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Intelligent Transport Systems hold the potential to address barriers to women's mobility through gendered, culturally sensitive, smart mobility innovations



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Could you briefly tell us something about your background, and your area of expertise in the field of transport with gender and diversity? What field are you currently working in?

Although I have not been directly involved in initiatives related to gender and diversity in the field of transport, I have been following the debate closely and it is clear that the transport industry is still suffering from a lack of gender diversity. Intelligent Transport Systems hold the potential to address barriers to women's mobility through gendered, culturally sensitive, smart mobility innovations and, in this sense, ITS Hellas (the Greek Organisation for Intelligent Transport Systems) constantly seeks to raise awareness on gender equality issues among its members as well as wider issues related to transport inclusivity in general. It aims to ensure that all the actors in the transport system work as an ecosystem to support all needs and promote not only women but also groups of people with different needs.

In addition, at ICCS/NTUA we are participating in the "Innovation Centre for Women - #GIL4W", an initiative recently set up by the Greek Ministry of Labour and Social Affairs which focuses on cooperation between governmental and social actors and asks them to ensure that the adoption of technology and innovation will not increase social and economic inequality.

In your area of expertise, what have been the greatest breakthroughs with regard to increasing gender and diversity in mobility?

The gender dimension of the transport workforce has lately been the focus of many discussions and initiatives. Almost everyone would admit that transport is a male-dominated sector at all levels and progress in closing this gender gap is slow. Despite policy attention and concern, differences between genders remain not only in terms of the employment rate, but also in other dimensions such as part-time work, unpaid care and family

responsibilities, skills, decision-making positions, working conditions and wages.

Since 1979, when the Convention on the Elimination of All Forms of Discrimination against Women was signed, we have seen plenty of international agreements and policy movements advocating the fundamental rights of women. International bodies and other organisations such as the UN and EU have increasingly recognised that equality is not only achieved at social level but also requires an economic effort and they are including gender equality as a holistic part of a modern growth strategy.

Apart from political action, which has been the main force to speed up developments, it has become apparent that technology and innovation can pave the way towards achieving the goal of equality in the sector and ensure inclusive transport and mobility systems and services. ITS deployment and innovation can provide a whole new arena of opportunities to design a more gender-inclusive transport sector. Therefore, it is important that the gender dimension should be taken into consideration as we move towards smart mobility and smart cities.

Based on your experience, what are the biggest challenges that need to be addressed with a view to increasing gender and diversity in mobility?

Despite the fact that transport projects and policies are often considered to equally benefit women and men, there is a large body of literature that demonstrates that transport is not gender neutral. Today, there are still challenges and barriers limiting women's participation in the transport workforce, and most of them are related to working conditions (e.g., total working hours, time of work and place of work) and gender stereotyping.

There are structural barriers to change such as those related to deeply rooted gender stereotypes, inadequate facilities for workers, inflexible conditions and recruitment practices which reinforce the status quo. Transport is traditionally overrepresented by men, and research into the sector has shown that organisational culture and processes can unintentionally reinforce gender inequalities whilst cultural legacies continue to shape attitudes. A lack of understanding of the impact of female participation in the sector is also one of the barriers that has to be overcome. Structural obstacles are the biggest challenge a strategy has to deal with.



What road maps need to be set out to increase gender and diversity in mobility at national and EU level?

Women play a critical role as economic agents and gender equality is also instrumental in achieving economic growth and poverty reduction. However, the relationship of gender and transport, and the role it plays in a country's social and economic well-being, has only recently been addressed. A better gender balance at all levels of the transport industry is a prerequisite for more equal, safe and inclusive transport and mobility.

When designing future roadmaps to increase gender and diversity in mobility, this should be seen as part of a larger dynamic picture and more sustainable practice.

Diversity is an element that can help the public and private sector to focus on their future sustainability. Increasing the representation and visibility of women at all stages of transport policy, planning, implementation, and use in projects will make transport more responsive to the needs of all users and even increase the sustainability of transport development. Attracting and retaining more women in the industry's workforce could result in better planning and designing of transport systems and services that cater to the needs of female users.

Policies and strategies should identify and include a broad spectrum of stakeholders and make sure different needs are represented. Structural changes will be required to improve access to employment opportunities for women and people of diverse gender identities, recruitment practices, and working arrangements.

Data collection and analysis of gender segregated data (e.g., gender differences in travel patterns, mode choices and trip purposes) have also recently emerged as an important element in planning and policy design. Their findings can be incorporated into projects and solutions that can guide the way towards greater gender diversity.

I would like to stress the value of gender and social impact assessments as part of the planning process as well as the value of transparent data. Only by understanding the needs of citizens can we create truly equal transport systems and

mobility services.

Planning and design should take into account research findings related to a number of behavioural issues (e.g., the reasons why women do not find the transport sector attractive) in order to implement targeted measures of change to accommodate and include women at all levels of the transport industry. The design of transport projects and services should also include a gender perspective in terms of travel needs, patterns, concerns, priorities, preferences, and personal safety parameters. Research shows that when gender is not explicitly part of the planning process, the solutions are most likely to primarily benefit men.

A central component of any related roadmap should be strategic decisions related to improving access to employment and career opportunities for women in the transport sector. To achieve this goal, there is a need to provide women not only with the relevant skills and training opportunities but also to promote their educational engagement through related academic disciplines (e.g., STEM) in order to meet the future workforce needs of the transport industry.

The whole transport sector should be active participants in the process of establishing future roadmaps. An evidence-based strategy that encourages stakeholder participation and an interventionist approach, such as outlining gender equity requirements in future business contracts, as well as a community-building effort that supports cross-regional and cross-sectoral collaboration and knowledge sharing are key principles for change.

How can the Greek hub of the pan-European "Transport Innovation Gender Observatory" be sustainable? Could ITS-Hellas or another national transport authority be of assistance? (see: <https://www.tinggo.eu/observatory/national-hubs/>)

The Greek hub of the pan-European "Transport Innovation Gender Observatory" can develop a framework and mechanisms for a European-wide sustainable strategy for Gender Smart Mobility

that ensures inclusivity and accessibility. Data collection regarding gender mobility, intersectional analysis, and gender action plans are the main tools to reach this target, and it is important that these issues acquire a local dimension within this hub. We need to produce case studies based on the national case scenario and the particularities, best practices and awareness-raising at local level.

Local community-building is crucial to achieve this goal, and this is where ITS Hellas can play a part in helping stakeholders to address local issues, provide national data to back research, support initiatives, and reinforce female engagement in transport.

Intelligent Transport Systems is one of the most dynamic areas of innovation in transport with strong growth dimensions and significant benefits for the economy, end users and the environment. The traditional perception that transport-related jobs require physical strength is becoming increasingly less relevant as technological advances and digital innovations are applied throughout the sector. Smart mobility technologies and applications are the driving force behind many changes and have the potential to change the balance in the gender equality arena. New services and concepts such as shared mobility can impact access, safety, ease and comfort of mobility for women, whose travelling needs are strikingly different from those of men. Smart solutions promise to achieve mobility for all and will place gender equality in a new context.



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