



Inclusive Research and Innovation ecosystems in Europe: what works, and how do we convince our stakeholders?

INTRODUCTION

Europe's shared vision is for real inclusiveness that optimises the synergies between research, business, policy and civil society, bringing benefits to our economy, the environment and wider society. Equality between men and women is one of Europe's fundamental values, and yet the latest data show that gender inequalities still persist across our research and innovation systems (R&I), hindering Europe's prosperity.

[CALIPER's](#) unique approach to this challenge is to engage with stakeholders involved across the whole research and innovation value chain. Our stakeholders come from the research sector, industry, government, other public bodies and civic society. Through CALIPER, research organisations and funders in 9 European countries have designed and implemented gender equality plans, opening themselves up to greater diversity and tackling other inequalities. They are also engaging with stakeholders, from the planning phase through to implementation.

What works in achieving an inclusive and interconnected R&I ecosystem? What are the barriers and how do we overcome them?

You can watch a [recording](#) of the webinar on our YouTube channel.

Key themes

Creating a policy framework. Gender equality and inclusivity continue to be a priority for the [European Research Area \(ERA\)](#). The [Ljubljana Declaration](#) put a robust policy framework in place. The support of EU Member States continues to be strong, with a new subgroup under the ERA Forum to be created. The Czech Presidency of the Council finished its term with a call to action to end gender-based violence in academia, with the outcome of a [Presidency conference](#) organised in November 2022 intended to provide a strong base for activities to combat gender-based violence in academia and research.

Women in STEM (Science, Technology, Engineering and Maths). There is a lack of representation of women in STEM studies, STEM-oriented start-ups and enterprises. Universities are often challenged to find female students to enrol on STEM courses, and this difficulty is shared by high schools. Stakeholders face common challenges. For example, universities want to integrate a gender dimension into scientific methods and research content, and industry wants to design products that meet the needs of the whole population and are fully inclusive. Expanding the definition of innovation ecosystems to include women, NGOs, social innovation actors and national-level entities, and integrating a gender-plus dimension into this vision, would allow universities and research funding bodies to identify possible joint actions and motivate university leaders and managers.

Stakeholder engagement. It remains hugely important to involve multiple stakeholders in the gender equality process. We often focus on top-level management support, and it can be difficult to reach out more widely and raise awareness among researchers, academics, administrators and perhaps also students. It is key we build alliances with men, and integrate them into change processes and projects from the start. Focus groups comprised of solely male managers have proven effective, ensuring their active support.

EXAMPLE 1: FACULTY OF ELECTRICAL ENGINEERING AND COMPUTING, UNIVERSITY OF ZAGREB

“ The CALIPER project was key in guiding us. The advice, guidance and strategic leadership we received was crucial to implementing our gender equality plan; not just in a strategic way, but also on an operational level. Analysing our situation as a faculty was key in starting our plan; reaching out to stakeholders in industry, university, schools and the Ministry. It's incredibly important that when you invite a stakeholder into a dialogue, you listen to their ideas and work jointly towards creating more gender-equal universities. Working with other STEM faculties is key to understanding how to give our STEM courses a gender dimension. Often, professors don't have knowledge or training in this area; they may lack awareness of how to implement a gender dimension.

To recruit more women onto STEM courses, we work with industry to organise events for schools, we want to attract more girls to study at the faculty of the Electrical Engineering and Computing. Currently, a quarter of our students are female and 15% of our professors are female and so a collaborative approach is key. Horizon Europe funding is essential to the continuation of these projects. Guidance on how to direct operational funding and human resources so that the strategy does not become an empty promise is key; strategy is essential but so is its implementation.”

EXAMPLE 2: MUNICIPALITY OF UMEÅ

“ The city of Umeå has worked with gender equality for a long time, and has experience of how to work with gender equality policies, making them operational within different city departments. For the last 3 years, we have been the lead partner in a European action planning network called [Gendered Landscape](#), where we have worked with 5 other European cities. We need to understand gender inequality as a global issue, how it affects women and men, but also contextualise it within the parameters of local city and national legislation. Understanding the local area is key in terms of population size, travel needs, the economy, higher education, and looking at how the gender labour market is segregated.

In relation to STEM and education, in upper secondary school we create dialogue and opportunities to get girls applying for STEM-focused programmes. Exposure to industry via contacts and internships is invaluable for young girls. In terms of local administration, the best way forward is to ensure that the structure

that surrounds education is inclusive; girls sometimes feel singled out and want to be treated in the same way as their male peers.

This experience is mirrored in other city departments that are gender segregated, with a minority of women, for example within the fire department. In the Gender Landscape project, we worked with smart cities to highlight how a local authority can incorporate an understanding of gender power structures when new and innovative solutions to urban challenges are presented. For example, what does it mean for women if we have autonomous vehicles? Whose body triggers smart streetlights? Who is inputting data into open data systems? What kind of bias are we building into innovative digital technical solutions? In Umeå, we work with gender equality and citizen participation. Making sure that your idea isn't dismissed based on who walks into the room – that's the real innovation.”

Q&A between panel and audience

What is the biggest challenge to achieving a joined-up approach between universities and other stakeholders?

Understand the goal of your organisation. For example, in local administration it means the goals set by local politicians. If you are a university researcher, your goal may be more focused on personal career goals such as publishing research. It's really key to understand the different goals and logic of each organisation.

It's key to align interests, both at individual and organisational levels. Share a common agenda and an understanding of gender equality as a transformative type of goal. Alliances are key; share common goals and use common indicators to map and track the changes that you that you are pursuing.

One danger we're seeing is the insistence on academic autonomy, which is often used as a way to sidestep responsibilities. It's important to bring research institutions together with national authorities and have discussions about this. In the countries where we have a more robust policy framework, we see that actions are moving forward more rapidly.

You can have committed leadership, but still struggle to reach the right people to start the change process. This is why external and internal stakeholder engagement is so crucial.

What do you think are the biggest challenges faced by female STEM researchers and how would you address them?

The period in a woman's career when trying to start a family can be very sensitive. It's usually at the beginning of your career when there is significant pressure to prove yourself and get as many projects as possible, to publish as many papers as possible, but at the same time this is often when women want to start a family.

There is a clear difference between male and female researchers, in the sense that women stay longer in early-stage careers. Often this is due to maternity leave, which means women climb the career ladder more slowly. This isn't reflected with male colleagues with children.

Even for women who are not at that point in life, there remains a stereotype not to expect too much because sooner or later you will focus on having a family, or caring for elderly or sick family members, and not on your career. And then we see bias emerging, and institutions investing more into male colleagues whom 'you can count on'. It all comes back to bias and the need for cultural change.

The situation with ageing parents tends to impact more on female researchers compared to men – is this taken into account in gender equality plans and programmes?

So far as we have seen, carer responsibility for ageing parents is yet to be included in gender equality plans, along with concrete actions. The focus of gender equality plans is frequently on early-career stages. Evidence shows that institutional leadership (which is usually predominantly male) has to recognise the need to create conditions for female researchers to start families and continue their careers. This is compounded by gender bias, which prevents women from progressing to higher career stages.

Are there also projects and funds aiming at attracting men into the humanities and culture, social services and caring careers?

Germany is doing this on a national level. Where we have career days aimed at exposing girls to traditionally male areas such as STEM, there is also the same for young boys and exposing them to opportunities in traditionally female careers.

Sweden is a country with a very gender-segregated labour market, and as a result there are both national and local initiatives working to address this and break down barriers. We should remember that traditional male occupations tend to pay much more than traditional female occupations.

Do you have specific ideas on how you get lecturers in maths and electrical engineering to consider gender as something they need to think about when teaching?

Developing clear guidelines for getting gender equality and the gender dimension into curricula is key. Engaging in active discussions with male professors, such as at workshops, has been a valuable opportunity for reflecting on course material and integrating changes.

Conducting research with both men and women should be obligatory when developing products or gadgets that have real-world use.

What should an inclusive research and innovation landscape look like in 5 to 10 years?

It's important that we keep the issue of inclusive research and innovation on the agenda as a priority, so that institutions that are in less favourable environments can draw on the support from the countries where the issue has priority.

We're seeing changes among the younger generation. There's more awareness and more openness around this issue, particularly around issues of LGBT+ and greater recognition of gender violence and sexual harassment.

Slow change in the top echelons means the battle needs to continue. We are facing a backlash at several levels; there is gender fatigue and resistance to gender equality. An intersectional approach needs to be fostered, as a way to battle against widespread anti-gender discourses in politics.

We need to overcome the tendency to isolate and seclude gender equality policies and instead connect them more strongly with the other big issues that our societies are facing, such as climate change and war.

At an institutional level, we need to evaluate decisions being made and how they affect researchers and other employees – men, women and minorities of any kind. Equal opportunities mean bringing the gender dimension into all processes and thinking about whether changes are adding rights or taking them away. It means stepping away from a small committee of men making decisions and making sure that other people are represented. If you feel safe to do so within your country and institution, you need to use your voice and pinpoint key words such as 'power' and speak up on what needs to be changed.

It's a pendulum; we go back and forth when it comes to gender inequality, but we've seen the best action is to just start moving forward. Collaboration is key when it comes to building momentum. Sharing ideas and knowledge, creating a network, supporting each other; this is how we move forward.

PANELLISTS



- Marcela Linkova, Head of the Centre for Gender and Science at the Institute of Sociology of the Czech Academy of Science
- Maria Sangiuliano, Research Director and Program Manager, Smart Venice/ CALIPER Project Scientific Gender Equality Plans Manager
- Professor Anamari Nakić, Associate Professor, CALIPER Project Principal Researcher at the Faculty of Electrical Engineering and Computing, University of Zagreb
- Linda Gustafsson, Gender Equality Officer at the Municipality of Umeå, Sweden

Chaired by Moniek Tromp, Chair of the Young Academy of Europe (YAE), the webinar was co-organised between the AE Cardiff Hub, CALIPER and the Young Academy of Europe



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