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Experiences of gender and diversity in research teams working on transport related projects funded
by EU

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Abstract

This study explores the experience of gender and diversity in research teams in transport and smart mobility related projects funded by the European Commission under Horizon 2020. An analysis of interviews with 14 Principal Investigators revealed that despite the growing awareness about gender and diversity inequalities in academia, bias against underrepresented groups exists. However, variation of experiences calls for intersectional lenses when assessing the problem. Findings reveal the need for changes in EU projects application process, implementation, delivery, and impact evaluation to address gender and diversity gaps.

Introduction

Several studies have revealed gender and diversity disparities in academic careers (Huang *et al.*, 2020). Consequently, female researchers have smaller research footprints and are not as well represented as men among grant awardees and project leadership teams (Elsevier, 2020). Lack of gender balance, especially in leadership positions has been attributed to a variety of factors: bias in hiring, bias in promotion, gender differences in research collaboration (Van den Besselaar & Sandström, 2017), and educational barriers in STEM (science, technology, engineering and mathematics) fields (Charlesworth & Banaji, 2019). Despite the growing awareness about gender and diversity inequalities in academia, bias against underrepresented groups exists (Llorens, Anaïs *et al.*, 2021). Bias is understood here as: an inclination or prejudice for or against one person or group, especially in a way considered to be unfair. This is especially relevant for transport and smart mobility related research, which are embedded in traditionally male-dominated STEM subjects such as engineering, manufacturing and planning. As a result, smart mobility research teams do not represent the communities they cater for, which could impede delivery of equitable transport.

Thus, providing in-depth insight into dynamics of participation of those of different genders in smart mobility research projects is a significant step towards better understanding barriers and challenges on the journey to a more inclusive research ecosystem, which can deliver solutions and services that will address acute gendered problems of climate change, urbanisation, and sustainability in the context of growing social inequalities.

Methodology

This study explored experiences related to gender and diversity in research teams in transport and smart mobility related projects funded by the European Commission under Horizon 2020 Research and Innovation Framework Programme. Its aims were three-fold. Firstly, to identify experiences, attitudes and beliefs related to gender and diversity in the research work and outputs. Secondly, to understand barriers to gender and diversity mainstreaming. Thirdly, to identify needs for policies and support for research staff.

In total, 14 Principal Investigators were interviewed (3 males, 11 females). All interviews were carried out over zoom online, due to the global Covid19 pandemic. Thematic analysis informed data analysis.

Beyond gender

The analysis revealed that despite the growing awareness about gender and diversity inequalities in academia, bias against underrepresented groups exists in research teams and it extends to EU funded research projects. Data revealed that experiences of gender and diversity in research teams were determined by one's social identities. Factors such as gender, age, nationality, professional status, ethnicity, disability and many more were affecting relationships within the consortium and the perceived sense of belonging. However, variation of experiences called for intersectional lenses when assessing the problem. There are different factors contributing to bias. Apart from female gender being frequently quoted as the implicit reason for biased treatment, age and nationality were also prevalent factors perpetuating prejudice:

For example, given this context now, due to my age [young], I was advised not to lead the proposal writing, not to lead the consortium. In general, there are some comments due to my age. [P6]

It was a challenging role, especially because I was a woman and coming from Eastern Europe, but it turned out well. It was a tough time; I have to say it wasn't easy. [P4]

Overall, experiences of participation in the research projects were determined by overlapping social identities, which often exacerbated existing power relations; e.g. female gender and young age, or female gender and Eastern European background.

“... in the end it's up to the people working on the proposal”

Interviews evidenced that very little attention is paid to gender and diversity aspects in project implementation and delivery. Hence, it depends on the research team members involved to what extent they decide to work on gendered issues. Based on data from the interviews, it seems that gender and diversity aspects are not popular topics and are incorporated at the minimum level only due to requirement from the EU:

There's this paragraph that you always have to include in the proposals about gender diversity and gender equity, and it's not a big paragraph, it's very standard, so you normally copy it from somewhere else. But in the end it's up to the people working on the proposal to actually think of specific things that could impact the equity and the inclusiveness, so of the project activities and also of what you are preaching, because you're teaching cities how to do stuff about planning, about mobility planning, and you should tell them to do it differently. [P4]

There was a general recognition of the role played by personal interests of the people involved in proposal development. Overall, it seemed that final proposals were heavily influenced by the interests and expertise of potential partners. Consequently, majority of interviewed Principal Investigator did not have gender and diversity equality agenda included in the proposal unless the project was concerned explicitly with gendered mobility or vulnerable transport users.

`I don't know if that's followed up and how it's assessed`

For many participants it remained unclear how gender and diversity dimensions in EU funded projects are assessed, how the diversity of their consortium is measured, and how does it relate to outcomes, outputs, impact, or equality goals. Moreover, many participants concluded there was no impact assessment specifically addressing gender and diversity issues in the project evaluation phase:

I don't think that it's much reflected in the measurement. It's difficult to say because there are so many different levels you can evaluate or you can measure, but, for example, gender competes with other issues, other social. [P1]

Nobody measures how the gender balancing of consortium actually impacts the results of the project, and the output of the project. [...] There's no measurement, everything you measure in terms of impact, you just measure the impact, nobody is actually considering... maybe if they relate and say, 'Yeah, but we have a gender balanced consortium, and these are the results,' so you can relate them. But nothing is really connecting back to how the consortium was being developed, and what the consortium looked like during the implementation phase. So no. [P4]

I'm not aware that you monitor the quality or the content of the research addressing the sustainable goals and any equality. [...] nowadays you have this box about gender and so on and how it's addressed but I don't know that's followed up and how it's assessed. There

Gender and diversity data on research projects (objectives, teams make up, research footprints, impact) can drive actions on closing gender and diversity gap in international research community and inform policy at both EU and organisational level. Below Figure 1. Illustrates interlocking recommendations, which emerged from the findings, and represents interconnected actions, which can further work on gender and diversity in research projects funded by EU.

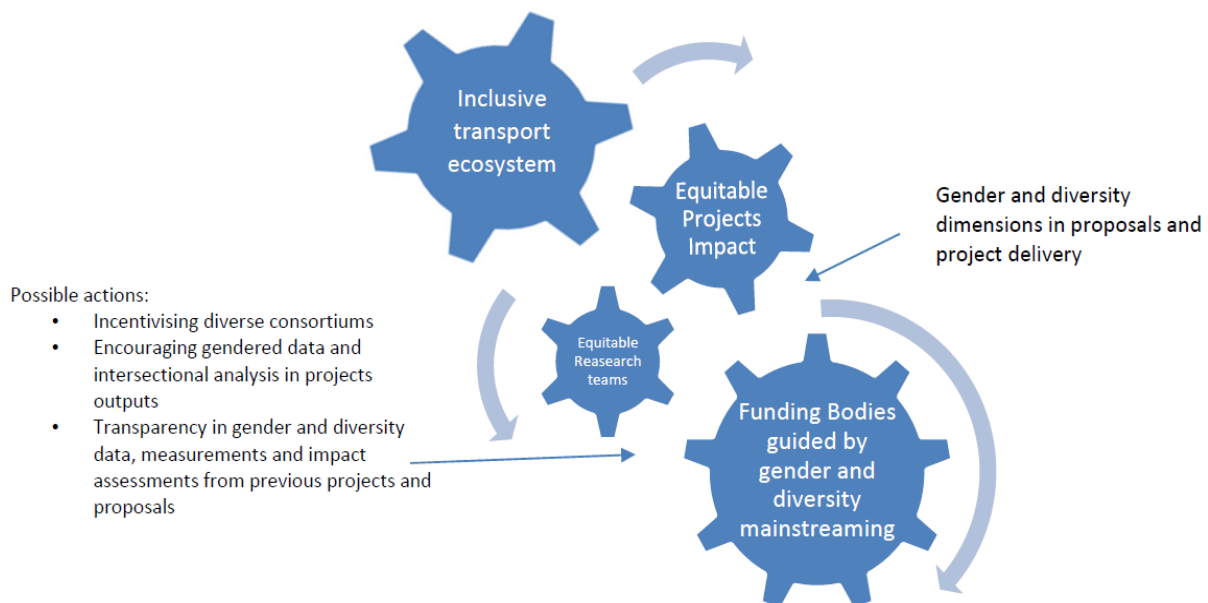


Figure 1. Gear of change. Recommendations for funding bodies

Each element is driven by tools and methods derived from gender and diversity mainstreaming. Thus, gender and diversity mainstreaming sits in the principal position and guides all actions, which are encouraged by main actor – funding body. Gender and diversity mainstreaming is a strategy to improve the quality of public services like transport, programmes and projects, ensuring a more efficient allocation of resources (Christensen et al., 2007). Better results mean increased well-being for both women and men, and the creation of a more socially just and sustainable society (Levin & Faith-Ell, 2019). The change does not happen in one direction, it is more of a mutual relationship between actions working both ways. Each consecutive action will have indirect implications on the transport system and finally on the society as a whole, which is the last gear in this mechanism leading to holistic change.

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Gender and equality aspects through the process of education and its impact on transport sector in
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