Beyond Compliance: systematisation of EDI practices as a strategy for cultural change

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Abstract

Gender inequality and limited institutional maturity in Equality, Diversity and Inclusion (EDI) remain persistent challenges within European STEM research environments, particularly in Mediterranean contexts. This article presents preliminary results from the EU-funded Horizon Europe project STEP (STEM and Equality, Diversity and Inclusion for Research Enhancement in Portugal), which adopted an interdisciplinary and intersectional approach to systematically embed EDI within research and teaching practices. The study aims to explore how EDI can function not merely as a compliance requirement, but as a strategic driver of cultural and institutional change.

Methodologically, the article draws on qualitative data from semi-structured interviews with key institutional actors involved in the project's coordination, analysed through the combined lenses of neo-institutionalism and Actor-Network Theory. This framework allows examination of both macro-level institutional pressures and micro-level socio-technical dynamics shaping organisational change.

Findings indicate that STEP contributed to increased institutional awareness, greater confidence among underrepresented groups, and the systematisation of EDI practices across governance, research management, and academic life. The project fostered interdisciplinary dialogue between STEM and the Social Sciences and Humanities, supported the mainstreaming of EDI, and facilitated the transition from symbolic adoption to more embedded practices.

The article concludes that even short-term, small-scale European projects can catalyse sustainable cultural and institutional transformation when EDI is treated as an integral component of research governance rather than an administrative obligation.

Keywords: EDI, European Projects, inclusion, diversity, gender equality

1. Introduction

Gender imbalance remains a significant challenge within European STEM (Science, Technology, Engineering, and Mathematics) research environments (European Commission, 2025; EIGE, 2022). This challenge is particularly pronounced in Mediterranean contexts due to persistent structural and institutional barriers that shape career trajectories (Morley, 2014; Campanini, De Simone & Reale, 2024). To address this, the EU-funded STEP project (2023–2025), short for STEM and Equality, Diversity and Inclusion for Research Enhancement in Portugal, was launched. Coordinated by the Instituto Politécnico de Bragança (Portugal), the STEP initiative aimed to systematically integrate Equality, Diversity, and Inclusion (EDI) across research and teaching activities to generate fundamental cultural and institutional change within partner organisations, especially those focused on STEM disciplines (Pavon et al., 2024). The project's dual objective was highly innovative. Scientifically, STEP established EDI mainstreaming as a fundamental pillar, moving beyond the singular gender dimension

to adopt a holistic 'gender+' approach (Debusscher & Manners, 2020) that encompasses all EDI themes. Methodologically, the project treated EDI as a scientific discipline, facilitating effective interdisciplinary dialogue with core STEM subjects. This approach successfully integrated Social Sciences and Humanities (SSH) perspectives into STEM activities, a collaboration often hindered by traditional disciplinary boundaries (Snow, 1969; Reggiani et al., 2024), resulting in the most significant project outcomes.

The transformational trajectory of the project is best analysed through the lens of organisational and institutional sociology. Specifically, neo-institutionalism (Meyer & Rowan, 1977; DiMaggio & Powell, 1983) provides a framework for understanding how external forces – such as normative standards, environmental pressures, and isomorphic mechanisms – shape the evolution of organisational policies. Concurrently, Actor-Network Theory (Latour, 2005) offers a micro-level perspective, highlighting the critical role of the socio-technical network – comprising human agents, technologies, and non-human artefacts – in successfully disseminating EDI practices. Together, these theories clarify how the change driven by STEP is situated at the intersection of institutional imperatives, external pressures, and internally generated local innovations.

This article presents some preliminary results of a qualitative study based on interviews conducted within the project, focusing on qualitative work with two researchers from the project's coordinating entity who recount how STEP's actions have had a significant impact over time, sparked discussions, or presented significant challenges. As the project nears its conclusion, it is an opportune moment to assess the impacts and results achieved and anticipated, both in terms of institutional change and the accompanying cultural transformation. Even at an individual level, the testimonies collected show how STEP has helped to raise awareness, visibility, and empowerment opportunities for the female researchers and scientific communities involved, laying the foundations for lasting change.

This article highlights that achieving EDI requires systemic transformation and commitment beyond simple compliance. A follow-up study will briefly examine the mechanisms and barriers to institutional change in the Mediterranean context.

2. EDI as a driver for change

EDI is becoming increasingly important in academia and research, where there is a growing belief that universities and research institutions should be more inclusive communities in which individuals can see their identities recognised, respected and celebrated, and contribute to the transformation of society and the growth of knowledge based on diversity. To this end, it is increasingly clear that, beyond being a formal obligation when declaring the possession of a Gender Equality Plan (GEP), EDI must permeate academic and research institutions broadly, changing institutional and organisational culture and playing a fundamental role on a par with research, teaching, education, dissemination and public engagement. While the importance of these aspects is increasingly recognised, the greatest challenge is the concrete application of this

transformative paradigm. These institutions are aware that they are not as inclusive or accessible as they could or should be (Brown & Leigh, 2020; Buitendijk et al., 2019; Claeys-Kulik & Jørgensen, 2018).

The challenge has been fully embraced by the European Union, which has positioned itself as a key driver and accelerator of this change, undertaking strategies and actions over the years to encourage the adoption of an inclusive and intersectional perspective and practices that facilitate the achievement of gender equality and the protection of diversity in research organisations (Debusscher & Maes, 2021). This approach is also evident in the clearly programmatic documents adopted by the EU on these issues, which always devote particular attention to the research sector (European Commission, 2020a-e; European Institute for Gender Equality, 2022). It should be emphasised that the challenge is ongoing, with initial results to be seen in the coming years, which will show how the application of the GEP obligation has changed or at least influenced institutional change, or simply has not changed the status quo (Brescianini et al., 2024; Bencivenga et al., 2021).

European research and cooperation projects are a driving force for social, scientific, cultural and economic growth in the European Union. At the same time, they can be a concrete tool for inclusion, thanks to specific programmatic actions that aim to overcome cultural gaps and biases in our societies, particularly regarding gender and EDI (Leone, 2022). The public-private, international and cross-sector dialogue that develops in research projects contributes significantly to encouraging universities to come down from their ivory towers and engage with the surrounding world, finally addressing issues that have been left untouched, such as EDI (Pavon et al., 2024). Furthermore, European projects can be a powerful driver for change, facilitating cultural transformation in the communities and societies in which they are implemented, but only if they manage to forge strong links with citizens, non-experts, and those who are not already informed or active in the field, through, for example, co-creation, co-design approaches and the use of participatory methods (Cornish et al., 2023; Zamenopoulos & Alexiou, 2018).

3. Systematic transformation beyond simple compliance

In this brief contribution, I focus on the specific analysis of certain EDI aspects discussed during the semi-structured interviews with the two researchers in September 2025. I analyse key points and specific research questions concerning EDI policy implementation, institutional change, and challenges in the case study institution, which is the coordinating organisation of the STEP project. While the formal adoption of EDI frameworks such as the GEP represents an important step forward, their presence alone does not necessarily lead to meaningful organisational change. This raises the question of institutional maturity: the extent to which EDI principles are not merely complied with, but genuinely embedded in the everyday practices, values, and decision-making

processes of research institutions. This was the reflection undertaken within the coordinating institution of the STEP project. Rather than treating EDI as an administrative obligation tied to project eligibility, STEP helped the coordinator become a mature institution by progressively reframing EDI as a strategic lever for organisational learning, innovation, and social responsibility. Understanding this transition was essential to assessing whether EDI policies function as symbolic instruments or as drivers of structural transformation within the Portuguese academic and research environment.

A central obstacle to this transition lay in the systemic and disciplinary configurations that characterise STEM education and research (Brown, 2012). Persistent disciplinary silos (McGraw & Biesecker, 2014), coupled with evaluation systems that prioritise narrow productivity metrics, often constrain the implementation of inclusive practices (Hermansson et al., 2021). Funding mechanisms, hiring procedures, and career progression criteria may inadvertently reinforce existing inequalities by rewarding linear and uninterrupted academic trajectories, thereby disadvantaging underrepresented groups (Kairuz et al., 2016; König & Mohammadi, 2024). The STEP project provided an important opportunity to address these challenges through a systemic perspective that goes beyond disaggregated numbers, identifies biases and gaps at the local level (i.e. at the whole institution, research centre, or individual research group level), and recognises the EDI approach not as an isolated policy domain, but as an integral component of research governance and knowledge production (Nielsen, 2016 and 2018; Otero-Hermida & García-Melón, 2018). Interdisciplinary approaches play a crucial role in this regard, as they enable the integration of social, organisational, and cultural insights into technical and scientific environments that have traditionally resisted reflexive change (Geesa et al., 2021).

Leadership and governance emerged as decisive factors in determining whether EDI initiatives lead to sustainable transformation or remain confined to short-term project cycles. Visible and committed leadership signals institutional accountability and legitimises EDI as a shared organisational priority. Beyond rhetorical commitment, effective governance requires concrete policy interventions, such as the revision of recruitment and evaluation criteria, the allocation of dedicated resources, and the establishment of durable monitoring mechanisms that ensure continuity beyond individual projects. Initiatives such as the STEP project illustrate how governance structures can either enable or constrain the long-term institutionalisation of EDI practices. Ultimately, the sustainability of STEP results will depend on their integration into governance frameworks that align strategic objectives, operational practices, and cultural change.

4. Results from the interviews

The following is a summary of answers and relevant points from the two interviews with the Portuguese researchers (referred to as Interviewee 1 and Interviewee 2)

involved in the STEP project. The responses are organised according to the two specific research topics identified for this publication: 1) EDI policy implementation and institutional change; 2) Intersectionality and multiple axes of inequality.

Topic 1: EDI Policy Implementation and Institutional Change

This section addresses questions about how the STEP project influenced the institutional approach, introduced new practices, and overcame implementation challenges at the Instituto Politécnico de Bragança (IPB).

Research Question (RQ) 1: How do institutions in (Portugal) transition from *mandated* EDI policy adoption to genuine *organisational change* and cultural integration?

Interviewee	Key Points on Transition and Cultural Change
1	Mainstreaming EDI: STEP's activities helped "mainstream" EDI concerns across the research, teaching, and staff communities. This was achieved through a systematic, well-communicated agenda of talks, workshops, and visibility actions. The project helped IPB treat gender/EDI as indispensable requirements in proposals, training, mobility, and events, affecting the attitude of a significant part of the community.
2	Increased awareness and confidence: Observed a change where both women and even small research groups became more confident. A key cultural change was demonstrated when colleagues, aware that not everyone has the same life (e.g., mothers), began to feel proud to display a research center poster about tolerance and zero-tolerance for racism. This awareness is also noted by external visitors.

RQ2: What specific policy changes are required at the governance level to ensure the sustainability of EDI initiatives?

Interviewee	Key Points on Institutional/Governance Changes and Sustainability
1	Structured practices: New practices were introduced and made routine: structured internal meeting rhythms, research-management reinforcement (extra staff), and systematic communication (newsletters, social media).
	Sustainability through systematisation: The expectation for ensuring continuity when leadership changes is that the systematisation of procedures (registered and transferable) will reduce dependency on specific individuals.

Interviewee	Key Points on Institutional/Governance Changes and Sustainability
2	External impact and replication: The project's influence has extended beyond IPB, with the team supporting other universities in using the best practices identified by STEP. This suggests a model for institutionalizing change by making the policies transferable.

RQ3: What challenges did you face in implementing these measures and how were they overcome?

Interviewee	Implementation Challenges and Solutions
1	Challenges: The main challenges were a lack of EDI literacy and competing institutional priorities.
	Solutions: These were addressed with trainings fit for all types of publics, great communication, and leveraging external mentoring networks.

Topic 2: Intersectionality and multiple axes of inequality

This section addresses questions about how the project considered diverse identities beyond gender and the differences observed among various groups.

RQ1: How must the design of EDI projects be adjusted to address multiple axes of marginalization?

Interviewee	Key Points on Addressing Intersectionality and Diverse Identities
1	EEDI and mixed delivery: STEP used an EDI framing and employed mixed forms of delivery (online/onsite, and separate "tracks" for students, faculty, and researchers, and others) to provide access for those facing time, mobility, or language constraints.
	Avoiding "One-Size-Fits-All": The most effective practice to avoid a "one-size-fits-all" approach was offering parallel tracks (students/staff; soft-skills/research skills) and providing personalized mentoring.
2	Identifying and supporting groups: the project's approach to taking diverse identities into account involved identifying different groups within the research center and defining specific strategies to support them.

Interviewee	Key Points on Addressing Intersectionality and Diverse Identities
	Acknowledging life differences: colleagues became aware that "not every people are the same, not the same life (i.e. mothers, youngsters, minority gorups and others)." This awareness led to visible actions like displaying a poster on tolerance and zero-racism.

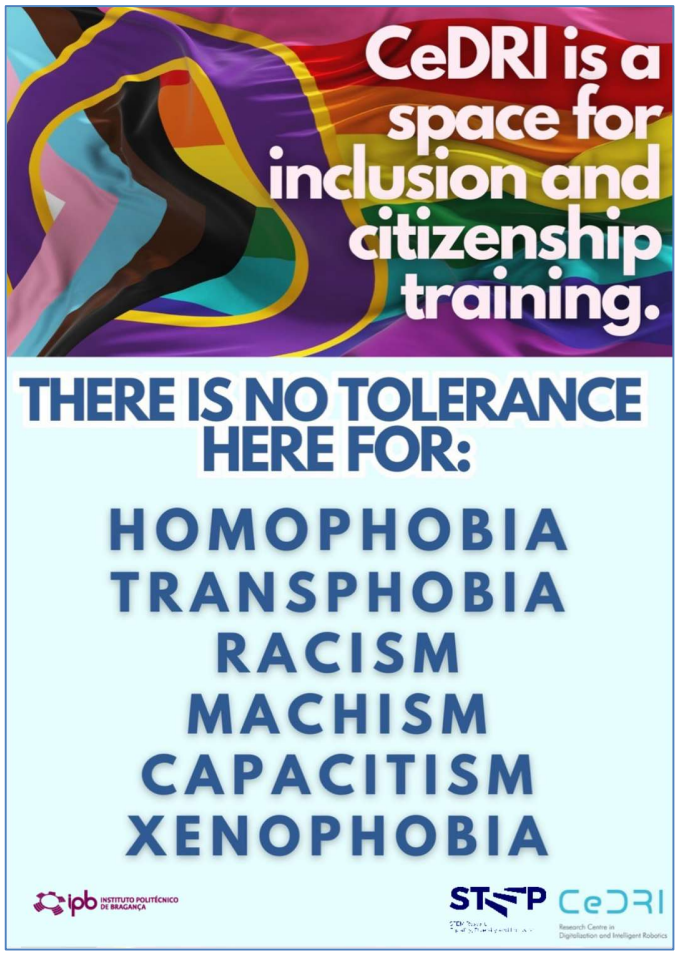

Figure 1 – The poster developed by the STEP project and displayed in laboratories and common spaces

RQ2: Have you observed differences in the project's effects across different groups of women (e.g., early-career, vulnerable groups, others)?

Interviewee	Key Points on Differential Effects of the Project
1	Early-career benefit: observed that early-career women benefited most from the project's initiatives.
2	Vulnerable or minority group benefit: noted that around one third of respondents to an internal survey developed by the STEP project identified as being part of small research groups with more difficulties, indicating that the project focused on groups that felt more vulnerable or isolated.
	General confidence: observed that women, in general, became more confident and felt less isolated and being part of a larger community.

5. Conclusions

As briefly outlined above, the true measure of STEP's success lies not in its duration, but in its remarkable capacity to catalyse sustainable, structural change by engaging with the institution and its senior representatives (Binns, 2023). Through targeted actions, the project successfully institutionalised its principles: it established a permanent, comprehensive EDI Commission at the institutional level – previously created only for the gender dimension – and, perhaps most notably, its efforts were officially validated by the national excellence criteria when one of the institution's research centres referred multiple times to the STEP project in its final positive evaluation report. This transformation has positioned the project as a national model for how targeted EU funding can permanently embed EDI, even within STEM domains, making its principles indispensable to the definition of research excellence in Portugal.

Although one could argue that the sample size is limited, as it consists of only two interviews, their scope is representative for several reasons. Firstly, the interviewees are project coordinators, heads of centres or large research groups, and researchers with extensive experience, even though they are still in their adult years.

Secondly, the coordination of the project – although limited in time and scope – represented a unique opportunity to introduce lasting changes that would have required more time and resources in other organisations.

Thirdly, the narrative presented here gains greater value when we consider that it concerns a single project and a single institution. Nevertheless, the institutional reforms introduced by the STEP project have been emulated by various research institutions in Portugal, and the two researchers interviewed have been invited to many national forums to explain, step by step, the actions taken, their impact, and how they were implemented.

Finally, the reasons supporting the scope of what has been described so far also include the fact that more than 2,500 people participated in STEP activities at the coordinating

institution. These were not mere contacts or interactions, but genuine interest and participation, as demonstrated by the widespread dissemination of the initiatives and participation in the two STEP summer schools, as well as multiple research visits and exchanges with foreign partner institutions involved in the project.

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