



Industrial PhD

Luis A. Ruiz



UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA


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Concept



- ✓ An Industrial Doctorate is a PhD **thesis developed within a company** (private or public sector or Public Administration) in any area of knowledge, developing an industrial research or experimental development project.
 - ✓ the doctoral student has an employment or commercial **contract** with the company during the time the thesis is being carried out.
 - ✓ Doctoral students develop their doctoral thesis within the scope of a **company project** committed to research and innovation, and work with researchers in a scientific environment and with company personnel during the development of the project.
 - ✓ Industrial PhD are usually focused on more **applied research**, on technology application.
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Framework in GeoTAK

WorPackage 2: Development of Research Networks

Partner country universities will define and create the concept of “industrial PhD thesis”, as a way to foster the collaboration university-enterprise. This concept is very flexible and adaptable along the time, therefore will be a sustainability measure developed during the project.

✓ **Task 2.3: Definition of Industrial PhD concept**

In this task, the concept of industrial PhD will be introduced and regulated in partner country universities with the collaboration of industry. Ministries of Education and university administrations will play an important role.

WORKPLAN for project year 2

Activities		Total duration (number of weeks)	M1	M2	M3	M4	M5	M6
Ref.nr/ Sub-ref nr	Title							
2.3	Definition and fostering industrial PhD thesis in GIT	8	2X	2X	2X	2X		

Requirements

- ✓ Labor or commercial **contract with the doctoral student**. The contract may be entered into by a private or public sector company, as well as by a Public Administration.
- ✓ The doctoral student must participate in an **industrial research or experimental development** project that is carried out in the company or Public Administration in which the service is provided.
- ✓ A **framework collaboration agreement** will be signed between the parties, indicating the obligations of both, as well as the procedure for selecting the doctoral student.
- ✓ The doctoral student will have a **thesis supervisor** appointed by the **University** and a person in charge appointed by the **company**.

Practical implementation

Initial requirements

Full or part time commercial contract with the PhD student.
To participate in a industrial research or development project.



01

02

03

04

05

Signature of agreement

Gathering the obligations of the parties: the university and the company or public Administration.



Scientific-technical report

Research plan presented during the first year and approved by the University Academic Committee.



Documents of the activities

All the activities of the PhD student must be documented.



Thesis deposit and defense

Final thesis memory document showing that the thesis is linked to a industrial research project.



Benefits

For the students

- ✓ Students work in university labs and on the company premises, being mentored by university and industry staff, **acquiring competencies that better fit the needs of public and private sectors.**
- ✓ The doctoral student approaches to the industry and has very **high exposure to technical trends**, becoming expert of a specialized field of interest for the industry.
- ✓ The time during the PhD is usually considered as **relevant industrial experience**, enhancing their CV and future employment.
- ✓ They receive **complementary training** in subjects that are very attractive to companies.
- ✓ An industrial PhD is very relevant when someone plans to pursue a **research career in the industry.**

It provides better **opportunities** for the student

Benefits

For the university

- ✓ It helps researchers who face highly **complex**, often **interdisciplinary challenges** with viability and quality requirements.
- ✓ It establishes and **reinforces relations with companies** who take on continuous improvement in their area of knowledge as a challenge.
- ✓ It **contributes to the country's development** by increasing the innovative capacity of its socio-economic fabric.

Approach and **understand the industry** world,
important for STEM careers

Benefits

For the company

- ✓ It gives the company an opportunity to **work with high-level researchers** at the forefront of knowledge.
- ✓ It may have **access to cutting-edge equipment** and infrastructure.
- ✓ It can **recruit individuals with great potential** who can improve the competitiveness and internationalisation of the company and contribute to their training.
- ✓ It builds **bridges of collaboration** with scientists who could be strategic allies in the future.

It helps to get a better **position in innovation**

...some testimonies

From students

- ✓ *"...the best way to see science from reality. The applicability of the results at the industrial-scale has given me extra motivation."*
- ✓ *"The industrial doctorate allowed me to reach a professional maturity not only in the field of research, but also in other more transversal competences."*

From university supervisors


- ✓ *"I feel companies now give more credit to university groups. It opened doors for future collaborations."*
- ✓ *"It has tangible results in the short term and contributes to make that research has a clear and direct impact on society"*

From industry

- ✓ *"The student has been directly involved in product development testing that will finally hit the market once approved and registered."*
- ✓ *"The collaboration with academic groups of excellence is an opportunity to open horizons and incorporate young talent"*

Conclusions



- ✓ Industrial PhD help to strength links between university and industry.
 - ✓ More and more common and fostered by EU universities.
 - ✓ They provide additional benefits for students, universities and companies.
 - ✓ They provide outcomes more understandable for society.
 - ✓ Industrial PhD requirements are flexible and can be adapted to the circumstances of each country.
 - ✓ Their development in the framework of GeoTAK project should be aligned with the National laws of education and focused on solving problems from local industry and Administration.
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Thank you for your attention!



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