After my PhD, a career…

Your skills, your assets

- ## PhD is the highest internationaly recognised diploma

  - Scientific & research expertise

  - You know how to solve complex issues and ***think out of the box***

- ## Opportunities all over the world[1,2]

  - Complexity and interesting tasks exists all over the world, and they can be fun!

  - Unlike a lot of jobs, your playground is not limited to

    - Your country

    - Academics

    - R&D companies or companies in your field

  - PhD often accelerates careers, sometime mandatory to advance at a high level

[1] ANDès-CJC, Guide du doctorat, fiche 23, Carrières des docteurs   [2] EURES

How to not continue your PhD for your entire life ?

- France :
  - 3 years full-time research experience → not a lifetime experience! (A PhD is a **fixed - term research project**)
  - A degree, and a Dr title

- In the world
  - You're an expert (not everyone can write a Wikipedia page on a specialist topic! ;-))
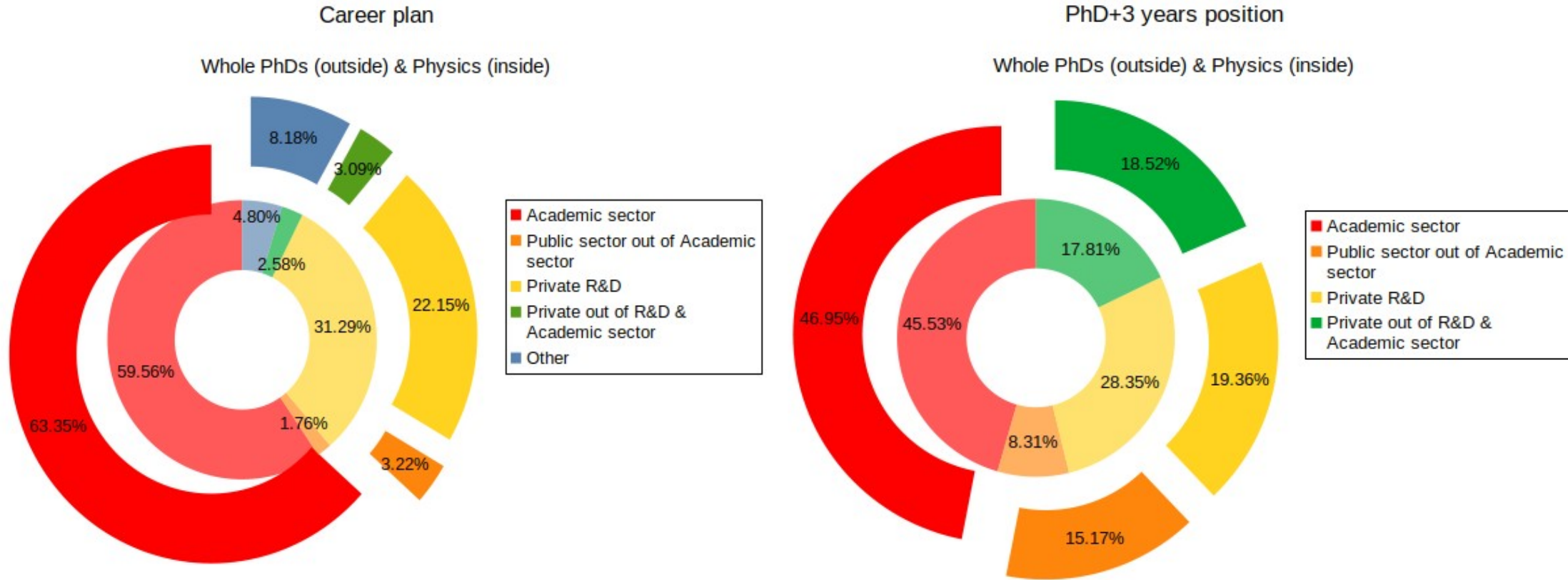 - You have knowledge but also (soft) skills which can be useful to others

TL;DR!

Do not limit your perimeter to academic research in your country!

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Career plan

Whole PhDs (outside) & Physics (inside)

8.18%
3.09%
4.80%
2.58%
22.15%
31.29%
59.56%
63.35%
1.76%
3.22%

- Academic sector
- Public sector out of Academic sector
- Private R&D
- Private out of R&D & Academic sector
- Other

PhD+3 years position

Whole PhDs (outside) & Physics (inside)

18.52%
17.81%
46.95%
45.53%
28.35%
19.36%
8.31%
15.17%

- Academic sector
- Public sector out of Academic sector
- Private R&D
- Private out of R&D & Academic sector

Do not wait to think about your career plan!

- Take advantage of local & university structures dedicated to researcher during & after PhD

- In France, doctoral schools (ÉD) can help you, **prepare your career**, give you tools, including to continue outside academic research
  - Especially ÉD where you register for PhDs
  - But also ÉD related to the lab if you are once PhD

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Explore available ressources, talk to colleagues, understand how operate[1,2,3,4,5,6,7,8]

- Academic research

- R&D in company

- Public sector out of Research

- Social and solidarity economy (advocacy, …)

- Create your company

[1] ANDès, Passeport Docteur (PhD Passport)

[2] Vitae, What do research staff do next? Career stories

[3] PhD career stories

[4] 20 Most Popular Industry Career Tracks For PhDs

[5] imaginePhD

|6] From PhD to life

[7] PapaPhD

[8] France RIME

Credits: "P900 1368ex a pair of mittens--late evening **Explore**" by jjjj56cp is licensed under CC BY-NC-SA 2.0

Take time to think about what you (really) want[1]

– Priorities (professional life, family life, friends, family, way of life…)

– Professional balance

- Big companies/small group

- Urban/countryside (which region?)

- Remote working/on site
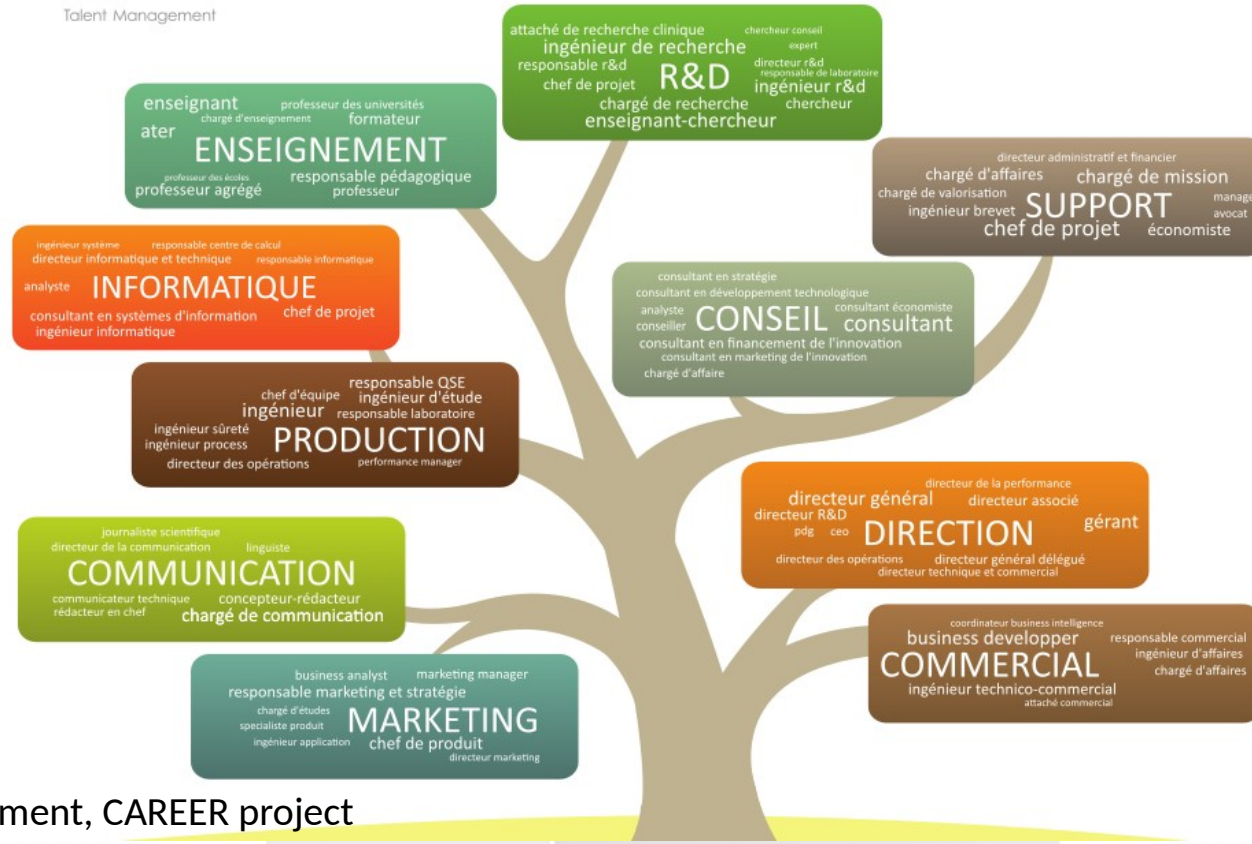
- …

[1] ANDès, Passeport Docteur (PhD Passport)

Source: Adoc Talent Management, CAREER project

Networking = 1st way to get positions for PhDs, **all during their career**

- Digital profile: LinkedIn, ResearchGate (for R&D jobs), expertes.fr for women

- Alumni, PhD advisor, lab colleagues, collaborators **→ don't loose contact!**

- Professional network, meet & talk to other PhD in other positions, talk about career plans[1]

- Workshops & conferences

- Hackathons (ideal way to discover each other)

- Professionnal exhibitions (do not wait too much for it)

[1] French PhD community, LinkedIn (Communauté française des docteurs, CFD)

[2] O*NET Online

- CV for companies $\neq$ CV for Academic research
  - Academic or R&D in your field: papers & talks
  - Private sector not in your R&D field: # papers & ResearchGate URL
  - 2 pages max
  - Put your PhD in both sections:
    - Academic degrees
    - Professional exp. with skills & responsabilites

Interests are different, expectations also!

- Make your experience attractive
  - Explain your PhD experience
  - Highlight the challenges you faced
  - Do not enter in details of project → your recruter do not hire you to work on this
  - Show you know the job/structure
  - Have an idea of salary you can ask

Credits: "Curriculum Vitae" by the Italian voice is licensed under CC BY 2.0

*Vocabulary identify who you are, **do not underestimate it***

- PhD = **professional experience[1,2]**

- Not the end of your studies, but **beginning of your career**

- In France: applicants are selected before being hired in PhD

  → **early-stage researchers**, or **PhD candidates**[3], not PhD student

  → **doctoral/research project**, not PhD studies

- Thesis (thèse) is your manuscript, PhD advisor (directeur doctoral) are not only thesis advisor

Begin to change ASAP!
If used to wrong words since years, you will have no consistency

Advisor, you have a role to play here!

[1] France, Code de l'éducation, article L.612-7

[2] European commission, The European Charter for Researchers & The Code of Conduct for the Recruitment of Researchers

[3] ANDès-CJC, Guide du doctorat, fiche 1, Les enjeux et les acteurs du doctorat

- Explain the environment of your PhD
  - where you registered (university, etc.)
  - who funded your PhD: university, EPST, Cifre with a company, DGA, …
  - where did you work (details about your laboratory, CNRS UMR for example)

- Describe your research field, thematic, what was at stake, goals (state of the art, impact on society, economic repercussions)

- Talk about your motivations to begin your PhD and in your PhD, whatever your current goal → those motivations talk about you

- Present your realisations in interview
  - Written: papers, book, patents, softwares, PhD thesis, etc.
  - Oral: international conferences, science popularisation, etc.

- Give references of colleagues for your work

Avoid acronyms!

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[2] European commission, The European Charter for Researchers & The Code of Conduct for the Recruitment of Researchers

[3] ANDès-CJC, Guide du doctorat, fiche 1, Les enjeux et les acteurs du doctorat

- Do not censor yourself
  - If you simplify too much, they could think you're bad
  - Explain the problem, how you solved it (research & management point of view)
  - Give final results to explain solution and an endpoint

- Give them reasons to pay their taxes!

- **I** defended a PhD, true story!
  - Do not resrict yourself to recruiter in your field
  - Tell a story highlighting how you acquired (soft) skills
  - Give examples making it real, believable
  - Use legal disposition:
    - dispositif jeune docteur-crédit impôt recherche[1]: say if you are eligible
    - VIE, VIA[2] (volontariat international if you are under 28), …

[1] MESRI, Guide du crédit impôt recherche (CIR), 2020

[2] France Civiweb organisation

- Common to all researcher → **Shared** with human sciences, social sciences, health & biology, STEM

- Soft skills
  - e.g.: Identify & solve complex & new issues implying several fields mobilizing high-level expertise

- Management and autonomy
  - e.g.: Manage & drive organisations or groups in complex & interdisciplinary activities

[1] ANDès-CJC, Guide du doctorat, fiche 21, Compétences développées pendant le doctorat

[2] Adoc Talent Management, 2012, Compétences et employabilité des docteurs (PhD skills and employement study & CAREER project), arbre des compétences

[3] Vitae Researcher Development Framework (RDF), 2011   [4] European Skills/Competences, qualifications and Occupations

- PhD is not (enough) aknowledged in France, not known by HR, or known only as super-specialized experts…

- RNCP used by HR for business for degrees to identify skills

- 2019 : 22 RNCP new PhD records[1] (by business fields) associated to europass records

- 6 pads gathering skills, especially

    - softs skills

    - management skills

[1] PhD records in French national certification register records (RNCP)

1) Design and elaboration of a R&D process, studies and prospective (*6 skills*)

2) Implementation of a R&D, study and prospective process (*5 skills*)

3) Valorization and transfer of the results of an R&D, studies and prospective process (*5 skills*)

4) Scientific and technological watch on an international scale (*5 skills*)

5) Training and dissemination of scientific and technical culture (*3 skills*)

6) Management of teams dedicated to research and development, studies and prospective activities (*5 skills*)

1) Design and elaboration of a research and development process, studies and prospective

- have both general and specific scientific expertise in a given field of research and work

- to take stock of the state and limits of knowledge within a given sector of activity, at the local, national and international levels

- identify and solve complex and new problems involving a plurality of fields, by mobilizing the most advanced knowledge and know-how

- Identify the possibilities of conceptual breakthroughs and design innovation axes for a professional sector

- make innovative contributions in high-level exchanges, and in international contexts

- constantly adapt to the needs of research and innovation within a professional sector

2) Implementation of a research and development, study and prospective process

- Implement the methods and tools of research related to innovation

- Implement the principles, tools and approaches for evaluating the costs and financing of an innovation or R&D process

- Ensure the validity of the work as well as its ethics and confidentiality by implementing the appropriate control mechanisms

- Manage the time constraints of research, innovation or R&D activities

- Implementing the commitment, risk management and autonomy factors necessary for the completion of an R&D, research or innovation project

3) Valorization and transfer of the results of an R & D, studies and prospective process

- Implementing transfer issues for the purpose of exploiting and promoting results or products in economic or social sectors

- Respect the rules of intellectual or industrial property related to a sector

- Respecting the principles of deontology and ethics in relation to the integrity of the work and its potential impacts

- Implementing all publication mechanisms on an international scale to enhance the value of knowledge and new knowledge

- Mobilize open data communication techniques to enhance the value of approaches and results

4) Scientific and technological watch on an international scale

- acquire, synthesize and analyze cutting-edge scientific and technological data and information on an international scale

- To have an understanding of, and a critical eye on, all available cutting-edge information;

- To go beyond the boundaries of available data and knowledge by crossing with different fields of knowledge or other professional sectors

- Develop scientific and professional cooperation networks on an international scale

- Have the curiosity, adaptability and openness necessary to develop and maintain a high level of general and international culture

5) Training and dissemination of scientific and technical culture

- Reporting and communicating in several languages on scientific and technological work to different audiences or publications, both in written and oral form

- Teach and train a variety of audiences in advanced concepts, tools and methods

- Adapt to a diverse audience to communicate and promote advanced concepts and approaches

6) Management of teams dedicated to research and development, studies and prospective activities

- Leading and coordinating a team in the context of complex or interdisciplinary tasks

- Identify missing skills within a team and participate in the recruitment or solicitation of service providers

- Build the necessary steps to foster an entrepreneurial spirit within a team

- Identify key resources for a team and prepare for changes in terms of training and personal development

- Evaluate the work of individuals and the team in relation to projects and objectives
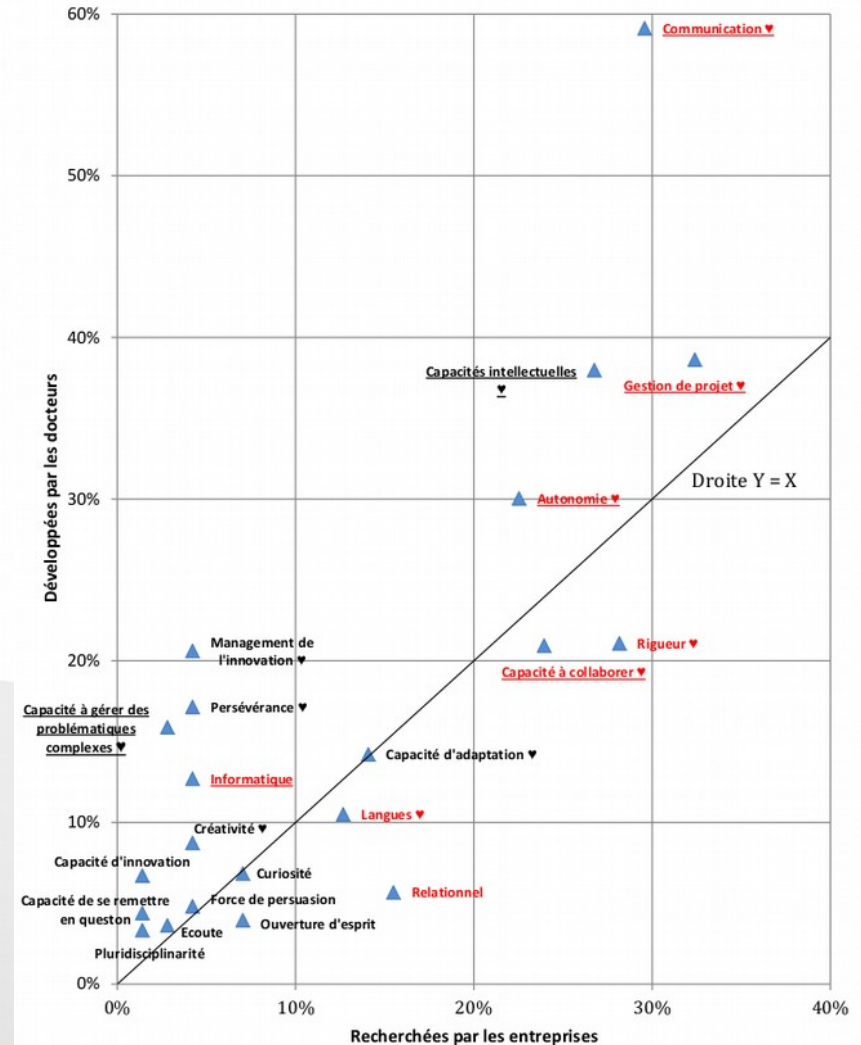
What makes you an asset is not **one** skill but the **combination** of your skills

PhD develop several skills that companies look the most for: those are your **key skills**!

Source : Adoc Talent Management, 2012, CAREER

- Identify your skills and highlight them (do not wait the end of your PhD to update your skills portfolio)
  - If you do not believe you have them, no one will!
  - Skills **outside your domain** (soft skills, etc.)
  - Skills related to the **occupation you aim** for[1]
  - If necessary, complete your skills with MOOC[2], tutorials
  - Ask for a skills assessment to help you identify them (ÉD, Pole emploi, APEC[3], …)
  - You can helped yourself with some tools[4]

[1] Adoc Talent Management, 2012, fiches métiers

[2] MOOC PhDooc

[3] APEC website

[4] MyDocPro

Make the balance pro/con

- Interest of the job
- Salary
- Constraints
- Team/environment

- Ethics
- Does it fit your aspirations & skills?

Do not accept anything, you have something to offer!

[1] Adoc Talent Management, 2012, fiches métiers

[2] MOOC PhDooc

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