applying for T.I.M.E funding to:

- organize a 2-day working session, involving representatives from each partner university to finalize the set up of the ISIE programme;
- create communication and recruitment material for the promotion of the ISIE programme.

Expected outputs of the project

With T.I.M.E funding, we will be able to promote international education through the setting up of an opportunity combining classical mobility with more innovative components such as an international collaborative learning event and real-world industrial challenges. T.I.M.E.'s funding will hence contribute to the creation of a programme that brings existing student mobility exchanges further and make them more attractive, relevant and comprehensive.

Promotes the role and benefits of international education:

- The creation and promotion of a new targeted mobility programme between four members of T.I.M.E Association, with its own webpage and promotional material to be launched for AY25-26
- The elaboration and promotion of an offer of English-taught courses in industrial engineering in each of the four participating universities, offering different specializations (e.g. Production and Logistics at PolyMTL; Information Systems and Optimization at IST; Sustainable Production and Materials Engineering at LTH; or Applied Design at USP).

Favours international cooperation and impact:

- Coordination of a sustained mobility programme between 4 T.I.M.E members, across 2 continents, and clarification of course equivalences for transfer of credits
- New opportunities for collaboration among professors of respective industrial engineering departments

Contributes to T.I.M.E.'s visibility and attractiveness:

- The creation of a new programme under the T.I.M.E umbrella. The delivery of a T.I.M.E certificate will recognize the students' completion of this targeted mobility
- New collaborations with industry: we aim to approach industrial partners to sponsor the industrial engineering hackathon and propose a capstone project. This would be an innovative way for T.I.M.E. Association to engage with industrial partners.

Target group/s and expected impact

For students: The target groups are students in their final years of an industrial engineering degree (Master's level at IST and LTH, 4th year at PolyMTL, 4-5th year USP). When the programme is launched, we aim for a cohort of 20 students (5 from each partner institution). These students will be offered a **wider and more comprehensive choice of specializations** across four countries and 2 continents. Studying in at least two different institutions, the students will develop their academic training, their network, as well as their soft skills such as inter-cultural skills, adaptability or language skills. Additional activities, including the engineering hackathon will bring them hands-on opportunities on real-life industrial challenges. Focus will be put on designing solutions which respond to all stakeholders' needs (including societal or environmental ones) and which mitigate negative impacts of production. Ultimately, we think this will help develop them into well-prepared and well-rounded graduates and engineers, able to work collaboratively on the global labour market.

For the participating institutions: At the institutional level, the ISIE programme will **strengthen the partnership between four T.I.M.E member institutions** by stimulating additional and more targeted student mobility. We also see it as an opportunity to encourage academic collaborations and links between our institutions in the field of industrial engineering.

For T.I.M.E Association: This programme could **increase visibility and foster valuable contacts with industry** for our students' career development, as well as for our institutions, and for T.I.M.E Association as a whole. We therefore think it is aligned with the T.I.M.E objectives of promoting the benefits of international education, as well as strengthening academic-industrial partnerships.

For partner industries: As a first step, we will contact private companies which already partner with our professors, offering them this new opportunity to strengthen their collaboration with our institutions. They will gain access to international senior students from four different institutions (**recruitment opportunities**) and will be able to submit an industrial challenge of their choice to be addressed during the engineering hackathon.

Sustainability of the programme

The ISIE programme is built on the solid foundations of the current student exchanges between our 4 institutions, ensuring a good long-term sustainability for the programme. We see the initial coordination for the preparation and launch of the programme as the challenging phase, reason why we seek support from T.I.M.E. After this initial phase, the continuation of the programme should be ensured by the following elements:

- The offer of English-taught courses in industrial engineering in each partner institution, with the corresponding specializations, will be already defined. Their update will follow usual internal process and will then be communicated to the other partners;
- Contacts between the academic coordinators will be maintained by an annual coordination meeting, which will be organized in a in-person or virtual mode;
- We plan to continue approaching industrial partners to contribute to the programme by sponsoring the ISIE hackathon, thus ensuring some funding for the programme.

It could also be envisaged, following this pilot phase, to add new T.I.M.E members to the consortium to offer additional specializations and destinations to the students within the ISIE programme.

We think that the flexibility of the programme, its pre-existing core pillars (the classical mobility between our institutions), and its relatively low costs are all assets in terms of sustainability of the programme.

Specific deliverables

- 1) Creation of a new quadripartite mobility programme in industrial engineering with a T.I.M.E. label;
- 2) Creation of a webpage for the programme detailing the industrial capstone project studied during the ISIE hackathon and highlighting the innovative solutions proposed by the participating students, as well as articles on other ISIE activities (industrial visits, networking events, etc.). This will also serve as a showcase for the ISIE programme and the participating students in the long term;
- 3) In addition to the planned reports to be submitted to T.I.M.E, an annual assessment will be prepared at the end of each academic year with the following information and quantitative and qualitative indicators to evaluate the success of this new offer:
 - financial reporting;
 - the number of participants and the impact it had on the mobility exchanges between the 4 institutions of the consortium;
 - the completion rate of students taking part in the ISIE programme;
 - the results of a survey among participating students and their level of satisfaction;
 - industrial partners' feedback and their level of satisfaction.

Total duration of the project

The project will start in February 2024 and end in January 2025. Below is a preview of the project's milestones:

February to May 2024 - Planning and internal preparation

- Nomination of an academic coordinator in each partner
- First meeting of the ISIE consortium (online) and approval of the coordination meetings calendar, including for the in-person meeting
- Preparation of a list of courses to be proposed for the ISIE programme in each university for AY 2025-2026
- Start process to identify and approach potential industry sponsor for the hackathon

June 2024 – In-person coordination meeting (2 days)

- Finalization of the list of courses to be proposed for the ISIE programme according to each partner's specialization
- Meeting with the industrial partner and presentation of the industrial challenge to be proposed at the ISIE hackathon
- Coordinated preparation of the ISIE hackathon and of the preparation of each partner's team
- Finalization of the administrative coordination of the programme.

July to September 2024 – Finalization of the ISIE programme

- Finalization of the ISIE programme component (list of courses, specializations, hackathon, team set up, etc.)
- ISIE consortium coordination meeting (online)
- Elaboration of the communication and promotion material for the recruitment of the first cohort of students

October 2024 – In-person coordination meeting (1/2 day) & Official launch of the programme

- Follow-up on the coordination of the programme and next steps
- Official launch of ISIE programme at PolyMTL (21 October) in parallel to the T.I.M.E Study Fair and info session for students and other T.I.M.E members

October to January 2025 – Launch of the ISIE programme

- Promotion of the ISIE programme and recruitment of students in each partner universities. The nomination deadline will follow those of the classical exchange programme. The objective for the 1st cohort AY25-26 is 20 students (5 per partner university)

<ul style="list-style-type: none"> • ISIE consortium coordination meeting (online)
Reporting calendar: <ul style="list-style-type: none"> • June 2024: T.I.M.E. Interim report • October 2024: Report to the T.I.M.E General Assembly in Montreal • January 2025: Final report to the T.I.M.E Advisory Committee • June 2025: First annual ISIE programme report
Planned budget
<u>T.I.M.E Budget</u> EUR 3'000: Return flights for 1 representative per partner institution for the in-person meeting (3 x EUR 1'000) EUR 2'000: Travel expenses for 1 representative per partner institution for the in-person meeting (hotel, per diem) EUR 1,500: Organization of the in-person meeting for the hosting partner (venue, catering for 8-10 participants, 2 days) EUR 1'000: Communication and promotion material for the ISIE programme ((graphic design, webpage, brochure, photographer & printing costs)
<u>Consortium partners' contributions</u> EUR 3'000: Return flights for 1 additional representative per partner institution for the in-person meeting (3 x EUR 1'000) EUR 2'000: Travel expenses for 1 additional representative per partner institution for the in-person meeting (hotel, per diem)
Staff costs and the general running costs of the ISIE programme will be covered by the participating institutions
TOTAL: EUR 13'500
Requested financial support from T.I.M.E.
EUR 7'500
Other sources of funding
None for this initial setting-up phase but once the ISIE programme launched, we plan to seek additional funding from industrial partners to: <ul style="list-style-type: none"> • Reward the best innovative solution proposed by a partners' team in the ISIE hackathon. • Grant additional scholarships to participating students to help cover specific mobility costs, including in-person participation to the engineering hackathon;
Members of the consortium
1. Polytechnique Montréal (PolyMTL) – Project leader 2. Instituto Superior Técnico Lisboa (IST) 3. Lunds Universitet (LTH) 4. Universidade de São Paulo (USP)
Key Staff (Name, Position, E-mail)
Polytechnique Montréal (Canada) Fabiano ARMELLINI, Full Professor, fabiano.armellini@polymtl.ca Julie DEFRETIN, Strategic Advisor – Internationalisation (Europe), julie.defretin@polymtl.ca Delphine JULEN, Strategic Advisor – Internationalisation, delphine.julen@polymtl.ca
Instituto Superior Técnico Lisboa (Portugal) Maria Isabel CRAVEIRO PEDRO, Assistant Professor, ipedro@tecnico.ulisboa.pt Denise MATOS, Coordinator of the International Affairs Area, denise.matos@tecnico.ulisboa.pt Susana SANTANA, Joint Programmes Officer, susanasantana@tecnico.ulisboa.pt

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Emelie Stenborg, Head International Office LTH, emelie.stenborg@lth.lu.se

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Universidade de São Paulo (Brazil)

Eduardo de SENZI ZANCUL, Professor, ezancul@usp.br

Marcelo Augusto LEAL ALVES, Professor and T.I.M.E Coordinator, malalves@usp.br

Check List

· ***Attach a signed Letter of Support from the Head of the Applicant Institution*** ·

Send this form and supporting documents by e-mail only to:

gwenaelle.guillerme@time-association.org

THE DEADLINE FOR THE SUBMISSION OF APPLICATIONS IS [JANUARY 19th 2024](#)

Montreal, January 16th, 2024

Letter of support for the T.I.M.E Call for Projects 2024

Dear Members of the T.I.M.E Association Advisory Committee,

It is our pleasure to confirm that Polytechnique Montréal fully supports the proposal submitted to the T.I.M.E. Call for Projects 2024 called:

'T.I.M.E International Specialization in Industrial & System Engineering (ISIE)'

If funded, the project will be coordinated by Polytechnique Montréal International, in collaboration with the Department of Mathematical and Industrial Engineering. Prof. Fabiano Armellini will serve as Academic Coordinator.

The consortium for this project proposal includes four T.I.M.E members institutions, namely Polytechnique Montréal (Canada), Instituto Superior Técnico Lisboa (Portugal), Lunds Universitet (Sweden), and Universidade de São Paulo (Brazil), representing two continents, complementary expertise in industrial engineering and thus the opportunity for rich academic and intercultural exchanges.

With the objectives of promoting student mobility and offering an academy-industry experience to our students, we are convinced that this project will contribute to the strengthening of our future engineers' education and training.

We thank you for your kind attention.

Best regards,



2024-01-18

Maud Cohen

President

Polytechnique Montréal



2024-01-17

Yuvin Adnarain Chinniah

Director

Department of Mathematical and Industrial
Engineering, Polytechnique Montréal



T.I.M.E. Call for Projects 2024_2025

Application Review Form

Project applications are assessed on their own merits, and may or may not be accepted by the Advisory Committee. Your role is vital, as it gives guidelines to the A.C. in making its decisions. Please assess each application anonymously, against the criteria stated in the Call for Projects and restated below. You are reminded of the overall priorities (key objectives):

- Promotion of international education's role and benefits to higher education institutions, students, researchers, teaching staff, and companies;
- Strengthening academy-industry partnerships;
- Short study¹ (**Summer school** proposals are eligible for T.I.M.E. funding if they involve a partnership between EU and non-EU members, or if the Project coordinator of the summer school is a non-EU member) **and research programs:**

There are five specific criteria for assessment. Please grade each criterion on a scale from 0 to 4, as follows: 0 – poor; 1 – weak; 2 –average; 3 – good; 4 – very good. The aggregate of the grades you assign will give an overall grade out of 20.

Thank you once again for offering your help with this process. The reviews are anonymous and you should not write your name on the form. Once you have finished both assessments, please date and send them in PDF format by e-mail to:

gwenaelle.guillerme@time-association.org

Project Title: [T.I.M.E International Specialization in Industrial & System Engineering](#)

Coordinating Institution (Applicant): Polytechnique Montréal (PolyMTL)

Grading

1. Quality of international cooperation and impact:

Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s:

2. Contribution to the visibility and attractiveness of T.I.M.E.:

Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s :

3. Contribution to the key T.I.M.E. priorities (see above):
Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s

4. Originality and innovative approach:
Grade (out of 4) 3 (from 0: poor to 4: very good)

Comment/s

5. Quality of work plan, agenda and feasibility:
Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s

Aggregate Grade (out of 20) 19

Recommendations (if any): This proposal is well-defined and consistent with the objectives of the TIME association. The budget is reasonable, and the proposed timeline is feasible.

Date: 9 February 2024

Please scan this completed form and return it (e-mail only) **no later than February 9^h 2024 at 8 p.m. Paris time (GMT+1)** to:

gwenaelle.guillerme@time-association.org

THANK YOU FOR YOUR HELP !

Reminder: The assessment process is anonymous. Do not put your name, and not inform anyone else that you have reviewed this project. Strictly confidential.

Advice: Please assess the project on its own merits. In all cases, refer to the key objectives (overall priorities) mentioned above on Page 1.

Information: The T.I.M.E. Advisory Committee, meeting on February 29th next, will decide, based on your assessments, which projects (if any) to fund. You will be informed of the outcomes of the selection process thereafter.

Gwenaëlle GUILLERME
Secretary General – T.I.M.E. Association
January 20th 2024.



T.I.M.E. Call for Projects 2024_2025

Application Review Form

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- **Promotion of international education's role and benefits to higher education institutions, students, researchers, teaching staff, and companies;**
- **Strengthening academy-industry partnerships;**
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Thank you once again for offering your help with this process. The reviews are anonymous and you should not write your name on the form. Once you have finished both assessments, please date and send them in PDF format by e-mail to:

gwenaelle.guillerme@time-association.org

Project Title: T.I.M.E International Specialization in Industrial & System Engineering (ISIE)

Coordinating Institution (Applicant): Polytechnique Montréal (PolyMTL)

Grading

- 1. Quality of international cooperation and impact:
Grade (out of 4) **4** (from 0: poor to 4: very good)**

Comment/s: The project exemplifies exceptional international cooperation, bringing together institutions from across continents to enhance student mobility and intercultural competence. Its comprehensive approach to integrating academic excellence with real-world industrial challenges through a hackathon is innovative and likely to have a significant

positive impact on the global engineering community. Hopefully, the program that is to be designed will embed a challenge-based approach as well.

2. Contribution to the visibility and attractiveness of T.I.M.E.:

Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s : This initiative substantially contributes to the visibility and attractiveness of T.I.M.E by creating a unique specialization that spans continents. The inclusion of an industrial engineering hackathon and partnerships with industry leaders are particularly commendable for promoting T.I.M.E. as a pioneer in international engineering education.

3. Contribution to the key T.I.M.E. priorities (see above):

Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s: The proposal aligns perfectly with T.I.M.E.'s priorities of promoting student mobility, encouraging academic-industry links, and enhancing international education. Its focus on sustainable and innovative engineering solutions further underscores its relevance to current global challenges.

4. Originality and innovative approach:

Grade (out of 4) 4 (from 0: poor to 4: very good)

Comment/s: The proposed program's structure, featuring two semesters of international study followed by a collaborative hackathon, is a novel approach that enhances traditional mobility schemes. It fosters creativity and practical skills, setting a new standard for international engineering programs.

5. Quality of work plan, agenda and feasibility:

Grade (out of 4) 3 (from 0: poor to 4: very good)

Comment/s: The work plan is detailed, with clear milestones and a realistic timeline. It is not clear if the hackathon is to be organized within the timeframe of this project. The detailed schedule provided in the document focuses on the planning phases, the official launch of the program, and coordination meetings without explicitly mentioning the exact timing of the hackathon event itself.

Aggregate Grade (out of 20) 19

Recommendations (if any): To enhance the learning and teaching approach of the T.I.M.E International Specialization in Industrial & System Engineering (ISIE) program, adopting challenge-based education could significantly enrich the educational experience. Challenge-based education is a collaborative learning experience in which students engage with real-world problems and work towards implementing solutions. This approach aligns well with the program's objectives, especially considering the inclusion of an industrial engineering hackathon, which is already a step in this direction.

Date:

Please scan this completed form and return it (e-mail only) no later than February 9^h 2024 at 8 p.m. Paris time (GMT+1) to:

THANK YOU FOR YOUR HELP !

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Advice: Please assess the project on its own merits. In all cases, refer to the key objectives (overall priorities) mentioned above on Page 1.

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Gwenaëlle GUILLERME
Secretary General – T.I.M.E. Association
January 20th 2024.