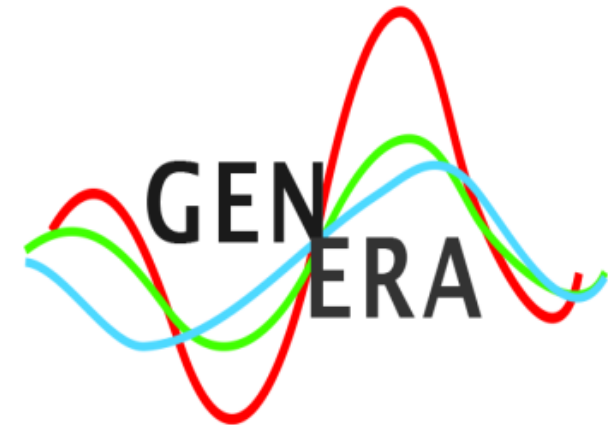




GENERA Careers in physics: which perspectives for women?

9° Gender Summit
Brussels,
8-9 November 2016



Sveva Avveduto

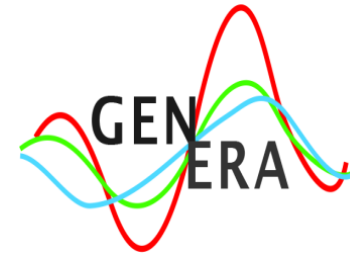
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National Research Council of Italy



+ The GENERA Project



<http://genera-project.com>

- An H2020 funded project to support research organisations to implement gender equality plan
- Aiming at continuing, monitoring and improving the Gender Equality Plans of Research Institutions and Organizations specifically in the physics research field.
- Started in September 2015
- Funded for 3 years, 3.34 M Euro
- Long-term perspective beyond the project lifetime

+ GENERA: Objectives and steps

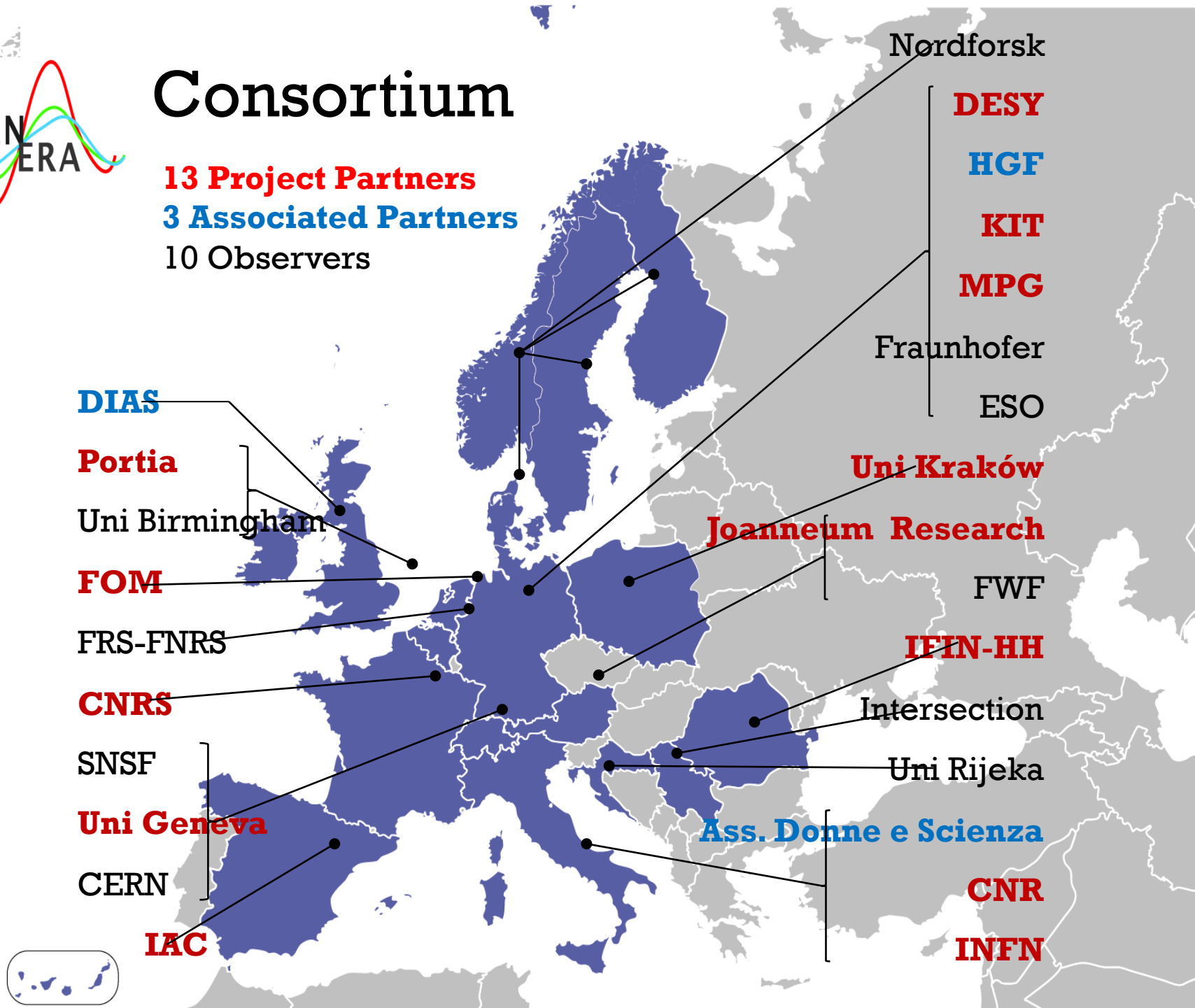
- **Assess the status of gender issues** in the partner organisations.
- **Identify gaps in existing Gender Equality Plans**
- **Monitor and evaluate the existing activities** of the involved organisations.
- **Formulate customized GEPs** for all implementing organizations
- **Create a network** of RPOs, HEIs and RFOs to **promote gender equality in physics.**
- **Set up a long-term monitoring system** for gender equality





Consortium

13 Project Partners
3 Associated Partners
10 Observers



DIAS

Portia

Uni Birmingham

FOM

FRS-FNRS

CNRS

SNSF

Uni Geneva

CERN

IAC

Nørdforsk

DESY

HGF

KIT

MPG

Fraunhofer

ESO

Uni Kraków

Joanneum Research

FWF

IFIN-HH

Intersection

Uni Rijeka

Ass. Donne e Scienza

CNR

INFN

+



National Research Council of Italy



- National Research Council is the leading public research organisation in Italy
- Promote, spread, transfer research activities in the main sectors of knowledge:
 - Chemical sciences and materials technology
 - Earth system science and environmental technologies
 - Physical sciences and technologies of matter
 - Biology, agriculture and food sciences
 - Biomedical sciences
 - Engineering, ICT and technologies for energy and transportation
 - Social sciences and humanities, cultural heritage

+



National Research Council of Italy



The National Research Council is structured in:

- **Departments:** organizational units structured in macro-areas of scientific and technological research. They mainly have planning, organization and supervision functions.
- **Institutes:** gathered in several technical and scientific sectors, perform research tasks according to their programs: The geographical distribution on the territory allows them to give a relevant contribution to the regional and local innovation.
- **The physicists in CNR are spread across more Departments.** CNR carries out research activities in different scientific areas under a multi and inter-disciplinary perspective. This applies also to research in Physics fields.

+

Careers in physics: which perspectives for women researchers in CNR?



Results of statistical data mining based on central administrative databases:

- Female **distribution** in the different fields of physics
- Female **career progression**
- Female at **early stage** of career
- Women in **responsibility** positions

+ Methodology

Mix of qualitative and quantitative research approaches

A secondary **quantitative** data analysis was performed on 793 physics researchers using the central administrative database that allowed us to reconstruct career path from 1985 to 2014.

- Six **qualitative** pilot interviews of female physics researchers in leadership positions were carried out to support quantitative analysis. Those explored the professional choices, career and work-life balance dimensions.

+ Physics researchers in CNR

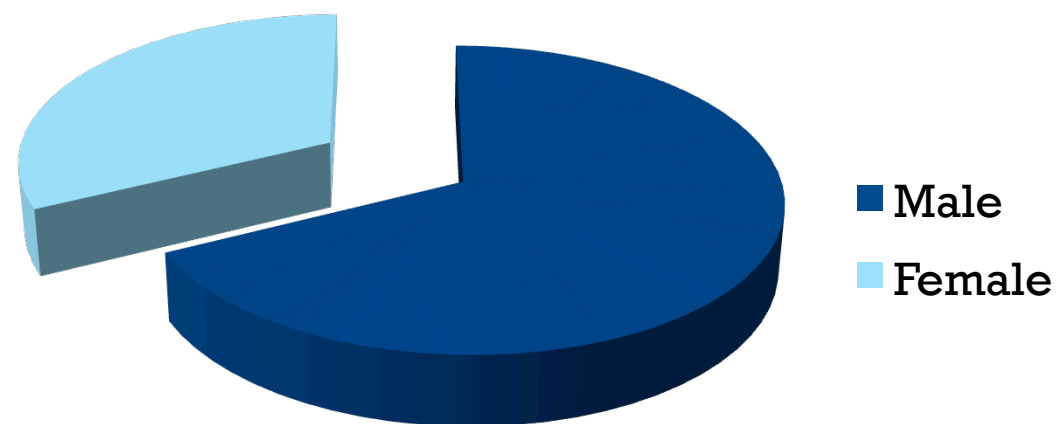
793 researchers total (100%)

256 female researchers (32,3%)

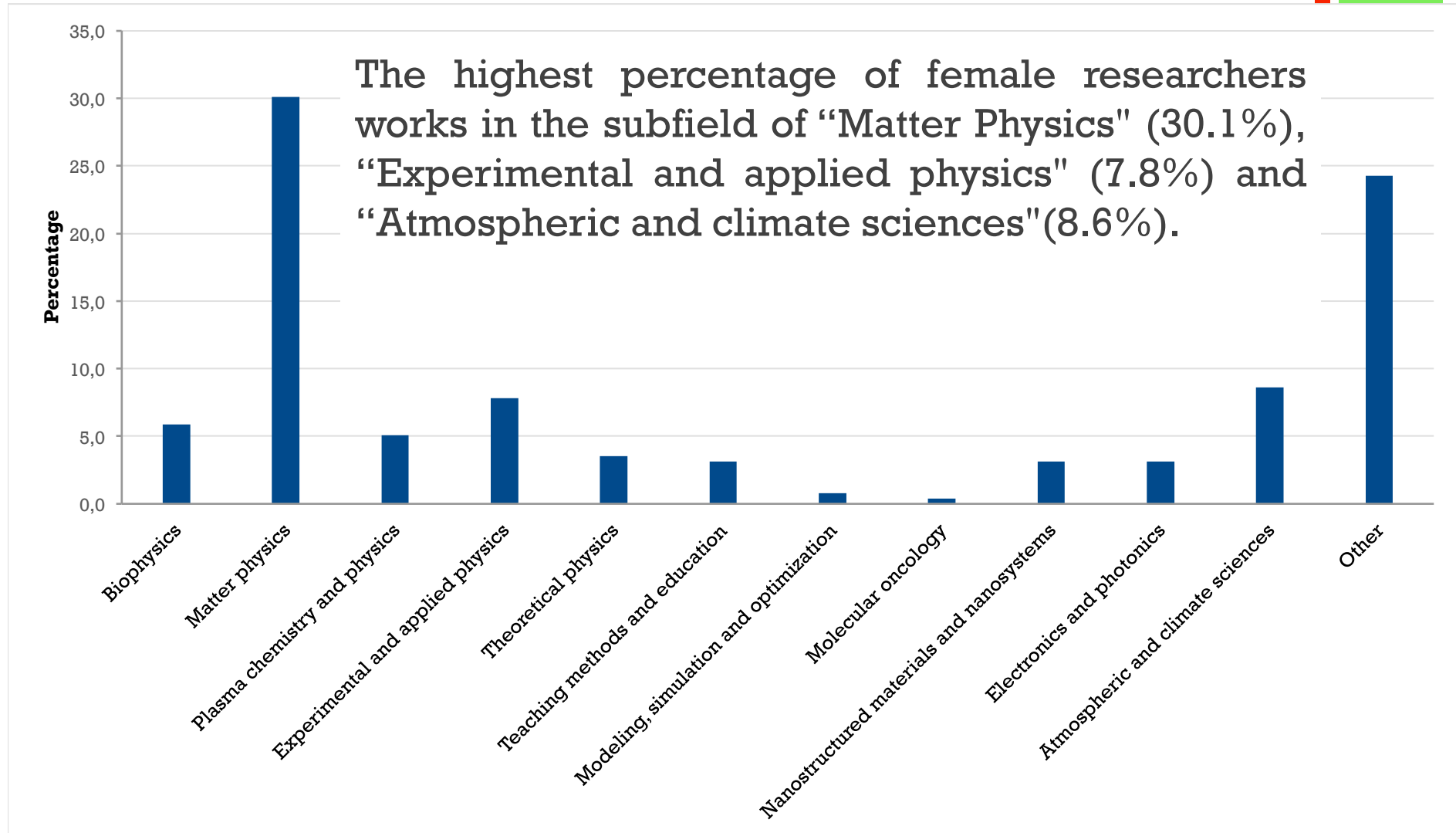
537 male researchers (67,7%)



Physisc researchers



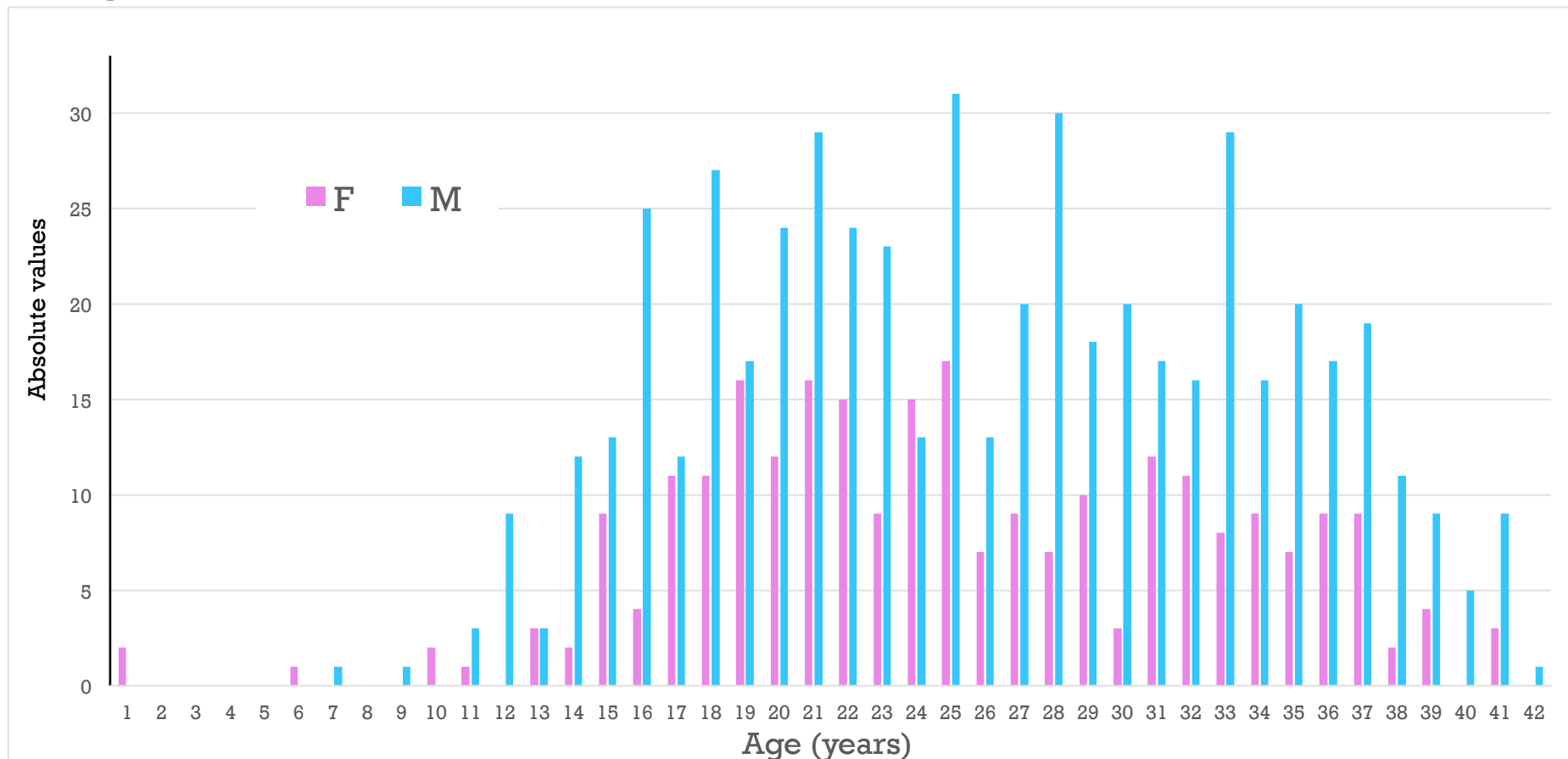
+ Female distribution in different physics fields in CNR Institutes



+ Age distribution and time spent in permanent contract (2014)

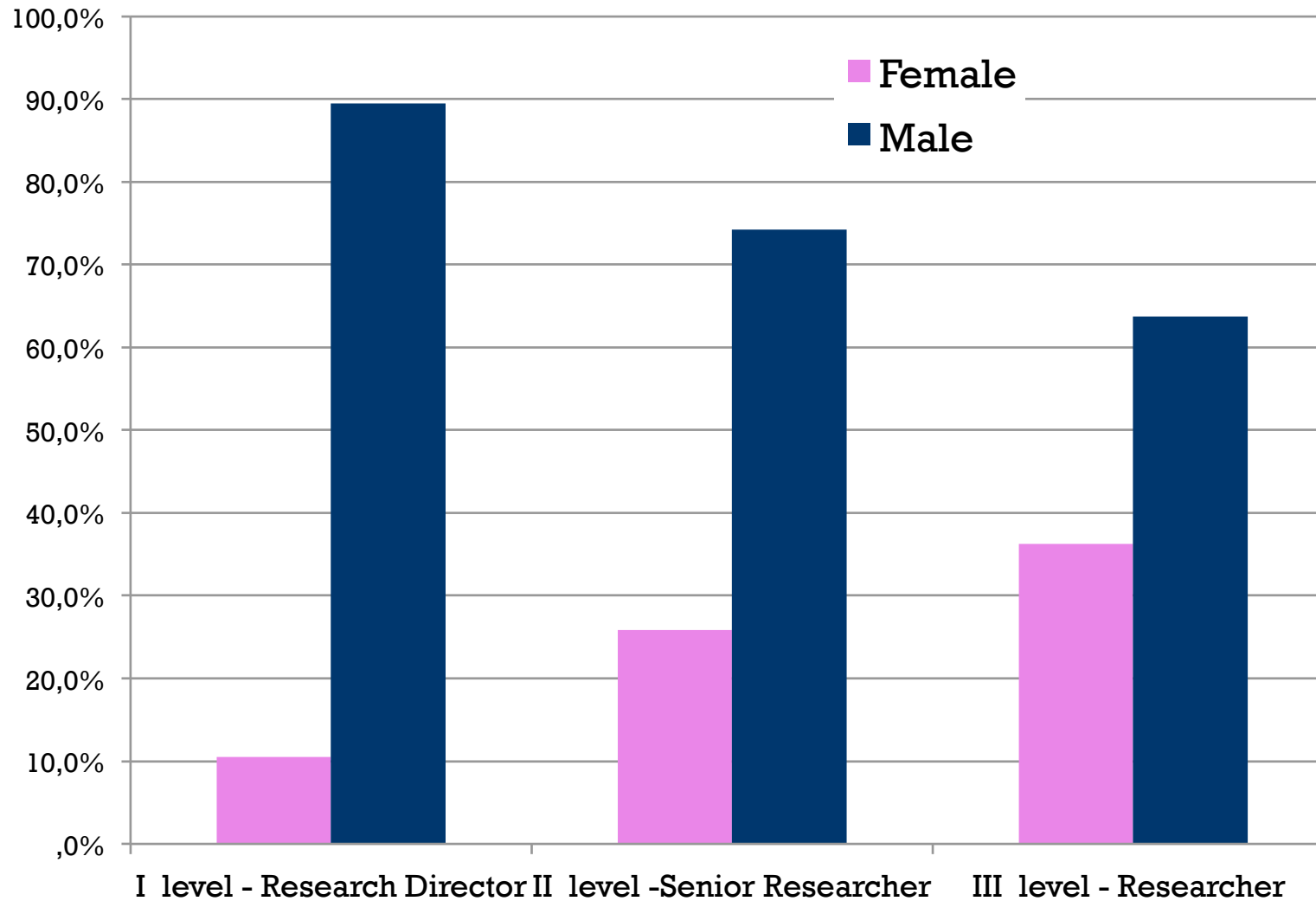


Female researchers in Physics are younger than male (41% of women under 45 years, compared with 37% of men). Among researchers under 40 (that represent only 14% of the total) men are more than twice as many women.



+ Men and woman in career levels

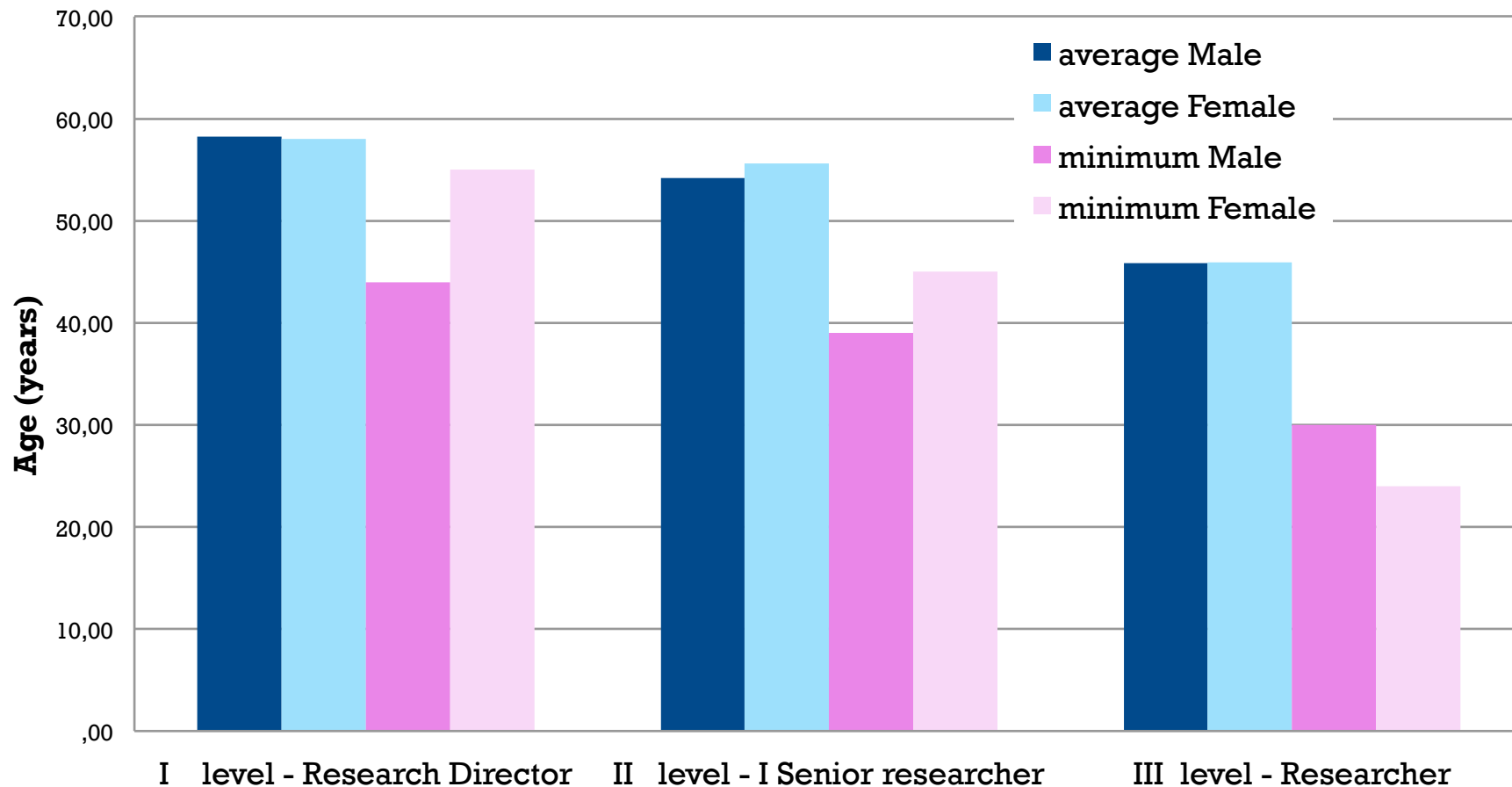
Gender distribution in the three career levels



+ Average age distribution through levels of career



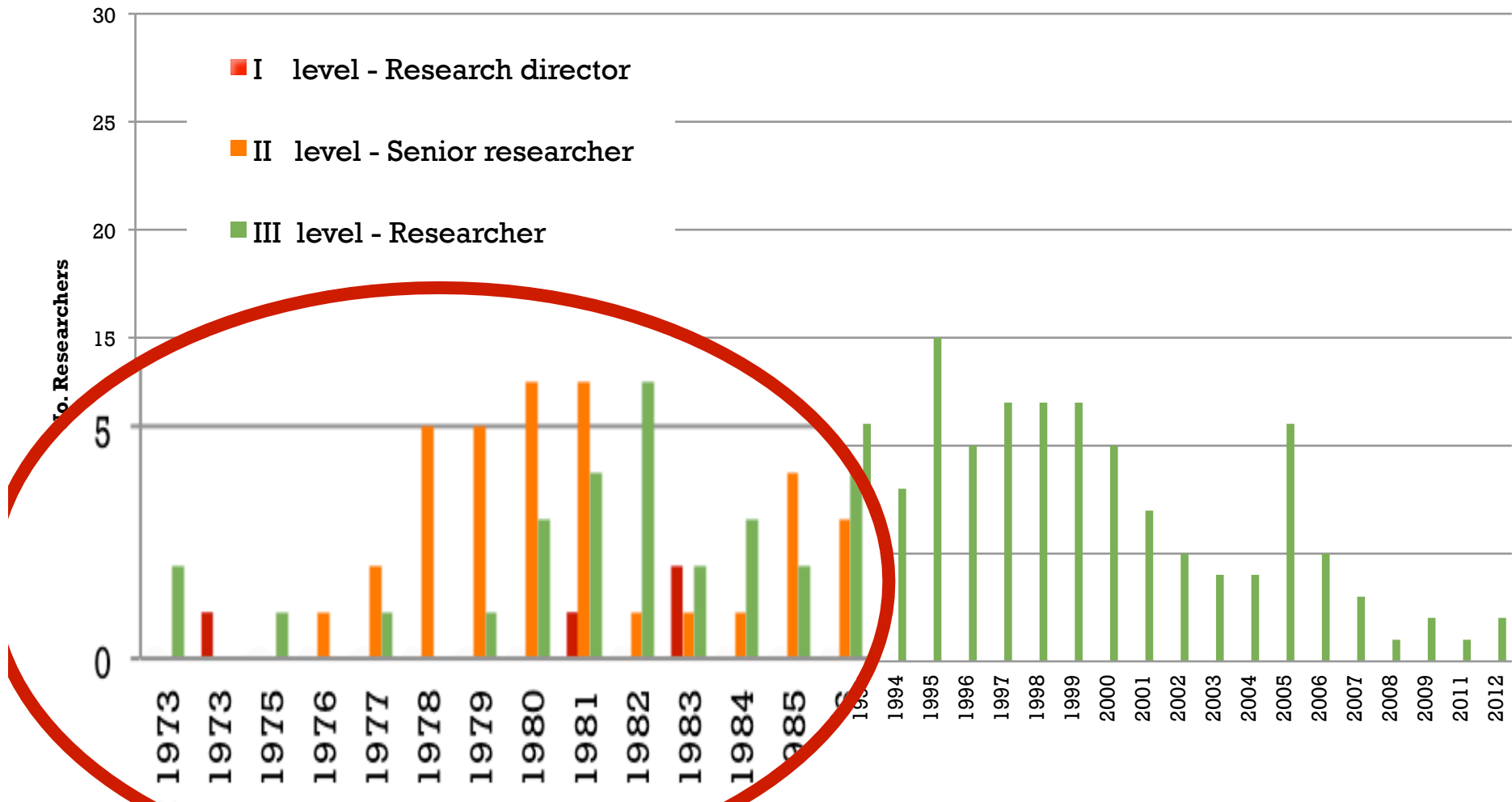
While the average of the age between gender is comparable through levels, it's not comparable the minimum of the age through levels, as higher is the level of the career as higher is the gap and the disadvantage of the women.



+ Carriers progression and year of employment: women

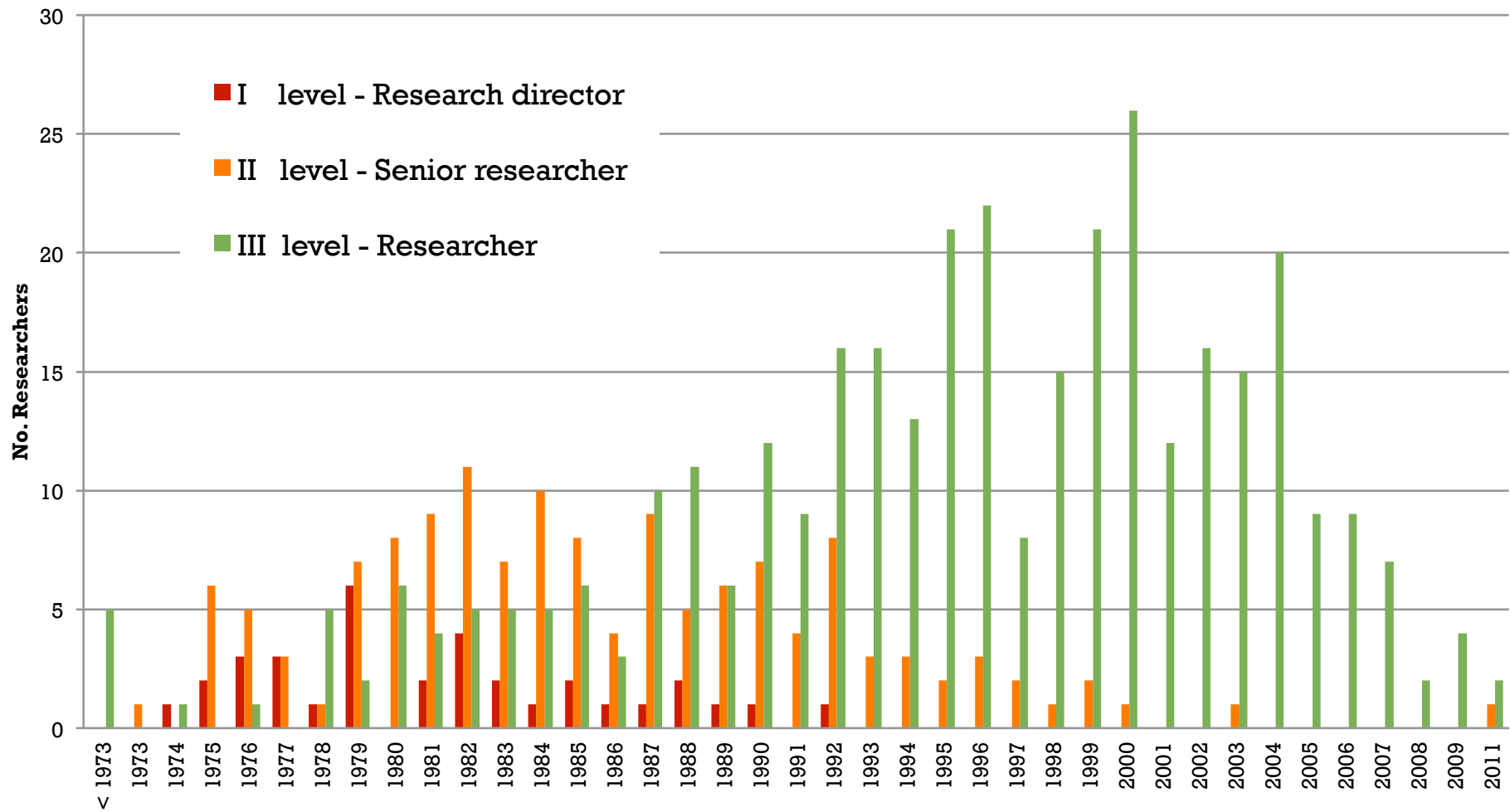


Women in the career level and year of employment



+ Carriers progression and year of employment: men

Men in the career level and year of employment



+ What is missing?



Data related to **fixed term** research contracts such as:

- PhDs, Fellowships, Post Doc etc.

These data are not centrally available but only at single unit (Institute) level

+ Conclusions and future work

- Professional career advancement is **slower** for female than men.
- Women in responsibility positions are **underrepresented** and life-work balance factors probably affect this low rate.
- For women in physics glass ceiling is thick.
- Undergoing analysis will also link these data to those on **work leaves** due to family reasons, as well as to scientific outputs. We will also consider the aspects that influence professional skills, personal attitudes on competition and work load as resulted from the pilot **interviews** underlining **direct and indirect factors** affecting a balanced participation of women in physics.



Thank you for your attention

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