Several Female Support Activities Later – What have we learned?

Meetup Women@Security&Privacy, June 1 2022

Gerti Kappel
Faculty of Informatics
TU Wien

TU WIEN Informatics

Rechtliche Grundlagen für Frauenförderung an den Unis im UG 2002 …

- **§ 19.** (1) Jede Universität erlässt durch Verordnung (Satzung) die erforderlichen Ordnungsvorschriften im Rahmen der Gesetze und Verordnungen selbst. (…)
  - 6. Frauenförderungsplan und Gleichstellungsplan (§ 20b);
  - 7. Einrichtung einer Organisationseinheit zur Koordination der Aufgaben der Gleichstellung, der Frauenförderung sowie der Geschlechterforschung;

....

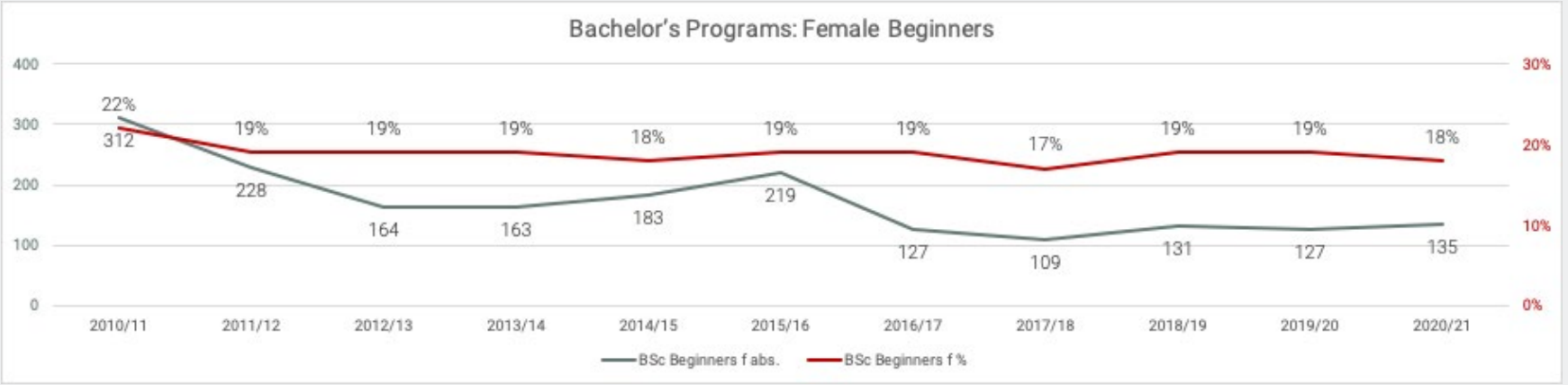
- **§ 41**. Frauenfördergebot
- **§ 42.** Arbeitskreis für Gleichbehandlungsfragen
- **§ 43.** Schiedskommission
- **§ 44.** Anwendung des Bundes-Gleichbehandlungsgesetzes

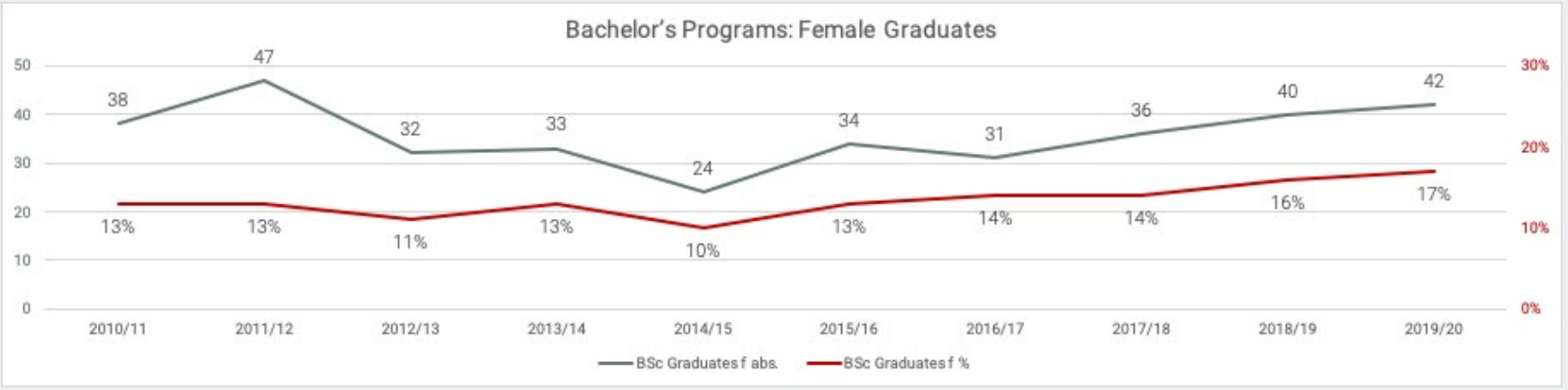
Umsetzung...

- Frauenförderungsplan der TU Wien
- Teil G. Einrichtungen zur Frauenförderung und Gleichbehandlung
  - § 44 Der AKG und sein Büro
  - § 45 Abteilung Genderkompetenz
  - § 46 Vernetzung

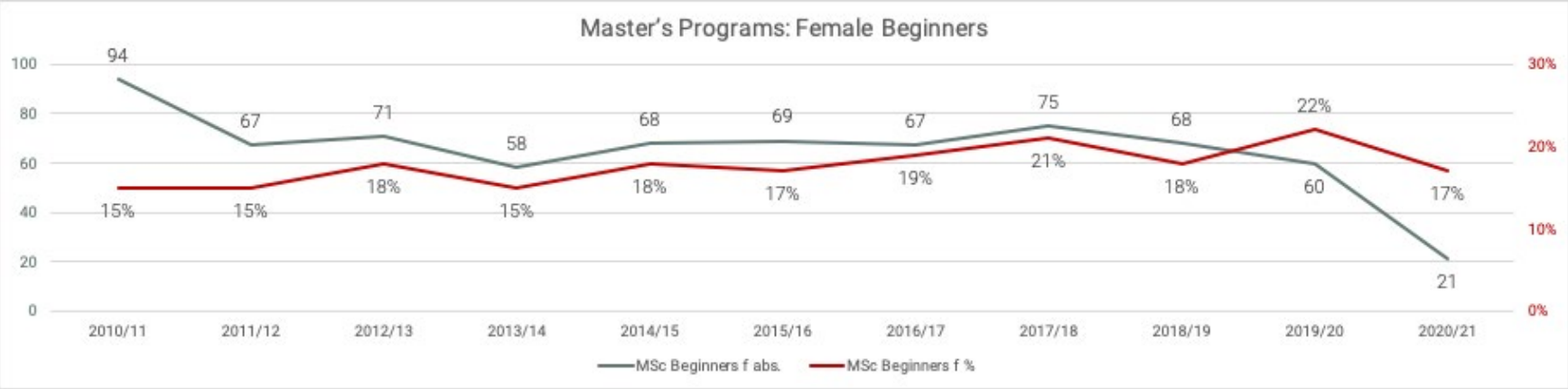
- Strategiekonzept zur Frauenförderung an der Fakultät für Informatik
  - vom 31.1.2016
  - https://informatics.tuwien.ac.at/women-in-informatics

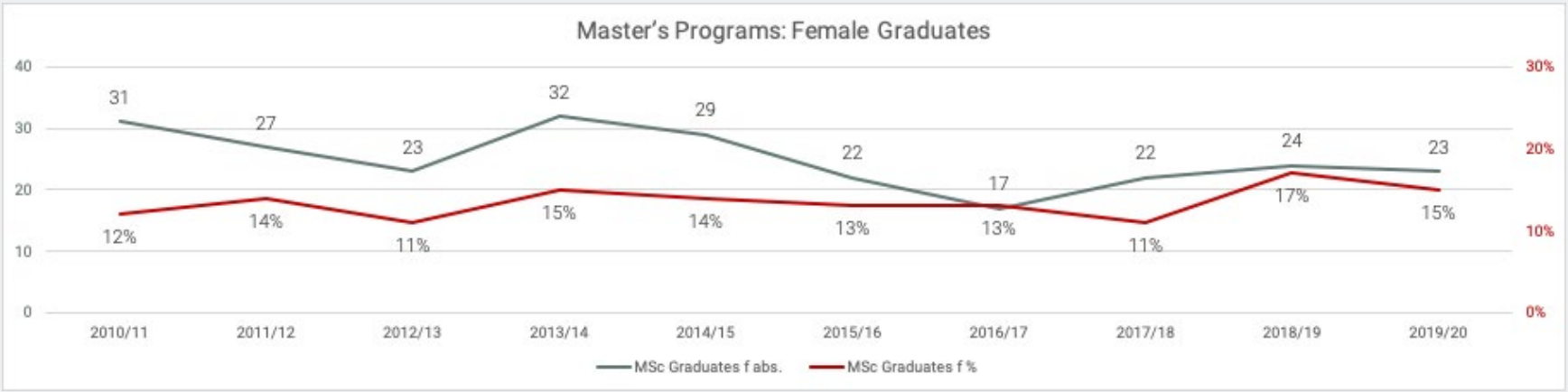
Some Statistics – Bachelors



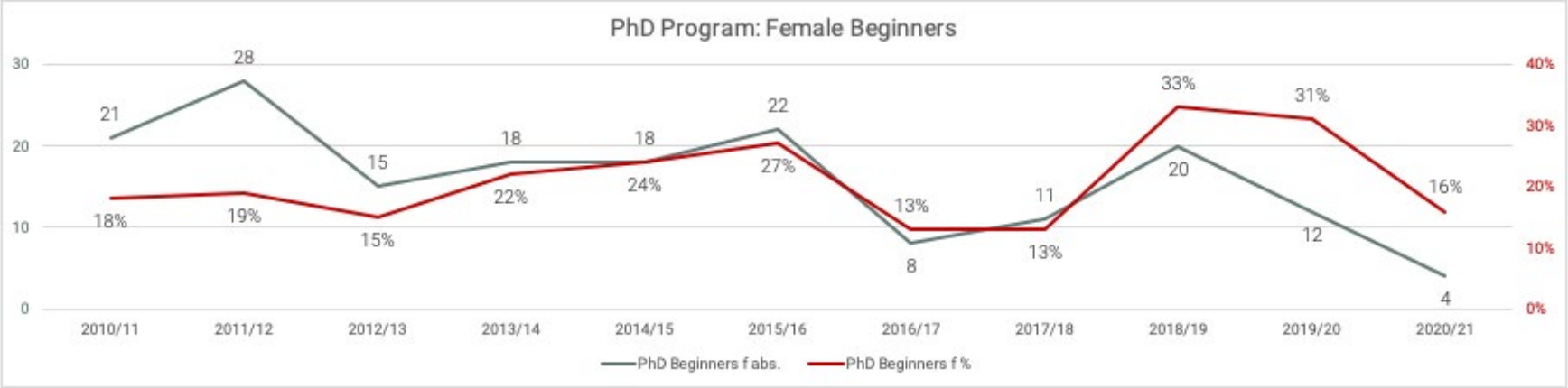


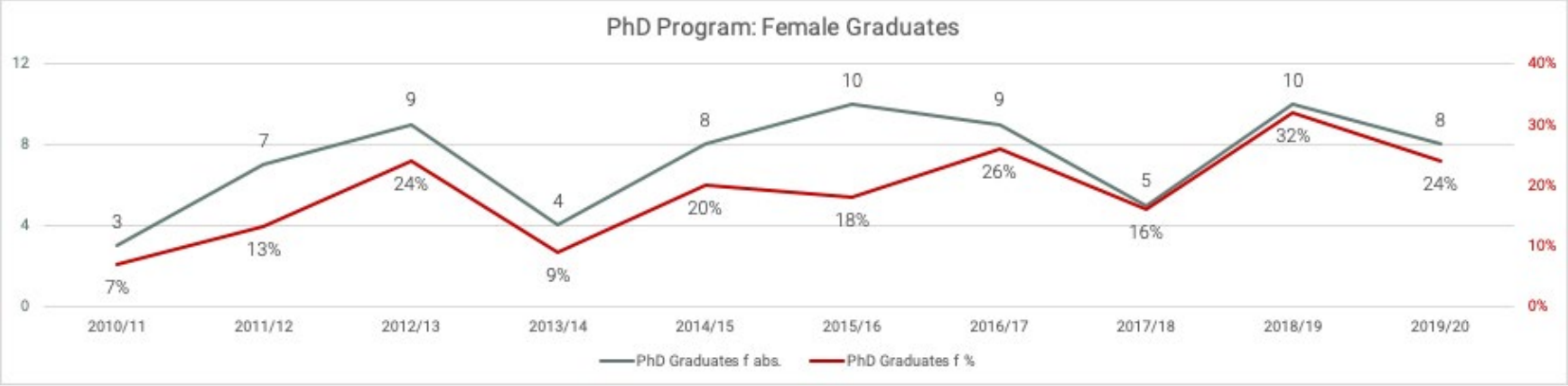
Some Statistics – Masters





Some Statistics – PhD Students





Some more Statistics – Professor Level (as of June 1 2022)

- 6 women *out of* 28 Full Professors (soon 7/29 :-)
- 5 women *out of* 37 Associate Professors
- 6 women *out of* 11 Assistant Professors
  - + 4 via excellence program from rectorate in 2025
  - + 1 via decision of the dean in 2025

What happend so far at TUW and Informatics level (selected list)

- Women's Postgraduate College for Internet Technologies (WIT, 2003-2007), Faculty of Informatics, www.wit.at
- WIT 2, 4 Faculties of TU Wien (2008-2011)
- FIT Days („Frauen in die Technik“, since 1999)
- IT sommer workshops for female pupils (since 2005)
- BLUE&MINT, Kooperation IBM / TU Wien (since 2012)
- Post-doc positions for female scientists
- Online mentoring for female students (beginners)
- Mentoring for female Master/PhD/Post-doc students

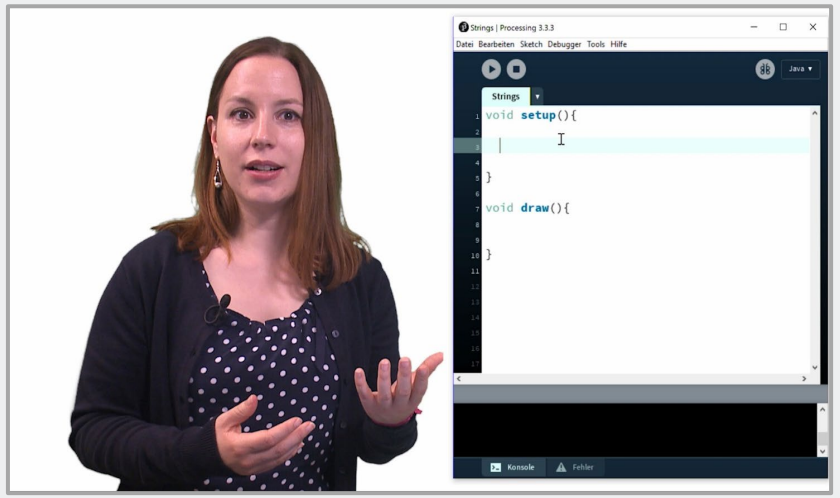
Current female support activities (selected list)

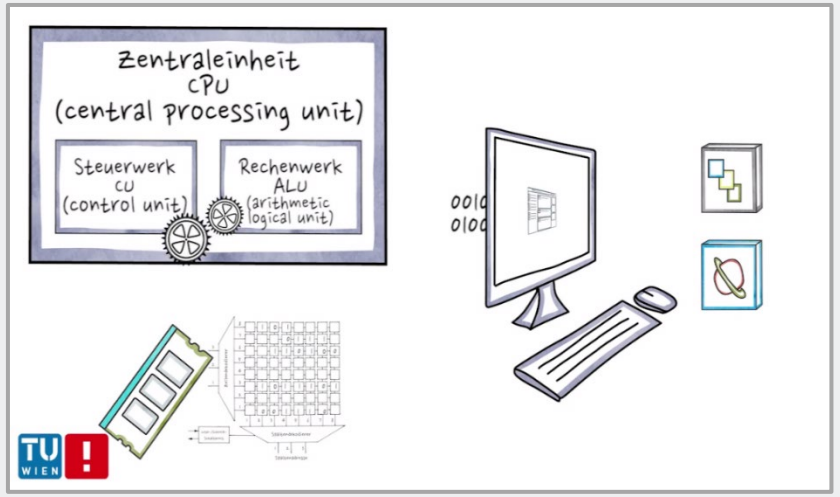
- Attract – Retain – Promote – Sensitize

Attract

- FIT Days („Frauen in die Technik“, since 1999)
- Bridging course „Intro to Programming with Processing“
  - for female (and male) students
  - learn and network
- MOOC „Programing with Processing“
- Entry exam without m/f discrimination
- Interface with Schools – Vienna Informatics Living Lab (VILL)
  -> Workshops and permanent exhibition „Abenteuer Informatik“

MOOC „Programing with Processing“ – Video production





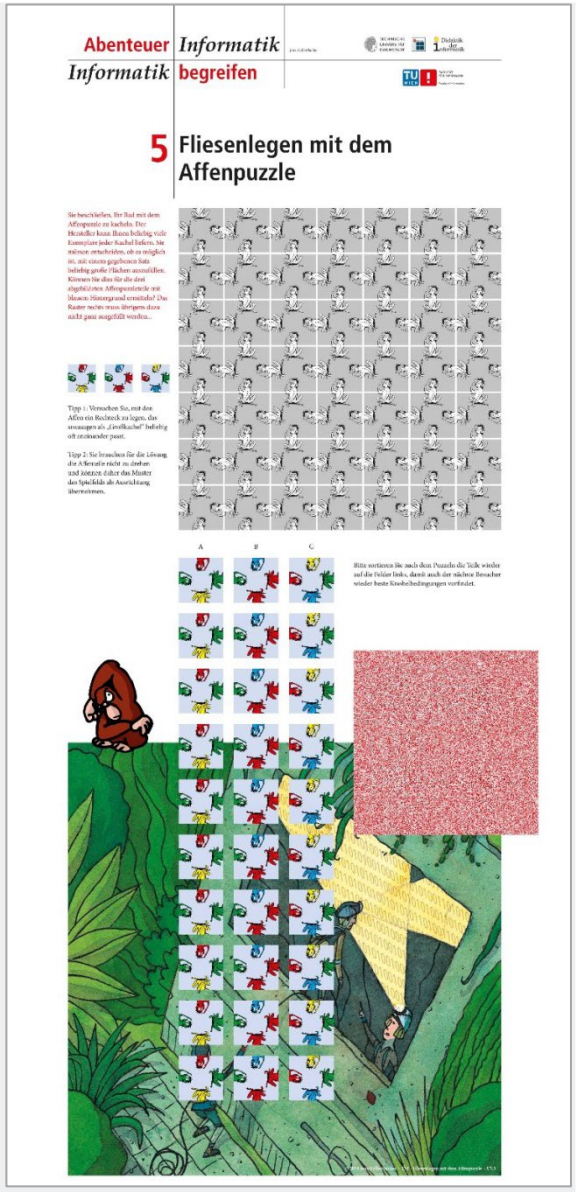
“Abenteuer Informatik“ Exhibition

Motivation and Aims

- Create enthusiasm among pupils for Informatics
- Provide incentives for Informatics education at schools
- Strengthen the interface between TU Wien and schools

Facts

- Imparts ways of thinking in Informatics illustrated with typical problems
- 10 topics consisting of 4-5 panels (80cm x 200cm) each
- Various interactive experiments with tangible artifacts
- Implemented as a **permanent exhibition**
- Workshops for school classes from 5th to 13th grade



“Abenteuer Informatik“ Workshops

- social responsibility
  - involve socially disadvantaged people
  - involve female students
  - close the gap between school and university
  - involve a large amount of students in informatics activities
- realistic view on informatics
  - propagate thinking informatically
  - comprehend informatics as a science that shapes the world
  - show the broadness of informatics
  - propagate a scientific style of informatics education
- impulses for teachers
  - develop new learning materials
  - propagate discovery learning
  - propagate group learning
  - involve more teachers in informatics activities
- impulses for students
  - arouse interest
  - to study at a university
  - motivate to be deeper interested in informatics
  - provide fun and enjoyment with informatics
  - arouse interest to study informatics

„Abenteuer Informatik“ Workshops Summer Term 2019

Participants by school type				
School type	Classes	Female students	Male students	Students
Volksschule	1	10	8	18
Neue & Wiener Mittelschule	9	81	106	187
Gymnasium Unterstufe	4	41	46	117
Polytechnische Schule	3	16	31	47
Berufsschule	2	9	31	40
Handelsschule	3	36	32	68
Gymnasium Oberstufe	5	27	41	38
HTL	4	12	87	99
HAK	3	31	38	69
Total	34	263	420	
Students				**683**

„Abenteuer Informatik“ Workshops Winter Term 2019

Participants by school type				
School type	Classes	Female students	Male students	Students
Volksschule	1	9	13	22
Neue & Wiener Mittelschule	5	35	41	76
Gymnasium Unterstufe	13	165	161	326
Polytechnische Schule	1	0	19	19
Berufsschule	0	0	0	0
Handelsschule	1	0	15	15
Gymnasium Oberstufe	8	58	59	117
HTL	1	2	14	16
HAK	1	5	15	20
HLA	1	14	7	21
Total	32	288	344	
Students				**632**

Current female support activities (selected list)

- “Studienassistentinnen”
  - financially supported via gender budgeting
  - 6 positions 2016 – 2019

Retain

- “Visit a scientific conference” for female Master students
  - 35 scholarships in 2016 – 2019

- Excellence scholarships for BA/MA female students
  - financially supported by SIEMENS AG Austria
  - 10 scholarships per year

Current female support activities (selected list)

Promote

- “Talk at scientific conferences” for female PhD students
  – 38 scholarships in 2016 – 2019

- Post-doc positions for female scientists (since 2008)
  – 8 so far
  – 3 out of these 8 are full professors at the faculty right now

- Assistant Professorships (Tenure Track) for female scientists
  – 1 filled 2018 (out of 55 highly competitive applications)
  – 2 filled 2021 (out of 41 highly competitive applications)

Current female support activities (selected list)

Sensitize

- Attend Gender Awareness Workshops at TU Wien
  - 28 so far (winter term 16 + summer term 17)
  - willingness of colleagues is limited ☹
- Support female guest professorships
  - 9 so far (out of 78, less than 12% ☹)
- Gender competence as desired competence for professor positions
  - part of official hiring procedure of TU Wien since Oct 2021

Side step 1 - … the issue with the name*)

180 women and 180 men were asked to review a mathematics paper and rate it from 1 (very good) to 5 (very poor).

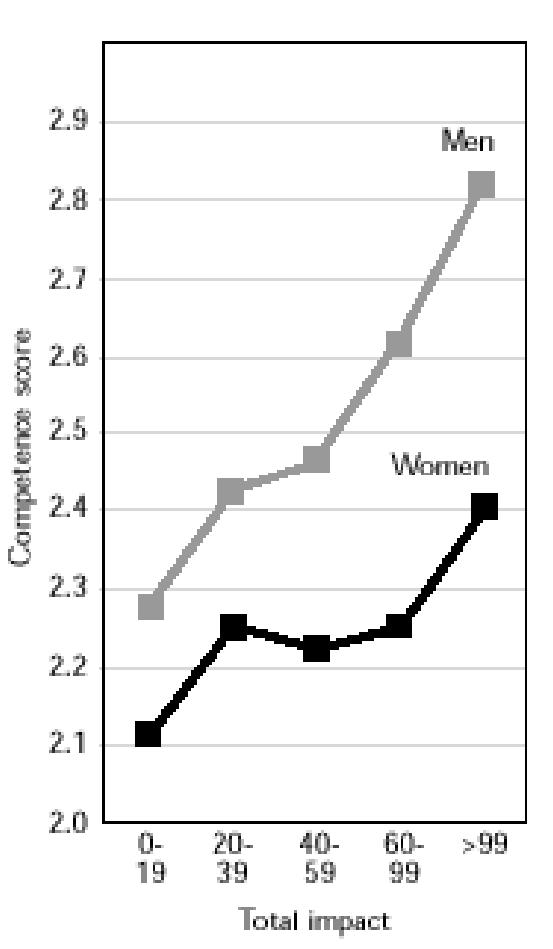
	author		
	John T. McKay	Joan T. McKay	J. T. McKay
Men	1.9	3.0	2.7
Women	2.3	3.0	2.6

M. A. Paludi and W. D. Bauer, "Goldberg Revisited: What's in an Author's Name", Sex Roles: A Journal of Research, 9 (1983) pp. 387-390.

P. Goldberg, "Are Women Prejudiced Against Women?" Trans-Action 5 (1968), pp. 28-30.

*) this slide is courtesy of Dr. Brigitte Ratzer, TU Wien

Side step 2 - ... different ratings for women*)



Total impact = Addition of the impact factors of all published journal articles

Competence score: impact factors
- Scientific productivity
- Gender
- Acquaintance with jury members

Christine Wennerås & Agnes Wold, « Nepotism and Sexism in Peer Review », Nature 387, 341 (1997)

*) this slide is courtesy of Dr. Brigitte Ratzer, TU Wien

Side step 3 - ... what biases do you have?*)

https://implicit.harvard.edu/implicit/takeatest.html

*) this slide is courtesy of Dr. Brigitte Ratzer, TU Wien

What we have learned...

- Our competitor
  - Conservative society (home, school, culture)
- Mindset
  - Women are not in need of support but worthy of support
- Female students have to learn to accept support activities
  - Opinion poll (summer 2015) among female BI/CS students: only 27% are in favour of female support activities

What we have learned …

- Learn from best practice examples
  - CMU (Lenore Blum)
  - Harvey Mudd College (Maria Klawe)
  - University of Edinburgh (Jane Hillston)
  - University of Bamberg (Ute Schmid)
  - …
- Curricula in universities have to be adapted
- Appropriate curricula in schools are necessary
  - Teach the teacher

What we have learned...

- Role Models
  - Necessary at all career levels
  - AcademiaNet - http://www.academia-net.de
- Worthy of support
  - Dean's List, especially for female students
  - Award for attending Grace Hopper Conference (not yet realized)
- Sustainability, sustainability, sustainability, …
  - (not only CO_2 reduction but female empowerment ☺)
- Resources necessary (money, human resources)

Instruments @ TU Wien

- Vice Rector for Human Resources and Gender
- Office for Gender Competence
  - At Vice Rector level
- Working group on equality issues
- Faculties @ TU Wien (have to) implement female support activities (gradually)

- Kindergarten @ TU Wien
  - Christiane Nüsslein-Volhard,
    Nobelpreis 1995 für Physiologie oder Medizin,
    Stiftung zur Förderung von Wissenschafterinnen mit Kind!