

# The professional profile of PhD-holders

**Laetitia PERNOD**

## **Naval Hydrodynamic, Fluid-Structure Interaction, CFD, Noise & Vibration Damping, Decarbonation**

Associate Professor at Centrale Nantes and active member of the dynamic and competitive research team of LHEEA, with a Ph.D in fluid dynamics and a wide-ranging expertise in hydrodynamics, FSI & CFD.

laetitia.pernod@orange.fr

Webpage Centrale Nantes : <https://www.ec-nantes.fr/version-francaise/annuaire/laetitia-pernod-7?l=1>

Thesis defended : Sun 5 Apr 2026 Centrale Nantes France

### **Core business**

#### **PHASE 2 Skill development**

*Takes a critical look at his skills and experience and regularly fine-tunes his career goals.  
Knows how to develop new skills to keep step with changing knowledge and needs.  
Relies on advice from competent professionals (coaching) or experienced staff and takes their opinions into account; uses his networks to manage his career.  
Is able to evolve gradually from technical expertise to managerial expertise.  
Helps his staff develop their skills and networks and assists them in achieving career development goals.*

#### **PHASE 1 Evaluation**

*Evaluates the value of various documents concerning his field of expertise.  
Is able to judge his own results in terms of both quality and added value.  
Is willing to expose ideas to a critical audience; takes others' opinions of his work into account.  
Is willing to evaluate the work of other contributors and provides reasoned, realistic judgments of others' work.*

#### **PHASE 3 Information management**

*Collects information for purposes of business intelligence.  
Develops new information management techniques.  
Keeps track of current developments in the design, use, collection, analysis and preservation of information and/or raw data.*

#### **PHASE 2 Expertise and methods**

*Is familiar with recent progress in fields related to his own.  
Is able to engage in dialogue and collaboration with experts in other disciplines or fields of activity.  
Takes ownership of new research methods and techniques.  
Is able to document and evaluate his activities using statistical methods where applicable.  
Can formulate complex problems that correspond to new challenges.*

## Personal and relational qualities

*Is able to develop arguments in support of new projects.  
Knows how to adapt his arguments to his audience.  
Advises and assists his staff in making appropriate use of investigative methods, improving their performance and enhancing their skills.*

### PHASE 1 Communication

*Knows how to put together a persuasive presentation and communicate about his project or his activity.  
Understands, interprets and communicates appropriately in a register suited to his aims and his audience.  
Masters a range of communication tools.  
Masters his online identity.  
Contributes to the dissemination of knowledge within the company, and demonstrates effective teaching skills.  
Is proficient in at least English and one other world language.*

### PHASE 1 Collaboration

*Develops and maintains cooperative networks.  
Knows how to build a professional network for his own and the company's benefit.  
Is considered an authority in his field of expertise.  
Is able to envisage his work in a partnership framework; evaluates the benefits and limitations of a partnership and identifies shared and conflicting interests.*

### PHASE 1 Analysis, synthesis and critical thinking

*Analyzes his own findings and those of his peers.  
Is able to synthesize; expresses key ideas clearly.  
Can sort and rank information according to the goal.  
Pursues his reasoning and hypotheses free of dogmatism or ideological bias.  
Has the objectivity to consider various schools of thought; is able to modify his point of view.  
Demonstrates intellectual rigor.*

### PHASE 1 Open-mindedness and creativity

*Demonstrates an ability to acquire knowledge; shows flexibility and open-mindedness. Engages in interdisciplinary activities.  
Possesses a constructive style of questioning and scientific doubt.  
Develops, takes ownership of and tests new ideas; is clever; seizes opportunities.  
Interacts with and seeks the collaboration of professionals of different cultures; knows how to accommodate cultural differences.*

### PHASE 2 Commitment

*Can picture himself in other contexts; applies his commitment and motivation to other activities and fields of expertise.  
Perseveres in his undertakings and projects; paves the way for other staff and supports them.  
Inspires the enthusiasm and commitment of his staff.*

### PHASE 1 Integrity

*Respects the standards and practices of his entity.*

*Demonstrates integrity in the processing and dissemination of data.  
Demonstrates integrity with respect to his partners' or competitors' contributions in accordance with intellectual property rules.  
Upholds the confidentiality and anonymity of subjects taking part in studies and research.  
Honors his commitments and ensures the congruence between actions and words.  
Declares any conflict of interest.*

### **PHASE 1 Balance**

*Is aware of his aptitudes, knows how to take advantage of them and demonstrate them.  
Expresses himself relevantly, confidently and didactically.  
Recognizes the limits of his knowledge, skills and expertise, and knows where to find support when needed.  
Is able to consider his practices and experience as part of the bigger picture.  
Develops his strengths and knows how to correct his weaknesses by seeking the opinion of others.  
Is aware of the need to reconcile career and personal life.  
Develops mechanisms to cope with pressure and seeks support when needed.*

### **PHASE 3 Listening and empathy**

*Encourages his staff to exercise their listening abilities.  
Establishes a mode of operation that allows everyone's contributions to be taken into account.*

## **Business management and value creation**

### **PHASE 2 Project management**

*Is attentive to discontinuities, trends and weak signals; is prepared for the unexpected; identifies unforeseen opportunities in the project.  
Recognizes good ideas and best practices, identifies weaknesses and gaps.  
Considers and implements any necessary changes in objectives, organization, schedule, resources and quality requirements.  
Knows how to drive his staff in compliance with scheduling and time constraints.  
Utilizes a wide range of project management strategies; clarifies priorities and formalizes expectations.  
Introduces quality systems.  
Guides difficult, complex projects to successful completion; manages several projects simultaneously and efficiently; can intervene to conduct project audits and propose action plans to get projects back on track.  
Provides support or assistance to his staff; takes over on projects that lack leadership.*

### **PHASE 2 Managing change**

*Is able to get people to see the need for change.  
Defines objectives and rallies support for them.  
Creates momentum and builds alliances.  
Achieves initial results rapidly.  
Understands the possible causes of the failure of a change plan.*

### **PHASE 1 Managing risks**

*Can determine the risks related to his project and the means for controlling them.  
Is aware that technological and financial risks increase during the innovation process.  
Understands the concept of corporate social responsibility.*

### **PHASE 2 Decision-making**

*Realizes that no one solution is perfect; can reconcile the imperatives of the market with the quest for technical optimization.  
Is able to make choices and assume the consequences of his decisions; has the ability to reconsider decisions when needed.*

#### **PHASE 1** Obtaining and managing funding

*Manages his own funding and is comfortable in discussions with budget, financial and economic decision-makers.  
Understands the funding process and knows how to determine the profitability of an activity.  
Knows how to answer a request for proposals and/or write a grant application.*

#### **PHASE 1** Producing results

*Knows how to transform ideas into innovations.  
Quickly deploys prototype and test phases; involves internal and external customers in these phases.  
Learns the lessons of the initial tests.  
Understands the policies and processes involved in publishing and exploiting research outcomes in his entity.  
Is able to determine the most appropriate means of exploiting his results (e.g., patent, publication).*

#### **PHASE 1** Intellectual and industrial property

*Has basic knowledge of the rules of intellectual/industrial property and copyright as they apply to his own activities.  
Understands the advantages and drawbacks of filing a patent.  
Is aware of the importance of controlling the release of information.*

## **Strategy and Leadership**

#### **PHASE 1** Strategy

*Is aware of how his project fits into the organization's strategy and the strategic directions of the sector or field of activity.  
Understands relationships between entities and individuals (the role and drivers of each).  
Is able to identify influential people that support his projects and understand what they stand to gain from it.*

#### **PHASE 1** Leadership

*Exercises leadership in connection with a project of which he is in charge.  
Knows how to be persuasive and enlist support for a project  
.Mobilizes skills for a project of which he is not in charge; manages human resources even when people do not officially report to him.  
Builds alliances.  
Establishes relationships based on trust.*