



Certificate of advanced studies

# CAS IN FORESIGHT Build the future today

October 2025–September 2026

4 Modules

# CAS IN FORESIGHT

## Description

Foresight, both as a discipline and a mindset, has become essential in today's rapidly changing world for understanding and preparing for major technological, environmental, and societal changes.

The CAS is designed to provide participants with the professional skills of a futurist, offering a perfect balance between theory and practice. After acquiring the fundamental knowledge of the discipline, students will be able to apply it in a collective and participative way to real cases proposed by companies.

The program places a strong emphasis on understanding the world around participants and the mutual influences of each of the following major domains: environment, society, economy, science and technology and human being. This knowledge is crucial to enable informed foresight processes to any subject they come across during their career.

# Skills acquired during the certificate

The CAS provides participants with the professional competencies required to succeed as a futurist in a variety of contexts. These include roles within:

- strategic anticipation or strategic foresight departments
- other departments requiring foresight skills
- consultancy positions, advising on strategic anticipation or strategic foresight

At the end of their training, participants will be able to:

- explain the history and foundations of foresight
- map all the sciences and theories on which is based the foresight
- apply the main existing foresight models
- use the tools available to the futurist
- understand the elements impacting the world around them, and use this knowledge during their foresight process
- collect data from different stakeholders on a variety of subjects, in which they themselves are not necessarily experts
- organize and run foresight events
- provide their company's management with reports and recommendations to guide strategy and decision-making
- promote the value of the discipline within their company, demonstrating how it can benefit people, business, society and the environment.

### Collaboration

The CAS in Foresight is a continuing education diploma offered by the Human-IST Institute, at the University of Fribourg, which is dedicated to research and training in Human-Technology Interaction combining expertise coming from several disciplines such as computer science, psychology, law and sociology.The current program is delivered in collaboration with the «Futurs» association. Founded by experts from Switzerland and France, the association aims to promote, develop and teach positive and human-centered foresight approaches.

### Target audience and admission requirements

The CAS is designed for professionals who are responsible to provide recommendations for action plans or strategies, or must develop them themselves, within companies, administrations, associations or public authorities, as members or external consultants.

Candidates with the following two qualifications are eligible to apply:

- a bachelor's degree from a Swiss Federal Institute of Technology, an University or an University of Applied Sciences, or an equivalent diploma
- at least one year's full-time professional experience.

The CAS Committee will review applications based on diplomas or certificates, curriculum vitae and years of experience. Candidates who do not fully meet the admission requirements may have their application file reviewed.

# **CONTENT AND SPEAKERS**

The CAS in Foresight program is structured into four modules, covering both theoretical and practical aspects. It offers 14 days of theoretical instruction, conference, and face-to-face group work. For each day of in-person session, participants are expected to dedicate the same amount of time to personal work, sometimes in groups and sometimes individually. At the conclusion of the course, participants will be required to complete a personal project in a company of their choice.

# Module 1: Foresight methodologies and tools (2 credits) by **Futur**

### Thursday October 2, Friday October 3 and Thursday October 23, 2025

This module is designed to provide participants with an understanding of the origins and foundations of foresight, as well as its impact on governments, institutions and companies.

Furthermore, participants will gain insight into the multidisciplinary nature of foresight, with a focus on the various scientific and theoretical disciplines that frame it, including cognitive sciences, psychology, sociology, geopolitics, economics, environmental sciences, information and communication technologies, and complexity and innovation theories.

To enable participants to adopt a structured and scientific approach to foresight, the expert will introduce them to the various existing foresight models. They will also learn about the different tools to be used (such as design fiction, backcasting, roadmapping,...), how to select the most appropriate for each context and how to use them in practice.

Finally, they will be made aware of the importance of institutionalizing foresight within their organization and will discover the challenges they may encounter and how to overcome them.

Isabelle Chappuis, Olivier Desjeux, Thomas Gauthier, Markus Iofcea, Quentin Ladetto, Kilian Wassmer

# Module 2: Understanding Today, Preparing Tomorrow (2.5 credits)

Over the course of a 4-day conference, 14 specialists will give presentations on their areas of expertise, which span the broad themes of environment, society, economy, science and technology. The presentations will provide participants with insights into the origins, challenges and weak signals associated with each theme, enabling them to reflect on the role of humans in today's world and to expand their knowledge for future foresight processes.

#### Thursday November 6, 2025

- Explore the global climate challenges and the actions required to preserve life (climate fresk)
  Gregory Lukowski
- Ethics as a compass for complex challenges Two contexts for an ethical compass: climate change and digitization Ivo Walliman-Helmer

#### Thursday November 20, 2025

- How blockchains are shaping a new digital landscape Hans-Georg Fill
- Machine learning and deep learning, a revolution in information processing and utilization
  Philippe Cudré-Mauroux
- Has international trade and immigration become economically and socially unsustainable?
  Volker Grossmann
- How human perception of risk and uncertainty affects our safety? Alexandre Vautravers

#### Thursday November 27, 2025

- Governance in the digital age: regulations or other approaches to balance the need for protection and benefits of new technologies Pascal Pichonnaz
- Democracy and the role of media, information and technology Regula Hänggli Fricker
- How to prevent public health catastrophism? An evidence-based and datadriven perspective Arnaud Chiolero
- What does the future hold for our jobs, between labor shortage, obsolescence and transformation? Isabelle Chappuis

### Thursday December 11, 2025

- The evolution of computing power, an extraordinary driver of progres Miguel Peón
- The dilemma of digital innovation in the Anthropocene David Bozzini
- Multimodal AI: Transforming Interaction in the Era of Language Models Ludovico Novelli
- «The Singularity is near!» Post- and Transhumanist Utopias on Artificial Intelligence Oliver Krüger

# Module 3: Foresight Lab (4.5 credits)

This practical work module is the common thread running through the CAS and is spread over the first 6 months of the program, with on-site days and group work to be scheduled between sessions (see timetable page 9). During this module, participants will have the opportunity to work with an expert futurist on a complete process based on a real case study. This unique experience will give them all the keys they need to lead their own foresight projects during their careers.

### Friday October 24, 2025: Kick-off

During the project launch day, the participants will have the opportunity to meet representatives from the CAS partner companies. These representatives will present a common theme on which participants will have to carry out the foresight process.

In collaboration with the expert who will be oversee their work throughout the project, they will define the essential elements of the project, i.e. the scope, objectives and timetable.

The groups will then be formed to begin thinking about the strategy to be adopted (models, methods, tools, etc.).

### Thursday December 4, 2025: Presentation of variants

Between Day 1 and Day 2, each group will have to work independently to be able to present the partner companies with a complete foresight approach they intend to apply to the case they have been given.

The foresight expert and partners will evaluate all variants. However, after deliberation, only one of the variants will be retained for the whole class, for the rest of the project.

The selected variant will be broken down into different tasks and distributed among the groups.

### Thursday January 22, 2026: Presentation of group work

Between Days 2 and 3, all groups will work on their assigned tasks with the objective of collectively preparing for the full foresight event on Day 5. This event will be attended by external participants from the partner companies and/or companies in which the participants work.

On Day 3, each group will present their work to the expert, who will then provide feedback. This process will allow the groups to further refine their preparations for a dry run day designed to assess the effectiveness of their approach.

### Friday February 6, 2026: Dry run

Participants will conduct a dry run to practice and identify necessary adjustments before the official foresight event.

### Friday February 20, 2026: Foresight event

During the day, the participant groups will run the official foresight event with external participants, in collaboration with the foresight expert.

Following this day, each group will be asked to produce a report relating to their area of responsibility.

### Thursday March 5, 2026: Debrief

During the first part of the day, group reports will be presented. Participants will then have the opportunity to exchange views with the expert to debrief the event, highlight what worked and what didn't, and use this experience for their future work.

At the end of the project, the partner companies will receive a deliverable produced by the groups and the expert.

Isabelle Chappuis, Quentin Ladetto, Kilian Wassmer

# Module 4: Foresight for my organization (3 credits)

Any foresight approach is only useful to the extent that the organization's managers embrace it and use its results in their strategy. In this sense, this module is designed to help participants institutionalize foresight in their own organizations. Specifically, following the first 3 modules, participants will have 6 months to work individually at their own pace and with the support of an expert, on an implementation plan, which they will have to detail in a full report documenting their approach and recommendations.

#### Friday March 6, 2026

To kick off this project, participants will have a one-day on-site meeting with an expert to discuss the project and brainstorm together about the levers or obstacles they may encounter within their organization.

Experts will then be available once a month to meet with participants who wish to receive advice on their project.

Isabelle Chappuis, Quentin Ladetto, Kilian Wassmer

### **Personal work**

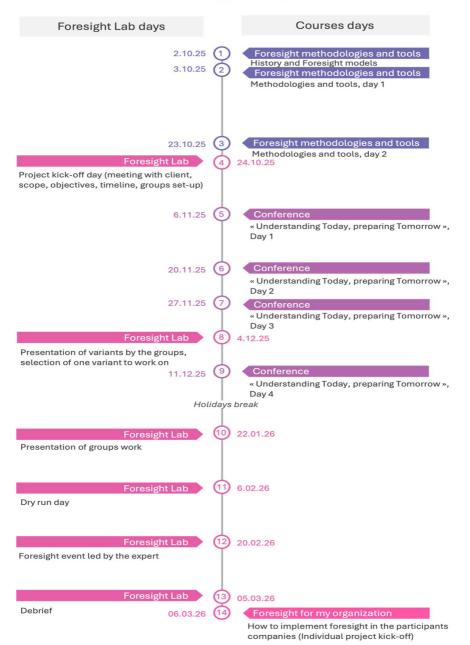
In line with the requirements of a CAS, participants are expected to undertake a significant amount of personal work outside of the classroom. This will consist of

- 8 days of group work related to the Foresight Lab project, spread over each «Foresight Lab» day in the above timetable
- individual reading, research and analysis of the topics covered during the course to ensure that students have sufficient knowledge to carry out their projects.
- review of Module 1 content in preparation for the MCQ assessment (see below for assessment methods)
- the equivalent of 10 days of individual work for the «Foresight for my organization» project, spread between the 5th of March and the 30th of September 2026.

For this last project, experts will be available once a month to meet with participants who wish to receive advice on their project. The dates will be communicated to participants at the start of the program.

# **ON-SITE DAYS CALENDAR**

# Learning journey



# **SPEAKERS**

**David Bozzini,** Professor for Social Anthropolgy. He is leading research in digital mass surveillance, political controversies surrounding cryptography and computer security. Fribourg University

**Isabelle Chappuis,** Politician, Director of SCAI (Swiss Center for Augmented Intelligence), Author, Lecturer. Specialist in issues relating to the future of work.

**Arnaud Chiolero,** Professor for public health, epidemiologist and director of the Population Health Laboratory (#PopHealthLab) at the University of Fribourg. He is also co-director of the Swiss School of Public Health (SSPH+) in Zurich. He is leading research on the epidemiology of chronic diseases and the monitoring of population health.

**Philippe Cudré-Mauroux,** Professor for computer science, Director of the eXascale Infolab. He is leading research in next-generation, Big Data management infrastructures for non-relational data and AI. Fribourg University

Olivier Desjeux, Strategy consultant, Futurist, Independent Director

Hans-Georg Fill, Professor for business informatics. Head of Digitalization and Information Systems Group. He is leading research in semantic information systems, blockchains and smart contracts, application of virtual and augmented reality in enterprise modeling as well as the deviceless interaction with enterprise information systems. Fribourg University

**Volker Grossmann,** Professor for Economics. He is leading research in Macroeconomics of Housing; Distribution of Income, Wealth and Health; Human Capital Formation; International Migration; Economics of Ageing; Inheritance Taxation. Fribourg University

Thomas Gauthier, Professor, Associate Dean, Chairholder of the Carbone 4 «Strategy in the Anthropocene» chair at emlyon business school. Co-founder of l'atelierdesfuturs.org & Association Futurs

**Regula Hänggli Fricker**, Professor for political communication. She is leading research in (digital) democracy, public debates, opinion formation, and the origin of dialogue. Fribourg University

Markus Iofcea, Future Archaeologist, Writer, Co-founder Fabelwesen Zukunft, Founder and former Head of UBS Y Think Tank

**Oliver Krüger,** Professor for the study of Religions. He is leading research in religion and media, posthumanism and transhumanism, theory of religion. Fribourg University

**Quentin Ladetto,** Head of Technology Foresight at Federal Office for Defence Procurement armasuisse Science & Technology, Co-founder of atelierdesfuturs.org & Association Futurs **Gregory Lukowski,** Engagement Delivery Manager at Salesforce, Climate Fresk moderator, member of Salesforce's Swiss Sustainability team

Ludovico Novelli, Innovation Lead & Senior Software Engineer, Logitech

Miguel Peón, Sustainable computing systems manager, EPFL EcoCloud

**Pascal Pichonnaz,** Professor for Swiss contract law, Roman law and European consumer law and comparative contract law. Fribourg University. President of the European Law Institute

Alexandre Vautravers, National Contingent Commander of SWISSCOY 51, Swiss Armed Forces. Editor in Chief, Revue Militaire Suisse. Associate Fellow – Leadership in Conflict Management, Geneva Centre for Security Policy (GCSP)

**Ivo Walliman-Helmer,** Professor for Environmental Humanities. Director of the UniFR\_ ESH institute. Specialized on political philosophy, climate ethics, medical ethics and ethical decision-making. Fribourg University

Kilian Wasmer, Head of Team Anticipation at Federal Office for Defence Procurement armasuisse Science & Technology

# CERTIFICATION

### Credits

The CAS consists of a theoretical part, group work and individual work. It comprises 12 credits distributed as follows:

- 4.5 ECTS credits: face-to-face classes, including preparatory work before and after sessions, as well as competency tests
- 4.5 ECTS credits: face-to-face group work, including preparatory work before and after sessions
- 3 ECTS credits : personal project

### Requirements for obtaining the certificate

- Attendance of at least 80% of face-to-face teaching and projects
- Validation of Module 1
- Validation of group project and individual final project

### Assessment methods

Modules 1, 3 and 4 will be assessed.

The knowledge acquired in Module 1 will be assessed using an MCQ.

The work done during module 2 will be assessed by one of the experts in charge of the module, based on the proposals presented by the groups on the second day of the Foresight Lab project. The expert will decide whether the work has been passed or failed.

The individual «Foresight for my organization» project in Module 4 will be assessed on the basis of the full report submitted to the company and to the CAS executive committee who will decide whether it passes or fails.

The assessment criteria will be made available to participants at the beginning of each module.

# **GENERAL INFORMATION**

#### Language

On-site classes and project days are conducted in English. Group and individual projects work can be carried out in French, German or English.

### Number of participants

The number of participants is limited to 15 to ensure a collaborative environment and personalized follow-up.

### Place and time

Continuing education center, University of Fribourg Rue de Rome 6, 1700 Fribourg, a five-minute walk from the train station, 8:45 am to 4:35 pm

### Organisation

Continuing education center, University of Fribourg

# **EXECUTIVE COMMITTEE**

### Prof. Dr. Denis Lalanne - Professor in Human-Machine Interaction

Denis Lalanne is director of the Human-IST institute and full professor in the Department of Informatics of the University of Fribourg. He is heading the «human-building interaction» group in the smart living lab and Swiss representative at the IFIP TC13. After completing a PhD at the Swiss Federal Institute of Technology (EPFL) on computer supported creativity, a postDoc in the USER group in IBM Almaden research center, one year of teaching and research in the University of Avignon, and an experience as usability engineer in a Swiss start-up, he joined the University of Fribourg in 2002 to work on the SNF NCCR IM2 as a senior researcher first and became professor in 2015 on the topic of Human-Machine Interaction and founded Human-IST. He is broadly interested by different aspects of the domain of Human-Computer Interaction, with a focus on multimodal interaction and visual analytics. More recently his research is centered around the topic of Human-Building Interaction to understand and improve the comfort of buildings' occupants and on the topic of Human-AI Interaction to improve/evaluate the teaming or to support accessibility/rehabilitation.

### Prof. Dr. Edy Portman - Professor at the Institut

Professor in the Department of Computer Science and president of the FMsquare Foundation. His research focuses on computing with words and perceptions. After an apprenticeship as an electrical engineer, he studied business informatics and obtained a PhD in fuzzy systems. He has worked for Swisscom, PwC and EY, among others. He has also worked as a researcher at the Universities of Singapore, Berkeley and Berne.

### Isabelle Chappuis - Futurs association founding member

An economist and graduate of the University of St. Gallen, Isabelle Chappuis spent 20 years at HEC Lausanne in various leadership roles - directing the EMBA, founding and leading the Executive Education department, and later establishing the foresight unit where she authored a book on the future of Human Capital Management. Currently Director of SCAI (Swiss Center for Augmented Intelligence) and a member of the Swiss Federal Parliament's Security Commission, she lectures at various academic institutions and serves as an independent administrator.

### Quentin Ladetto - Futurs association founding member and President

Started in 2013, Quentin Ladetto is the creator and director of the armasuisse Science and Technology foresight program (https://deftech.ch), part of the Swiss Federal Department of Defence, Civil Protection and Sports (DDPS). The objective of the program is to anticipate, inspire, inform and instruct the Swiss armed forces and its various stakeholders about the opportunities and threats brought about by the use of technology.

Quentin holds a PhD in geomatics from the Ecole Polytechnique Fédérale de Lausanne (EPFL), an Executive MBA in Finance from HEC Lausanne and a degree in Technology Management from IMD. He is the co-founder of atelierdesfuturs.org and a founding member of the association Futurs.

#### Annette Enz

Head of Continuing Education at the University of Fribourg

# REGISTRATION

### Procedure for registration

The application form must be completed online by July 1st 2025.

In addition to the application form, the application file must include a curriculum vitae and copies of the most important diplomas.

Admission will be decided by the CAS Executive Committee

### **Application fee**

CHF 9'000.-.

A 10% discount is granted to members of the Futurs Association and to participants who are employees of CAS partner companies.

To become a member of the Futurs Association: https://futurs.world/inscription/ To become a CAS partner: please contact the Human-IST institute (human-ist@unifr.ch)

### **Payment terms**

The registration fee must be paid within 30 days following confirmation of admission to the CAS.

### **Cancellation policy**

Your registration is final. If you wish to withdraw, please notify us in writing.

### **Cancellation fees**

Up to 90 days before the start of the course Between 89 and 60 days before the start of the course Between 59 to 39 days before the start of the course Less than 30 days before the start of the course CHF 300.– 20% of the registration fees 60% of the registration fees Full registration fee is due

Exception: proposal of a replacement participant whose request is accepted by the Executive Committee (in this case, only the administrative costs will be retained).

Withdrawal during the course will not give rise to any refund. If the number of accepted registrations is insufficient, the Executive Committee reserves the right to cancel or postpone the course, in which case your registration fee will be fully refunded

## Information

Continuing education center, University of Fribourg Rue de Rome 6, 1700 Fribourg Phone: 026 300 73 46 Email: formcont@unifr.ch www.unifr.ch/formcont