

# Early Career, Gender & Diversity at LHCb

## *XLI International Conference on High Energy Physics*

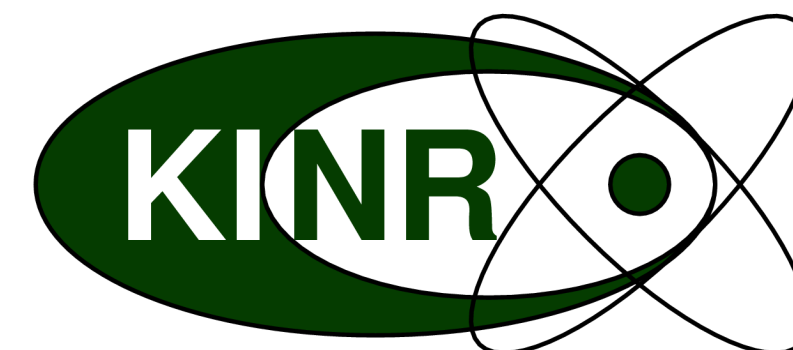
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Igor Kostiuik<sup>†</sup>

<sup>†</sup>Nikhef, Amsterdam, Netherlands and KINR NASU, Kyiv, Ukraine

*on behalf of the LHCb Collaboration*

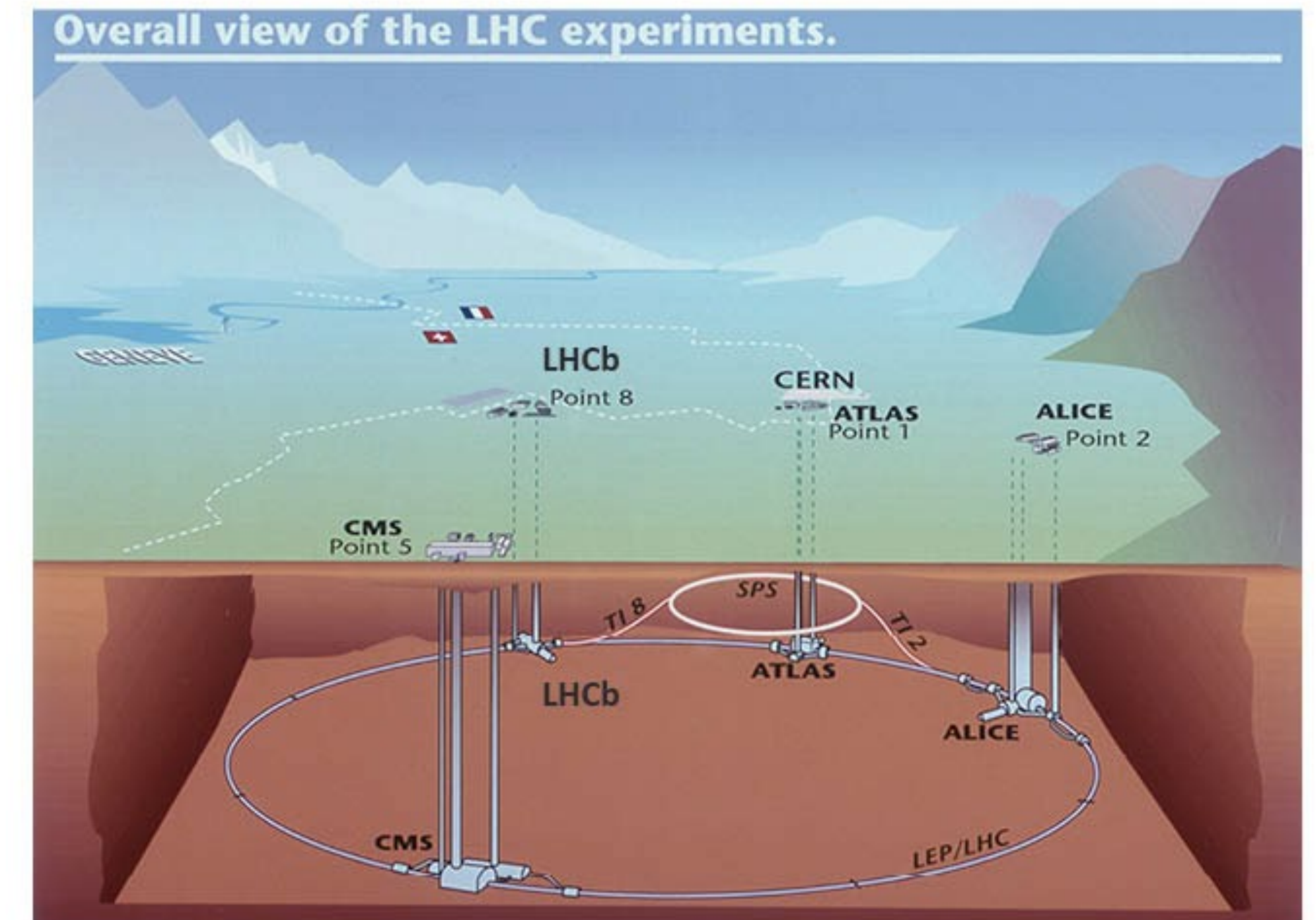
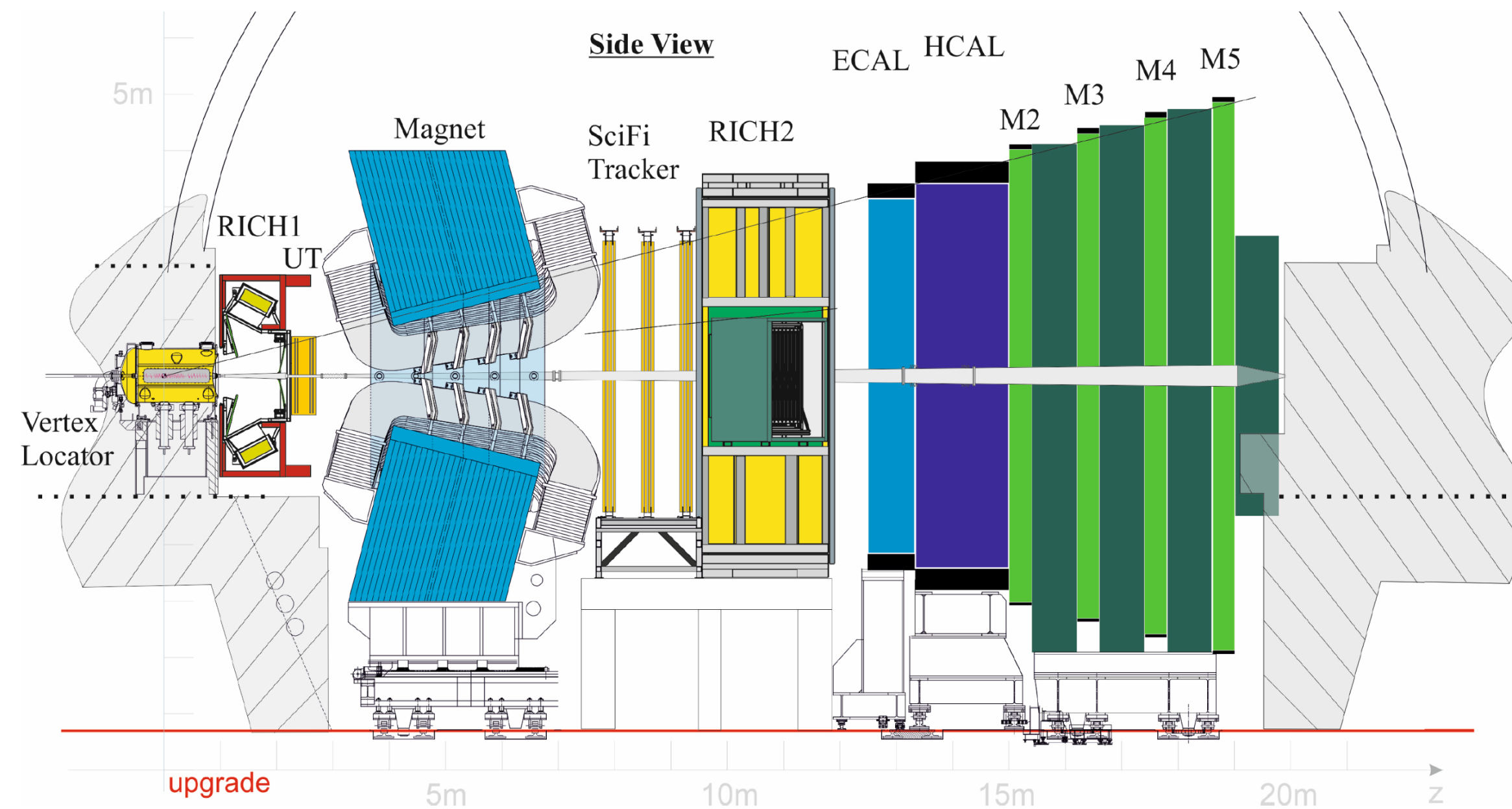
08-07-2022



# The LHCb experiment 1

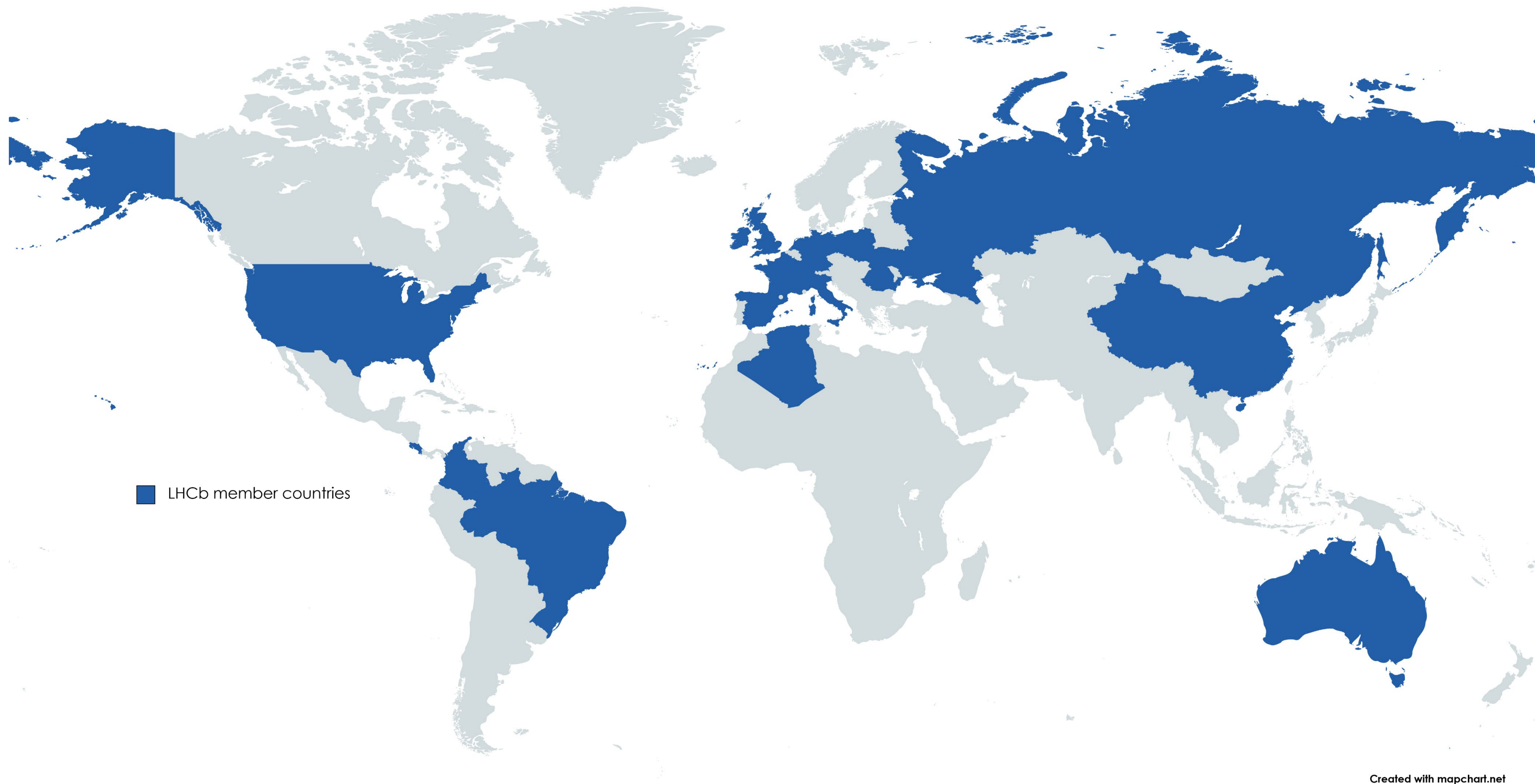


- At one of the four collision points at the LHC at CERN, Switzerland
- Focused on studying heavy flavour decays





The LHCb collaboration currently has 1587 members representing 20 countries across 95 institutes





[https://lhcb.web.cern.ch/ECGD\\_Office/ECGD-intro.html](https://lhcb.web.cern.ch/ECGD_Office/ECGD-intro.html)

## 3.5 The Early Career, Gender and Diversity Office

The Early Career, Gender and Diversity (ECGD) Office oversees the well-being and working environment of all LHCb members. It consists of two ECGD Officers, who are normally of senior (faculty/staff) career status, and two Early Career (EC) representatives.

The LHCb Management proposes the ECGD Officers to serve for a period of 2 years. The EC representatives are elected by the LHCb EC community.

The appointment of ECGD Officers and the EC representatives is ratified by the CB.

One ECGD Officer and one EC representative are invited to attend the CB as non-voting members.

The ECGD Office advises the Management and its members act as LHCb contacts for all matters related to ECGD.

The ECGD Office collates regular statistics and other relevant information to monitor progress related to gender and other protected characteristics, such as age, disability, family circumstances, sex, race and religion.

The ECGD Officers are available for listening to and advising, in a confidential manner, colleagues who feel they are subject to harassment, discrimination or other inappropriate behaviour as given in the Code of Conduct. The EC representatives take the lead in monitoring and taking care of the particular needs of the EC community.

The ECGD Office assists the Management in scheduling regular open meetings where ECGD matters can be discussed.

Two ECGD Officers, two Early Career representatives

Attend Collaboration Board

Perform surveys

Advise the management and the members

ECGD session held four times a year during the LHCb week



- Since December 2020
  - Elected by the LHCb early-career community for one year automatically extensible for the second year
  - Their appointment is ratified by the Collaboration Board
- 
- Build the Early Career (EC) community
  - Communicate with the EC community
  - Collaborate with EC colleagues from the other three big LHC experiments



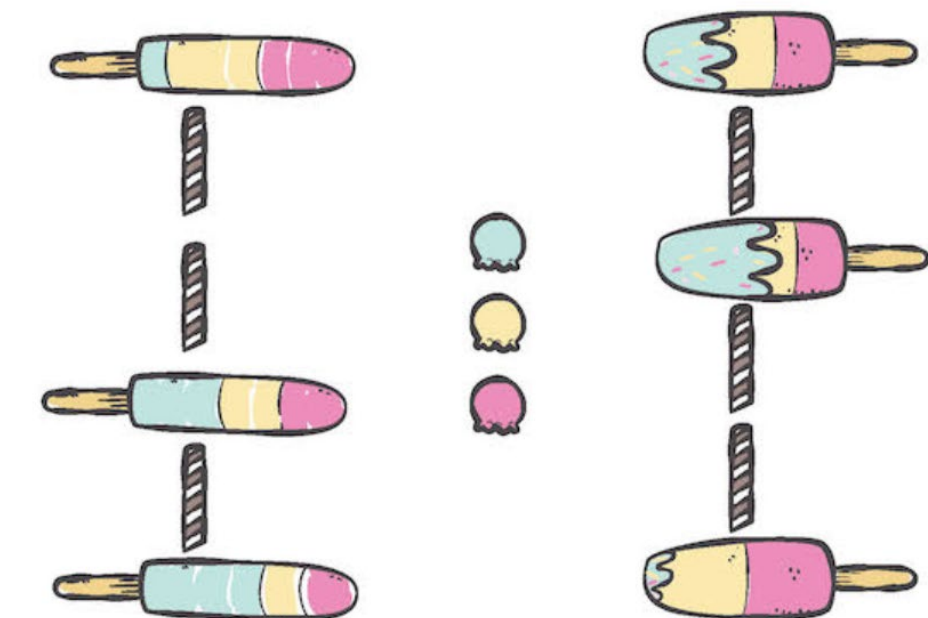


- A conversation over ice cream.** Experts give short talks for a general audience with ice creams (and online as of now)
- [October 2021](#): “Machine learning in high energy physics: a conversation over ice cream”
  - [June 2020](#): “A conversation over ice screens: future detectors for particle physics”
  - [August 2019](#): “Which flavour do you want your neutrino?”: Highlights of the neutrino physics
  - [July 2018](#): “A fresh look at the Universe”: Dark matter/energy, and multi-messenger astrophysics

Overview of the past **soft-skills workshops** (people registered):

- [June 2022](#): What I wish I knew when I was a Ph.D. student/postdoc (254)
- [June 2021](#): Personal statement + research proposal writing (209)
- [Mar 2021](#): Interview skills for academia (472)
- [Nov 2020](#): Science communication (282)
- [Jun 2020](#): CV writing for academia and industry (486)
- [Apr 2020](#): Working from home (343)

WHICH FLAVOUR DO YOU  
WANT YOUR NEUTRINO?  
a conversation over ice cream







## LHC Career Networking event

- Presentations by LHC alumni
- Round table discussion
- Q&A session with all participants



- Chance to meet CERN alumni
- Many fields are represented (industry, finance, IT, etc.)
- Next event this November
- Previous events: [2021](#), [2020](#), [2019](#), [2018](#)
- CERN Courier [article](#)

## Mentoring program

- LHC-wide [mentoring program](#)
- Matches mentees who are early career researchers with more senior scientists working for or at the LHC
- Mentor-mentee pairs usually from different experiments
- 22 mentors and 25 mentees selected for first round, now in the second round
- Mentors and mentees sign confidentially agreement
- Program lasts for nine months





**1 Mar 2022**

Main topic: Women and girls in science.

**7 Dec 2021**

Main topic: Accessibility and support in our working environment for colleagues with physical disabilities.

**21 Sep 2021**

Main topic: Mailing lists in LHCb.

**15 Jun 2021**

Main topic: Supporting transgender and non-binary colleagues.

**23 Feb 2021**

Main topic: Healthy teamwork in preparation of Run 3.

**8 Dec 2020**

Main topic: Being a (EC) scientist during a pandemic.

**8 Sep 2020**

Main topic: Ethnic discrimination.

**9 Jun 2020**

Main topic: Working from home, online conferences/meetings.

**25 Feb 2020**

Main topic: Examples of successful mentoring initiatives.

**3 Dec 2019**

Main topic: A first look at the 2019 ECGD survey.

- **Always organized together with volunteers from the Collaboration**
- A session dedicated to a particular topic at the LHCb week (4 times per year)
- Senior Collaboration management is attending
- Good participation in general (~50+% of the overall participants, 100+ people)





## One of the past sessions: “Supporting transgender and non-binary colleagues”

Feel free to write your opinions, suggestions, personal experiences/issues or anything else you may find relevant here

Something similar that I can relate is that for 2 years of my PhD the only women toilet was on the 3rd floor (I was on ground floor), while men toilets were everywhere. I felt really forgot!

(Just wanted to say thanks for putting this together, much appreciated!)

For authorlists, I think that what's on inspirehep is more important than what's on journal websites. This is where your publication list is tracked. Inspirehep uses authors.xml which we upload for every paper on arxiv.

<- Is updating the arXiv (where Inspire gets the info from) good enough (the old version will be kept)? Or are we actually looking at replacing the old version?

Something that I think cannot be overstated is how exhausting it is to transition and be trans. The idea of mental load that was brought up is so critical to understand

<- Seconded - navigating spaces not designed for trans/non-binary people as a trans/non-binary person is very tiring. Having to push for changes to that environment largely by yourself is even

RESOURCES: “LGBT+ inclusivity in physics and astronomy”  
<https://arxiv.org/pdf/1804.08406.pdf> "Asking about Gender and Sexual Orientation in your questionnaire"  
[https://figshare.com/articles/journal\\_contribution/Asking\\_about\\_G](https://figshare.com/articles/journal_contribution/Asking_about_G)

Gendered facilities are also problematic for LGB people. Also how "shared rooms" (which are cheaper) are dealt with at the hostel.

Grab a post-it on the left and write :)

Having lot of pronouns or genders in the registration or in a chat like zoom I think is a sort of coming out/outing. Does this not imply a different treatment in conferences or in the workplace? It is not better to have neutral

In response to yellow note at left: unfortunately, when noone comes out, we don't usually get neutrality, we get whatever the social default is (which is different from neutral). Not using pronouns doesn't

<- to expand on this: aiming for "full neutrality" risks being conflated with erasure. Instead of aiming to be totally neutral, we should aim to embrace differences. Just being accepted by, & quietly assimilated

<---- My point is, as we ask for gender equality (I'm part of the LGBTQ+ community too), do all of these produce gender inequality? Like female/male unbalance that they are trying to solve this making special

Can we run a test case inside LHCb of how easy it would be to automatically update an author name in a whole years of publications (and make absolutely sure that nothing else changes).

4) This should be discussed at the SIPB. The EB chair represents LHCb and there are people from inspirehep.

Something I'd really like to see: for CERN or LHCb to plan to make a combined update to past author lists in various papers. Maybe once every few months, if an update is received, to make the requests to journals on behalf of

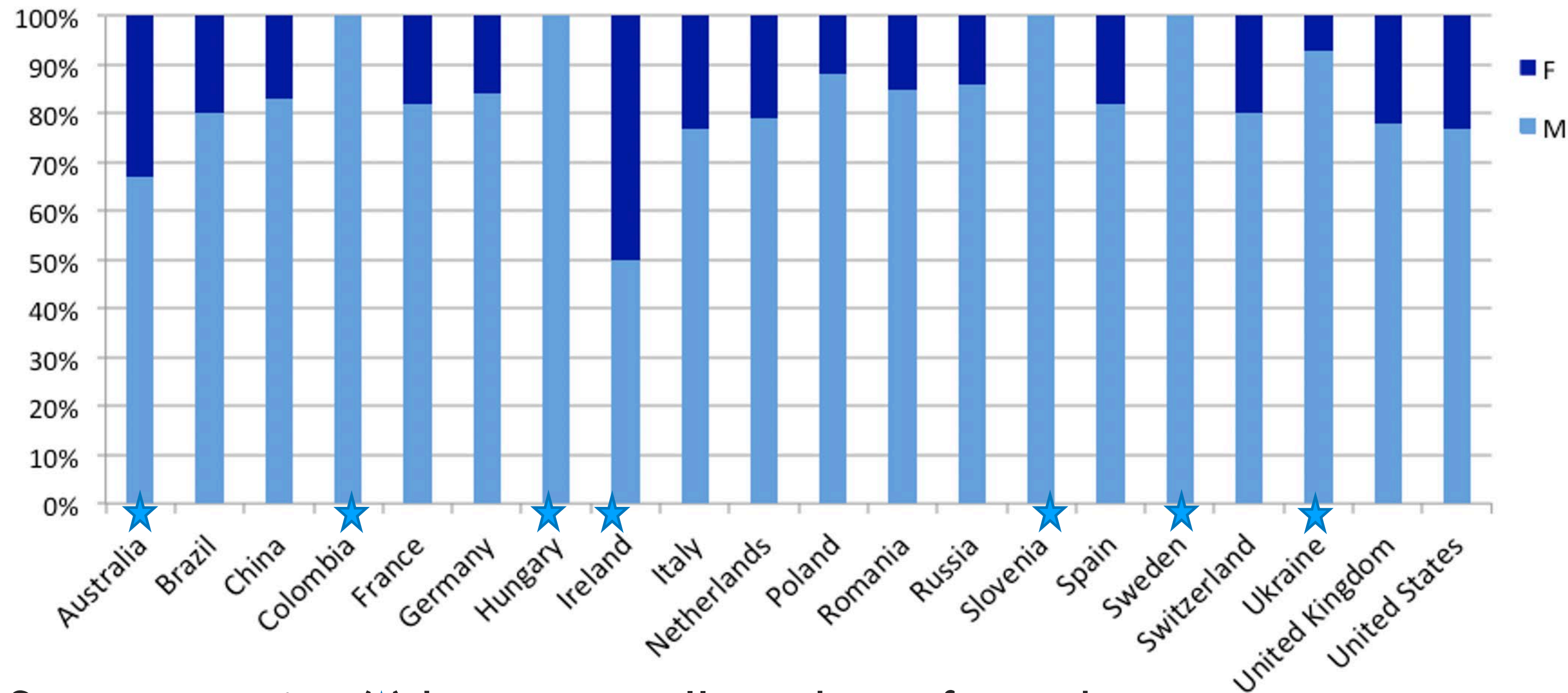
## Suggested reading

- [‘A Walk in Two Worlds’](#) - Mike Ott (covers the historical and ongoing impact of European colonization on native two-spirit people)
  - It’s also worth researching the history of Residential Schools, and their effects on native/First Nations communities in the Americas, more generally
- [‘Breaking the binary by coming out as a trans scientist’](#) - Robin Aguilar for Nature
- [‘How LGBT+ scientists would like to be included and welcomed in STEM workplaces’](#) - various authors for Nature
- [‘How to Be a Good Ally to Your Trans Coworkers’](#) - Vera Concepcion for Rewire.org
- [‘Supporting the Transgender People in Your Life: a Guide to Being a Good Ally’](#) - National Center for Transgender Equality
- [‘Gender-Nonconforming Factsheet: Why Unlearning the Gender Binary Helps Us All’](#) - Elly Belle for Greatist.com

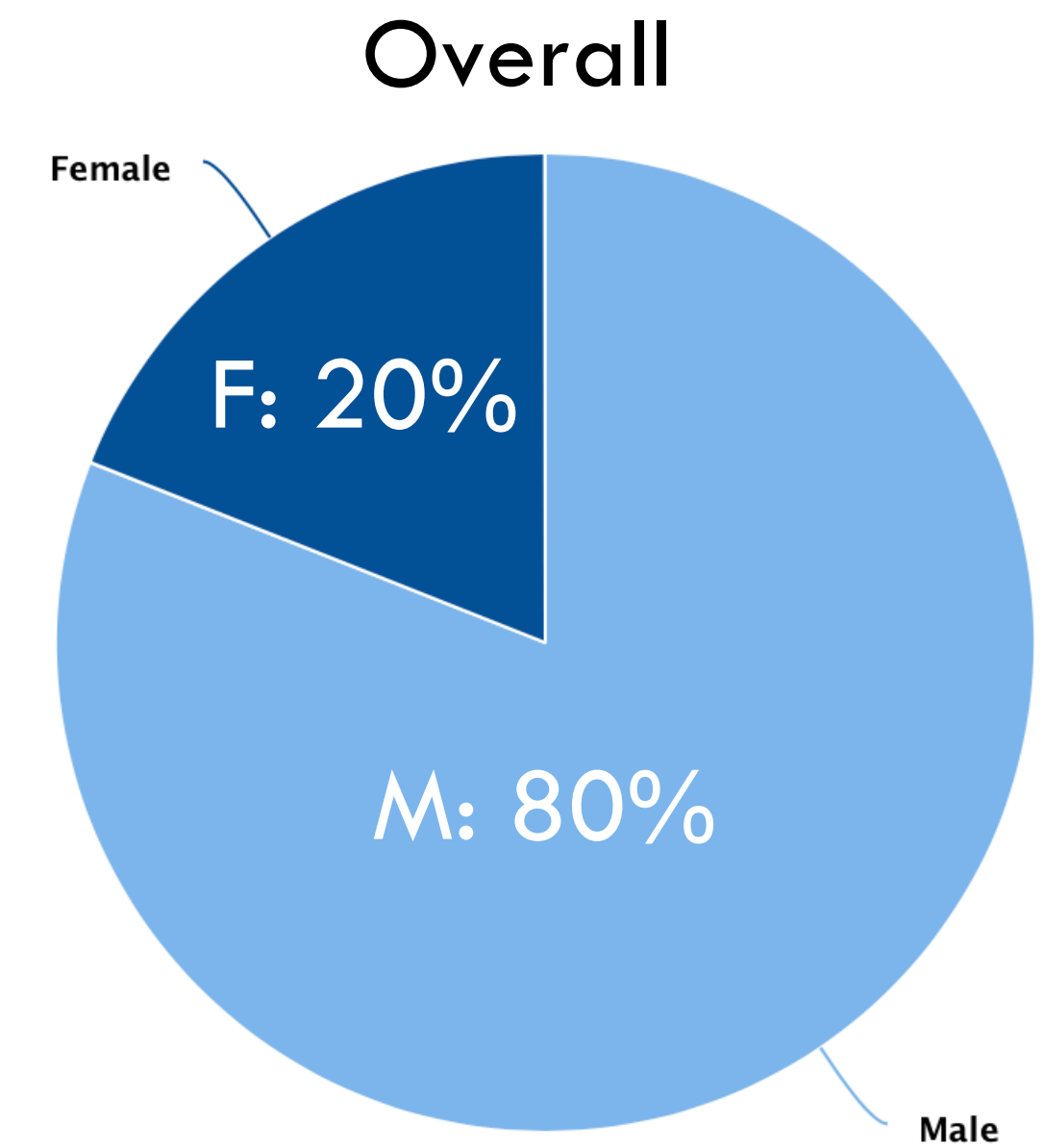
# The ECGD – monitoring 1. Gender distribution by country



- The statistics shown here is for binary genders only
- We have recently introduced the non-binary category in the LHCb registration form

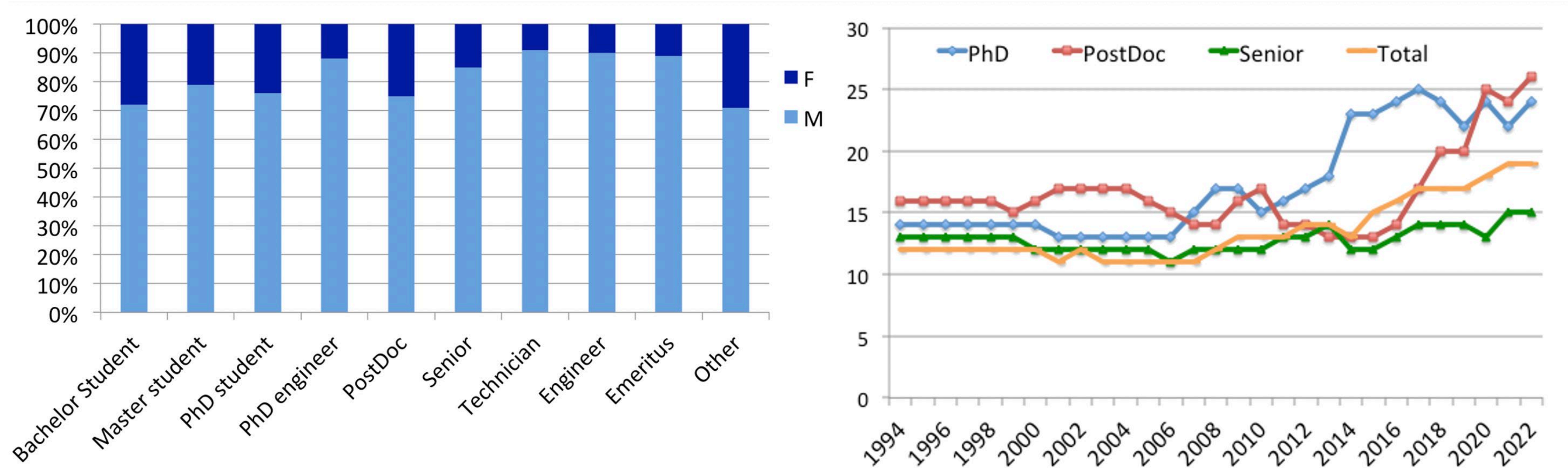


Some countries (★) have a small number of members



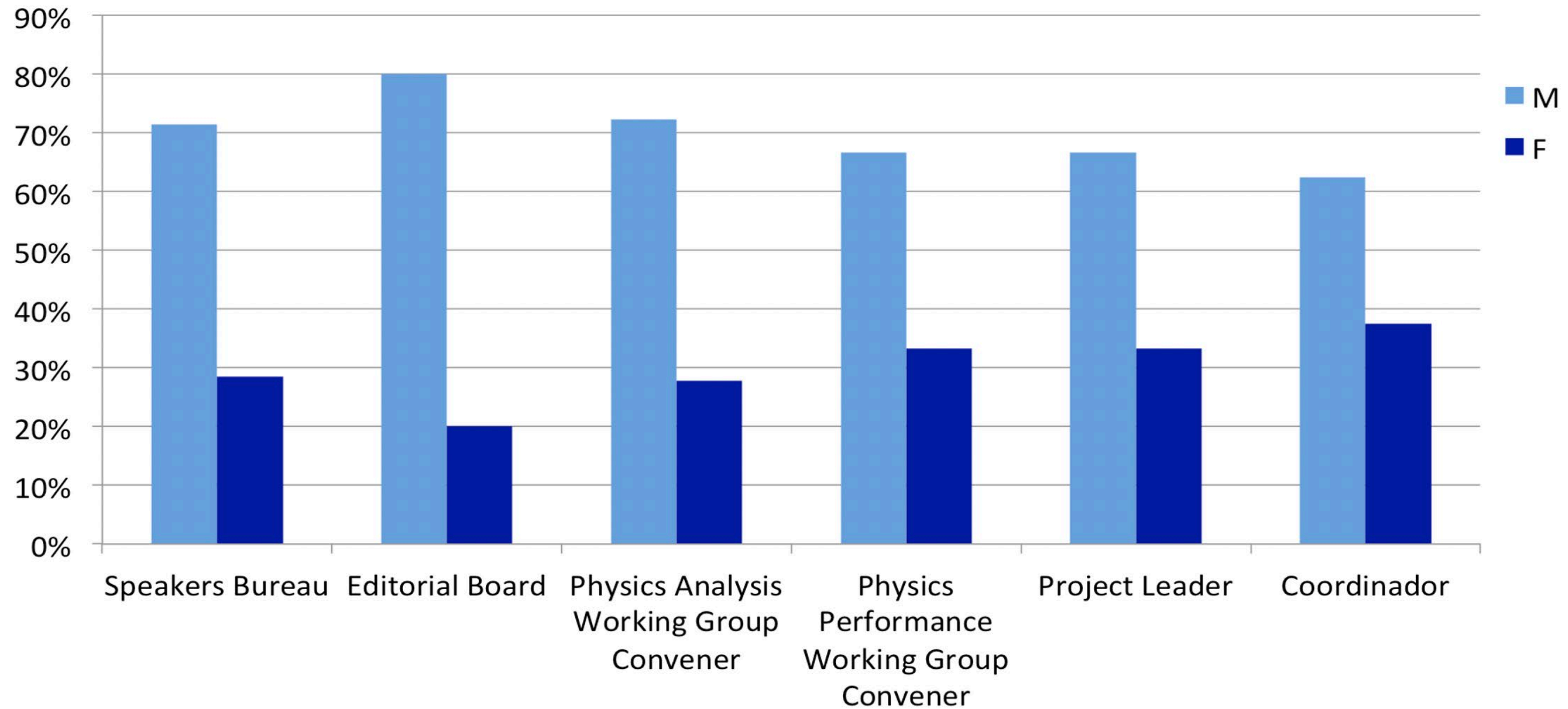


# The ECGD – monitoring 2. Gender distribution by employment category



- Fraction of women students and postdocs is above the overall fraction of women in the collaboration. It decreases for more advanced career stages
- Less women engineers and technicians
- Increasing trend for women PhD and postdocs in recent years

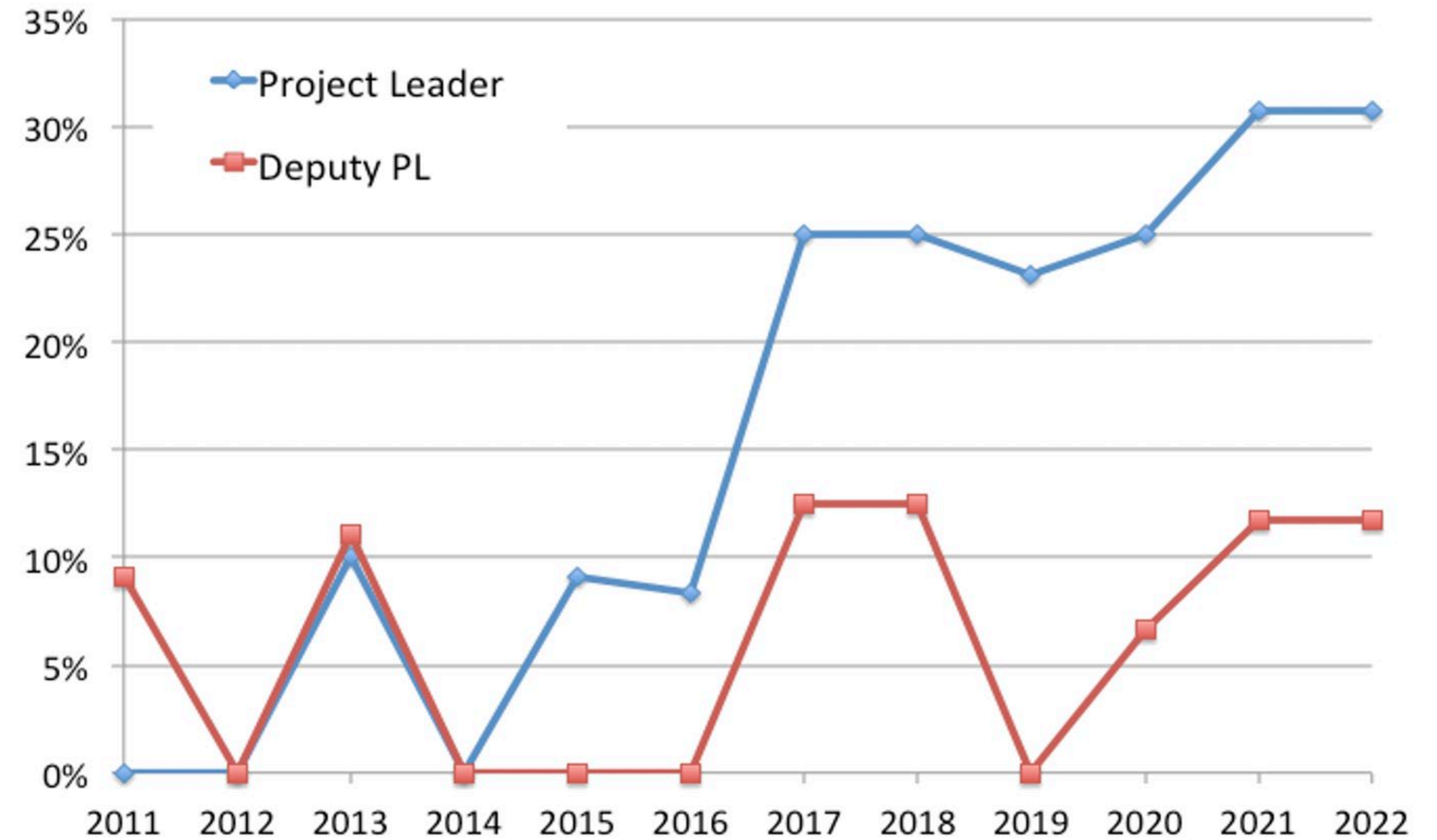
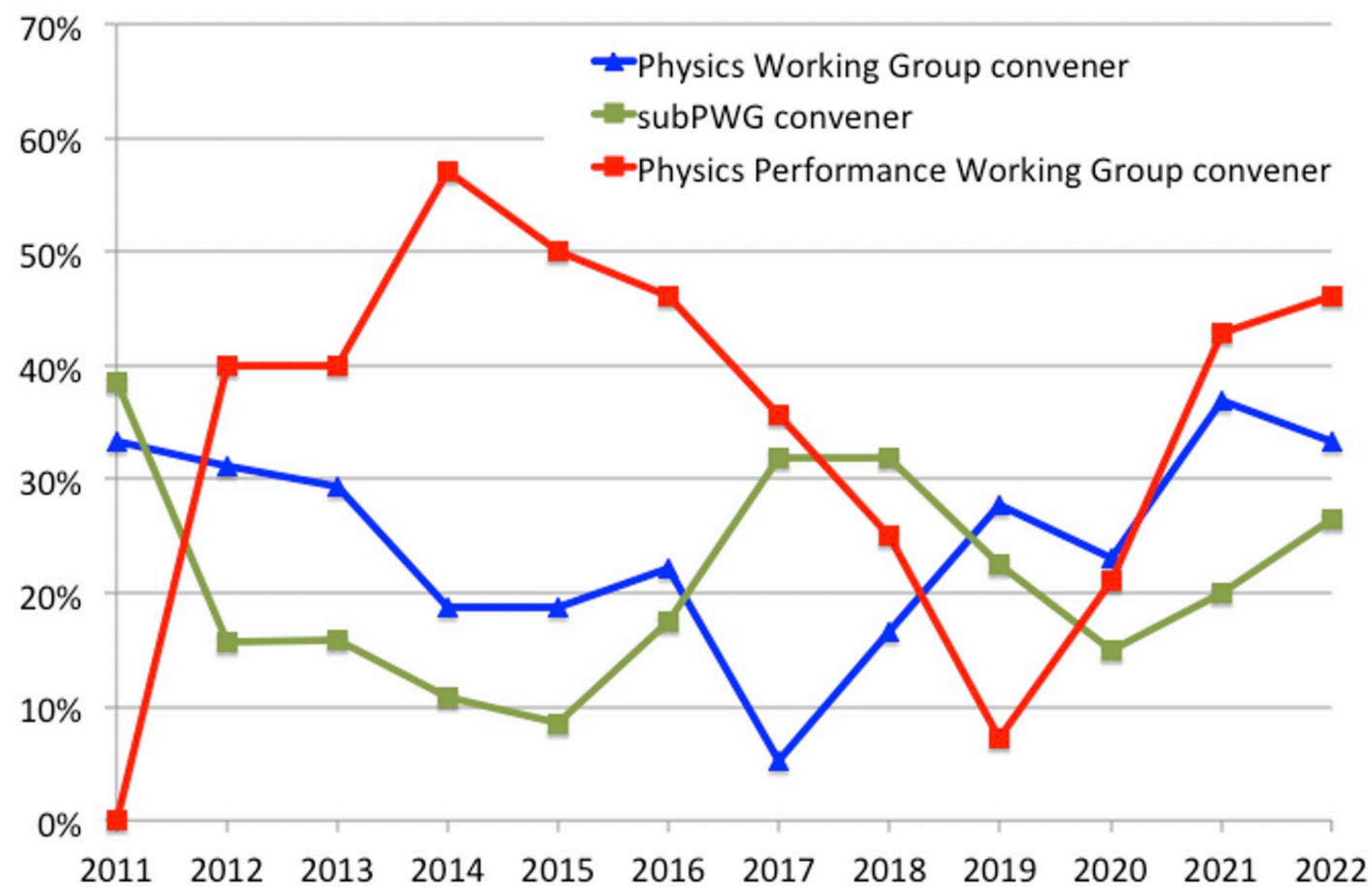
# The ECGD – monitoring 3. Gender distribution by responsibilities



- Fraction of women in different categories of responsibility roles is 20-38%



# The ECGD – monitoring 4. Gender distribution by responsibilities



- It is difficult to draw conclusions from these trends with small(ish) numbers, but overall the situation looks healthy (representation  $\geq$  proportion)

## Current total numbers (\*)

Project Leaders: 15

Deputy Project leaders: 16

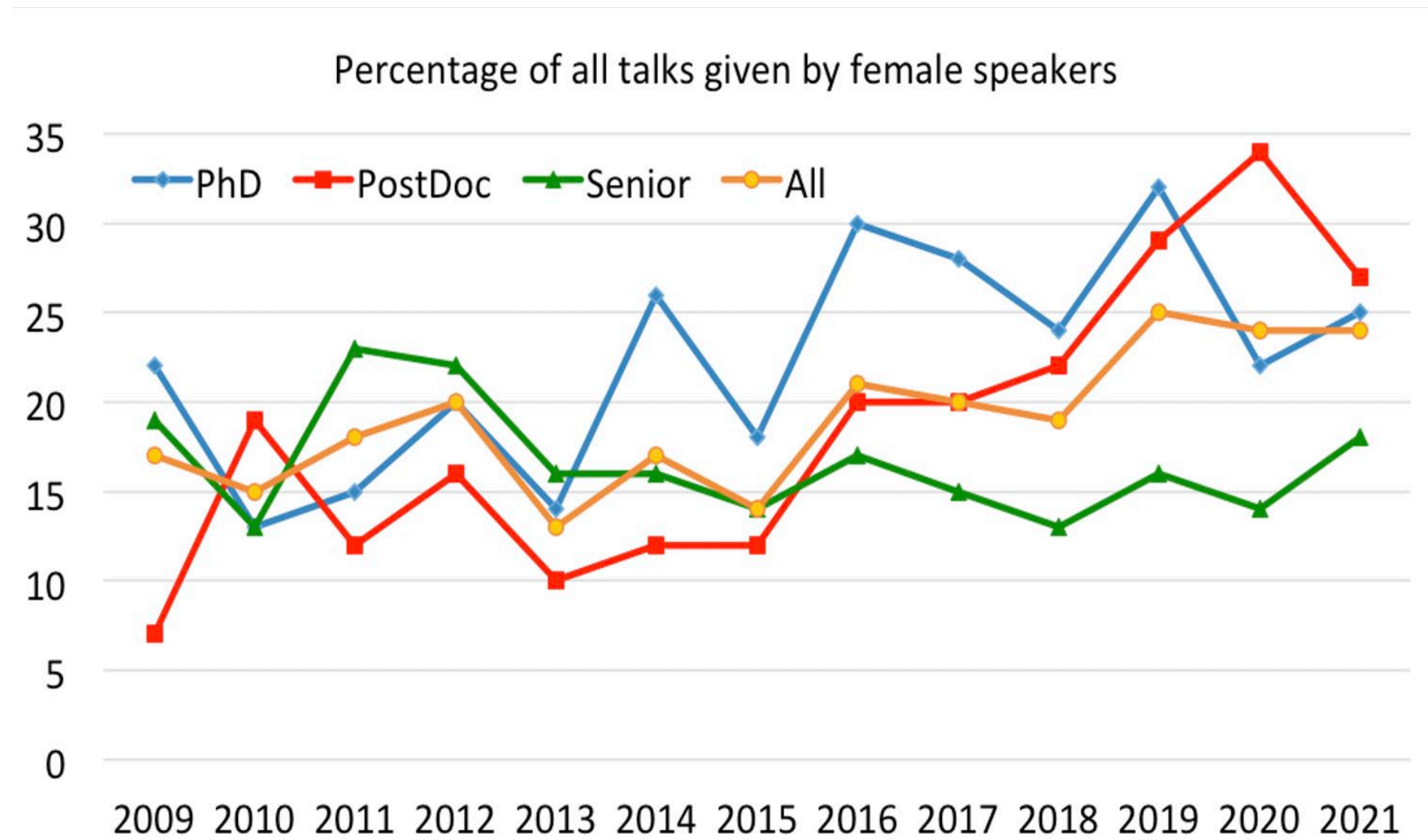
Physics Working Group (WG) conv. : 14

Physics Sub WG conv. : 35

Physics performance WG conv. : 14

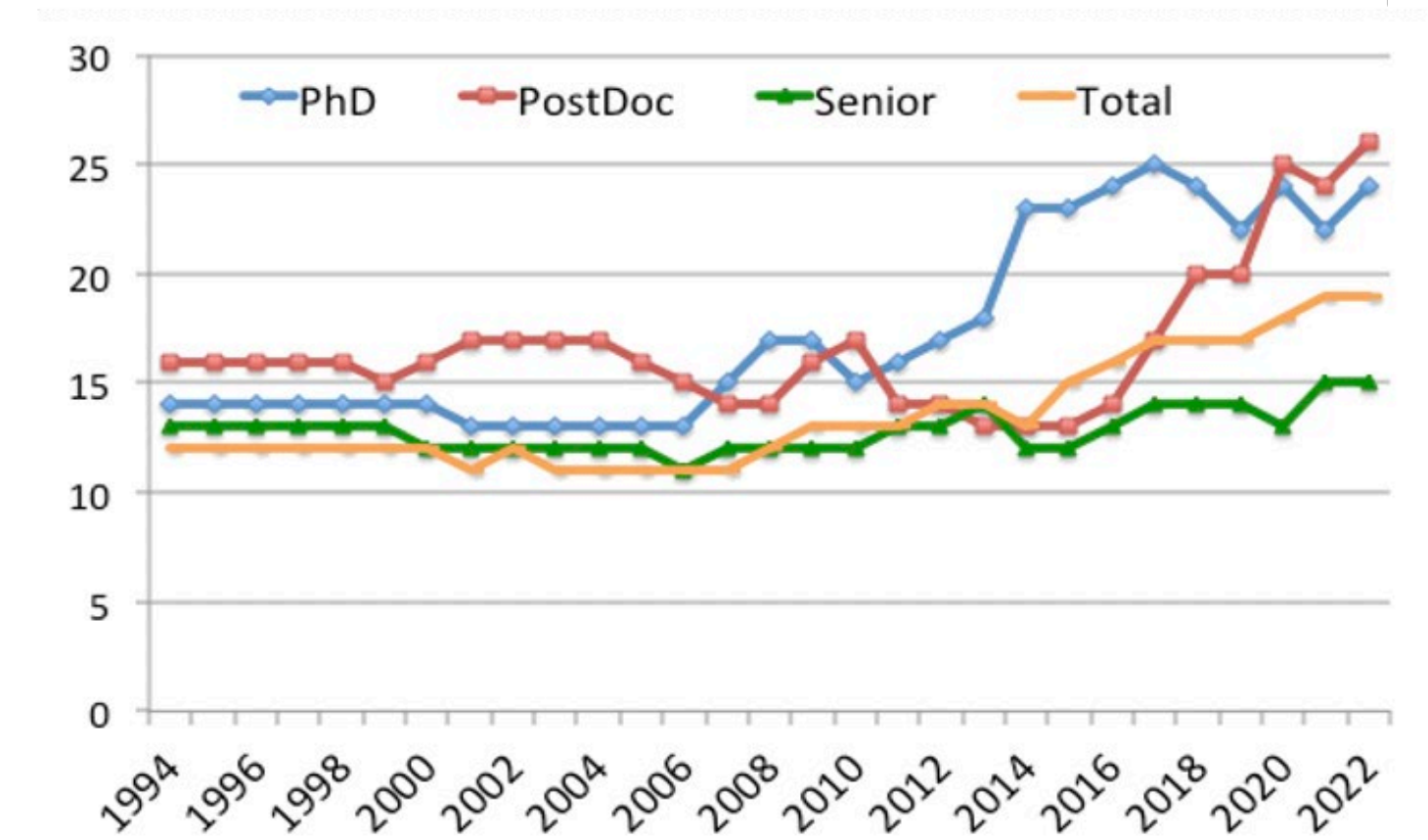
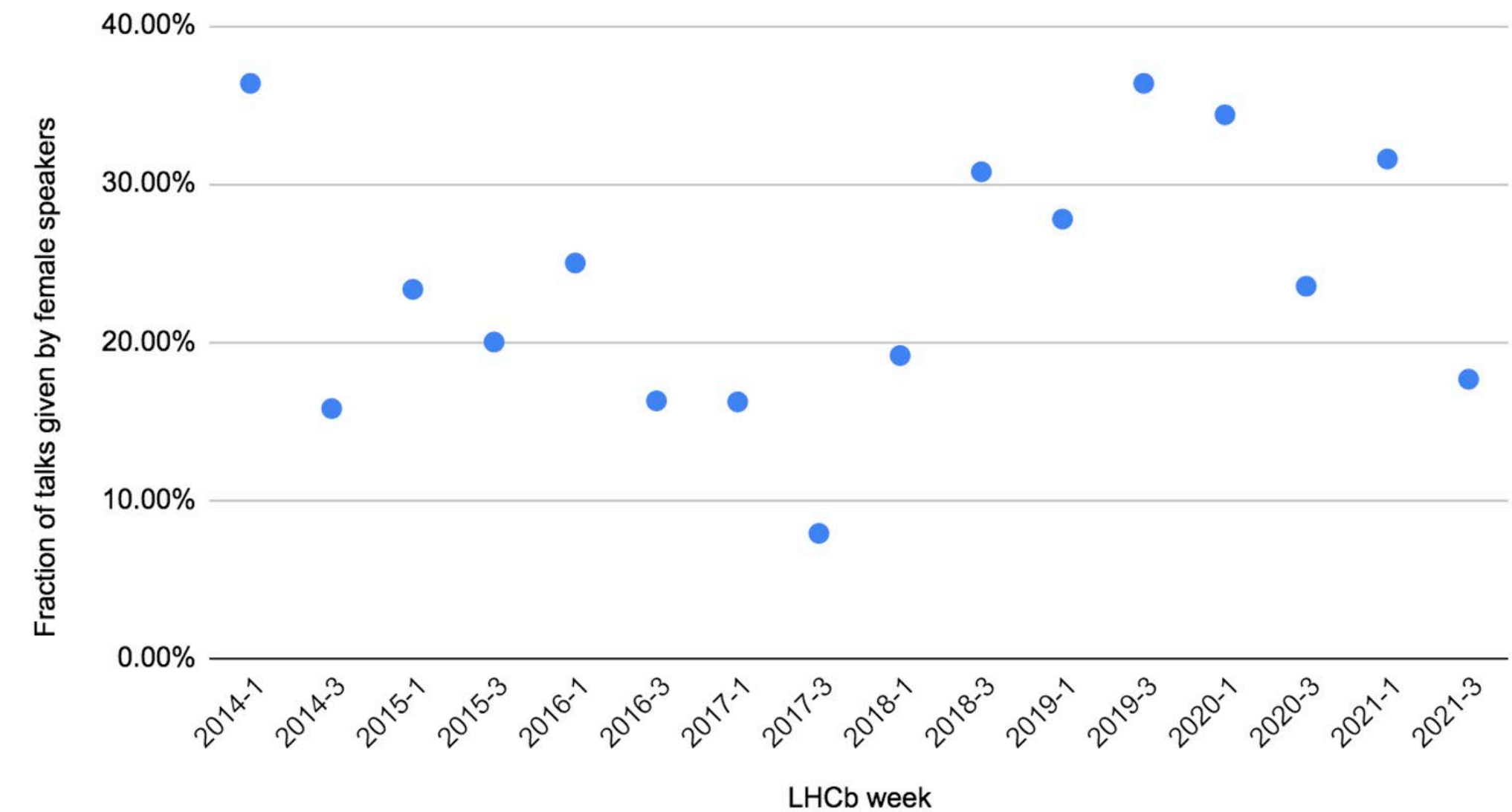
(\*) strong evolution over years

# The ECGD – monitoring 5. Women representation among LHCb speakers



- Increase in number of conference talks given by **women postdocs**
- Slow general increase follows the overall gender distribution in the collaboration
- LHCb weeks: plenary sessions of first and third (of the four) LHCb weeks of each year

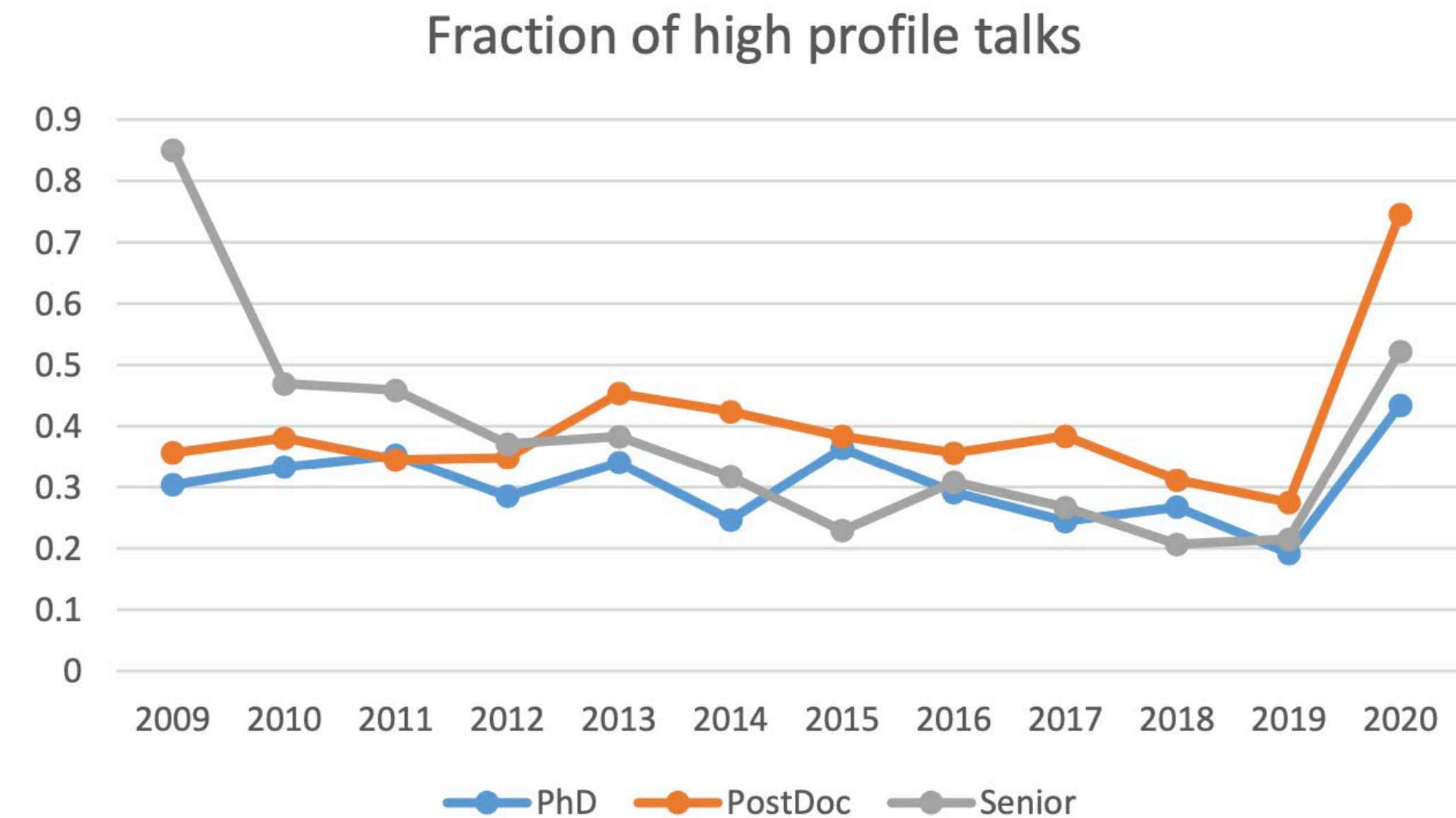
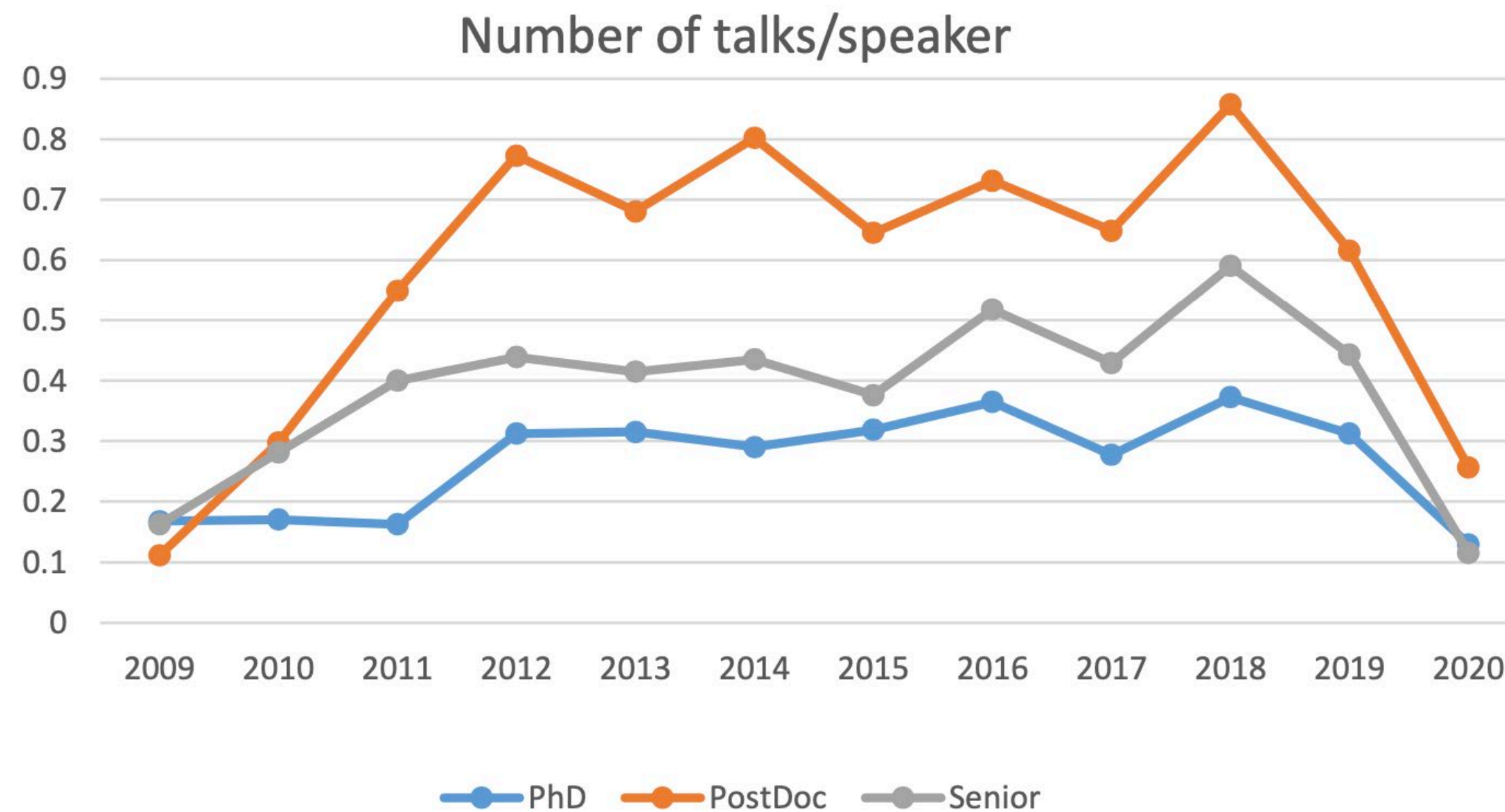
Percentage female speakers vs. LHCb week



Reminder: Female fraction (%) in the collaboration



# The ECGD – monitoring 6. Career stage of LHCb speakers



- Reduction of ~50% of the talks in 2020  
>30 conferences/workshops (with ~60 assigned talks) cancelled or postponed
- More high-profile talks in 2020 than usual as many workshops were cancelled
- Postdocs are well represented



- We recently monitored the **representation of different geographic regions among roles of responsibility** in LHCb and found some differences
- We are organising a collaboration-wide discussion to understand and interpret this, and examine if there is something that we can do better







## A pilot Inclusive Teamwork Training organized:

- Initially available to group conveners
- A session in Feb 2021
- Follow-up session in Oct 2021
- Next one TBA this autumn
- Could organizing this LHC-wide be a good idea?



## Common Types Of Bias





## Coffee With:

- Active during the pandemics' peak
- Enjoy a virtual coffee break with a group of super nice LHCb colleagues whom you may never have met otherwise
- Tuesdays from 13h30 to 14h, with 20 participants on average, whom we split into 5 “rooms” mixing early-career and senior
- Once a month







## LHCb-PUB-2021-004



LHCb-PUB-2021-004  
May 11, 2021

### Main points:

- The **well-being of our younger colleagues**, graduate students and especially post-docs, has clearly **deteriorated**
- 20-30% of the early-career colleagues reported feeling very lonely, isolated, more anxious and frustrated/helpless for more than half of the days
- **More than 50% of graduate students, 45% of post-docs and about 20% of permanent staff experienced a big decline in their mental health state** since the beginning of the crisis
- Worse wellbeing correlates with living abroad

### Results of the survey on the effects of the Covid-19 pandemic on LHCb scientists

E. Ben Haim<sup>1</sup>, M. F. Cicala<sup>2</sup>, F. Dordei<sup>3</sup>, S. Klaver<sup>4</sup>, R. Kopečna<sup>5</sup>, V. Lukashenko<sup>4</sup>, N. Skidmore<sup>6</sup>

<sup>1</sup>LPNHE, Sorbonne Université, Université de Paris, CNRS/IN2P3, Paris, France

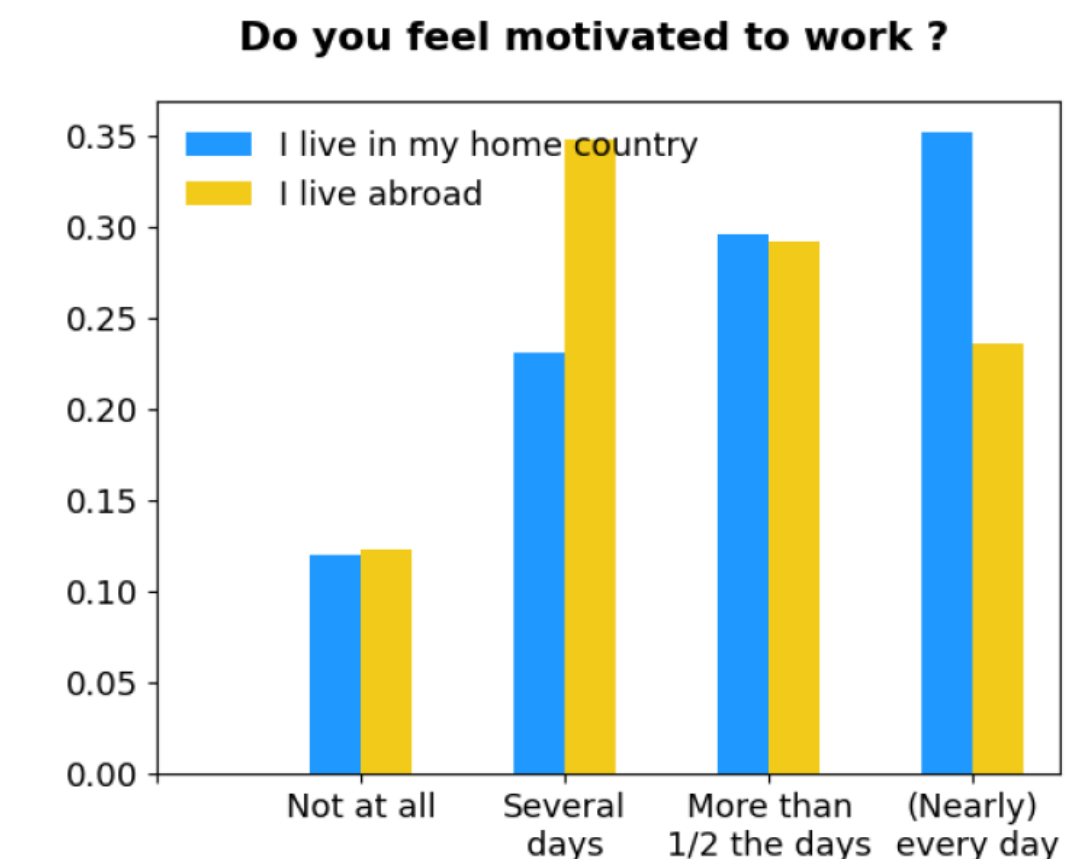
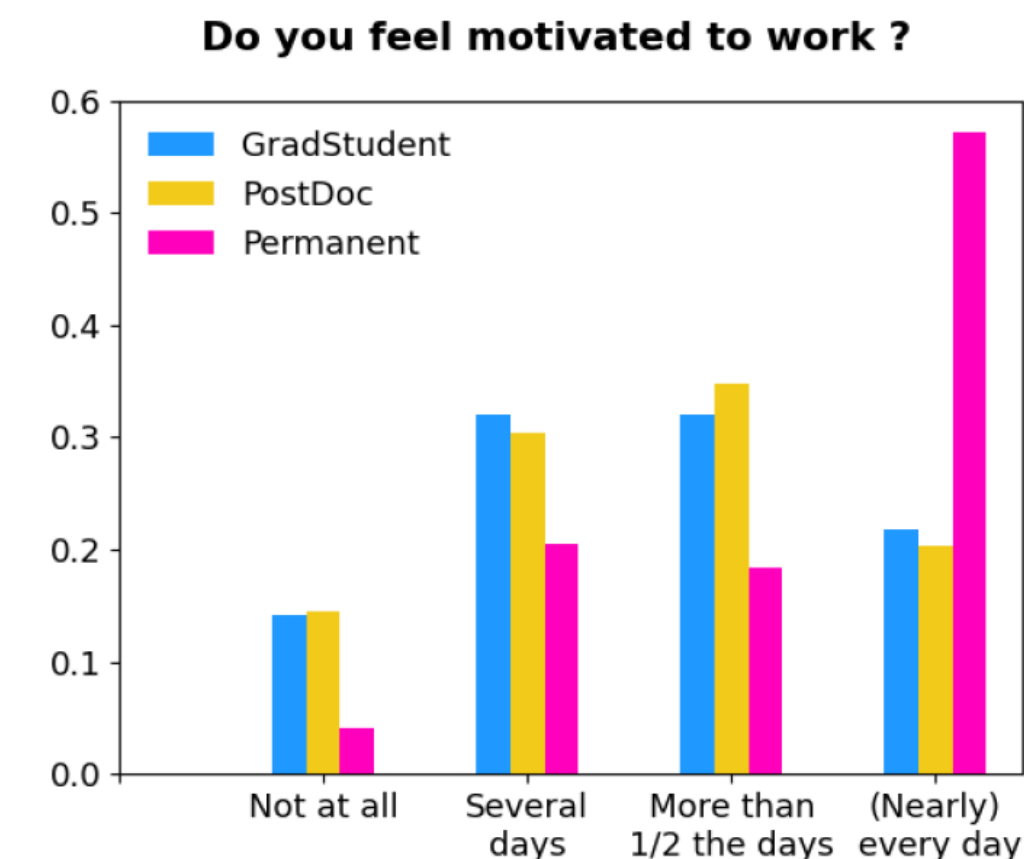
<sup>2</sup>Department of Physics, University of Warwick, Coventry, United Kingdom

<sup>3</sup>INFN Sezione di Cagliari, Monserrato, Italy

<sup>4</sup>Nikhef, Amsterdam, the Netherlands

<sup>5</sup>Heidelberg University, Heidelberg, Germany

<sup>6</sup>University of Manchester, Manchester, UK





## Healthy Minds for Master Minds: Mental Health event for early-career scientists

28 May 2021

Europe/Amsterdam timezone

Overview

Timetable

Registration

Resources

LHC Early Career Scientists  
Fora

✉ [lh-early-career-scientist...](#)

The Early Career Scientists Fora of the four large LHC experiments have joined forces to organise a **virtual workshop on mental health**, which will take place on **Friday, May 28th from 13:00-15:00 CEST**. We are excited to announce that the workshop will be run by [Sarah Speziali](#), a therapist and life coach who has extensive experience raising awareness about mental health in the workplace. In this workshop, the following topics will be covered with a focus on early career scientists:

1. Understand the differences between good and poor mental health
2. Recognise the impact of mental health on people's social lives and work environments
3. Learn how to be proactive when dealing with stress, anxiety, and depression.

Interaction will be encouraged via chat, polls, and Q&A during the workshop. If there are any specific mental-health related topics you would like to have discussed, please indicate this in the registration. This workshop is designed for early career scientists, but all are welcome to join.

- Organized by the Early Career community of four big experiments in [May 2021](#)
- Over 300 registrations
- Planned to be a recurring event





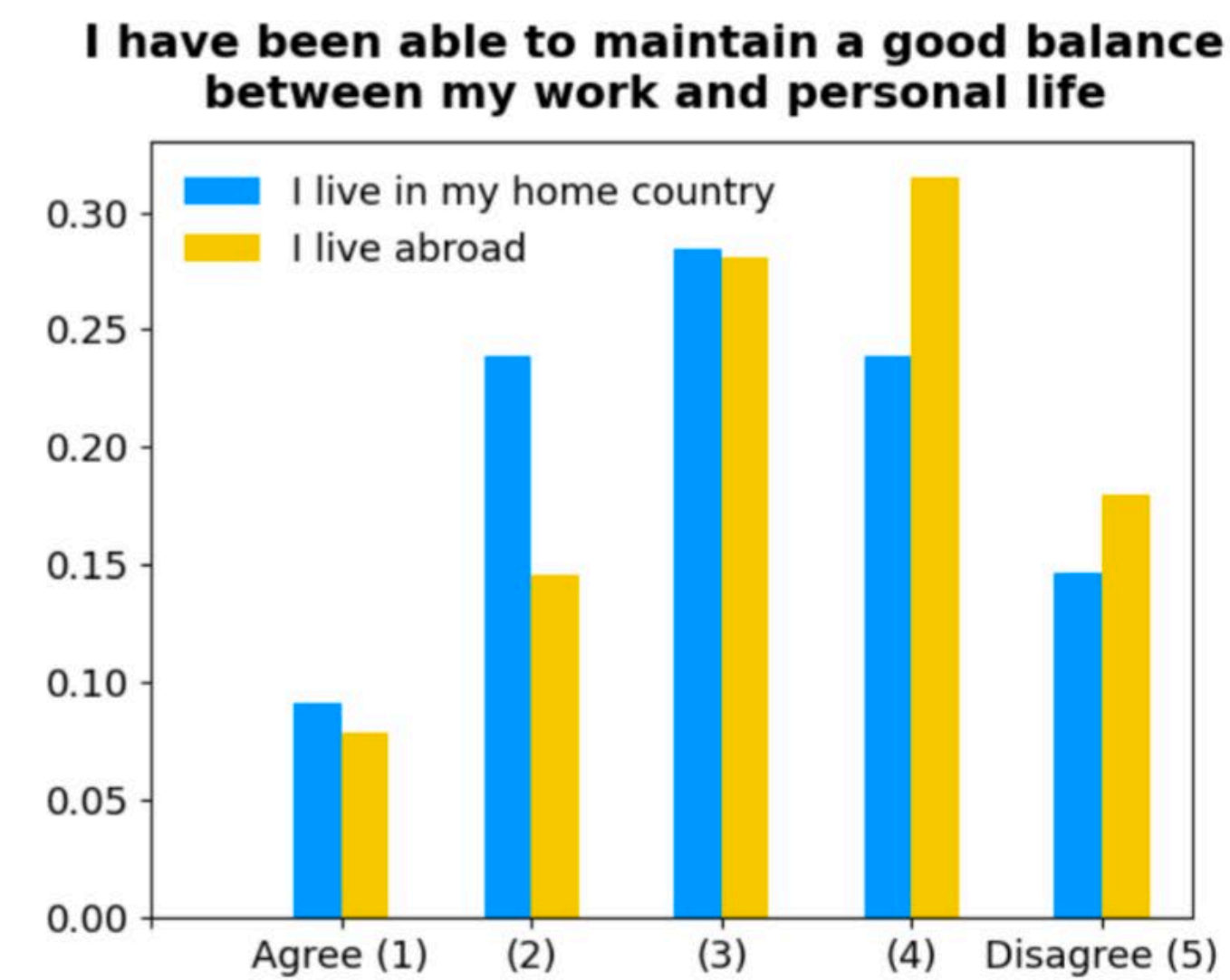
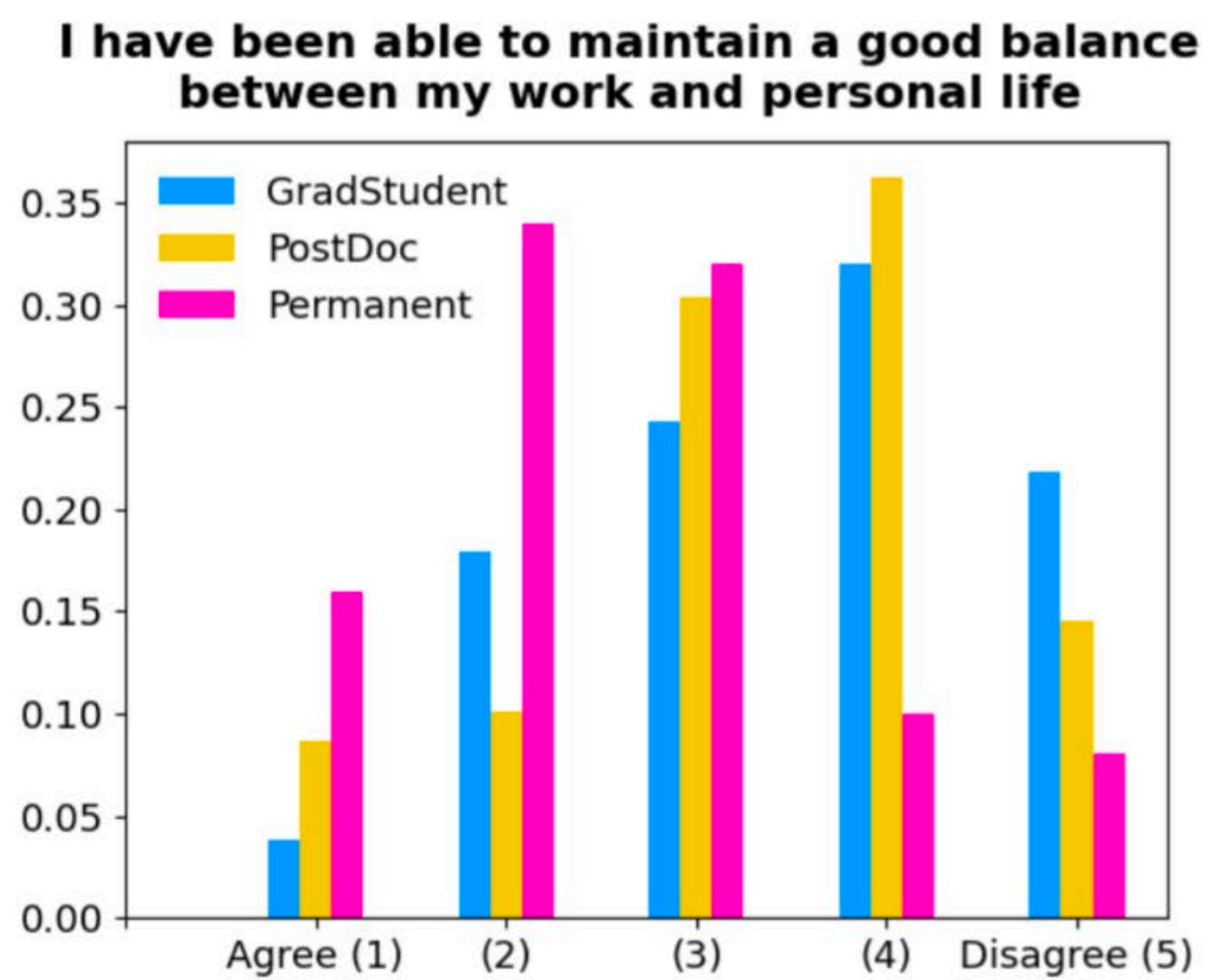
- The ECGD office is involved in many tasks in the collaboration: point of contact for related issues, organization of planery session at every LHCb week (together with volunteers)
- Early career representatives are building the community and collaborating with colleagues from the other big experiments
- The ECGD officers are monitoring diversity and representation trends - increase of women representation observed
- The study on the effects of the pandemic is a call to action



Reach us at: [lhcb.ecgd@cern.ch](mailto:lhcb.ecgd@cern.ch)

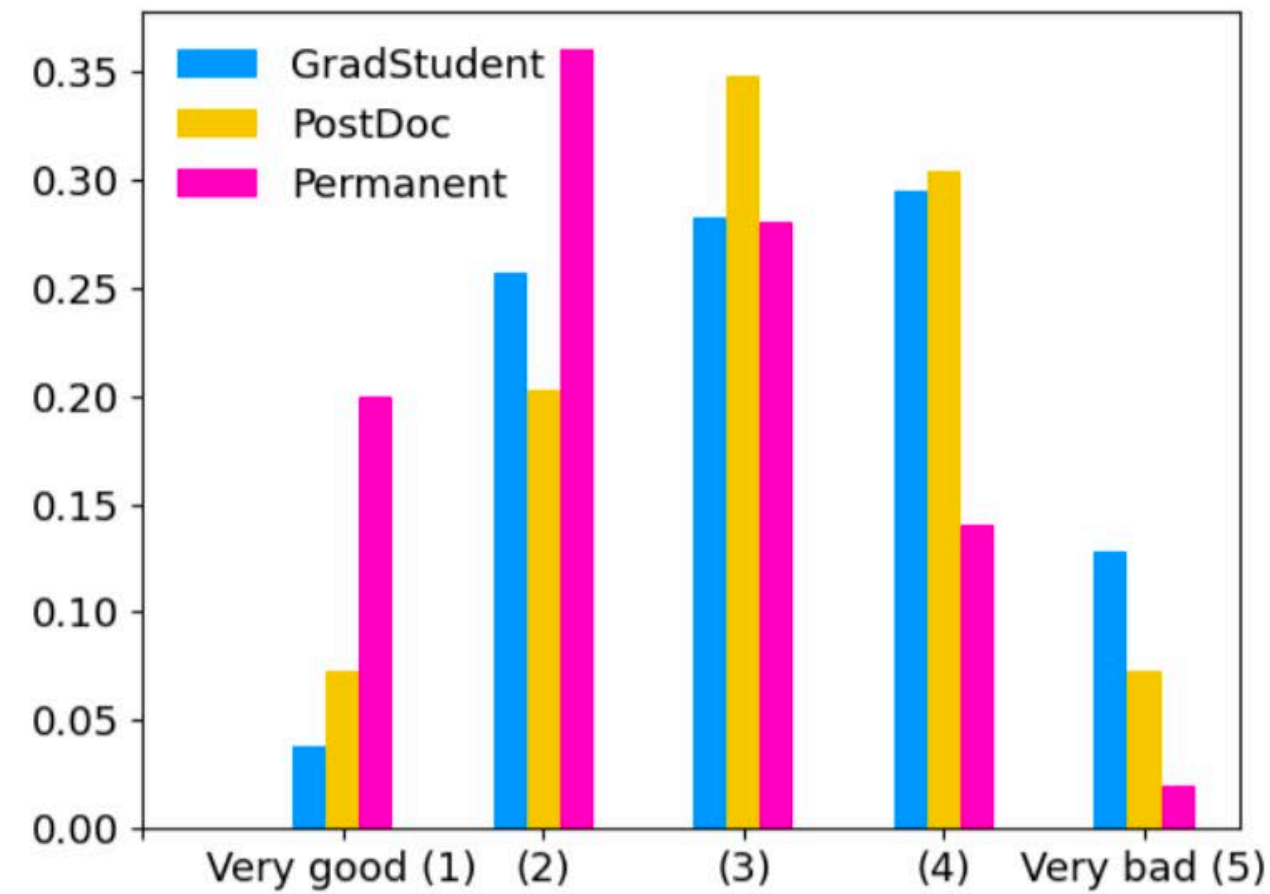
# Thank you!



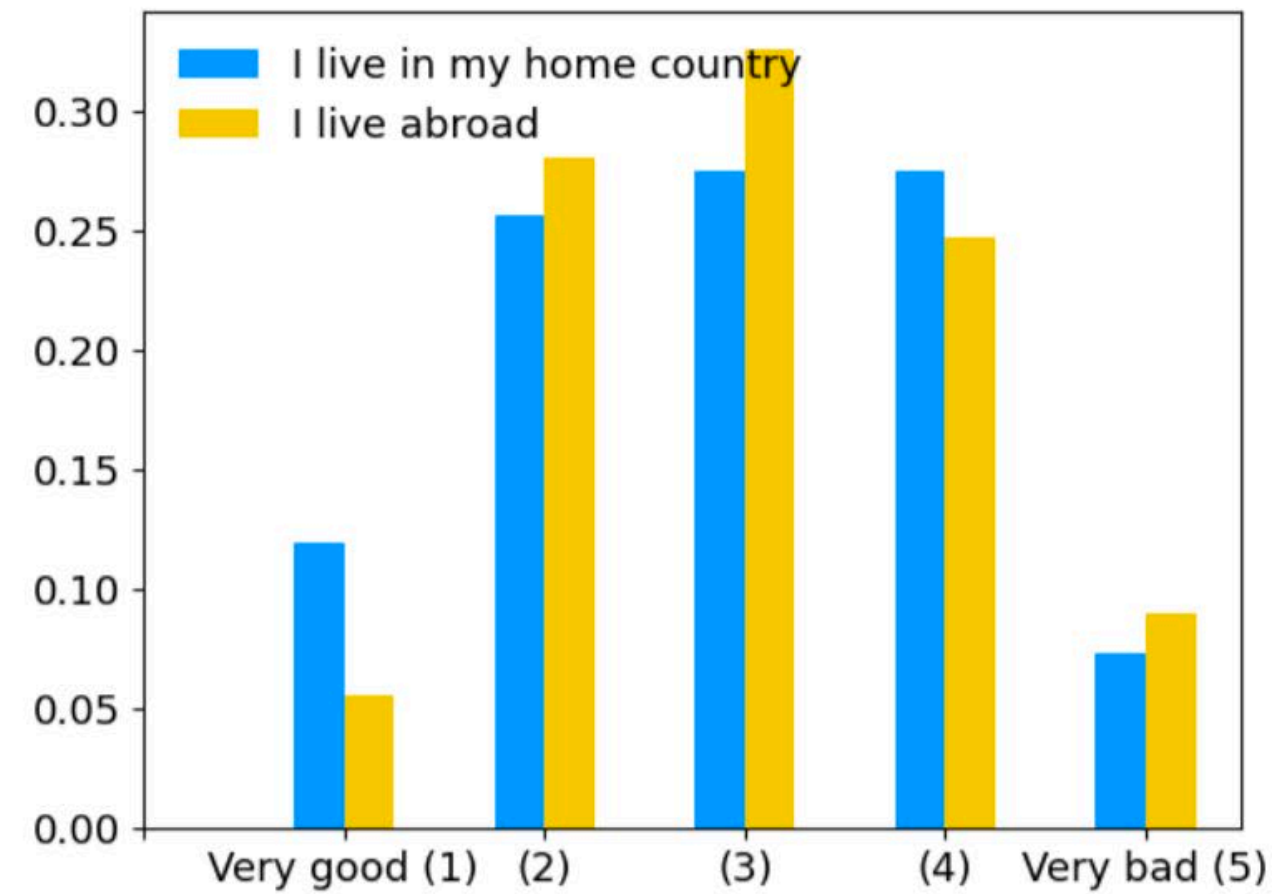




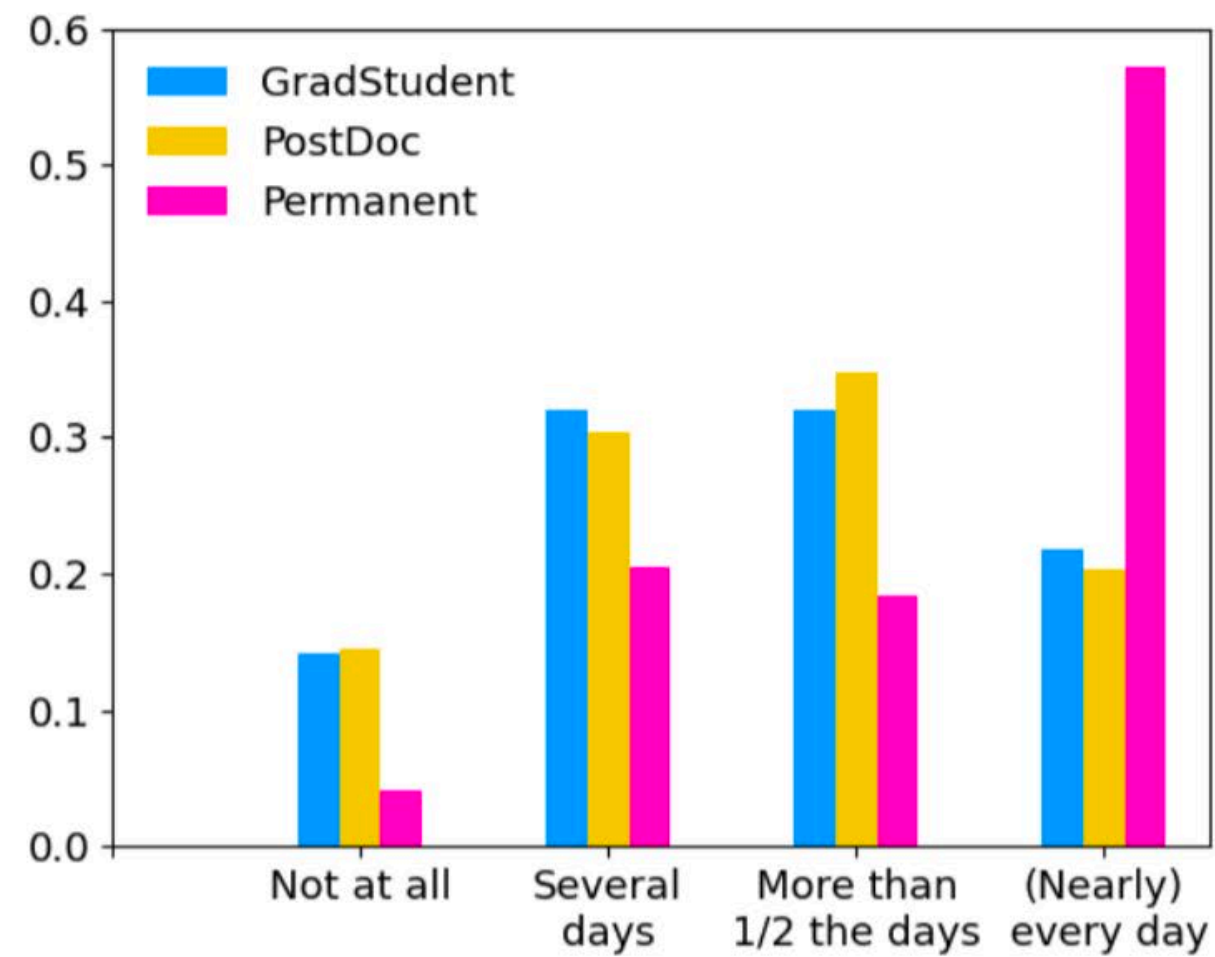
How would you rate your productivity compared to pre-corona?



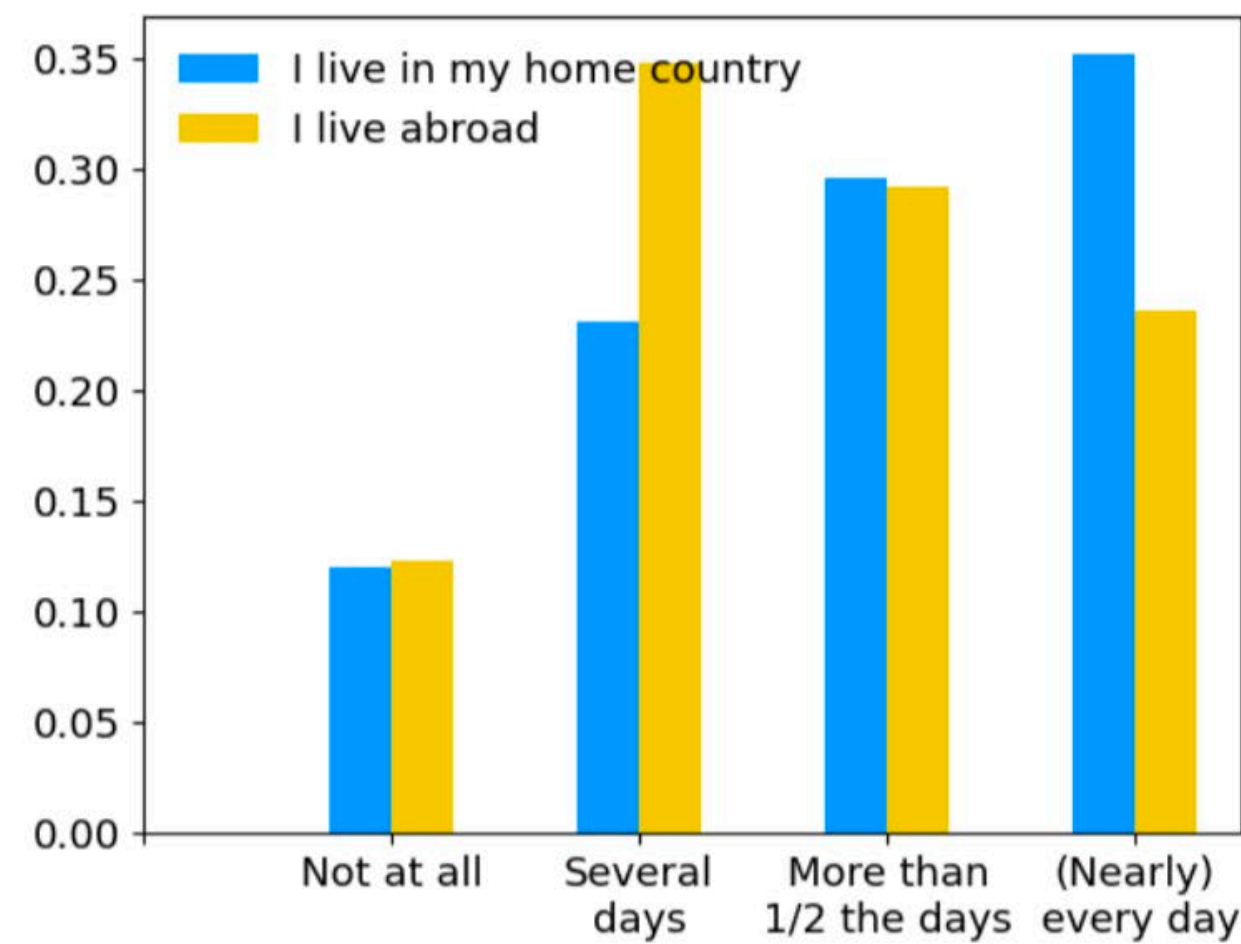
How would you rate your productivity compared to pre-corona?



Do you feel motivated to work ?



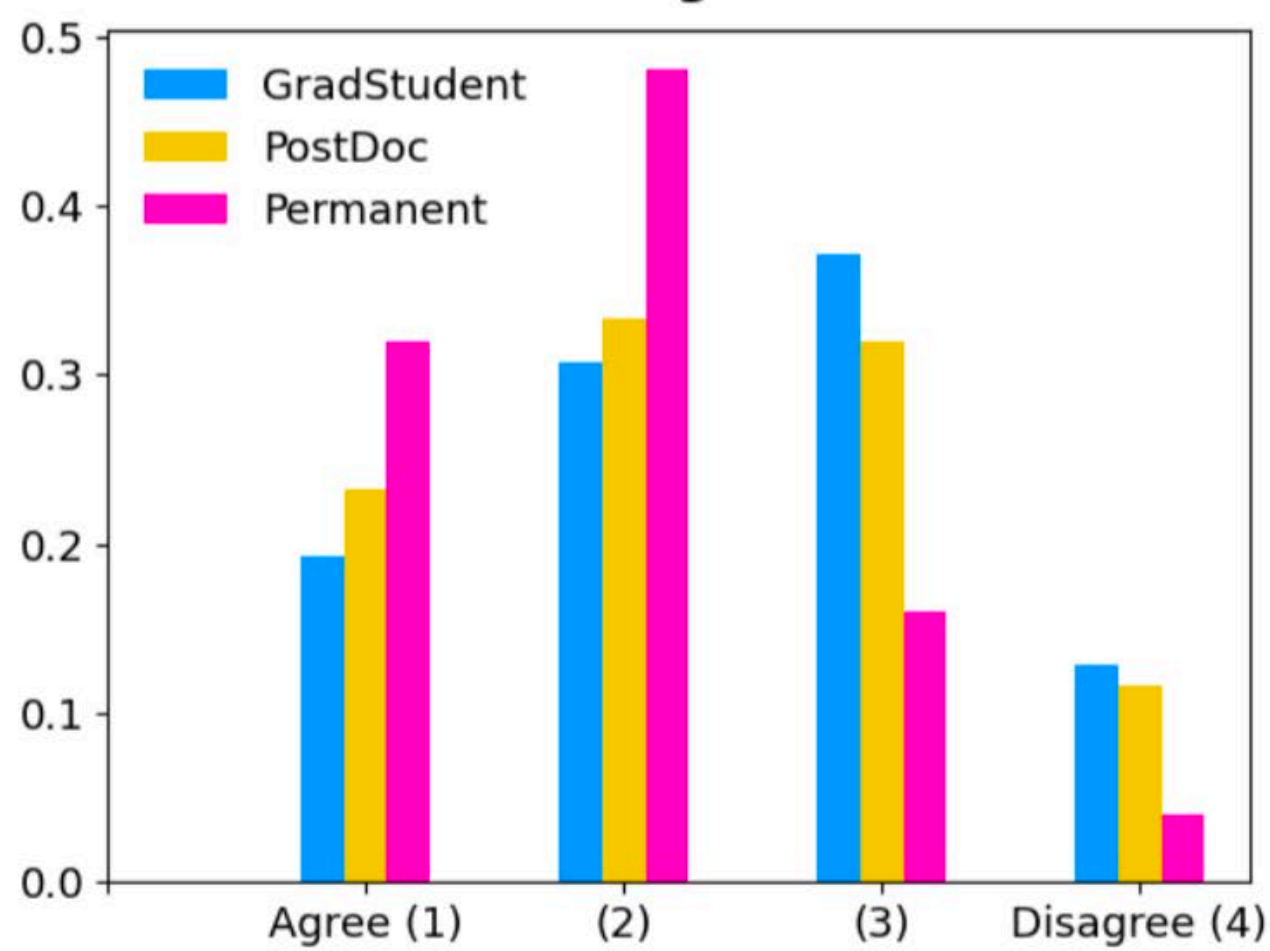
Do you feel motivated to work ?



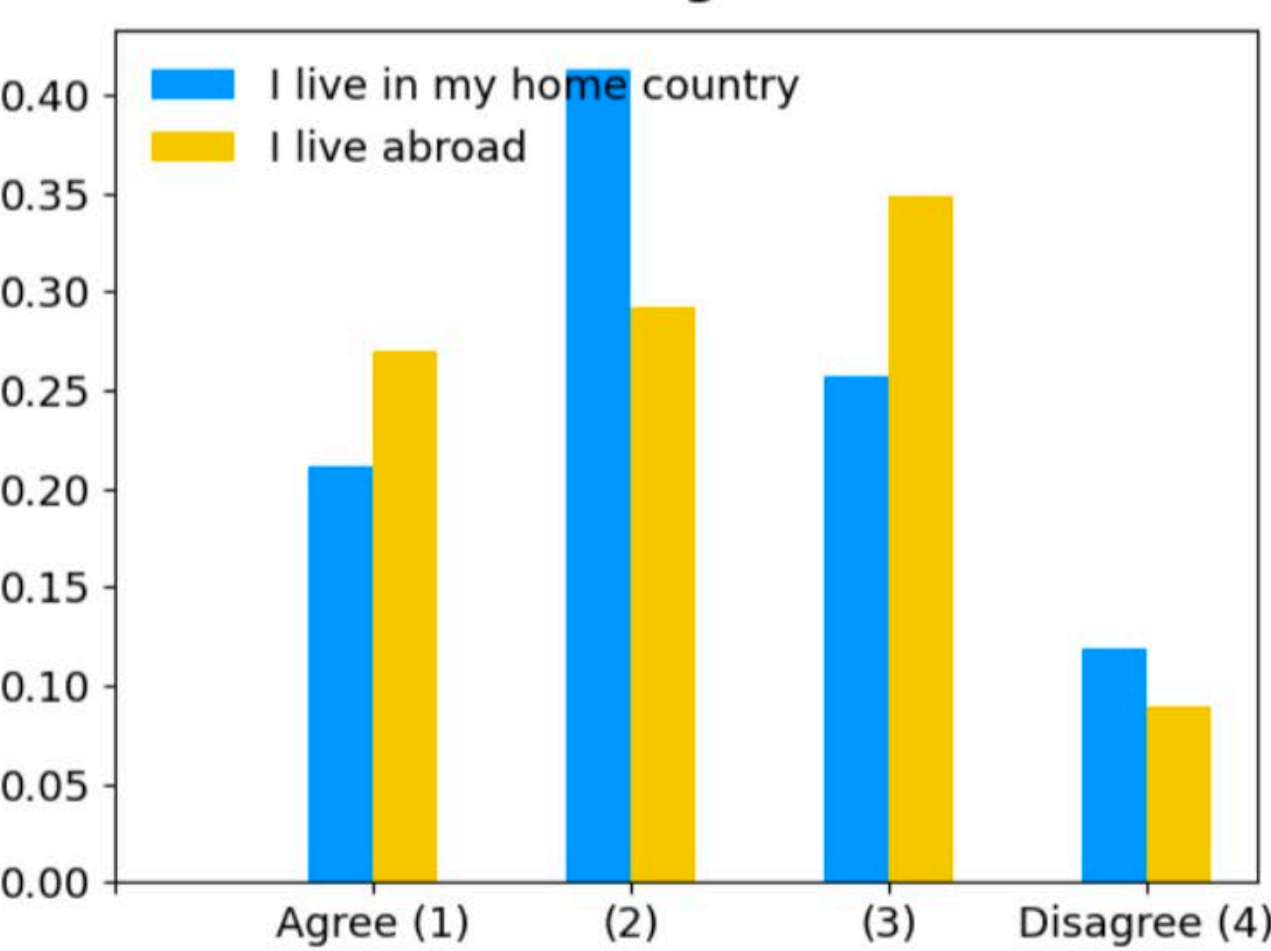




I am happy with how often I communicate with colleagues

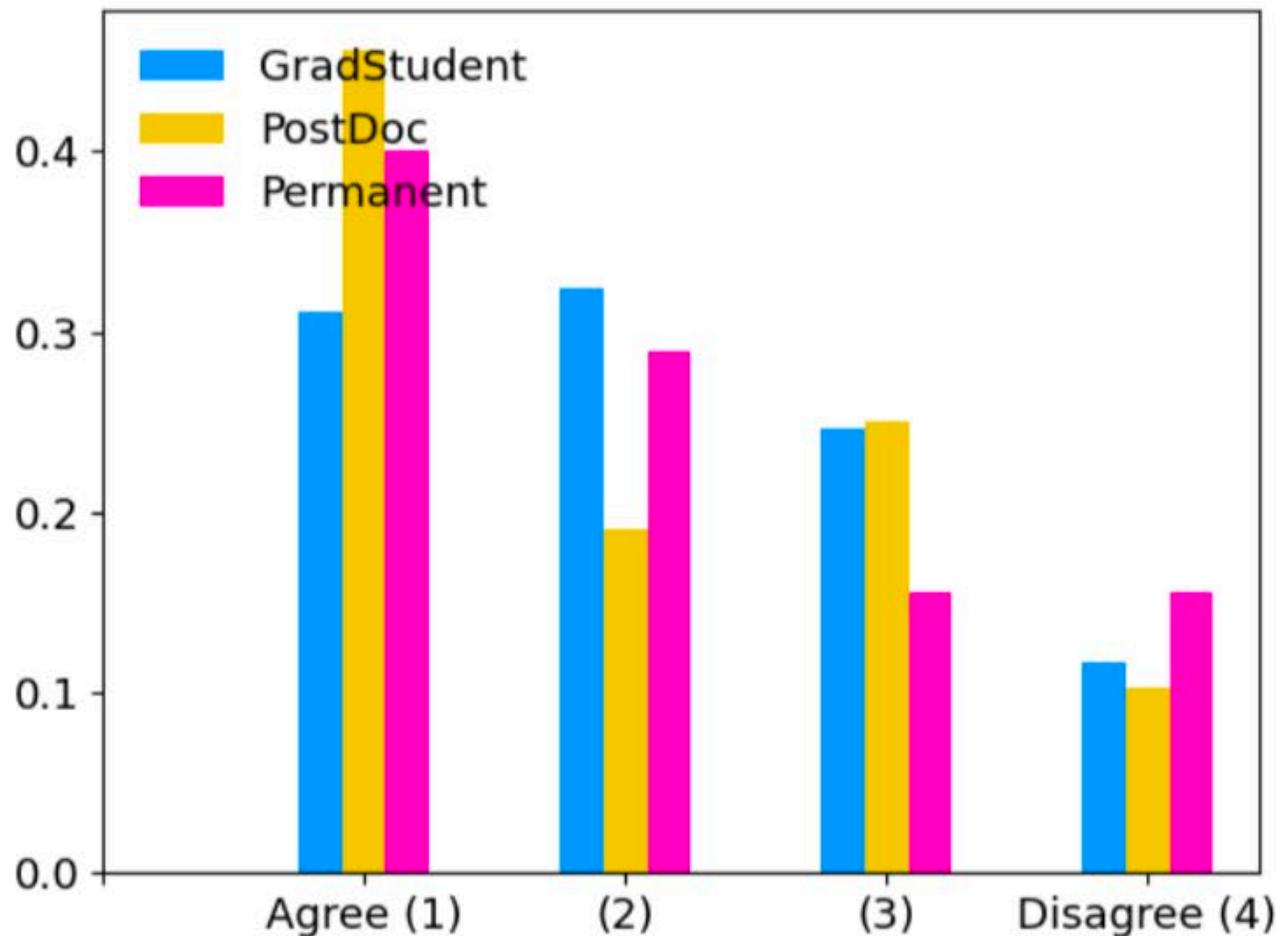


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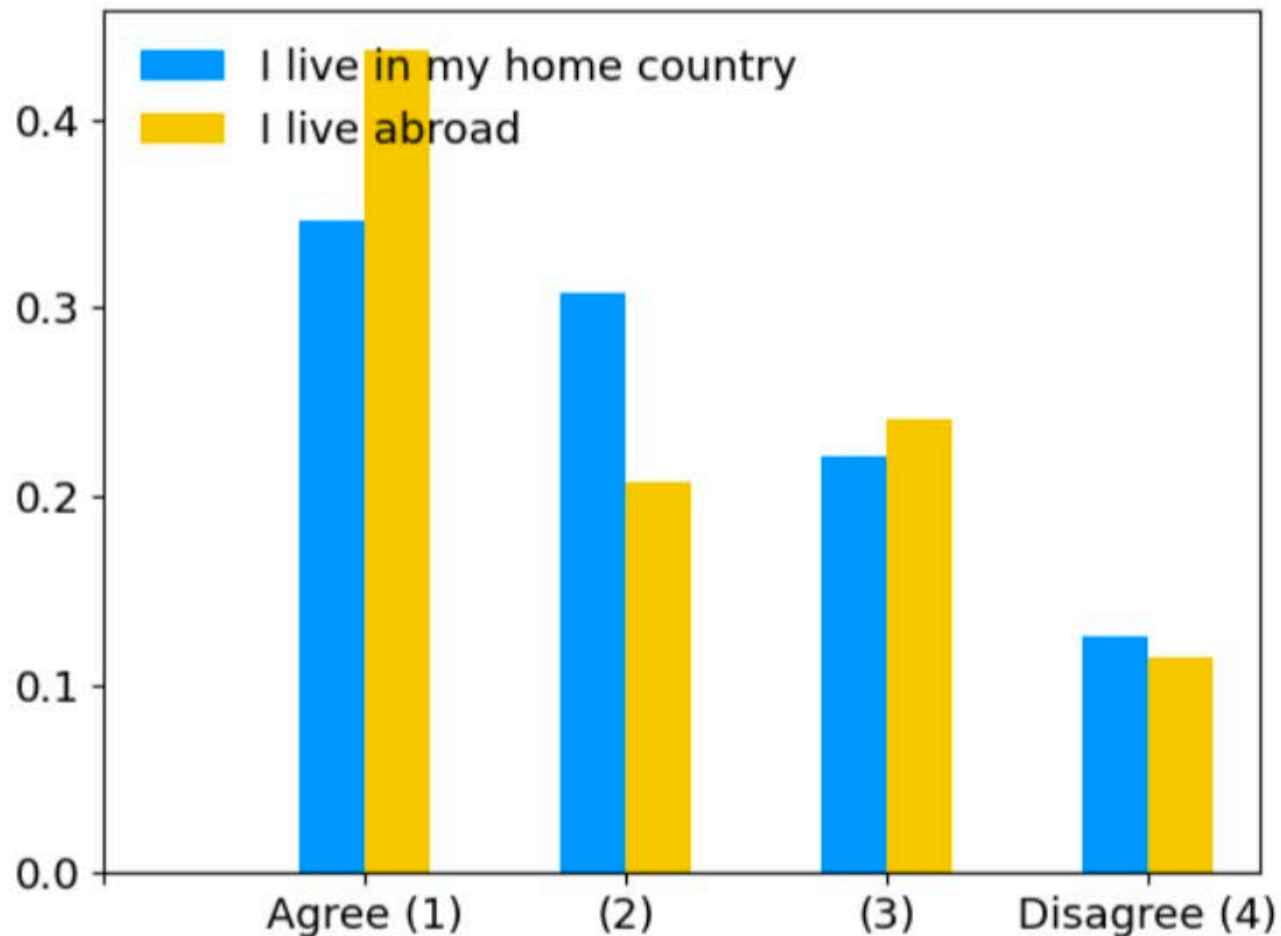




I have enough support from my supervisor regarding mental health



I have enough support from my supervisor regarding mental health







Kharkiv Institutes in Photos



4  
Tetiana Hryn'ova at Advisory Committee for CERN Users meeting