euacde COUNCIL FOR DOCTORAL EDUCATION

RÉSEAU NATIONAL des COLLÈGES DOCTORAUX

20 years of Salzburg, the achievements and challenges of the French doctorate

History, Organisation, Figures, Perspectives

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These slides will be freely available to read all the details

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Plan

1. The RNCD – France PhD

2. The french Doctorate before and after the Bologna process: embracing the Salzburg principles

3. Which areas have we not yet aligned with the Salzburg standards, and why?

France PhD

RNCD - France PhD (created in 2013)

***R**éseau **N**ational **des** **C**ollèges **D**octoraux*

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Malak OUCHIB
Mission Officer at the RNCD

Doctoral colleges bring together multiple doctoral schools and support services within a university, on a single campus, or across a broader region. Through its member doctoral schools, the RNCD represents over 85% of PhD students currently enrolled in France.

The association's core missions :

- To promote the sharing of ideas, experiences, and best practices related to doctoral studies within coordinating structures responsible for organizing the activities of multiple doctoral schools at a given site.
- To promote the recognition and appreciation of the doctorate among all public and private stakeholders in the socio-economic and cultural sectors, both nationally and internationally.

National and international stakeholders

Sylvie POMMIER, PhD Coordinator at the French Ministry of Higher Education and Research (DGESIP-DGRI)

CAMPUS FRANCE

A French public agency under the supervision of the ministries in charge of higher education and foreign affairs

Ministry for Europe and Foreign Affairs

For more information

The french Doctorate before and after the Bolognea process

1970

No formal doctoral education structures
Almost anyone can be a supervisor.

1981

1984

CIFRE industrial agreement

Doctoral Training Groups (≠ Doctoral Schools) but lead to the award of the Diplôme of Advanced Studies (DEA) which is a « year 0 » of a doctoral degree. The supervisors need to have a habilitation which is created by law.

1985

First contractual status for some funded doctoral researchers.
Most funded doctoral researchers recieve stipends.

1988

3 Doctoral degrees allowed by French law:

- State Doctorate
- Third cycle Doctorate
- Doctor-Engineer Degree

1989

The latest version of the law regarding the Accreditation to Supervise Research (HDR)

The french Doctorate before and after the Bolognea process

1991

The first doctoral schools start appearing

1992

Doctoral Schools are made compulsory by law

2000

About 300 Doctoral Schools in France

New law regarding Doctoral Education : Doctoral Schools reinforced, career preparation is a mission of the Doctoral Schools, Doctoral Charters appear, the French ministry requests that universities increase the number of funded positions and the salary of researchers.

2002

New law regarding Doctoral Education : appearance of Doctoral Colleges, stronger emphasis on doctoral training (soft skills and « broad scientific culture »).

2006

The french Doctorate before and after the Bolognea process

2009

The Doctoral Contract becomes the standard recruitment method for all publicy funded doctoral students
CIES swallowed by Doctoral Colleges

2016

The ministerial order of May 25, concerning doctoral Education made compulsory:

1. Doctoral Policy
2. Training in Ethics and Scientific Integrity
3. Individual Monitoring Committees
4. Doctoral training agreement
5. Competency portfolios

First mention of the supervisors being trained

2019

New law that defines « standard » transferable skills associated with doctoral education

2020

New law increasing the number and salaries of the Doctoral Contracts

2021

Inroduction of a private law contract (CIFRE-like contracts)

The french Doctorate before and after the Bolognea process

The ministerial order of May 25, 2016 is updated with an emphasis on the Individual Monitoring Committee reinforced as regard to Gender-Based and Sexual Violence.

2022 → **2024** → **2025-2026**

The Pommier-Lazarus report, with one of its key goals being to propose solutions to build stronger ties between PhD programs and the broader professional world.

Embracing the Salzburg principles

The Salzburg Principle 2 : Embedding in institutional strategies and policies

National regulations and institutionnal practices

- In 2000 – Doctoral School « bring together research groups around of the university's scientific project »
- In 2006 – same + "they contribute to the doctoral policy of the university"
- In 2016 – same + "Doctoral Colleges organize doctoral policy"
- The staff of doctoral colleges/services has been reinforced
- Traditionnally, DS are attached to the Research Directorates rather than the Training Directorates (where BSc/MSc are)

Structurally, doctoral services have been given more ambitious missions

National regulations and institutionnal practices

- Every 5 years, universities, courses, research groups are evaluated by the HCERES in France
- The evaluation of doctoral schools has grown to be a seperate and quite specific evaluation
- However, doctoral policy has also grown to be evaluated as a fundamental aspect of institutionnal policy

Evaluations have grown to be more comprehensive in matter of doctoral policy

Ongoing structural changes

- Graduate Schools are organisational objective several universities are working on : how to build coordination between research groups, masters programs and doctoral schools
- Issues of responsibilities shifting between doctoral colleges and graduate schools
- Doing better in terms of preparing for non-academic careers and/or entrepreneurship training
- fundamental aspect of institutionnal policy

The next step is finding ways to better integrate doctoral policies with other institutionnal policies

Embracing the Salzburg principles

The Salzburg Principle 3 : The importance of diversity

Past decisions

- We no longer have several PhD systems : we have the « national doctoral diploma »
- There are no professional doctorates, academic doctorates,… just the one !
- DBA are not doctorates, don't give the Dr or PhD title.
- We have worked **hard** to standardize doctoral practices on the principle that every student of a structure must be treated the same.
- All doctoral schools **must** be accredited and **only** universities/HEI can deliver PhDs (no private institutions)

Our strength is some structural uniformity and conformity

Ongoing challenges

- Project based/evidence based PhDs are still a minority
- Continued education PhDs usually are entirely similar to initial training, we don't have as much « true » lifelong learning candidates at the PhD level
- Each doctoral project being different (even, wildly different between fields) means it's difficult to have a « brand » for doctoral education the way other degrees have in France. We need a norm to help communicate about doctoral education to the working world.
- Supervisors are sometimes surprised by the expectations and intentions of new doctoral students

Evaluations have grown to be more comprehensive in matter of doctoral policy

What could we do ?

- Trying to get more continued education PhDs in with high level civil candidates – we have too few people in power that understand research.
- We can try and be more open in the expected products of the PhDs : is a 600 page manuscript that 10 people will read the most useful product in these AI-equipped times ?
- Integrating competency approach in doctoral education, as Bologna wants us to, might help us rethink how we carry out doctoral education.

The future of doctoral education, in Europe, will depend on possible reworking of the Salzburg principles

Embracing the Salzburg principles

The Salzburg Principles 6 & 8 : Achieving critical mass & The promotion of innovative structures

- In 2000 – Doctoral School are barely more than registration offices
- Very little available training, especially in non-scientific matters
- Have an issue with your supervisor ? No avenues for help or redress
- Funding requirements are usually non existant
- No feedback on known "bad" supervisors. "Prolific" supervisors with money still getting students.
- A few doctoral schools are very wide in terms of covered fields, ex "Social Sciences and Humanities" with everything from linguistics to cognition science to history to economics. It's impossible to offer scientific training in a way that would suit any kind of majority.

- In 2025 – every serious university or group of universities has a Doctoral College
- Doctoral College define and execute overall doctoral policy
- Doctoral Colleges usually have a VP-level academic + a high-tier administrative head
- Doctoral colleges have numerous specialists :
  - International affairs : mobility + cotutelles
  - Training office : teaching engineers, organisational staff
  - Career counselors
  - Registration officers / Welcome desk
  - Alumni staff
  - Communication specialists
  - IT specialists (speciality software)
- Each Doctoral School has one Director (+ eventually adjuncts), they are named by the University President after the academic bodies have deliberated
- Each Doctoral School generally has their own dedicated secretary

This is where we feel we have been the most successful, compared to many others :

- We have moved from the "supervisor decides all" "master-apprentice" situation to a more balanced system where the doctoral school have a **clear, uncontested and recognized role**
- Doctoral schools work to support all stakeholders (students, researchers, other admin, the institutions)
- Doctoral policy is recognized as a standalone topic for all universities
- We have national recognition : at the Ministry and also as essential stakeholders

Embracing the Salzburg principles

The Salzburg Principle 7 : Duration

No rules and no follow-up

- In 2002 – first unified duration of reference « three years »
- In 2006, a bit more vague « in general, three years »
- In 2016, an important distinction : “in general, three years of fullt-time research, otherwise the PhD can be six years maximum”
- Extensions are possible and are supposed to be reported to the academic bodies (but no one really checks)
- Enforcement of funding rules (funding is usually 36 months) means that a lot of PhDs are around 40 months (36 months of work, then waiting for defence

Where are we at now ?

- Except for delays related to Covid, PhDs aim for 3-4 years
- Almost half of hard sciences PhD are defended under 40 months, 40 % more less than a year later

PhD length is pretty well managed in France.

38.06 | Évolution de la part des thèses soutenues par intervalle de durée (en %)

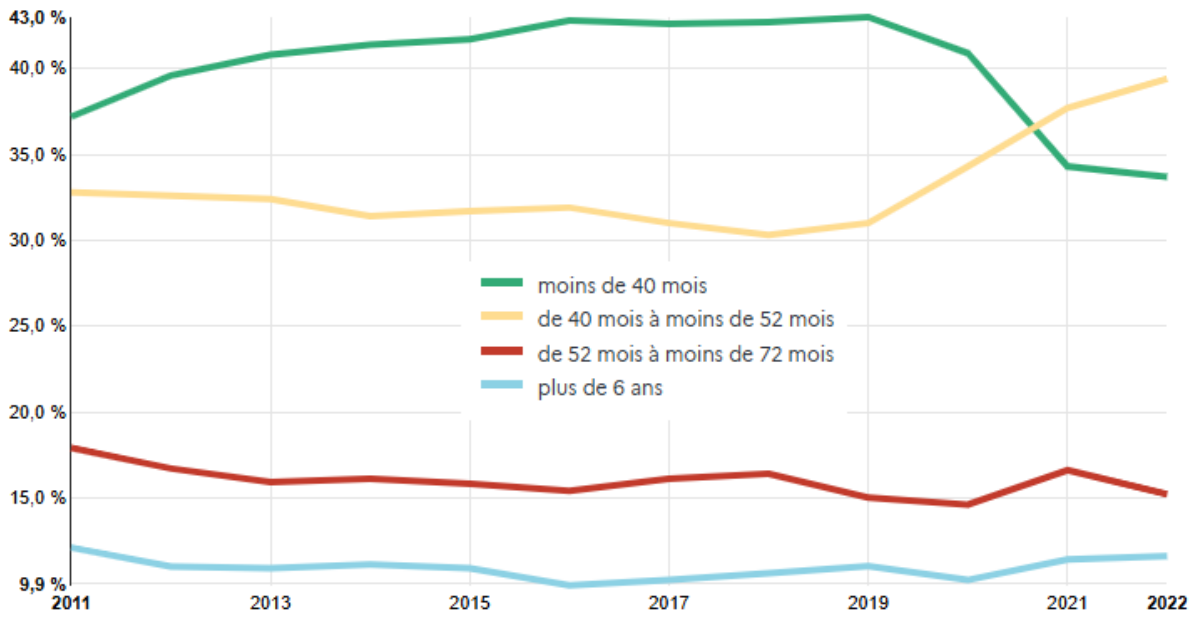


Figure from French HE Ministry (MESRI-SIES)

Embracing the Salzburg principles

The Salzburg Principle 10 : Ensuring appropriate funding

Historically unstructured doctoral funding schemes

- In 2005 – 20 % of 70k doctoral students are fully unfunded
- In 2000, mostly stipends, few contracts
- About 50 % of PhD students are funded for their PhD, most of them poorly
- The "allocataire de recherche" system is the ministry funding system but it's one amongst many

What happened ?

- In 2005 – landmark decision by the French ministry : « stop giving out stipends, contrats should be the normal »
- In 2009 – the « allocation de recherche » is replaced by the far more solid « contrat doctoral de droit public »
- In 2021 – a new law for research (LPR) : more « contrat doctoraux » and increased salaries.
- The minimum (gross) salary is fixed by law :
  - 2009 – 2016 : 1663 €
  - 2016 – 2021 : 1758 €
  - 2021 – 2022 : 1866 €
  - 2022 – 2023 : 1975 €
  - 2023 – 2024 : 2044 €
  - 2024 – 2025 : 2100 €
  - 2025 – 2026 : 2200 €
  - 2026 & beyond 2300 € (+38 % 2009)
- In hard sciences, doctoral school require PhD funding, often to the "contrat doctoral" rate.

Where are we at now ?

- In 2022 :
  - 78,8 % doctoral students had thesis funding
  - 10,3 % were in life-long learning
  - Only 7,2 % were totally unfunded
- Back to 70 k doctoral students total (down from 80k 10/15 years ago)
- There isn't necessarily more funding *positions* (pure Ministry funds have always been around 4000) but they are better funded (they cost more)
- New PhD registrations as funded students has slightly increased since 10 years (around 12 k)
- New PhD registrations with no funding has been halved (2377 in 2012 to 1135 in 2022)

Which areas have we not yet aligned with the Salzburg standards, and why?

The Salzburg Principle 1

Limited recognition of the doctorate beyond academia

- The doctorate is still poorly recognized in the private sector.
- There is a lack of pathways to industry or public service : PhDs are counted as a bonus for academic salaries but not for academic–adjacent jobs (but we're improving)
- PhD holders are often overqualified for some positions, yet perceived as "detached from practical realities" in others.

✓ Originality of research : also in the law

The Salzburg Principle 4

Doctoral candidates as early stage researchers – inconsistencies remain

- French law indicates that doctoral education is a professional experience.
- In practice, the PhD is still too often seen as a mere continuation of studies rather than as a form of professional research work.
- The status of doctoral candidates—particularly those without formal employment contracts—remains unclear, as they are positioned between being students and early-stage researchers.

The Salzburg Principle 5

Inconsistent doctoral supervision and insufficient training for PhD supervisors

- Supervision quality varies greatly depending on the discipline, research unit, and thesis supervisor.
- There is little formal training required for doctoral supervision.
- Expectations of students have changed : they want to be in teams (not isolated), they want "hands on" supervision with constructive criticism

Which areas have we not yet aligned with the Salzburg standards, and why?

The Salzburg Principle 8

Development of transferable skills remains limited

- Despite the training opportunities offered by doctoral schools, these skills are still often seen as secondary—or even optional—by some supervisors and doctoral candidates.
- Supervisors themselves are not always trained to support doctoral candidates in developing transferable skills. At times, they do not see the value of such training, which can discourage doctoral candidates from engaging in it.
- Doctoral candidates face difficulties in having their skills recognized on the non-academic job market.

The Salzburg Principle 9

Limited internationalization

- Support systems for mobility are sometimes cumbersome or poorly known.
- Available funding is still insufficient to meet the needs related to mobility, whether incoming or outgoing.
- Visa policies and international collaborations can sometimes hinder doctoral candidates who wish to undertake mobility during their PhD studies.
- Some doctoral research topics require continuous laboratory work, leaving little opportunity for observational mobility in an international lab

Which areas have we not yet aligned with the Salzburg standards, and why?

The causes of these limitations

1. **Strong influence of the French academic tradition** :

✓ France has a long history of a centralized and hierarchical academic system (grandes écoles vs universities, strong divisions between disciplines, etc.).

2. **Doctoral supervision is still too individual and varies a lot.**

✓ The Salzburg principles encourage structured and team-based supervision with an active research community. In France, supervision often depends a lot on the thesis advisor's style, with little coordinated group support.

3. **Some stakeholders in the field have difficulty accepting change**

✓ As with any systemic change, local resistance (from faculty members, leadership, doctoral schools) can slow down the adoption of new standards, especially if they are seen as a loss of academic autonomy.

Key messages

- **A large part of the progress made by French doctoral schools is thanks to strong national legislation**. It may be the only way to get past academic conservatism and university inertia.

- **Another reason is the emergence of the "French professionals of doctoral education"**, most of them are in the RNCD. The law has empowered the Doctoral School heads but they have also empowered themselves.

- **Strong policy is rooted in factual data,** the French state collects data yearly as regards to doctoral education : career figures, yearly registration and funding figures, nationality of students, etc… Quality control by the French state has led French universities to use this same data to pilot doctoral policy. **It is impossible to pilot anything without knowing where you are and where you are going.**

- **The Salzburg Principles need to evolve and adapt** to better support the transformation of the European doctorate **in a rapidly changing academic and socio-economic context.**

20 years of Salzburg – where does France stand ?

SP 1 : Original research & Widening job market

SP 2 : Institutionnal strategies

SP 3 : Diversity

SP 5 : Supervision

SP 4 : ESRs

SP 6 : Critical mass

SP 7 : Duration

SP 8 : Structures & Training

SP 9 : Mobility

SP 10 : Funding

Supplementary material

France PhD

Supplementary material

- The National Network of Doctoral Colleges (RNCD) is the leading academic association for doctoral education in France.

For inquiries, feel free to contact us at **rncd.france@gmail.com**

- The RNCD's website : https://www.rncdfrance.fr/

- You can also look up Hendrik and Nina on LinkedIn, as well as the RNCD's LinkedIn page : https://www.linkedin.com/company/rncd-francephd/

Appendix 1 : Doctoral Colleges, Doctoral Education

In France, the landscape of doctoral education is as follows :

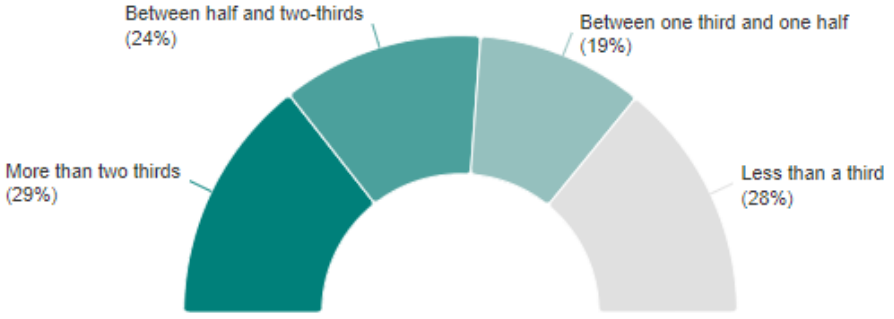
- There about **280 doctoral schools** in France (most have 100-300 students each, extremes are at 50 to 1500)
- In late 2021, there were **71 500 registered doctoral students**, of which 16 400 were new doctoral students. At the time, there were 2,9 million students in French HE (doctoral students are **2,4 % of total students**).
- In 2020, there were **105-110 000 public researchers in France** (20k Pr, 35k MCF, 13k PRAG, 24k contractuals + 7600 DR, 9200 CR)
- In order to supervise a PhD, you need to have an HDR (***Habilitation à Diriger les Recherches***). It is necessary to go from aso/junior prof (MCF, CR) to full professor (Pr, DR).
- In **2021, 13590 PhDs were granted**.
- Like many countries, **the number of doctoral researchers** has been decreasing – mostly in the humanities : -13 % of new registrations over the last twelve years *but* -2 % only regarding students being funded for their PhD, -60 % for non-funded ones.
- Distribution of doctoral students : 43 % hard sciences, 21 % life sciences, 14 % social sciences, 22 % humanities.
- 40 % of our doctoral students come from abroad : 19 % from the EU, 31 % from Magreb + subsaharan region, 19 % from Asia.

Appendix 1.2 : Doctoral Colleges, Doctoral Education

In France, research groups usually bring together :

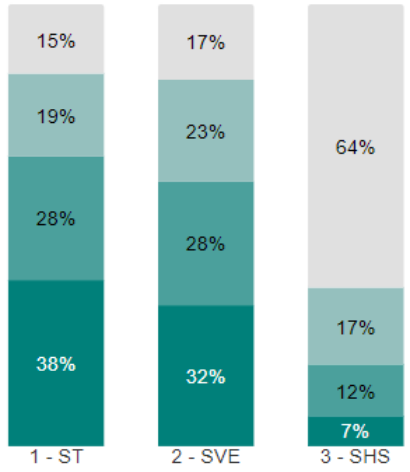
- A number of full professors (*professeurs des universités*) who teach and research and senior researchers (*directeurs de recherche*) who only research
- 2-3 times that number as junior/assistant professors (*maitre de conférences)* or junior researchers (*chargé de recherches*)
- A handful of postdoctoral researchers, a few non doctoral research staff
- Doctoral students : usually as many as the researchers up to 4-5 times that number in the Humanities/SS
- **Doctoral students represent a large part of the "research workforce" in French HE**

1.9 - Importance of doctoral education for scientific production: According to you, how much of your scientific production, in the last 5 years, is associated with a doctoral project?



Cross: 1.6 - In which major area(s) does your research work fall? / 1.10 - Importance of doctoral education for scientific production: According to you, how much of the scientific production of your laboratory, in the last 5 years, is associated with a doctoral project?

Cross: 1.6 - In which major area(s) does your research work fall? / 1.9 - Importance of doctoral education for scientific production: According to you, how much of your scientific production, in the last 5 years, is associated with a doctoral project?

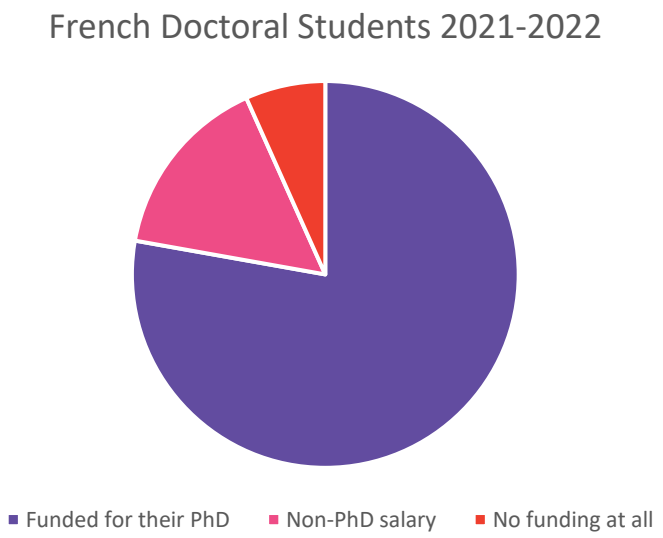


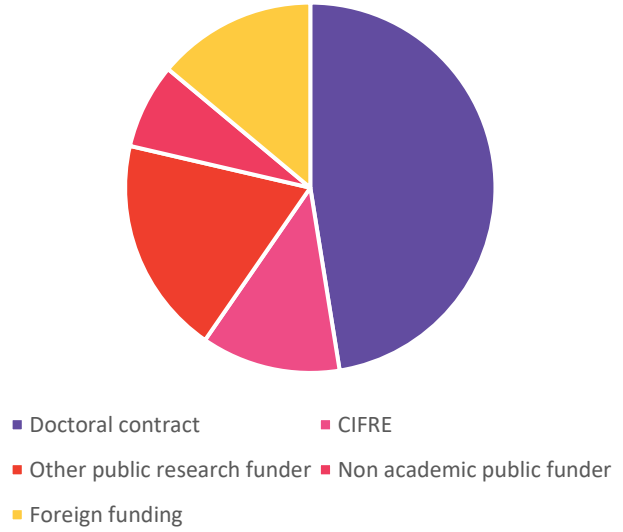
Appendix 2 : Funding of PhDs

In France, about **78 % of doctoral students have some kind of PhD-related funding**:

- Of this group :
- 40,2 % are **contractual doctoral researchers**
- 10,3% are funded by other public research institution (like the CNRS)
- 16,1 % have industrial doctoral contract (CIFRE)
- 6,3 % have non academic public funding
- 11,8 % have foreign funding
- 15,2 % are other cases
- 15,5 % have a fulltime/part time job
- 6,7 % have no regular funding

French law provides for a standardized contractual format for doctoral Education : **the "*contrat doctoral de droit public*.**



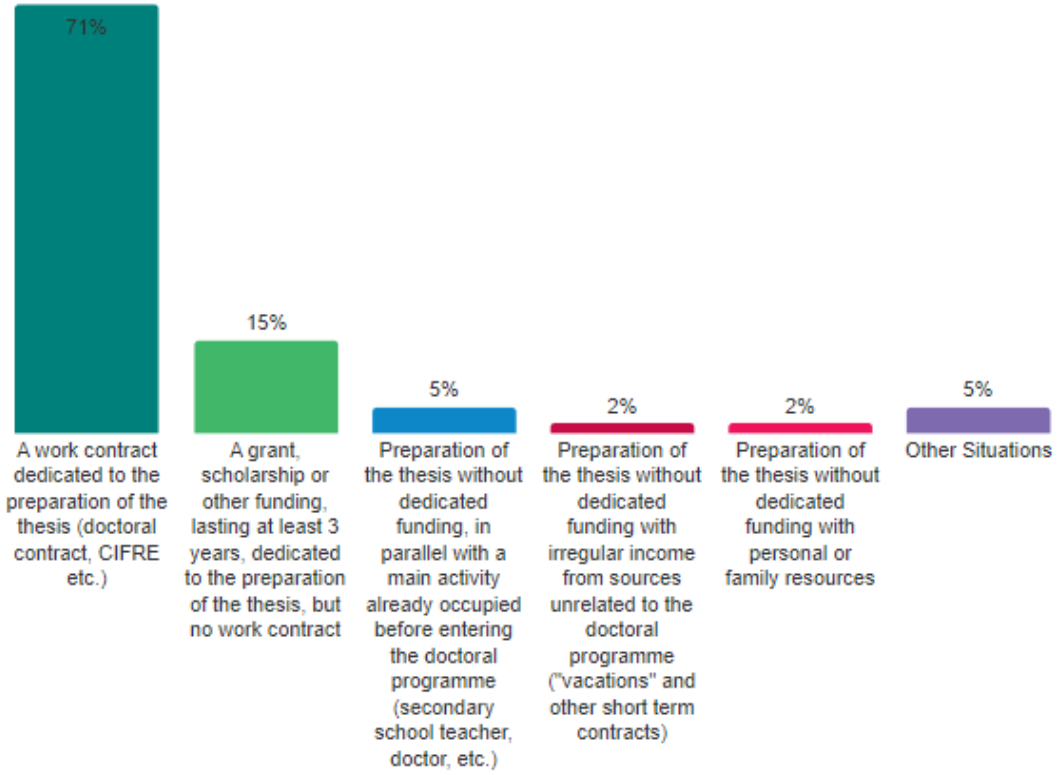


Annexe 2.1 : Funding of PhDs

RNCD survey stats (2023)

Cross: 5.5 bis - What type of contract, compensation, resources do you currently have? / 3.3 - What is your level of satisfaction with your doctoral experience, in general?

5.5 bis - What type of contract, compensation, resources do you currently have?



p-value= < 0,01 ; Chi2= 14,432.3 ; dof= 6. Very significant.

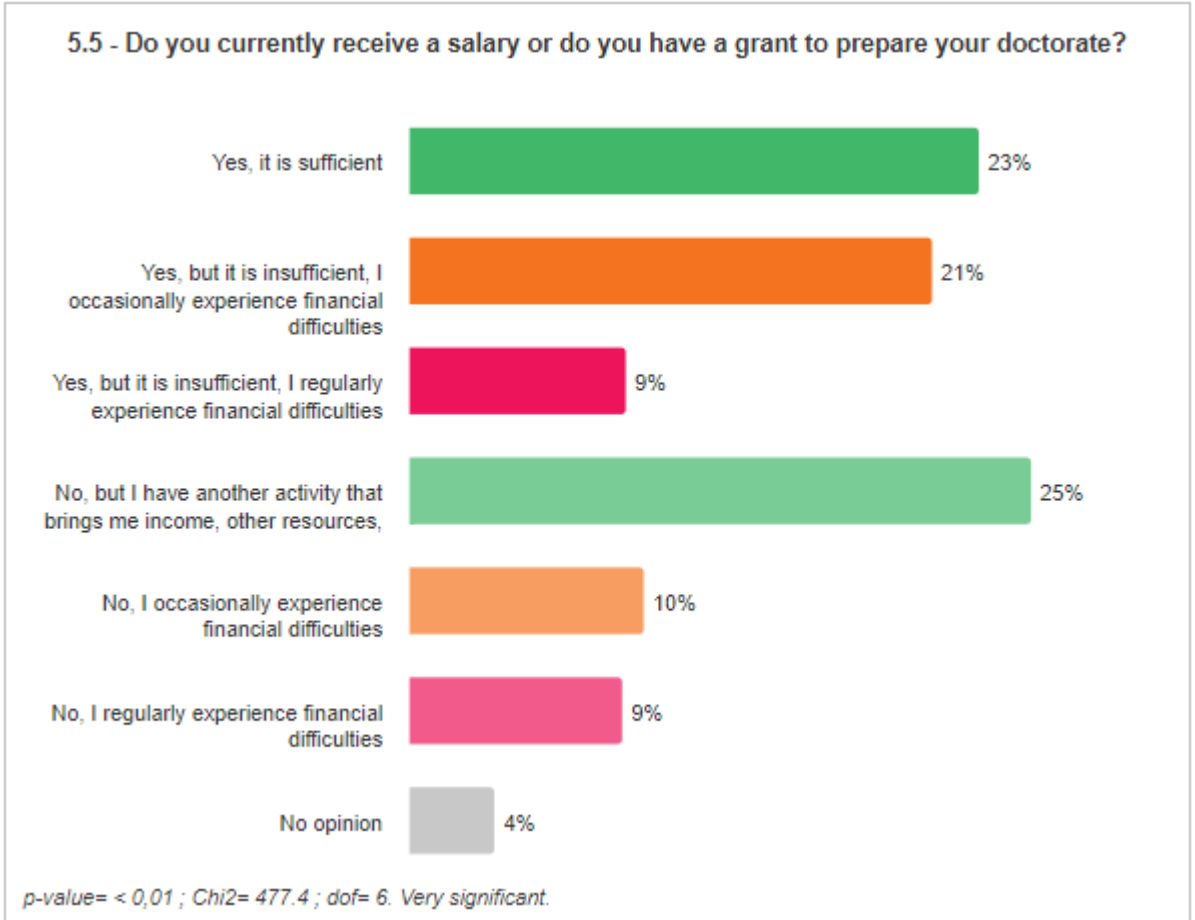
Appendix 2.2 : Funding of PhDs

Is the funding enough, though ? Mostly yes… problems arise after the three years …

Grenoble wrote up a fascinating study on **the financial difficulties of PhD students :** https://hal.science/hal-03905313

Main messages :

- At Grenoble, less than 10 % of doctoral research start their PhDs with no funding.
- Students rarely quit their PhD during the first years
- There is a big bump in PhDs being abandonned once the three years of funding are exhausted, the PhD can't be defended and should be continued. This raises a serious issue about PhDs being too long regarding the funding schemes
- These financial difficulties are especially acute in the SS and Humanities

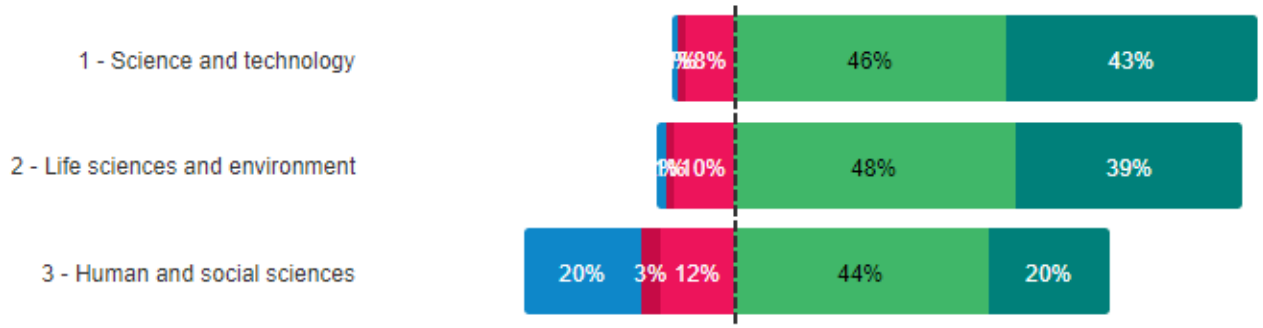


Appendix 2.3 : Funding of PhDs

Other than salaries, doctoral researchers require space and equipment to carry out their work :

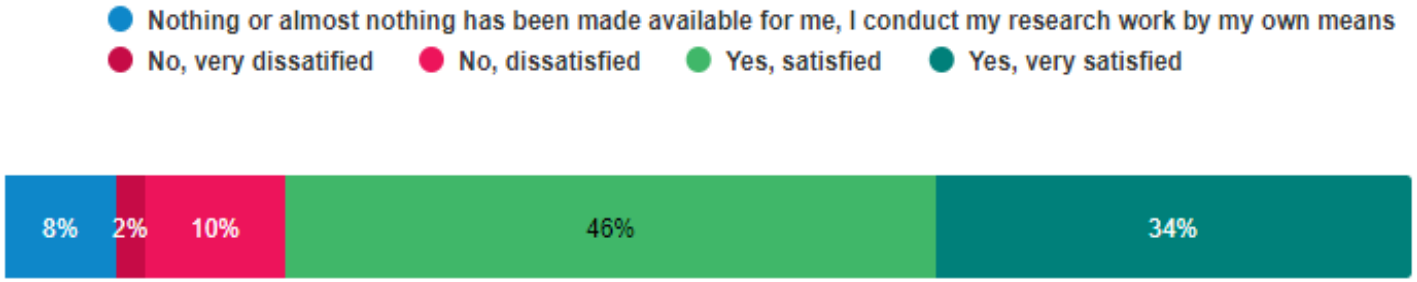
- 80 % of doctoral researchers in France consider themselves well cared for in this regard
- In the Humanities and SS, there are still research groups that have few/no physical offices and students/researchers can't meet, gather or work together.

Cross: 1.7 bis - In which major area(s) does your research work fall? / 5.6 - Are you satisfied with the material conditions in which your research takes place (equipment, research premises, office and equipment, available credits to carry out the work, etc.)?



The relationship is very significant. p-value= < 0,01 ; Chi2= 1,072.7 ; dof= 8.

5.6 - Are you satisfied with the material conditions in which your research takes place (equipment, research premises, office and equipment, available credits to carry out the work, etc.)?



p-value= < 0,01 ; Chi2= 4,938.8 ; dof= 4. Very significant.

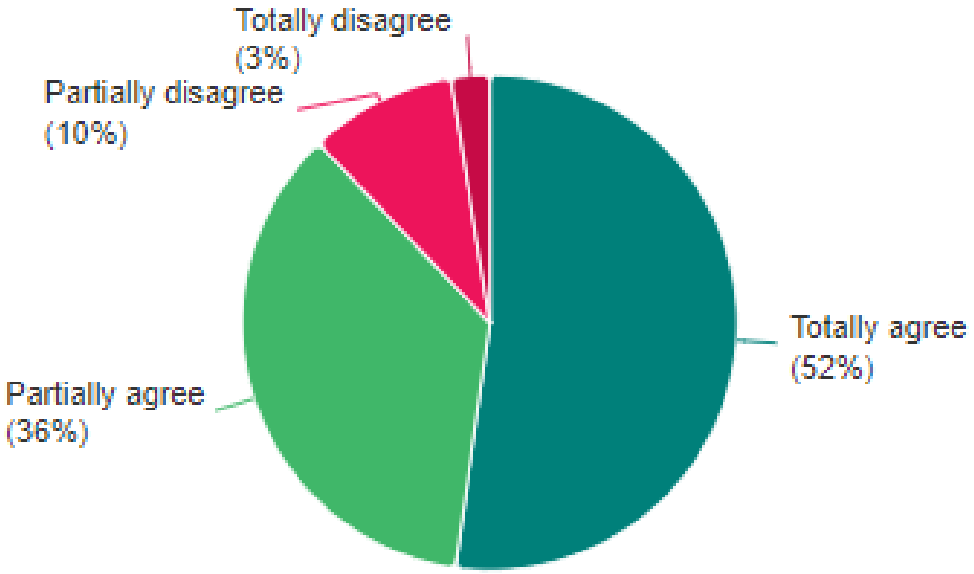
Appendix 2.4 : Industrial Agreement for Training through Research (CIFRE)

- System created in 1981 – a « CIFRE agreement » is a written agreement between three parties : a research lab (represented by their parent university), a private company (some public structures are eligibles too) and the **ANRT** (the coordinator for CIFRE)
- Summarized : the company hires someone (fresh, no previous employment at that company) for at least three years (open-ended contracts work too), that person is hired to work >95 % on research as a doctoral candidate and registers as a PhD student at the partner lab at the university of registration. If the ANRT validates the project, the company will be reimbursed 14k€ per year (pro-rata of employment). Private companies can deduct the rest of the salary through CIR (research tax cuts)
- This is the primary mode of public/private research collaboration that involves PhDs :
  - **Open program** : any non-ministry entity can apply, any field can apply, no age constraints
  - Many positions each year : 1350 (2012), 1450 (2018), 2150 (2027 target)
  - **Very successful program** : high rates of publication in these projects, high rates of R&D career after a CIFRE
  - More information : https://www.enseignementsup-recherche.gouv.fr/fr/les-cifre-46510
- Rough cost to the French state : 70 M€ per year. Want to boost your private/public collaborations, copy the ANRT !

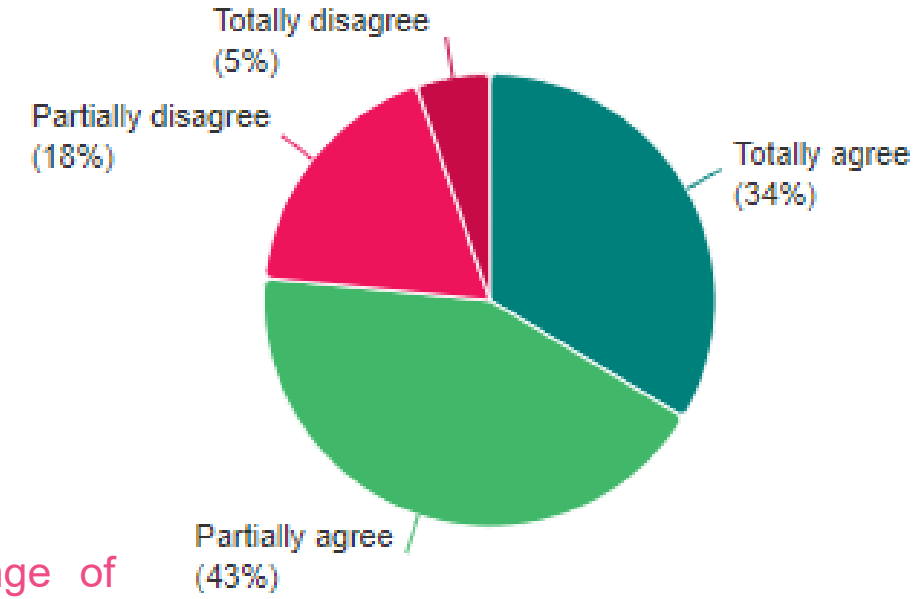
Appendix 3 : Training for doctoral researchers

Training courses for Doctoral Researchers is one of the fields in French Doctoral Education where the influence of the European Frameworks is the most strongly felt.

5.8 - I have the possibility of locally attending seminars, conferences, symposiums and other presentations allowing me to acquire a broad and varied scientific culture



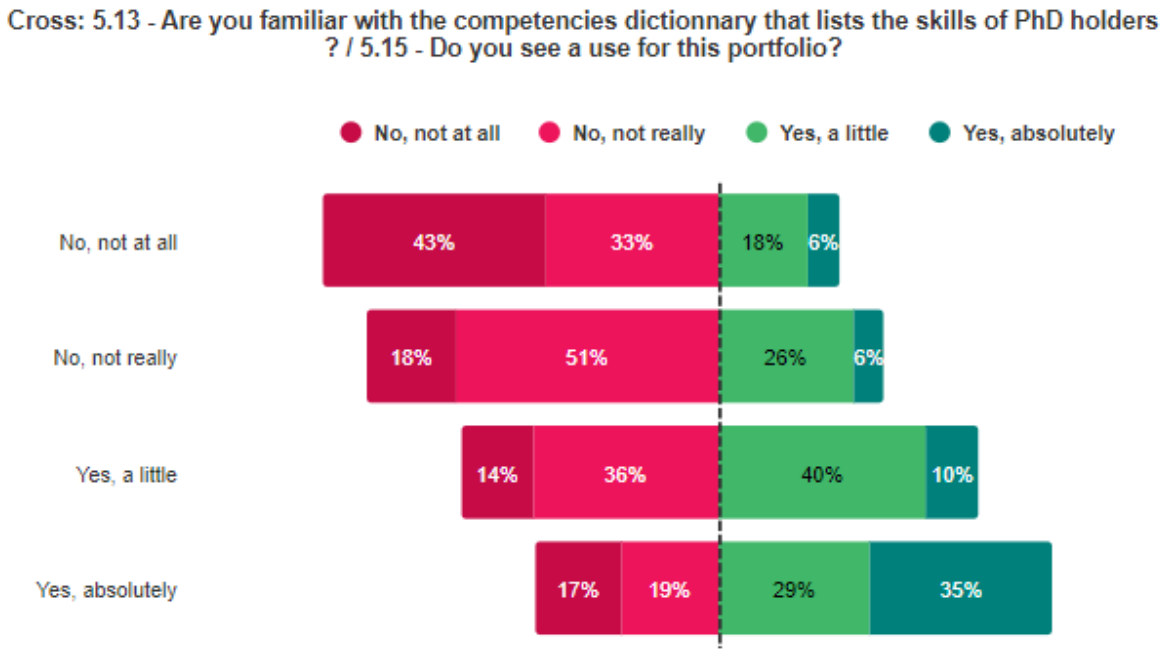
5.9 - I benefit from a framework (exchanges within the research team, access to other experts, to literature in the field, to training, etc.), allowing me to develop strong expertise in my field of research

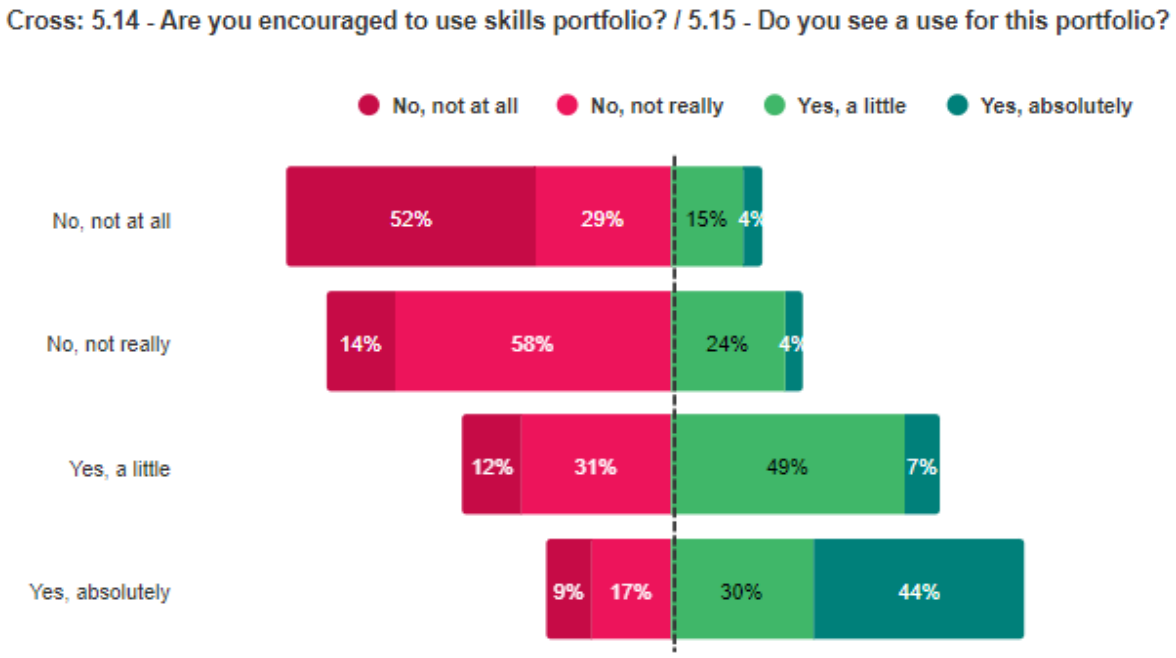


The promotion of **innovative structures**: to meet the challenge of **interdisciplinary training and the development of transferable skills** = this is explicitly addressed in the French law regarding doctoral education

Appendix 3.1 : Framework and portfolio

- **Doctoral researchers are not yet used to this framework and building up a compentency portfolio, they remain unconvinced…**

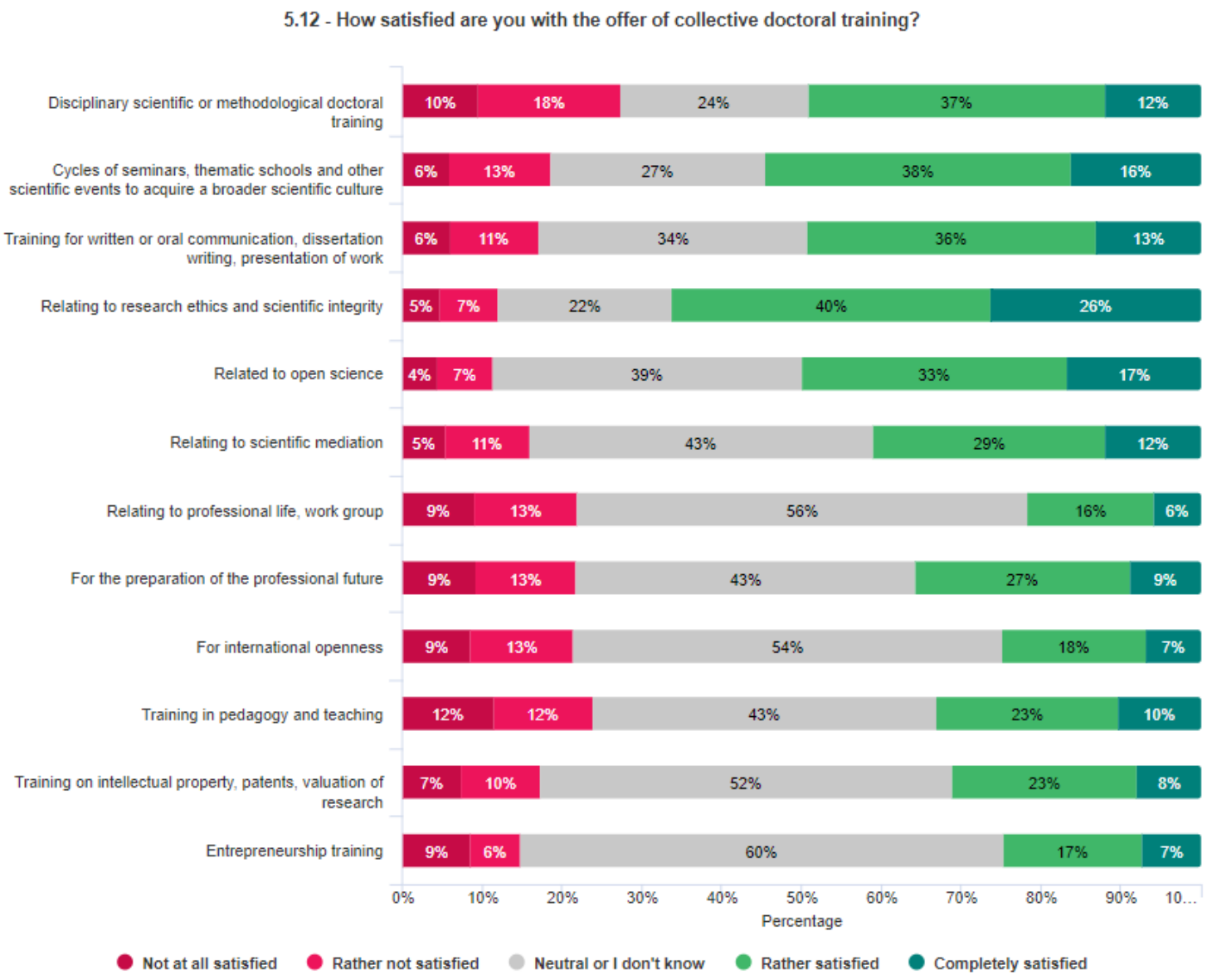




- **However, doctoral researchers that do know of the competency framework feel better prepared for their next career steps.**

Appendix 3.2 : Room for improvement

- Doctoral Colleges and School provide a lot of training opportunities
- We're past the rejection stage from the supervisors
- Not all training courses are enjoyed by the students



Appendix 4 : The role of supervisors is envolving

There remains a idea that a PhD must be a challenge and therefore this is interpreted to mean that there must be some kind of « suffering » with statements like "you'll have a hard time with this supervisor but you'll do a good PhD« .

« A doctoral student that isn't depressed isn't a good PhD student »

Truth : research involves challenge

Wrong : a scientific challenge shouldn't translate into unpleasentness or pain. Supervisors are supposed to help your overcome obstacles, not let you drown « so you can learn ».

Rules all PIs should follow :
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- Encourage debate
- Facilitate learning
- Foster independence
- **Provide positive reinforcement**
- Create a supportive environment
- Respect young scientists' time
- Communicate regularly
- Set realistic expectations

Appendix 5 : Ministerial Order of August 26, 2022, amending the Ministerial Order of May 25, 2016, which sets the national framework for doctoral training and the conditions for awarding the national doctoral degree

It is composed of 30 articles structured as follows:

- Title I: Doctoral Schools (Articles 2 to 9)
- Chapter II: Organization (Articles 6 to 9)
- Title II: Doctorate (Articles 10 to 19 bis)
- Title III: Joint Supervision (Articles 20 to 23)
- Title IV: Submission, Reporting, Dissemination and Archiving of Theses or Submitted Works (Articles 24 to 25)
- Title V: Transitional and Final Provisions (Articles 26 to 30)

«Doctoral training is education through and by research, as well as a professional research experience. It leads to the production of new knowledge »

«With a few exceptions, French universities do not award ECTS credits during the doctorate, considering that the PhD is not, or only marginally, a coursework-based program, but rather a research training experience »

Appendix 6 : Data, Open Science

Strong policies depend on availability of data – through surveys, gov't reporting, Open Science policies

- The French Ministry for Higher Education has a dedicated office for university (administrative) metrics (SIES), several datasets are public and freely available :
https://data.enseignementsup-recherche.gouv.fr/pages/explorer/?q=doctorat&sort=modified

- The same Ministry conducts yearly surveys (SIREDO) towards the doctoral schools :
https://www.enseignementsup-recherche.gouv.fr/fr/enquete-aupres-des-ecoles-doctorales-93129
The results are published, for example :
https://publication.enseignementsup-recherche.gouv.fr/eesr/FR/T744/le_doctorat_et_les_docteurs/

- The RNCD conducts surveys (3rd survey is incoming).

- The French state conducts +1, +3, +5 surveys after PhD defence (IPDOC) to determine where the graduates are.

- More importantly, all French (except a few *top secret* ones) PhDs are registered, by law, on the theses.fr national platform : you can find all ongoing, past theses (unless there is some kind of embargo) and work back to the lab, DS, supervisors, etc….