

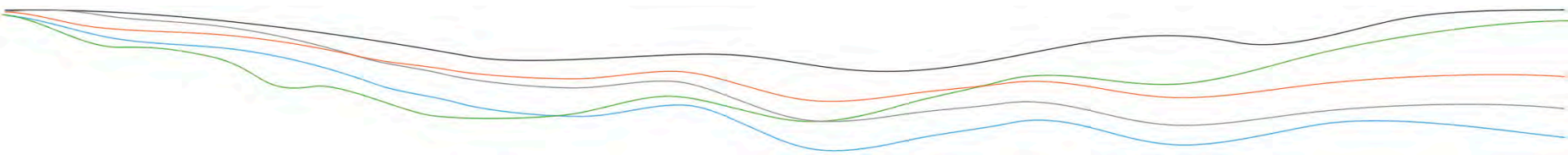


Physics and Gender?

The GENERA project at DESY

Lia Lang (GENERA Project Manager)

Physics Colloquium
DESY Zeuthen | October 4, 2017 | 3pm





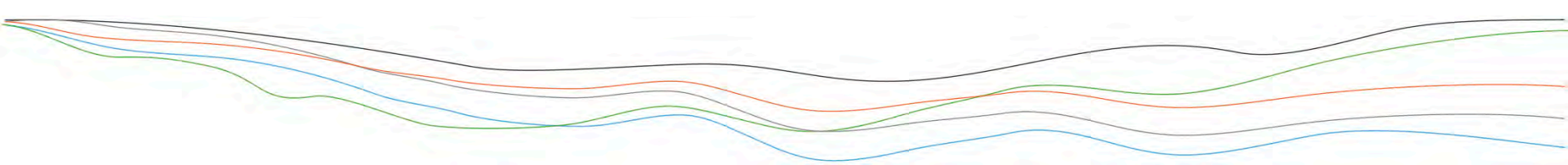
Gender and Physics?

GENERA Projekt Manager: Lia Lang
DESY, Helmholtz Association

Gender Studies M.A.
Humboldt University of Berlin

Research Group on „Diversity and Change“
at the Fraunhofer Center of Responsible
Research and Innovation
(Fraunhofer CeRRI)

Thesis „Share you knowledge!“
Gender-based knowledge in a mentoring
programme





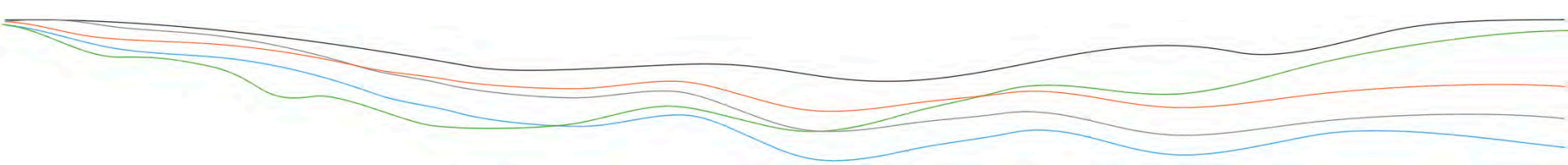
I. Gender and Physics?

Physics is considered to be objective

– neither affected by the sex or gender
nor of the people involved

(researcher, teacher, student ...)

....



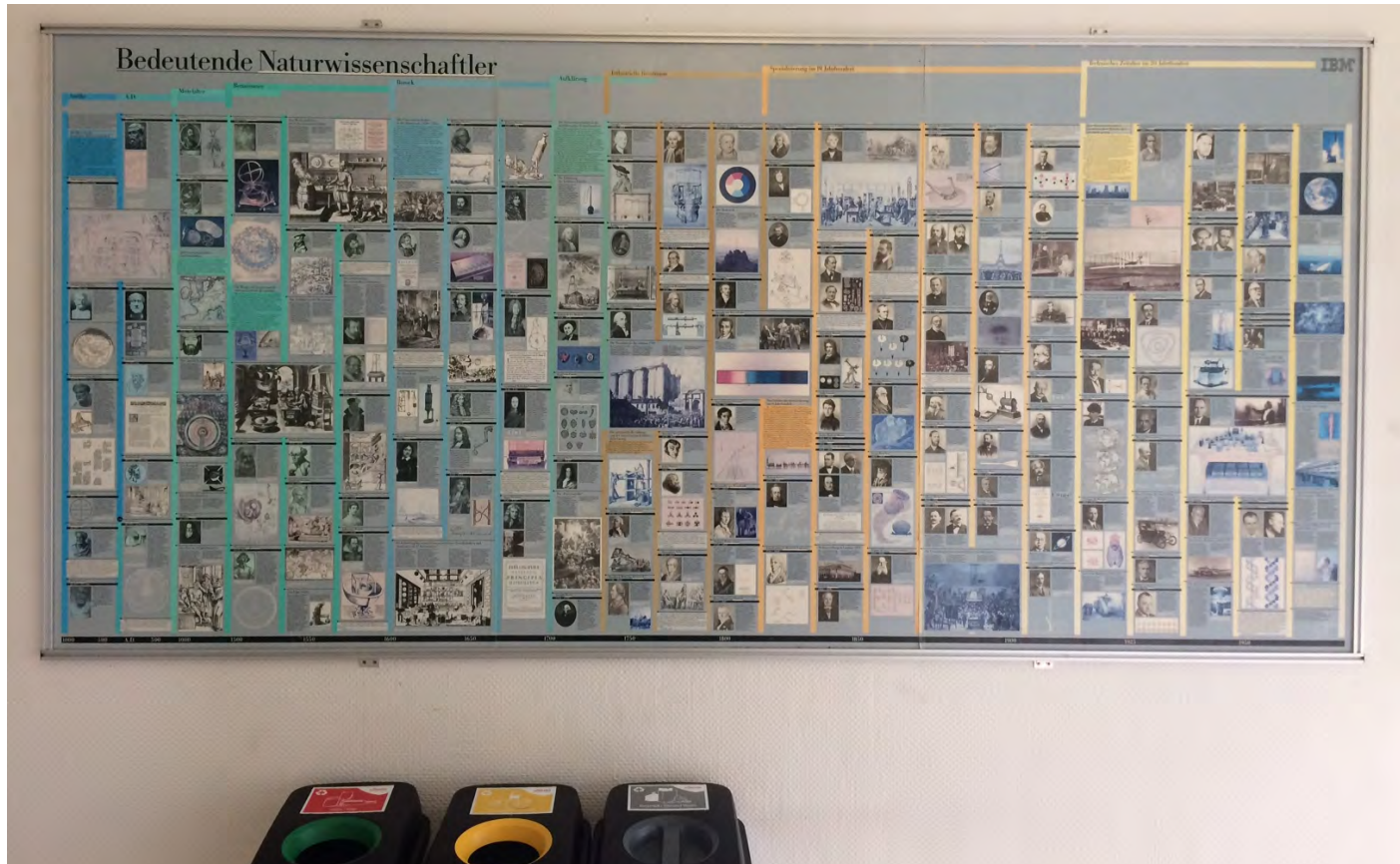
What do you see?



Board of Directors at DESY

- since it was established in 1959, there was not a single women on board
- Rather typical situation on management level of research organizations

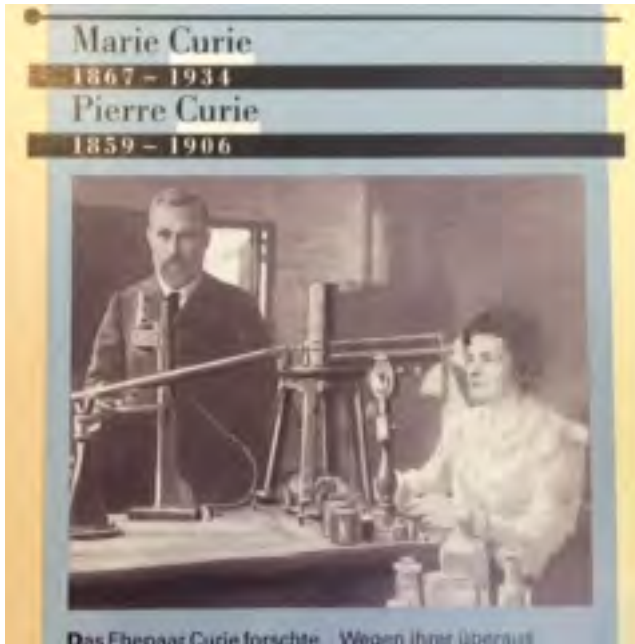
Important scientists?



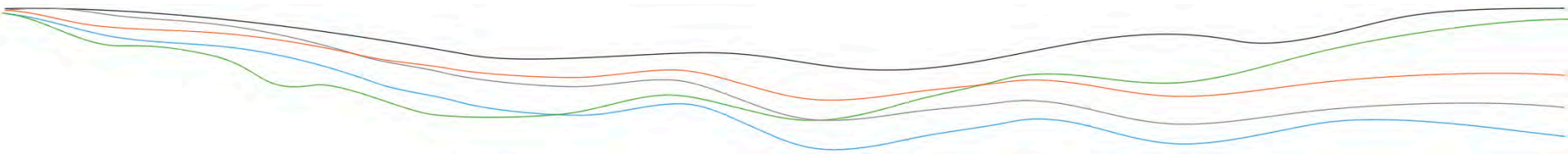
Counting the pictures of male and female scientist (poster at DESY Zeuthen)
176 men, 4 women



Important scientists?



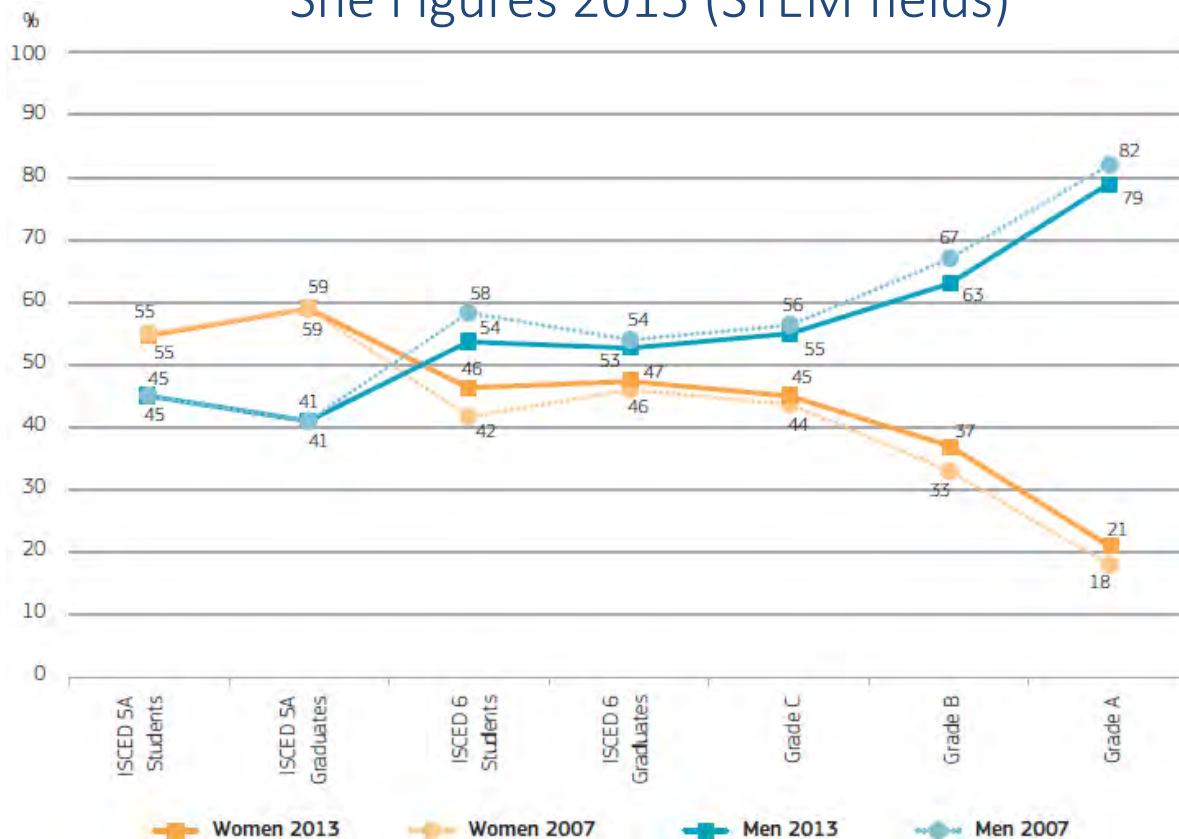
Marie Curie 2x, Lise Meitner, women with a child





Proportion of women and men in a typical academic career

She Figures 2015 (STEM fields)



ISCED 5A Students = students (undergraduate)

ISCED 5A Graduates = students (graduates)

ISCED 6 Students = PhD students, PhD candidates and research assistants

ISCED 6 Graduates = Postdocs

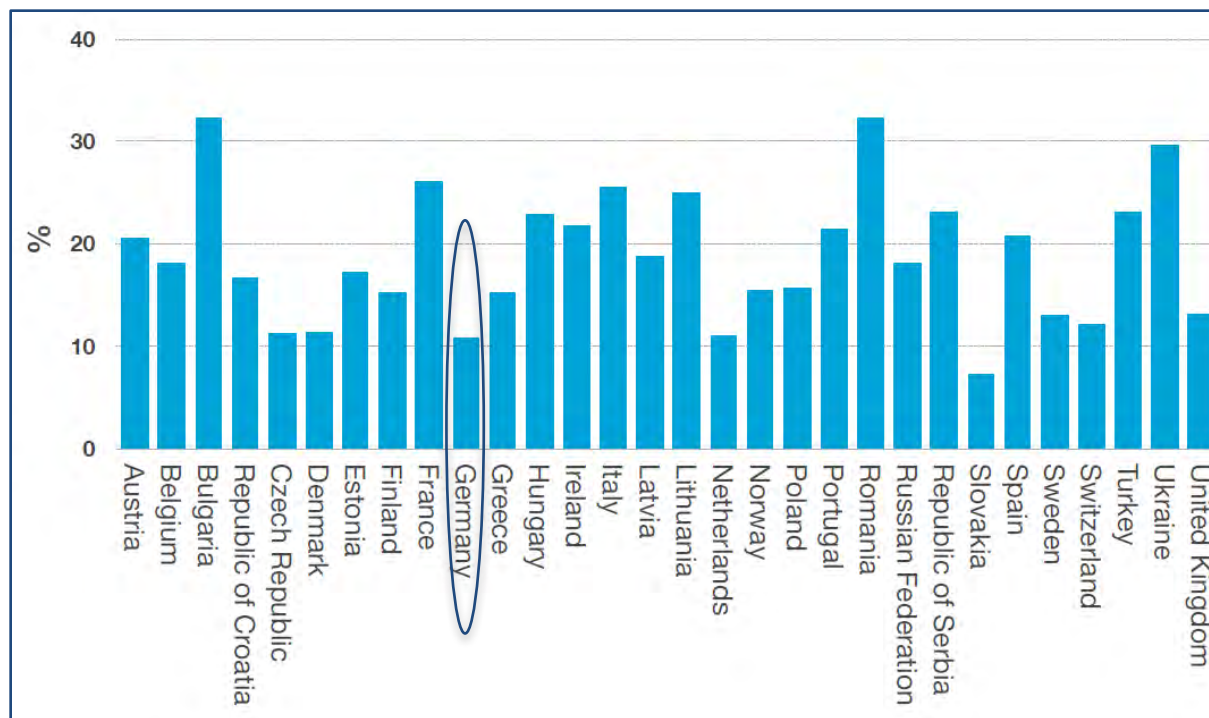
Grade C = Assistant Professors

Grade B = Associate Professors

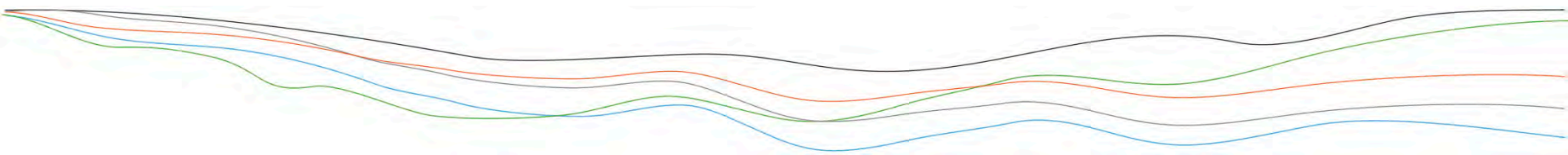
Grade A = Full Professors]



Women in Astronomy in Europe

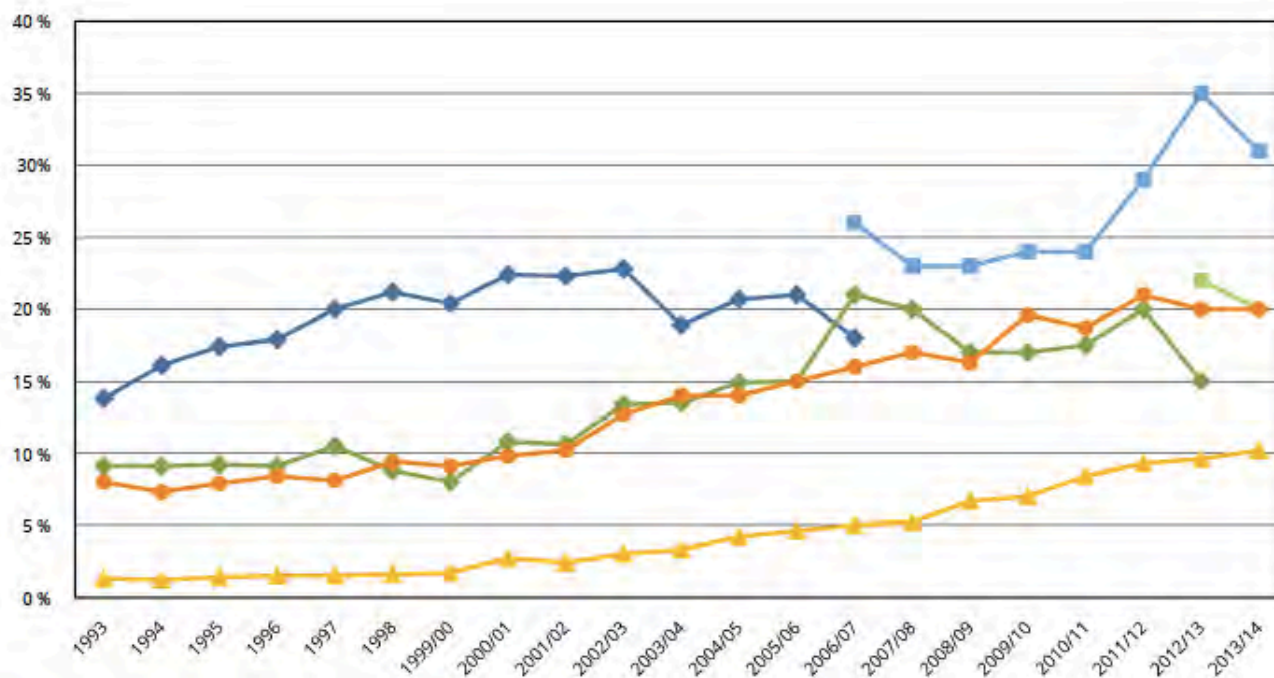


(Hill et al., 2010)





Proportion of Women in Physics in Germany (2015)



Daten bis 1998 umfassen auch Lehramtskandidatinnen und -kandidaten.

—●— **Erstsemester/Neueinschreibungen Diplom** – Quelle: Statistisches Bundesamt, Konferenz der Fachbereiche Physik (KFP)

—■— **Erstsemester/Neueinschreibungen Bachelor** – Quelle: Statistisches Bundesamt, KFP

—●— **Abschlüsse Diplom** – Quelle: Statistisches Bundesamt, KFP

—■— **Abschlüsse Master** – Quelle: Statistisches Bundesamt, KFP

—●— **Promotion** – Quelle: Statistisches Bundesamt, KFP

—▲— **Universitäts-Professuren** – beziehen sich jeweils auf das erste Jahr der angegebenen Studienjahre – Quelle: Statistisches Bundesamt

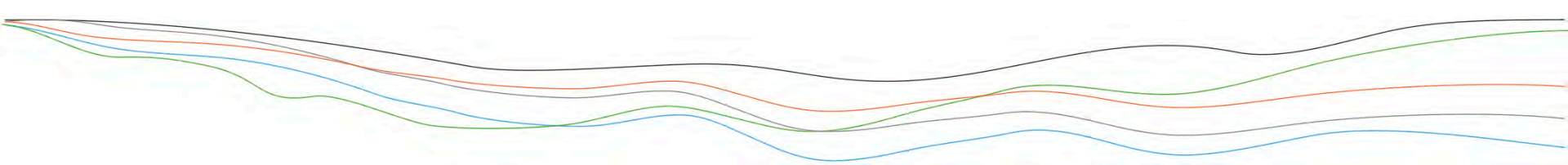


Gender and Physics!

Physics is considered to be objective – neither affected by the sex or gender ... nor of the people involved (researcher, teacher, student ...)

BUT

Physics class-rooms, labs, history are extremely affected by gender – almost always dominated by men





II. Gender Equality & European Commission



European Commission defined gender equality as a **key priority** in the ERA:

“to end the waste of talent which we cannot afford and to diversify views and approaches in research and foster excellence”

GENERA Horizon 2020 Project is funded under the call **GERI.4.2014**:

- Action to support research organisation to promote systemic institutional changes, through the implementation of **Gender Equality Plans** which shall:
 - Assessment of the status-quo
 - Set targets
 - Implement innovative strategies and measures
 - Monitor progress via indicators at organisation level



GENERA Project

- Acronym: Gender Equality Network in Physics in the European Research Area
- 3 years lifetime: Started in September 2015
- 3.34 Mio Euro funding
- Network out of 13 beneficiaries:
 - 11 physics related organizations
 - 2 professional support organizations for evaluation and outreach & valorization
 - Now 15 observers



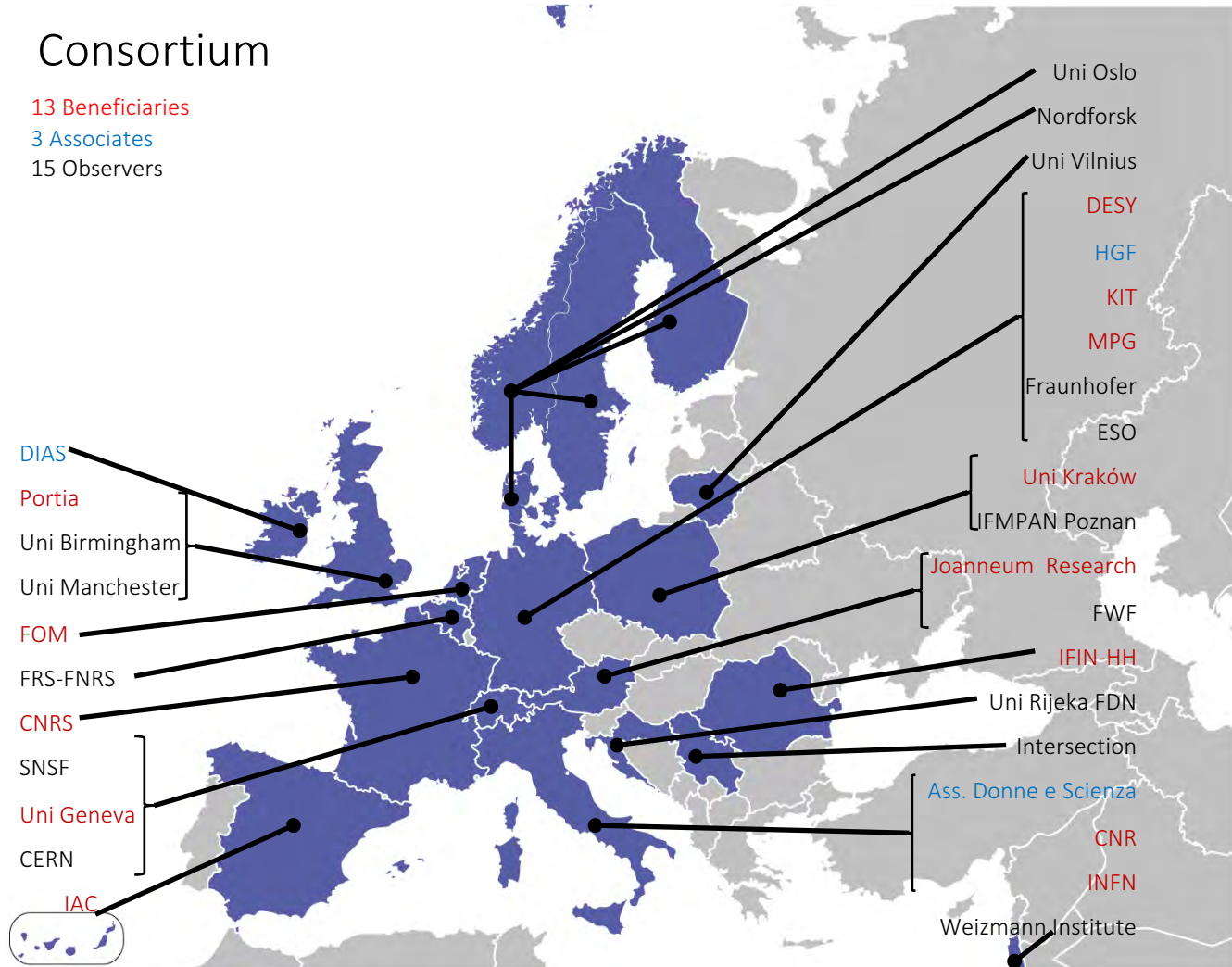
GENERA Consortium

Consortium

13 Beneficiaries

3 Associates

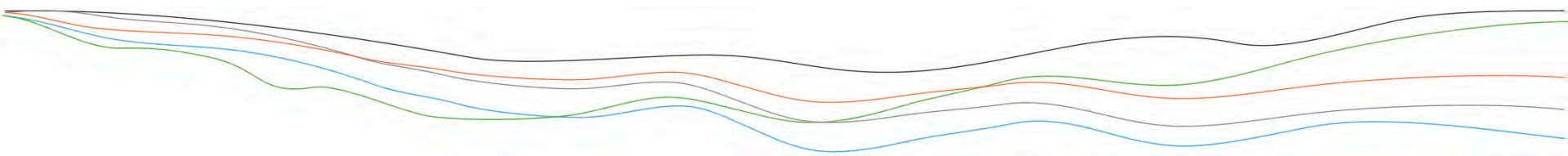
15 Observers





Aims: Advancing gender equality in physics related organizations

- Tailored gender equality plans (GEPs) for participating organizations
- A roadmap outlining the design and implementation of GEPs
- A toolbox with measures and good practices identified
- A long-term monitoring tool enabling effective monitoring of progress
- A network of gender equality supporters within physics to ensure sustainability

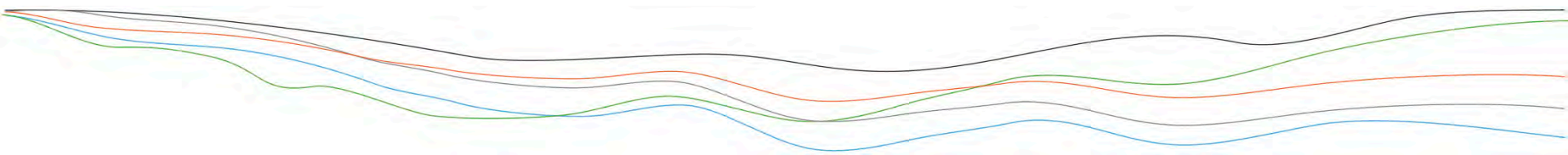




How does it work?

Main aims are divided into 6 Working Packages (WP)

- WP1: Overall project coordination and management (DESY)
- WP2: Analyse the status quo of activities in participating countries and identify successful approaches (CNR, INFN)
- WP3: Monitor and evaluate the implementation of GEPs (JOANNEUM Research)
- WP4: Support organisations in implementing GEPs
(for example through the roadmap and toolbox) (KIT, MPG, IAC)
- WP5: Creating an network of RPOs and RFOs to promote Gender Equality (NWO)
- WP6: Promote the importance of Gender Equality in Physics (PORTIA)





GENERA Experts Board

**Prof. Dr.
Martina
Schraudner**



Head of Department,
Gender and Diversity in
Organizations, Technical
University Berlin and
Director at Fraunhofer
CeRRI, Germany

**Prof. Dr.
Wim
van Saarloos**



Professor of Theoretical
Physics at Leiden
University, and vice
president of the Royal
Netherlands Society for
Arts and Sciences KNAW

**Dr.
Ana Puy**



Director of the Women
and Science Unit at
MINECO (Ministry of
Economy and
Competitiveness), Spain

**Dr.
Maya Widmer**



Independent Senior Advisor
(former Head of Gender
Equality in Research Funding
at the Swiss National Science
Foundation SNSF)

Jennifer Dyer



Head of diversity, Institute
of Physics (IOP), UK

**Prof. Dr.
Tomas Brage**



Professor of Physics and
Director of Education,
Lund University, Sweden

**Dr.
Wendy
Hansen**



Affiliate Researcher UNU
Merit, Netherlands

**Prof. Dr.
Ewa
Ruminska
-Zimny**

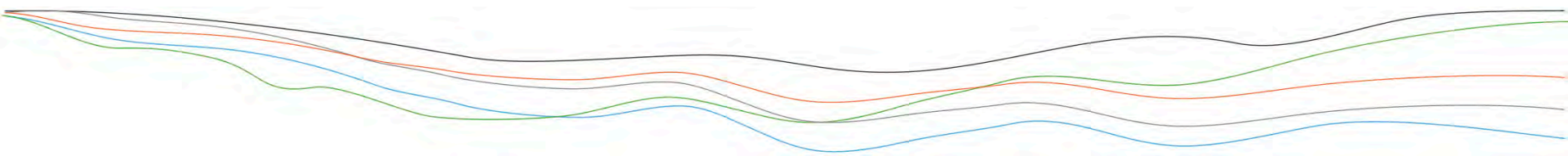


Warsaw School of
Economics, Poland



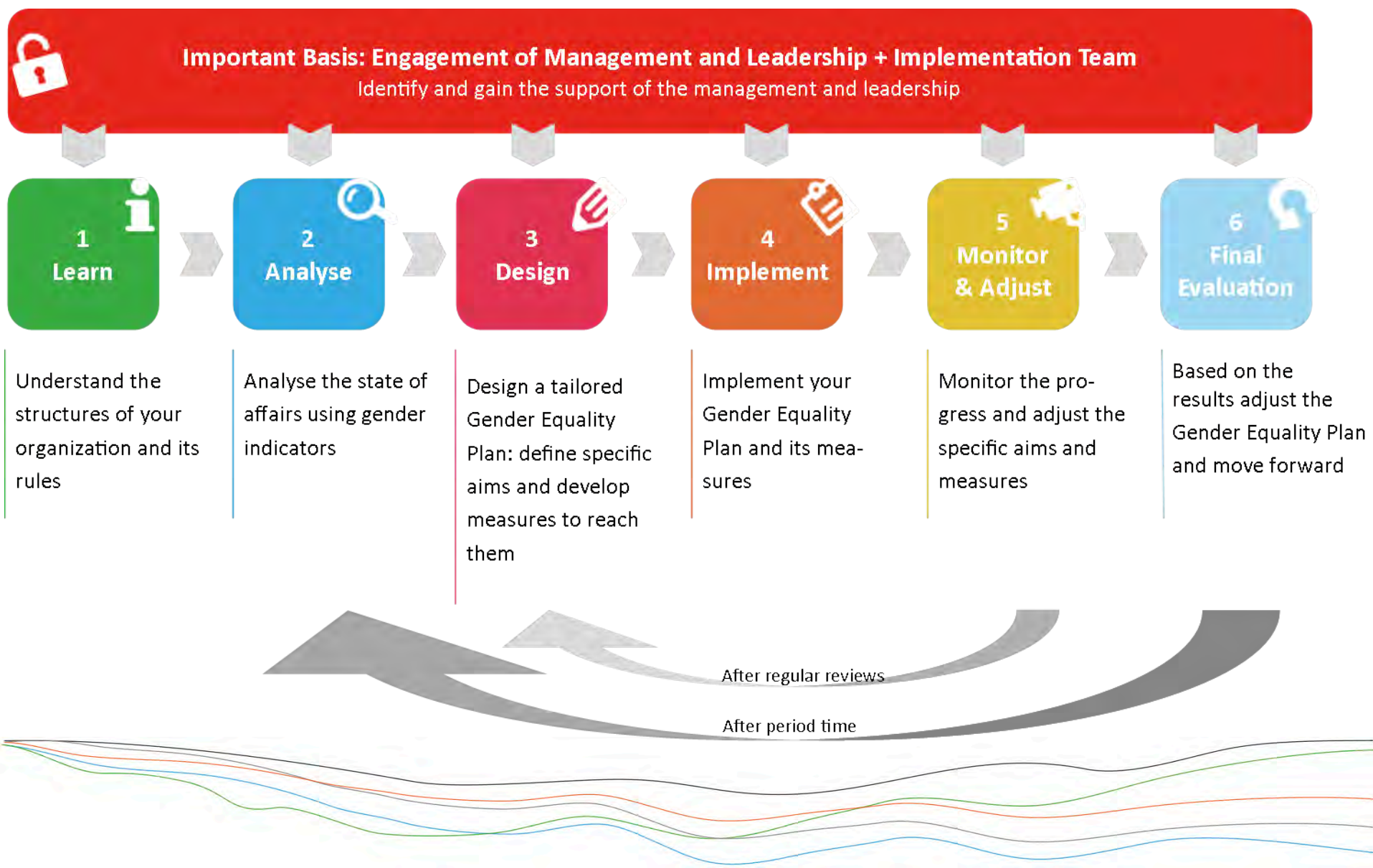
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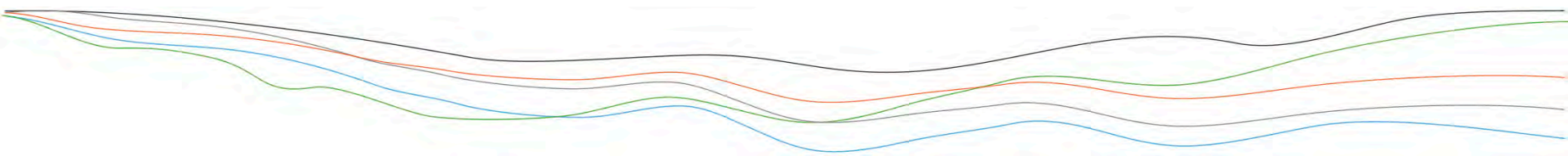
Roadmap => Gender Equality Plan





Aims

- Tailored gender equality plans (GEPs) for participating organizations
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Toolbox

- Supports Implementation Managers by developing tailored measures for their Gender Equality Plan
- Collection of measures and good practices identified
- > 100 measures to improve Gender Equality in Physics
- Measures are structured in 6 “Fields of Action” and 8 target groups
- Exactly described how to implement

Fields of Action¹⁶





Toolbox: one example

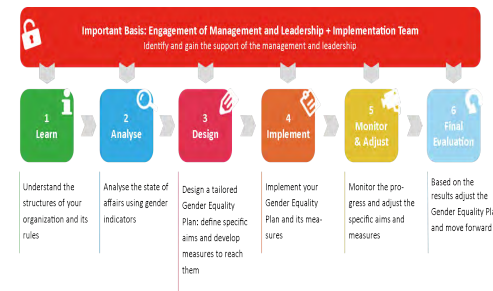
Measures (Overview according Fields of Action)	Structural Integration of Gender Equality	Engaging Leadership	Flexibility, Time and Work Life	Presence and Visibility	Gender- inclusive / Gender- sensitive Organiza- tional Culture	Gender Dimension in Research and Education
120% support Grant						
5-yearly Review of Employment Conditions at CERN						
Advice by international gender experts						
Anonymized Application Procedures						
Athéna - Programme d'Études Anticipées						
Awareness-raising activities						
Awareness-raising activities within head office and review boards						
Café con astrónomas						
Childcare						
Conferences for undergraduate Women in Physics						
Creating Futures in Science - workshop						
Directive for tendering scientific positions						
Diversity training in the context of research funding						
Do STEM - exhibition						
Employee Survey						
Equality on the intranet						
Exploring Gender and Culture - workshop						
Family+						
Family leave						
Family portal						
Female friendly graduate department questionnaire						
Female scientists at the top						
Femtec. Promoting Talents						

GENERA Toolbox: Do STEM - exhibition

Title:	Do STEM - exhibition 
Field of Action:	▪ Gender-inclusive/Gender-sensitive Organisational Culture ▪ Presence and Visibility
Objectives:	▪ Recruitment ▪ Presence and visibility ▪ Inspiration for women in STEM fields
Target group(s):	Pupils Students (undergraduate and graduate) PhD students, PhD candidates and research assistants Postdocs and mid-career scientific personnel Women in STEM fields, female high school and college/university students
Description:	The travelling exhibition portrays 11 women and their successful careers paths in STEM fields. The project illustrates that the work and study in STEM fields can be very interesting and exciting. The female scientists report on their career path and everyday work experience. Furthermore it engages and encourages girls and young women with science and inspires them to think about a career in STEM fields. The exhibition can be booked for various locations and is designed for all people interested in a career in STEM fields.
More information:	Koordinierungsstelle für Frauen- und Geschlechterforschung Sachsen-Anhalt (Germany) Contact: Michaela Froberg Michaela.Froberg@ovgu.de Website: http://www.kffg-sachsen-anhalt.ovgu.de/home/MACHT+MINT%21/MACHT+MINT%21+_+Ausstellung_+Informationen+und+Hintergr%C3%BCnde-p-586.html



GENERA at DESY



Phase 1: Learn

Employed an Implementation Manager (Lisa Kamlade); got in contact with the gender equality office, personal office, recruitment, board of directors; organized a Gender in Physics Day

Phase 2: Analyse

Qualitative Interviews with the relevant stakeholder from the internal evaluator, interviews with physicists, Data Analyses

Phase 3: Design

Started with negotiation on the PEP (personal development plan on gender equality) with the aim to continue with a Gender Equality Plan



GENERA at DESY: Gender in Physics Day (January 2017)





Cascade model at DESY (2017)

Overview on quota for academic staff on two levels: management level, salary grade

Cascade Model was established in 2011

part of the annual „Pakt für Forschung und Innovation“ with BMBF

			Frauenquote - Ableitung und Ziel 2017				Frauenquote - Ableitung und Ziel 2020					
IST 31.12.2016			Prognose 31.12.2017		Prognose 2013 - 2017	SOLL 31.12.2017	Prognose 31.12.2020		Prognose 2018 - 2020			SOLL 31.12.2020
Anzahl Personen	davon Frauen	Frauen- quote (%)	Anzahl Personen	davon Frauen	besetzbare Positionen ³	Frauen- quote (%)	Anzahl Personen	davon Frauen	Anzahl Stellen Aufwuchs ³	Anzahl Stellen Fluktuation ³	besetzbare Positionen ³	Frauen- quote (%)
4	0	0 %	4	0	0	0 %	4	1		4	4	25 %
5	0	0 %	5	0	1	0 %	5	1		4	4	20 %
40	10	25 %	27	6	7	22 %	43	13	3	2	5	30 %
49	9	18 %	56	9	16	16 %	56	11	7	7	14	20 %
10	5	50 %	10	4	0	40 %	10	5		4	4	50 %
33	7	21 %	25	4	7	16 %	38	10	3	2	5	26 %
3	2	67 %	2	1	0	50 %	3	2			0	67 %
			0	0	0	0 %						
			0	0	0	0 %						
11	1	9 %	12	1	3	8 %	13	2	2	2	4	15 %
74	8	11 %	71	11	23	15 %	78	12	4	16	20	15 %
321	60	19 %	302	55	109	18 %	330	65	9	26	35	20 %
536	158	29 %	496	129	403	26 %	560	166	24	415	439	30 %



Thanks for your attention!

How to stay in contact?

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www.genera-project.com

twitter: @GENERA_H2020

