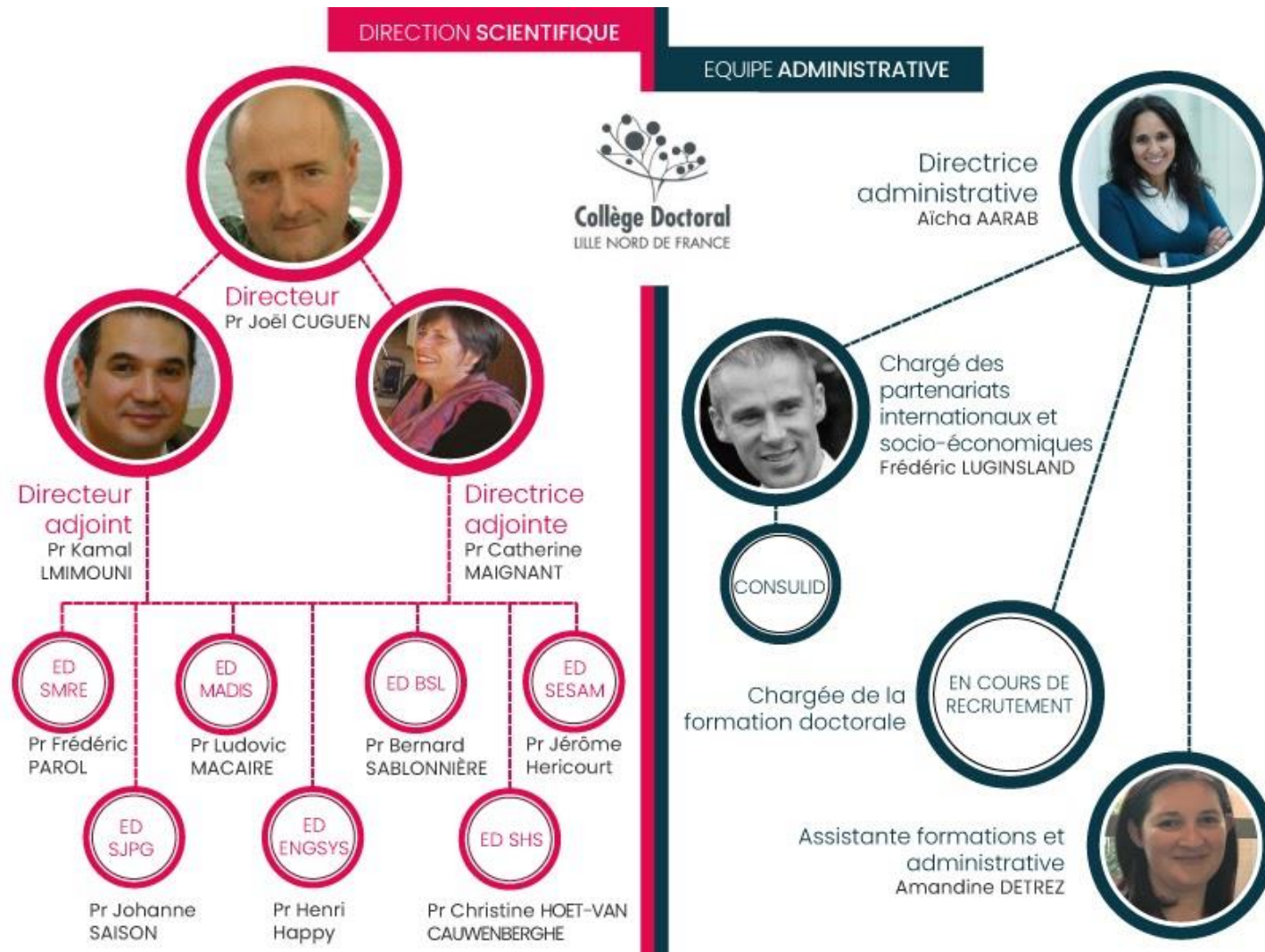




ENGINEERING and SYSTEMS SCIENCES

Sciences de l'ingénierie et des systèmes

ED ENGSYS in Doctoral College Lille Nord de France



ED ENGSYS – New references

Direction

Dir-edengsys@univ-lille.fr

Henri.happy@univ-lille.fr

ED
administration

Sec-engsys@univ-lille.fr

Mrs Thi NGUYEN

Thi.Nguyen@univ-lille.fr

Mrs Céline GLOANEC

celine.gloanec@univ-lille.fr

Web site

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

D1 StartDoc meeting Outline

ADSL: Association of PhD students in science at University of Lille – **C. MOKTHARI**

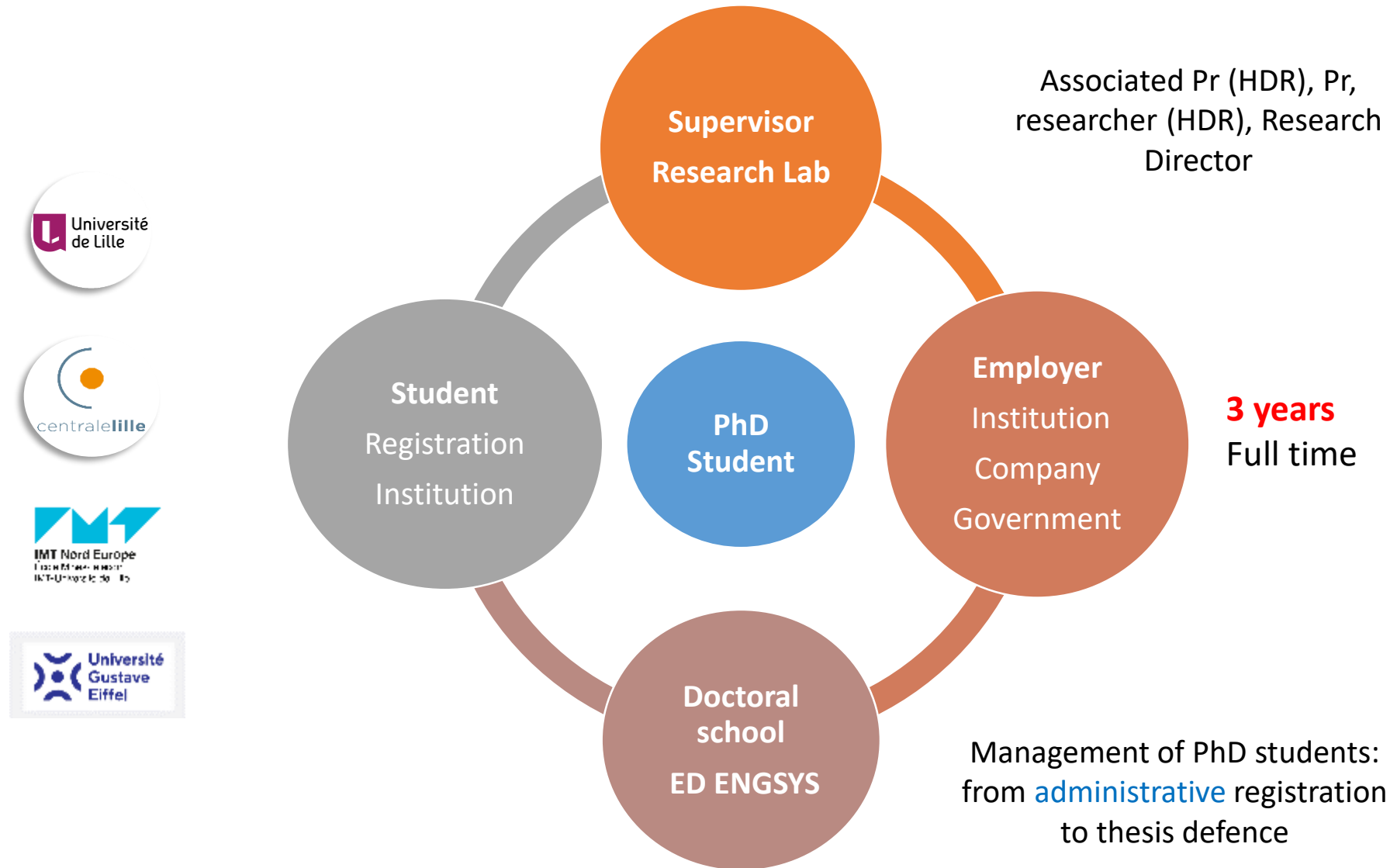
Introduction
ENGYS doctoral school
Main Missions

Training courses
D1 Individual Monitoring Committee (CSI)
Thesis defence

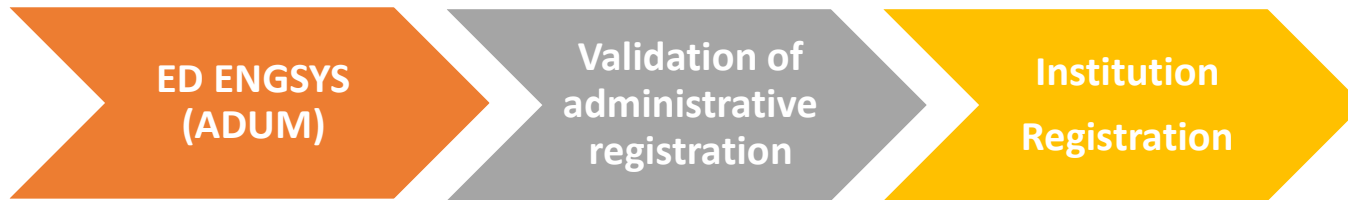
After PhD
Professional project (L. DESPLANQUE- W. LHOMME)
IEEE society student branch – M. ALAWAR

General introduction

PhD in France



General introduction



Institution	Contact
Université de Lille (ULille)	Celine.gloanec-diot@univ-lille.fr **
Centrale Lille Institut (CLille)	V. Fleury and M. Baidan Scolarite.phd@centralelille.fr
Institut Mines Nord Europe	inscription@imt-douai.fr christine.charlet@imt-lille-douai.fr
Université Gustave Eiffel (Univ Eiffel)	sebastien.gaglianone@univ-eiffel.fr

D1 StartDoc meeting Outline

ADSL: Association of PhD students in science at University of Lille – **C. MOKTHARI**

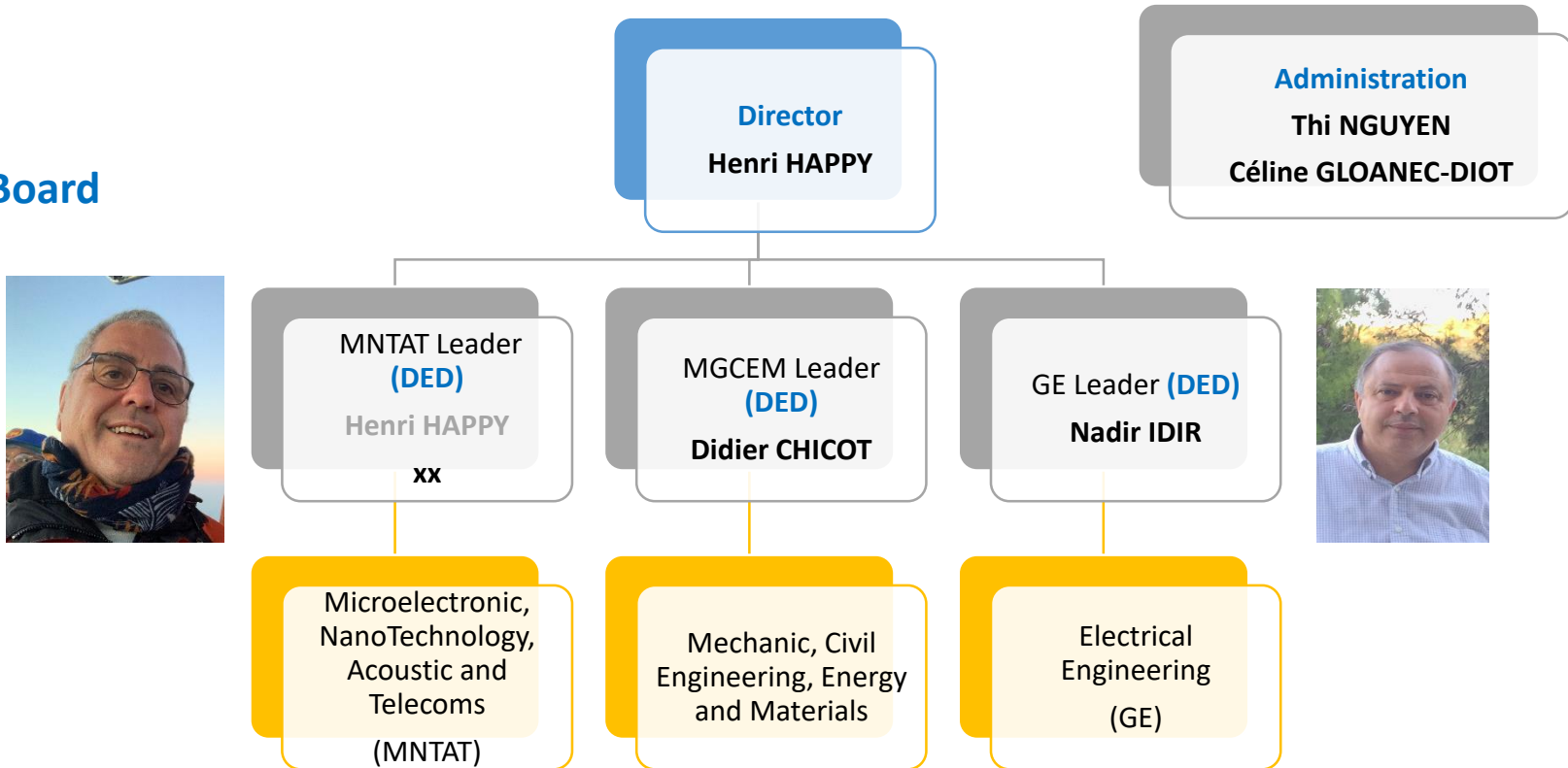
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ED ENGSYS - Organization

Executive Board



Legislative Board

Council of ED ENGSYS

(3 meetings/year)

ED ENGSYS Datas (2020-2021)

Research Units (208 HDR)

Disciplinary field	Research units
MGCEM (72)	<div style="display: flex; justify-content: space-around; align-items: center;"><div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">CERI EE (4)</div><div style="border: 2px solid red; border-radius: 10px; padding: 5px; text-align: center;">GEMTEX (11)</div></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div style="border: 2px solid red; border-radius: 10px; padding: 5px; text-align: center;">LAMCUBE (21)</div><div style="border: 2px solid red; border-radius: 10px; padding: 5px; text-align: center;">LMFL (6)</div><div style="border: 2px solid red; border-radius: 10px; padding: 5px; text-align: center;">LGCGE (19)</div></div>
MNTAT (119)	<div style="display: flex; justify-content: space-around; align-items: center;"><div style="border: 2px solid red; border-radius: 10px; padding: 5px; text-align: center;">IEMN (116)</div><div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;">COSYS (3)</div></div>
GE (17)	<div style="border: 2px solid red; border-radius: 10px; padding: 5px; text-align: center; margin: 0 auto;">L2EP (17)</div>

— Dual referencing of HDR

Disciplinary field	Doctorate speciality
MGCEM (72)	<p>Génie civil(54) Energie, Thermique, Combustion (2) Mécanique des milieux fluides (19) Mécanique des solides, des matériaux, structures et surfaces (41) Mécanique, Energétique, Génie des procédés, Génie civil (29) Génie des matériaux / Biomécanique et bioingénierie</p>
MNTAT (119)	<p>Electronique, Photonique (15) Electronique, Microélectronique, Nanoélectronique, micro-ondes (62) Micro-nano-systèmes et capteurs(26) Acoustique (14) Systèmes optiques et photoniques Génie des matériaux / Biomécanique et bioingénierie</p>
GE (17)	Génie électrique (29)



ENGSYS Doctoral School – Datas (2020-2021)

PhD per Institution

Institution	# students
Université de Lille (ULille)	206
Centrale Lille Institut (CLille)	62
Institut Mines Nord Europe (IMT)	23
Université Gustave Eiffel (Univ Eiffel)	0
Total	291

D1 StartDoc meeting Outline

ADSL: Association of PhD students in science at University of Lille – **C. MOKTHARI**

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IEEE society student branch – M. ALAWAR

ENGYSYS Doctoral School – Main missions

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

ENGYSYS Doctoral School – Main missions

Organization of Individual Monitoring Committee (CSI) (end of D1 and D3)

Doctoral trainings (with Doctoral College)

International mobility grants for PhD students (with Doctoral College)

Agreement for the PhD defence

Number of required CFDs

PhD committee and reviewers

Reports by reviewers before defence

ENGYSYS Doctoral School – Main missions

PhD annual registration (fees) in the institution (CLille, ULille, IMT, Univ Eiffel)

Mobility grants for participation to doctoral trainings or conferences

Registration fees for MOOC

Organisation of the PhD defence

Doctoral degree printing

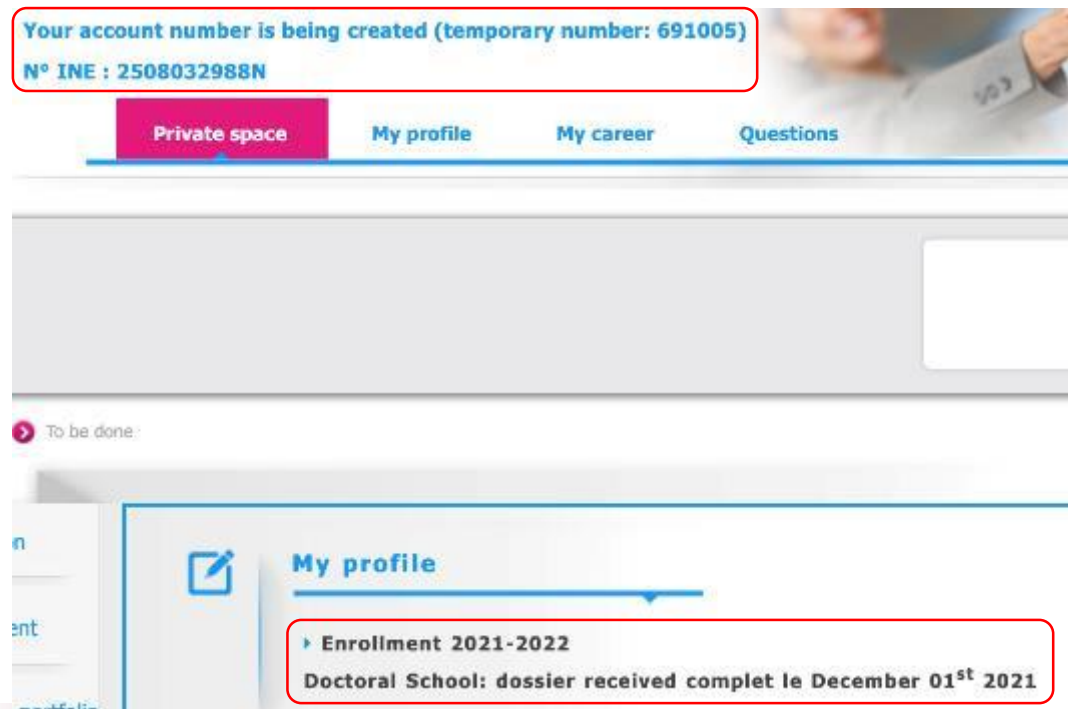
ENGSYS Doctoral School – admission rules

- **Research Topic is defined by the supervisors and research unit**
- **Accredited supervisors (HDR) manage a limited number of doctoral students (4 supervised or 8 co-supervised students)**
- **Employment contract of 36 months for doctoral study is required**
- **Candidates are validated by ENGSYS through a well defined procedure and according to demanding academic criteria**

ENGYSYS Doctoral School – Main missions

Focus on administrative registration – D1 (1/3)

- Create a temporary ADUM ID for academic submission.
- Submit ENGYSYS registration with original signed documents : ‘demande d'autorisation d'inscription’, 'la charte du doctorat' and 'la convention individuelle de formation’.
- Obtain ENGYSYS agreement.



ENGYSYS Doctoral School

Focus on **Institution** registration – D1 (2/3)

Register at your institution

Pay the registration fees and obtain your student card.



ENGSYS Doctoral School – Main missions

Focus on **Institution** registration – D1 (3/3)

Obtain your final ADUM ID from your institution

The screenshot displays the ENGSYS user interface. At the top, a red-bordered box highlights the account information: "Your account number is 126888" and "N° INE : 0904016447F". Below this, a navigation bar includes "Private space" (highlighted in pink), "My profile", "My career", and "Questions". A "To be done" section is visible below the navigation bar. The "My profile" section is expanded, showing a red-bordered box with the following details: "Enrollment 2021-2022", "Institution: dossier received complet le August 25th 2021", and "Doctoral School: dossier received complet le July 27th 2021".

ENGYSYS Doctoral School – Main missions

From D1 to D2

- Obtain agreement of CSI-D1
- On line register at ENGYSYS.
- Obtain your student card from your institution.
 - For ULille: Online registration via ent.univ-lille.fr
- Register at training courses available via ADUM.
- Add external training modules.
- Build your **Portfolio** (validated courses, teaching, PhD title...).
- Prepare your career : upload CV and scientific productions to be displayed via ADUM.

ENGSYS Doctoral School – Some rules

From D1 to D2

- PhD students conduct training-by-doing research, under the scientific and personalized direction of supervisors **within 36 months**
- Are young researchers who are integrated in research units
- **D4** registration is **exceptional** and needs a new CSI
- Develop skills beyond their area of scientific expertise

Before defence : a number of doctoral training credits (on thematic-methodology and language/professional skills) and training about ethics must be validated

D1 StartDoc meeting Outline

ADSL: Association of PhD students in science at University of Lille – **C. MOKTHARI**)

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ENGSYS Doctoral School – 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

ENGSYS Doctoral School – 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 ENGSYS, technical courses) (# 20 CFD)
 - Training related to language, research methodology or tools (organized by ENGSYS or Doctoral College) (# 20 CFD)
 - Professional training (organized by Doctoral College) (# 20 CFD)
- One course about **ethics** must be followed
- 2021 : **20 CFD** can be obtained by **MOOC**
- 2 hours -> at least 1 CFD.

ENGSYS Doctoral School – Registration to training courses (ADUM)

You must have an ADUM account number !!

Private space My profile My career Questions Logout

Rechercher...

ACTUALITÉS

PHD WELCOME

STARTDOC 2019

Formation pour les doctorants BSL

Validated Ongoing To be done

Contact information

Display management

Competencies and portfolio

Individual training contract

Professional situation

Publications

My profile

- 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
- See the Individual training contract written in 2018
- See the Individual training contract written in 2019

Trainings

- Training modules Catalogue
- Statement of the undergone training modules
- Training module
- External training modules

Administrative documents

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.

ENGSYS Doctoral School – Registration to training courses (ADUM)

- **Training module list**
 - **Trainings courses offered by ENGSYS**
 - French foreign language
 - English
 - Scientific trainings
 - **Transversal training courses offered by Doctoral College**
 - Doctors and companies
 - Training courses in English
- **Your ongoing training modules of list**
 - 3 states: Enrolment asked, Enrolment accepted, Registered and given credits.

ENGYSYS Doctoral School – Registration to training courses (ADUM)

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

D1 StartDoc meeting Outline

ADSL: Association of PhD students in science at University of Lille – **C. MOKTHARI**)

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D1 Individual Monitoring Committee (CSI)

- For all D2 registration, an Individual Monitoring Committee (D1-CSI) is set up
- **At minimum the committee includes**
 - The supervisor and co-supervisors
 - A HDR member who is conducting research activities in the domain of the thesis but who is not a member of the host team, and who will be chosen by the supervisor.
 - A member of the Doctoral School ENGSYS (DED) who will be the chairman of the D3 CSI meeting
- At the end of the meeting, a collective report will be written under the authority of DED. This report is posted in ADUM

D1 CSI manuscript

- The PhD student provides a manuscript on its work, two weeks before the meeting to all members of the CSI.
- **This manuscript 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.

D1 CSI review meeting

CSI review 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 sent to the DED by email to be posted in ADUM.

D1 CSI template report

Membres du Comité de Suivi Individuel extérieurs à l'encadrement (nom, prénom, email) :

-
-
-
-

Nombre sur ADUM de Crédits de Formations Doctorales (CFD) :

	Très satisfaisant	Satisfaisant	Moyen	Pas satisfaisant
Maitrise sujet de thèse				
État d'avancement des travaux				
Politique de valorisation des résultats				
Identification des pistes de recherche				
Suivi de la formation doctorale				
Construction du projet professionnel				

Difficultés éventuelles rencontrées et solutions préconisées :

Avis du CSI :

D1 CSI important dates

Planning 2022

- **CSI constitution before June 15 th, 2022.**
- **CSI manuscript has to be sent 15 days before the meeting.**
- **CSI meeting before September 15th, 2022.**

D1 StartDoc meeting Outline

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PhD defence

- D – 9 weeks :** Student submits the committee to ENGSYS via ADUM
- D – 8 weeks :** ENGSYS checks the required CFD, publications in ADUM and gives its agreement about committee
- D – 8 weeks :** Student sends the thesis to the reviewers (and to committee members)
- D – 4 weeks :** Reviewers send their review to the Institution and ENGSYS
- D – 3 weeks :** ENGSYS 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

Jury 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

More than 50% of members are outside MADIS, IMT, ULille, CLlille and UGE.
More than 50% of members are outside doctoral project.
All members must be PhD.

More than 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).

Jury for 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

More than 50% of members are outside MADIS, IMT, ULille, CLille, UGE **and the foreign institution**. All members must be PhD.

More than 50% of Full Professor or equivalent (Research Director in France).

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

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D1 StartDoc meeting Outline

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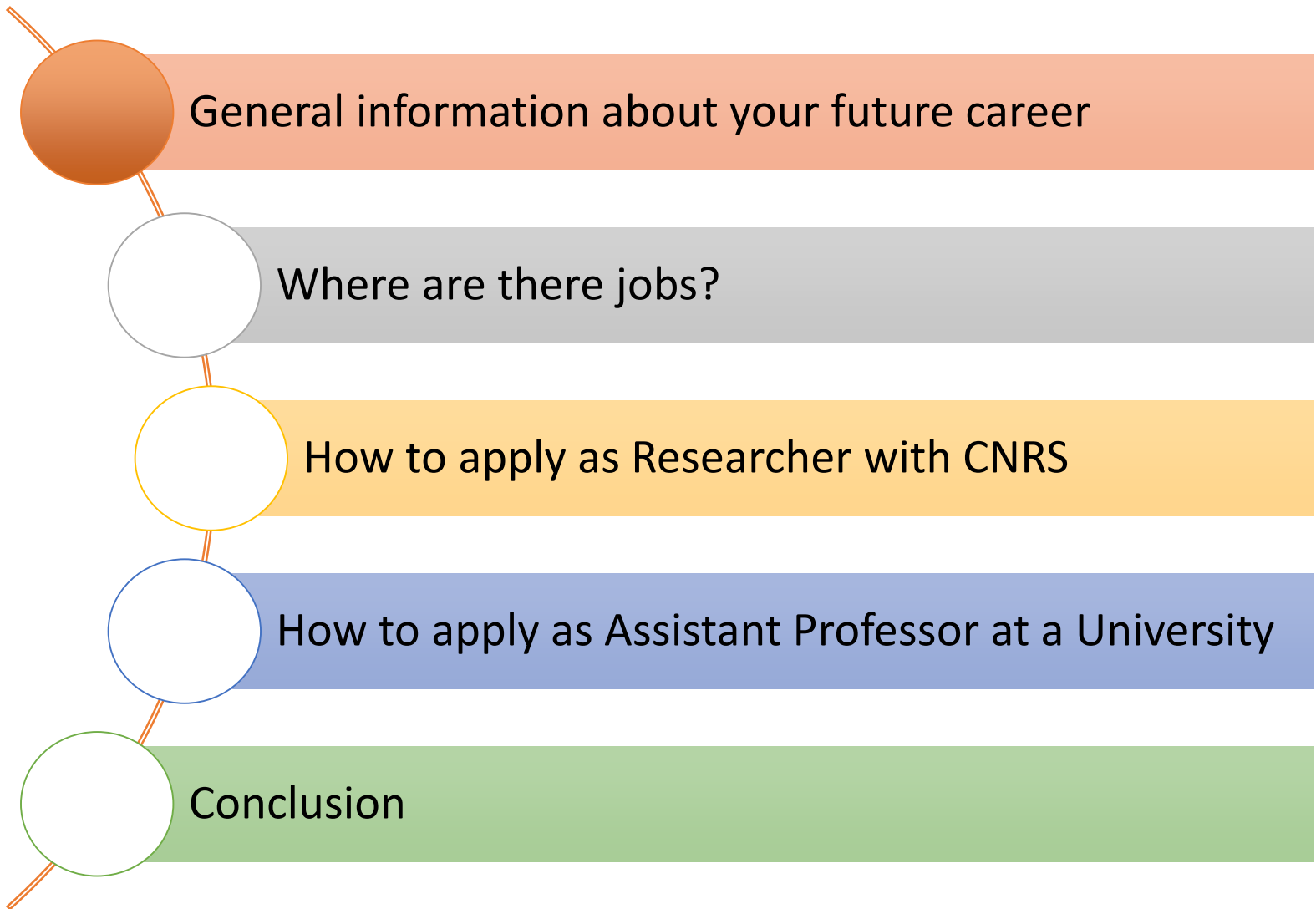
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Collective work of ENGSYS-MADIS team

Laetitia JOURDAN – Lotfi BELKOURA - Patrick POPESCU-PAMPU –
Henri Happy (ED ENGSYS-632)
Ludovic MACAIRE (ED MADIS-631)



Opportunity for PhD studies

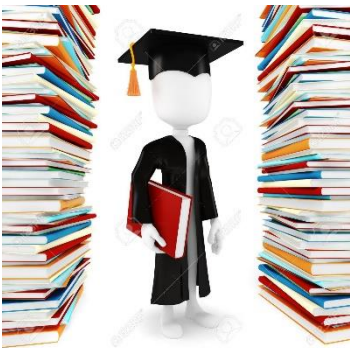
The day after



Tomorrow



Today



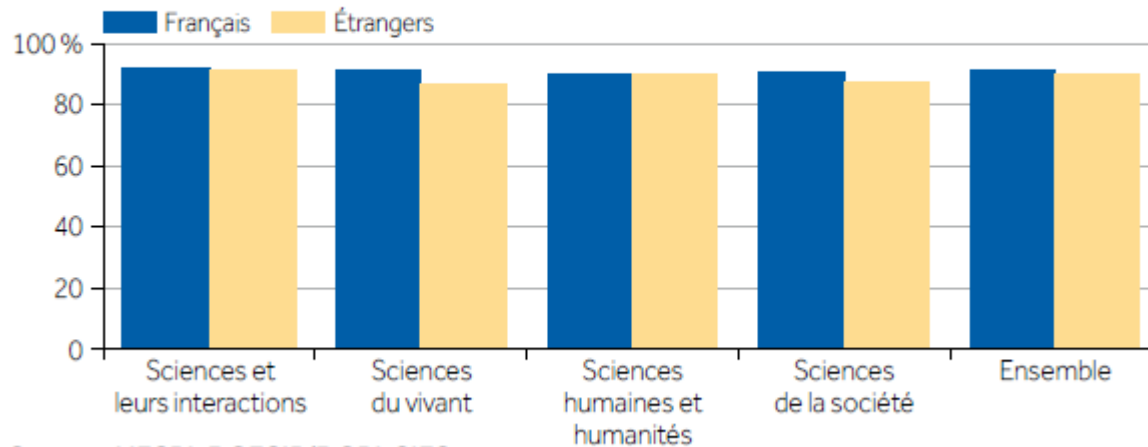
Get started
Prepare

Inquiry

Opportunity for PhD studies

Professional integration rate

Taux d'insertion des docteurs de nationalité française et étrangère par discipline 36 mois après leur diplôme de doctorat (en %) France entière



Source : MESRI-DGESIP/DGRI-SIES.

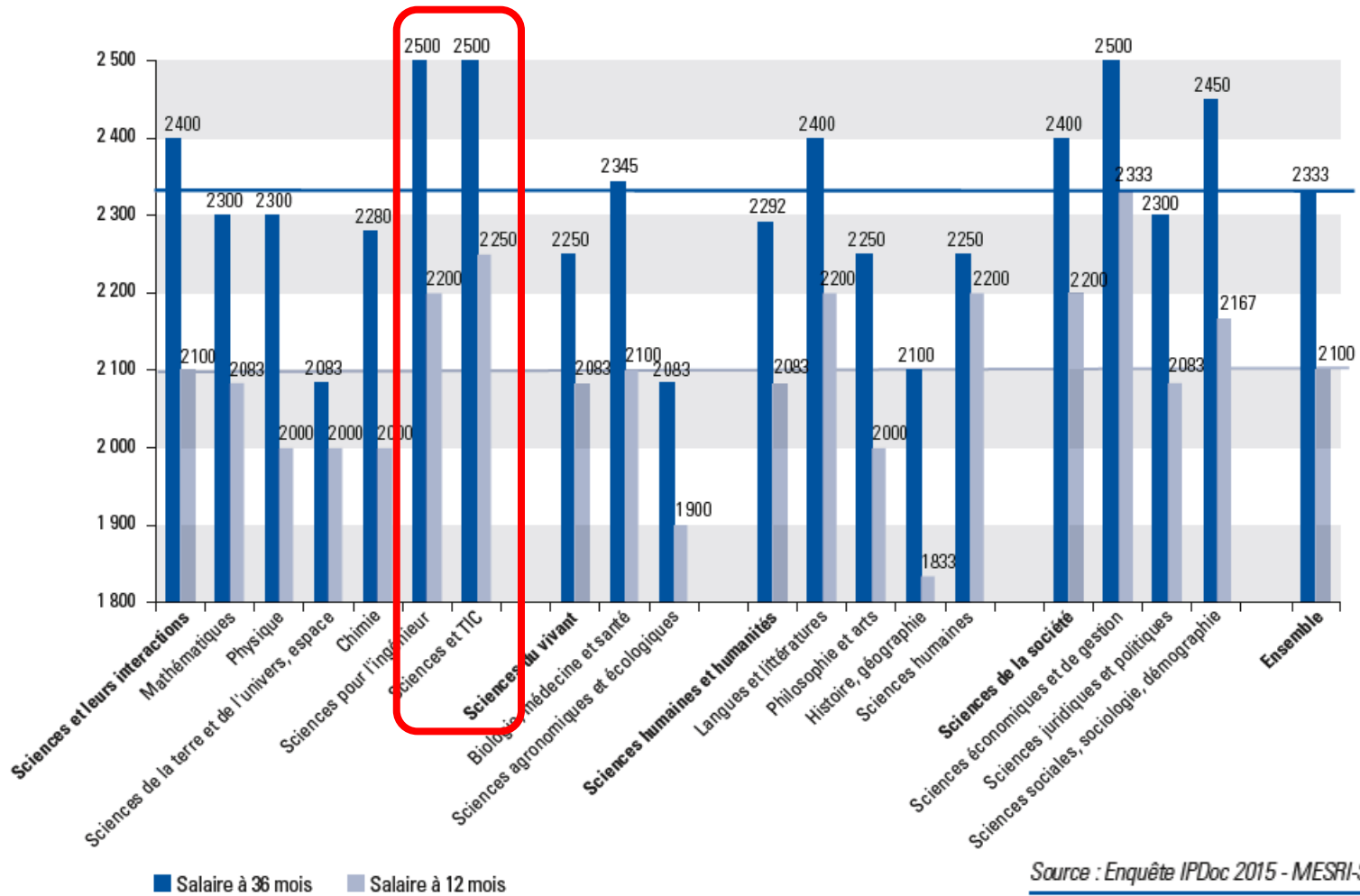
**1yr after thesis:
More than 85% are
in employment**

**3yrs after:
more than 90%**

Opportunity for PhD studies

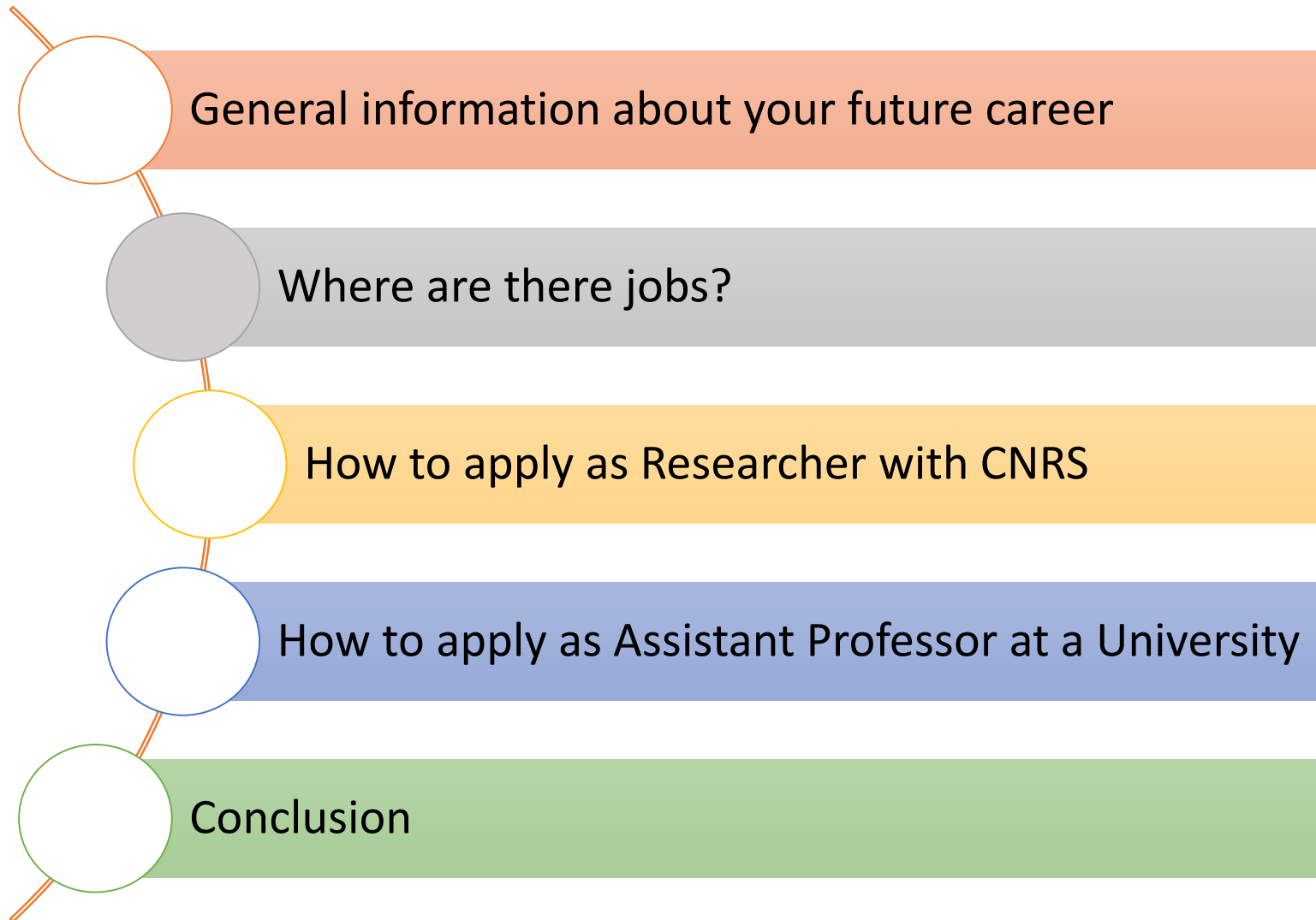
Salary
(without taxes)

Executive (senior) type job



■ Salaire à 36 mois ■ Salaire à 12 mois

Source : Enquête IPDoc 2015 - MESRI-SIES



Where are there jobs for PhDs?

Research in industrial sector

Doctoral training will help you to make your choice

05) Chercheurs en entreprise : répartition par discipline d'activité de recherche, en 2015

en personnes physiques au 31/12, doctorants inclus

Discipline d'activité de recherche*	Effectifs	Part de la discipline** (%)
Mathématiques	44 038	20,1
Sciences physiques	6 404	2,9
Chimie	9 003	4,1
Sciences de l'ingénieur 1	70 469	32,1
Sciences de l'ingénieur 2	60 689	27,7
Sciences de la terre/Environnement	2 601	1,2
Sciences agricoles	5 111	2,3
Sciences biologiques	8 134	3,7
Sciences médicales	8 293	3,8
Sciences sociales	3 445	1,6
Sciences humaines	1 185	0,5
<i>Sous-total</i>	<i>219 372</i>	<i>100</i>
Gestion/encadrement de la R&D	6 364	
Total chercheurs	225 736	

* Voir la Nomenclature et la table de correspondance section CNU/discipline en *Annexes*.

** Hors gestion R&D

Source : MESRI-SIES (enquête R&D).

Where are there jobs for PhDs?

Public sector and research acronym

- Type **EPST** (Établissement public à caractère scientifique et technologique) : **CNRS** · INED · INRAE · INRIA · INSERM · IRD
- Type **EPA** (Établissement public à caractère administratif en France) : IGN · IHEST · Météo-France
- Type **EPIC** (Établissement public à caractère industriel et commercial en France): ADEME · BRGM · CEA · CIRAD · CNES · CSTB · Ifremer · LNE · ONERA
- Type **EPSCP** (Établissement public à caractère scientifique, culturel et professionnel): **Universités** · Ecoles ingénieur

Where are there jobs for PhDs?

Public sector MESRI

Evolution des emplois sous plafond des organismes sous tutelle du MESRI		2012	2019	Evolution 2012 / 2019	
				en effectifs	en %
4 EPIC hors CEA - 6 EPST :	Plafond d'emploi (ETP) *	56 504	56 430	-74	0%
	Exécution (ETPT)	52 670	48 906	-3 764	-7%
CNRS	Plafond d'emploi (ETP) *	28 638	28 597	-41	0%
	Exécution (ETPT)	26 911	24 791	-2 120	-8%
INRA + IRSTEA INRAE en 2020	Plafond d'emploi (ETP) *	11 055	11 019	-36	0%
	Exécution (ETPT)	9 966	8 658	-1 308	-13%
Autres : 4 EPIC - 4 EPST **	Plafond d'emploi (ETP) *	16 811	16 814	3	0%
	Exécution (ETPT)	15 793	15 457	-336	-2%
CEA ***	Plafond d'emploi (ETP) *	11 632	16 149	4 517	39%
	Exécution (ETPT)	11 497	16 083	4 586	40%
* inscrits en loi de finances initiale	** INED, INRIA, INSERM, IRD, BRGM, IFREMER, CIRAD et CNES				
*** à partir du PAP 2015, le CEA intègre dans ses effectifs la direction des applications militaires (DAM)					
Source : DGRI-PAP et RAP					

Typical jobs in public sector

Non permanent position

A.T.E.R.

In relation with University – Research and teaching -
you can apply to the call during your 3rd year thesis

Post-Doc

In relation with Research Lab- You can apply only
after thesis defense – **Reply to job offers**

MDC

Assistant professor with University – Research and
teaching

Gross Salary: from 2221 € to 4999 €

Permanent position

CR

Chargé de Recherche – Researcher with
EPST/EPA/EPIC

Gross Salary: from 2300 € to 4740 €

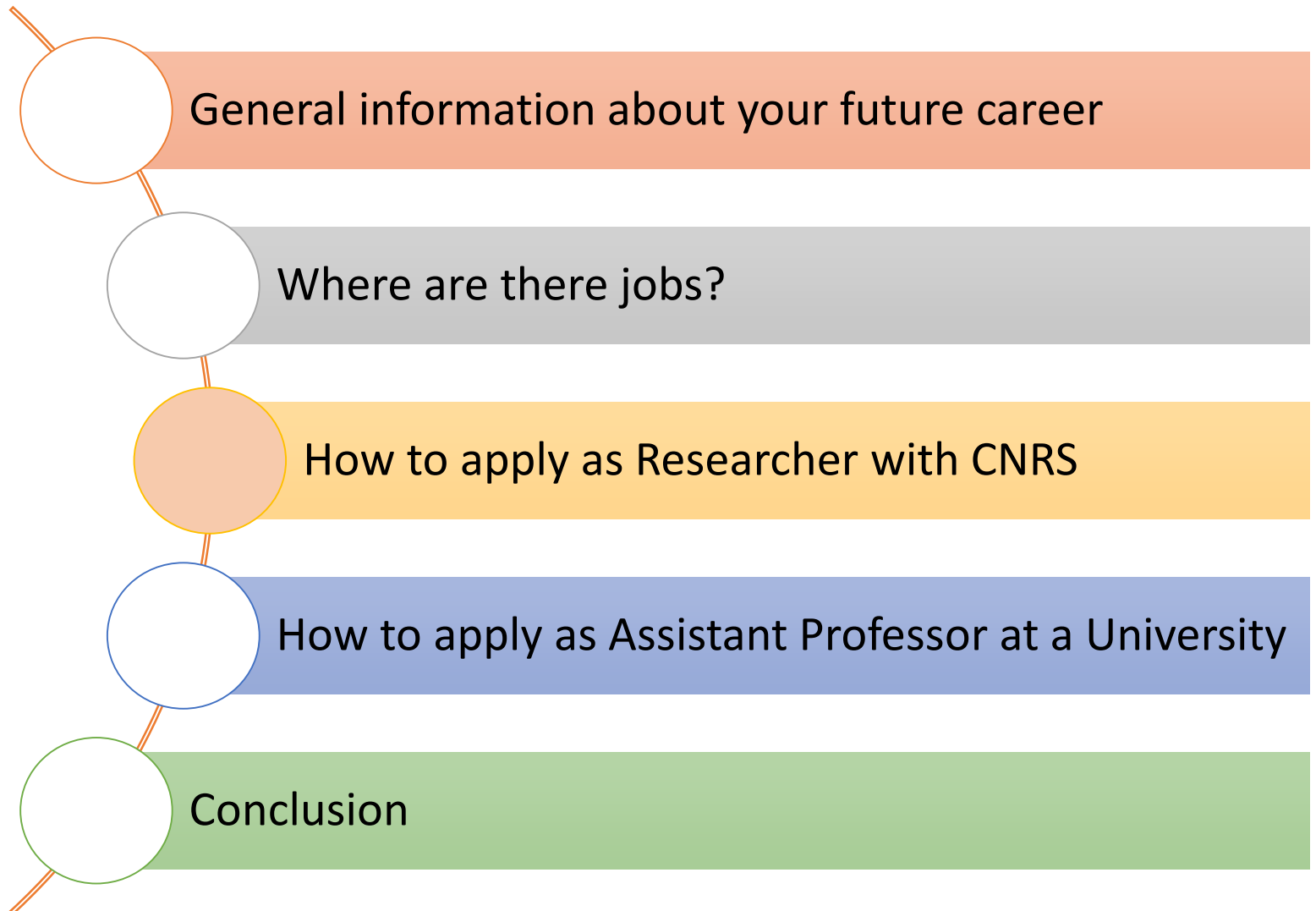
IR

Ingénieur de Recherche – R&D with EPST/EPA/EPIC

Gross Salary: from 2038 € to 4999 €



48



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 et développement durable |
| Physique nucléaire 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 énergies |
| • sciences humaines et sociales | • sciences de la planète et de l'univers |
| • sciences de l'information | |
| • 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 énergies |
| • sciences humaines et sociales | • sciences de la planète et de l'univers |
| • sciences de l'information | |
| • 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

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 qualification

Example of section 63

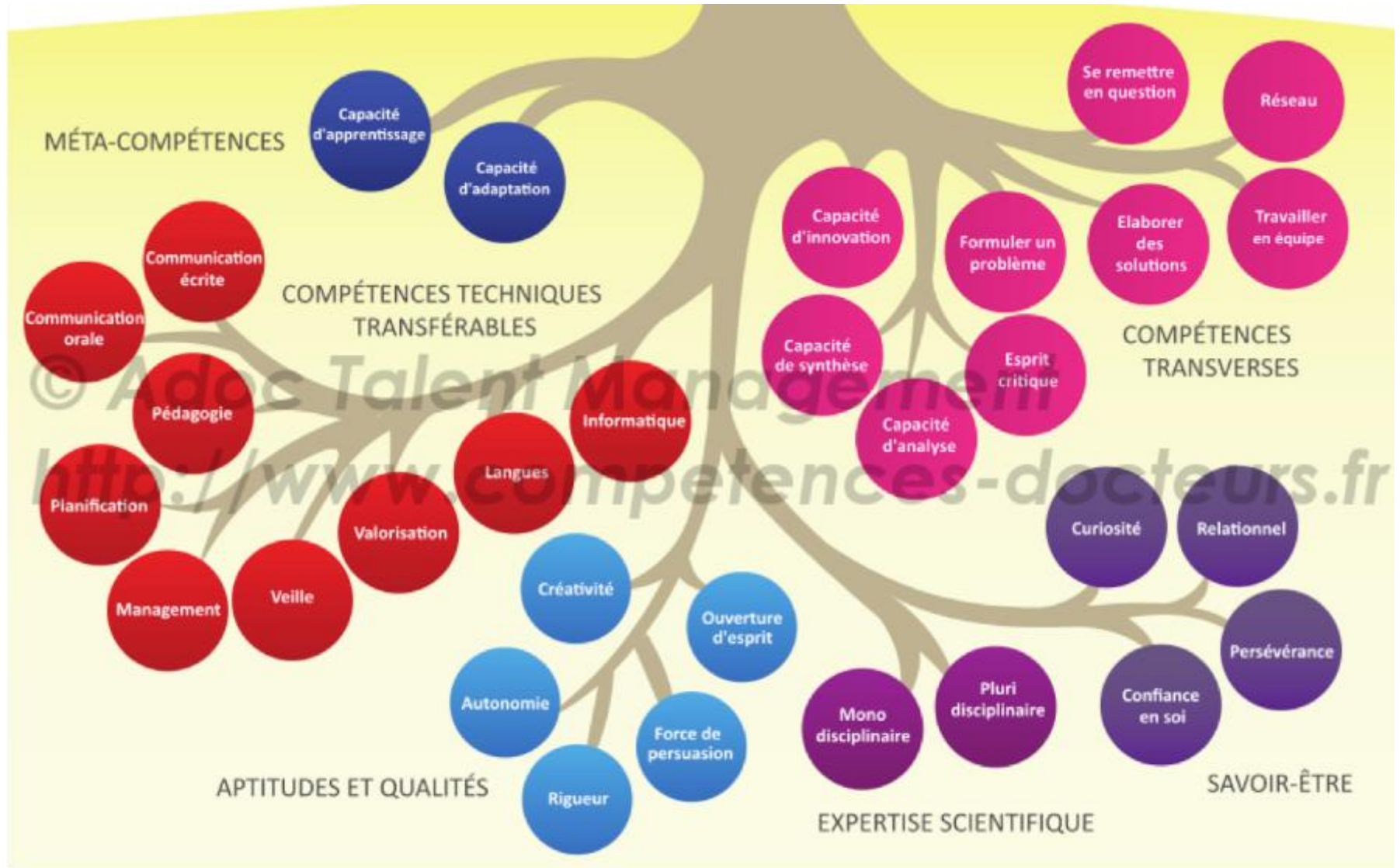
- **PhD with very good reviews**
- **Publication** (minimum):
1 paper as first author in a good international journal referenced by Journal Citation Report (JCR)
- **Teaching experience in higher education**
Minimum 64H with students



Validity of the qualification: 4 years

Informations

Develop your skills



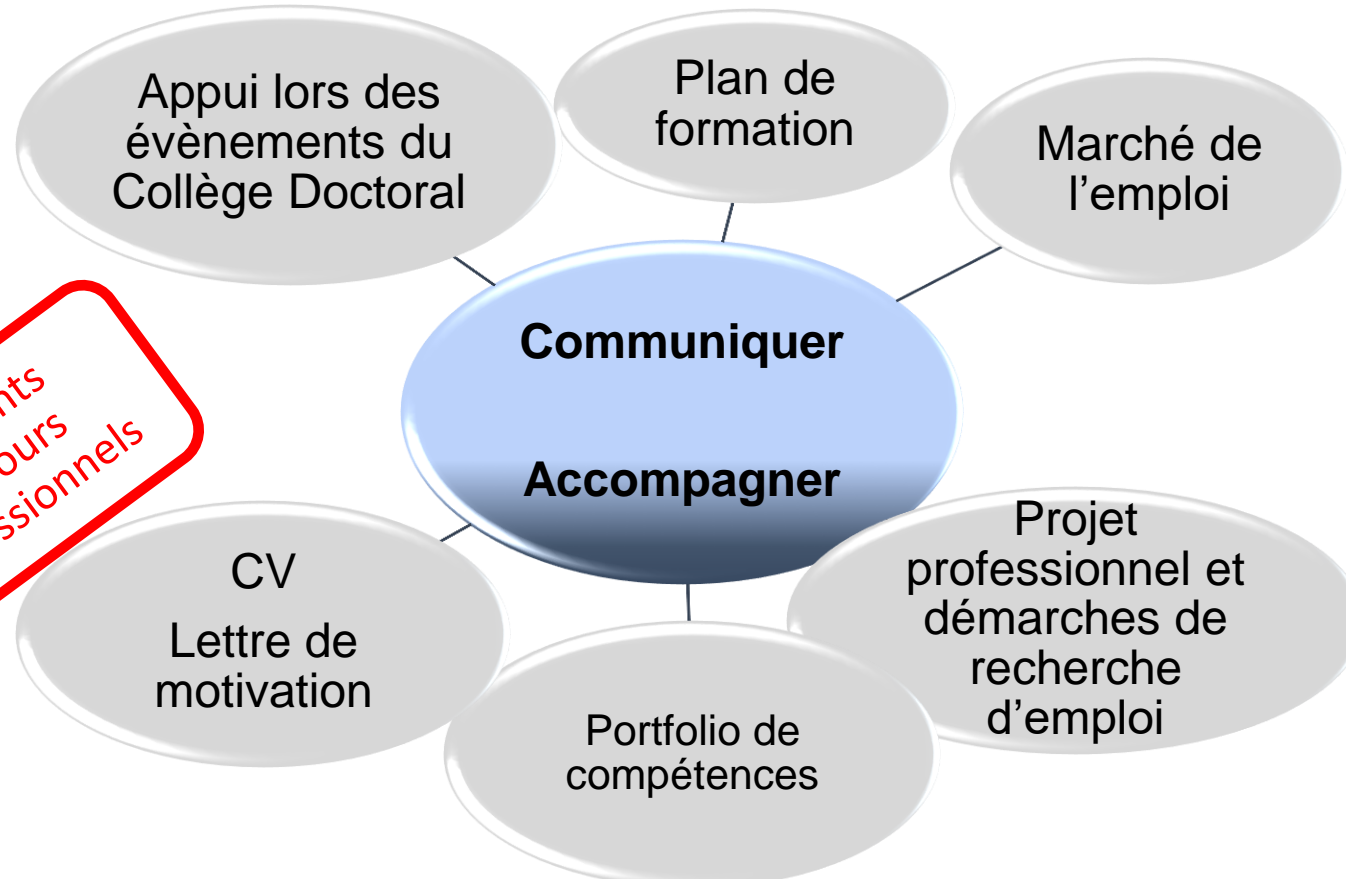


Ludovic DESPLANQUE
MCF, IEMN



Walter LHOMME
MCF HdR, L2EP

**Référents
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A Lille Grand Palais | Le 7 décembre 2021

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