



EUROfusion Approach to Increasing Equality, Diversity and Inclusion in the European Fusion Workforce

EUROfusion Consortium

The EUROfusion Consortium for the Realization of Fusion Energy coordinates the Research and Development activities in the European Union and associated countries (Switzerland, UK, Norway) co-funded by the European Commission.

- 28 research institutes and 167 affiliated entities (including 100 universities with 1000+ students) in 29 countries.
- 5000+ fusion scientists, engineers and support staff

EUROfusion is strongly committed to fostering equality, diversity and inclusion in all its form, including but not limited to gender, nationality, socioeconomic background and disabilities. As EUROfusion does not recruit, actions focus on raising awareness and interest to increase candidate pool and inclusive equal access to opportunities, activities and education to increase diversity in the fusion community.



EUROfusion values

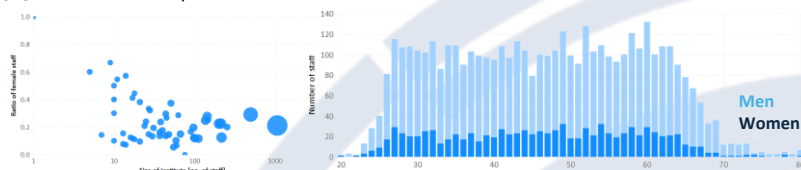
What is the current situation?

Human Resources Survey conducted in 2023 to assess the European fusion workforce distribution and needs. The survey gathered information from 114 institutes on gender, age distribution, educational background, skills, mobility of staff, retention and diversity. It also identified current and future skills needed and challenges faced by the institutes related to recruitment and retention. Findings related to gender balance:

1. Each institute has a gender equality plan. Percentage of women has increased from 12% in 2004, to 18% in 2015 to 21% in 2023. Still more to be done.

Degree type	2023					2014	
	No. of staff	% women	% foreign	% permanent	% student	No. of staff	% women
Physics	1802	17.4	29.3	62	21.7	1578	18.1%
Engineering	1304	13.7	11	74.5	8.1	1108	11.3%
Technician	457	12.5	6.5	90.4	2.8	905	7.2%
Computer Science	137	13.1	15.3	67.9	12.4		
Chemistry	101	49.5	8.9	83.2	7.9		
Mathematics	52	25	44.2	48.1	32.7		

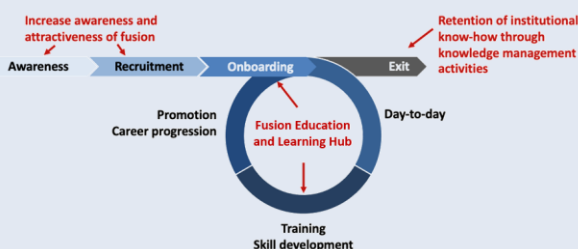
2. Percentage of women is flat across all ages but varies from between institutes all the way to 100%!



3. Recruitment and retention of qualified engineers and operators are difficult in the strong job market competition. A joint effort at European level is needed to raise the awareness and attractiveness of fusion as a career opportunity for people with diverse backgrounds.

Strategy

Support and diversity current and potential new workforce through the employee lifecycle to 1) increase and diversify the talent pool, 2) provide access to a comprehensive curriculum of education and training material and 3) share and capture tacit knowledge while 4) collaborating with European and international partners.



Diversity

EUROfusion is a consortium. The recruitment is local responsibility of its affiliated entities. All members have a gender equality plan. EUROfusion instead focuses on **joint actions to increase and diversify the candidate pool** to recruit from and to **provide equal opportunities to access education and training**.

- Information sessions on applications and opportunities
- Personal letter in applications to highlight personal circumstances and access to opportunities

Results: Increased applications to grants and schools by 15-25%, geographical diversity and female applicants by 60-100%.

Plans: Career path events showcasing diverse careers and staff. Profiles of EUROfusion grantees and staff. Introductory seminars to introduce devices and topics.

Inclusion

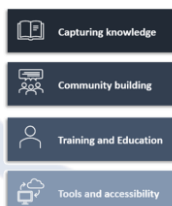
A core function of EUROfusion is knowledge management, the creation of knowledge through scientific exploitation, codification into publications, sharing through work packages and task forces and supporting/complementing academic education with training. All EUROfusion activities are inclusive, anyone can apply.

In 2023, EUROfusion reviewed its activities to identify gaps and needs. The **EUROfusion Knowledge Management Strategy** lists 25 actionable recommendations to strengthen activities primarily in engineering and operations along the four pillars.

Results: Inclusive discussions, sharing and capturing experience and knowledge with all staff.

- ITER Engineering Design Handbook
- EUROfusion Operations Network with communities of practice (on NBI and ECRH) and joint operator trainings.

The EUROfusion Operations Network activities take place online with **all staff** at all levels invited from EUROfusion and collaborators. Events are recorded and transcribed allowing any expert to access it at any time. Topics are decided by the community as needed for their current work to progress.



Equality

Annual education programme surveys indicate the lack of availability of courses dedicated to fusion across Europe. **Equal access to opportunities, education and training** is essential to skill up and diversify the future European fusion workforce as well as help transition mid-career experts entering the fusion industry. EUROfusion's aim is to:



- Make fusion education and training available and accessible across Europe and worldwide to students, new starters & as continuous education for current staff.
- Provide comprehensive fusion curriculum with a wide range and variety of topics from introductory to advanced level.

Result: The **Fusion Education and Learning Hub (FuEL)** launching in 2024-25 will host a comprehensive curriculum of online university courses and training material widely accessible across Europe and worldwide.

- Recorded university courses and trainings, live online courses, massive online learning style courses.
- Pilot phase in 2024. Extension with more courses in 2025.
- Immersive learning experience with exercises and projects.

Collaboration

EUROfusion is built on collaboration between its 197 institutes, the members and their affiliated entities, as well as with its international partners.

- Participation in the **diversity, training and career development networks of EUROforum** (CERN, ESO, ESA, EMBL, ILL, XFEL, ESRF and EUROfusion).
- Participation in the **new BSF Diversity traineeship scheme**.
- Launch of the **European Fusion Diversity Network** in 2024 to bring together people working in Equality, Diversity and Inclusion roles or initiatives.

