

## HRS4R - Internal Review

### ECOLE CENTRALE DE NANTES

Case number: 2021FR615345

Name Organisation under review: ECOLE CENTRALE DE NANTES

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#### 1. Organisational Information

| STAFF & STUDENTS   | FTE  |
|--|------|
| Total researchers = staff, fellowship holders, bursary holders, PhD. students either full-time or part-time involved in research *               | 446  |
| Of whom are international (i.e. foreign nationality) *   | 111  |
| Of whom are externally funded (i.e. for whom the organisation is host organisation) *  | 160  |
| Of whom are women *  | 112  |
| Of whom are stage R3 or R4 = Researchers with a large degree of autonomy, typically holding the status of Principal Investigator or Professor. * | 186  |
| Of whom are stage R2 = in most organisations corresponding with postdoctoral level *   | 47   |
| Of whom are stage R1 = in most organisations corresponding with doctoral level *   | 157  |
| Total number of students (if relevant) *   | 2287 |
| Total number of staff (including management, administrative, teaching and research staff) *  | 616  |

| RESEARCH FUNDING (figures for most recent fiscal year)   | €          |
|--|------------|
| Total annual organisational budget   | 29 879 167 |
| Annual organisational direct government funding (designated for research)  | 8 266 624  |
| Annual competitive government-sourced funding (designated for research, obtained in competition with other organisations – including EU funding) | 12 808 769 |
| Annual funding from private, non-government sources, designated for research   | 4 785 940  |

#### ORGANISATIONAL PROFILE (a very brief description of your organisation)

Centrale Nantes (CN) is a leading engineering school with a high national and international profile. Its mission is to provide excellent research, training and innovation to meet the major challenges of the 21st century. With €25 million worth of research contracts signed by 2022, 15 research chairs with leading economic players, 24 start-ups incubated each year, and experimental platforms of national and international scope, Centrale Nantes is at the heart of the structuring projects for the France 2030 strategy. Centrale Nantes is now a component of Nantes Université (NU) whilst retaining its legal personality.

## 2. Strengths and weaknesses of the current practice

### Ethical and professional aspects:

#### STRENGTHS

- In March 2023, the "anti-plagiarism deontology charter on the use, borrowing, citation and exploitation of information sources" was incorporated into the ECN's (Ecole Centrale de Nantes) internal rules and regulations, reinforcing the school's commitment to scientific integrity and ethics for all its staff. Doctoral students also sign a non-plagiarism agreement with the doctoral school in which they are registered. Management sent an e-mail to all staff informing them of these changes to the internal rules and regulations.
- A new decree dated 26/08/2022 -Art. 19 bis on doctoral requirements adds an obligation to take an oath after the defence and result proclamation. This oath concerns the doctor's ethical values and individually commits the doctor to respecting the principles and requirements of scientific integrity throughout his or her professional career, whatever the sector or field of activity.
- For several years now, the Human Resources (HR) Department has been organising a welcome day for newcomers to the school. Since 2022, a representative of the Ethics and Professional Conduct Committee has presented their roles and activities. Since 2020, the Research Department Director (DR) has been organising a meeting with new teacher researchers. This is an opportunity for new lecturers to find out about the organisation of research and research policy, and to identify their contacts. Since 2020, the Academics Affairs Department Director (DF) and the ICTE (Information and Communication Technologies for Education) unit have also been organising a half-day induction session for new staff, which includes a presentation of training courses, teaching tools, teaching monitoring and teachers' careers.
- The Ethics and professional conduct Committee has been in place since 2019 (CA: Institution's board of Governors) deliberation of 8th July 2019): in 2022, in order to provide better visibility, the procedure for "Referral to the committee and handling of files in the event of a situation raised by a member of staff, a user or the committee" was posted on the intranet. The subjects dealt with are related to scientific integrity, plagiarism, intellectual property, conflict of interest, etc.
- In 2021, there were several presentations on open science (Open Archives and Social Networks). In September 2023, a presentation was made to the Scientific Council on the NANTES UNIVERSITE's roadmap for open science. Centrale Nantes is following this roadmap and developing its own policy.
- The school has begun a project to formalise procedures for securing research projects. The Knowledge Transfer and Project Engineering Department has drafted a "White Paper on Knowledge Transfer", which is available to all staff and particularly to laboratories.
- With regard to the principle of non-discrimination, an Equality and Diversity Committee has been in place since 2020 and is active in a number of areas, including disability, gender equality and international issues.

#### WEAKNESSES

- A summary booklet (vade-mecum) is being drawn up for all staff working in research on the principles of the European Charter for Researchers, and in particular on the principle of scientific integrity.
- The rules for conducting and monitoring research projects (procedures) still need to be formalised, given that there is better communication within the laboratories and with the support services.
- Users of computer workstations are not yet sufficiently supported in backing up their data. Recommendations on the use, conservation, protection and dissemination of research data need to be renewed.

- We are currently looking into this and need to be well prepared for the proper use of the Compilatio tool (anti-plagiarism) for theses and also for raising awareness/training doctoral students and supervisors.
- A new direction in 2025-2026 will be to address ethics in parallel with the societal impact of the research themes themselves: environmental ethics (climate change, biodiversity, etc.), human rights (for example: issues related to artificial intelligence).

### Recruitment and selection:

#### **STRENGTHS**

- A stronger Human Resources (HR) team dedicated to recruitment.
- The School's general HR strategy guidelines were formalised at the end of 2022. They were implemented in 2023 for the management of tenured and contract research professors, contract teaching staff and contract researchers. They include a specific section on recruitment and career development.
- The teacher-researchers recruitment procedure is in place and is part of a continuous improvement process. The HR team organises specific meetings to make teacher-researchers aware of recruitment principles, including the "Open, Transparent and Merit-based" recruitment criteria, and to answer questions about Selection committees (COS).
- All open positions are published by e-mail internally to Centrale Nantes (CN) staff, on the CN website and external job boards (automatic publication) and, since October 2023, on the CN career site.
- For contracts managed by the Doctoral Schools (ED), the procedure is clear and perfectly open. Subjects must be submitted on the ED's externally accessible platform, a hearing is held before a jury and the future doctoral student is selected. The ED sets up a recruitment competition for doctoral students funded by "institutional doctoral contracts" (contrats doctoraux d'établissement).

#### **WEAKNESSES**

- The low number of job vacancy postings published on the Euraxess website (apart from EU projects) which does not give our postings international visibility.
- For doctoral contracts managed by CN, there is not yet a systematic procedure and agreements can be made by mutual agreement between the thesis director and the future doctoral student. The ED is not yet fully established in all doctoral student recruitments for other funding methods.

### Remarks

The longer time taken to process actions is largely due to high staff turnover within the HR department (retirement, internal/external mobility, sick leave, new recruit, etc.).

### Working conditions:

#### **STRENGTHS**

- Development and implementation of several projects related to working conditions: 2021-2023 Gender Equality Plan reviewed in 2022, 2023-2025 Disability Master Plan, Listening Unit set up, Communications and Training on the subject of Harassment and Sexual and Gender-Based Violence (HVSS) started in 2021.
- One member of CN's HR team is responsible for Restricted Scientific Council (CSR) and Quality of life at work (QWL).
- A policy for permanent employment has been defined.

- Time release has been in place since 2020 for young researchers, enabling them to carry out their research and exceeding the regulatory provisions.
- Formalisation of the reference system for time equivalence (release from teaching hours to take on teaching responsibilities in particular).
- The Doctoral Schools (ED) contributes financially to the mobility of doctoral students abroad.
- Setting up grant managers to support teaching researchers in managing large projects (EU).
- Support is provided effectively by the Development Department's 'Project development & Value Enhancement Unit' during the development and implementation phase of projects, particularly EU projects.
- Improved working conditions thanks to an ambitious, long-term building/renovation programme: Building C demolished and rebuilt from scratch (operational in Oct. 2023), the NEMO1 project for a complete transformation of the LHEEA research laboratory's tank workshops, a project initiated and financed by the CPER (*State-Region Plan Contracts*) for the renovation of Building B (delivery 2027 - creation of a learning centre and showroom space for research).

### **WEAKNESSES**

- Centrale Nantes is to conduct a survey on Quality of life at work (QWL) and draw up an action plan.
- The administrative workload for lecturers and research staff remains high.

### **Training and development:**

#### **STRENGTHS**

- Part of the Human Resources (HR) team received training on career management in the civil service.
- Training courses, based on identified needs, are scheduled for the following academic year.
- The HR Department informs employees about generic cross-functional training courses for which teacher-researchers can enrol (management, specific managerial issues, etc.).
- In terms of skills management, an inventory of the tasks carried out by teacher-researchers in addition to their teaching and research activities has been drawn up for 2022-2023. This has led to the establishment of a reference framework, including job descriptions sent to teacher-researchers in support of their engagement letters.
- The individual training plan must be submitted by the doctoral students. It evolves as the PhD progresses and is presented to the Individual PhD student follow up Committee (CSI) each year.
- The director of the Centrale Nantes doctoral centre and the ED gave a plenary presentation to the supervisors on their expectations of their role in supervising doctoral students.

#### **WEAKNESSES**

- More specific training for teacher-researchers on the theme of management/project management should be sought or developed internally and offered more systematically.
- Career reviews for teacher-researchers are not yet in place. The plan is to carry out an initial review after four to five years of experience within the structure and after eight to 10 years. Teacher-researchers are not obliged to have an annual career review but, depending on the section, they must provide the CNU with a periodic (four to five years) review of their activities.
- There are still difficulties in freeing up time for training and information for teacher-researchers (to the detriment of their responsibilities and administrative tasks), particularly in relation to the major transitions taking place (digital, socio-ecological), which means that few teacher-researchers participate in training courses.

- There is a lack of tools to support supervisors in supervising doctoral students, particularly for new supervisors.
- There is a lack of communication about the link between training, the RNCP (French National Directory of Professional Certifications), the portfolio and the job search for doctoral students.
- One area for doctoral students to focus on in the coming years is where the training courses do not sufficiently meet their expectations. However, when asked if they should continue to be offered by the ED, the majority said "yes".

#### **Have any of the priorities for the short and medium term changed?**

In October 2022, an HRS4R COPIL (Steering Committee) meeting was held with all the action leaders to make an initial assessment. The decision was taken to change the deadlines for a number of tasks, depending on their state of progress, the resources available, the tasks already underway and those requiring more thought or work than planned, and the simple, complex or multi-stakeholder tasks.

The reasons identified for these delays are mainly linked to the time needed for the project managers to get to grips with this new working method (project mode, etc.), to integrate the change and to view the approach as a whole rather than task by task.

The changes to deadlines were reviewed and approved by the HRS4R COPIL manager then presented to and approved by the COMEX (Executive Committee) members on December 05, 2022.

Alongside the HRS4R action plan, the school has defined other plans that interact with the principles of the European Charter, including the Gender Equality Plan and the Disability Master Plan. The aim has been to identify the links between these different plans in order to avoid any contradiction or duplication.

#### **Have any of the circumstances in which your organization operates changed and as such have had an impact on your HR strategy?**

HR strategy remains the same, although the internal organisation of the HR department has changed between the definition of the initial action plan, its approval and then its implementation. The new Human Resources Director arrived in December 2021 and took over the HRS4R process. It was necessary to take ownership of the approach and all the tasks, and this had an impact in terms of deadlines.

Centrale Nantes has taken advantage of the 2021-2023 period to formalise its General Guidelines (GG), which reinforce the HR strategy. The guidelines were to align the rules for tenured and contract staff, which corresponds to c. ten people at research professor level.

The creation of the Public Experimental Establishment (EPE) Nantes Université took place in January 2022 and is composed of 6 members (CHU de Nantes, Ecole Centrale de Nantes, Université de Nantes, INSERM, Ecole d'Architecture de Nantes, Ecole des Beaux-Arts de Nantes Saint Nazaire et IRT Jules Verne). The Ecole Centrale Nantes is a component establishment within the meaning of Ordinance 2018-1131.

Today the school is therefore developing its strategy in line with the orientation axes of "Nantes Université", which are defined within its board of directors, in which Centrale Nantes participates. She contributed in particular to the drafting of the Strategic Orientation Letter of Nantes Université (LOS) shared with the school's board of directors. For example, on HR points, the EPE plans to commit to being an exemplary organisation in its operations in terms of equal rights and the fight against all forms of discrimination against its staff. It is

committed to promoting interculturality, contributing to the reduction of inequalities and actively combating all forms of sexual and gender-based violence and gender discrimination.

**Are any strategic decisions under way that may influence the action plan?**

The Research Programming Law of 24/12/2020: has required and continues to require the School to organise itself to meet these requirements. For example: - major changes to the remuneration system for teacher-researchers (RIPEC - Research for Innovative Practices in emergency management of Erasmus Community- in 2021 and 2022), which will have an impact on the workloads of teacher-researchers - the CRCTs (Study Leave for Research or Subject Conversions) of permanent teacher-researchers are on the national MESRI (Ministry of Higher Education, Research and Innovation) "Galaxie" platform. A tool offering the same functionalities needs to be set up internally for CN contract staff - the same action is being taken for the recruitment of contract research professors.

This law places an additional burden on various Centrale Nantes players, including the HR team, the Research Director and managers, the IT Department, etc.

Doctoral students, via the Doctoral Schools (EDs), receive professional and scientific training, and this is likely to be amplified by the introduction of the Graduate Schools, which are designed to train future researchers over five years (two years Master's and three years PhD). The Graduate Schools will be attached to the ED. This will require us to look at the organisation to be put in place, in particular the pre-selection of future doctoral students from the undergraduate level.

Actions within the framework of the EPE Nantes Université such as open science (publication, archiving, data (code, programme), etc.) will make it possible to move forward within the trajectory of the EPE and therefore to initiate actions, but at speeds that are specific and adapted to the structure.

In addition, through the EPE Nantes Université, CN has integrated the European university EUniWell (10 partners) to advance the quality and competitiveness of European higher education through strengthened cooperation.

### 3. Actions

| ACTIONS  | GAP Principle(s)      | Timing  | Responsible Unit               | Indicators/Target(s)   | Current Status | Remarks  |
|--|-----------------------|---------|--------------------------------|--|----------------|--|
| <b>AXIS 1</b>  |                       |         |                                |  |                |  |
| 1.1. Education about the laws regarding our rights and obligations in the field of research (Note: to be performed in conjunction with Actions 1.2 and 1.7)                          | 1.Research freedom    | Q3/2022 | DGS                            | - list of rights and obligations<br>- list + link to documents | Extended       | Implementation deadline postponed  |
| 1.2. Establishing a location for relevant documents (European Charter for Researchers, Code of Research Professions, etc.) and publicising their availability on the chosen networks | 2.Ethical principles  | Q1/2021 | ETHICS & PROFESIONAL COMMITTEE | Relevant document availability on the Intranet at minimum      | Completed      | <p>Charters made available on the "Ethics and professional conduct Committee" Intranet site and accessible to all:</p> <ul style="list-style-type: none"> <li>- European Charter for Researchers and Code of Conduct for the Recruitment of Researchers</li> <li>- French Charter of Ethics for Research Professionals</li> <li>- ANR (National Research Agency ) Code of Ethics and Scientific Integrity</li> <li>- CNRS (National Scientific Research Centre) Code of Ethics.</li> </ul> <p>In addition, a presentation on Ethics and Deontology was given to doctoral students and new staff in November 2022. This presentation will be repeated every year.</p> |
| 1.3. Communicating principle of the European Charter for Researchers and the Code of Conduct   | 2. Ethical principles | Q4/2021 | ETHICS & PROFESIONAL COMMITTEE | Communication established - frequency to be defined            | Extended       | <p>Task initiated with a seminar on integrity and open science in June 2021. Replay available online. A communication campaign on the role and missions of the Ethics and professional conduct Committee has been carried out.</p> <p>We still need to review the way in which the various principles are communicated.</p>  |



| ACTIONS  | GAP Principle(s)  | Timing                         | Responsible Unit               | Indicators/Target(s)  | Current Status | Remarks   |
|--|---|--------------------------------|--------------------------------|---|----------------|---|
| 1.4. Respect professional ethics principles during exercise of the profession  | 2. Ethical principles   | Q4/2022                        | ETHICS & PROFESIONAL COMMITTEE | <ul style="list-style-type: none"> <li>- - To publicise the Charter and for everyone to commit to respecting it within the context of their objectives</li> <li>- Link to existing official version</li> </ul>  | In progress    | <p>A number of initiatives have been taken to promote professional ethics and communicate the European and French charters.</p> <p>The in-house guide has yet to be designed.</p>   |
| 1.5. Offer "Researcher's Guide to Good Conduct" packages to all staff involved in research, covering the following topics: ethical principles, intellectual property, plagiarism, scientific integrity, publications, patents for innovations, GPDR. | 2. Ethical principles<br><br>39. Access to research training and continuous development | Q2/2023<br><br>(Q4/2022 Draft) | ETHICS & PROFESIONAL COMMITTEE | package assembled and available   | In Progress    | <p>On 04/2023, a summary was drawn up by the Scientific Integrity Officer, who is also a member of the Ethics and professional conduct Committee.</p> <p>The "researcher's guide to good conduct" is currently being designed and written to include all the items specified in the task.</p> <p>In connection with actions 1.4, 1.7 and 1.9.</p>   |
| 1.6. Increase awareness of the ethics committee rôles and actions, the scientific integrity rôle and the defence security rôle   | 2. Ethical principles<br><br>3. Professional responsibility                             | Q4/2021                        | ETHICS & PROFESIONAL COMMITTEE | <ul style="list-style-type: none"> <li>- drafting/updating of objectives/rôles</li> <li>- One communication to the Scientific Council</li> <li>- One annual meeting (general presentation + One implemented action)</li> <li>- updated intranet page</li> </ul> | In progress    | <p>Information is available on the Intranet on roles of the Ethics and Professional Conduct Committee, the Scientific Integrity Officer and the Security and Defence officer.</p> <p>In addition, the Ethics and professional conduct Committee presented its goals to the Scientific Advisory Board and the Board of Studies. A video presenting the Ethics Committee was produced in June 2022 and is available on the intranet.</p> <p>A new person in charge of the Security and Defence officer was appointed for 2021. She has undergone training and is profiled on the intranet site. She has benefited from a transition period with her predecessor.</p> <p>Planned improvement: update intranet pages (project led by the Communications department)</p> |
| 1.7. Ensure that the CN main ethical principles are identified in  | 2. Ethical principles   | Q4/2021                        | ETHICS & PROFESIONAL           | Ethics compliant general welcome guide  | Extended       | The welcome guide provided to new arrivals is HR-oriented.  |



| ACTIONS   | GAP Principle(s)  | Timing  | Responsible Unit               | Indicators/Target(s)   | Current Status | Remarks   |
|---|---|---------|--------------------------------|--|----------------|---|
| the welcome guide (currently under development). Also include research items. (Note: to be done in conjunction with Action 1.1)   | 1. Research freedom   |         | COMMITTEE                      |  |                | A working meeting was held in 2023 to review the organisation of the welcome guide in digital format.   |
| 1.8. Roll out the implementation of an anti-plagiarism charter and the proper use of the COMPILATIO tool  | 3. Professional responsibility                                    | Q4/2021 | DR                             | <ul style="list-style-type: none"> <li>- Charter dissemination in the Gazette newsletter (twice a year) + intranet</li> <li>- Educate all thesis supervisors (100%)</li> <li>- Frequency of use of Compilatio</li> </ul> | In Progress    | <p>The anti-plagiarism code of conduct was incorporated into the CN internal rules and regulations and approved by the Board. This charter, which applies to all existing CNs, was signed by students. An e-mail was sent by the management to all School staff, including doctoral students.</p> <p>Doctoral students sign a non-plagiarism agreement with the ED.</p> <p>A presentation on the Compilatio tool has been made to the doctoral centre director (who is also the director of an ED) and to the research director. They are in the process of defining the rules of conduct for doctoral students' theses, while sharing information with the thesis supervisors.</p> |
| 1.9. Draw up a vade-mecum (handbook) summarising compliance with ethical rules and principles, intellectual property, training obligations, dissemination of results, security, IP protection, patents, GPDR, etc. Add an appendix that recommends rules for citing authors and acknowledgements. | 5.Contractual and legal obligations<br><br>32.Co-authorship       | Q2/2023 | ETHICS & PROFESIONAL COMMITTEE | <ul style="list-style-type: none"> <li>- Document done</li> <li>- Annex to the Vade-mecum created, Communicated to persons concerned and understood</li> </ul>   | Completed      | <p>See task 1.5. This task is integrated into task 1.5 because the subjects are identical.</p> <p>A point on the rules governing citations and acknowledgements will be added.</p>  |
| 1.10. Increase staff awareness of the topic "Communicating research in a controlled manner" depending on the project and the data (degree of sensitivity).  | 5. Contractual and legal obligations<br><br>24.Working conditions | Q4/2021 | DD                             | Number of trained staff (1st phase)  | In Progress    | <p>Change in indicator: participation in the welcome day for new arrivals.</p> <p>In July 2023, the "Project development &amp;Value Enhancement " unit drafted, made available and distributed a "white paper" on this subject. This white paper has been distributed to the research community.</p>  |

| ACTIONS  | GAP Principle(s)  | Timing  | Responsible Unit | Indicators/Target(s)   | Current Status | Remarks   |
|--|-------------------|---------|------------------|--|----------------|---|
| <p>1.11 Write procedures for the management / conduct of research projects.<br/>Drafting validation cycles (in terms of responsibility) for project management</p>   | 6. Accountability | Q3/2023 | DD               | <ul style="list-style-type: none"> <li>- First deliverables: validation cycles for project submission decisions</li> <li>- Procedures identifying Development Department and Research Department interfaces</li> </ul> | In Progress    | <p><u>02/2023:</u></p> <ul style="list-style-type: none"> <li>- TheThe LHEEA (Research Laboratory in Hydrodynamics, Energetics and Atmospheric Environment): laboratory has drawn up an operating procedure (diagram of interfaces and data exchanged) between the laboratory, the Research Department, the Development Department, the Finance Department and interested parties.</li> <li>- A guide to financial arrangements for ANR projects has been drawn up by the Knowledge Transfer and Project Engineering Unit and sent to the research teams.</li> </ul> <p><u>04/2023 :</u> Launch of working groups on securing research projects - ongoing.</p> <p><u>07/2023 :</u></p> <ul style="list-style-type: none"> <li>- Carnot MERS projects: a "contractualisation process" procedure has been drawn up and approved by all the partners.</li> <li>- The "white paper" identifies the main stages and players from the project stage through to the current contract in a macro manner.</li> </ul> |
| <p>1.12. Communicate the procedure(s) and organise explanatory training (continued Action 1.12)</p>  | 6. Accountability | Q3/2023 | DD               | Procedure(s) disseminated and known  | In progress    | Communication as it happens.<br>See task 1.11   |
| <p>1.13. Understand manner in which the project committee operates within the LHEEA (Research Laboratory for Hydrodynamics, Energetics and the Atmospheric Environment) framework and assess the feasibility, relevance and potential for implementation with regard to other units.</p> | 6. Accountability | Q4/2021 | DR               | Feedback   | Completed      | <p>The LHEEA laboratory communicated its <i>modus operandi</i>.<br/>The conclusion: their organisation, which is specific to the laboratory, is not transposable. At the same time, the two other laboratories (GeM and LS2N) are investigating the matter.</p> <p>See task 1.11 - work in progress on setting up and monitoring projects.</p>  |

| ACTIONS   | GAP Principle(s)                          | Timing  | Responsible Unit | Indicators/Target(s)  | Current Status | Remarks   |
|---|---|---------|------------------|---|----------------|---|
| 1.14. Define and draft the rules for protecting, encrypting and archiving research data   | 7. Good practice in research              | Q4/2022 | DSI              | Procedure(s) drafted and applied  | In Progress    | <p>Backup and encryption rules are defined. They are posted on the School's intranet site. Data on servers managed by the IT Department is encrypted. Support for laboratories and laboratory IT specialists needs to be renewed.</p> <p>Archiving rules still need to be defined. And to provide more precise information on research data. T4/2025</p>  |
| 1.15. Communicate about and train on security, data protection and confidentiality. Supporting researchers in optimising and securing their data (PC, telephone, etc.). (note: to be performed in conjunction with Action 1.11) | 7. Good practice in research              | Q4/2021 | DSI              | <p>- IT Department integrated into the newcomers' induction module</p> <p>- Measuring the frequency/number of people who have received this information</p> | In Progress    | <p>At school level, the IT Department took part in the welcome day for new arrivals, and more specifically the CISO. (RSSI (responsible sécurité SI) : IT Security Manager.)</p> <p>An initial meeting was held on 06/2023 between the Director of the Research Department, the laboratory directors and the IT Department. There are plans for laboratory IT specialists to communicate these rules with the support of the ISD.</p> <p>Support for researchers needs to be continued.</p> |
| 1.16. Communicate about possible schemes and their operating methods (who to contact, how, which tools and supports, resources, etc.)   | 8. Dissemination, exploitation of results | Q4/2021 | DD               | Information made available (define the most appropriate medium(s))  | In Progress    | <ul style="list-style-type: none"> <li>- Implementation of TANGRAM with Nantes University.</li> <li>- The development and project engineering white booklet created by the Development Departement has been made available.</li> <li>- The SATT (Technology Transfer Acceleration Companies) is involved within CN at the request of CN for open days or meetings.</li> </ul>   |
| 1.17. Study the possibility of having "dedicated staff" to communicate and popularise research work   | 9. Public engagement                      | Q3/2021 | DIRCOM           | <p>Number of projects implemented.</p> <p>Target: general public in the first instance</p>  | Completed      | Target indicator reviewed on 10/2021: number of EQVT to support researchers in disseminating research results.  |

| ACTIONS  | GAP Principle(s)  | Timing             | Responsible Unit | Indicators/Target(s)                                       | Current Status | Remarks   |
|--|---|--------------------|------------------|--|----------------|---|
|  |   |                    |                  |  |                | <p><b>2021</b> Several internal and external communications to date <u>Meet your researcher</u>", an opportunity for researchers to introduce themselves and their research work. "<u>Centrale In the lab</u>" video and explanation of a project or study at the heart of a laboratory. "<u>Virtual tour of the ECN campus</u>". Organisation of <u>open days</u>, including the "Fête de la science" and "Nuit de la science".</p> <p><b>On 06/2022</b>, the post of Research Communications Officer was created and solely dedicated to the Research Department. In addition, a communications manager has been appointed for the WEAMEC (West Atlantic Marine Energy Community) and Carnot MERS projects.</p> |
| 1.18. Define priority topics for work on non-discrimination  | 10.Non discrimination   | Q4/2021<br>Q4/2022 | 3D               | Number of identified target subjects: three                | Completed      | Target indicator revision as requested in the initial report. In 04/2022, it was decided to set up three priority subjects, hence the initiation of three new tasks. Disability, Violence Hotline; Commitment to the Other Circle Charter.  |
| 1.19. Define the priority documents (HR, project, etc.) to be in French/English  | 10.Non discrimination   | Q4/2021            | DRH              | Number of documents in English                             | Completed      | The documents were drawn up by the HR Department and translated into English (internal regulations, working time protocol, timetable, teleworking protocol and teleworking application).  |
| <b>AXIS 2</b>  |   |                    |                  |  |                |   |
| 2.1. Integrate "Travillons Ensemble" ("Working Together") into the CN website section describing the main recruitment stages and career management | 12.Recruitment<br>15.Transparency<br>17.Variations in the chronological | Q4/2021            | DRH              | Text or flowchart (teacher-researchers-BIATSS) on the site | Completed      | On the Recrutee school recruitment website, a dedicated tab explains how recruitment and selection work, depending on whether the post is for a permanent or contract position.   |

| ACTIONS   | GAP Principle(s)                                | Timing  | Responsible Unit | Indicators/Target(s)  | Current Status | Remarks  |
|---|---|---------|------------------|---|----------------|--|
| within the institution (candidate-oriented) and the school's position on the under-represented groups in FR/EN  | order of CV                                     |         |                  |   |                | The information is in line with the recruitment code of conduct.<br>The site is in French and English.   |
| 2.2. Educate those involved in recruitment about the principles of the "Code of Conduct for the Recruitment of Researchers" and their implementation according to the rules set out by the school | 12. 15. 17.                                     | Q2/2021 | DRH              | -First awareness group: selection committee<br>- Timeframe and other group(s) will be defined later | Completed      | General support and detailed sheets explaining the methods and rules, including those of the OTM-R (Open, Transparent and Merit-based Recruitment of Researchers), have been created and distributed to managers who carry out recruitment. In addition, the recruitment team is available to answer managers' questions.<br><br>These documents are for teacher-researchers and ITRF personnel (Research and Training Techniques ) recruitment. |
| 2.3. Draft a general "Recruitment and Selection" procedure that identifies the recruitment and selection stages and how they work   | 13. Recruitment<br>15. 17.<br>16. Judging merit | Q3/2021 | DRH              | Procedure version 01 drafted  | In Progress    | Depending on the specifics of the types of posts, it was decided to draw up several procedures because the rules are specific: tenured EC, contract EC, ITRF competition, BIATTS (Library, Engineers, Administrative, Technicians, Health and Social personnel)<br><br>The procedures and associated documents have been drawn up and are undergoing quality control to be integrated into the Quality Management System (QMS).                  |
| 2.4. Improve HR documents and add information requested by the principles   | 13. 12. 17. 16.                                 | Q4/2021 | DRH              | Number of documents improved  | Completed      | The Job File template has been modified to add criteria (contact manager and CSR). The job descriptions correspond to the job advertisements. For teacher-researchers positions, the sheets are bilingual. For IGRs (Research Engineers): they are bilingual when necessary and when there is a vacancy on the market. For IGE (Student Engineers ?? à verifier) and technician positions, the majority of advertisements are in French.         |

| ACTIONS   | GAP Principle(s)                  | Timing  | Responsible Unit | Indicators/Target(s)  | Current Status | Remarks  |
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| 2.5. Provide a guide for those involved in recruitment  | 13. Recruitment<br>14. Selection  | Q3/2021 | DRH              | Guides written and known - For the selection committee initially  | In Progress    | In <b>2021</b> , a complete Human Resources guide has been drawn up for the selection committee for lecturer-researcher posts. For BIATSS, an interview assistance scale has been drawn up.<br>In <b>2023</b> , these documents will be improved to make them easier to read and understand.<br>They still need to be integrated into the QMS.   |
| 2.6. Identify and define open positions within the institution to be included in the "EURAXESS Jobs" portal according to the school's issues and priorities (European and non-European projects, profiles, etc.)  | 13. Recruitment (code)            | Q1/2022 | DRH              | - Number of offers published under Euraxess / total offers.<br>X% in 2021, x% in 2022<br>- Number of hires made or % success via this network | Extended       | As of <b>June 2022</b> , four positions have been posted on the EURAXESS (Researchers in Motion) site via laboratory accounts.<br>In <b>2023</b> , the ECNs opened accounts under the ECN name of their laboratories.<br>ECN must define the positions to be integrated into the Euraxess portal.<br><br>One weak point: there is no link between ATS Recrutee and the Euraxess job board. |
| 2.7. Provide the chair of a selection committee, as soon as it is identified, with an updated briefing note on the criteria for setting up the committee (Note: to be done in conjunction with Action 2.3)  | 14. Selection                     | Q3/2021 | DRH              | Summary note  | Completed      | Action 2.5, the complete guide for selection committee (COS) chairmen has been divided into several more readable documents. An email prepared by the HR team is sent to each COS chairman whenever there is a committee meeting.  |
| 2.8. Draft a procedure describing the organisation, selection criteria and focal points concerning BIATSS (including for seconded staff). Check that the recruitment interview format meets all C&C criteria. (Note: to be done in conjunction with Action 2.3) | 14. Selection                     | Q3/2021 | DRH              | Operating procedure written and template compliant  | In Progress    | A working version of the procedure has been drawn up. An interview grid that takes into account the criteria of the charter and the recruitment code has been updated and is distributed to managers who conduct interviews.<br><br>The procedure and documents already in use have yet to be integrated into the QMS.   |
| 2.10. Clarify the profiles (Objectives for a senior research  | 19. Recognition of qualifications | Q4/2021 | DRH              | Benchmark   | Extended       |  |

| ACTIONS   | GAP Principle(s)                  | Timing             | Responsible Unit          | Indicators/Target(s)   | Current Status | Remarks   |
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| officer, for a research officer,... in the research sector) and increase recruiter awareness  |                                   |                    |                           |  |                |   |
| 2.11. Offer HR support for the preparation of applications for structural projects (chair, Obex, involving several recruitments, etc.)  | 19. Recognition of qualifications | Q3/2023            | DD- DR                    | HR form "Research project" for set-ups identifying several cases)        | Extended       | Requests for recruitment and funding for recruitment are made via a digital recruitment form initiated upstream of any project. This document is approved by several managerial functions: department director, HR director, finance director, steering assistance unit, general manager and director of the institution (using a workflow via ITEROP). The HR department validates the requirement and checks the associated job description, which is used to post the job offer on the job boards. |
| 2.12. Update the 2016 note on the general rules for seniority recovery  | 20. Seniority                     | Q3/2021            | DRH                       | Review conducted   | Completed      | This internal note is now an instruction (QMS). It was updated and approved by the DGS in 10/2023.  |
| 2.13. Consider, with regard to the law on multi-annual research programming, the function of the post-doctoral fellow (name, title) within the school, to be differentiated from the title on the contract in order to enhance the value of the function for career development | 21. Postdoctoral appointments     | Q2/2022            | DRH                       | Post-doc linked procedure: recruit and appoint<br>Application of the law | Extended       | Change of HR Director in 2022 and other issues linked to the programming law have been given priority.<br>(T3/2024)   |
| <b>AXIS 3</b>   |                                   |                    |                           |  |                |   |
| 3.1. Depending on the CHSCT for QWL analysis and implementing a first topic   | 23. Research environment          | Q1/2022<br>Q3/2022 | Head of Health and Safety | - Update QWL questionnaire<br>- Number of actions undertaken/planned     | Extended       | Revision of the action following the change of prevention advisor in 07/2022 and the transfer of the Quality of Working Life mission to the HRD.<br><br>Action: Work on workstation ergonomics.<br>"Deadline Q4/2024. Number of workstations reviewed and ergonomic rules identified.<br><br>This action will be implemented once the   |



| ACTIONS  | GAP Principle(s)         | Timing             | Responsible Unit          | Indicators/Target(s)  | Current Status | Remarks   |
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|  |                          |                    |                           |   |                | single document for each building has been updated.   |
| 3.2. Depending on the CHSCT to ensure that recommendations (DU, CHSCT opinion, prevention plan, etc.) are implemented.   | 23. Research environment | Q4/2021            | Head of Health and Safety | Number of actions implemented via the CHSCT   | Extended       | Revision of the action following the change of prevention advisor on 07/2022 and the change of the CHSCT by a new F3SCT body. The office was renewed.   |
| 3.3. Implement the Data Management Plan (ANR recommendations) and increase team awareness in the research projects for its implementation and the goal of this document thereby.<br>(Note: to be done in conjunction with Action 1.15) | 23. Research environment | Q4/2022            | DR                        | <ul style="list-style-type: none"> <li>- Data management plan template created</li> <li>- Number of people trained</li> <li>- Identification of relevant projects covered by the DMP</li> </ul> | Extend T2/2025 | <p>Change of second indicator.</p> <p>A number of ANR research projects have a data management plan as a compulsory deliverable.</p> <p>Researchers currently use the ANR model, which is available online.</p> <p>A project manager from the Knowledge Transfer and Project Engineering Unit monitors the production of these plans for ANR projects (in 2022, 7 ANR projects will have a data management plan). An ANR guide and a European guide are sent to researchers.</p> <p>As of 06/2023, Nantes Université wishes to respond to a data workshop (awaiting feedback). This will involve training and support for teacher-researchers in data management.</p> |
| 3.4. Organising group mailings (via mailing lists) for effective communication   | 24. Working conditions   | Q1/2022            | DSI                       | <p>Evolution of the number of lists (to be reduced)</p> <ul style="list-style-type: none"> <li>- Number of lists with moderators (to be reduced)</li> </ul>                                     | Extended       | Action not initiated.   |
| 3.5. Identify QWL principles and actions   | 24. Working conditions   | Q3/2021<br>Q4/2022 | Head of Health and Safety | <p>2021: principles identified</p> <p>2022: number of actions implemented</p>   | Extended       | <p>In 2022, there will be a new accident prevention advisor and a change of manager for this task. The HR director will take over this action and a new post will be created on 10/2023.</p> <p>The HR department in charge of this issue will start work in 2024.</p>  |

| ACTIONS   | GAP Principle(s)              | Timing                     | Responsible Unit | Indicators/Target(s)   | Current Status     | Remarks  |
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| <p>3.6. Implement incentives (free time, financial fund, ...) to encourage teacher-researchers to apply for an ERC (European Research Council) grant or to be a member of the IUF (Institut universitaire de France), ...</p> | <p>24. Working conditions</p> | <p>Q2/2022</p>             | <p>DR</p>        | <ul style="list-style-type: none"> <li>- Annual campaign</li> <li>- Number of ERCs submitted in 2020, 2021, 2022</li> <li>- Written procedure on operation and interfaces</li> </ul>                           | <p>in progress</p> | <p>Since 2022, the Research Department Director has been meeting young researchers to explain the scheme to them. The CRCT is a personal commitment for the researcher and requires investment. Several systems were offered and the results were as follows:<br/> <b>ERC:</b> in 2020, zero - in 2021, one - in 2022, three submitted, two accepted.<br/> <b>Pulsar</b> (tenured and contract ECs): presentation of this scheme to new recruits from 2021 to 2023: 15 people<br/> <b>DR budget:</b></p> <ul style="list-style-type: none"> <li>- ERC - to help ECs with consultancy firms to put together their applications - 2023: €20k - in 2022: €15k.</li> <li>- CRCT: annual provision of €15k</li> </ul> <p>The instruction has yet to be drafted.</p> |
| <p>3.8. Commit to a Diversity Acceptance Charter with other groups (gender equality, non-discrimination, anti-harassment) and communicate<br/>(Note: to be done in connection with action 1.19 - action prior to 1.19)</p>    | <p>27. Gender balance</p>     | <p>Q4/2021<br/>Q4/2022</p> | <p>DA</p>        | <p>2021 - gender equality action plan</p> <ul style="list-style-type: none"> <li>- Diversity commitment letter</li> <li>- Actions defined</li> </ul> <p>2022 - number of actions initiated and implemented</p> | <p>Completed</p>   | <p>The letter of commitment to diversity with l'Autre Cercle has been signed.</p> <p>The 2021-2023 gender equality action plan was reviewed in 2021 and again in September 2022. A number of initiatives have been taken in the areas of communication and associations.</p> <p>The action plan comprises four main areas of work: 1/Prevent and deal with pay gaps- 2/Guarantee equal access to jobs and responsibilities- 3/Favour the balance between professional and personal life- 4/Fight against sexist and sexual violence, harassment and gender-based discrimination.</p>   |

| ACTIONS  | GAP Principle(s)                 | Timing             | Responsible Unit | Indicators/Target(s)                                | Current Status | Remarks  |
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|  |                                  |                    |                  |   |                | -> <a href="https://www.ec-nantes.fr/english-version/sustainable-development/equality-and-diversity?l=1">https://www.ec-nantes.fr/english-version/sustainable-development/equality-and-diversity?l=1</a><br><br>In 2022, the school appointed an Equal Opportunities Officer.  |
| 3.9. Publish a career guide<br>- for the teacher-researcher,<br>- for the senior research officer in French and English (link Action 1 Axis 4)   | 28. Career development           | Q2/2022            | DRH              | French version of Guide(Q2/2022)                    | Extended       | -  |
| 3.10. For teacher-researchers, design career meetings with an individual (mentor, emeritus, recognised adviser, other than the hierarchical superior/manager/director of the service) who advises on options and guidelines. | 28. Career development           | Q3/2023            | DRH              | Launch in 2022 (experimentation)                    | Extended       | In October 2022, the method will be defined for this career review. It will be given priority to teacher-researchers who do not or rarely contact the Research department Director and those who request it.<br><br>For all teacher-researchers, an interview would be offered after two to three years after their arrival at CN and then between six and 10 years. The aim is to find out where the teacher-researchers is in his or her career and to help and support him or her. Led by the HR Department with strong support from the Regional Director. |
| 3.11. Identify the possibility of implementing CRCT (incentive actions) and allocating more delegations other than teacher-researchers.  | 29. Value of mobility            | Q1/2022            | DR               | budget allocated for CRCTs                          | Completed      | The DR has an annual budget of €15k.<br><br>The results of the DR Director's communication with laboratory directors on the CRCT.<br>- 2020-21: 0<br>- 2021-22: One granted for one semester<br>- 2022-23: One granted for one semester<br>- 2023: One request   |
| 3.14. Define information flow for: 1/ to make file and financial monitoring of intellectual property   | 31. Intellectual property rights | Q4/2023<br>Q2/2024 | DD               | Document drafted (end 2023) and communicated (2024) | Extended       |  |

| ACTIONS  | GAP Principle(s)   | Timing                 | Responsible Unit | Indicators/Target(s)  | Current Status | Remarks   |
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| and copyrights more reliable.<br>2/ ensure that CN stakeholders have required information (stakeholder, Development department, Finance department, Human resources department)                                  |  |                        |                  |   |                |   |
| 3.15. Implement a teacher training procedure for new researchers who are going to teach. Put the most experienced in contact with educational engineers on the evolution of tools and new teaching methodologies | 33. Teaching   | Q4/2021<br>Q2/2022     | DF               | Initiated in Nov. 2020 with 3 lecturers (course release)  | Completed      | Task divided into two.<br><br>1/ In accordance with the decree, new junior lecturers are entitled to 32 hours' leave. They are then entitled to a further 32 hours over the following five years.<br>The DF management, with the support of the ICTE unit, has been providing this support since 2021. A training programme has been defined to train them.<br><br>2/ New action. |
| 3.16. Create a "Complaints and appeals management" procedure, identifying which adviser/function to turn to according to the nature of the problem/conflict  | 34. Complaints/ appeals  | Q2/2021                | DGS              | Procedure drafted   | In Progress    | Two procedures entitled "Disciplinary section referral for students (users)" and "Disciplinary section referral for tenured lecturers and professors".<br><br>In addition, information on the Intranet and updated at the end of August 2022 "Listening, support and guidance".<br><br>Procedure currently being approved.  |
| <b>AXIS 4</b>  |  |                        |                  |   |                |   |
| 4.2. Set up a professional interview (assessment and prospects) before the end of a fixed-term contract for contract staff other than doctoral students.   | 36. Relations with supervisors<br><br>25. Stability and permanence of employment | Q3/2021<br><br>Q4/2022 | DRH              | - target 1: Explanatory guide available<br>- target 2: Efficacy rate (complete and return to HR at end of fixed-term contract) by managers -- deadline 2023 | Completed      | In 2021, the end-of-contract document will be introduced, in which the manager and employee take stock. HR informs the manager at least three months before the end of the fixed-term contract so that the employee can move on to different employment if the contract is not renewed, and so that if it is renewed, the employee does not have to worry.                        |

| ACTIONS  | GAP Principle(s)  | Timing  | Responsible Unit | Indicators/Target(s)   | Current Status | Remarks  |
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|  |   |         |                  |  |                | If you are renewing your fixed-term contract, you must include it with your application.   |
| 4.3. Implement a skills development plan (Including training courses by category)                  | 38.Continuing professional development                    | Q1/2022 | DRH              | Skills development plan established<br><br>2023: % achievement | In Progress    | <p>In 2022, a Skills Development Officer was recruited. She interfaces with the HR officer in charge of training.</p> <p>In 2022 and 2023, the training plan will be updated to reflect the training requested and hours completed (100%).</p> <p>In 2022/2023, in-house English training was proposed and implemented for school staff. It will be repeated in 2023 (no. of hours/person).</p> <p>Training courses on climate change, harassment and gender-based and sexual violence and Management also took place.</p> <p>In 2024, the HR team, together with the Skills Officer, will carry out a review of the training requests made and approved by the manager during the annual interviews. An improvement has been implemented to obtain the return rate for annual interviews and therefore for training requests.</p> |
| 4.5. Identify and develop ways of communicating to staff about training and how to benefit from it | 39.Access to research training and continuous development | Q2/2022 | DRH              | Information points: number to be defined                       | In Progress    | <p>On 09/2022, work on six areas of vocational training in schools was initiated and presented.</p> <p>It will serve as a basis for training policy.</p> <p>A new HR assistant dedicated in part to training arrived in 2023. She works alongside the Skills Development Officer.</p>  |

| ACTIONS   | GAP Principle(s)  | Timing             | Responsible Unit | Indicators/Target(s)   | Current Status | Remarks  |
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|   |   |                    |                  |  |                | <p>The HR - Training Intranet site was updated on 07/2023. It lists the reference texts (<a href="#">Decree no 2007-1470 of 15<sup>th</sup> October 2007</a> and <a href="#">Decree no. 2007-1942 of 26<sup>th</sup> December 2007</a>).</p> <p>The creation of two new training request forms available (individual or group) where the applicant indicates the desired training and, if available, the name of a training organisation.</p> <p>In addition, staff can consult our partners' training offers: <a href="#">IRA Nantes</a>, <a href="#">Portail de la fonction Publique-Pays de Loire</a> (Public service portal - Pays de Loire )and <a href="#">AMUE</a>. (Agence de Mutualisation des Universités et Établissements : Agency for the Mutualisation of Universities and Establishments)</p> <p>Finally, annual appraisal interviews provide an opportunity to express and approve training needs.</p> |
| 4.6. Clarify the objectives and expectations of conducting a professional interview for each stakeholder (employee/hierarchical superior) | 39. Access to research training and continuous development<br><br>19. Recognition of qualifications | Q4/2021<br>Q4/2022 | DRH              | - target 1: guide written and communicated<br><br>Target 2: evolution of RC interviews done on time and returned to HRD -- 1 year after target 1 | Completed      | <p>In 2021, the HR assistant in charge of this file changed the note attached to the interview.</p> <p>In September 2022, CODIR (Management Committee) members were made aware of this process.</p> <p>In June 2023, a new communication campaign was launched, training and awareness-raising sessions were provided for managers and, finally, to ensure that the interviews are completed, part of the process has been digitised where each manager must submit the interview report signed by both parties.</p>   |

| ACTIONS   | GAP Principle(s)                      | Timing             | Responsible Unit                      | Indicators/Target(s)   | Current Status | Remarks  |
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| <b>GLOBAL</b>   |                                       |                    |                                       |  |                |  |
| Draft the overall process "HR and Competency Management" with the identification of procedures/modes of operation (if specific). This action encompasses the four axes of the HRS4R | 12. Recruitment                       | Q4/2022            | DRH                                   | Target 1: written process  | In Progress    | The process has been drafted. It must be finalised and approved.   |
| 2.9. Draft the HR policy (recruitment, salary, principles 35-39) that corresponds to the OTMR policy  | 13. Recruitment                       | Q3/2022            | DRH/ Director                         | OTMR policy drafted and disseminated   | Completed      | Present on the website   |
| <b>Ph.D</b>   |                                       |                    |                                       |  |                |  |
| D3.7. Review the protocol for doctoral students (registration, status, within the meaning of the 2009 decree, timetables, provisions, in the event of co-supervision, etc.).        | 24. Working conditions                | Q4/2021<br>Q4/2022 | DA                                    | 2021: analysis performed and formalisation of general operation and priority stage procedures<br><br>2022: Implementation and verification of efficacy | In Progress    | <b>2021:</b> the diagnosis and inventory have been completed, as has the description of the "Doctoral student pathway" process.<br><br>In June and September <b>2022:</b> the results and proposals for improvement were presented to management in direct contact with doctoral students and then to the CODIR.<br><br><b>2023:</b> a working group with the laboratory managers (interface with the doctoral students and the school's departments) identified the data.<br>Put on hold because other HR digitalisation issues (via ITEROP) have taken priority. |
| D3.12. Promote the "Doctor Europeus" Label as a complement to the doctoral degree.  | 29. Value of mobility                 | Q3/2022            | DR                                    | % award of Label   | Extended       |  |
| D3.13. Build a "career" support programme for doctoral students (coaching, platform dedicated to offers, training, etc.)  | 30. Access to career advice           | Q3/2022            | DD                                    | Defined career path<br><br>(Implementation after T3/2022)  | Extended       | Reorganisation of the service. action to restart   |
| D4.1. Compile a booklet on post-thesis gateways (e.g.: transition from the public to the private sector, how seek funding, job  | 37. Supervision and managerial duties | Q3/2022            | ED ("director of the doctoral units") | Booklet on gateways written and made available   | Completed      | Following a survey of doctoral students on this subject in 2022, a dedicated post-doctoral space will be put online on the Internet, divided into the following sections:  |



| ACTIONS  | GAP Principle(s)                       | Timing  | Responsible Unit | Indicators/Target(s)  | Current Status | Remarks  |
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| portal in France, transfer from one position to another or from one status to another, etc.)   |  |         |                  |   |                | sites offering job opportunities - career search and orientation tools - support tools and structures - profile management.  |
| D4.4. Implement an application for the Doctoral School to coordinate doctoral students' enrolments with the ED's training offers in terms of deadlines and to ensure doctoral students' participation in selected training courses | 38.Continuing professional development | Q3/2022 | DR               | - Single tool in place<br>- Registration deadline after the start of the school year < two months | Completed      | From 2021 to 2023, implementation of an ED tool called "Amethis" for the teaching registration of doctoral students and a data gateway to continue administrative registration on the OnBoard tool, the School's internal Intranet tool.<br><br>The deadline has not yet been fully defined. Improvements to optimise flows are not managed by CN as this is an application managed by the EDs of the Pays de la Loire region. |

## New actions

| ACTIONS   | GAP Principle(s)      | Timing  | Responsible Unit | Indicators/Target(s)  | Current Status | Remarks   |
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| <b>AXIS 1</b>   |                       |         |                  |   |                |   |
| 1.20 Propose solutions to make "online services" accessible to people with disabilities   | 10.Non-discrimination | T3/2024 | 3D               | - audit existence<br>- One operational and visible solution | In progress    | 15/09/23: KOM (Kick-Off Meeting) meeting held to define initial actions and scope.  |
| 1.21 (continued from action 1.18)<br>Disability: Defining the master plan (action plan) with digital accessibility actions and accessibility register | 10.Non-discrimination | T1/2023 | 3D               | Disability: 2023 (target)<br>Master plan approved           | Completed      | The master plan will be approved in March 2023 and subsequently communicated.   |
| 1.22 (action 1.18 closed)<br>Combating violence, harassment and discrimination: violencemeter respectmeter Safe                                       | 10.Non-discrimination | T1/2024 | 3D               |   | In progress    | <b>Students</b><br>2022: Reporting unit: suggested flowcharts Student + Follow the "stop everyday sexism" e-learning module and raise your awareness in less than 20 minutes! |

| ACTIONS  | GAP Principle(s)         | Timing  | Responsible Unit | Indicators/Target(s)                                     | Current Status | Remarks   |
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| supervisor– Hotline to be set up   |                          |         |                  |  |                | 2023: Hotline.<br><b>All</b><br>2023: Take action against sexism - management mail to all staff and students<br><b>Employees</b><br>2023: protocol to be updated for staff.<br>Creation of a thematic library with the Médiathèque.<br>- Training planned for CODIR members on VSS from June 2023 to Q1/2024.<br>- Presentation of the operation to the CSA (Social Management Committee and Specialised Section) on 29/09/2023 to favourable approval. |
| 1.23 (action 1.18 closed)<br>Signing of the charter with the other circle  | 10.Non-discrimination    | T3/2022 | 3D               | other circle charter signed                              | Completed      | 2021: signing of the charter with l'Autre Cercle<br>2022: the Internal Regulations are updated to include the concept of discrimination   |
| 1.24 Inform all staff and raise their awareness of disability issues   | 10.Non-discrimination    | T4/2025 | DRH              | number of events involved (target: three)                | New            |   |
| <b>AXIS 3</b>  |                          |         |                  |  |                |   |
| 3.15b. For the most experienced teachers, put them in contact with educational engineers on the development of tools and new teaching methods. | 33. Teaching             | tbd     | DF               |  | Extended       |   |
| 3.17. Relaunch the Prevention Assistant (PA) network and recruit PAs. Define their tasks and scope of action.                                  | 23. Research environment | T2/2023 | C.PREVENTION     | 1 Changes in the number of PAs.<br>2. Number of meetings | In progress    | <b>Dec. 2022:</b> First meeting with the Prevention Assistants (PAs), then on a regular basis.<br><b>2023:</b> CN has 24 PAs as of 30/06/2023. The advisor led five PA network meetings (two in 2022 and three in 2023).<br>Appointments are made with each PA and  |

| ACTIONS   | GAP Principle(s)                      | Timing  | Responsible Unit | Indicators/Target(s)   | Current Status | Remarks  |
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|   |                                       |         |                  |  |                | <p>the accident prevention advisor, depending on the subject.</p> <p>Initial PA training (35 hours). PAs have been reminded of their duties. Their managers will also be trained in prevention.</p> <p>All that remains to be done is to draw up the framework letters for the PAs (goals and scope) and to make an appointment with the managers to give the letter to the PAs.</p> |
| 3.18. Complete review of occupational risk assessment, with priority given to research labs and practical training rooms. | 23. Research environment              | T3/2024 | C. Prévention    | 1, Have a usable DUERP framework.<br>2, Rate of tasks processed (change) | In progress    | <p><b>2023:</b> launch of the DUERP (<i>Document Unique d'évaluation des risques professionnels</i> : Occupational risk assessment document) update project</p> <p>01/2024: A working group within the PAs has been set up to develop the DUERP.</p>   |
| 3.19. Draw up an annual safety training programme + safety training management procedure                                  | 23. Research environment              | T1/2024 | C. Prévention    | Documents in place   | In progress    | <p>The 2022 programme has been completed. The 2023 training programme is based on what has been accomplished. The 2024 training programme -&gt; in progress.</p> <p>Drafting initiated and shared between HR and the Accident Prevention Advisor "Safety training management procedure".</p>   |
| <b>AXIS 4</b>   |                                       |         |                  |  |                |  |
| D4.7 Create a booklet to monitor doctoral students throughout their thesis / common platform with thesis director         | 37. Supervision and managerial duties | T3/2025 | ED               | To be defined  | New            |  |
| D4.8 Enhance the Booklet on bridging after thesis -> Testimonial section to be integrated                                 | 37. Supervision and managerial duties | T2/2024 | ED               | A more complete website  | New            |  |

The extended version of the reviewed HR Strategy for your organisation for the next 3 years, including the OTM-R policy must be published on your organisation's website

URL: <https://www.ec-nantes.fr/english-version/research/hrs4r-application?!=1>  
<https://www.ec-nantes.fr/centrale-nantes/organisation/staff-and-organisation>

### Comments on the implementation of the OTM-R principles

#### OTM-R system

In 2019, the recruitment team will consist of 1.5 people. In 2023, three people with professional skills and trained in the school's rules will be in charge of recruitment,

The number of people to be recruited to the laboratories in 2022 (teacher-researchers, BIATSS, PhD students) is 163, including six research professors (two women and four men).

The HR recruitment team described recruitment practices, which made it possible to identify all the tasks, formalise them in procedures and associated documents and create support materials for managers.

Following a study and the drawing up of specifications, the school has set up an Applicant Tracking System (ATS) called RECRUTEE, which is the school's career site. This ATS has been active since October 2023 for all non-tenured posts. For permanent staff, the GALAXIE platform, the national website of the Ministry of Higher Education and Research, is used.

The criteria of transparency and openness have been improved via Recrutee, in particular through the sharing of recruitment data between managers and recruiters. It's also a platform for exchanging information with candidates, managers and recruitment officers, helping to optimise the process in terms of time and quality, and in both French and English.

The school has also been working on the Single Social Report, with more information and details on indicators for recruitment, salary scales, gender equality, etc. This document was presented to the CSA (Social Management Committee and Specialised Section) and validated by the Board of Directors in 2023. It is available to staff via the intranet and to external users.

Finally, the school's CSR policy, including the "Equality between Women and Men" action plan, the "Disability Master Plan" and various charters, help to meet the criteria of transparency, openness and merit-based recruitment.

#### Advertising

The school always uses different sources to post vacancies, and co-option has helped to attract applications.

For European projects, the school uses the Euraxess website under the accounts of the ECN laboratories.

A future improvement will be to include a link to the laboratory's website to make it easier for applicants to access the information.

#### Selection

For ECs: the selection rules are national. In addition, the committee chairs were briefed on the OTM criteria by the recruitment officers. All the selection committees set up have been approved (pre-approved by the HR team and approved by the restricted Scientific council (CSR)) An impartiality scale is used for selections at selection panel level.

#### Appointment

This phase has been mastered. Managers have tools at their disposal and can discuss matters with the recruitment team.

#### Overall assessment

A control system has not yet been implemented. This will be defined more precisely when the HR process is formalised.

## 4. Implementation

### **General overview of the expected overall implementation process of the action plan**

The HRS4R approach is part of the school's overall quality approach. HRS4R actions are an integral part of the quality approach and the school's policy. For example: the formalisation of HR procedures, the doctoral student pathway, etc.

Up until the project phase (initial phase), the HRS4R approach was one of the so-called strategic projects, i.e. it was monitored by the project manager officer (PMO), with monthly progress indicators. From the deployment phase onwards (after dossier approval by the European Commission), the project moved into the operational phase, with regular progress monitoring by the project director, the HR Department director and the Research Department director, and the HRS4R project manager.

The organisation implemented for decisions and reviews was to maintain the steering committee from the initial phase (project director who is the Director General of Services, the HR Director, the Research Department Director and the HRS4R project manager). A steering committee has been set up with all the project managers to review task progress and to ensure that each manager has an overview of the entire process. Finally, the DGS Director (General administration Department) informs the Executive Committee members.

The project manager monitors the progress of each task with the other project managers. She analyses everything that can contribute to the progress of the approach, based on the school's priorities and projects. She establishes links between the various projects.

### **How have you prepared for the internal review?**

In July 2023, a third HRS4R COPIL was held with the project managers to focus on the deliverables to be provided and to indicate the changes and improvements for the four axes since the initial phase.

Six of the project managers are teacher-researchers from different laboratories (the research department director, the doctoral centre director and the ED director, the academics affairs department director, the sustainable development director, the deputy director of the institution and the scientific integrity officer, who is also a member of the ethics and professional conduct committee).

The project leader carried out a benchmark of organisations with the HR Excellence in Research label.

Within the EPE Nantes Université, we have an HRS4R working group (Centrale Nantes, Nantes University Hospital, INSERM and Nantes University) which enables us to discuss our progress and methods for subjects identified and currently being identified.

### **How have you involved the research community, your main stakeholders, in the implementation process?**

The research community is involved in implementing the actions, depending on the items addressed. The action leaders set up working groups made up of members of the research community as required.

Of the 12 project leaders, eight work closely with the research community, including six research professors.

Internal communication via the intranet currently provides information on the timetable for the main stages, and the action plan and associated documents are accessible.

We had initially planned to carry out a new survey (qualitative poll) among research staff to find out their assessment, visibility and perception of the tasks implemented, and also to gather their new expectations with regard to the principles of the Charter and the Code. At the COPIL meeting in July 2023, we agreed to postpone the survey until the six months prior to the next evaluation in 2026.

**Do you have an implementation committee and/or steering group regularly overseeing progress?**

We have a steering committee made up of the HRD Director, the Research Department Director, the DGS director, who is also the director of the HRS4R project, and the HRS4R project manager. They are the project leaders and oversee progress. The composition of this group is the same as in the initial phase. An annual update is provided to the hospital director and deputy director at the time of the quality review.

To implement the actions, a HSR4R project managers' committee has been set up. This committee is chaired jointly by the project director and the project manager. It is made up of all the project managers and enables progress to be reviewed, project indicators to be presented and an overall view to be taken by all the managers. This ensures that the project is consistent and cross-functional.

On a more operational level, the project manager meets at least once every three months with each project manager to support them in their tasks, review progress, gather evidence and decide on next steps.

**Is there any alignment of organisational policies with the HRS4R? For example, is the HRS4R recognized in the organisation's research strategy, overarching HR policy**

HRS4R is recognised as part of the institution's research strategy and HR policy.

The initial dossier was submitted to the Scientific Council, Technical Committee, Executive Committee, Management Committee and Board of Directors.

**How has your organisation ensured that the proposed actions would be also implemented?**

In September 2021, a kick-off meeting was held with all the project managers and then individually to launch the initiatives and propose tools and working methods.

Depending on the number of tasks per project manager and the related deadlines, quarterly meetings were held between the project manager and the other project managers to review progress, answer questions and provide support in the event of difficulties.

In terms of traceability, a shared folder has been created with access for the managers and the functions identified by them. This folder contains the global action plan and one file per manager with their tasks (working documents, evidence and indicators).

The project leaders, the project manager and the members of the HRS4R COPIL are the main players in this area. It is possible to add access to other players as and when required.

The overall action plan is updated by the project manager during meetings with the managers. This PDCA (Plan-Do-Check Act) action plan makes it possible to identify the progress of the actions, to trace the meetings with the managers, to indicate the actions taken, the difficulties, to identify the evidence and the indicators.

It was agreed with some of the managers that the project manager would assist them with the tasks (details of the actions), and that she would carry out the tasks. To maintain a rhythm and momentum, a more regular review (once a month) has been set up to carry out the actions step by step.

A progress review between the project manager and the project director takes place at least once a month during their departmental meetings.

**How are you monitoring progress (timeline)?**

Progress is monitored using the HRS4R dashboard, which includes at least one indicator for the percentage of tasks undertaken and one for PDCA progress.

These indicators are presented to the members of the COPIL Managers and therefore to the members of the COPIL HRS4R.

The action plan and indicators are shared via the lockbox, which is accessible to all managers and persons authorised by the managers.

**How will you measure progress (indicators) in view of the next assessment?**

A first annual assessment of task implementation and whether or not the targets-objectives had been achieved was made to the Executive Committee in November 2022. Some indicators have been changed to targets because they are difficult to measure or have been identified as not being relevant to the task implementation.

The measurement of progress for the second evaluation will follow the same indicators.

**How do you expect to prepare for the external review?**

This external review will take place in 2026.

The organisation will depend on the status of the interim report provided by the European Commission and the school will take account of any comments made.

For this external review, the HSR4R COPIL will define the action plan, the retro-planning and a preparatory phase for the audit. The COPIL Managers and other bodies will be informed at least nine months in advance, and people will be asked to prepare for the assessment.

The following elements will be used to prepare for the external review:

1. survey of research and research-related functions
2. updating indicators
3. access to evidence

For the organisation of the on-site visit by the European Commission's evaluators, it is planned that in the HRS4R Nantes Université working group, Inserm, which is the first to have been evaluated, will give us feedback on the preparation and on-site evaluation.

Since 2023, we have resumed our meetings of the HRS4R Nantes Université working group (twice a year at least) to share our progress and good practices on common subjects.



| Abbreviations  | English  | French   |
|----------------|--|--|
| AAU            | Architectural and Urban Ambiances Laboratory   | Laboratoire Ambiances Architectures Urbanités  |
| ANR            | National Research Agency - (French)  | Agence nationale de la recherche   |
| ANSSI          | State IT security - (French)   | Agence nationale de la sécurité des systèmes d'information                             |
| BIATSS         | Library, Engineers, Administrative, Technicians ,Social and Health personnel. ( <i>non-teaching staff from French educational and public research establishments and administrative services</i> ) | -  |
| C&C            | Charter and Code (HRS4R)   | -  |
| CDD            | Fixed-term contract (temporary contract)   | Contrat à durée déterminée   |
| CDI            | Open-ended contract (permanent contract)   | Contrat à durée indéterminée   |
| CET            | A time saving account  | Compte épargne temps   |
| CHSCT          | Health, safety and working conditions committee  | Comité d'hygiène, de sécurité et des conditions de travail                             |
| CIFRE          | Industrial Training Agreements through Research  | Conventions Industrielles de Formation par la Recherche                                |
| Civil servant  | "permanent"  | Fonctionnaire du secteur public - Titulaire  |
| CN             | Centrale Nantes  | = ECN : Ecole Centrale de Nantes   |
| CNRS           | National Centre for Scientific Research  | Centre national de la recherche scientifique   |
| CNU            | National Universities Council - (French)   | Conseil National des Universités   |
| CODIR          | Management Committee   | Comité de direction  |
| COMEX          | Executive Committee  | Comité d'exécution   |
| Contract staff | staff with a contract (permanent or temporary) - not a civil servant   | Contractuel en CDI ou CDD  |
| COPIL          | Steering Committee   | Comité de pilotage   |
| COS            | Selection Committee  | Comité de sélection  |
| CPE            | Skills for business  | Compétences pour l'entreprise  |
| CPER           | State-Region Plan Contracts  | Contrat de plan État-région  |
| CRCT           | Study Leave for Research or Subject Conversions  | Congés pour Recherche ou Conversions Thématiques                                       |
| CSA/F3SCT      | Social Management Committee and Specialised Section  | Comité Social d'Administration et Formation Spécialisée                                |
| CSE            | Social and Economic Committee  | Comité social et économique  |
| CSI            | Individual PhD student follow up committee   | Comité de suivi Individuel   |
| CSR            | Restricted Scientific Council  | Conseil scientifique Restreint   |
| 3D             | Sustainable Development Department   | Direction du développement durable   |
| DA             | Deputy-director of the school  | Directrice adjointe de l'école   |
| DD             | Development Department   | Direction du Développement (industriel)  |
| DF             | Academic Affairs Department  | Direction de la formation  |
| DGS            | General Administration Department  | Direction Générale des Services  |
| DIRCOM         | Communications Department  | Direction de la communication  |
| DR             | Research Department  | Direction de la Recherche  |
| DRH            | Human Resources Departement  | Direction des Ressources Humaines  |
| DSI            | IT Systems Management Department   | Direction des systèmes information   |
| ED             | Doctoral Schools   | Ecole doctorale  |
| EPE            | Public Experimental Establishment  | Etablissement Public expérimental  |
| ERC            | European Research Council  | Conseil européen de la recherche   |
| GAGA / RGAA    | General Accessibility Guidelines for Administrations   | Référentiel Général d'Accessibilité pour les Administrations                           |
| GDPR           | General Data Protection Regulation   | Règlement général sur la protection des données  |
| GeM            | Research Institute in Civil and Mechanical Engineering   | Institut de Recherche en Génie Civil et Mécanique                                      |
| HAL            | An open archive where authors can deposit scholarly documents from all academic fields.  | Plateforme : archive ouverte pluridisciplinaire  |
| HCERES         | High Council for the Evaluation of Research and Higher Education   | Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur            |
| HDR            | Accreditation to supervise research  | Habilitation à diriger des recherches  |
| HR             | Human resources  | Ressources humaines  |
| HVSS           | Harassment and Gender-Based and Sexual Violence  | Harcèlement et Violences Sexistes et Sexuelles   |
| ICI            | High Performance Computing Institute   | Institut de Calcul Intensif  |
| INRAe          | National Research Institute for Agriculture, Food and Environment (French)   | Institut national de recherche pour l'agriculture, l'alimentation et l'environnement   |
| LDG            | General Guidelines   | Lignes directrices générales   |
| LHEEA          | Research Laboratory in Hydrodynamics, Energetics and Atmospheric Environment   | Laboratoire de recherche en Hydrodynamique, Énergétique et Environnement Atmosphérique |
| LMJL           | Jean Leray Mathematical Institute  | Laboratoire de Mathématiques Jean Leray  |
| LS2N           | Laboratory of digital sciences of Nantes   | Laboratoire des Sciences du Numérique de Nantes  |
| MCF            | Lecturer   | Maitre de conférence   |
| MOOC           | Massive Open Online Courses  | -  |
| NU             | Nantes Université  | EPE Nantes Université  |
| PA/AP          | Prevention assitant  | Assitant Prévention  |
| PDCA           | Plan Do Chack Act  |  |

| Abbreviations           | English  | French   |
|-------------------------|--|--|
| PEDR                    | Doctoral and research supervision bonus                  | Prime d'Encadrement Doctoral et de Recherche                 |
| PhD                     | doctoral student   | Doctorant  |
| PSH                     | People with disabilities                                 | Personnes en Situation de Handicap                           |
| QMS/SMQ                 | Quality System management                                | Système de management qualité                                |
| QWL                     | Quality of Working Life                                  | Qualité de vie au travail (QVT)                              |
| Research officer        | Design Engineer (contract status)                        | Ingénieur d'études (IGE)                                     |
| RIPEC                   | Research for Innovative Practices                        | régime indemnitaire des personnels enseignants et chercheurs |
| RNCP                    | French National Directory of Professional Certifications | Répertoire national des certifications professionnelles      |
| RPS                     | Psychosocial risks                                       | Risques psycho-sociaux                                       |
| SATT                    | Technology Transfer Acceleration Companies               | Sociétés d'Accélération du Transfert de Technologies         |
| School                  | used for Centrale Nantes                                 | -  |
| Senior research officer | Research Engineer  | Ingénieur de recherche (IGR)                                 |
| SST                     | First Aid at work  | Sauveteur secouriste du travail                              |
| Teacher researcher      | Faculty, Professor and lecturer (different of BIATSS)    | Enseignant-chercheur - professeur et maître de conférence    |
| UMR                     | Joint Research Units                                     | Unités Mixtes de Recherche                                   |