



Haute école d'ingénierie et d'architecture Fribourg
Hochschule für Technik und Architektur Freiburg

Fostering technology transfer and regional innovation
through collaborative projects : learnings from a
decade-long endeavour in the canton of Fribourg

Agenda

- HEIA-FR: introduction
- INNOSQUARE: support for project acquisition
- TechTransfer: support for technology transfert
- Projects exemples

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HES-SO//FR HEIA-FR

HEIA-FR



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4 Studies domains – 10 Programs



Chemistry

Industrial and applied chemistry



Construction and Environment

Architecture, civil engineering, construction



Industrial Technologies

Mechanical engineering, electric engineering



Information and Communication Technologies

Computer science and communication systems



10 Ra&D institutes

Information & Communication Technologies

HumanTech

Technology for
Human Wellbeing
Institute

iCoSys

Institute of
Complex Systems

Industrial Technologies

ChemTech

Institute of Chemical
Technology

iRAP

Institute for Applied
Plastics Research

SeSi

Sustainable Engineering
Systems Institute

iPrint

Institute for Printing

Construction and Environment

iTEC

Institute of Construction
and
Environmental Technology

TRANSFORM

Institute transform :
heritage, building and
users



4 competence centers

The logo for iPRINT, featuring the word "iPRINT" in a bold, blue, sans-serif font. The "i" is lowercase and the "P" is uppercase.

Manufacturing by inkjet

The logo for PLASTICS INNOVATION Competence Center. It features the words "PLASTICS" and "INNOVATION" in a bold, blue, sans-serif font, stacked vertically. Below them, the words "Competence Center" are written in a smaller, blue, sans-serif font.

Future materials

The logo for smart living lab. It features a stylized orange circular icon with a white "C" shape inside, followed by the words "smart", "living", and "lab" in a black, sans-serif font, stacked vertically.

Future of the built environment

The logo for ROSAS Center Fribourg. It features the word "ROSAS" in a bold, blue, sans-serif font, with "Center Fribourg" written below it in a smaller, blue, sans-serif font.

Future of mobility

3 clusters



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HEIA-FR: Ra&D Service



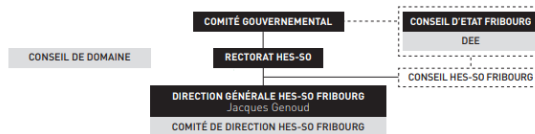
ORGANIGRAMME

Haute école d'ingénierie
et d'architecture de
Fribourg

Légendes

- Management
- Missions
- Support
- Membre du comité de direction
- Membre du comité de pilotage

Version
Septembre 2021



SERVICES ET FONCTIONS SPÉCIALES	ENSEIGNEMENT - FORMATION INITIALE	ENSEIGNEMENT - FORMATION CONTINUE	RA&D ET PRESTATIONS DE SERVICE
Communication Yves Schouwey Qualité Laurent Donato Bibliothèque Céline Saudou Comptabilité Jochen Vonlanthen Informatique Daniel Plaschy Ressources humaines Christophe Bondallaz Technique Olivier Monney Business analysts Marko Marjanovic (a.i.) Développement durable Sofia Marazzi Egalité des chances Arganthaël Castella Réception Charlotte Werro Reprographie Bernard Brodard Santé et sécurité des personnes Domingas Ribeiro / Marco Matraschia Sécurité et santé au travail Dominique Mooser Relations internationales Nataschia Kyburz	ENSEIGNEMENT - FORMATION INITIALE Marc-Adrien Schnetzer <ul style="list-style-type: none"> Architecture Eric Tilbury Génie civil Renaud Joliat Chimie Olivier Nicolet Informatique et systèmes de communication Philippe Joye Génie électrique Eric Fragnière Génie mécanique Sebastian Leopold Branches fondamentales Christoph Herren École technique de la construction (école supérieure) Claude Eric Egger Service académique Florence Meyer Conseillère ou conseiller pédagogique de proximité n/a	ENSEIGNEMENT - FORMATION CONTINUE Marc-Adrien Schnetzer Selon l'offre de CAS dans les domaines : <ul style="list-style-type: none"> Génie ferroviaire Réseaux électriques Construction et environnement Énergétique Secrétariat Sabrina Anania / Bernadette Kathriner Energie-FR Nathalie Bachmann	RA&D ET PRESTATIONS DE SERVICE Patrick Favre-Perrod Service Ra&D <ul style="list-style-type: none"> Biofactory Competence Center Ian Marison iPrint Competence Center Gibert Gugler / Gioele Balestra / Yoshinori Domae PICC Rudolf Koopmans ROSAS Wolfgang Berns Smart Living Lab HEIA-FR Jean-Philippe Bacher ChemTech Christophe Allemann ENERGY Jean-Philippe Bacher HumanTech Elena Mugellini IOSys Jean Hennebert iPrint Gioele Balestra IRAP Bruno Bürgisser ISIS Roland Scherwey ITEC Daia Zwicky SeSi Vincent Bourquin / Laurent Donato TRANSFORM Sérène Vanbutsele



INNO SQUARE supports innovation projects



ACTIVITIES



- Project conception
- Partners search
- Access to funding
- Project management support
- Results valorization

INNO SQUARE supports innovation projects

OBJECTIVES

- Increase in the number of projects
- Acceleration of the pace of innovation
- Development of project management support service
- Dissemination of exemplary cases of smart transformation

NRP collaborative projects

New Regional Policy (NRP):

The NRP of the canton of Fribourg financially supports innovative projects that aim to achieve qualitative and sustainable growth, improve the attractiveness of the canton and to increase added value.



Objectives of collaborative projects:



To take up an innovative challenge, of pre-competitive level, of value creation or of intelligent transformation, expressed by several companies, in collaboration with academic partners.



Partners:

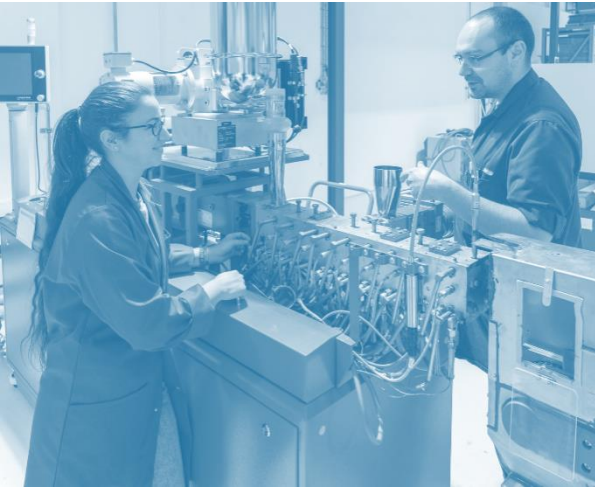
≥ 3 companies (including ≥ 2 from Fribourg canton) and ≥ 1 academic partner

Funding:



- NRP funding: 50 to 65% of total budget
- co-funding by companies in-kind and cash: 35 to 50% of total budget

Innosuisse & NRP projects approved in 2021



9 Innosuisse projects

12 Innosuisse chèques

4 NRP projects

97 ideas discussed with INNOSQUARE

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The Tech Transfer Office (TTO)

- ✓ Ensures that applied research at the institutes of HEIA-FR is oriented towards the real needs of industry
- ✓ Helps establishing true win-win partnerships by supporting projects that meet the interests of HEIA-FR researchers as well as the needs of the industrial local or regional partner
- ✓ Negotiates confidentiality agreements and all kind of agreements in relation with research and innovation
- ✓ Advises on IP issues affecting projects, including IP protection, commercialization strategies and technology licensing
- ✓ Provides support for the creation of tech start-up/spin-offs generated by research projects at the HEIA-FR
- ✓ Patent management (industrial partners and internally)

Models of collaboration

- ✓ Industry-funded research projects (Ra&D-oriented projects)
- ✓ Publicly-funded research projects (NRP, Innosuisse, etc..)
- ✓ Research collaborations (mixed research teams consisting of researchers from HEIA-FR and industry)
- ✓ Consultancy Agreements
- ✓ Students projects (Semester paperwork, Bachelor and Master thesis)

Publications

- ✓ Assistance in negotiating the conditions of publication in the research agreements while taking the interests of the industrial partners into consideration
- ✓ Support for the selection and verification of the content of publications, particularly with regard to confidential information or contractual obligations to comply with
- ✓ Encourage Open Access publications in order to pursue the open science strategy of the HES-SO or to meet the requirements of funding agencies (SNSF, Horizon Europe)

IP Management

Innosuisse projects: general rules

- ✓ At least one non-exclusive commercial license for the company in its field of use (exclusivity for the company possible if it is required by the company's market situation)
- ✓ HEIA-FR keeps the IP rights outside of the field of use of the company
- ✓ HEIA-FR keeps the IP rights for education and research purposes in any field of use
- ✓ HEIA-FR remains the owner of all its methods, tools, techniques and know-how used or developed in the performance of the project

IP Management

2 possible options on the IP management for Innosuisse projects:

- ✓ The first option for research-oriented projects
- ✓ The second option for development-oriented projects

IP Management

Consortium projects: several options on a case by case basis

- ✓ The results are jointly owned by all the partners. Each partner is granted the right to use and commercialize the results royalty-free; or
- ✓ HEIA-FR remains the owner of the results and grants a right of use to the partners in their respective fields of use
- ✓ In all cases HEIA-FR keeps the right to use the results for education and research purposes in any field of use

Numbers in 2020

96 Ra&D agreements

29 Confidentiality agreements

2 Announcements of invention

2 Creations of start-ups



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NRP collaborative project

Teleoperation : remote control of automated and connected vehicles



Hes-^{SO}

HEIA-FR
HTA-FR

HAUTE ÉCOLE DE GESTION
HOCHSCHULE FÜR WIRTSCHAFTS
SCHULE OF MANAGEMENT

UNI
FR
UNIVERSITÉ DE Fribourg
UNIVERSITÄT Fribourg

B
H

SBB CFF FFS

PostAuto

tpf

CX
CERTX

RUAG
DTC
Dynamic Test Center

SwissMoves

cluster food
& nutrition
ROSAS

Thank you

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