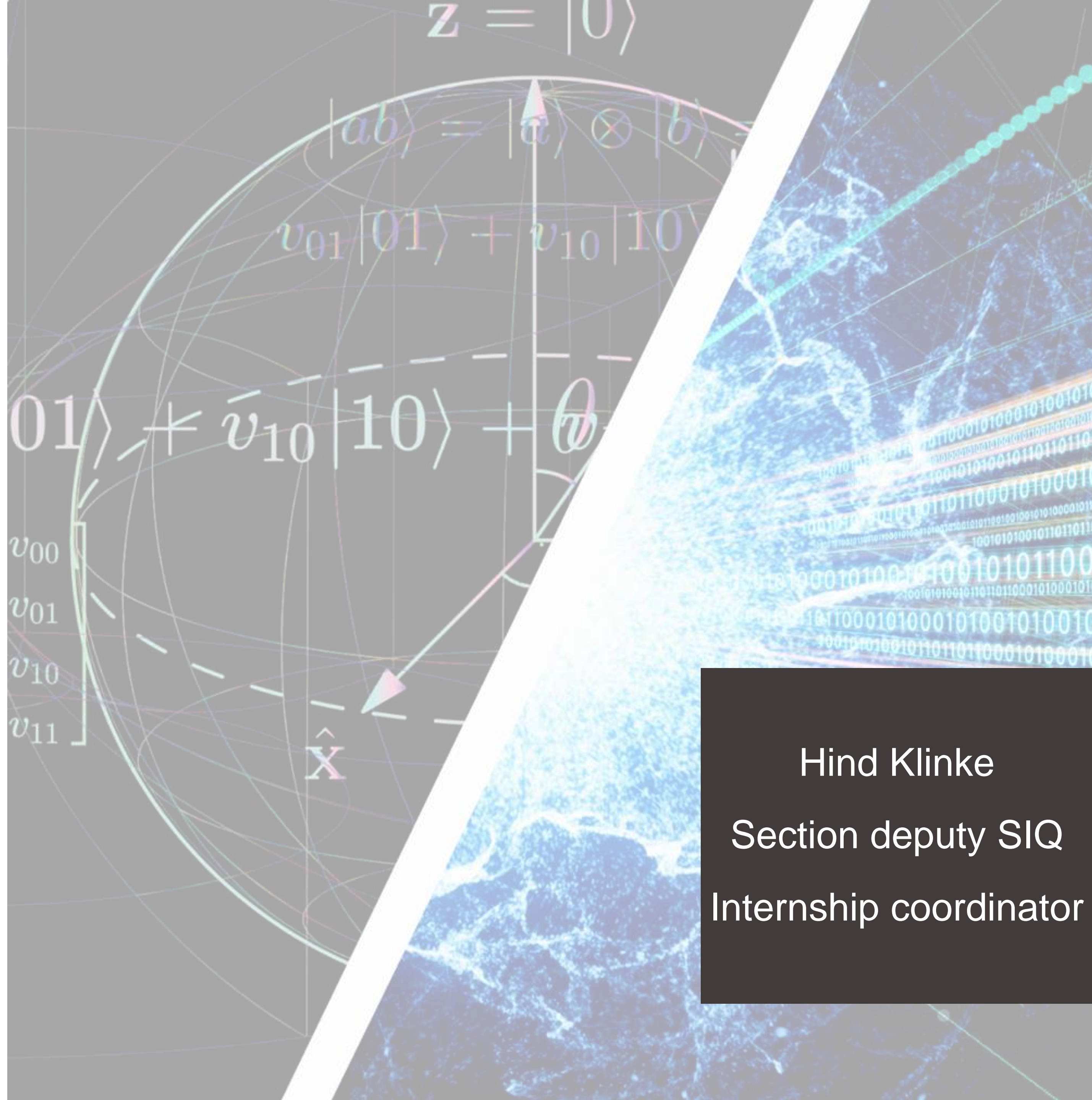


EPFL



EPFL- Quantum Science & Engineering Internships

Hind Klinke
Section deputy SIQ
Internship coordinator

November 29th,
2024



The internship: Excellent Opportunity !!!



□ Students

- **A Great incentive to ask oneself the right questions !**
- Familiarize with working life
- Immerse into Industry practice
- Future Hiring opportunity



□ Companies

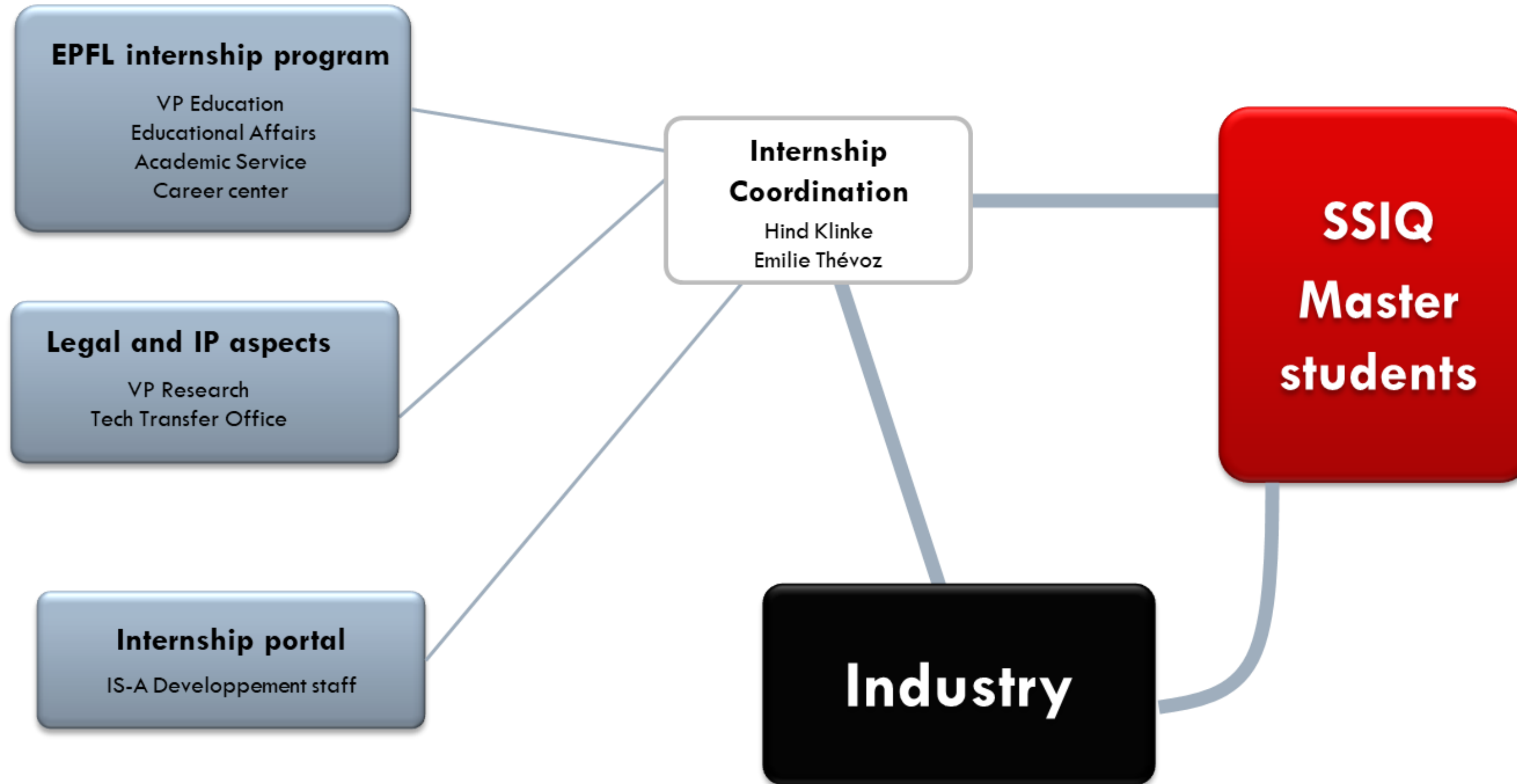
- Benefit from highly qualified students
- A new insight on current issues, innovate !
- Evaluate futur employees

□ EPFL



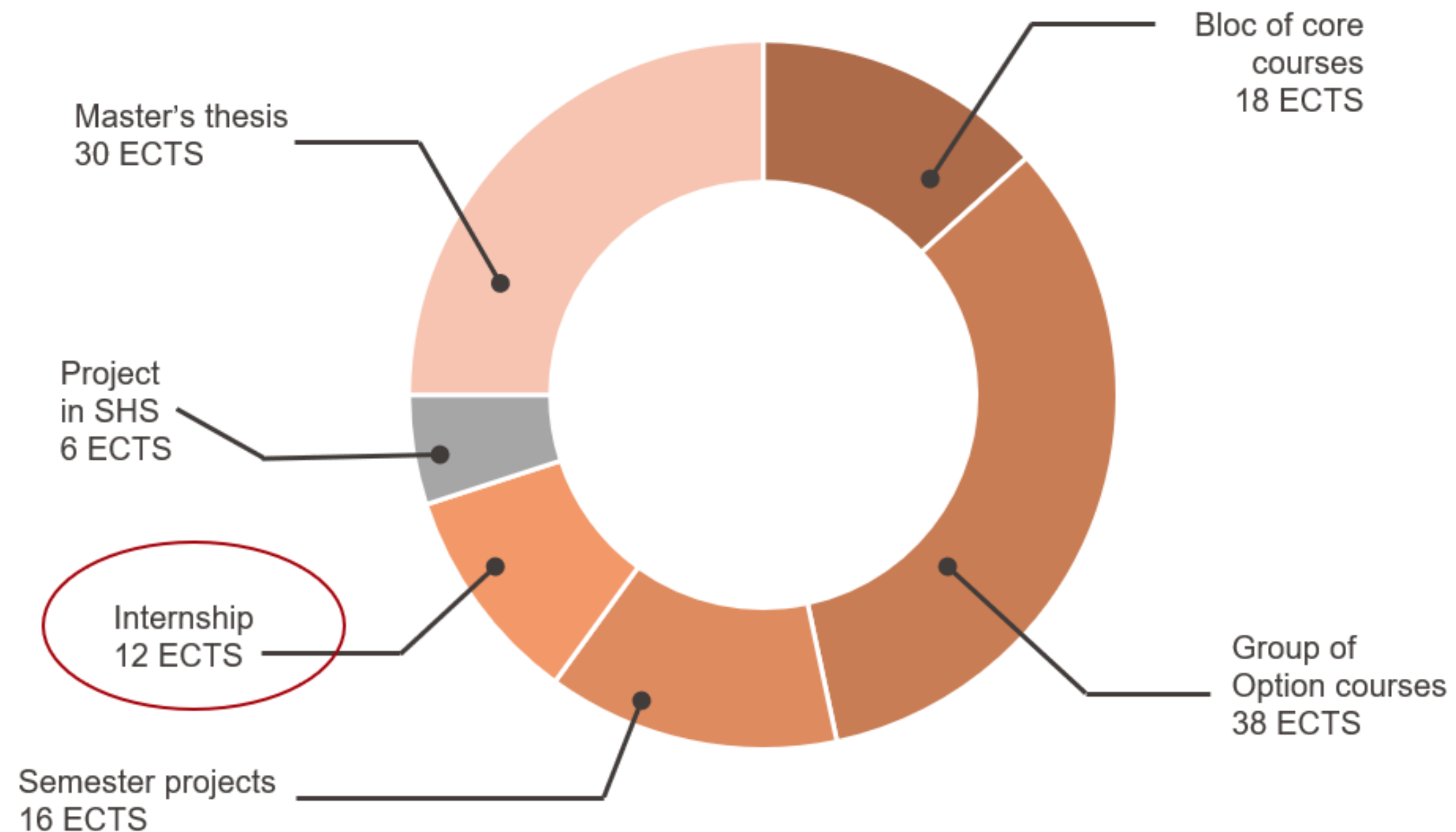
- A direct link to industry
- A new platform to start collaborations on the research level
- Feedback from industry to improve the education of our students

Internship Coordination



Internship obligation

- The Internship in industry is a mandatory step of the Master degree
- Possible format to validate this obligation:
 - **SCS**: Stage à Crédits Séparés



Internship criteria's

- Minimum duration of **2 month**, up to **6 months**
- Immersion into industry
- Familiarize with company processes
- Acquire specific competences
- Apply transversal skills
- Evaluation form by student and industry supervisor



When to place your internship?

Summer

Fall

Spring

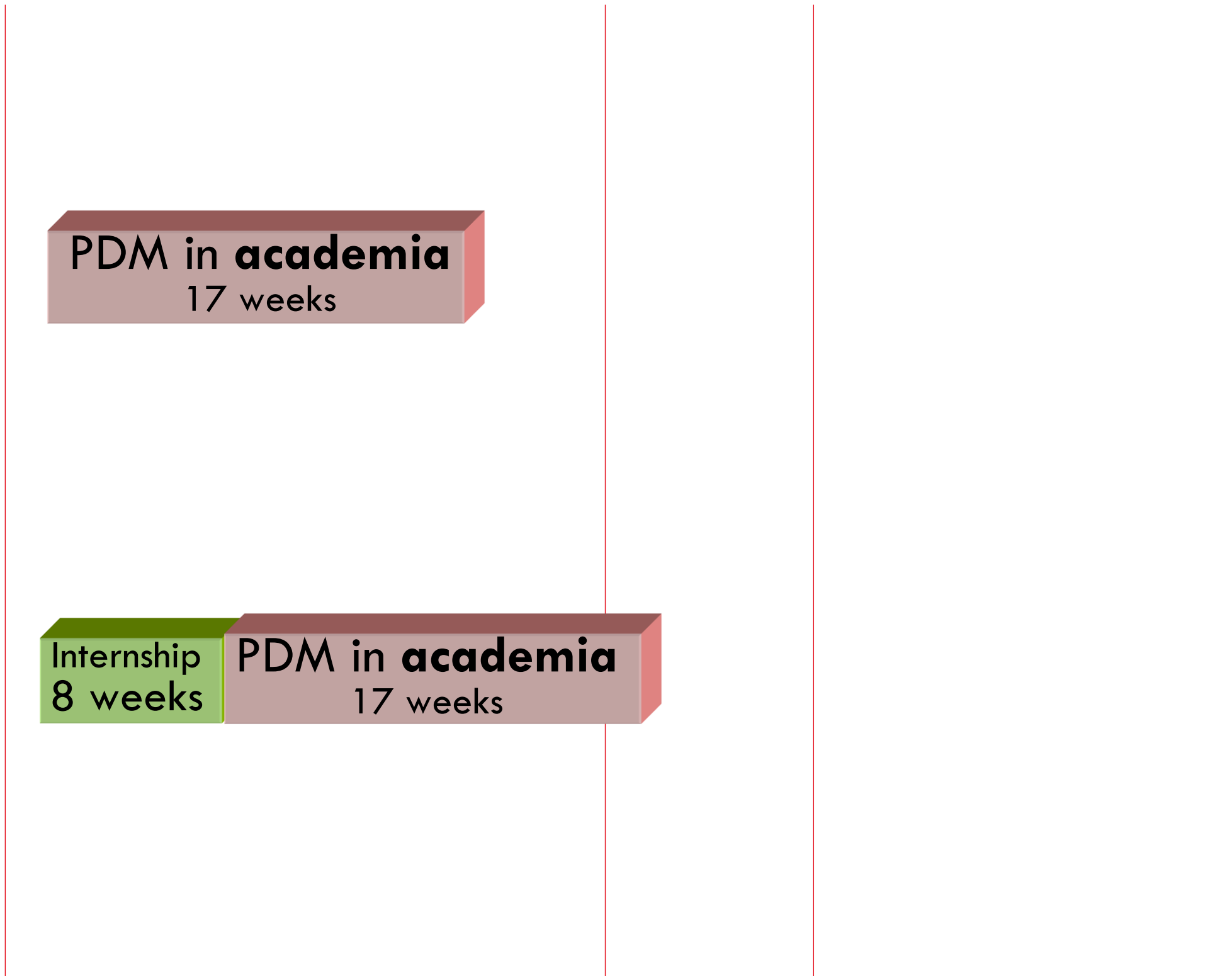
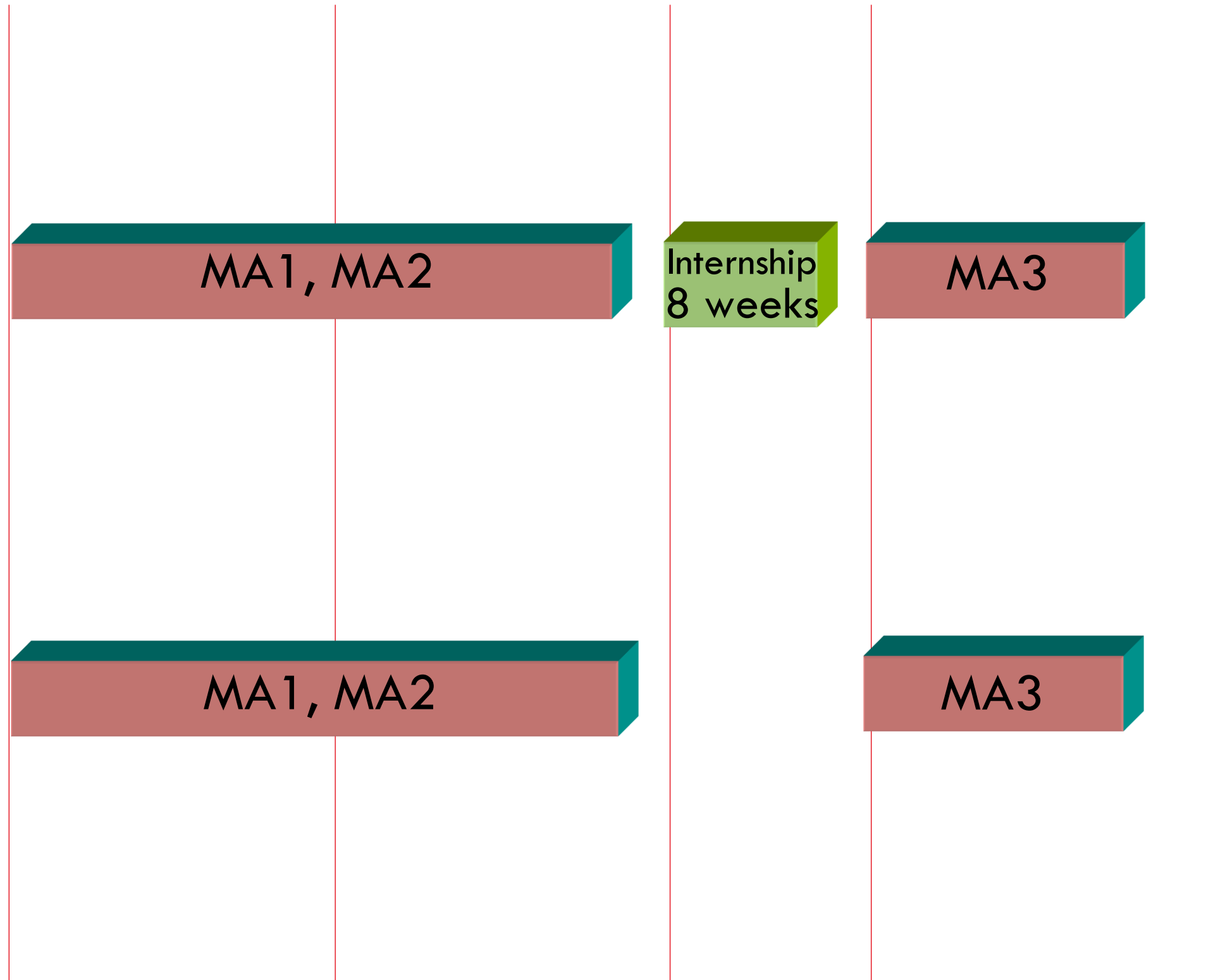
Summer

Fall

Spring

Summer

Fall



PDM in academia in foreign Universities: 25 weeks

When to place your internship?

Summer

Fall

Spring

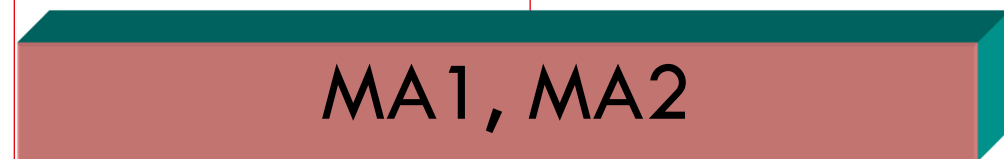
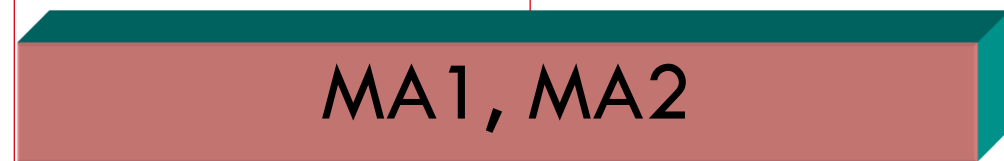
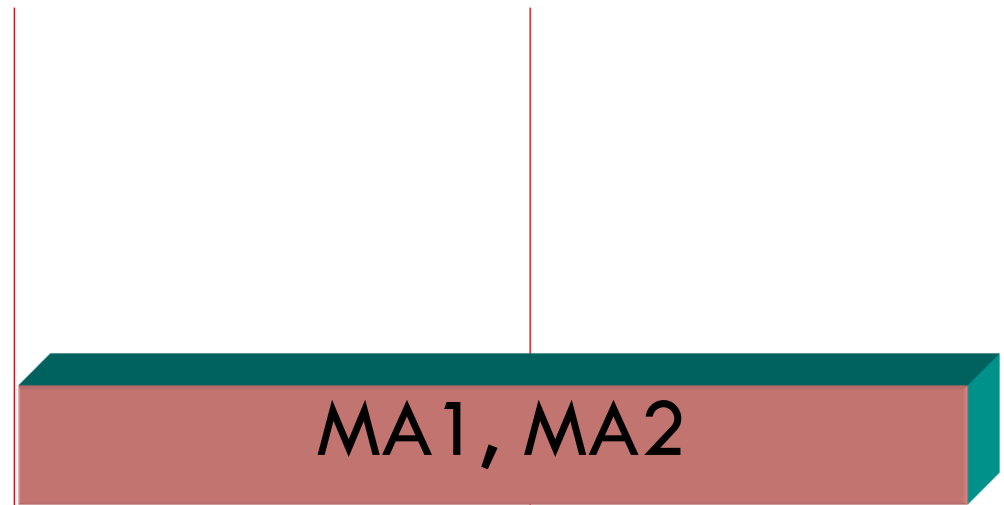
Summer

Fall

Spring

Summer

Fall



PDM in academia in foreign Universities: 25 weeks

■ Maximum duration of studies

- Maximum amount of study semesters allowed: 6
- Extended by one semester if the internship is done during a semester
- The maximum duration of course semesters

■ Internship in parallel to taking courses

- Performing the industry internship in parallel to taking master courses is generally not encouraged. Exceptions can be granted by the section under the following conditions:
 - The student can physically follow the registered courses and attend the exam session
 - The maximum amount of credits does not exceed 5 ECTS
 - The company accepts that the student takes courses

What is considered «Industry» ?

- Every company or start-up offering a workplace outside of an EPFL laboratory
- Some Research Organisation not delivering academic credits can be accepted by the section



How much salary ?

- There is no official regulation in Switzerland to pay a monthly salary for an internship.
- Salaries are mostly ruled by offer and demand
- Often the salary is dependent of the company's size and status
- EPFL recommends a typical monthly salary around **2'000 SFr.** However, there is no obligation of the company to comply with this.

- In Case of a Master Project in Industry, remuneration can be handled more freely (no monthly salary, compensations, bonus at the end, ...)

Internships outside Switzerland

Some recommendations for an internship abroad:

<https://www.epfl.ch/campus/security-safety/en/security/travels-abroad/plan/>



- Plan your trip
- During your trip
- Emergency assistance while abroad
- Using our travel assistance program
- Travel risk map
- International SOS

Plan your trip



Work authorization

- The federal council allows foreign students of Swiss academic institution to perform a mandatory internship during their studies:
<https://www.admin.ch/opc/fr/classifiedcompilation/20070993/index.html#a39>
- Students with Non-EU/EFTA passports require a valid work authorization to do their internship or Master project with monthly salary in Switzerland or EU countries.
- EU students performing a 3-6 month internship have to be simply announced at the cantonal office
- It is the company's responsibility to request this authorization at the proper working office of their canton/country ([Link](#) to obtain a mandatory internship certificate.)
- It requires up to 8 weeks to obtain this authorization from the cantonal offices.
- We recommend that students from non-EU/EFTA countries inform the companies in their motivation letter of these regulations.

Example: "As I'm a non-EU/EFTA resident, your company would be required to ask for a temporary work authorization. Please be advised that the federal council allows foreign students of Swiss academic institution to perform a mandatory internship during their studies: <https://www.admin.ch/opc/fr/classified-compilation/20070993/index.html#a39>. As I will stay registered at EPFL during this internship, and since this internship is a mandatory part of my Master education, the delivery of this document does not fall into the quota limitation of each canton and is therefore straightforward".

How can you find an internship ?

- It is the student's responsibility to find an appropriate internship to validate his Master degree.
- No responsibility can be taken from EPFL side if no internship has been found by the student.
- The student can find an internship position by himself, but the subject needs to be approved by the section deputy.
- EPFL offers an internship portal on which students can find an alternative to their personal quest for finding an internship.
- Access to the **EPFL portal** is given through the student's **IS-Academia account**

Sustainable Internships

How to identify them ?

Company submissions are listed on the internship portal once validated by each section. Internships with a sustainability label will be identifiable with the following logo:



Evaluation report

The evaluation process of the internship is similar to a regular internship but the student is asked to write a **half-page report** to comment if the sustainability goals have been reached. This report does not influence the validation of the internship for the master curriculum.



	Optimisation du potentiel énergétique d'une installation de traitement des granulats	03.10.2022	Holcim (Suisse) SA	Aigle	
	Multi-Frequency, Multi-Modal transduction of Piezoelectric Micromachined Ultrasonic Transducers (PMUTs).	03.10.2022	IMEC	Leuven, Belgium	
	Aerospace smart sensors - R&D embedded software developer	03.10.2022	Meggitt SA	Fribourg	
	Comparing NTA/IDS(Suricata+QosmosDPI, nProbe Cento+nDPI, Mellanox/Nvidia @BF2 ARM AR QosmosDPI) Solutions @100Gbps	02.10.2022	Universitaet Bern	Bern 3012, Hochschulstrasse 6	
	Simulation Based Aerodynamic Performance Evaluation	30.09.2022	Sauber Motorsport AG	Hinwil, Switzerland	
	L'exploitation optimale des installations techniques dans l'environnement bâti	30.09.2022	energo	Lausanne	

Some opportunities for finding an internship

- Personal contacts, family, friends
- Topic related agencies and organizations
- International platforms
- Company websites
- List of companies provided SIQ



Every Internship found outside the IS-A portal has to be approved by your section. Please send a short but detailed description to the section deputy as soon as you have found an opportunity



07 - 11 Oct 2024
SwissTech Convention Center

The largest recruitment fair by students in Europe

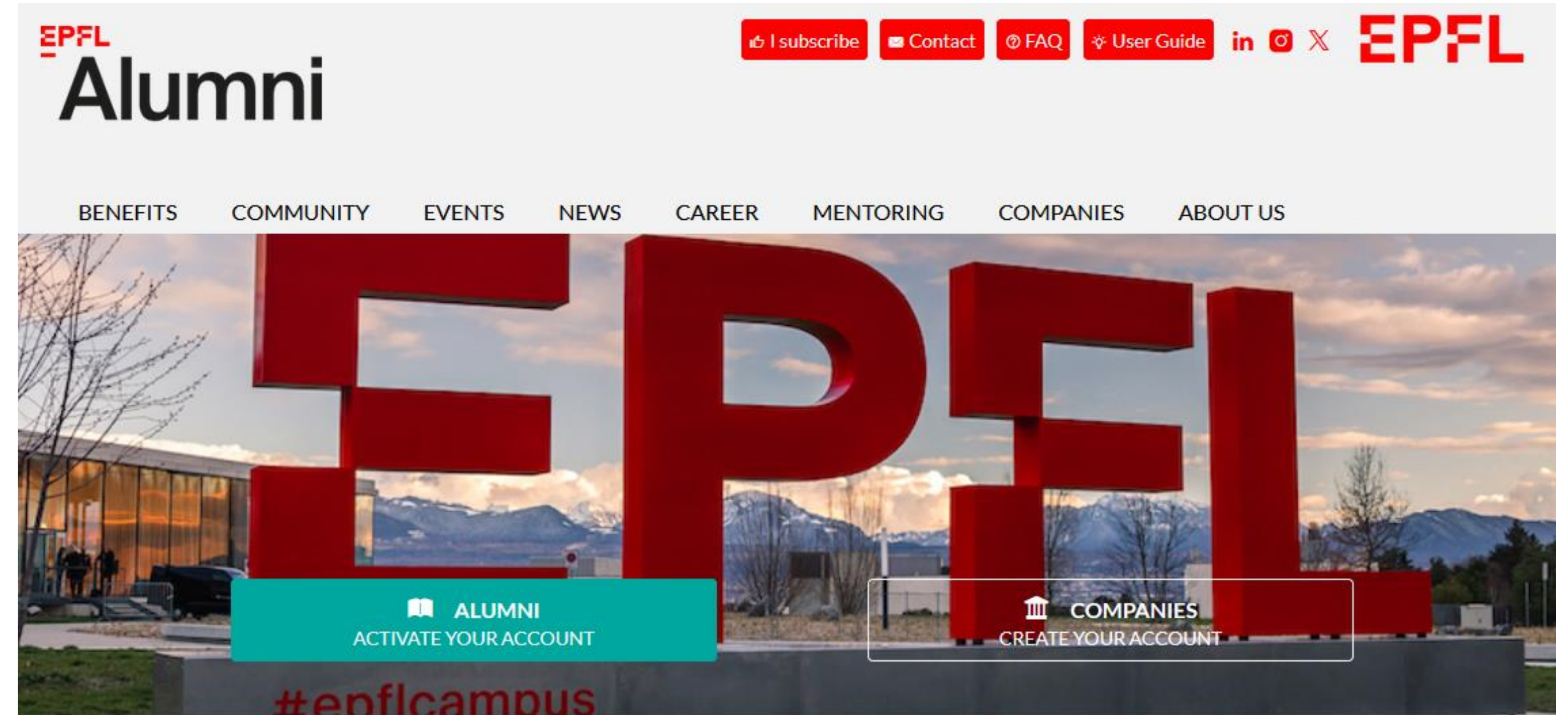
42nd Edition
SwissTech Convention Center
07 - 11 Oct 2024

Discover the program

<https://forum-epfl.ch/2024/en/>

EPFL students have access to the Alumni network
Website: <https://www.epflalumni.ch/students/>

Pocketcampus app



EVENTS

Swiss Universities Alumni Meet

25
OCT
18:30

SWISS UNIVERSITIES ALUMNI MEET 2024

📍 BENGALURU

BLOOM & RISE : 4-WORKSHOP SESSIONS WITH CATHERINE CANALES

28
OCT
17:30

BUILDING A RESILIENT SUPPLY CHAIN - THE J&J APPROACH

28
OCT
17:30

📍 ALLSCHWIL

How does the internship portal work ?



- Browse through the internship offers of your Master program
 - Apply for a position by uploading 2 mandatory documents:
 - CV
 - motivation letter
 - Applications are sent on a weekly basis to the companies (**every Monday 14h00**)
 - Wait for the company to make its selection process (up to several weeks)
 - If no response after 2 months, contact your internship coordinator
 - You will be contacted by the company if your application was successful (Most selection processes involve an interview and several e-mail exchanges)
 - You **MUST** accept only one offer and reject all the others within the next 3 working days.
 - No withdrawal from the accepted position!
 - Kindly notify all other companies you had privileged contact with
- Do not use the portal for personal internship search
 - Apply always through the portal for mandatory internship

Some advice to prepare your application documents

- 2 important documents
 - Motivation letter
 - Curriculum vitae (CV)

The criteria for interview selection by the company is mostly based in these documents. Reference letters can be added as well. Your motivation letter should specifically address the company and the proposed subject

- **Language** : you should use the language of the offer
- To be avoided:
 - No motivation letter
 - copy-paste errors
 - Wrong addressing



Most companies would like to meet the students for an interview prior to making their final choice

- Be prepared for the interview and demonstrate a professional attitude.
- **Non EU/EFTA students:** Inform the company about the required work authorization
- If the living allowance is mentioned in the description, do not bargain. If not mentioned, inquire for it.
- Follow up: After the interview, write a short e-mail as feedback of your interview to the company.



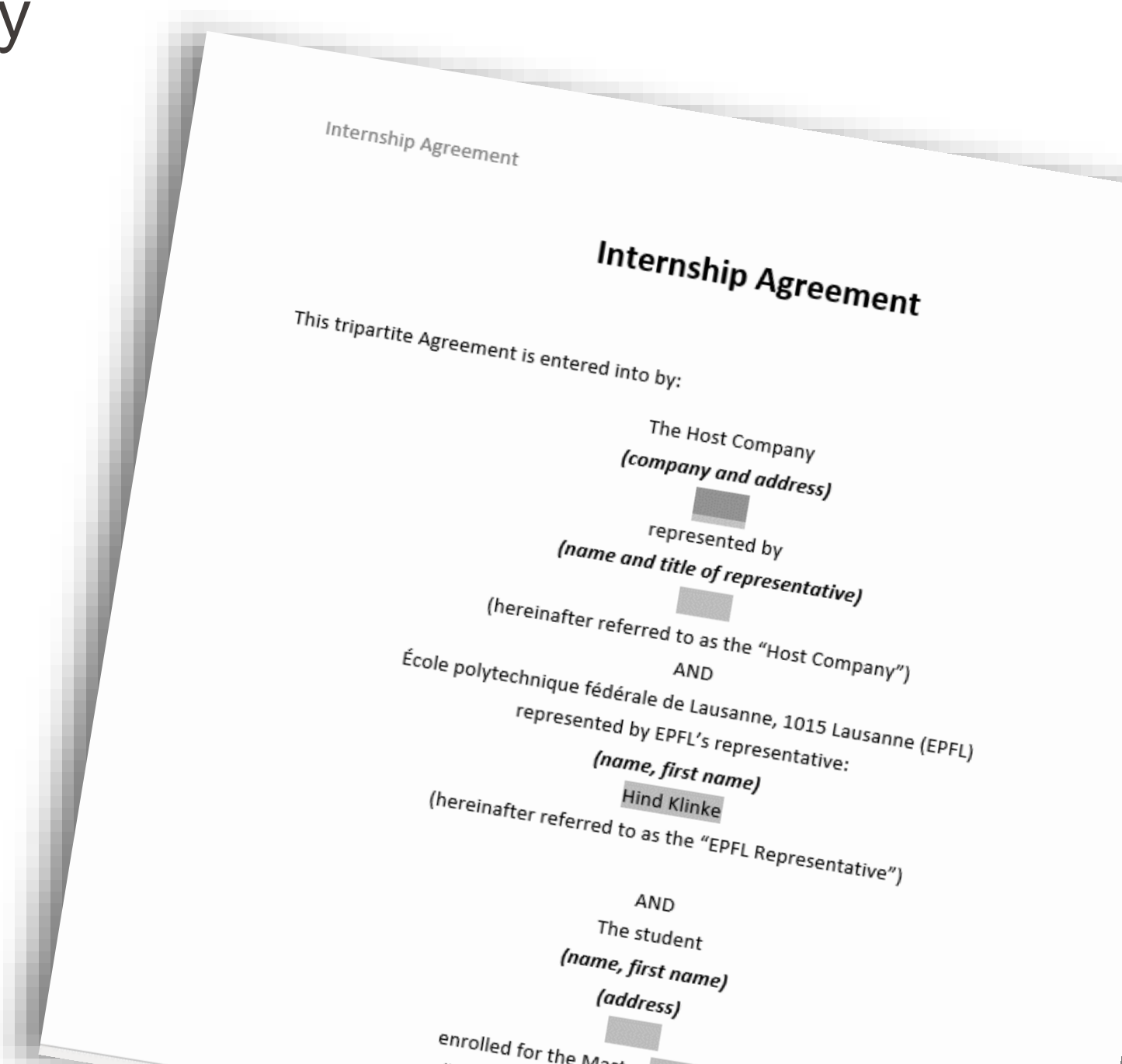
Prepare your internship campaign !

- **EPFL proposes several modules of 1h45:**
 - Comprendre le recruteur / Understanding recruiters
 - Les rubriques d'un CV efficace / Crafting an effective CV
 - How to leverage the Alumni network to find an internship or a job ? (eng only)
 - La lettre de motivation qui permet de faire la différence / crafting a standout letter of motivation
 - Les clés de l'entretien d'embauche / Mastering the job interview
 - Influencing and convincing (eng only)
 - 10+ successful techniques for communication and organization at work

- Information and mandatory registration here: <https://epflcareer.ch/en/>

Internship agreement

- The internship agreement specifies the commitments and responsibilities of EPFL, the company and the internship student.
- **This agreement must be signed for all engineering internships.**
- **No other tripartite agreement involving EPFL will be signed by the section.**
- Alternative contract proposed by the company and signed only by the student are acceptable in some cases, but the students must carefully read and comply with the content (IP issues, confidentiality, insurances and especially non-competition clauses).
- The company must accept to fill out the EPFL evaluation report at the end



Mandatory: Register internships on ISA

- Submit a short but detailed description of your internship to SIQ by completing the validation form
- Once you have signed the tripartite internship agreement, enter your project details on the internship portal by creating a new internship proposal, and upload a pdf copy of the agreement.

Internships - Showroom (stu)

+ You found a work placement, which was not proposed in IS-Academy. Please, do register it clicking [HERE](#).

Nombre de places disponibles : 239 84 displayed item(s) / 84 a

Context : -- All criteria/words should be contained ✕ 🔍

Action	Internship	Company	Assignment location	Févr-Sept (P1)	Juil-Févr (P2)	Juil-Sept (P3)	Internship number	Format	Registered	Places	Prof
									25	240	
	Industrial Analytics, IoT, and Mobiles	Schindler Aufzüge AG	Ebikon	✓			19094	Internship	0	1	
	Temperature mapping and monitoring of a complex device	CERN - European Organization for Nuclear Research	CERN, Geneva, Switzerland	✓			19088	Internship	0	1	

Update your FRAC

In case your internship is done during an academic semester, make sure to update your **FRAC** according to your status:

- Semester: (choose the right one: MA1; MA2; MA3)
 - Status : Internship (authorized by the section)
 - Mention in the comments « SCS »
-
- If you take courses in parallel to your internship, your FRAC status should be «present»

Anticipate !

- A change of residence or relocation might be necessary
- Time consuming formalities might be required:
 - Confirm an internship
 - Visa, Work authorization and Residence permit (typically 4-8 weeks)
 - Collection of the signatures of the internship agreement
 - New validation of your passport
 - ...
- It is your responsibility to settle these formalities prior to the Internship beginning

During and after the internship

- In case of problems (accident or illness, personal problems, conflict with supervisors, ...), contact urgently SNX
- No written report of the student is requested by EPFL, but can be requested by the company.
- To validate your internship, an evaluation form has to be filled out by the student and the supervisor in the company (sent out 2 weeks prior to ending).



Evaluation form

The evaluation is more focused on the soft skills than technical knowledge

Application of scientific and technical knowledge

Planning and management of work tasks

Integration in the professional world

Communication

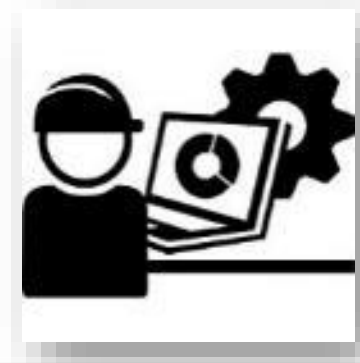
Independence

	E	G	S	I	N	Comments
Application of scientific and technical knowledge						
Technical skills and knowledge						
Ability to resolve complex problems						
Mastery of domain-specific methodologies						
Planning and management of work tasks						
Definition of work objectives and management of priorities						
Evaluation of resources required						
Work planning, monitoring of activities, and management of emergent issues						
Integration in the professional world						
Respect for the organizations procedures/ rules and for their profession's ethical codes						
Capacity to work in teams						
Quality of the work delivered						
Communication						
Written communication (structure, clarity, coherence of reasoning)						
Oral communication (clarity, reasoning, self-confidence)						
Interpersonal skills and engagement, including in a multicultural context						
Independence						
Ability to present and defend her/his own ideas						
Capacity to access sources of information and to evaluate them						
Capacity to self-evaluate and to respond constructively to feedback						
Overall Evaluation						

Mandatory Steps for a 2-6 month internship

- Find an internship position and in case you have found it by yourself, without using the IS-A portal, have the subject validated by your section deputy.
- Cancel all ongoing applications by gently notifying the companies. This step is extremely important to keep a good relationship with future employers.
- Transmit internship agreement to the employer and have it filled out and signed by the employer, you and [SIQ](#).
- If you are a non-swiss/EU citizen, ask the company to request a work authorization for the duration of the internship.
- Once all the details of your internship have been settled, enter or edit the details of your internship on the IS-A internship portal. Upload a copy of the signed internship agreement.
- If your internship takes place during an academic semester, make sure to update your FRAC
- At the end of the internship, fill out the evaluation report that will be sent to you by e-mail. The evaluation procedure starts 2 weeks prior to the official ending of the internship. Both the student and the supervisor will fill out an evaluation report.

Best practice to set up a master thesis in industry



Companies get in touch with research labs to propose master thesis topics



Companies can hire students for internship proposals and accept the format change to master thesis projects without involving a Professor

Compatibility with academic calendar

IP owner(s)



Confidentiality

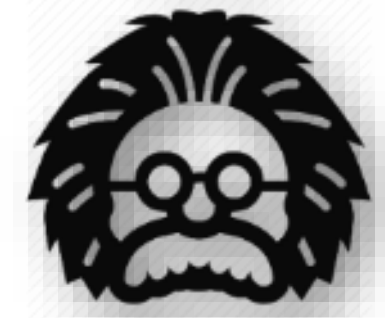
Eligibility of candidate for master thesis



Students contact professors of their section to ask for existing industrial projects



Students apply for internships on the IS-A portal and have it validated as master thesis projects by the company without involving the supervising professor



Professors and teachers propose master thesis projects with known partner companies
Professors and teachers evaluate the academic content of proposals from companies before accepting it as master thesis projects



Professors and teachers evaluate the academic content of student proposals without interacting with the host company



Ideal Scenario for Master Projects in industry



Company has an idea for a master thesis project



Company discusses the project with a Professor









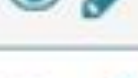





Company submits the proposal on the EPFL portal

Project starts under co-supervision by company and professor



Student applies for the project through the portal and gets accepted by the company

Master thesis in industry – offers on the internship portal

Action	Stage	Entreprise mère	Localisation du stage	Févr-Sept (P1)	Juil-Févr (P2)	Juil-Sept (P3)	N° du stage	Format	Inscrits	Places
							=	[tous]		
	Amélioration qualité image satellite par contrôle fin de la ligne de visée	Thales Alenia Space	Cannes, France	✓			18976	Stage	0	1
	Experimental Physics Internship	Distran GmbH	Zurich	✓			18973	PDM ou Stage	0	1
	Transfer learning for field and crop adaptation in agriculture applications	ecoRobotix	Yverdon-les-Bains	✓			18972	PDM ou Stage	0	1
	Product Engineer	Infineon Technologies France	Aix en Provence	✓			18967	Stage	0	1
	déploiement d'un système de sureté pour un site sensible	Etavis tsa	Carouge	✓			18962	Stage	0	1
	Thermal effect and Compensation in high precision states	Etel S.A.	Bienne	✓		✓	18953	Stage	0	1
	Intern Manufacturing	Stryker Trauma AG	Selzach (SO)	✓			18934	Stage	0	1
	Modélisation d'un processus de laminage	Constellium Valais SA	Sierre	✓			18933	Stage	0	1
	Hybrid PET/MR imaging guided radiation therapy treatment planning	Hôpitaux Universitaires de Genève	HUG Genève	✓	✓		18930	PDM coordonné	0	2
	Various internship positions in Motion analysis Startup for applications in Sports, Health and Gaming	Gait Up	Renens	✓			18922	Stage	1	2
	Various internship positions in Motion analysis Startup for applications in Sports, Health and Gaming	Gait Up	Renens	✓	✓		18920	PDM coordonné	0	2
	Printed freeform optics for light control	CSEM SA Muttenz	Basel	✓			18915	PDM ou Stage	0	1

Master project agreement

- The master thesis agreement (access for teachers only) specifies the commitments and responsibilities of the supervising teacher, the company and the student.
- This agreement can be signed upon request of the teacher or the company
- It defines IP and confidentiality aspects for any master thesis in industry without existing collaborations.
- It allows the academic supervisor to have access to the results of your work without having to sign an NDA.
- As it is not mandatory, amendments and changes requested by companies won't be accepted by the internship coordination or the legal department of EPFL



Making a master project in the industry does not exempt you from the mandatory internship



Mandatory Steps for a Master project in Industry

- Find a master project in industry by contacting the professors of your section.
- A master subject can also be found through the IS-A Internship portal. In this case, it is mandatory to find a professor willing to supervise you before you accept the offer from the company.
- All administrative details of your master project in industry have to be settled between the employer and the professor supervising your work. A special Master project agreement can be signed on request by the supervising professor or the partner company.
- Once all the details of your Master project have been settled, register your project in your study plan.
- Update your FRAC
- [General information](#) about Master's Projects

Information and contacts

- For additional information, please visit the internship pages of SIQ:
 - <https://www.epfl.ch/schools/sections/quantum-science-and-engineering/industry-internship/>
- EPFL webpage:
 - <https://www.epfl.ch/education/studies/en/rules-and-procedures/internships/>
- For your questions, send us an email to siq@epfl.ch

Questions ?



**Thank you for your attention
And best of success for your internship
campaign!**

