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After the Master's studies: pursuing a PhD at



Innovative research-driven training
Graduate Programmes

After Master



**AFTER
MASTER
DEGREE**

- End of University courses
- Embark in a professional career

Next step

- You need to find a job
- To be recruited somewhere
- Interviews ...
- Employment contract
 - Permanent/Non permanent
 - Public/private sector
- Create your own start-up

**Doctoral
studies is one
of these
several
options**

Preparing a PhD is your first job (3 years)

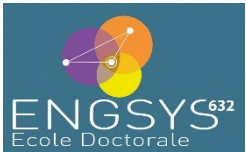
Indicators of the University of LILLE

Field of Science and technology - 100% of PhD students are funded (2022)



- Public or private doctoral contracts
- Industrial CIFRE contracts (> 10% of PhD)

26 contracts CIFRE (6 women)



40 contrats CIFRE (10 womens)



The challenges of tomorrow

Why society needs a Doctor?

Need for highly competent young women and men to solve today's challenges



REALITY - Indicators on professional integration

Focus on Data regarding PhD graduated in 2018 of I-Site - University of Lille

OBSERVATOIRE
DE LA DIRECTION DES FORMATIONS

ODiF
Numéro 13
juin 2023

LE DEVENIR PROFESSIONNEL
DES DOCTEURS
DE L'I-SITE
UNIVERSITÉ LILLE NORD EUROPE
DIPLOMÉS DE L'ANNÉE CIVILE 2018

**ÉTUDES
& SYNTHÈSES**

PhD definition

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

Master /
Engineering
(BAC+5)

PhD (BAC+8)

After PhD



PhD or not PhD ?



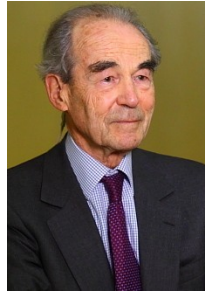
PhD or not PhD ?



(stripped
honorary)
Aberdeen Univ.



Karl Marx Univ.



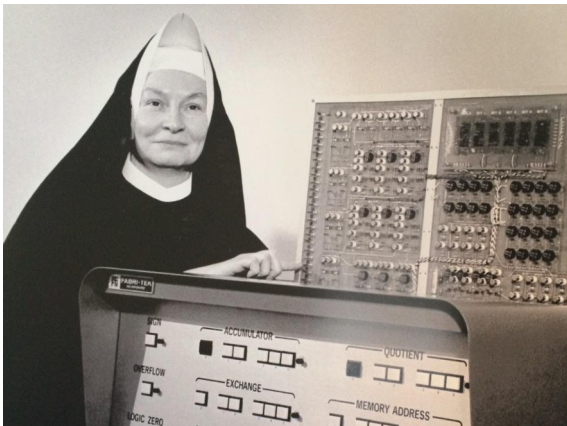
Paris 1 Univ.



(pursuing)
Stanford Univ.



(honorary)
Harvard Univ.



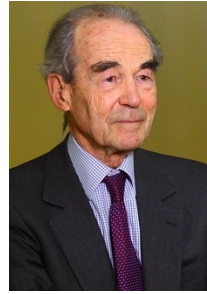
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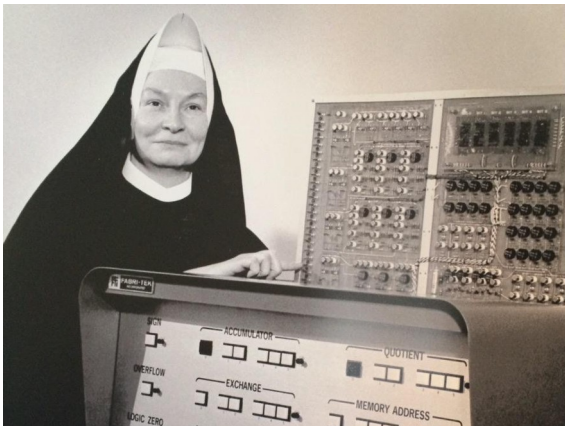
Paris 1 Univ.



(pursuing)
Stanford Univ.



(honorary)
Harvard Univ.



Mary Kenneth Keller : First PhD
in computer science of USA (1965)



Pierre et Marie Curie Univ.

You are

- Open-minded
- Creative
- Rigorous
- Avid reader
- Uninterested in money

This talk is for You!

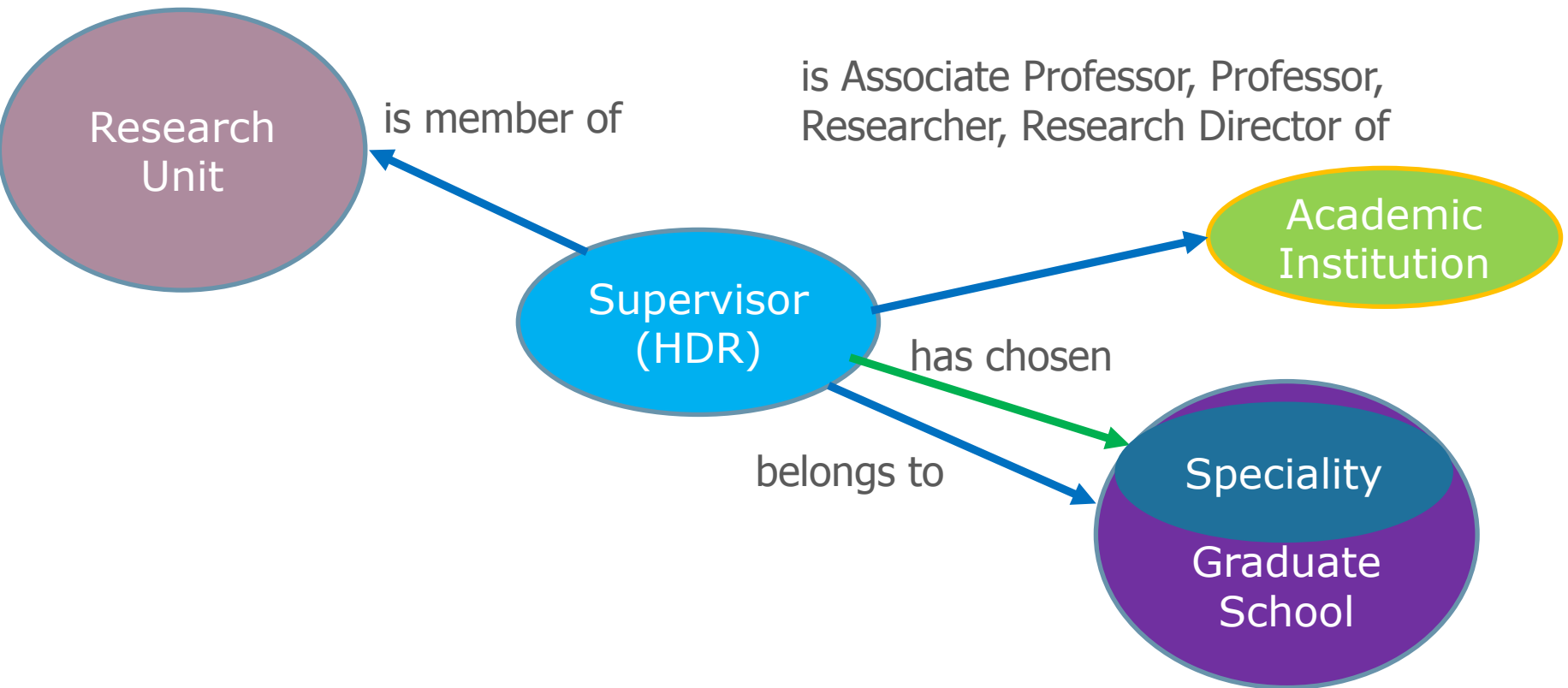
Preparing your PhD is your first job

- 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
- To obtain PhD, you must
 - write scientific papers and/or patents
 - participate to doctoral trainings
 - write a PhD thesis (> 100 pages and biblio references)
 - defend your thesis in front of a committee

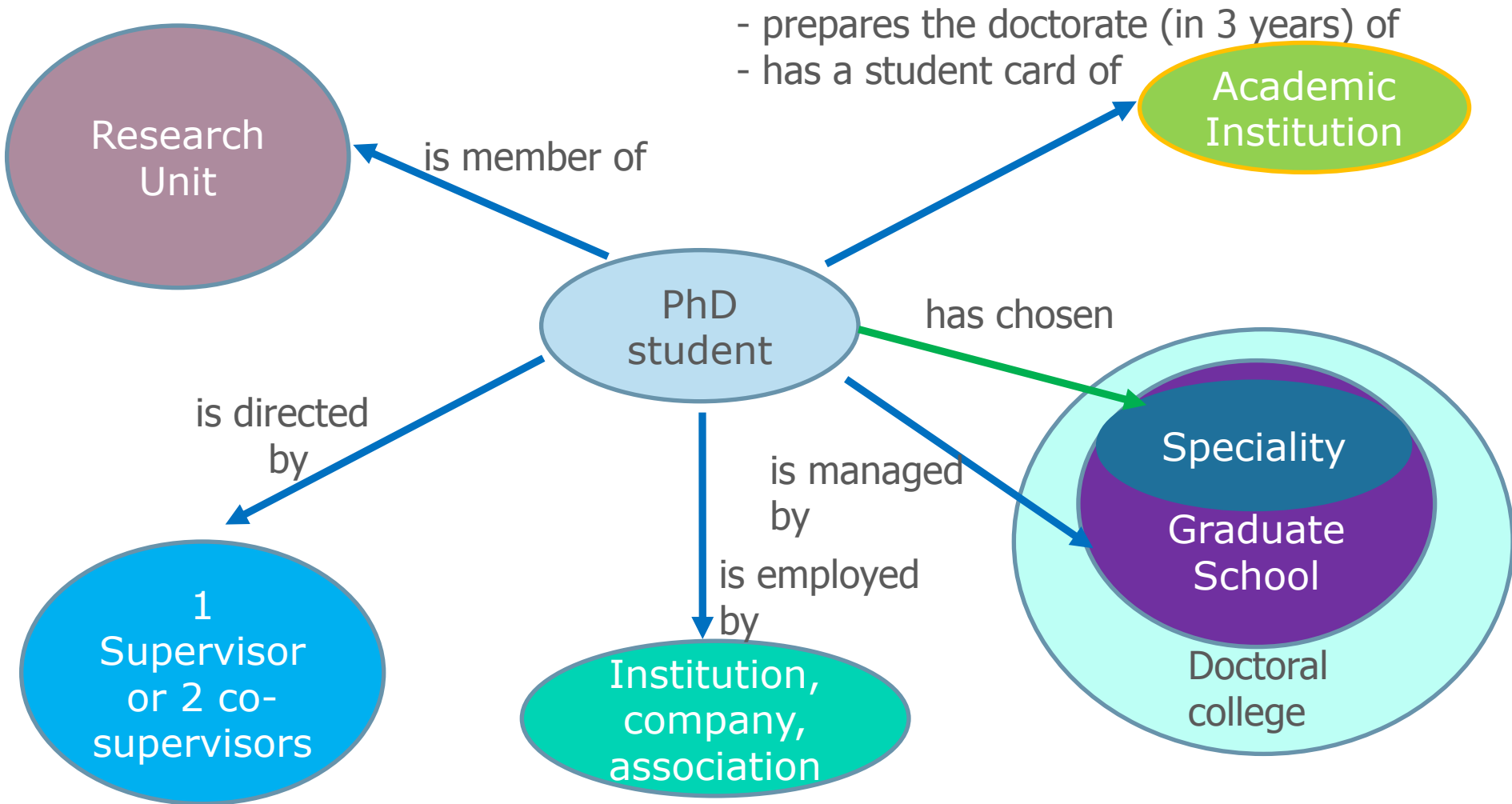
For a good PhD, you should find

- Exciting topic
 - read scientific state of the art papers about the topic
 - participate to conferences or schools in the domain's topic
- Research supervisor team
 - read PhD theses
 - Read CV of PhD
 - contact previous PhD students of the team
 - exchange with the supervisors
- Funding
 - personal funding is not allowed
 - discuss about funding with supervisor

Accredited to supervise research (HDR)



PhD student



Before PhD

Admission rules to graduate school

- 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 at MADIS)
- Employment contract of 36 months for doctoral study is required
- Candidates are selected by Graduate School through a well defined process and according to demanding academic criteria :
 - All M1 and M2 modules obtained in first session
 - Good marks
 - Internship in academic or private research unit
 - Support letters
- Agreement for the joint supervision and awarding of a double doctoral degree (cotutelle)

Employment Contract

- At least 36 months and dedicated to PhD
- Public doctoral contract
 - given by an academic institution
 - 2233 euros gross monthly (2025)
 - Possible amendment for teaching (64h/year max) or consulting
- Private doctoral contract
 - given by a private institution or company
- CIFRE contract : [ANRT](#)
 - Employed by a company thanks to a fixed term contract
 - minimum of 2200 euros gross monthly (2025)

How to apply at a public doctoral contract?

- **February** : Topics are available at websites of
 - Research units : [CRIStAL](#), [INRIA](#)
 - Graduate schools : [MADIS](#),...
 - National research groups (GdR) : [ISIS](#), [MACS](#),...
 - Institutions : [ADUM](#), [ABG](#),...
- **February – April** : Exchange with accredited supervisors (HDR) of selected topics
- **May** : Application deadline
- **June** : Selection by Graduate School council
- **October** : Start PhD

How to apply at CIFRE contract (main steps)?

www.anrt.asso.fr

- Step 1 : CONSULT THE OFFERS OF POTENTIAL PARTNERS
 - <https://offres-et-candidatures-cifre.anrt.asso.fr>
 - www.abg.asso.fr
 - <https://1000doctorants.hesam.eu/>
 - Research units
- Step 2 : SUBMIT A CIFRE PROJECT at doctoral school, then at ANRT
 - Research unit
 - Company
 - Candidate
- Step 3 : WHEN ACCEPTED, BEGIN your CIFRE PhD

After PhD

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

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

	2017 ED SPI	Ensemble des docteurs 2017 de l'I-SITE ULNE	2018 ED SPI
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%	
	100%	100%	KS

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

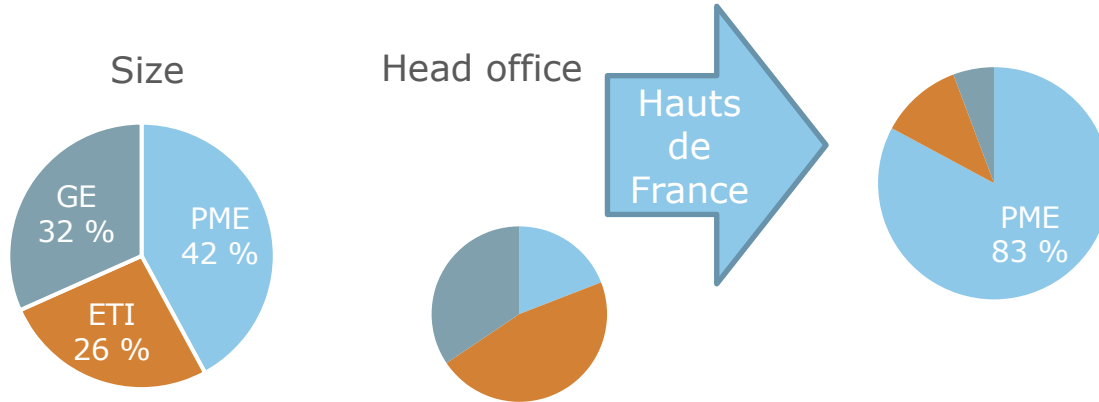
**LinkedIn profiles
of
MADIS PhD 2017-2022**



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

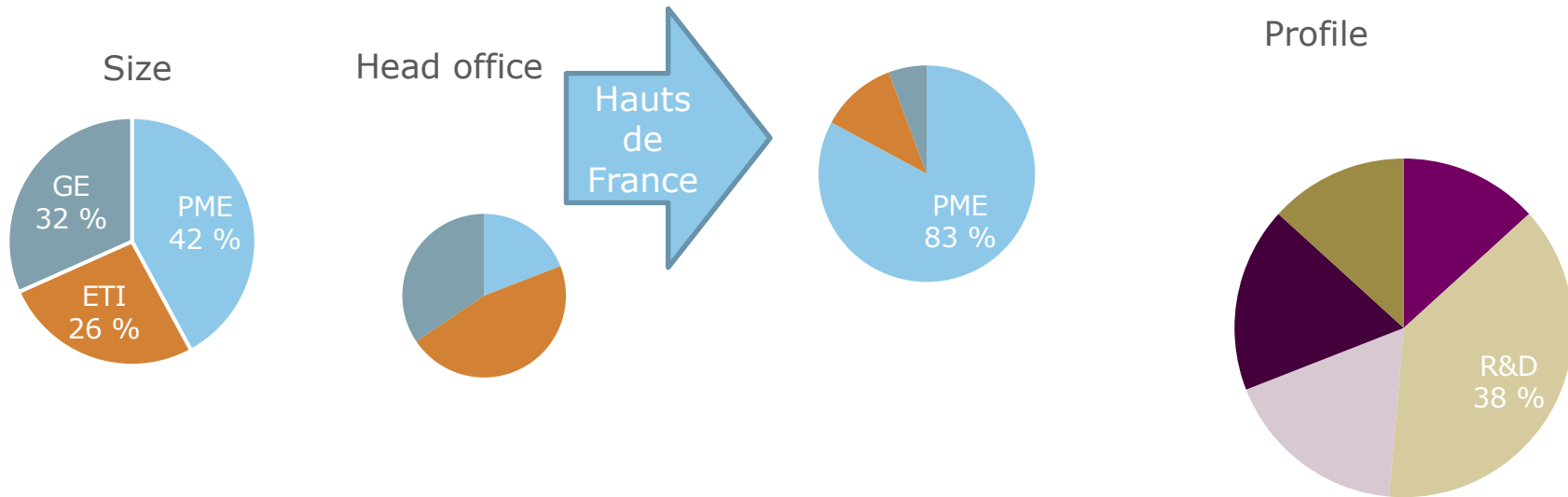
- French network
- 30 SPI Doctoral schools
- 2000 PhD/year

Cohort of 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



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



During PhD

Main missions of Graduate School

- Doctoral trainings (with Doctoral College)
 - 120 hours (scientific, methodology, professional, ethics)
- Individual Monitoring Committee (CSI) (end of D1 and D2)
- International mobility grants for PhD students (with Doctoral College, ULille and Graduate Program IKS)
- DDay (open science, gender inequalities, PhD testimonies)
- Agreement for the PhD defence
 - Number of required doctoral training credits
 - PhD committee and reviewers
 - Reports by reviewers before defence

THÈSE ?

ANTITHÈSE ?
SYNTHÈSE
ANIMÉ PAR RONY ABECIDAN

Thanks for your attention

Round Table

- lucie.lenglart@univ-lille.fr - SCALAB - Sciences cognitives
 - quentin.demazeux@univ-lille.fr - PhLAM - Physiques
 - loic.fache.etu@univ-lille.fr - PhLAM - Physiques
 - christophe.louckx@univ-lille.fr - Painlevé - Maths
 - maxime.martel@univ-lille.fr - SCALAB - Sciences cognitives
-
- Quel est votre sujet de doctorat et votre contrat de travail ?
 - Pourquoi avoir choisi cette expérience professionnelle de recherche ?
 - Comment avez vous trouvé votre sujet et direction de thèse?
 - Quelle est l'activité que vous aimez le moins et celle que vous préférez le plus ?
 - Que comptez vous faire après le doctorat et pourquoi ?
Comment vous vous y préparez ?