



Instituto de Engenharia de Sistemas e Computadores de Coimbra

Gender Equality Plan

2023-24

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1. INTRODUCTION

1.1 Policy Context

Gender equality is part of international human rights law by the Universal Declaration of Human Rights adopted by the UN General Assembly in 1948 and, more recently, was formalised as the 5th Sustainable Development Goal (SDG). At the European level, the Article 8 of the Treaty on the Functioning of the European Union commits to eliminate inequalities and to promote equality between women and men. The European Union (EU) has a well-established regulatory framework on gender equality, including binding directives, which apply widely across the labour market including the research sector. Moreover, the European Commission adopted a Gender Equality Strategy¹ which established policy objectives and key actions for the 2020-2025 period, namely specific measures for research and innovation. It reinforced this commitment by approving, in 2021, the Ljubljana Declaration on Gender Equality in Research and Innovation². The new European Research Area (ERA) Agenda for the 2022-2024 period also established gender equality and inclusiveness as a priority, having set gender equality plans as a mandatory requirement for R&D institutions participation in Horizon Europe.

At a national level, the Constitution of the Portuguese Republic preserves the principle of gender equality and the promotion of equality between women and men. Portugal ratified the convention on the elimination of all forms of discrimination against women in 1982. The law 26/2019 of March 28th established a gender balanced representation (minimum of 40% of people of each sex³) in the decision-making bodies of public administration, including public higher education institutions and public non-profit institutions, such as INESC Coimbra.

The main policy instrument for the promotion of gender equality in Portugal is the National Strategy for Equality and Non-Discrimination 2018-2030 “Portugal + Equal” (Resolution of the Council of Ministers 61/2018 of May 21st), which comprises action plans for the equality between women and men, prevention of domestic violence and against gender orientation discrimination. In this strategy, a specific objective is set for the promotion of gender equality in higher education and scientific and technological development.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0152&from=EN>

² <https://data.consilium.europa.eu/doc/document/ST-12044-2021-INIT/en/pdf>

³ Lists of candidates for elective positions should comply with the following rule of ordination: the first two candidates cannot be of the same sex and there can be no more than two candidates of the same sex in any consecutive positions. Non-elected decisional, supervisory, inspection and management bodies must also comply with the 40% rule. Non-compliance with the rule determines the nullity of the designation.

1.2 INESC Coimbra

Research in Portugal is mostly developed through R&D Units, which are the core of the Scientific and Technological System carrying out fundamental and applied research s in all scientific and technological areas as well as knowledge transfer to the economic fabric and the society. There are currently more than 300 R&D Units, which are distributed through different areas of knowledge and throughout the national territory, involving more than 22 000 researchers⁴. The R&D Units can be entities integrated in universities or polytechnics, or be partnerships between them, or have an independent statute and autonomous activity. They are public or private non-profit research institutions and can also be configured as Associate Laboratories or be part of Collaborative Laboratories. R&D Units are financed and evaluated by the Portuguese public funding agency for science and technology, FCT (Foundation for Science and Technology).

The Institute of Systems and Computer Engineering at Coimbra (INESC Coimbra, www.inescc.pt) is a private non-profit institution, declared to be of public utility, having as associates INESC (www.inesc.pt), the University of Coimbra (www.uc.pt), and the Polytechnic Institute of Leiria (www.iplleiria.pt). INESC Coimbra is a R&D Unit evaluated and funded by FCT in the framework of the Pluriannual Financing Program (base and programmatic components).

INESC Coimbra's mission is to carry out scientific research, promote technological development and the transfer of knowledge to society, aiming to contribute to a better performance of companies and institutions, adopting a systems engineering approach by combining theory and methodology, technical and human factors to address complex problems relevant to sustainable development, based on a highly interdisciplinary research team.

INESC Coimbra's research and innovation areas are decision support systems and methods, energy systems and policies, the design and management of communication networks, spatial decision support in regional and urban planning, geospatial information, planning and management of hydraulic infrastructure and water resources, computational mechanics applied to structural systems, and advanced robotics and smart factories. Research activities address emerging areas such as empowering consumers in smart energy networks, planning radiotherapy treatments for cancer treatment, integrating crowdsource information in geospatial information systems, planning networks for resilient communications services, or studying of the water-energy nexus.

In addition to multiple research and development projects within the scope of the national scientific and technological system, INESC Coimbra has extensive collaboration with companies and entities in multiple

⁴ More information can be found at <https://www.study-research.pt/en/research/ri-landscape-in-portugal/> and Heitor, M., & Horta, H. (2011). Science and Technology in Portugal: From Late Awakening to the Challenge of Knowledge-Integrated Communities. Higher Education in Portugal 1974-2009, 179–226. https://doi.org/10.1007/978-94-007-2135-7_8

sectors of activity, in addition to a vast network of international cooperation. INESC Coimbra regularly organizes international scientific events in its main areas of intervention.

INESC Coimbra management bodies comprise: 1) the General Council, in representation of the shareholders, which approves yearly budgets, strategic plans and report of activities; 2) the Statutory Audit Committee, whose role is to verify the institutional reporting and accounting; 3) the Board of Directors, to be elected among the integrated researchers, which has the executive role of leading and implementing INESC Coimbra mission; 4) the Scientific Council, which is composed by integrated researchers and has a scientific advisory role, being led by a Coordination Committee elected among its members; and 5) the External Scientific Advisory Board, composed by invited researchers.

The Board of Directors can appoint specialized committees for specific missions, such as the Gender Equality Committee devoted to implementing, monitoring, and proposing changes to the Gender Equality Plan.

1.3 Gender Equality Policy

INESC Coimbra has included the gender opportunity equality as a strategic objective of its regular scientific self-assessment, thus promoting a responsible and non-discriminatory research environment.

Following national and European policies, namely the Ljubljana Declaration on Gender Equality in Research and Innovation, INESC Coimbra commits to:

- promote researchers' awareness and training on gender equality;
- ensure fair, open, inclusive and gender equal career paths in research;
- promote gender equality in decision-making bodies;
- integrate a gender perspective in research and innovation;
- improve the work-life balance of researchers;
- prevent and counteract gender-based violence;
- develop an active and participative monitoring and evaluation of gender equality to ensure a continuous improvement in the fulfilment of all gender equality objectives.

2. METHODOLOGY AND STRUCTURE

This gender equality plan (GEP) follows the standard approach defined by the European Institute for Gender Equality⁵. Moreover:

1. National legislation and policies pertaining to gender equality and non-discrimination are reviewed.
2. Sex-disaggregated data about the different dimensions of the research activity and existing measures promoting gender equality are analysed. The timeframe of the analysis is 2021-22. Existing data and results from a survey performed to researchers in May 2021 were considered.
3. An action plan establishing objectives, targets, indicators, measures, timeline, and responsibilities is set.
4. A monitoring and evaluation plan of the GEP implementation is established.

The following recommended thematic areas are addressed: work-life balance and organisational culture; gender balance in leadership and decision-making; gender equality in recruitment and career progression; integration of the gender dimension into research; and measures against gender-based violence, including sexual harassment.

This document is structured as follows. Section 1 introduces the policy context and presents INESC Coimbra and its Gender Equality Policy. Section 2 presents the diagnosis which supports this GEP. Section 3 presents the objectives and the action plan. The monitoring, reporting and evaluation measures are described in Section 4.

⁵ (EIGE, 2022) Gender Equality in Academia and Research - GEAR tool step-by-step guide. European Institute for Gender Equality. doi:10.2839/354799.

2. DIAGNOSIS

2.1 The research team

INESC Coimbra researchers are categorised as: **integrated researchers**, i.e., faculty and post-doc researchers (contracted or with a scholarship), having INESC Coimbra as their main associated R&D Unit; **research collaborators**, i.e., faculty or post-doc researchers having INESC Coimbra as their secondary R&D Unit; and **students**. In May 2021 INESC Coimbra had 86 researchers, 73% integrated (64% faculty and 9% post-docs), 17% research collaborators (16% faculty and 1% post-doc), and 9% students (Table 1). Women are under-represented⁶ in the overall team (34%) and among integrated researchers, but there is a gender balance⁷ among research collaborators and gender parity⁸ among students.

Table 1 – Overall distribution of INESC Coimbra researchers by gender (data from May 2021)

Researcher category	Number	%	Women	Men	%W	%M
Integrated researchers	63	73%	19	44	30%	70%
Faculty	55	64%	16	39	29%	71%
Post-docs	8	9%	3	5	38%	63%
Collaborators	15	17%	6	9	40%	60%
Faculty	14	16%	5	9	36%	64%
Post-docs	1	1%	1	0	100%	0%
Students	8	9%	4	4	50%	50%
TOTAL	86	100%	29	57	34%	66%

Overall, INESC Coimbra performs better than the average in Europe where women represented, in 2018, only 32.8% of the total population of researchers, being aligned with the national value of 33.8⁹. Despite this apparent low value, it should be kept in mind the significant low proportion of Portuguese woman researchers working in the Engineering & Technology field (12.5% in 2018)⁸. The pool of INESC Coimbra students (PhD candidates) has a 50:50 balance in the number of women and men, which performs better than the European average among Doctoral graduates in Engineering & Engineering, where the proportion of women is only 27%⁸.

There are two streams with a gender balance (e.g., Communication network design and management, Decision support systems and methodologies) and a trend of over-representation of women among students of energy systems and policy (Table 2).

⁶ Under-representation and over-representation refer to where the representation of women or men is below 40% or above 60%, respectively.

⁷ Gender balance refers to a presence of women and men that ranges between 40% and 60% of the total population.

⁸ Gender parity refers to a 50:50 balance in the number or proportion of women and men.

⁹ (EC, 2021) SHE FIGURES 2021 - Gender in Research and Innovation: Statistics and Indicators. Directorate-General for Research and Innovation - European Commission. doi: 10.2777/06090

Table 2 – Integrated researchers per research stream and gender (data from May 2021)

Researchers per research stream	Number	%	Women	Men	%W	%M
Advanced robotics and smart factories	7	10%	1	6	14%	86%
Integrated	6	9%	1	5	17%	83%
Students	1	1%		1	0%	100%
Communication network design and management	5	7%	3	2	60%	40%
Computational mechanics applied to structural systems	6	9%	1	5	17%	83%
Decision support systems and methodologies	15	21%	9	6	60%	40%
Energy systems and policy	26	37%	8	18	31%	69%
Integrated	20	77%	4	16	20%	80%
Students	6	23%	4	2	67%	33%
Geospatial information	6	8%	1	5	17%	83%
Integrated	5	83%	1	4	20%	67%
Students	1	17%	0	1	0%	100%
Spatial decision support in regional and urban planning	6	9%	0	6	0%	100%
TOTAL	71	100%	23	48	32%	68%

INESC Coimbra researchers are spread among all age groups, with the highest share in the 45-54 years old segment (39%) (Table 3). Women are under-represented in all age groups above 35 years old. In contrast with most EU-27 Member States, the highest proportion of women researchers belong to the <35 age group (57%), while the highest proportion of men researchers belong to the 35-44 age group (82%).

Table 3 – Researchers per age and gender (data from May 2021)

Age groups	Number	%	Women	Men	%W	%M
<35	7	10%	4	3	57%	43%
Integrated	1	14%	0	1	0%	100%
Students	6	86%	4	2	67%	33%
35-44	17	24%	3	14	18%	82%
Integrated	15	88%	3	12	20%	80%
Students	2	12%	0	2	0%	100%
45-54	28	39%	11	17	39%	61%
>55	19	27%	5	14	26%	74%
TOTAL	71	100%	23	48	32%	68%

2.2 Recruitment and career progression

Most researchers at INESC Coimbra are experienced researchers¹⁰ (65%) (Table 4). In considered stage career categories, there is an under-representation of women, but a higher share exists among more experienced researchers. Moreover, there is a gender parity among students, which performs better than the European average of woman students in science and engineering (38%)⁸.

¹⁰ Early-stage researchers are researchers in the first four years (full-time equivalent) of their research activity, while experienced researchers are researchers having at least four years of research experience (full-time equivalent). Adapted from: (EC, 2005). The European Charter for Researchers - The Code of Conduct for the Recruitment. Directorate The human factor, mobility and Marie Curie activities. Available at https://euraxess.ec.europa.eu/sites/default/files/am509774cee_en_e4.pdf.

Table 4 – Researchers per stage career⁹ and gender (data from May 2021)

Stage career	Number	%	Women	Men	%W	%M
Early-Stage	25	35%	7	18	28%	72%
Integrated	17	68%	3	14	18%	82%
Students	8	32%	4	4	50%	50%
Experienced	46	65%	16	30	35%	65%
TOTAL	71	100%	23	48	32%	68%

At the time of this assessment, INESC Coimbra contracted human resources include contracted researchers, post-doc contracts, post-doc scholarships, and administrative staff. Although women are under-represented in the contracted staff category (44%), there is a gender parity among contracted researchers and post-doc contracts (Table 5).

Table 5 – Contracted human resources by gender (data from May 2021)¹¹

Staff	Number	%	Women	Men	%W	%M
Contracted researcher	2	22%	1	1	50%	50%
Post-doc contract	4	44%	2	2	50%	50%
Post-doc scholarship	2	22%	0	2	0%	100%
Administrative staff	1	11%	1	0	100%	0%
TOTAL	9	100%	4	5	44%	56%

Recruitment, selection, and career progression are crucial steps to ensure gender equality in scientific careers development. Around 80% of the researchers are faculty members whose career progression is established by higher education institutions each researcher is affiliated to, being therefore an external process to INESC Coimbra. Nevertheless, research conditions provided by INESC Coimbra are important to positively influence research outcomes, thus indirectly influencing the researchers' progression.

INESC Coimbra follows national laws and the FCT regulations on the publication of scientific positions opportunities, making the process transparent. While researcher contracts are regulated by the Decree-law 57/2016, scholarships are regulated by the Law 40/2004 and follow an internal regulation which is approved by FCT¹². Opportunities (scholarships and contracts) are publicised on the website¹³ and on the EURAXESS platform through a notice making the procedure and selection criteria explicit and transparent. Scholarships monthly remunerations are defined by FCT¹⁴ and contracted researchers remuneration levels are preestablished according to the working functions and made explicit in the publication notice according to remuneration levels published by the Administrative Rule 1553-C/2008, thus ensuring gender equal payment. Moreover, maternity and paternity leaves are envisaged by the national labour law (Law 7/2009).

¹¹ MSc and PhD scholarships were not included in this analysis.

¹² https://www.uc.pt/en/org/inescc/res_reports_docs/Regulamento_Bolsas_INESC_Coimbra

¹³ <https://www.uc.pt/en/org/inescc/people/ScholarshipsAds>

¹⁴ <https://www.fct.pt/apoios/bolsas/valores.phtml.en>

2.3 Leadership and decision-making

INESC Coimbra management bodies are regulated by the organisation statuses. The General Council and the Statutory Audit Committee members are appointed by INESC Coimbra associates. Both the Board of Directors and the Scientific Council President and its Coordination Committee are elected by peer researchers among the integrated researchers' pool, on a biannual general meeting. The External Scientific Advisory Board is composed by invited foreigner researchers.

INESC Coimbra has inclusive and participatory decision-making policies in place, such as inviting non-integrated researchers (e.g., students and collaborators) to participate in the scientific council general meetings and to integrate working groups to organise scientific events or to collaborate with companies/entities. Specialized committees may be appointed by the Board of Directors for a specific mission, such as the one devoted to implementing, monitoring, and proposing changes to the Gender Equality Plan.

Women have prominent roles in relevant bodies for the strategic and operational management of INESC Coimbra activities, leading the Coordination Committee of the Scientific Council (both the President and the Vice-President are women), despite they are under-represented in the management structures of INESC Coimbra (Table 6). The proportion of women in the leadership positions of INESC Coimbra (22%) is slightly lower than the European (23.6) and the national (27.2%) average values in 2019⁸.

Table 6 – Management structure by gender (data from May 2021)

Management bodies	Number	%	Women	Men	%W	%M
General Council	6	26%	0	6	0%	100%
Board of Directors	5	22%	1	4	20%	80%
Statutory Audit Committee	3	13%	1	2	33%	67%
Coordination Committee of the Scientific Council	9	39%	3	6	33%	67%
TOTAL	23	100%	5	18	22%	78%

2.4 Work-life balance and organisational culture

Work-life balance is a relevant dimension and involves ensuring that every person is properly supported to advance their career alongside personal responsibilities. Despite INESC Coimbra is only responsible for the workload of contracted researchers (and not of researchers from the academic career, i.e., faculty), it has institutional benefits in supporting all researchers since improving the organisational culture contributes to becoming an attractive R&D Unit and, therefore, to attracting and retaining the best talent.

INESC Coimbra is characterised by having a flexible working environment. Policies and measures already in place include flexible working time/hours, remote work, scheduling of meetings during family-friendly hours only, flexible holidays scheduling according to personal preferences, support from the administrative staff on



legislation concerning family policies. Measures such as sabbatical leaves are only applicable to faculty and are a responsibility of their host institutions.

INESC Coimbra also offers a friendly and non-hierarchical organisational culture facilitating the interaction between junior and more experienced researchers. Social practices are welcoming and inclusive. For example, team building events are organized for which all researchers and their families are invited to participate.

2.5 Prevention of gender-based violence

INESC Coimbra acknowledges that sexual and gender-based harassment is a relevant topic to be addressed and a code of conduct and a communication policy against sexual harassment and gender-based violence is envisaged in the 2023-24 Action Plan.

3. OBJECTIVES AND ACTION PLAN

A two-year period action plan is established to put in practice the Gender Equality Policy (Table 7). This plan establishes actions for the 2023-24 period, which are organised along the recommended dimensions, namely: work-life balance and organisational culture; gender balance in leadership and decision-making; gender integration into research; and prevention of gender-based violence. The main objectives comprise:

1. Promoting a work-life balance;
2. Improving the gender balance in leadership and decision-making;
3. Improving the gender integration in research; and
4. Preventing gender-based violence.

Ten measures are established to reach these objectives, and for each one, monitoring indicators, goals and responsibilities are defined. A shared responsibility scheme is established to implement these measures among the Board of Directors, the Scientific Council, the Gender Equality Committee, researchers, and the administrative supporting staff.

Table 7 – Objectives and Action Plan for 2023-24

DIMENSIONS	OBJECTIVES	MEASURES	INDICATORS	GOALS	RESPONSIBILITIES	CALENDAR
Work-life balance and organisational culture	Promoting a work-life balance	1. Adopting flexible working time arrangements and enabling remote working	Publicly publicizing this policy on the website	Applicable to 100% of the staff	Board of Directors	2023
		2. Organising workshops/training sessions to promote time management skills	Nº sessions/year	1 session/year	Gender Equality Committee	2023-24
		3. Organising team-building events	Nº events/year	1 event/year	Gender Equality Committee	2023-24
Gender balance in leadership and decision-making	Improving the gender balance in leadership and decision-making	4. Increasing the proportion of women in management bodies	Nº Women / Total members in management bodies	40%	Board of Directors	2023-24
		5. Providing the leadership and researchers with gender equality training and capacity-building sessions	Nº leaders and researchers in training sessions/year	5 persons in training/year	Gender Equality Committee	2023-24
		6. Adopting open and publicly advertised recruitment and selection procedures	Open and publicly advertised / Total recruitment procedures per year	100% recruitment opportunities open and publicly advertised	Researchers + Administrative staff	2023-24
		7. Implementing a survey on researchers' awareness and perceptions on gender	Nº of surveys	1 survey during 2023/24	Gender Equality Committee	2023-24
Gender integration in research	Improving the gender integration in research	8. Integrating gender dimension into the monitoring/assessment of research (institutional self-evaluation)	Nº KPIs with a gender dimension in the self-assessment process	3	Board of Directors + Coordination Committee of the Scientific Council	2023-24
		9. Including gender dimension as a positive evaluating criterion of internal projects	Nº internal projects appropriately considering gender issues / Total internal projects submitted per year	100%	Board of Directors + Gender Equality Committee	2023-24
Gender-based violence prevention	Preventing gender-based violence	10. Implementing a code of conduct and a communication policy against sexual harassment and gender-based violence	Publicly publicizing this policy on the website	Publication 6 months after GEP adoption	Board of Directors + Gender Equality Committee	2023

4. MONITORING, REPORTING AND EVALUATION

The GEP monitoring and evaluation is performed by the Gender Equality Committee as follows:

1. Quantitative gender sensitive indicators are collected every year during the scientific self-assessment process and a survey is launched each GEP cycle to assess qualitative indicators on gender awareness and perceptions;
2. Using the former indicators, an annual assessment is performed and a gender-based assessment is integrated in the scientific self-assessment report;
3. Every two years, the GEP is evaluated and revised, and updated/new objectives and measures are proposed, in a continuous improvement process.

Regular monitoring and evaluation reports are disseminated among relevant stakeholders and made publicly available on the website.