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<https://edmadis.univ-lille.fr>

PODCAST à écouter sans modération:



# D1- Meeting program

- MADIS Graduate school
- Training courses
- Individual Monitoring Committee (CSI)
- Defence
- After PhD

**MADIS Graduate School**

# Doctorate's diploma or PhD (Philosophiæ Doctor): the highest diploma

Master /  
Engineering  
(BAC+5)

PhD (BAC+8)

After PhD

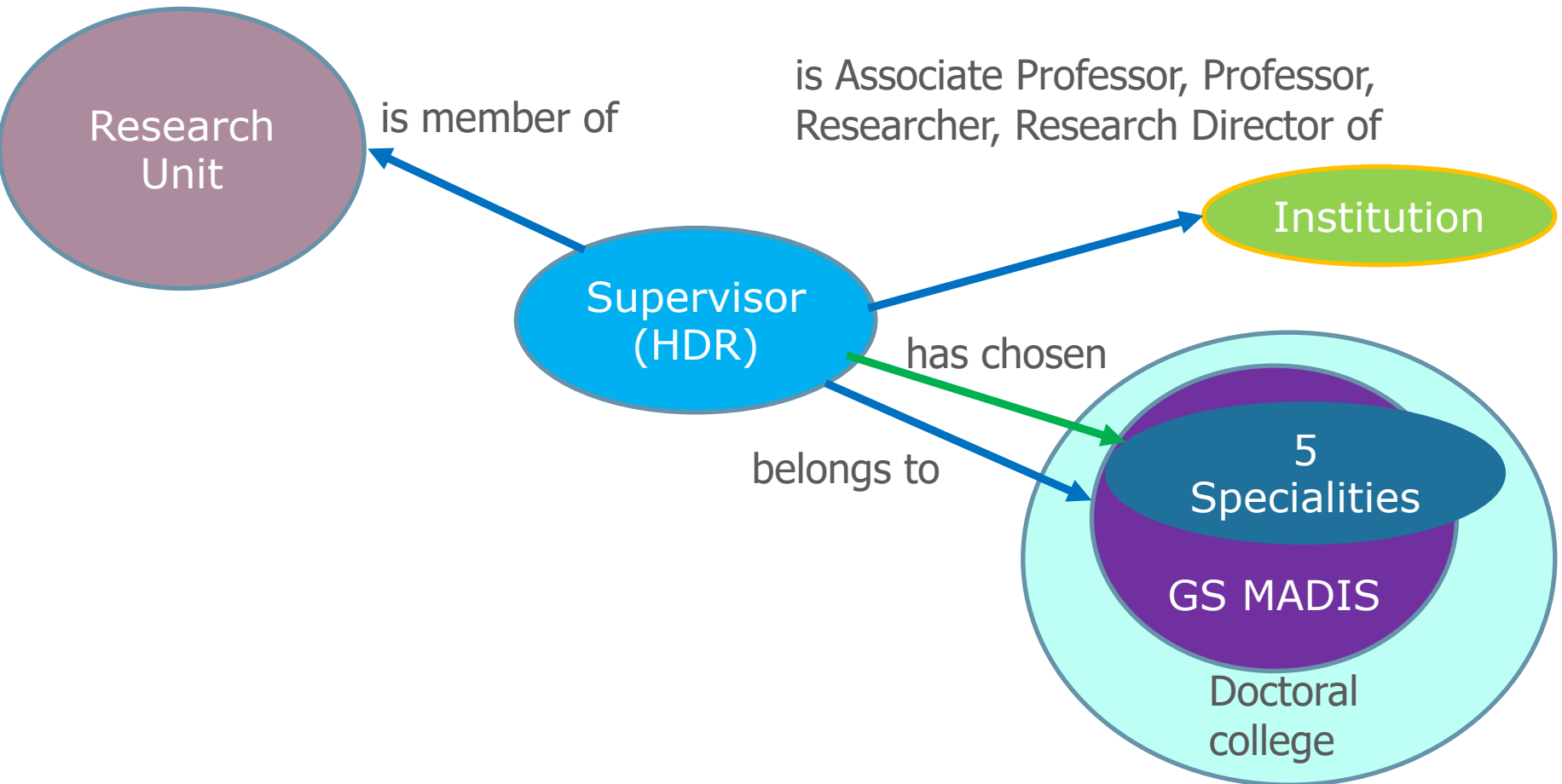


# Preparing your PhD is your first job

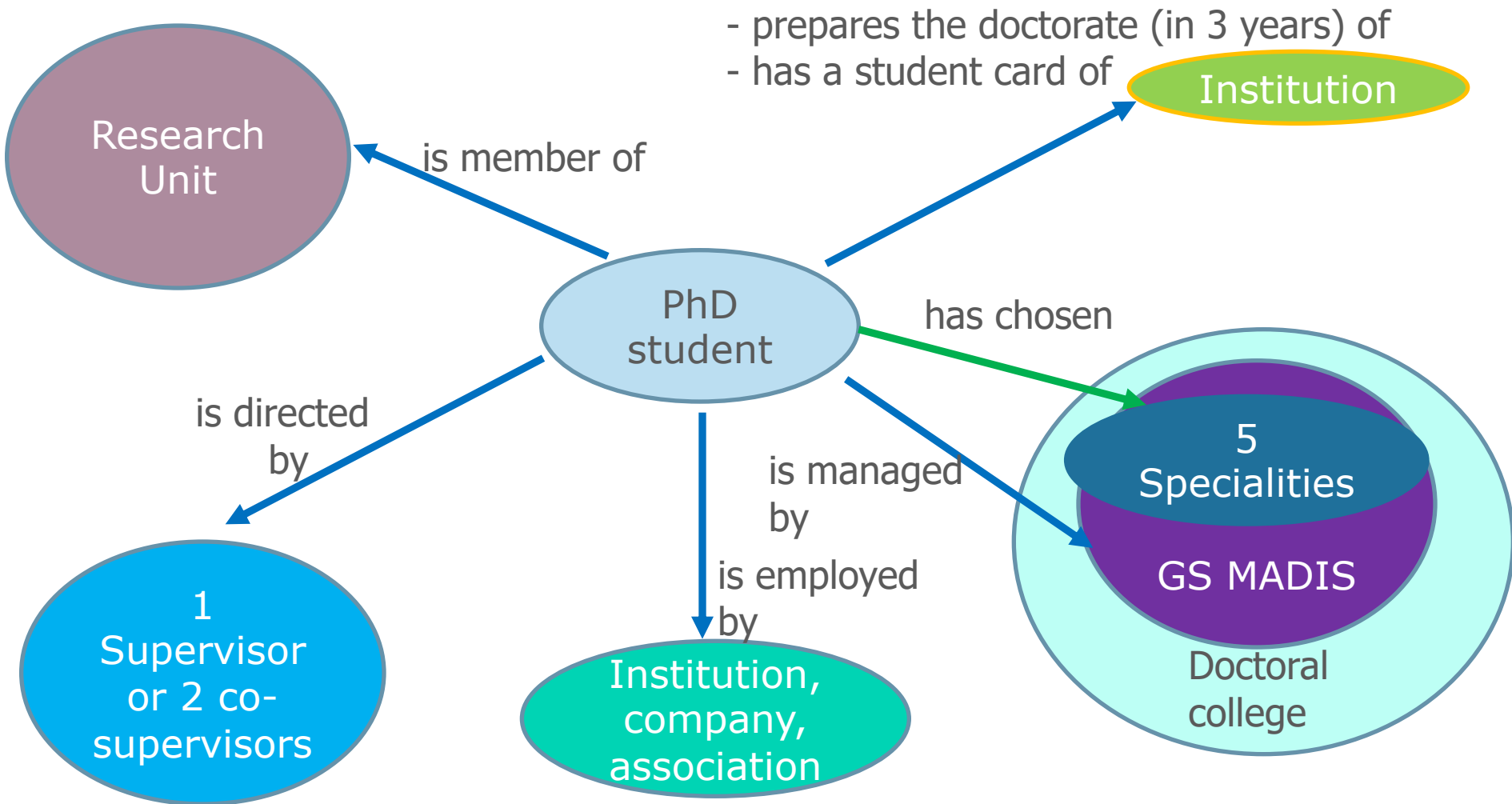
## You

- Conduct training-by-doing research, under the scientific and personalized direction of supervisors within 36 months
- Are young professional researchers who are integrated in research units
- Develop soft skills beyond their area of scientific expertise
- Must :
  - write scientific papers and/or patents
  - participate to doctoral trainings
  - cultivate intellectual rigor, ethical reflexivity and respect for the principles of scientific integrity
  - write a PhD thesis (> 100 pages and bibliographic references)
  - defend your thesis in front of a committee

# MADIS accredited supervisors



# MADIS PhD students



# MADIS Institution (233 students)

| Institution                              | # students |
|------------------------------------------|------------|
| Université de Lille (ULille)             | 182        |
| Centrale Lille Institut (CLille)         | 35         |
| Institut Mines Télécom Nord Europe (IMT) | 12         |
| Université Gustave Eiffel (Univ Eiffel)  | 4          |
| <b>TOTAL</b>                             | <b>233</b> |



# MADIS Institution

| Institution                              | Contact                                                                                        |
|------------------------------------------|------------------------------------------------------------------------------------------------|
| Université de Lille (ULille)             | <a href="mailto:affaires-doctorales@univ-lille.fr">affaires-doctorales@univ-lille.fr</a>       |
| Centrale Lille Institut (CLille)         | <a href="mailto:scolarite.phd@centraledlille.fr">scolarite.phd@centraledlille.fr</a>           |
| Institut Mines Télécom Nord Europe (IMT) | <a href="mailto:christine.charlet@imt-nord-europe.fr">christine.charlet@imt-nord-europe.fr</a> |
| Université Gustave Eiffel (Univ Eiffel)  | <a href="mailto:sebastien.gaglianone@univ-eiffel.fr">sebastien.gaglianone@univ-eiffel.fr</a>   |

# MADIS Disciplinary field leader (DED)

## Disciplinary field

Mathematics (MPMA)

Patrick POPESCU-PAMPU

patrick.popescu-pampu@univ-lille.fr

Computer science

Laetitia JOURDAN

laetitia.jourdan@univ-lille.fr

Control science (AGITSI)

Lotfi BELKOURA

lotfi.belkoura@univ-lille.fr



# MADIS Doctorate speciality (233 students 2020-2021)

| Disciplinary field                           | Doctorate speciality                                                                                       |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Mathematics (MPMA)<br>P. POPESCU-PAMPU (46)  | Mathématiques et leurs interactions (46)                                                                   |
| Computer science<br>L. JOURDAN (116)         | Informatique et applications (116)                                                                         |
| Control science (AGITSI)<br>L. BELKOURA (71) | Automatique, Productique (31)<br>Traitement du signal et des images (18)<br>Informatique, Automatique (22) |

# MADIS Research units (242 HDRs)

| Disciplinary field                   | Research units                                                                |
|--------------------------------------|-------------------------------------------------------------------------------|
| Mathematics<br>P. POPESCU-PAMPU (98) | (3) — Painlevé (95)                                                           |
| Computer science<br>L. JOURDAN (84)  | INRIA (5) — (66) CRIS <sup>t</sup> AL (39) — (10) CERI SN (6) — (3) COSYS (5) |
| Control science<br>L. BELKOURA (60)  | (4) — GEMTEX (6)                                                              |

— Double referencing of HDRs

# MADIS Contact

- Aurore SMETS : Administrative leader
- Malika DEBUYSSCHERE : Administrative management
  - [Sec-edmadis@univ-lille.fr](mailto:Sec-edmadis@univ-lille.fr)

## Messages about PhD from

- [Sec-edmadis@univ-lille.fr](mailto:Sec-edmadis@univ-lille.fr)
- [noreply@adum.fr](mailto:noreply@adum.fr)

## MADIS website

- <https://edmadis.univ-lille.fr>
- Your ADUM private space

# 5 PhD students in MADIS council

- [Guillaume BELLOT](#)
- [Maxime HUYGHE](#)
- [Maxime JONVAL](#)
- [Lilian MARCHAND](#)
- 1 open position for 2024 for election
- Participation at 2 councils (january and june)
- [Survey among doctoral students](#) to improve doctoral studies
- [MADIS DDay](#) organisation (June)

# Main missions of MADIS Graduate School

- Agreement for PhD registration in co-accredited institution (Centrale, ULille, IMT, U. G.Eiffel)
  - Documents needed for an application to doctoral studies (transcripts, motivations,...)
  - Funding (proof of funding for the PhD duration)
  - Support letter from the proposed supervisor and agreement of the laboratory director
- Agreement for the joint supervision and awarding of a double doctoral degree (co-agreement)

# Main missions of MADIS Doctoral School

- Individual Monitoring Committee (CSI) (end of D1, D2 and D3)
- Doctoral trainings (with Doctoral College)
- International mobility grants for PhD students (with Doctoral College)
- Agreement for the PhD defence
  - Skill portfolio
  - Number of required doctoral training credits
  - PhD committee and reviewers
  - Reports by reviewers before defence

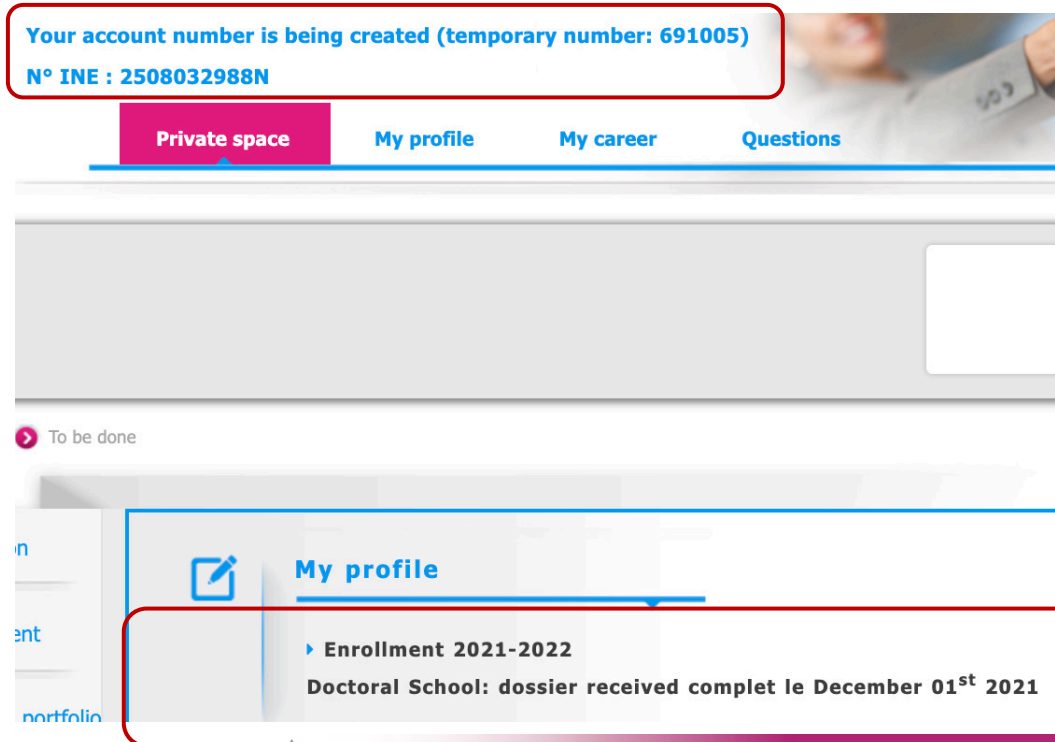


# Not supported by Graduate School

- PhD annual registration in the institution (Centrale, ULille, IMT, UGE)
- Mobility grants for participation to doctoral trainings or conferences
- Registration fees for MOOC
- Organisation of the PhD defence
- Doctoral degree printing

# MADIS D1-planning-1

- Create a temporary ADUM ID for academic submission.
- Submit MADIS registration.
- Obtain MADIS agreement.



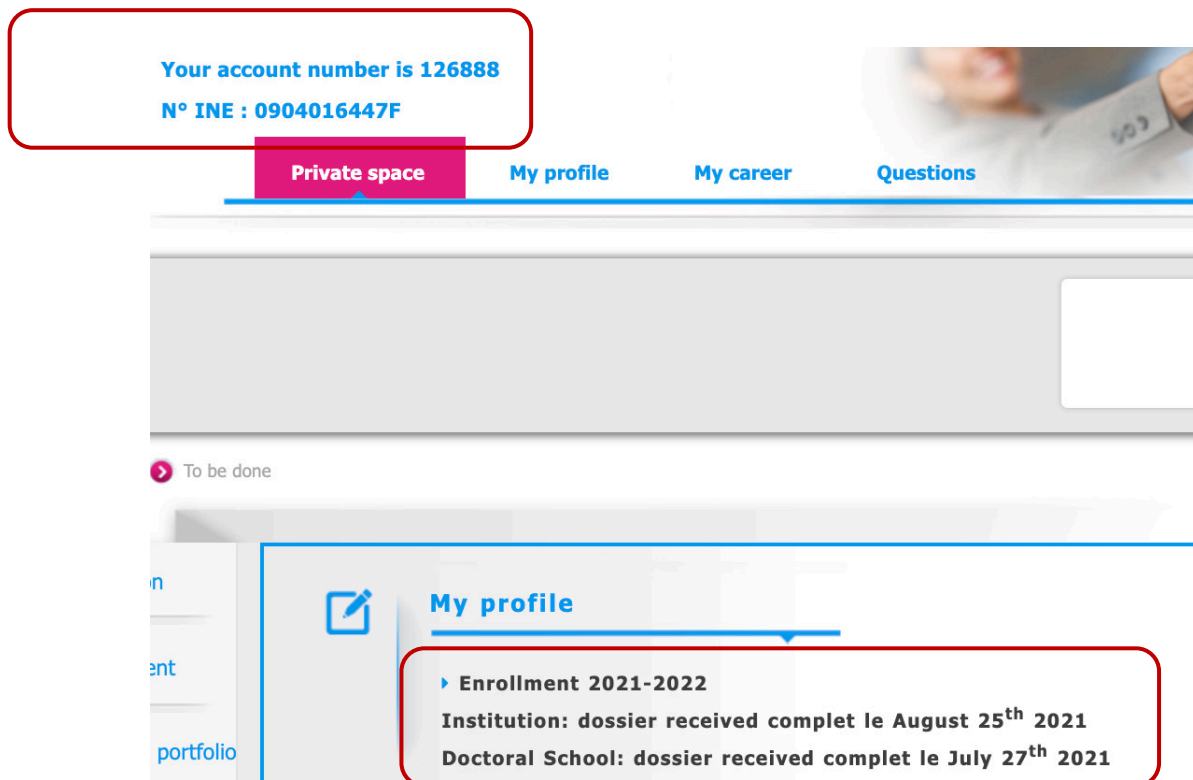
# MADIS D1-planning-2

- Register at your institution and obtain your student card.



# MADIS D1-planning-3

- Obtain your final ADUM ID from your institution.



# MADIS D1-planning

- Register at training courses available at ADUM
- Add external training modules
- Build your Portfolio of skills (technical skills, validated courses, teaching, publications by HAL, events ...)
- Prepare your career : upload CV and scientific productions to be displayed via ADUM
- [https://www.adum.fr/as/ed/annulabo\\_these.pl?site=madis](https://www.adum.fr/as/ed/annulabo_these.pl?site=madis)
- Prepare CSI-D1

# MADIS D2-planning

- Obtain agreement of CSI-D1
- On line register at MADIS
- Obtain your student card from your institution. Online registration via [ent.univ-lille.fr](http://ent.univ-lille.fr) for University of Lille
- Register at training courses available at ADUM
- Add external training modules
- Build your Portfolio of skills (validated courses, teaching, PhD title...)
- Prepare your career : upload CV and scientific productions to be displayed via ADUM:  
[https://www.adum.fr/as/ed/annulabo\\_these.pl?site=madis](https://www.adum.fr/as/ed/annulabo_these.pl?site=madis)
- Prepare CSI-D2

# MADIS rules

- Before D2 and D3 : agreement of the individual monitoring committee (CSI)
- Before defence : a number of doctoral training credits (on thematic-methodology and language-professional skills) and training about ethics (and teaching) must be validated
- D4 registration is exceptional and needs a new CSI



Graduate  
Programme  
Lille



# Information and knowledge society

- All MADIS PhD student can be integrated in IKS
- Access the master's classes taught as part of the graduate programme
- Events organised as part of the graduate programme, like the summer and autumn schools
- After-work seminars or end-of-year conference
- Outward mobility grant for a mobility project
- Diploma indicating the 3 core acquired skills: interdisciplinary skills, international experience and the capacity to work in public sector research or R&D in the private sector



**Training courses to build  
your Portfolio**

# Training courses

- All PhD students must collect a number of credits following their participation in doctoral training in the three areas :
  - Thematic training (summer schools, master classes, training courses organized by the laboratory or MADIS, technical courses)
  - Training related to language, research methodology or tools (organized by MADIS or Doctoral College)
  - Professional training (organized by Doctoral College) to improve soft skills
- One course about **ethics** must be followed
- One course about **teaching** must be followed when 'avenant d'enseignement au contrat doctoral'
- 2022 : 20 CFD can be obtained by **MOOC**
- 2 hours -> at least 1 CFD.

# Training courses

- The number of credits (CFD) to be collected depends on the PhD type:
  - **60 CFD** including at least 20 CFD on professional training for a **full time** PhD student
  - **30 CFD** in three training areas for a PhD student with a joint supervision between two institutions of different countries (**co-agreement or cotutelle**)
  - **40 CFD** distributed in the area of thematic training and research methodology for **CIFRE** PhD Student
- **One course about ethics** must be followed
- One course about **teaching** must be followed by PhD students who teach

# Registration to training courses (ADUM)

You must have an ADUM account number!

The screenshot shows the ADUM interface with the following elements:

- Top Navigation Bar:** Includes a profile picture, 'Private space', 'My profile', 'My career', 'Questions', and a 'Logout' button.
- Search Bar:** Labeled 'Rechercher...' with a magnifying glass icon.
- Actualités (News) Section:** Contains three items: 'PHD WELCOME', 'STARTDOC 2019', and 'Formation pour les doctorants BSL'.
- Legend:** Shows 'Validated' (green check), 'Ongoing' (yellow exclamation mark), and 'To be done' (pink circle).
- Left Sidebar:** Lists navigation options: 'Contact information', 'Display management', 'Competencies and portfolio', 'Individual training contract', 'Professional situation', and 'Publications'.
- Main Content Area:**
  - My profile:** Includes links for 'Enrollment 2019-2020, Institution: dossier received complet', 'Enrollment 2019-2020, Doctoral School: dossier received complet', 'Online Display', 'I want to change my password', 'Upload my CV', 'MY PHOTO - Upload my photo', and links to 'See the Individual training contract written in 2018' and '2019'.
  - Procedures:** Indicated by a gear icon.
  - Trainings (highlighted with a red box):** Includes 'Training modules Catalogue', 'Statement of the undergone training modules', 'Training module', and 'External training modules'.
  - Administrative documents:** Includes a note: 'Documents must be printed in portrait format. All documents and information required to follow the educational and administrative procedures for enrollment/re-enrollment must be downloaded below. The documents that require signatures must be signed and, when complete, they must be given to your Doctoral School, along with the additional documents required, for processing your dossier.'

# Registration to training courses (ADUM)

- Add an external training module
  - Master class, MOOC, auditor at summer school or conference, Member of organization committee of conferences...
  - Give the title- category – university and city – topic and skills
  - Add a PDF file with attendance certificate and detailed training program, so that MADIS can give credits (1 CFD/ 2 hours)
- Not validated as external training
  - Paper presentation at conference, workshop
  - Teaching



## **Individual Monitoring Committee (CSI)**

# Individual Monitoring Committee (CSI)

- For D2 and D3 registrations, an Individual Monitoring Committee (D1-CSI) is set up
- At minimum the committee includes
  - One HDR specialist of the scientific domain and outside at ULille, Centrale Lille, IMT and UGE (ESTAS and LEOST),
  - or
  - Two HDR: one specialist and one outside at ULille, Centrale Lille, IMT and UGE (ESTAS and LEOST).
  - and
  - A member of the Graduate School MADIS (DED) who will be the chairman.
- At the end of the meeting, a collective report will be written under the authority of DED. This report is posted in ADUM

# CSI paper

- The PhD student provides a paper on its work, two weeks before the meeting to all members of the CSI.
- This paper will include a minimum of 7 pages :
  - Brief description of the thesis subject and its goals (min 1/2 page)
  - Main references - state of the art (min 1 page)
  - Progress work in accordance with goals and key results (min 3 pages). A statement of policy regarding results dissemination in terms of publications and software production
  - Roadmap for the next two years with the expected contributions and a schedule, (min 2 pages)
  - Doctoral training modules achieved
  - Professional project



# CSI meeting

- CSI meeting includes :
  - Presentation in 20 mn + questions
  - Meeting between members of CSI and the supervisor (and co-supervisors)
  - Discussion between members of CSI (without the PhD supervision) and the PhD student
  - At the end of the meeting, a collective report will be written under the authority of the CSI chairman
  - This report is posted in ADUM

# CSI template report

|                                       | Very good                | Good                     | To improve               | Not relevant             |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Expertise of thesis topic             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Progress of the work                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Strategy for valorisation of results  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Identification of research directions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Follow-up of doctoral training        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Building the professional project     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

|                                                                                                                |                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Brief review about progress of the work :                                                                      |                                                                                                                   |
| Brief review about the conditions of the thesis :                                                              |                                                                                                                   |
| Highlights :                                                                                                   |                                                                                                                   |
| Points for improvement :                                                                                       |                                                                                                                   |
| Recommendations :<br>The committee members make the following recommendations for the continuation of the PhD. |                                                                                                                   |
| The committee members point out particular points of vigilance:                                                |                                                                                                                   |
| Opinion of the Monitoring Committee on re-enrolment in doctoral studies:                                       | <input type="checkbox"/> favourable<br><input type="checkbox"/> reserved<br><input type="checkbox"/> unfavourable |

# CSI important dates

- CSI constitution before June 15th, 2024
- CSI paper has to be sent 15 days before the meeting
- CSI meeting before September 15th, 2024

# PhD Defence

# Planning (important dates)

- D – 9 weeks : Student submits the committee and uploads thesis via ADUM
- D – 8 weeks : MADIS checks the skill portfolio, required CFD, publications in ADUM and gives its agreement about committee
- D – 4 weeks : Reviewers send their review to the Institution and MADIS
- D – 3 weeks : MADIS Leader and Research President of the Institution give their agreement about PhD defence
- Defence : Committee President sends the defence report to the Institution
- D + XX : Student sends the final version of the thesis to the Institution

# Committee for full-time or CIFRE PhD

2 reviewers  
(minimum)

Must be accredited (HDR). A full professor or french research director is accredited. Foreign reviewer's CV is required.

Must be outside MADIS, IMT, ULille, Clille and UGE. Must be outside doctoral project. No work and paper with supervisors and PhD student during PhD duration.

From 4 to 8  
committee  
members

At least 50% of members are outside MADIS, IMT, ULille, Clille and UGE.  
At least 50% of members are outside doctoral project.  
All members must be PhD.

At least 50% of Full Professor or equivalent (Research Director in France).

Member categories: 1 or 2 supervisors (registered at ADUM), 2 reviewers and examiners

At least 1 member of each gender for a committee with 4, 5 or 6 members.  
At least 2 members of each gender for a committee with 7 or 8 members.

All the members can participate via video-meeting (specific agreement).

# Committee when co-agreement with foreign institution

2 reviewers  
(minimum)

Must be accredited (HDR). A full professor or french research director is accredited. Foreign reviewer's CV is required.

Must be outside MADIS IMT, Ulille, Clille, UGE **and the foreign institution**. Must be outside doctoral project. No work and paper with supervisors and PhD student during PhD duration.

From 4 to 8  
committee  
members

At least 50% of members are outside MADIS, IMT, Ulille, Clille, UGE **and the foreign institution**. All members must be PhD.

At least 50% of Full Professor or equivalent (Research Director in France).

Member categories: 1 or 2 supervisors (registered at ADUM), 2 reviewers and examiners

At least 1 member of each gender for a committee with 4, 5 or 6 members.  
At least 2 members of each gender for a committee with 7 or 8 members.

All the members can participate via video-meeting (specific agreement).

# Doctoral Oath (after Defence)

En présence de mes pairs, parvenu à l'issue de mon doctorat en spécialité', et ayant ainsi pratiqué, dans ma quête du savoir, l'exercice d'une recherche scientifique exigeante, **en cultivant la rigueur intellectuelle, la réflexivité éthique et dans le respect des principes de l'intégrité scientifique**, je m'engage, pour ce qui dépendra de moi, dans la suite de ma carrière professionnelle quel qu'en soit le secteur ou le domaine d'activité, à maintenir une conduite intègre dans mon rapport au savoir, mes méthodes et mes résultats.

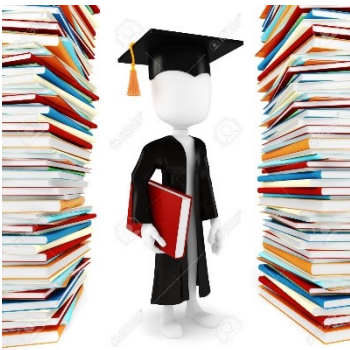
In the presence of my peers, having completed my doctorate in 'Specialty', and having thus practiced, in my quest for knowledge, the exercise of a demanding scientific research, by **cultivating intellectual rigor, ethical reflexivity and respect for the principles of scientific integrity**, I commit myself, for what will depend on me, in the continuation of my professional career, whatever the sector or the field of activity, to maintain an honest conduct in my relationship to knowledge, my methods and my results.



**After PhD**

# Opportunity for PhD studies

Today



Tomorrow



The day after

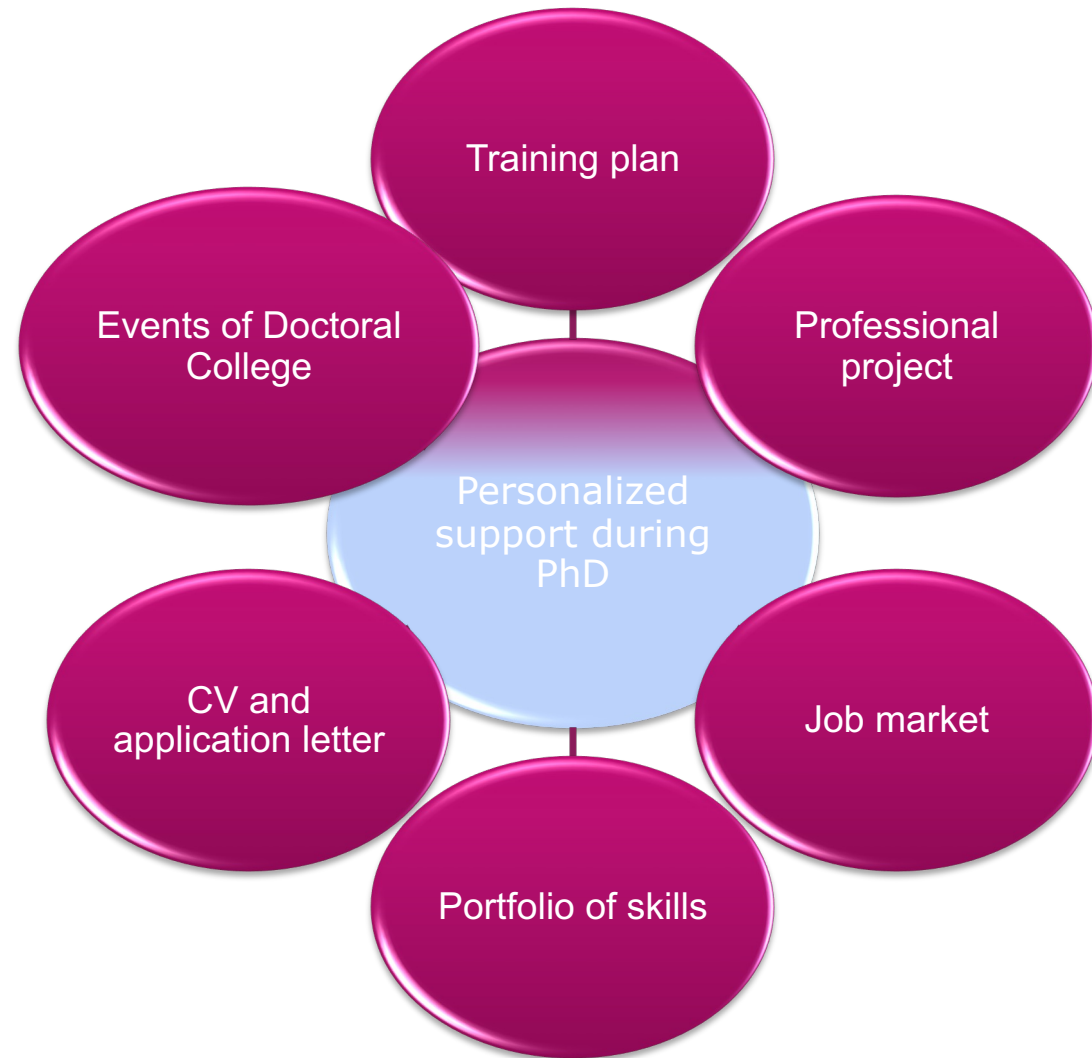


Get started  
Prepare

Inquiry

## Referent about after PhD

- Control science :
  - Jean-Yves Dieulot,
- Computer science :
  - Chabane Djeraba,
  - Sylvain Salvati
- Mathematics :
  - Nicolas Wicker



# ENGYSYS-MADIS and industry

- Industrial contracts CIFRE (> 10%)
- Private doctoral contract
- Classical short term contract

## ED MADIS



26 contracts CIFRE (6 women)



40 contrats CIFRE (10 women)



## GS MADIS



## ODIF survey of 2017 and 2018 SPI PhD

**2108 : 38% of SPI PhD find their jobs in Hauts de France**

**2018 : 41% of SPI PhD find academic jobs**

### L'insertion professionnelle

|                                                                                                    | <b>2017</b><br>ED SPI | Ensemble des<br>docteurs 2017<br>de l'I-SITE ULNE | <b>2018</b><br>ED SPI |
|----------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------|-----------------------|
| Taux d'emploi <sup>1</sup>                                                                         | 94%                   | 91%                                               | 94%                   |
| Taux d'insertion <sup>2</sup>                                                                      | 94%                   | 92%                                               | 96%                   |
| Part d'emplois de niveau cadre et professions libérales <sup>3</sup>                               | 98%                   | 96%                                               | 100%                  |
| Part d'emplois à durée indéterminée <sup>3</sup>                                                   | 74%                   | 72%                                               | 80%                   |
| Part d'emplois à temps plein <sup>3</sup>                                                          | 98%                   | 95%                                               | 95%                   |
| Part d'emplois localisés dans les Hauts de France <sup>3</sup>                                     | 31%                   | 37%                                               | 38%                   |
| Part d'emplois dans le monde académique <sup>3 et 4</sup>                                          | 53%                   | 46%                                               | 41%                   |
| Salaire/revenu net mensuel médian (primes comprises)<br>des emplois à temps plein situés en France | 2 500 €               | 2 500 €                                           | 2 528 €               |

## ODIF survey of 2017 and 2018 SPI PhD

- **2018 : 57% of SPI PhD find jobs in companies**

Type d'employeur (secteur)

|            | 2017<br>ED SPI | Ensemble des<br>docteurs 2017<br>de l'I-SITE ULNE | 2018<br>ED SPI |
|------------|----------------|---------------------------------------------------|----------------|
| Privé      | 51%            | 49%                                               | 57%            |
| Public     | 47%            | 47%                                               | 40%            |
| Associatif | 2%             | 4%                                                | 3%             |
|            | 100%           | 100%                                              |                |

# ODIF survey of 2017 and 2018 SPI PhD

- **2018 : 8% Post-doc, 54% engineer**

## Répartition par catégorie d'emplois

|                                                      | <b>2017<br/>ED SPI</b> | <b>Ensemble des<br/>docteurs 2017<br/>de l'I-SITE ULNE</b> | <b>2018<br/>ED SPI</b> |
|------------------------------------------------------|------------------------|------------------------------------------------------------|------------------------|
| Enseignants-chercheurs titulaires                    | 26%                    | 19%                                                        | 14%                    |
| Enseignants chercheurs contractuels (dont ATER)      | 3%                     | 5%                                                         | 3%                     |
| Chercheurs titulaires et assimilés                   | 3%                     | 3%                                                         | 7%                     |
| Post-doctorants                                      | 14%                    | 14%                                                        | 8%                     |
| Chercheurs contractuels (hors postdoc)               | 5%                     | 3%                                                         | 2%                     |
| Autres enseignants (supérieur, secondaire, primaire) | 2%                     | 5%                                                         | 8%                     |
| Cadres de la fonction publique                       | 2%                     | 4%                                                         | 2%                     |
| Ingénieurs et cadres techniques                      | 40%                    | 31%                                                        | 54%                    |
| Autres cadres (hors FP)                              | 3%                     | 12%                                                        | 2%                     |
| Professions intermédiaires                           | -                      | 1%                                                         | -                      |
| Autres*                                              | 2%                     | 3%                                                         |                        |
|                                                      | <b>100%</b>            | <b>100%</b>                                                |                        |

## ODIF survey of 2017 and 2018 SPI PhD

- **2017 : 70% of jobs with foreign language**
- **2017 : 73% scientific jobs, 54% with publications**

### Indicateurs sur les emplois occupés

|                                                                            | ED SPI | Ensemble des docteurs 2017 de l'I-SITE ULNE |
|----------------------------------------------------------------------------|--------|---------------------------------------------|
| Part de postdoc ou CDD scientifique                                        | 15%    | 14%                                         |
| Part d'emplois avec activités de recherche                                 | 73%    | 64%                                         |
| Part d'emplois avec productions scientifiques                              | 54%    | 50%                                         |
| Part d'emplois nécessitant la pratique hebdomadaire d'une langue étrangère | 70%    | 63%                                         |

- **More details at**
- <https://edmadis.univ-lille.fr/apres-le-doctorat/poursuite-de-carriere>





**GS MADIS**

LinkedIn profiles  
of  
MADIS PhD 2017-2022



Redoc **SPI**   
Réseau National des Écoles Doctorales  
Sciences Pour l'Ingénieur

- French network
- 30 SPI Doctoral schools
- 2000 PhD/year



## Cohort of 469 SPI PhD (Maths, Computer, Control, Image) 2017-2022

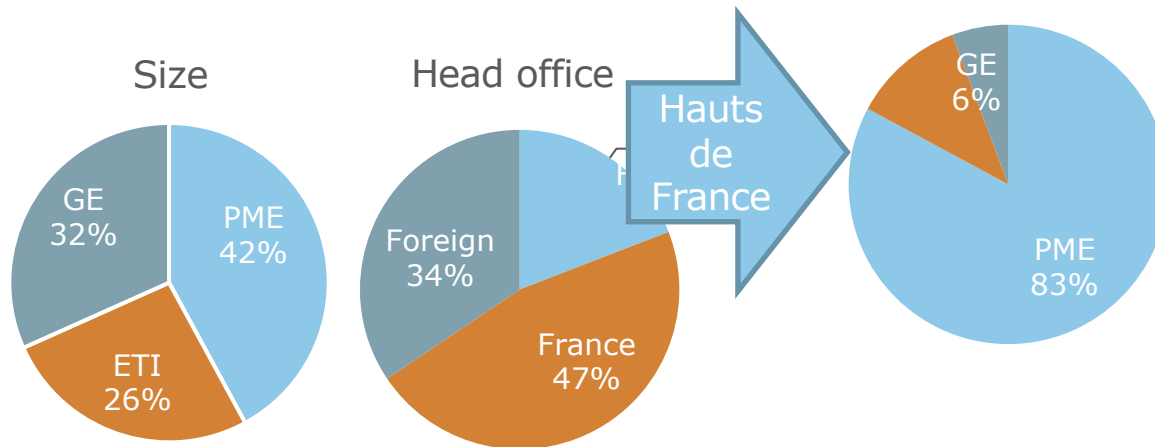
| Profils Linkedin  | Total      | %             |
|-------------------|------------|---------------|
| Academic          | 124        | 26,4%         |
| Company           | 183        | 39,0%         |
| Acad + Company    | 307        | 65,5%         |
| NA = Not updated  | 66         | 14,1%         |
| NL = Not LinkedIn | 96         | 20,5%         |
| <b>TOTAL</b>      | <b>469</b> | <b>100,0%</b> |

## Cohort of 469 SPI PhD (Maths, Computer, Control, Image) 2017-2022

| Linkedin Profiles | Computer | %      | Control | %      | Maths | %      | Total | %      |
|-------------------|----------|--------|---------|--------|-------|--------|-------|--------|
| Academic          | 47       | 24,1%  | 53      | 29,4%  | 24    | 25,5%  | 124   | 26,4%  |
| Company           | 100      | 51,3%  | 61      | 33,9%  | 22    | 23,4%  | 183   | 39,0%  |
| Acad + Comp       | 147      | 75,4%  | 114     | 63,3%  | 46    | 48,9%  | 307   | 65,5%  |
| Not updated       | 21       | 10,8%  | 32      | 17,8%  | 13    | 13,8%  | 66    | 14,1%  |
| Not LinkedIn      | 27       | 13,8%  | 34      | 18,9%  | 35    | 37,2%  | 96    | 20,5%  |
| TOTAL             | 195      | 100,0% | 180     | 100,0% | 94    | 100,0% | 469   | 100,0% |

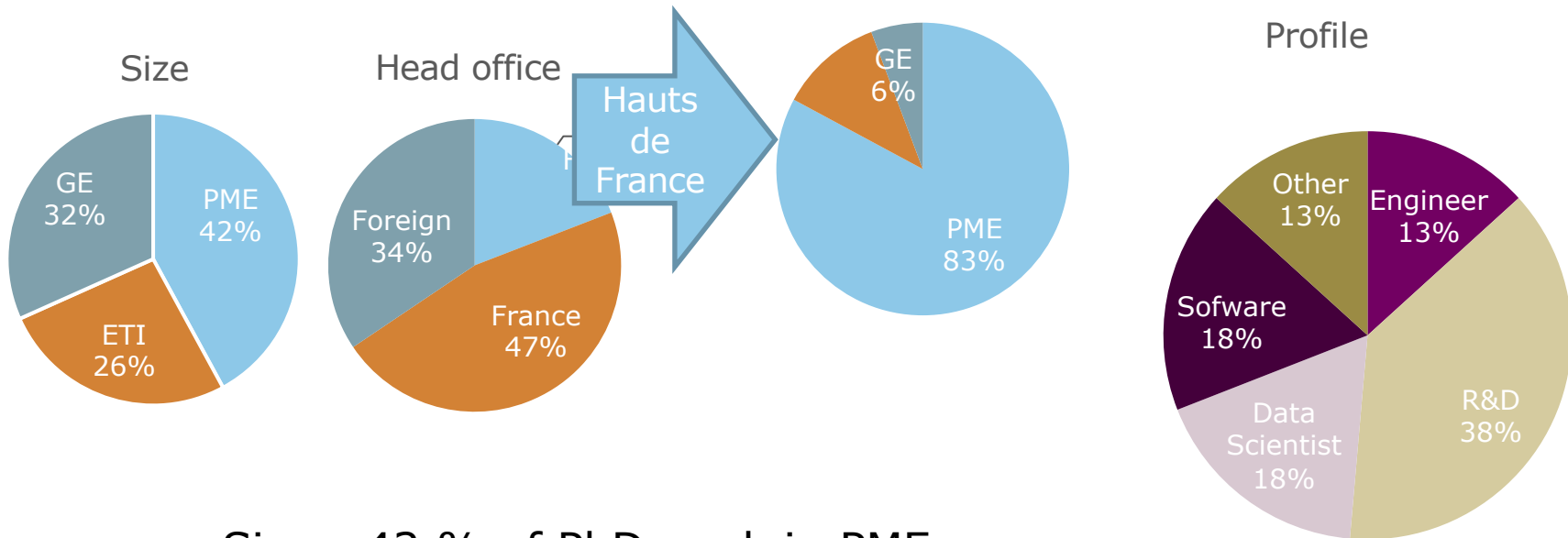
- % Profile depends on domain (Computer 75% vs. Maths 49%)
- 80% for PhD in Computer
- 26% academic profile
- 39 % company profile (183 PhD)

## Cohort of 183 PhD in companies



- Size : 42 % of PhD work in PME
- Localisation : 34% of PhD outside France – 19% in Hauts de France
- In Hauts de France: 83% of PhD work in PME

## Cohort of 183 PhD in companies



- Size : 42 % of PhD work in PME
- Localisation : 34% of PhD outside France – 19% in Hauts de France
- In Hauts de France: 83% of PhD work in PME
- Sector : 47% in computer companies
- Profile : 38 % R&D – 18% Data Scientist – 18% Software

# Researchers at CNRS – Situation in France

## Open position during the last 5 years

En 2010,  
le CNRS recrute **400**  
chercheurs (f/h)

dans tous les domaines scientifiques :

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Mathématiques                           | Sciences de la planète et de l'univers |
| Physique                                | Sciences de l'environnement            |
| Physique nucléaire                      | et développement durable               |
| et hautes énergies                      | Sciences du vivant                     |
| Sciences chimiques                      | Sciences de l'homme et de la société   |
| Sciences pour l'ingénieur               |                                        |
| Science et technologie de l'information |                                        |
| et de la communication                  |                                        |

En 2013  
le CNRS recrute **307** chercheur-e-s

|                                            |                                          |
|--------------------------------------------|------------------------------------------|
| • sciences biologiques                     | • mathématiques                          |
| • chimie                                   | • physique                               |
| • sciences de l'environnement et écologie  | • physique nucléaire et des hautes       |
| • sciences humaines et sociales            | énergies                                 |
| • sciences de l'information                | • sciences de la planète et de l'univers |
| • sciences de l'ingénierie et des systèmes |                                          |

**2019: 250 open positions**

En 2012,  
le CNRS recrute **330**  
chercheur-e-s

dans tous les domaines scientifiques

|                                            |                                          |
|--------------------------------------------|------------------------------------------|
| • sciences biologiques                     | • mathématiques                          |
| • chimie                                   | • physique                               |
| • sciences de l'environnement et écologie  | • physique nucléaire et des hautes       |
| • sciences humaines et sociales            | énergies                                 |
| • sciences de l'information                | • sciences de la planète et de l'univers |
| • sciences de l'ingénierie et des systèmes |                                          |

En 2014, le CNRS recrute **300** chercheurs (h/f)  
dans tous les domaines scientifiques

Biologie  
Chimie  
Écologie & Environnement  
Homme & Société  
Ingénierie & Systèmes  
Mathématiques  
Nucléaire & Particules

**2022: 238 open positions**

To be compared with more than 12 000  
thesis/year + open to international recruitment

# Researchers at CNRS – How to apply

## How to apply to open positions ?

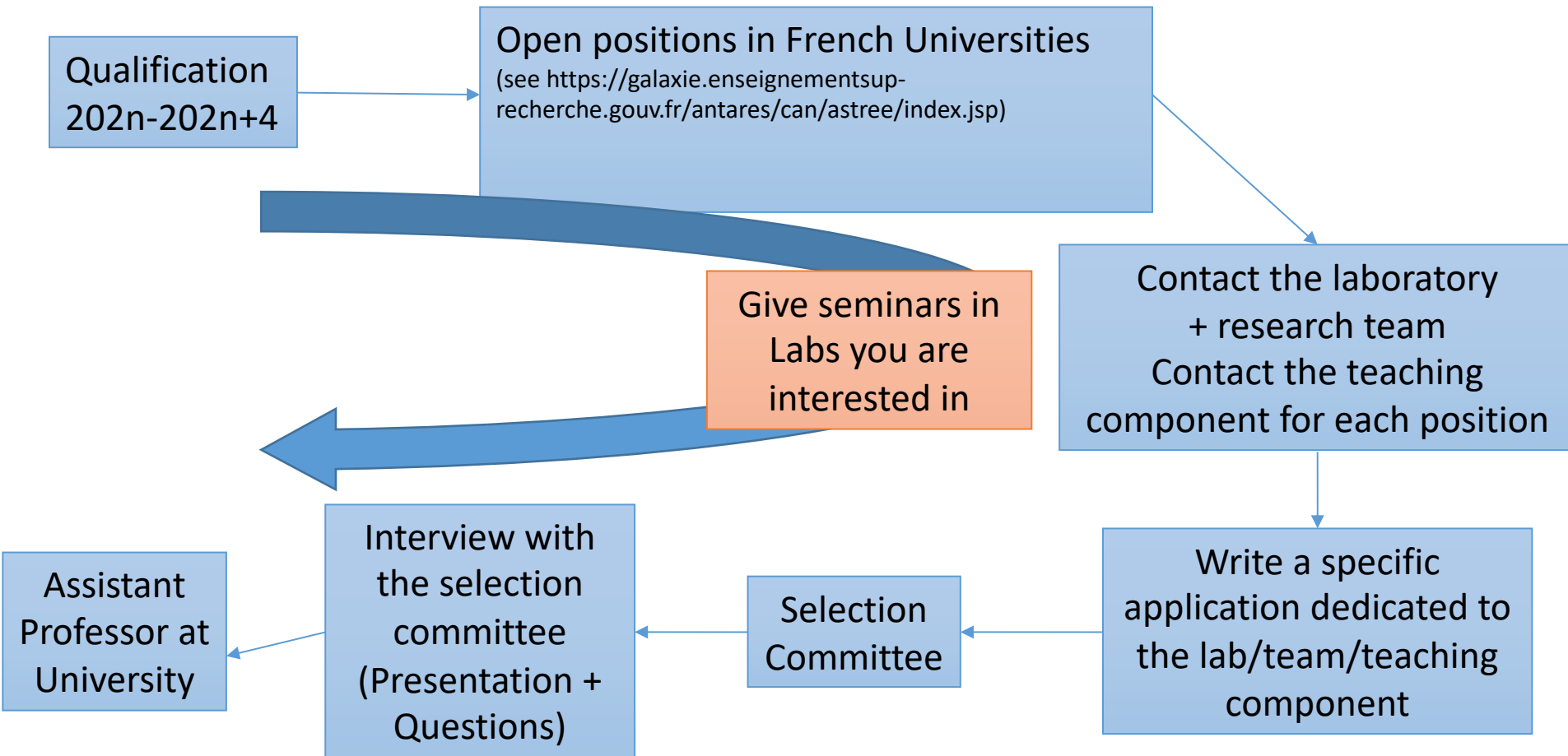
- **PhD and post-docs**
- **Publication requirements:**  
A high number, with high impact factor
- **Propose a Research project in relation with a Lab of CNRS**

Interview with a committee

# How to apply as Assistant Professor

## Practical information about recruiting process

**A long process ...**





# How to apply as Assistant Professor

## Practical information about qualification

### Example of section 27

- **PhD with very good reviews**
- **Publications requirements** (minimum):
  - 1 international publication in journal with review (RICL) and good ranking
  - or
  - 1 international ranked conference with proceedings
- **Teaching experience in higher education**
  - Minimum 64H with students about computer science



**Validity of the qualification: 4 years**

# How to apply as Assistant Professor

## Practical information about qualification

### Example of section 61

- **PhD (36-39 months) with very good reviews**
- **Publication** (minimum):  
1 paper as first author in a good international journal of the domain and referenced by Journal Citation Report (JCR)
- **Teaching experience in higher education**  
Minimum 96H with students



**Validity of the qualification: 4 years**

## ODIF survey of 2017 and 2018 SPI PhD

- **2017 : 93 answers from 135 SPI PhD (69%)**
- **2018 : 73 answers from 119 SPI PhD (61%)**
- **2018 : 85% of SPI PhD who applies for CNU accreditation, obtain it**

### Après le doctorat

|                                                                                     | <b>2017</b><br>ED SPI | Ensemble des<br>docteurs 2017<br>de l'I-SITE<br>ULNE | <b>2018</b><br>ED SPI |
|-------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------|-----------------------|
| Part de docteurs s'étant présentés à la qualification CNU                           | 37%                   | 36%                                                  | 41%                   |
| Part de docteurs ayant obtenu la qualification CNU parmi ceux qui se sont présentés | 91%                   | 86%                                                  | 84%                   |
| Part de MCF au 01/12/2020 parmi ceux qui ont obtenu la qualification CNU            | 22%                   | 18%                                                  | 25%                   |

- <https://edmadis.univ-lille.fr/apres-le-doctorat/poursuite-de-carriere>

# How to apply as Assistant Professor -

Focus on recruitment during the past years

– CNU Group 05 (Sections 25, 26) –

## Maîtres de conférences

|            | Année | Publiés<br>(A) | Candidats<br>(B) | %<br>femmes | Ratio<br>(B/A) | Pourvus | % femmes | % non pourvus |
|------------|-------|----------------|------------------|-------------|----------------|---------|----------|---------------|
| Section 25 | 2016  | 30             | 495              | 25,1%       | 16,5           | 30      | 20,0%    | 0,0%          |
|            | 2017  | 25             | 437              | 20,6%       | 17,5           | 24      | 16,7%    | 4,0%          |
|            | 2018  | 22             | 420              | 19,3%       | 19,1           | 22      | 9,1%     | 0,0%          |
|            | 2019  | 22             | 338              | 21,9%       | 15,4           | 21      | 23,8%    | 4,5%          |
|            | 2020  | 27             | 455              | 22,2%       | 16,9           | 27      | 22,2%    | 0,0%          |
| Section 26 | 2016  | 50             | 577              | 32,6%       | 11,5           | 50      | 38,0%    | 0,0%          |
|            | 2017  | 31             | 430              | 26,0%       | 13,9           | 30      | 36,7%    | 3,2%          |
|            | 2018  | 30             | 457              | 27,8%       | 15,2           | 29      | 41,4%    | 3,3%          |
|            | 2019  | 41             | 365              | 28,8%       | 8,9            | 39      | 35,9%    | 4,9%          |
|            | 2020  | 42             | 422              | 26,8%       | 10,0           | 42      | 38,1%    | 0,0%          |

Section 25 Mathématiques

Section 26 Mathématiques appliquées et applications des mathématiques

# How to apply as Assistant Professor -

Focus on recruitment during the past years

– CNU Group 05 (Section 27) –

| Maîtres de conférences |      |                |                  |                    |                |         |                 |               |
|------------------------|------|----------------|------------------|--------------------|----------------|---------|-----------------|---------------|
|                        |      | Publiés<br>(A) | Candidats<br>(B) | %<br><i>femmes</i> | Ratio<br>(B/A) | Pourvus | % <i>femmes</i> | % non pourvus |
| Section 27             | 2016 | 73             | 564              | 23,2%              | 7,7            | 70      | 18,6%           | 4,1%          |
|                        | 2017 | 74             | 602              | 27,2%              | 8,1            | 73      | 26,0%           | 1,4%          |
|                        | 2018 | 68             | 558              | 29,2%              | 8,2            | 66      | 18,2%           | 2,9%          |
|                        | 2019 | 66             | 468              | 30,8%              | 7,1            | 64      | 29,7%           | 3,0%          |
|                        | 2020 | 70             | 446              | 26,5%              | 6,4            | 68      | 32,4%           | 2,9%          |

Section 27 Computer Science

# How to apply as Assistant Professor

Focus on recruitment during the past years

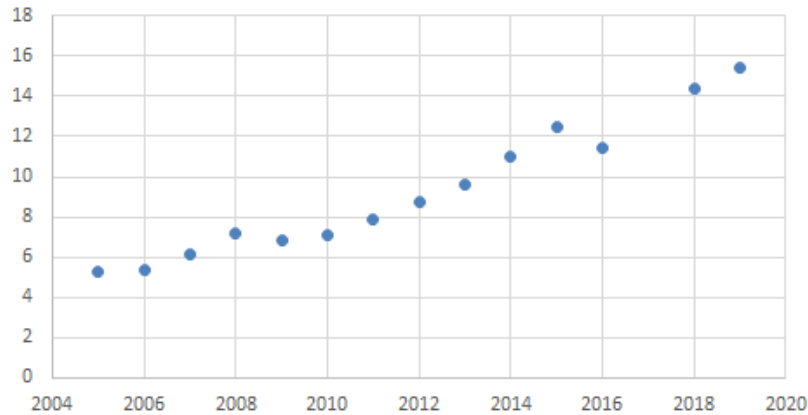
– CNU Group 09 (Section 61) –

| Maîtres de conférences |      |                |                  |             |                |         |          |               |
|------------------------|------|----------------|------------------|-------------|----------------|---------|----------|---------------|
| Section 61             |      | Publiés<br>(A) | Candidats<br>(B) | %<br>femmes | Ratio<br>(B/A) | Pourvus | % femmes | % non pourvus |
|                        | 2017 | 33             | 258              | 25,2%       | 7,8            | 31      | 25,8%    | 6,1%          |
|                        | 2018 | 27             | 239              | 27,6%       | 8,9            | 23      | 13,0%    | 14,8%         |
|                        | 2019 | 33             | 291              | 27,8%       | 8,8            | 30      | 33,3%    | 9,1%          |
|                        | 2020 | 35             | 377              | 32,4%       | 10,8           | 31      | 38,7%    | 11,4%         |
|                        | 2021 | 30             | 345              | 28,1%       | 11,5           | 29      | 31,0%    | 3,3%          |

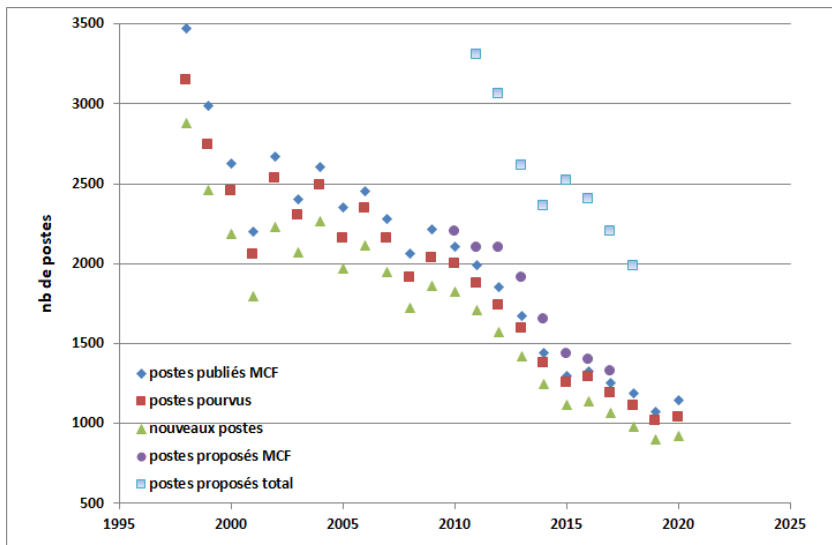
Section 61 Génie informatique, automatique et traitement du signal

# Conclusion

nombre de docteurs par nouveau poste MCF



Source : ESR/Guillaume Miquelard



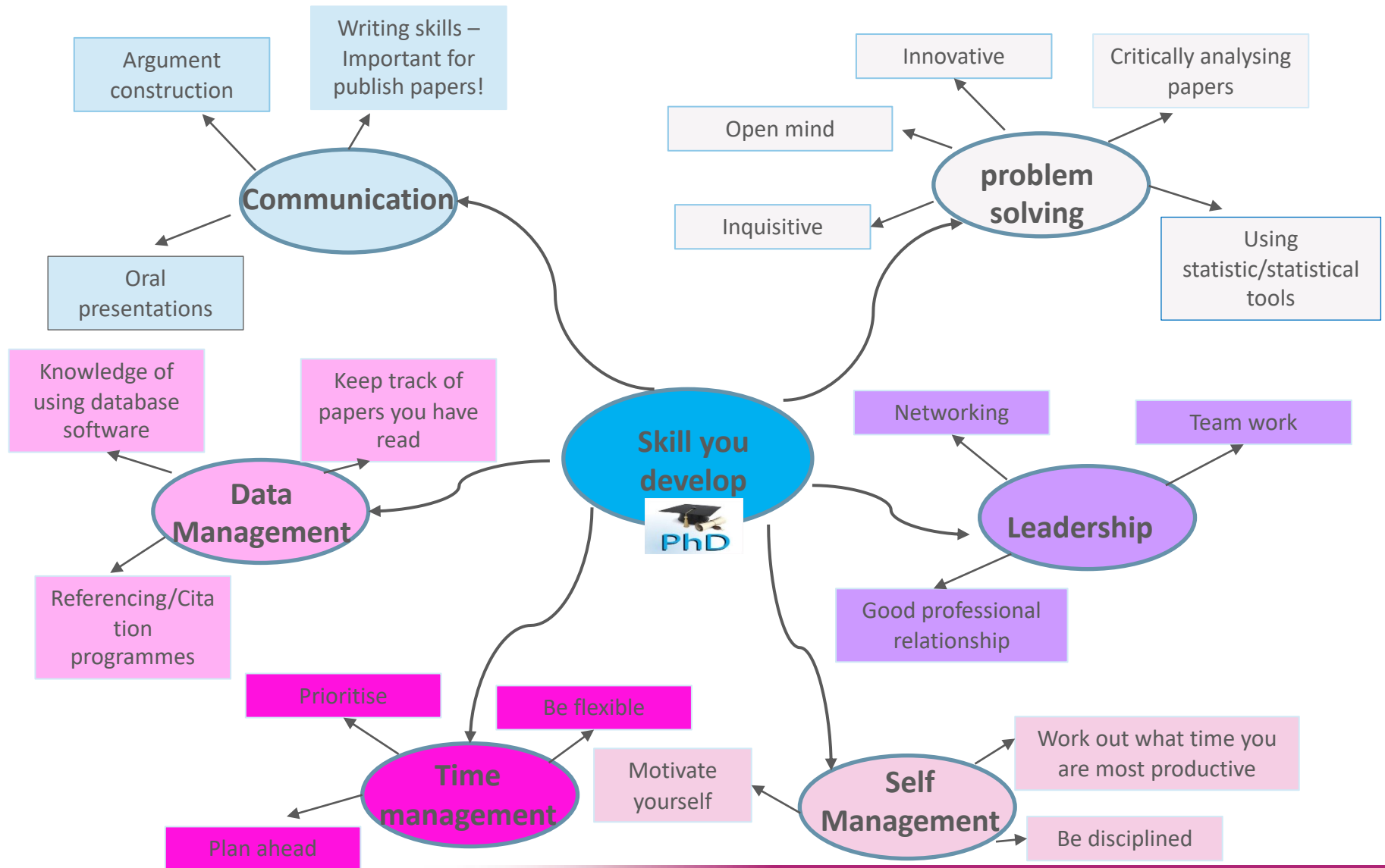
Maximize chances by having contacts previously to the hiring phase.

Have a look at **all** the positions, not only Assistant professor in Universities

Do not neglect doctoral training to open up more job opportunities.

Develop your professional skills to find the job of your dream

# Skills after PhD





# Find your job after PhD

## Success

- Strategies **before, during and after PhD**
- Develop Project A and Project B
- **Professional Network**
- Show what you know to do
- Results showing
  - Publications,
  - Exhibit,
  - Conferences,
  - Website
  - Open Science



## Failure

- **Good marks**
- No strategy
- Not understand rules of the game
- Strong personal constraints (mobility)
- No website,
- No LinkedIn account

# To prepare your career after PhD

- Create your LinkedIn account and post your CV
- Join LinkedIn group of MADIS and ENGSYS PhD students (> 800 members)

<https://www.linkedin.com/groups/12416555/>

- Update you ADUM space with publications and skills
- [https://www.adum.fr/as/ed/annulabo\\_these.pl?site=madis](https://www.adum.fr/as/ed/annulabo_these.pl?site=madis)
- [Follow professional trainings](#)
- Surf on job list
- <https://edmadis.univ-lille.fr/en/after-phd-1/jobs>

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Enjoy your PhD at  
MADIS!