



must

Molecular Ultrafast
Science and Technology

National Center of Competence in Research



The NCCR Experience

Dr. Anna Garry, ETH Zürich
NCCR MUST

Gender in Physics Day, Geneva, 26 January 2017



must

FNSNF

SWISS NATIONAL SCIENCE FOUNDATION

Outline

- Introduction
- Creating NCCR Gender Strategies
- Highlighting two types of measures from NCCR gender initiatives and activities

Introduction: MUST and PlanetS

Two NCCRs with Principal Investigators (PIs) from physics:

- **NCCR MUST** since 2010 – Phase II – seventh year (21 PIs physics and chemistry research in molecular ultrafast science and technology)
- **NCCR PlanetS** since 2014 – Phase I - third year (22 PIs astronomy, physics, geology and computer science for study of planets inside and outside the solar system)

N.B. other NCCRs with PIs from physics are: NCCR QSIT, NCCR-MARVEL and NCCR BIO-INSPIRED MATERIALS

NCCR Molecular Ultrafast Science and Technology

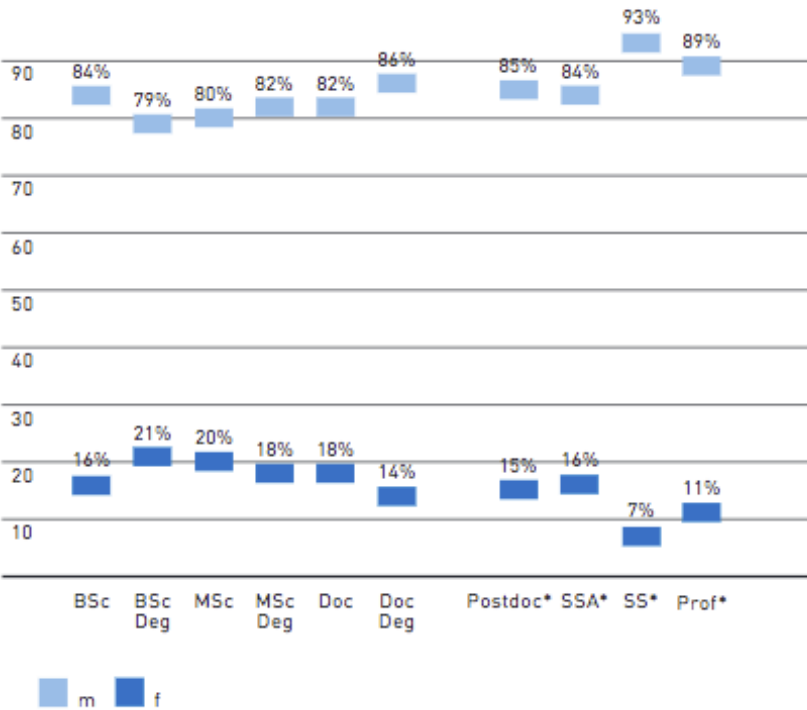
- 21 Principal Investigator (PI) groups from 8 Swiss universities and the Paul Scherrer Institute (PSI), Villigen (Phase II: 3 female PIs, 14.3%)
- Disciplines in our network: Physics and Chemistry
- Leading Houses: ETH Zürich and University of Bern
- Directors:
Prof. Ursula Keller, ETH Zürich
Prof. Thomas Feurer, Uni Bern
- PI groups distributed across Switzerland



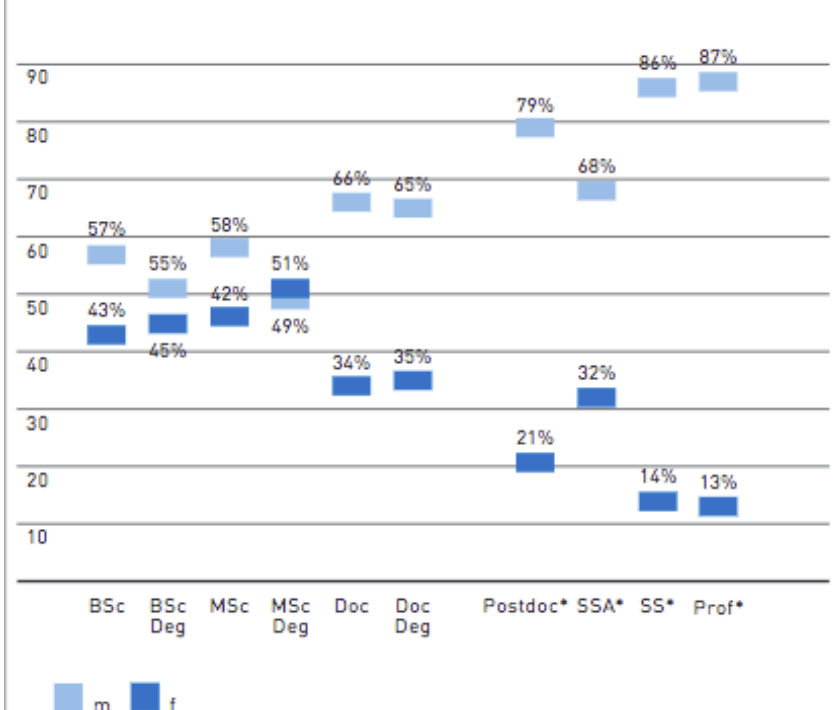
ETH Zürich Gender Statistics, D-Physics and D-CHAB, 2015

(R. Schubert and H. Kaczykowski-Patterson, Equal Opportunities Office)

Leaky Pipeline D-PHYS 2015

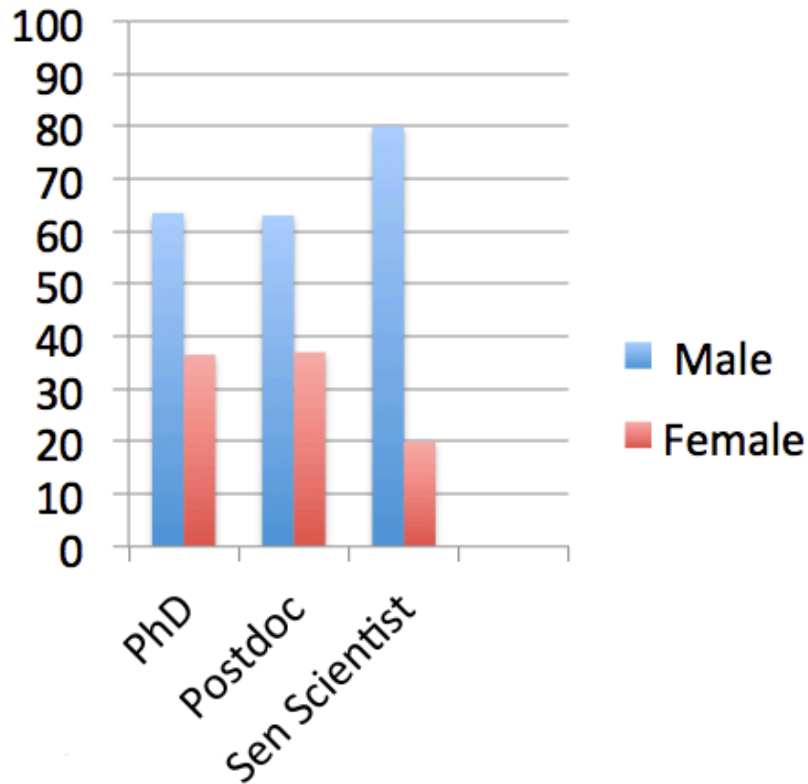


Leaky Pipeline D-CHAB 2015

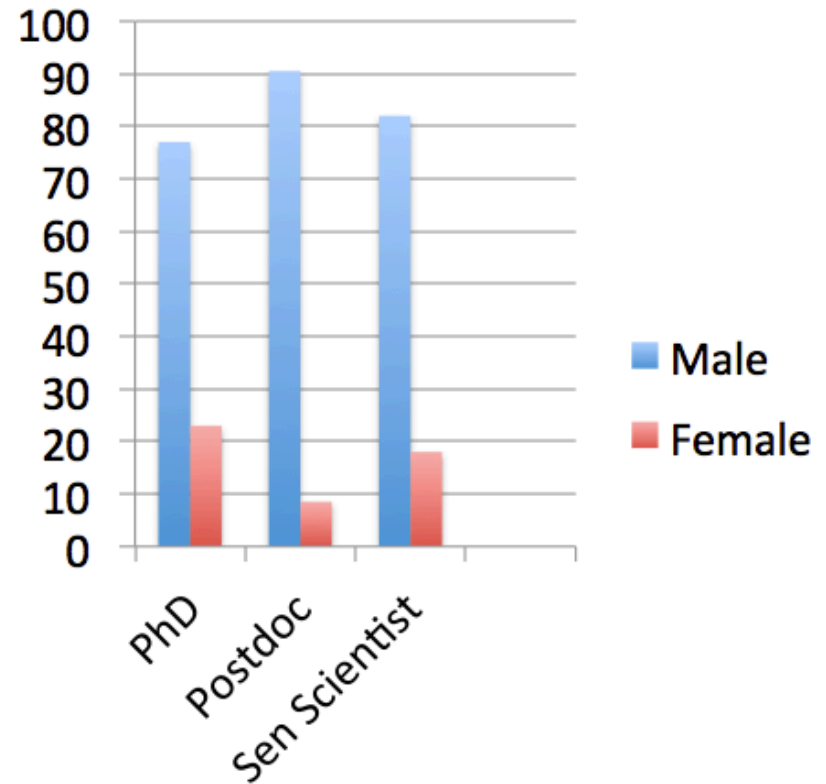


MUST Gender distribution – Physics and Chemistry Groups, 2013

Chemistry Groups – NCCR MUST



Physics Groups – NCCR MUST



What did MUST do?

- Consulted the gender experts at ETH Zürich and University of Zürich
- International research findings on gender for Physics and Chemistry
- Consulted our women scientists on their career needs and challenges
- Identified a key debate: “fix the women” versus “change the institutions”

Goals and Strategy for NCCR MUST

- Appoint, retain and advance more women scientists
- Create and support an active NCCR MUST women scientist network
- Support and start initiatives that attract more young girls and women to science
- Collaborate with gender offices in Switzerland, NCCRs and internationally
- Communicate our work on women in science
- Monitor our gender statistics
- Communicate scientific awards, bursaries and family support grants
- Develop political influence and leadership for women scientists

Details of initiatives: www.nccr-must.ch under Advancement of Women

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Gender Strategy for PlanetS

- Aiming to build a balanced representation of women and men at all levels
- Creating a supportive work environment for underrepresented groups
- Promoting and supporting women researchers
- Monitoring gender statistics

<http://nccr-planets.ch/platforms/academic-platform/>

Highlighting Two Measures

Measure 1: **Networking and Mentoring Initiatives**

- NCCR MUST Women Scientists Network
- International Female Faculty Network with Ruhr Bochum University, Germany
- ETH Women Professors Forum
- PlanetS Academic Platform

Measure 2: **Gender Balance**

- InterMUST Women Postdoc Awards
- PlanetS Equal Opportunity Hiring Subsidy

NCCR MUST Women Scientist Network est. 2011

(95 women scientist members including alumni in 2017)

Identified issues for our women scientists:

Isolation, lack of self-confidence, difficulties with male-dominated environment, uncertainty about a science career working with family life

[\(Physical Review, Physics Education Research, 12, August 2016\)](#)

Created a MUST community:

Individual support and advice from MUST office: email news, two career and skills workshops per year (including Annual Meeting), mentoring, increased visibility, information on available provisions in universities (e.g. Réseau Romand de Mentoring, Fix the Leaky Pipeline, NCCR workshops, new science awards), maintain contact with alumni members

Other outcomes:

Creates future science networks, cross boundaries, embeds our gender work in science environment

NCCR MUST Women Scientist Network 2015

96 women scientists members (including alumnis)

Careers in Academia Workshop, Annual Meeting, Engelberg, 11 January 2015
(35 participants)

Prof. Laura Heyderman, D-MAT, ETH Zürich

Prof. Sylvie Roke, School of Engineering, EPFL

Prof. Ruth Signorell, D-CHAB, ETH Zürich



International Female Faculty Network est. 2013 - MUST/RESOLV

(Directors: Prof. Martina Havenith RESOLV and Prof. Ursula Keller MUST)

June 16-17, 2015, Ruhr Bochum University (second meeting)



45 participants,
Science policy makers +
Gender experts, lab
tours, mentoring

Next Meeting: **International Gender in Science Meeting, 13 – 14 September 2017, Zürich**

ETH Women Professors Forum (joined by EPFL in 2016)

Established by NCCR MUST in 2012 (website: www.eth-wpf.ch)

eth wpf
WOMEN PROFESSORS FORUM

EPFL
ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

ETH zürich

HOME NEWS EVENTS PORTRAIT PARTNERS + LINKS DE EN

What we do
Members of the ETH Women Professors Forum encourage young women to pursue a career in science or engineering. They make their expertise available within and beyond ETH Zurich and EPF Lausanne, as well as support related Swiss initiatives in favor of equal opportunities among the sexes.
[Read more >>](#)

Who we are
Our members are distinguished, worldwide recognized experts in their scientific fields and experienced in leading and working in an international environment. All women professors of ETH Zurich and EPF Lausanne (full, associated, assistant, adjunct) are entitled to become a member of the Forum. More than 80% of them are already ETH WPF member. The association is kindly supported by the ETH Zurich.
[Read more >>](#)

EVENTS >>

Tuesday, 28. February 2017
Scientific Lunch – Prof. Dr. Helma Wennemers

Monday, 10. April 2017
Scientific Lunch – Prof. Dr. Susanne Ulbrich

Tuesday, 23. May 2017
Scientific Lunch – Prof. Dr. Maria

NEWS >>

Posted on: 30. November 2016
Retaining Postdoc Mothers in an Academic Career

Posted on: 18. November 2016
Prof. Bernier-Latmani awarded with ERC Consolidator Grant

Posted on: 3. November 2016
University of Oldenburg Women Professors Forum, October 2016

Ursula Keller was elected President, 2012 – 2016

Prof. Janet Hering, ETH/EPFL, President April 2016 - (ETH Rat admin support)

80% membership at ETH
30 new EPFL members in 2016

Role models, Networking, Retention and Promotion of APs

PlanetS Academic Platform

Female Gender Distribution: PhDs 25%; Postdocs 19%; Senior Scientists 14%

Retention, career support and Mentoring

- Financial support for careers workshops
- Professional development workshops
- Online forum and support
- Visiting scholars program (50% female) as role models

Raising awareness of gender issues:

- Professional development workshops on implicit bias and privilege
- Newsletter with Advancement of Women news
- Events to educate NCCR members (incl. leaders) on best practice to hire, mentor and retain women (and men) in science

Gender Balance

InterMUST Women Postdoc Awards
PlanetS Equal Opportunity Hiring Subsidy

InterMUST Women Postdoc Awards

(Support for women scientists at the stage when most leave academia)

The award:

- PIs receives 50% of the postdoc's salary over two years

Criteria for application:

- Proposal has to be a project, which involves 2 or more MUST PIs working together across universities and research institutes
- Direction Committee (12 members) approves the application

Availability:

- 2 awards in Phase I (2010 – 2013)
- 4 awards in Phase II (2014 – 2018)

InterMUST Women Postdoc Awards

(Support for women scientists at the stage when most leave academia)

MUST Phase I (2010 – 2014):

- The two award holders continued in academia to postdoc positions in Germany

MUST Phase II (2014 – 2018):

- First award holder received ETH Zürich Fellowship Award (money available again)
- Second award holder took maternity leave after a year and half funding, now has SNSF Advanced Mobility postdoc award, Uni Grenoble, 1 January 2017
- One award in 2015 and 2 new awards approved November 2016

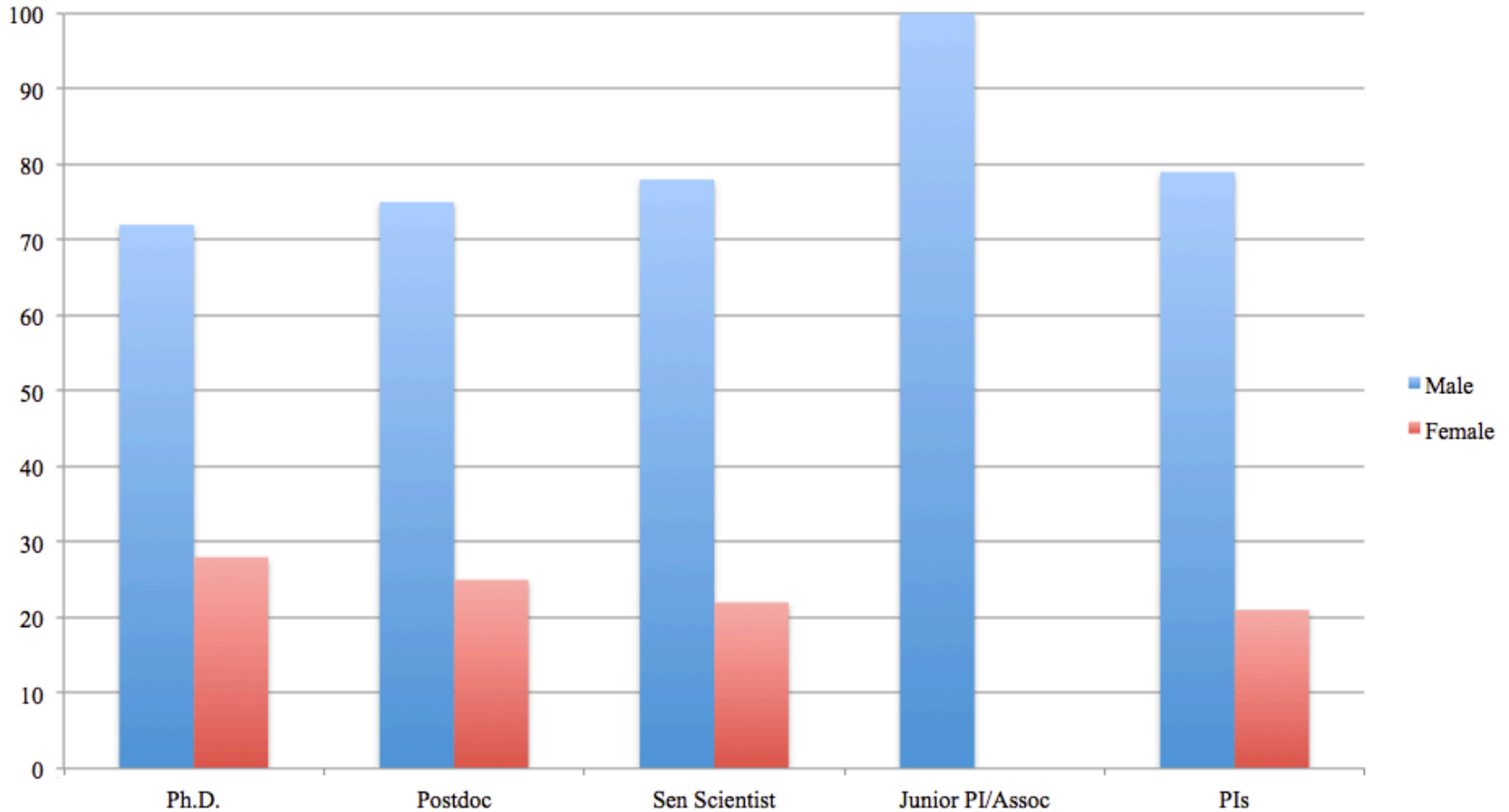
Observations:

- Increases scientific interaction in our network – benefits scientific goals
- Mobility experience for awardee because of intergroup/university research
- Stepping stone for women postdocs

N:B We will follow the recipients and examine the impact of this award on their career

Snapshot: Gender distribution of scientists MUST Annual Meeting

8-11 January 2017 – 135 scientists



Summary and observations

- NCCRs can implement practical and innovative gender balance measures
- Gender statistics are useful pictures of our science community
- Networks show us the career journeys behind the statistics and give perspective
- Networks and platforms provide support, access to courses and connections that advance scientists careers
- Measures to recruit for gender balance bring diverse benefits
- NCCRs can also raise “awareness” across a range of institutions of implicit bias, stereotypes and practices that influence appointments
- As a (potential) 12 year funding instrument we support our scientists’ careers over a considerable period

Thank you!

Reflections in Diversity Column: Optics and Photonics News

New contributors welcome!

Contact: anna.garry@phys.ethz.ch

Information on previous columns:

http://www.nccr-must.ch/advancement_of_women/opn_column_reflections_in_diversity.html

www.osa.org



Promotion, Recruitment and Advancement of women in MUST network after 6 years

- ***New Female MUST PI***: Postdoc (Ambizione EPFL) 2012, SNSF Junior Prof. 2014, Associate Prof. Fribourg 2015, MUST Full PI from December 1, 2015
- ***New Female Tenure Track Professor***: Postdoc ETH, Sofia Kovalevskaja Award 2015: to Tenure-Track Prof., Ruhr Bochum University, June 2016
- ***New Female Research Group Leader***: Senior Postdoc ETH (Marie Curie), Research Group Leader, Max Planck Institute, Dresden, 2014
- ***New Female Lecturer***: Postdoc EPFL, Lecturer (permanent position), UK, 2014
- ***Female Ambizione awardee***: 2016, Postdoc, EPFL
- ***4 SNSF Mobility Grants*** to US(3) and UK, ***8 new postdoc positions*** in Europe, ***9 women to jobs in industry***