

 École polytechnique fédérale de Lausanne

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



- ✓ A direct link to industry
- ✓ A platform to start collaboration on the research level
- ✓ Feedback from industry to improve the education of our students.





EPFL Internship obligation

- The Internship in industry is a mandatory step of the Master degree
- ✓ Possible formats to validate this obligation

Models: STAP: Detached internship but credited with the master's project

PDME: Master project in the industry

	Models	Duration	Periods
MT & Robotics	STAP PDME	Min. 8 weeks 25 weeks	After bachelor, after MA2 or MA3 During the Master project

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Mandatory Internship or Master Project in Industry

Internship

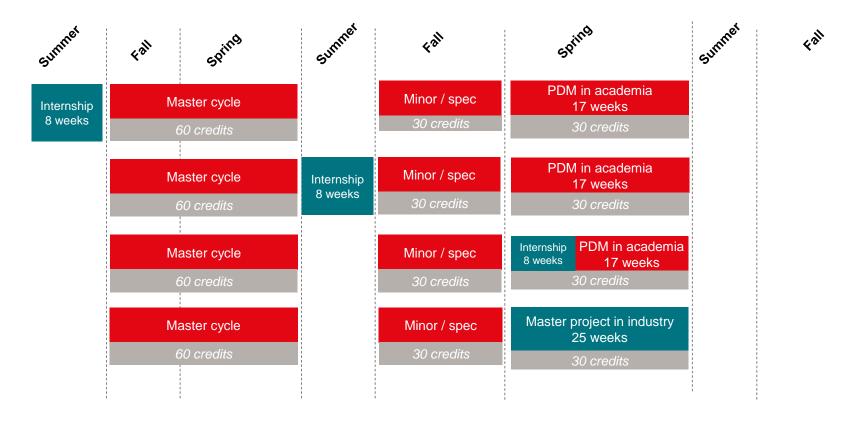
- ✓ Minimum duration of 2 months, up to 6 months
- ✓ Immersion into industry
- ✓ Familiarize with company processes
- ✓ Aquire specific competences
- ✓ Apply transversal skills
- Evaluation report by student and industry supervisor



Master project in industry

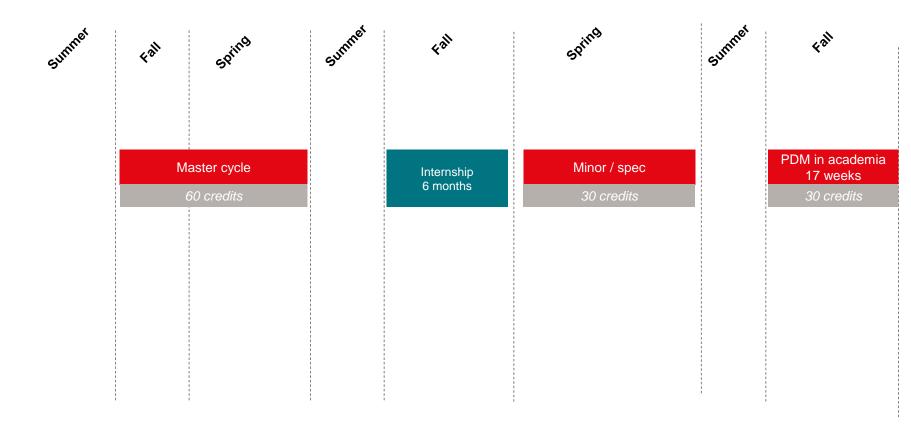
- ✓ A research project in the company
- ✓ Student applies the competences aquired during his master.
- ✓ Supervised by a Professor from his section
- ✓ Written report and oral defense
- ✓ Regular feedback to Professor
- ✓ 25 week duration (+1 week vacation)





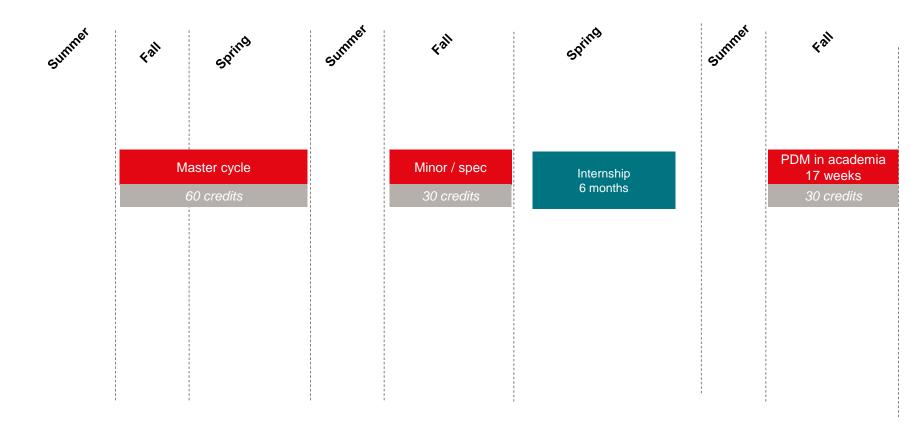
PDM in academia in foreign Universities: 25 weeks





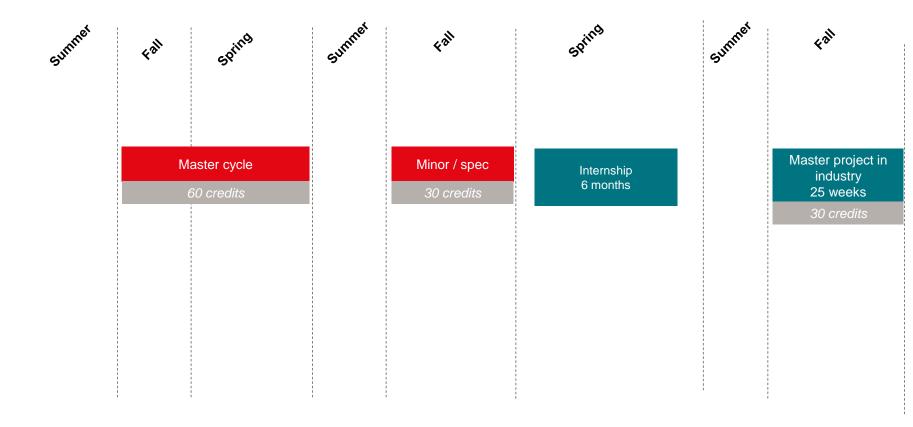
PDM in academia in foreign Universities: 25 weeks





PDM in academia in foreign Universities: 25 weeks





Internship between bachelor and master

If you have finished your bachelor and would like to take an interim year to do your mandatory industry internship for your master, the following academic rules and FRAC status' apply:

Summer	Fall semester	Spring semester	Summer Fall Semester
Option 1	Internship up To 6 months: FRAC "INTERNSHIP" Registered in Ba5	Start master FRAC "present" Registered in Ma2	
Option 2	Internship up To 6 months: FRAC "INTERNSHIP" Registered in Ba5	No master start FRAC «on leave» Semester does not count	Start master FRAC "present"
Option 3	Start master FRAC "present" Registered in Ma1	Internship up To 6 months: FRAC "INTERNSHIP" Registered in Ba6	
Option 4	No master start For motivated reasons FRAC «on leave»	Internship up To 6 months: FRAC "INTERNSHIP" Registered in Ba6	Start 2 nd master semester FRAC "present"



In option 4 the fall semester will be accounted to your master studies, except if you are doing your army or civil service

EPFL Important rules

Maximum duration of studies

The maximum duration of course semesters

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

<u>The Master's project</u> must be successfully completed within two semesters of the successful completion of the Master's cycle (including the industry internship). Should the Master's project (of a duration of 25 weeks and in industry) serve to validate the engineer's internship, the deadline is extended to three 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

Failed Master thesis in industry

Students who fail their master thesis in industry during the first attempt are asked to perform their 2nd attempt in a lab at EPFL

Validation of previous internships and industrial experiences

Internships done during the bachelor degree will not exempt you from the mandatory internship. Exemptions can be granted by the section in the following cases:

- Internships done <u>after</u> your bachelor degree
 - The internship duration must be at least 8 weeks
 - The ending should not be further than 1 year apart from your master beginning date.
 - A work certificate or an evaluation report or a has to be presented to the section deputy

- Industry employment at 100% occupation of at least 1 year related to the field of the future master studies
 - A valid work certificate has to presented to the section deputy.

What is considered «Industry»?

 Every company or start-up offering a workplace outside of an EPFL laboratory and outside of a university

 Every Research Organisation not delivering academic credits



How much salary?

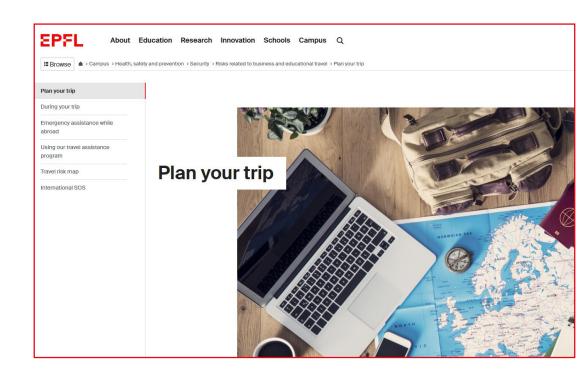
- There is no official regulation in Switzerland to pay a monthly salary for an internship.
- Salaries are mostly ruled by offer and demand
- Often the salary is dependent of the company's size and status
- EPFL recommends a typical monthly salary around 2'000 SFr. However, there is no obligation of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



Work authorization

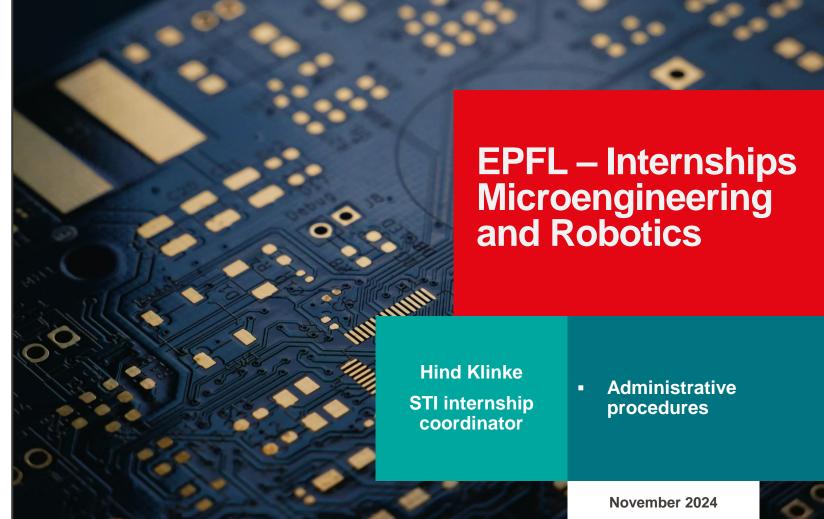
(not required for Master Projects without a monthly remuneration)

- 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 (<u>Link</u> 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".





 École polytechnique fédérale de Lausanne



How can you find an internship?

- It is the student's responsibility to find an appropriate internship to validate his Master degree.
- No responsibilty 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 <u>half-page report</u> to comment if the sustainability goals have been reached. This report does not influence the validation of the internship for the master curriculum.

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9 Z	Optimisation du potentiel énergétique d'une installation de traitement des granulats	03.10.2022	Holcim (Suisse) SA	Aigle	0
	Multi-Frequency, Multi-Modal transduction of Piezoelectric Micromachined Ultrasonic Transducers (PMUTs).		IMEC	Leuven, Belgium	
P / 1	Aerospace smart sensors - R&D embedded software developer	03.10.2022	Meggitt SA	Fribourg	
9 Z	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	
P / 1	Simulation Based Aerodynamic Performance Evaluation	30.09.2022	Sauber Motorsport AG	Hinwil, Switzerland	
P / 1	L'exploitation optimale des installations techniques dans l'environnement bâti	30.09.2022	energo	Lausanne	0
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	L'exploitation optimale des installations techniques dans l'environnement bâti	30.09.2022	energo	Lausanne	0

EPFL Forum EPFL

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



The largest recruitment fair by students in Europe

42nd Edition
SwissTech Convention Center
07 - 11 Oct 2024

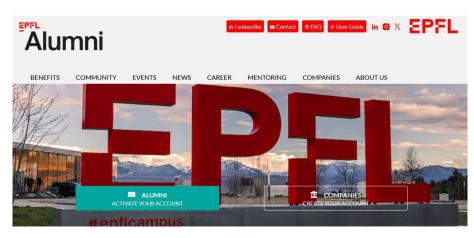
Discover the program

EPFL Alumni network

EPFL students have access to the Alumni network

Website: https://www.epflalumni.ch/students/

Pocketcampus app







Other opportunities for finding an internship

Personal contacts, family, friends

Topic related agencies and organizations



Company websites



EPFL Professors, especially for master projects in Industry



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





Qui sommes-nous?

Ingénieurs en devenir, nous nous intéressons aux problématiques liées à la coopération scientifique Nord-Sud et au développement.

Nous contacter

Ecrivez-nous à stage.idm@listes.epfl.ch

On vous offre une bourse...

- Qui couvre frais de voyage et de visa
- Pour un stage
 - Dans un pays en développement
 - Pour un projet durable
 - De minimum 8 semaines

Allez regarder les offres disponibles sur notre plateforme!

http://idm.epfl.ch/stages/



Every Internship found through «Ingénieurs du monde» needs to be approved by your section. Please contact the section deputy as soon as you have found an opportunity

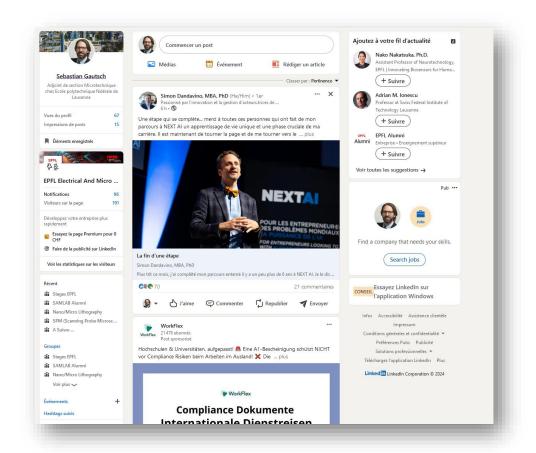


Your start-up as substitute to a master thesis in industry?

- A few students will be able to undertake their master projects in industry, at the EPFL Innovation Park to work for their own startup.
- Projects will be co-supervised by a mentor from the Vice Presidency for Innovation and a professor from the section
- This opportunity will be offered to 3-4 projects per year. Students will have to go through a selection process. More info here

https://www.epfl.ch/innovation/startup/fr/projet-de-master-dans-votre-startup-pdm/

Linked'In



EPFL 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:
 - ✓ The company if the contact is visible
 - ✓ Your internship coordinator if not
- You will be contacted by the company if your application was successful (Most selection processes involve an interview and several e-mail exchanges)

- ➤ Do not use the portal for personal internship search
- X Apply always through the portal for mandatory internship
- 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 priviledged contact with

Some advice to prepare your application documents

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

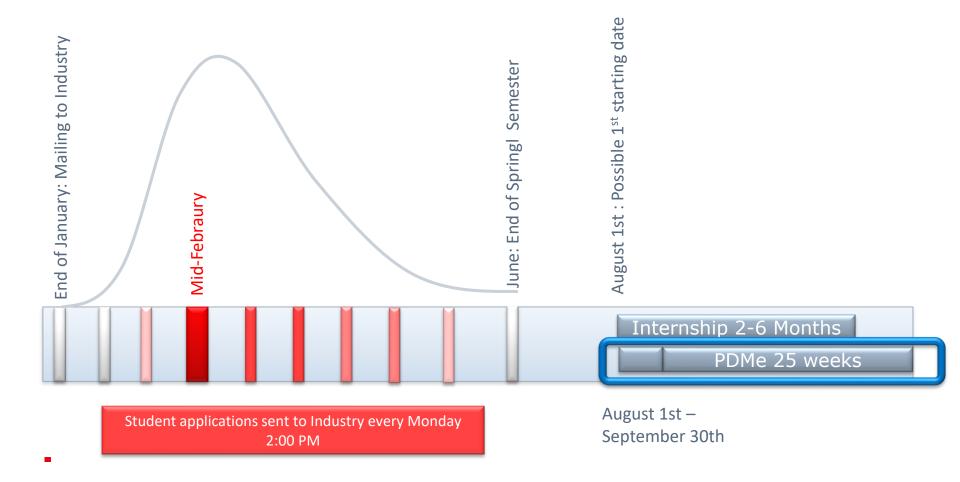
The criteria for interview selection by the company is mostly based in these documents. Reference letters can be added as well. Your motivation letter should specifically address the company and the proposed subject

 Language: you should use the language of the offer

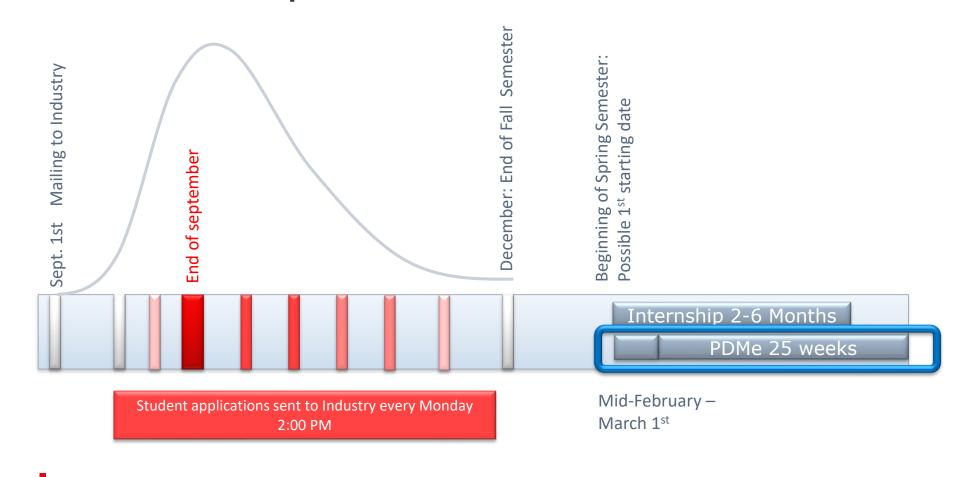
- To be avoided:
 - ✓ No motivation letter
 - ✓ copy-paste errors
 - ✓ Wrong addressing



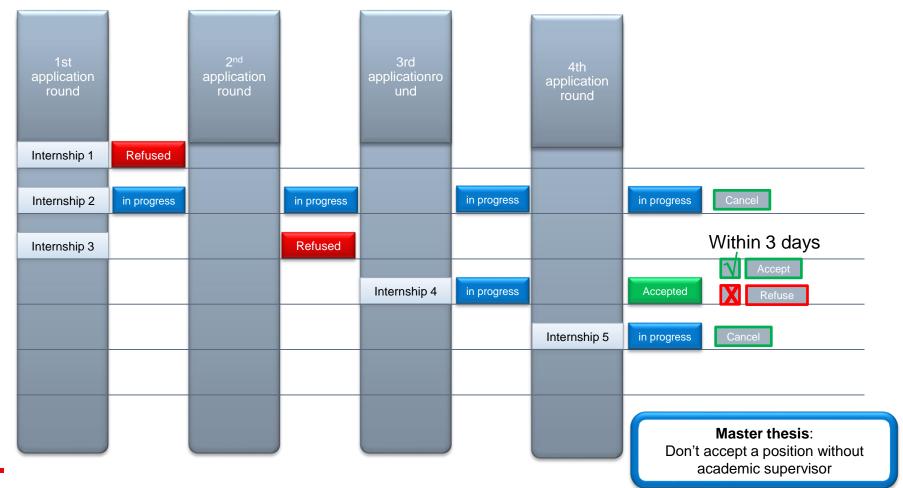
Attribution process in the spring semester



Attribution process in the fall semester



Internship attribution, possible scenarii



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EPFL Interview

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.
- For Master projects: Do not accept a position without having confirmed the eligibility of the project and settled the details with the academic supervisor.





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+ techniques pour une communication et une organisation efficace
 10+ successful techniques for communication and organization at work

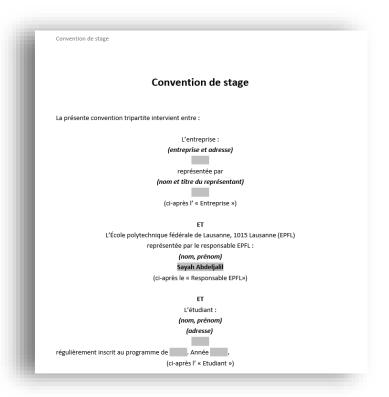
Information and mandatory registration here: https://epflcareer.ch/en/

EPFL Internship agreement

 The internship agreement specifies the commitments and responsibilities of EPFL, the company and the internship student.

This agreement <u>must be signed</u> for all engineering internships.

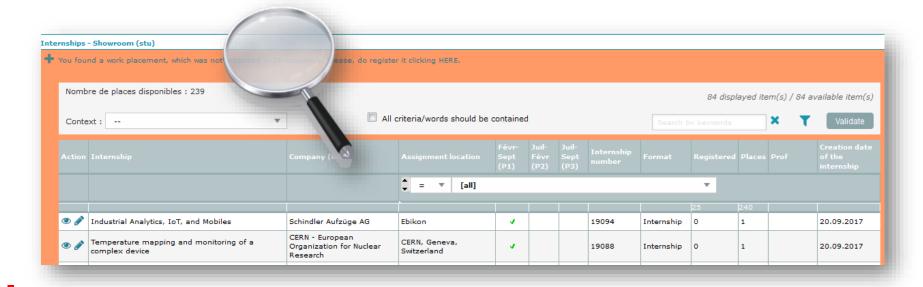
 No other tripartite agreement involving EPFL will be signed by the section.





Mandatory: Register internships found on your own

- Submit a short but detailed description of your internship to Mr. Abdeljalil Sayah.
- 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 fully signed agreement.



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 « Detached internship but credited with master Project (STAP) »



If you take courses in parallel to your internship, your FRAC status should be "present"

EPFL Anticipate!

- A change of residence or relocation might be necessary
- Setting up a Master thesis in industry takes several weeks/months
- 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 responsibilty 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 the STI Internships coordinator or your section.
- No written report of the student is requested by EPFL (except for credited internships in EE), 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 automatically 2 weeks prior to ending).



EPFL Evaluation form

- ✓ Application of scientific and technical knowledge
- Planning and management of work tasks
- Integration in the professional world
- ✓ Communication

✓ Independence

	E	G	S	1	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 <u>Mr. Abdeljalil Sayah</u>.
- Inform the <u>STI coordinator</u> that you have found your internship.
- Cancel all ongoing applications by gently notifying the companies. This step is extremely important to keep a good relationship with future employers.
- Transmit the <u>EPFL internship agreement</u> to the employer and have it filled out and signed by the employer and the section deputy.
- Transmit a copy of the agreement to the section secretariat.
- If you are a non-Swiss/EU citizen, ask the company to request a work authorization for the duration of the internship. (<u>Link</u> to obtain a mandatory internship certificate.)
- 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 <u>update your FRAC</u>.
- At the end of the internship, <u>fill out the evaluation report</u> 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





- ✓ 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.
- X Professors and teachers evaluate the academic content of the student proposals without interacting with the host company

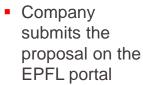
Ideal Scenario for Master Projects in industry



 Company has an idea for a master thesis project



 Company discusses the project with a Professor





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

EPFL Master thesis in industry – offers on the internship portal

					Label durable								Partagé (publ.)	
								1570	1296		834			
P	Three-dimensional fabrication with grayscale electron beam lithography	15.08.2019	CEPF			26604		1			1	†		
P	Designing a fishnet harvesting buoy to find and tag ghost nets at the ocean surface in a nature-driven way for ocean cleanup and marine plastic mining	02.09.2024	CEPF / EMPA St-Gallen	St Gallen	0	49950	Stage	2	1	!	0	✿	!	
P	Designing a fishnet harvesting buoy to find and tag ghost nets at the ocean surface in a nature-driven way for ocean cleanup and marine plastic mining	08.09.2024	CEPF / EMPA St-Gallen	St Gallen	0	50076	Stage	2	1	Į.	0	•	ļ.	
₽	Digital, CFD-based twins to optimize fresh fruit cold chains from tree to table $% \left\{ \mathbf{r}_{\mathbf{r}}^{\mathbf{r}}\right\}$	04.10.2024	CEPF / EMPA St-Gallen	St Gallen		30074	Stage	2	1	+	0	0	ļ.	
F Ø	Measurement of bunch length in a particle accelerator	27.08.2024	CEPF / Paul Scherrer Institut	PSI		49736	PDM coordonné	0	1		0	0		
P	Stage d'Ingénieur Microtechnique	03.07.2018	CeQur Corporation	Marlborough MA USA		22140		1			1	†		
ī c	Stage	06.07.2023	CERN	Genève, Suisse		44676		1			1	†		
P	Internship	20.02.2018	CERN - European Lab. for Particle Physics	Geneva		20977		1			1	✿		
P	Approaches for the fabrication of silicon buried channels for the thermal management of monolithic pixel detectors	02.02.2017	CERN - European Organization for Nuclear Research			16799		1			1	✿		
P	Automation and Optimization of a Robotic System for Radio Frequency Cavities Inspection	23.06.2020	CERN - European Organization for Nuclear Research			30617		1			1	✿		
P	Contrôle et automatisation d'une station de compression d'hélium destiné à la cryogénie.	04.12.2017	CERN - European Organization for Nuclear Research	Cern (Centre Européen de Recherche Nucléaire)		20038		1			1	✿		
P	Development and integration of plastic connectors	23.09.2016	CERN - European Organization for Nuclear Research	1211 Genève 23		15594		1			1	✿		
≅ Ø	Enhancement of Inspection and Maintenance Capabilities in	26.07.2023	CERN - European Organization for			44845		1			1	†		

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Master thesis in industry, some advice for students

-> Give priority to Master thesis proposals from laboratories of your section and proposals posted on the IS-A portal with confirmed academic supervisor

If you can't find a suitable topic this way, **consider doing an internship to validate your industry immersion.** If this is not an option, then proceed like this:

- Contact potential academic supervisors to inform them on your intentions
- Apply for positions and inform companies on your objective to do a master thesis (in motivation letter, during e-mails exchanges and interviews, ...)
- The academic supervisor should discuss with the company about the academic content and administrative formalities. Suggest the signature of the EPFL master thesis agreement (to settle IP and confidentiality).
- Insure a coordinated supervision and regular meetings between the company and the teacher during the project

EPFL Master project agreement

 The master thesis agreement 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 a 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.
- This document is only accessible to Professors and MER.





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.
- Official starting dates for master projects are determined at a school level. Other starting dates can be obtained on special request to your section.
- 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

EPFL Important remarks

- As an EPFL student doing an internship in industry, you act as an EPFL Ambassador. Thanks to your work and positive attitude, you will leave an important impression in the company.
- This aspect is not only important for your future professional career, but also for the EPFL internship program which will benefit from this lasting impression.



Information and contacts

For further information, please visit the internship page of your section: https://sti.epfl.ch/smt/internships/ or the EPFL webpage https://go.epfl.ch/infos-stages

Depending on your inquiry, you can contact the following persons:



Sebastian Gautsch

SMT
Adjunct to the section Director

Abdeljalil Sayah





Isabelle Schafer









Isabelle Turpin
STI
Administration

EPFL Questions?



Thank you for your attention

And best of success for your internship campaign!



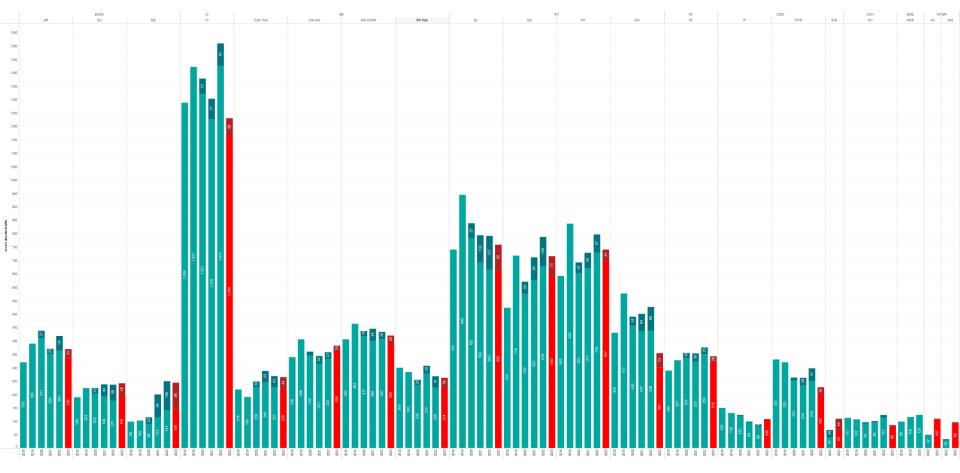
Internship proposals

Distinction des stages durables

on

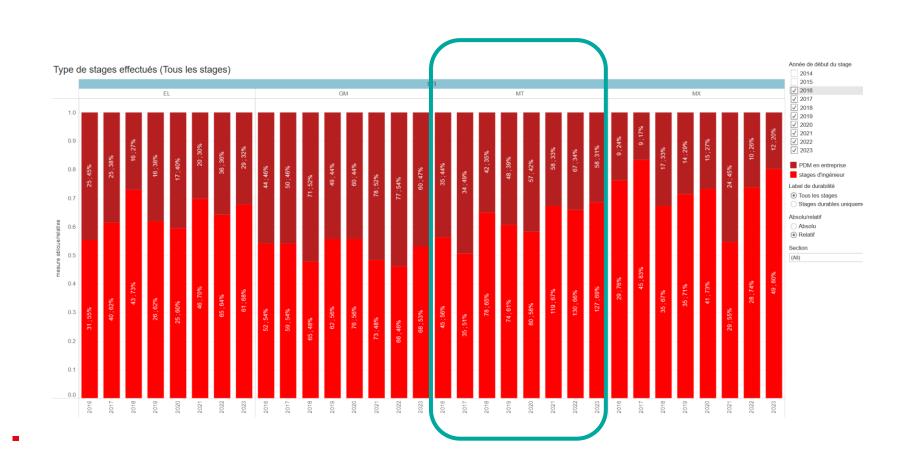
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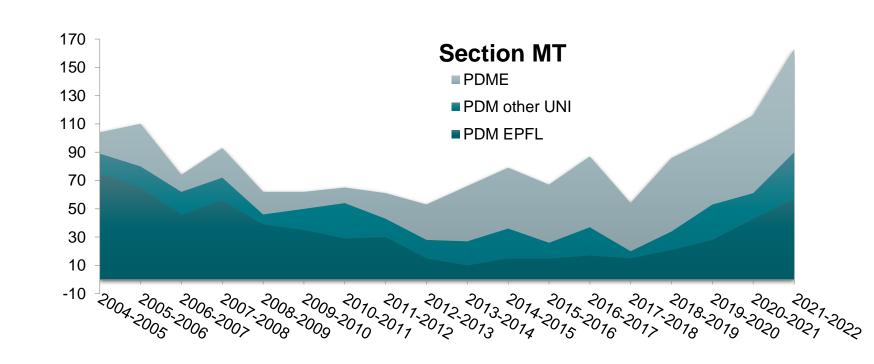




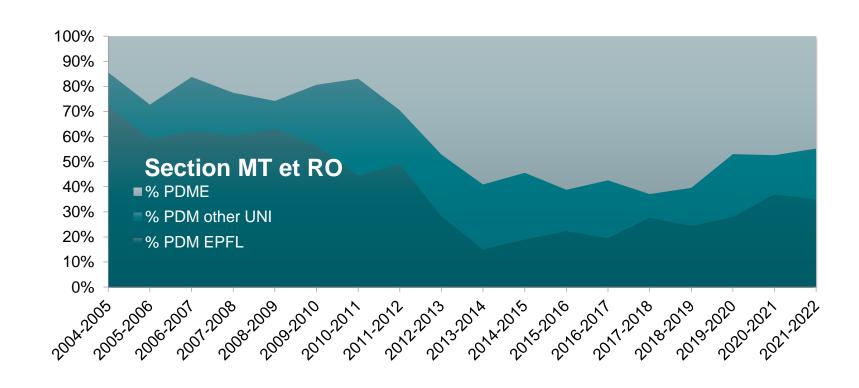
Internships &/or Master thesis in industry



Projets de master en entreprise (2004-2022)

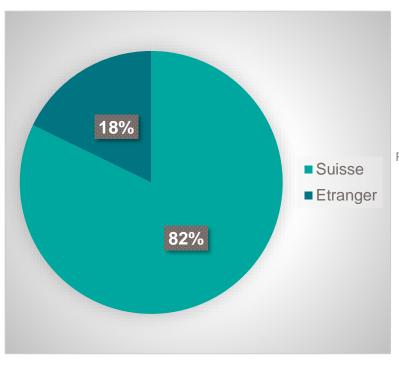


Projets de master en entreprise % (2004-2022)





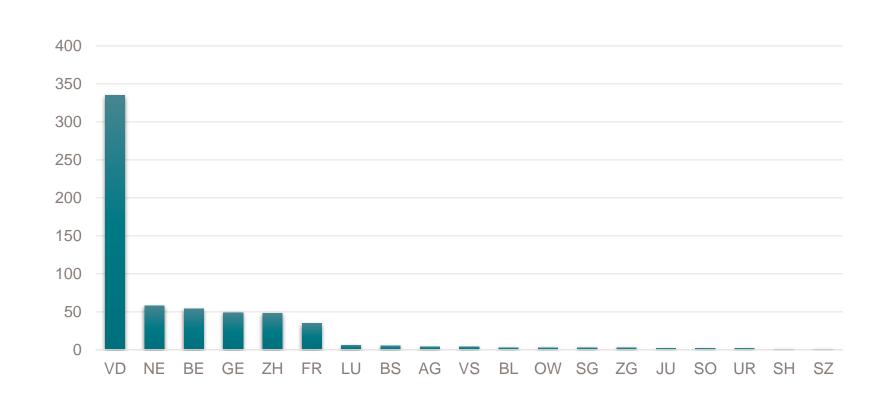
Internship countries for MT et RO Master (2018-2022)







Internship cantons for MT et RO Master (2018-2022)

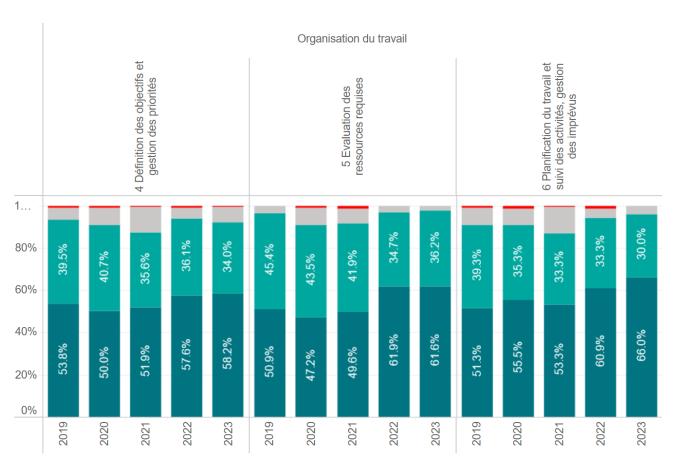


Evaluations MT et RO (2019-2023):



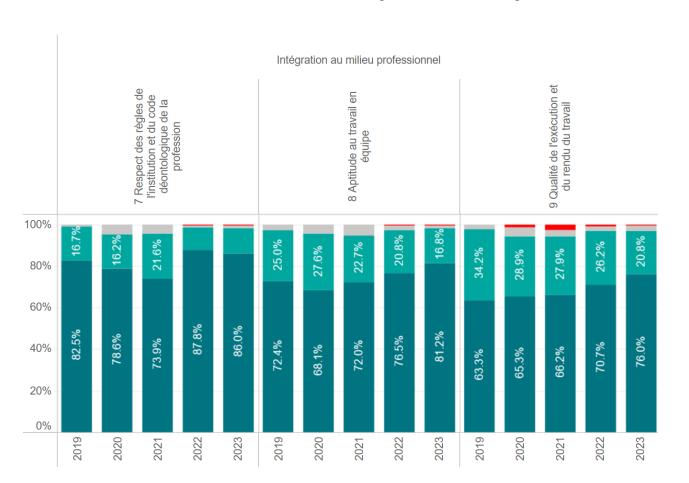
Excellent





Excellent
Bien
Suffisant
Insuffisant
Non applicable

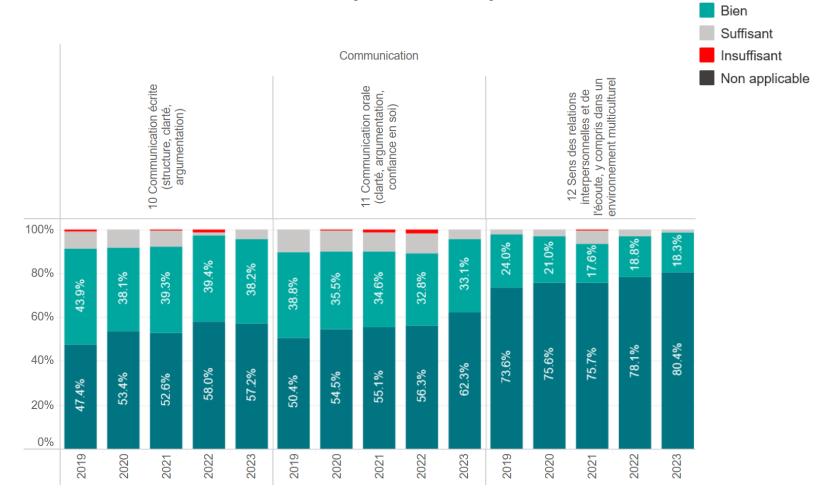




Excellent
Bien
Suffisant
Insuffisant

Non applicable





Excellent





Excellent

Bien

Suffisant

Insuffisant

Non applicable

Student auto-evaluations MT et RO (2019-2023):



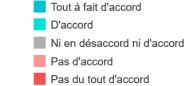


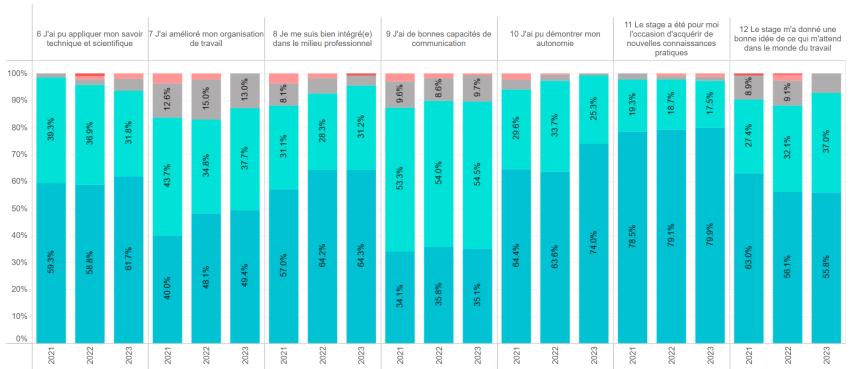




Student auto-evaluations MT et RO (2019-2023):









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