



Women in
Copernicus

Results of the survey
Executive summary

November 2020



Women in Copernicus

Women are part of the Copernicus experience. They are not always visible but they are clearly present in the production flow of the Copernicus / Earth Observation / Geoinformation (Copernicus/EO/GI) domains. Numerous studies have been carried out on the topic of Women in Science,

Technology, Engineering and Mathematics (STEM), underlining the need to attract more women/girls into these disciplines. Nevertheless, few information exists on women working in a transversal and relatively new sector like the Earth observation domain, and in particular in the Copernicus sector.

The "**Women in Copernicus**" project shed some light into the gender subject from the point of view of women active in Copernicus. Far from being representative of the whole ecosystem, the replies received from 460 women who participated in the survey launched in 2020 provide **a first insight into a subject that should deserve further consideration in the future.**

The high answer rate we received confirms that women are well present in the value chain of the programme. We want to be visible and we all took advantage of this

project to express our opinions about our jobs.

The survey try to get a better understanding of the profile of the women who participated to the survey; an overview of their job positions; how gender bias is perceived in education, work place and society; but also showing the facilitators and the proposed solutions and tools to improve gender-balance. **Women want to showcase their achievements, but also to express their ideas on how to positively transform the Copernicus world.**

- Most of the responding **women work in Europe** (443), but we got replies (19) from women also **active in other continents** (Latin America, Asia, Africa and North America).
- Most of the women surveyed are in their thirties, 20% being younger (under 30 years old) and 40% older (over 40 years old). We lacked replies from women younger than 25.
- The Women working in Copernicus have a **long experience**: more than half (54%) of the participants have more than 10 years of professional experience.
- Most of the participants have a **high educational level** (47% Master and 48% PhD). Their education is mainly in the **STEM field**. While this STEM education is the most frequent, other profiles play an important role in the Copernicus sector, underpinned by the fact that responding women often have **multi-disciplinary skills** (30%).
- Nearly half of the surveyed participants work in the **academic sector** (43%), whereas a quarter in the private sector (26%). Even if the questionnaire was translated in 6 languages, we did not really reach women working in local and regional authorities or very few (11%). 65% of respondents work for **large institutions** (with more than 50 employees), nearly half (46%) for even larger institution's (with more than 250 employees).
- The vast majority of the women answering the survey are involved in **various levels of the value-adding chain** from upstream to downstream and in the use of Copernicus data

and products. A majority (75%) are involved both in the *Copernicus Downstream services development* or/and in the *Use of Copernicus data and services for different thematic applications*. "This is a strength" (as stated by Dinka Dinkova (DG DEFIS) during the EOcafe organised with EARSC), **"Women can play a crucial role in increasing the use and usability of Copernicus data and services"**.

- Most of the respondent are **proud of their job** in Copernicus with a general level of satisfaction of 3,8/5. Moreover, **women want to talk about it**: more than half of the women surveyed want to express themselves on their main accomplishment in the Copernicus/EO/GI domain. The most frequent words used in the answers are "service", "user", "data", "mapping", "promotion", "research". **Copernicus women want to feel useful**.
- Women evaluate themselves with **high technical skills and expertise** (respectively 3,4 and 3,2/5). However, their **position in the hierarchy is perceived as being low**, with an average level of 2,8/5. Furthermore, this low level has an impact on the job satisfaction. Women are occupying less leading positions.
- The three main **barriers/obstacles** felt by the respondents in their education and career are (i) the fact that **women are a minority**, (ii) the **gender bias on the workplace** and (iii) the **lack of self-confidence**. The results confirm the existence of a gender bias in the Copernicus sector, which is perceived by women both during our studies and careers. **Motherhood** is still perceived as a career showstopper for many. It is still

harder for women to advance in their careers at the same phase of men. More than half of respondents feel that **gender stereotypes still exist**. Women claim to have to constantly prove their capabilities in the workplace. In addition, several women mention suffering from a **lack of self-confidence** or even “impostor syndrome “ and 50% reports having missed opportunities because of low self-confidence. Many of respondents (63%) also report a lack of self-confidence as a barrier in general for girls.

- The **lack of role models** in the Copernicus ecosystem is perceived by 67% of respondents, but 45% of them were nevertheless inspired by other women in their professional path. This highlights the need to **give more visibility to the women who contribute to the development and use of Copernicus data and services**. Initiatives like “Women in Copernicus” are needed to showcase such role models and to create links among women working in the sector.
- Stereotypes in society (68%), missing role-models (67%), culture/ marketing/ television (66%) and lack of confidence (63%) are the main factors perceived as influencing the low number of women in STEM disciplines.
- **Family and friends’ support** and working in the Copernicus/EO/GI domain **are the main existing facilitators**. Women find help and support inside circles of trust, where they feel comfortable, like in a network of women or in their circle of colleagues at work. The nature of the work developed in Copernicus/EO/GI and the technologies used are broadly pinpointed as facilitator.

- Respondents did not feel a positive encouragement from society when choosing a career in the EO/GI domain. Again, respondents do not talk about any specific model or woman as an example, but about the **power of networks** (sisterhood) in which women feel comfortable to share their experiences. **Gender policies seem to be underdeveloped, poorly communicated or applied**.
- **Working in the Copernicus/EO/GI domain** is what **brings a lot of satisfaction to women** (77%). The nature of the work developed inside the EO domain allows women to find a balance between their work and private life. The dynamism of the domain and the international possibilities for networking, collaborating and contributing to a large diversity of projects are mentioned as important satisfaction factors.
- Women propose **tools and solutions for changing the gender bias** and improving their working environment in the Copernicus sector, such as: identifying and giving **visibility to role models but also to all existing women** as part of the system; implementing **policies aimed at achieving gender balance in the workplace** - especially important for higher level positions; creating opportunities for **empathy, listening, coaching, mentoring** (by men and women) and **networking** in order to increase women self-confidence.

This small project based on a voluntary participation could be a first step to future developments.

Ten **men** replied to this survey targeted initially to women. While these answers have been removed from the analysis because of time constraints, their **participation** represented a **positive message** about the interest in gender studies from men and women. The number of testimonies received by WIC cannot be analysed in detail in this report, but this is material that could be further exploited to promote the role of women in the sector. This survey **provides some messages to girls**. We hope that the next generation will be more supported and will less suffer from gender bias during the studies or careers in STEM.

This project could be the initiator of a Copernicus women network.

Indeed, creating connections between women should support them in their work in the sector. During the project, we came across several other groups

dealing with gender in the spatial/geospatial sector (**Women in Geospatial, GEOchicas, Women in Aerospace, UNOOSA's Space for Women, Sisters of SAR, Ladies of Landsat, EUROGI Focus Group Women in GI**, etc.) It would be interesting to **join forces and to discuss about lessons learned and to define common objectives**.

The European Union is working to improve and better understand the gender bias since several years (Gender Equality Strategy 2020-2025¹). Actions and reflections are tackling stereotypes, gender quota, policies, etc. and this project could be continued in that context. This project identifies issues and offers solutions to better implement actions. **This is the right moment to adopt a strong strategy inside the Copernicus sector to identify, trace and remove barriers to women involvement**. This

strategy would foster equality and attract more qualified female students towards STEM disciplines.

Taking care of women motivations and their working conditions is an investment for a future Copernicus more gender-balanced and more powerful. A majority of us works **close to the user** with a high interest in user support with the strong objective of being useful. This unique position in the value chain can be considered as **a strength for the program**. Focusing on Women with high involvement and empathy will support the downstream uptake objective. Giving to women a more conformable position (highest hierarchy levels perhaps) and more visibility in Copernicus program (enlighting their achievements and particular expertise) will increase the efficiency of this extraordinary instrument.

¹https://ec.europa.eu/info/policies/justice-and-fundamental-rights/gender-equality/gender-equality-strategy_en

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<http://womenincopernicus.eu/>

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Please notice that this report captures a specific moment in time, gathering the views
of 462 volunteer women and it does not aim at representing the views and opinions of all
women working in the Copernicus sector.

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