FORTHEM Innovative Shared Tutored Projects Concept

1. The Concept

FORTHEM Innovative Shared Tutored Projects Concept is an innovative form of international virtual collaboration involving a group of students from any given degrees in two or possibly more FORTHEM partner universities. Some form of tutored projects can already be found in courses in most of FORTHEM partner universities. They are often part of a practice-oriented, learning by doing approach aiming to accompany students in the implementation of acquired skills and knowledge, applied to a particular project. The principle of a tutored project is that students define and/or carry out a project on a specific topic (proposed or validated by their course supervisors) which involves the joint conception and realization of a set or interconnected tasks, leading to a final result, over a given time-span, usually several weeks or months. The result may be a professional deliverable, for example when students work with an external "client", such as a company, under the supervision of a member of the university staff, or a piece of academic work, for example designing a practical scientific experiment. Projects may be disciplinary or multi-disciplinary. The students work together in a team, generally with assigned roles which may correspond to particular skills they have or wish to develop, and often regular time-slots are set aside in their timetable to allow them to work together on their project. They may work semi-autonomously as a group, but are supervised from start to finish by a member of their course staff, who is available to give guidance, who will validate certain key stages of the project and who will play a role in relations with external partners and in evaluation.

The FORTHEM Innovative Shared Tutored Projects Concept proposes to make this practice international through virtual exchanges within the FORTHEM Alliance. The projects will be shared in the sense that they will be conducted jointly and simultaneously by two or more partners of the FORTHEM Alliance, with supervisors in both universities. All levels of integration are possible: from the highest (mixed groups across universities) to the lowest (sharing tasks within selected projects between different sites).

These shared tutored projects are not identified *per se* in the FORTHEM general project description but are directly related to some of the goals addressed within the WP 3 (FORTHEM Digital Academy) and WP4 (Innovative Mobility Structures).

2. Objectives

The Innovative Shared Tutored Projects have the following objectives:

- ⇨ to pool academic expertise and to share best practices in pedagogy on specific topics
- ⇨ to increase sustainable cooperation, virtual mobility and networking for students and staff members

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- ⇨ to increase student and staff mobility (physical and/or virtual). These tutored projects will be a way to reach the numeric goal of 50 % student mobility within the alliance by 2025.
- ⇨ to give students practical experience of applying their skills and knowledge in their area of scientific expertise, to encourage them to develop new skills through contact with students and teaching frameworks from partner universities, to give them practical experience of the project management approach and to help them gain autonomy in a multicultural scientific and pedagogical context.
- ⇨ to improve communication skills in international settings, involving:
    - language/translanguaging skills (see below)
    - digital communication skills through the use of appropriate online work tools and platforms
    - intercultural skills by working in team with an international group and taking part to a virtual professional exchange with people coming from different national backgrounds.

3. Languages and digital communication

From September 2020, the FORTHEM Digital Academy will allow staff and students to connect easily via their own university's Moodle interface, integrating Teams for chat and videoconferencing functions, as well as working collaboratively on shared documents. The interface will give access to several linguistic mediation tools, including automated subtitling and automated translation, theoretically allowing all students to communicate in their native languages and to benefit from translations into English or their native tongue of what their international partners are saying. The projects will thus allow for a whole range of translanguaging practices: use of native languages, partner languages, English or another vehicular language, plus automated translation tools to help students get by and make themselves understood, even if they do not themselves have developed foreign language skills.

4. Time, Duration and Frequency

FORTHEM Innovative Shared Tutored Projects Concept could be semester-long or year-long student projects, with the possibility for longer-term projects to be broken down into semester or year-long work packages. The duration would generally be at least 2 months or corresponding to a certain workload, depending on the specifics of the project as organised by the course supervisors. Depending on the projects, the work and the degree involved, but also the conditions defined in the various partner universities, from 0 to 30 ECTS can be obtained by students for their participation (to be established by the course supervisors involved).

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The FORTHEM Innovative Shared Tutored Projects Concept should function in a very flexible way. All levels of integration are possible: from the highest (mixed groups of student across universities and during all stages of the project) to the lowest (the same specific topic is given in the different universities but projects are conducted independently on the different sites). Many intermediate levels of integration can also be envisaged such as mixed group of students between universities for certain tasks or steps only, or shared sessions for oral presentation of projects.

In terms of mobility, the system is also very flexible: from physical mobility (of students and/or teachers for some parts of the project) to virtual mobility only (of students and teachers). Each group of collaborating teams will organize the optimal form of interaction depending on the discipline, chosen topic, internal and external constraints.

5. Topics and Disciplines

FORTHEM Innovative Shared Tutored Projects can be conducted on any topic and in any discipline, but themes correlated with the 7 FORTHEM Labs could be encouraged.

By way of illustration we can cite tutored projects specific to the University of Burgundy which are currently operating, and which could very easily be extended to the concept of FORTHEM Innovative Shared Tutored Projects. For instance, in the field of Environment and evolutionary ecology, the Biological and Ecological Sciences degree BSc (L3BO) organises tutored project each spring semester onto topics related to Ecology (for example for the spring semester 2020 the theme was “Biological Invasions”). Another example are the tutored projects conducted in Information Technology degree (*IUT Informatique / Institute of Technology - IT Department*) where groups of students design software or applications to answer specific problems submitted to them by IT companies.

6. Practical organisation

Interested colleagues can:

- get in touch with colleagues proposing innovative shared tutored projects.
- propose tutored projects to colleagues from other FORTHEM universities that could be shared by filling in the dedicated form (Appendix 2)[1]
- promote this form of teaching within their university.

If shared projects require physical mobility, various options can be studied, from short-term mobility for students, to classic Erasmus+ mobility for staff, possibly supplemented by other sources of funding (more information from local FORTHEM Offices).

[1] This form can be filled out via the FORTHEM website and will then be circulated via the FORTHEM offices. An online platform for sharing teaching and research collaboration proposals, linked to the FORTHEM website, is currently under development.

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Appendix 1: Examples of how innovative tutored projects could work in practice:

This section gives examples based on existing practices to illustrate the types of projects which might be set up internationally between FORTHEM universities (with necessary adaptation to different local contexts).

i. Designing a scientific experiment (based on existing practice in the Life and Earth Science Faculty of uB)

- A small group of students (3 to 5 students) define a project on a specific topic (proposed by supervisors) which must lead to the conception of a practical work which will be proposed to the whole class. This project can be a fundamental one (i.e. on current topics carried out in laboratories) or more applied (and therefore which may involve an industrial partner).
- Roadmaps are produced and weekly supervision is provided. The roadmaps are expected to be progressive and starting with the acquisition of concepts/theory before leading to concrete proposals at the end of about two months of work.
- The finalized project, integrating all the scientific, logistical, technical, and financial aspects of feasibility is presented in written and oral form. A student vote then selects 2 or 3 projects among all the projects proposed by groups of students.
- In a second step, each selected project (2 or 3) is carried out over 2 months with multiple groups of 2-5 students, meaning that all students in the class now work on one of the projects selected. Here again, progress closely monitored by the teaching team with regular meeting points.
- Once the project is finished, each group of students writes a scientific report to present the project, the results obtained and to discuss them.
- All the steps of the tutored project can be evaluated (roadmap, oral and written presentation…). The grading includes a self-assessment section.
- To transform this existing practice into a shared FORTHEM project, colleagues would be happy to work with academic staff from similar courses in order to adapt and develop this system, involving international student groups, conducting some sessions via a videoconference link, mirroring experiments in the different universities or possibly using equipment which is only available in one of the partner universities, etc.

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ii. Learning key research skills and methodologies through collaboration with postgraduate research projects (based on existing practice in the "AprèsLang'" teaching extension program, funded by the Burgundy Franche-Comté regional government's RITM project and based in the Languages and Communication faculty of uB).

- A small group of BA-level students (3-6 students drawn from different year groups and degree courses) volunteers to work on a project proposed and mentored by PhD or, in some cases, MA-level students. Tasks may be directly related to the mentor's PhD project (such as helping with the collection and analysis of specific data) or more diverse in nature (e.g. creating a virtual reality game in collaboration with MA and PhD students and external partners, cf. [iii] below).
- Task objectives and a project calendar are clearly defined at the beginning of the project and regular supervision is provided by the mentor, who ensures that the students have access to appropriate tools and resources and gain an understanding of the broader research project and objectives and of the methodologies required to carry it out.
- Projects are explicitly framed as instances of peer learning: BA-level participants learn from each other, gain hands-on experience of MA and PhD-level projects and are encouraged to think about possible future research projects of their own. Mentors, in turn, can draw on specific (e.g. linguistic or technical) skills present in their groups, accompany their groups in the learning process and are able to gain new insights into their own research in the course of mentoring their younger peers.
- Students are required to submit a short report and present their experiences to a mixed audience of their academics, practitioners and their peers, in order to share their experiences and encourage further engagement and peer support in both academic and professional environments.
- Extracurricular projects are offered on a volunteer basis and participants receive a bonus grade, applied to their BA-year results.
- Transforming these practices to a shared FORTHEM project would provide clear benefits for undergraduate-level participants and postgraduate-level mentors, with the scope to expand and reinforce existing research projects (for example, by extending existing research questions and methodologies to the national areas and languages covered by partner universities) and to encourage students at all levels to share their understanding and experience of research.

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iii. Working with an industrial partner "client" (based on existing practices at JYU in the "Team&Client" course).

- The Team&Client Multidisciplinary Business Project Course (up to 5 ECTS credits) is a practically-oriented study module, within which a multidisciplinary team carries out a development project for a real client during a 3-month period. In order to complete the course, students must be able to work for the project at least 10 hours per week. Workload will be higher in the beginning of the course, altogether about 135 hours. The course consists of:
    - A preliminary assignment and a personal writing task
    - Introductory lectures, two days (compulsory attendance)
    - Project implementation and active participation in project work (team plans the timetable with client)
    - Team's joint writing tasks: project plan, interim and final report
    - Midterm project meeting (compulsory attendance)
    - Final seminar (compulsory attendance)
    - Guidance discussions with the Coach-Teacher scheduled separately
    - Meetings with the client scheduled separately
- The course coordinators arrange students into teams so that the members will have relevant and applicable competence with regard to each client's assignment. The selection criteria arise from the preliminary assignment defined by the client, the competences needed to fulfil it, and possible other wishes of the client. The clients may be, for example, local companies, associations and public sector organisations. The teams can influence the orientation of the assignments according to their own competences and interests.
- Learning outcomes: after completing the course students will be able to:
    - identify their competence in project-based and multicultural teamwork
    - understand the principles of project work
    - be able to work as a member in a project team
    - be able to set goals, prepare project plan, assess time-management and workloads, implement project and present its results to the client and peer group
- Incorporating these practices within a shared FORTHEM framework would provide clear benefits for students in terms of skills sharing but also in terms of multilingual service provision and project management. Participating students and programs across the alliance would be able to prospect more widely, share partner contacts, collaborate on projects requiring specific subject, language or technical skills and develop their future professional networks. Such projects would also both benefit from and encourage long- and short-term student mobility.

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Appendix 2: Innovative tutored Project Form

FORTHEM study projects offer from the **[Name of the University and Faculty/Department]**

Who we are:

[Faculty at a glance: facts and figures: number of Department, staff members, degree programs…]

(One page maximum)

Which projects we have to offer:

- **[Name of the degree and of the Shared Tutored Project 1]**
  - **[Brief description of domain and key words of the degree] (3-4 sentences)**
  - **[Description of the proposed shared tutored project] : (1-2 pages)**
    - Topic
    - numbers of students involved
    - duration
    - management modalities
    - assessment modalities
    - number of ECTS …
  - **[Proposed practical organisation of the shared tutored project] : (1/2 page)**
    - Level of integration (from mixed groups across universities to limitation to sharing selected projects on different sites)
    - Number of partners possible within the alliance
    - Desired starting date (if applicable)
    - Type of mobility (physical/virtual…)
  - **[Contact persons: Name, addresses, function…]**

- **[Name of the degree and of the Shared Tutored Project 2]** …

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