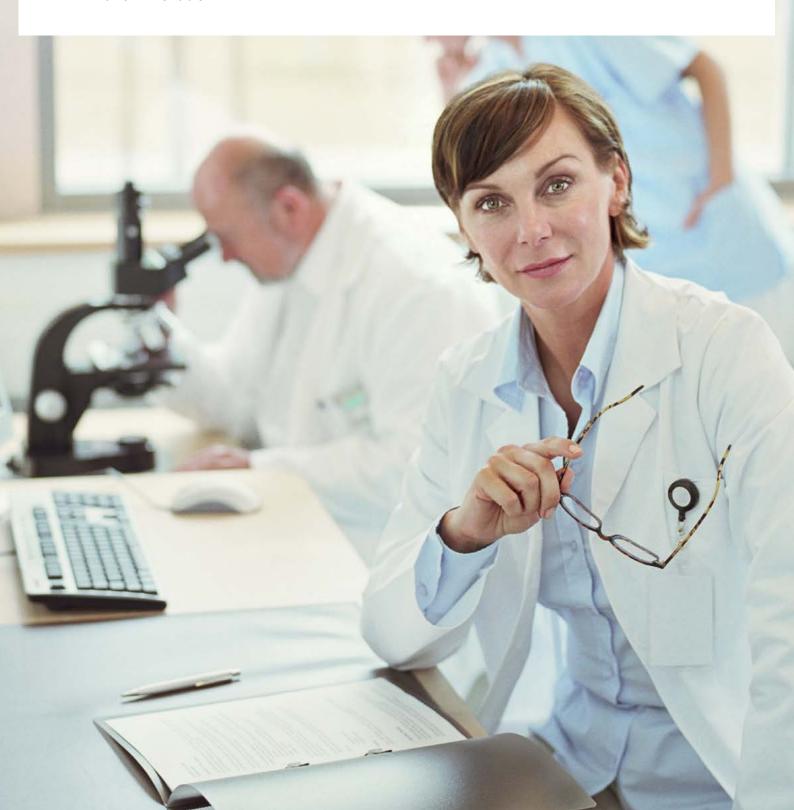




# Gender and Equal Opportunities under Horizon 2020

Theory and Practice under the EU's Current Framework Programme for Research and Innovation



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### Preface

More women in European science! As a mathematician, former university rector and Federal Research Minister, I take a great interest in achieving this aim. This is not only necessary to ensure equality but also to ensure excellent research. The European Union is furthering equal opportunities in the European Research Area and all the EU Member States and EU institutions are equally committed to this goal. Horizon 2020, the EU Framework Programme for Research and Innovation, is promoting gender and equal opportunities as a cross-cutting issue.

Women accounted for 36 percent of researchers working on Horizon 2020 projects in the first two years of the programme. Despite the progress that has been made, the advancement of women in science continues to be an important field of action at both national and European level.

My Ministry's "Women into EU Research" contact point informs and advises women researchers and other interested men and women about the EU Research Framework Programmes. It advises female applicants, supports mentoring programmes and highlights career opportunities for women researchers in Europe.

I am delighted that this encourages women to develop their talents in the fields of German and European research.

Prof Dr Johanna Wanka

Federal Minister of Education and Research

Johanna Wante



# Gender and Equal Opportunities in EU Research Policy

The EU Member States are cooperating closely in the areas of research and innovation in order to ensure Europe's competitiveness and economic growth and to address the grand societal challenges. At the same time, the global race for knowledge and innovation is heating up.

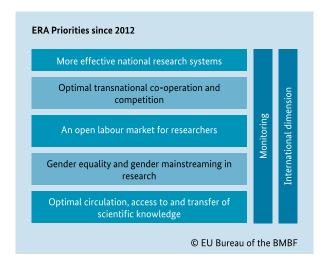
#### The European Research Area (ERA)

Europe needs an efficient and open common research area which is able to attract the best talent from around the world. In this context, it is important to pool Europe's strengths and forge stronger links between national research and innovation activities. The EU Member States are therefore working with the European Commission to bring the vision of a European Research Area (ERA) to life. The ERA complements the EU Single Market with its basic freedoms to ensure the free movement of researchers

and enable the free exchange of scientific findings and technologies. The Member States are cooperating closely in important areas to achieve this ambitious aim. Among other things, it is essential that they take action to increase the efficiency of national research systems. A monitoring mechanism provides transparency regarding the measures taken and the progress achieved in implementing the European Research Area in each country involved.

#### Gender and equal opportunities are an ERA priority

Gender equality and gender mainstreaming in research have been a priority in the European Research Area since 2012. (cf. figure) The EU Commission stated at the time that there must be an end to the "inefficient use of highly skilled women". Indeed, despite the steady increase in the number of women graduates, only a few women hold leadership positions in research or are decision-makers in the field of research policy. The Commission also considers that the gender dimension has been neglected when shaping, evaluating and conducting research.



## Demands on the Member States, research stakeholders and the EU

Member States, research institutions, funding organizations and the European Commission have been called upon to remedy this situation since 2012. A particular onus is on the Member States with their extensive regulatory competencies. The Member States can remove barriers to the appointment and employment of women researchers and support cultural change at centres of research and science. This includes increasing the share of women in decision-making processes and strengthening the gender dimension in national research funding. All these aspects are measured when monitoring the ERA. The EU supports and encourages the use of equal opportunities plans to achieve institutional change in the areas of human resources management, funding, decision-making and the content of research programmes in research establishments and research funding institutions.

The EU Research Framework Programmes are the major instruments for implementing the ERA

priorities. The 2012 ERA Communication therefore contains a voluntary commitment on the part of the Commission itself to "foster gender equality and the integration of a gender dimension in Horizon 2020 programmes and projects from inception, through implementation to evaluation".

## Gender and equal opportunities in the EU Treaties

An obligation to achieve and ensure equal opportunities between women and men was embedded in the Treaty on the Functioning of the European Union (Treaty of Lisbon) in 2009. However, it was its predecessor, the Treaty of Amsterdam, which first made the equality of men and women the specific responsibility of the Community. This responsibility now applies to all measures and policy areas. The Treaty of Amsterdam did not just aim to abolish gender inequities, but also set out to actively establish equality and equal opportunities. Since then, all policy areas – including research and innovation – must actively contribute to ensuring the equality of women and men. The European Commission has adopted a gender mainstreaming strategy to achieve this aim (cf. box).

#### **Gender mainstreaming in research**

A Commission Communication marked the starting point for introducing gender mainstreaming in research policy in 1999. Its main objectives are still valid today. In the context of the equality of women and men, for example, the Communication set a 40 percent target for the involvement of women in the Framework Programmes' overall evaluation, consultation and implementation processes. The fact that this target has still not been reached indicates just how ambitious the Commission was in formulating its goal. The Communication also referred to the lack of understanding among the scientific community for the topic area of "Science and Gender". Calls for proposals in the "Science in Society" funding area are intended to remedy this situation.

## Gender and equal opportunities in the 6th and 7th Research Framework Programme

The participation and promotion of women researchers was already a subordinate evaluation criterion under the 6th Research Framework Programme



(2002-2006) with gender as an analysis category a cross-cutting issue for all fields of research. As a matter of policy, the 7th Research Framework Programme (FP7) called for the stronger involvement of women in research projects and for the consideration of gender-specific aspects in research projects where possible. One weakness of this Framework Programme was that it did not clearly differentiate between equal opportunities in the sense of participation and gender aspects within the research topic itself. It also lacked concrete guidelines for submitting a research proposal. One positive measure under FP7, on the other hand, was the introduction of the "Gender Toolkits" in 2009, with associated training schemes throughout Europe. Nevertheless, the requirements in the application documents remained extremely vague and lax.

#### **Gender Mainstreaming**

Gender mainstreaming is a strategy to ensure the systematic consideration of possible differences in the daily reality and interests of men and women in all societal matters. The underlying assumption is that there is no gender-neutral reality but always the possibility that a measure can have different effects on men and women (though it does not necessarily have to). The aim of gender mainstreaming is to establish genuine equal opportunities.



### Gender and Equal Opportunities under Horizon 2020

#### Legal framework under Horizon 2020

Horizon 2020 is the first Framework Programme with an article specifically devoted to gender and equal opportunities, thus providing a central legal basis:

"Horizon 2020 shall ensure the effective promotion of gender equality and the gender dimension in research and innovation content.

Particular attention shall be paid to ensuring gender balance, subject to the situation in the field of research and innovation concerned, in evaluation panels and in bodies such as advisory groups and expert groups. The gender dimension shall be adequately integrated in research and innovation content in strategies, programmes and projects and followed through at all stages of the research cycle." (Article 16 of the Regulation establishing Horizon 2020.)

#### Gender

The term "gender" refers to social differences attributed to women and men as opposed to biological differences implied by the term "sex". Gender means that women and men are often assigned different roles, expectations, opportunities and needs on the basis of socio-economic and cultural patterns.

The EU has set itself three concrete goals (cf. figure). Members of the respective under-represented sex should make up at least 40 percent of the evaluation committees subject to the situation in the specific research field. The aim is to ensure a gender balance (50:50) in all expert bodies advising the Commission. The EU will benchmark itself against this target as it is part of its indicator-based monitoring scheme (Art. 31 of the Regulation establishing Horizon 2020).



#### **Gender in Research**

The question of the gender dimension or the gender aspect of research is whether and how research obtains new findings – that is to say, the results are different – when gender is included as a category.

The Rules for Participation for Horizon 2020, which are regarded as a kind of superordinate legal basis, also refer to both the principle of the unqualified equality of women and men and the obligation of applicants to describe the gender dimension of their research questions and research design. By signing the grant agreements, that is to say the funding contract, the consortium agrees to gender equality (Art. 33). This means that all institutions aim for a gender balance at all project levels. In everyday practice, this involves, for example, ensuring transparent procedures when recruiting new staff, issuing promotions or distributing tasks within a project. It also includes measures to improve the reconciliation of work and family life. The actual implementation of these measures must be documented in regular progress reports.

#### Implementation in Committees

Programme Committees support the implementation of Horizon 2020. The Commission aims to appoint an equal number of men and women to each of the committees. One member of each committee should have gender expertise.

As a further measure, the "Horizon 2020 Advisory Group on Gender" was established in 2014. The group consists of gender experts who advise the Commission on integrating a gender dimension in the two-year Work Programmes with regard to possible interfaces with other cross-cutting aspects and on the selection of experts with gender expertise (e.g. as members of the Programme Committees).

#### Monitoring

The Commission has committed itself to conducting extensive measures to monitor Horizon 2020. These refer among other things to all cross-cutting aspects including gender and equal opportunities in research. The monitoring exercise is based on three goals:

- Fostering gender balance in Horizon 2020 research teams;
- Ensuring gender balance in decision-making (e.g. advisory and evaluating bodies);
- Integrating gender/sex analysis in research and innovation (R&I) content.

The following indicators were established in order to monitor progress:

- 1. Share of women involved in H2020 projects,
- 2. Share of female project coordinators,
- Balanced share of women (50:50) on advisory committees, in expert groups and among individual experts as well as a 40 percent involvement of the respective under-represented gender in evaluation groups.
- 4. Share of research and innovation projects with a proven gender dimension.

Reliable information on indicators 1, 2 and 4 will not be available until after the completion of a certain number of projects. Indicator 3 is different in this respect because the Commission gathers its own data. The first Horizon 2020 Monitoring Report 2014 shows that women are still under-represented on evaluation panels. They only account for 36.27 percent of panel members, which is below the Commission's target. However, the Commission has reached its 50 percent target for advisory bodies and individual experts with women making up a 52 percent share.

#### What is Horizon 2020?

Horizon 2020 is the European Union's Framework Programme for research and innovation. It is also the EU's major instrument for achieving the European Research Area. Funding covers projects ranging from basic research to close-to-market innovations. The programme establishes priorities based on the needs of science, industry and society. Funding is provided primarily through topic-specific calls for proposals, which usually involve a consortium. Individual funding is also available in certain areas. A Network of National Contact Points funded by the Federal Government advises interested parties in Germany. All relevant information is available at www.horizont2020.de.

### The gender dimension in the Work Programmes of Horizon 2020

Horizon 2020 is based on multi-year Work Programmes. These topic-specific programmes contain precise information on the targets of the planned calls, the budget and the rules for participation. Horizon 2020 focuses in particular on funding transdisciplinary projects. It does not therefore include any subject-related calls on gender research in the same way as it does not include calls on specific subjects such as archaeology or physics.

#### Flagged projects in the Participant Portal

Anyone looking for calls which explicitly encourage gender-sensitive research design should turn to Horizon 2020's official Participant Portal. Many of the calls there are flagged as requiring the inclusion of "gender" as an analytical criterion and can be accessed quickly through the portal's advanced search function. It can be assumed that these calls contain a gender dimension which must definitely be taken into account when designing the research. Evaluators will be sensitized to possible aspects of gender and equal opportunities in the evaluation procedure.

Link to Participant Portal: "Topics with a Gender Dimension"

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/ftags/gender. html#c,topics=flags/s/Gender/1/1&+callStatus/asc

## Gender equality and gender-related content in the application

Applicants must answer questions on equal opportunities and gender in two parts of the Standard Proposal Template for Research and Innovation Action. The questions clearly differentiate between participation (equal opportunities) and research content:

All consortiums should ensure that their research team is as balanced as possible. It is acknowledged that gender distribution varies between different areas of research. Consortiums can also point out that the project intends to take measures to counteract the gender imbalance or that the institutions have already introduced corresponding initiatives.

## The gender dimension in research: What aspects are considered?

The thorough processing of a project application under Horizon 2020 entails consideration of the gender dimension. The Commission has identified a significant need for further information and is now taking advantage of a growing collection of case examples as practical information for applicants. The GenPORT online portal (www.genderportal.eu) aims to pool relevant measures that have already received funding. The "Gendered Innovations" project (EU and Stanford University/USA) collates and describes cases where new insights have been gained by taking gender aspects into account in the most diverse fields of research (genderedinnovations.stanford.edu).

## Equal opportunities in the (research) project: Who is involved in the project?

Part 4 of the proposal template refers to equal opportunities in the project and asks for details of members of the consortium. Brief CVs of the main project officers must be submitted.

### Gender and equal opportunities as horizontal issues

"Gender and Equal Opportunities" are not only firmly embedded in Horizon 2020 as described above, they are also one of several cross-cutting aspects which run like a golden thread through the entire programme. They should also be taken into account and included in areas where the integration of a gender dimension is not explicitly required. In other words, calls which do not explicitly demand the inclusion of gender when formulating research questions and methods should consider and, if appropriate, include gender-related aspects.

Other cross-cutting aspects include the social sciences and humanities, small and medium-sized enterprises and international cooperation beyond Europe.

#### Calls for proposals with a gender dimension

#### **Examples from the 2016-2017 Work Programme**

## Topic: "Engaging private consumers towards sustainable energy"

"Where relevant for the proposed action, gender issues should be taken into account, in particular the role gender characteristics may play in influencing consumer behaviour."

## Topic: "Personalised coaching for well-being and care of people as they age"

"Proposals should address relevant ethics and gender aspects and should also assess related legal and regulatory questions such as ownership of data, data protection/privacy, liability and consumer protection."

**Topic: "Sweeteners and sweetness enhancers"**"Where relevant, proposals should address gender-specific aspects and the gender dimension in the research content shall be taken into account."

## Gender equality and gender-related content in the evaluation process

The "Excellence" section of the proposal deals with the question of whether and in how far the project addresses gender aspects. The EU Commission attaches importance to ensuring that the selected experts are gender sensitive. The information provided by the applicants is part of the overall assessment. This point is also important for consortiums which decide that gender aspects are not relevant. It is recommended that they explain why they have reached this conclusion. A detailed elaboration of their argument is all the more important for applications where the text of the call explicitly calls for a gender analysis.

As far as the make-up of the consortium is concerned, it is important to know that following the completion of the evaluation there is a fixed procedure in the event that proposals have the same score (cf. below). The staffing structure of a consortium is a ranking factor which

under these circumstances can be decisive for the success of an application. Annex H of the respective Work Programme contains information about the procedure for dealing with proposals with the same score.

#### Treatment of applications with the same score

All the projects are studied once again when drafting a ranking list for funding. Projects with the same score are re-evaluated according to the following aspects:

- Applications which close gaps in the work programme
- Applications which have achieved a higher score for excellence and then impact
- Applications which have achieved a higher score for impact and then excellence in the case of the SME Instrument and Innovation Actions
- Budget of the SME
- Gender ratio among the major participants in the project
- Other factors, e.g. EU targets

## Evaluating applications under Horizon 2020

The evaluation of applications provides an opportunity to gain insights into the evaluation procedure and to forge international links. The EU Commission endeavours to ensure a good mix of members of the evaluation panels for Horizon 2020. The aim is to ensure a balanced composition in terms of field of work (research, industry, etc.), country (EU Member States and non-member states) and gender in order to cover as many aspects and facets of the call as possible.

#### Good chances for women experts

The Commission has set a 40 percent target for the participation of the under-represented sex in the respective field of research. This is not a binding quota. The Horizon 2020 Monitoring Report 2014 shows that the proportion of women experts is only 36 percent in terms of actual expert contracts signed. Since the proportion of women experts registered in the expert database is only 35 percent, the probability of women experts being selected is higher than that of their male colleagues. The decisive criterion is to have specialist expertise which matches the theme of the call.

Due to the large number of calls there is a great demand for experts on the evaluation panels every year. Experts can register on the Participant Portal, which is the main channel through which the EU Commission or its Executive Agency contact experts. It is essential that the experts flag their expertise and capabilities appropriately as the database is searched according to matches between their profiles and the expertise needed for carrying out a specific assignment.

#### What types of profiles are sought?

Specialist expertise is the precondition for selection as an expert. This does not mean that the applicant must hold a professorship, for example. Registration is open to researchers in the private and public sectors as well as to experts who do not (or no longer) conduct research, for example in the field of industry or public administration. Experts must register personally.

Degistration alone does not guarantee an invitation to become an expert. Demand depends on current calls in the various areas and therefore fluctuates both over time and according to subject matter. There continues to be a great demand for experts with gender expertise. Experts are contacted via the same database. The European Commission's list of frequently asked questions (FAQ) and the "Horizon 2020 Online Manual" contain additional questions and answers regarding assignments as an expert.

## Gender and equal opportunities in the application – Have I thought of everything?

- Include the gender dimension in the project if this is called for in the topic.
- Bear in mind that the cost of gender training courses are eligible costs. These courses can sensitise team members to gender issues.
- Answer the question regarding gender analysis under the heading "Excellence" in the application.
- Involve specialists with gender expertise.
- Use the check lists provided on the websites of the "IGAR Tool", "Gendered Innovations" and "Gender Toolkits".
- Refer to existing groundwork if possible in other words, to the fact that you are aware of the state of the art for this aspect of your research.
- Should you still need to gain an insight into the gender dimension, you can plan specific studies as an activity. These are eligible costs.
- A balanced gender ratio in the consortium is a potential ranking factor!

#### The Contact Point Women into EU Research

The Federal Ministry of Education and Research set up the Contact Point "Women into EU Research" (FiF) in 2001 in response to the small proportion of German women researchers involved in EU research. FiF sees its role as Germany's central advisory bureau for gender and equal opportunities under Horizon 2020.

FiF informs women researchers on funding opportunities under Horizon 2020 and thus aims to increase the participation of women researchers in applications. Furthermore, FiF provides interested parties with information and advice on how to implement equal opportunities and gender aspects in the EU Framework Programmes. FiF belongs to the Project Management Agency at the German Aerospace Center. As part of the BMBF's EU Bureau, it cooperates closely with the National Contact Points for Horizon 2020.

#### Advice for women researchers

FiF is the port of first call for women researchers in Germany and provides answers to questions regarding Horizon 2020. This may be general information on topics and calls. FiF also puts interested parties in touch with the appropriate contact points, provides support when filing concrete applications or registering as an expert.

### Information on gender and equal opportunities under Horizon 2020

How exactly is the European Commission implementing the topics of gender and equal opportunities under Horizon 2020? Applicants and people working in advisory positions receive various types of information. FiF provides information ranging from details of the relevance of gender in application procedures, to details of evaluation and practical project implementation. Furthermore, it monitors developments in the EU Framework Programmes with regard to equal opportunities and gender.

Link to homepage (available in German only): www.eubuero.de/fif.htm

#### Success in Practice!

What is the added value of EU-funded projects for women researchers apart from receiving funding for a temporary research contract? What precisely lies behind projects whose contents take gender aspects into account? And how do EU-funded projects trigger institutional change in favour of equal opportunities?

The following pages contain brief interviews with women researchers who hold leading positions in cooperation projects under Horizon 2020 and with the leader of an ERC-funded project. What advice do they give women researchers for submitting an application and what does the project mean for their scientific careers?

Two projects show how the gender perspective can be usefully integrated into a research project. GEDII and GENERA represent two projects which examine the effect of diversity in project teams, on the one hand,

and study the topic of equal opportunities in physics, on the other.

Dr Saskia Biskup, the featured winner of the EU Prize for Women Innovators, is both a researcher and a business woman.

These examples provide an insight into a number of successful projects and shine a spotlight on women researchers who have received support under Horizon 2020.

#### European careers: Women researchers taking the lead in Horizon 2020 projects.

#### EU-STRAT – The EU and Eastern Partnership Countries An Inside-Out Analysis and Strategic Assessment

#### What is your research project about?

The EU-STRAT project is aimed at re-evaluating the European Neighbourhood Policy against the backdrop of the war in Ukraine and tensions with Russia. We are investigating why the European Union has failed to achieve its declared objective to bring peace, prosperity and stability to its neighbours in the East and how the EU can support political and economic change in the countries of the Eastern Partnership. The project is aimed at demonstrating under what conditions domestic players in these countries are poised to support political and economic change. It is also looking into how bilateral, regional and global interdependencies shape the scope for action and preferences of these stakeholders. In addition, the project is investigating whether association agreements with the EU and other instruments such as research cooperation actually represent effective means to support domestic reform processes in the Eastern Partnership countries. Finally, the project sets out to develop specific scenarios for potential development pathways for Eastern Partnership countries. Policy recommendations resulting from the project will strengthen the EU's capacity to promote change within these countries.

## What is your advice to women researchers who would like to take part in a Horizon 2020 project? There is no formula for success, but I found it very help-

ful to have:

- A core group of excellent colleagues with expertise in the relevant field and a reputation for cooperativeness.
- A team member who is well versed in project administration with experience in EU application procedures (management and financing).



#### >> Prof Dr Tanja A. Börzel

How do you as a researcher benefit from the project? The project has put me in touch with new fields of research and I have gained international experience in a leadership position, strengthened my intercultural skills and, most importantly, forged new partnerships and friendships with wonderful colleagues from Eastern Europe.



#### **Data on EU-STRAT**

Coordinating institution:

Freie Universität Berlin

**Contact person:** 

Prof Dr Tanja A. Börzel

**Project duration:** 

May 2016 – April 2019

Programme section:

Societal Challenges: Europe in a changing world -Inclusive, innovative and

reflective societies

Project website:

http://eu-strat.eu/

E-mail:

europe@zedat.fu-berlin.de

#### EUth – Tools and Tips for Digital and Mobile Youth Participation in and across Europe

## How can we strengthen digital youth participation in Europe?

The EUth project is aimed at increasing the number of digital youth participation projects in Europe. To this end, we are developing an online platform entitled OPIN (www.opin.me) which authorities, youth organizations and other stakeholders can use to implement participation projects. The platform offers a range of different participation functions such as collaborative text work and a mobile polling app.

We are also working to support people who would like to start a participation project: A special tool helps them to select a suitable method and practical guidelines provide tips on how to best realize their plans and solve concrete challenges. The platform will go live after the end of the project in March 2018.

## How do you as a researcher benefit from the project?

We are assessing the current landscape for participatory projects and testing software in different integrated pilot projects to develop a user-centred platform that goes beyond the current state of the art. The results of these studies are very valuable. It is also exciting to work on an interdisciplinary European project. Software developers, experts in participation and end users from 7 European countries are working together in the EUth project. We all have to express our own perspectives very precisely and need to be open to input from different directions in order to find a common language and develop a joint strategy.



#### >> Kerstin Franzl

What is your advice to women researchers who would like to take part in a Horizon 2020 project? Go ahead, it's fun! And once the project is up and running do not hesitate to share your ideas. Projects thrive on the active participation of the project partners. In interdisciplinary projects in particular it is important to trust your intuition and point out any gaps or lack of coherence – if you do not understand something it is not usually because of your incompetence but because there is a need for further improvements.



#### **Data on EUth**

Coordinating institution:

nexus Institute for Cooperation Management and Interdisciplinary

Research, Berlin

**Contact person:** 

Kerstin Franzl

**Project duration:** 

March 2015 - February 2018

Programme section:

Societal challenges:

Europe in a changing world - inclusive, innovative and

reflective societies

**Project website:** 

www.euthproject.eu

E-mail:

franzl@nexusinstitut.de

#### EU PolarNet

#### How can polar research bring Europe together?

The EU-PolarNet project is a coordination and support action aimed at structuring the European Commission's research agenda. The full title of the project "EU-PolarNet – connecting science with society" is an expression of the project's focus on societal challenges in the polar regions. The key research questions in polar research are being identified in cooperation with representatives from politics, industry, research and the indigenous peoples. The project will run for five years. It brings together partners from 17 countries and involves 22 major European research institutions. The aim of the project is to carve out a European agenda for polar research.

## What is your advice to women researchers who would like to take part in a Horizon 2020 project?

Administrating a Horizon 2020 project is a very challenging task. My most important piece of advice to future applicants would be to ensure that you have well versed colleagues at your side. Furthermore, you will also need a helping hand for the administrative part of the project. Many institutions offer support and advice on EU projects - make sure that you take advantage of this assistance.

In addition, it takes patience and determination to adapt to new project partners, who are not always easy to deal with. It is often only at the end of a project that you realize that you learnt most when collaboration was most difficult.

You should only get involved in projects that will benefit your own work. There is no point in immersing yourself in a project that only marginally touches upon your field of work. This usually takes up more time and resources than you would initially expect.



#### >> Prof Dr Karin Lochte

#### How do you as a researcher benefit from the project?

The project has produced a closely knit network by involving Europe's most important polar research institutions. This has enabled me to get to know all the relevant people in the field. I am impressed by the effectiveness with which this network can respond to inquiries at short notice. Collaboration between researchers from different disciplines and discussions with stakeholders broaden the range of research topics. Complex questions cannot be solved through individual research alone but need the combined expertise of researchers from a multitude of disciplines.



#### Data on EU PolarNet

Coordinating Alfred Wegener Institute
institution: Helmholtz Centre for Polar and
Marine Research, Bremerhaven

**Contact person:** Prof Dr Karin Lochte

**Project duration:** March 2015 – February 2020

Programme Societal Challenges: Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research,

and the Bioeconomy

Project website: www.eu-polarnet.eu/en

E-mail: karin.lochte@awi.de

#### ELSA – Energy Local Storage Advanced System

#### How can we manage energy smartly?

Energy storage plays a central role in smart grids and can give both buildings and the grid the flexibility they need. The ELSA project (Energy Local Storage Advanced system) addresses the increasing demand for smart energy storage solutions by developing and testing the integration of second-life batteries from electric cars in energy storage systems.

The aim is to find solutions to enhancing smart energy management by optimizing the use of storage systems thus benefiting buildings, neighbourhoods and distribution grids.

## What is your advice to women researchers who would like to take part in a Horizon 2020 project?

Our experience with numerous FP7 and Horizon 2020 projects has been entirely positive. The staff involved benefit in particular from their interaction with industry. Our industrial partners recognize and respect our neutral position as academic partner institutions in the research projects. Despite their commercial interests, businesses seek our advice as academic partners and value our developments and ideas.

The administrative burden which EU projects involve should not prevent anyone from realizing their projects. However, like any other funding agency, the EU has its own funding rules and regulations that you need to know and follow.

Our institution's experience with EU projects is based on collaborative projects. Here it is important to ensure a well-balanced consortium, preferably involving partners you know from previous collaborative work.



>> Bettina Schäfer

## How do you as a researcher benefit from the project?

The project promotes close collaboration between partners from universities and industry to develop new, innovative applications. This gives me an insight into the processes leading from prototype to commercialization and I also conduct close exchanges with our industrial partners. In turn, we as academic researchers support their application-oriented research with our theoretical approaches and new developments.



#### **Data on ELSA**

Coordinating institution:

Bouygues Energies & Services (FR), Saint-Quentin-en-Yvelines

Cedex (FR)

Participating institution in Germany:

**RWTH Aachen University** 

**Contact person:** Bettina Schäfer

**Project duration:** May 2015 – March 2018

Programme section:

Societal Challenges: Secure, Clean and Efficient Energy

Project website: www.elsa-h2020.eu

E-mail:

BSchaefer@eonerc. rwth-aachen.de

TransSOL – European paths to transnational solidarity at times of crisis: Conditions, forms, role models and policy responses

#### What is your research project about?

The "Transnational solidarity at times of crisis" project (TransSOL) is investigating the current level of European solidarity, its determinants and enabling conditions. A particular focus is on a cross-country study of solidarity among citizens as a field of action for civil society organizations and as a subject of public media coverage.

Our aim is to understand the determinants of European solidarity in troubled times, particularly against the backdrop of the current economic crisis and migratory movements. What are the preconditions for European solidarity and cohesion in times of crisis? What form does European solidarity take today and what can we learn from this?

## What is your advice to women researchers who would like to take part in a Horizon 2020 project?

It is definitely essential to start preparing at an early stage. It may even be useful to take a look at the EU work programme when it is still in the drafting process as application deadlines are sometimes very short once a call has been announced. Moreover, early planning and the timely drafting of your application mean that you can obtain advice from your university's EU office or the National Contact Point. Their experience with previous applications and evaluations means that they know what counts.



#### >> Dr Ulrike Zschache

How do you as a researcher benefit from the project? The TransSOL project has provided me with the opportunity to conduct cooperative research with renowned European partners from the fields of sociology, political science, law and media studies. We are working on a central societal issue following a multidisciplinary approach and based on a cross-country comparison using diverse and innovative methods. This multitude of perspectives allows us to demonstrate the diversity of crisis management in Europe.



#### **Data on TransSOL**

Coordinating institution:

University of Siegen

Contact person:

Dr Ulrike Zschache

**Project duration:** 

June 2015 - May 2018

Programme section:

Programme section: Societal Challenges: Europe in a changing world - Inclusive, innovative and

reflective societies

Project website:

transsol.eu

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# INTERCLOUDS – Using the Magellanic Clouds to Understand the Interaction of Galaxies

#### How are you studying the interaction of galaxies?

My ERC-funded INTERCLOUDS project is about analysing the interaction of galaxies. To achieve this, I am studying the stars in the Magellanic Clouds, two bright neighbouring galaxies of the Milky Way.

Observation data from the Gaia satellite and VISTA, the world's largest survey telescope, allow me to analyse their movements and accretion history.

## What is your advice to women researchers who would like to take part in a Horizon 2020 project?

The ERC honours scientific excellence regardless of the researchers' sex or gender which is why I cannot give any specific advice to women researchers alone. I advise everybody who wants to apply for an ERC grant to be very critical when formulating their application. Every sentence needs to be perfect. You should not be satisfied until everything is flawless. That is why you should either start drafting your application at an early stage or need to be able to work rigorously under pressure.

Your application should demonstrate that you are passionate about your project and that you would be working on it either way, whether you are granted funding or not.



#### >> Dr Maria-Rosa Cioni

#### How did the ERC grant impact your career?

Its impact was huge. I was able to secure myself a good position in my favoured institute even before the start of the project. Here I value in particular the fruitful proximity to researchers working on other related projects. What is more, I have been able to establish my own team to work on the different aspects of my project. This will help me increase my scientific productivity.



#### **Data on INTERCLOUDS**

**Coordinating** Leibniz Institute for Astrophysics institution: Potsdam (AIP)

**Contact person:** Prof Dr Maria-Rosa Cioni

**Project duration:** October 2016 – September 2021

Programme European Research Council section: (ERC), Consolidator Grant(ERC),

**Consolidator Grant** 

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#### Successful integration: Gender aspects in Horizon 2020 projects.

#### **EuroMix**

## A tiered strategy for risk assessment of mixtures of multiple chemicals

## Enhancing the assessment of health risks from multiple chemical exposure.

Every day, we come into contact with a multitude of chemicals via different exposure routes such as food intake, inhalation and dermal contact with creams, deodorants and the clothes we wear. How does this exposure to multiple chemicals affect our bodies? The EuroMix research project is aimed at developing testing strategies and guidelines that will enable a toxicological health risk assessment of our daily exposure to multiple chemicals while taking into account the person's situation and gender.

What chemicals combine to have a synergistic or antagonistic effect? What difference does it make whether test persons are female or male, children or seniors, pregnant or suffering from illness? Are consumers who eat more fruit and vegetables and use more skin products or cleaning agents more exposed to certain mixtures of chemicals than other people?

In the past, it has been difficult to assess the health risks from mixtures of substances since toxicological data is typically only available for individual substances.

The EuroMix project (European Test and Risk Assessment Strategies for Mixtures) aims to close this gap. The German Federal Institute for Risk Assessment (BfR) is involved in the development of an experimental testing strategy to enhance the toxicity assessment of mixtures of different toxic chemicals while taking particular account of alternative testing methods. The results of the toxicological assessments of these mixtures will be fed into newly developed, computer-based risk assessment models that consider different exposure scenarios and living conditions as well as gender differences.

The EuroMix consortium is made up of total of 26 scientific institutions from 15 EU countries.



The project is particularly relevant with regard to consumer protection as the toxicity of mixtures of substances has not been addressed adequately in the context of health risk assessments in the past. The project's gender aspects are being studied by the Dutch project coordinator RIVM (National Institute for Public Health and the Environment).

# SILNE-R – Enhancing the effectiveness of programs and strategies to prevent youth smoking

The SILNE-R project analyses the different tobacco control strategies of seven European countries at the national, local and school level. Tobacco control policies cover a vast range of measures such as smoke-free legislation, taxes on tobacco, bans on tobacco advertising in shops or warning labels and pictures on tobacco products. Professor Matthias Richter is the Director of the Institute of Medical Sociology (IMS) at the Martin Luther University Halle-Wittenberg and leads the work package on the local-level analysis of the implementation of tobacco control strategies. In addition, the IMS is responsible for collecting data on policies at the national and school level in Germany.

Researchers in the project are comparing the tobacco control policies introduced at different points in time in seven European countries, namely Finland, Germany, Belgium, the Netherlands, Ireland, Italy and Portugal. Among other things, they are conducting a survey involving around 20,000 pupils and holding qualitative focus group discussions with 15-year-old male and female pupils from towns and cities which have been selected as being representative of the country under scrutiny. The city of Hanover was selected to represent Germany as the regional capital of Lower Saxony is considered to be an "average German town" with regard to its income structure, share of migrants and level of unemployment.

Professor Amanda Amos (of the University of Edinburgh) is leading a qualitative survey involving 56 focus groups of 15-year-olds in the seven selected cities representing the seven involved countries. The groups are single-sex as several studies have shown that sex and gender have a substantial impact on adolescent smoking behaviour. The groups discuss their experiences and attitudes towards smoking in order to provide a deeper insight into the factors that influence the smoking behaviour of 15-year-old boys and girls. Targeted measures will be developed for the future aimed in particular at girls with a low socioeconomic status.

This data will be fed into the SILNE-R project to provide researchers with a fundamental understanding of the social context and gender-specific aspects of smoking habits.



>> Prof Dr Matthias Richter

The SILNE-R project is working to provide insights into how and why tobacco control policies are effective in influencing the smoking behaviour of children and adolescents. The influence of gender, social networks, family background and socioeconomic status is of particular research interest.



**Participating** 

#### **Data on SILNE-R**

**Coordinating** University of Amsterdam institution:

Martin Luther University Halle-

institution in Wittenberg (MLU)
Germany:

**Contact person:** Prof Dr Matthias Richter

**Project duration:** October 2015 – September 2018

Programme Societal Challenges: Health, section: Demographic Change and Wellbeing

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## Innovation under Horizon 2020: Focus on research innovation.

Horizon 2020 is not simply a continuation of the Seventh Framework Programme. It demonstrates a new spirit in research funding by placing a strong emphasis on innovation, focusing on the entire innovation process from basic research to the testing of an innovative product and its commercialization.

Application and market orientation matter more today than ever before. However, this does not signify the exclusion of research fields that are traditionally less market-oriented. Innovation in the EU is also about social innovation and renewal in a broader sense. The EU Commission's website offers a large number of explanations and examples to illustrate this understanding of innovation.

The EU Commission has also been working to strengthen the participation of women in research and increase their visibility in the context of increased innovation funding under Horizon 2020. One example is the annual EU Prize for Women Innovators, which is targeted at women founders of research-intensive businesses. German researcher and entrepreneur Saskia Biskup was awarded the prize of 100,000 euros in 2014.

"The Women Innovator Prize has made a big difference in helping our business to gain a good reputation, particularly within the EU. We have also received a great deal of attention in Germany and from colleagues and this really spurs us on. The award was a perfect occasion to throw a big party to thank all those who made it possible for me to win the Prize." Dr Saskia Biskup

## Interview with Dr Saskia Biskup

#### What does your company CeGaT do?

Gene mutations can cause severe illnesses. CeGaT offers medical analysis and sequencing services to patients and families to identify such mutations. Apart from confirming diagnoses, our genetic testing services support treatment decisions that impact the progression of a disease. For our diagnostic services, CeGaT uses state-of-the-art technology to analyse in parallel all the genes associated with a particular disease.

## When did you first become involved with the EU as a provider of funding for research and innovation?

The first time I was accepted to receive funding under an EU programme was in 2010. I was responsible for a project on hereditary forms of Parkinson's disease as a co-investigator in the consortium together with my then supervisor.

## What advice would you give to other women who are interested in starting their own business?

It takes courage and staying power to believe in your own idea and go on to realize it. There will be stumbling blocks, but these should provide extra motivation. The first two years were very difficult for my company. Nobody had heard about us and it was not easy to implement our idea on the technical side. We feared for our existence every day, but we never gave up. What characterizes entrepreneurs in general is that they have so much passion and enthusiasm for their ideas, even when faced with setbacks.

### How did you learn about the EU Prize for Women Innovators?

I received the information through a number of channels. On the one hand, I read about the Prize in various newsletters. On the other hand, colleagues and staff pointed out that I would be an ideal candidate and encouraged me to enter the competition.

#### Changing institutions:

Horizon 2020 projects to establish gender equality.

#### Genera — Gender Equality Network in Physics in the European Research Area

#### Physics and equal opportunities.

The GENERA project is based on the idea of bringing together the central institutions in a particular field of science (physics in this case) with experts in structural and institutional change to address the issue of gender equity in science.

GENERA is firmly rooted in the scientific community and sets out to support the institutions involved in implementing state-of-the-art gender equality measures and strategies – a topic that has traditionally been addressed by administrative bodies. We want to follow a best-practice approach to foster mutual learning and identify factors such as cultural differences in Europe so as to enhance gender equality in physics as a whole. Physics seemed an obvious choice as women are traditionally very much underrepresented in this discipline and leadership positions are usually held my men. Furthermore, physics is a highly internationalized field which gives us the opportunity to establish gender equity as an integral element of international cooperation in our research work.

#### Where did the idea for the project come from?

Over the past ten years, my Working Group has earned quite a reputation when it comes to networking with scientists in Europe. We met women gender equity experts at workshops within the framework of the VERA (Forward Visions on the European Research Area) project, another EU-funded project. We came to realize that women are not equally distributed over the individual fields of physics. Certain fields are even female-dominated such as research into dark matter. There are also cases showing that mixed scientific teams perform better. This motivated us to initiate the GENERA project.



>> Dr Thomas Berghöfer

## What is the much cited European added value of your project?

There is competition throughout Europe for the brightest minds in research. Extending our horizon beyond national borders helps us to recognize cultural differences and learn from one another. Coordinated action to promote gender equality will result in equal framework conditions which will, in turn, improve scientific cooperation.



E-mail:

#### **Data on GENERA**

Coordinating institution:	Deutsches Elektronen-Synchro- tron (DESY) A Research Centre of the Helmholtz Association, Hamburg
Contact person:	Dr Thomas Berghöfer

Project duration:	September 2015 –	August 2018
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Programme section:	Science with and for Societ
Project website:	www.genera-project.com

# GEDII — Gender Diversity Impact – Improving research and innovation through gender diversity

#### Gender and (research) quality.

How does gender diversity impact productivity, quality and innovation in research and development (R&D)? Can gender diversity strengthen research and innovation?

These questions are at the focus of the GEDII project (Gender Diversity Impact – Improving research and innovation through gender diversity, https://www.gedii.eu/). The GEDII project is developing the world's first reliable measuring instrument by using innovative methods to analyse the links between gender diversity and research productivity.

## What are your project goals and how are you going to achieve them?

- Development of strategies and instruments to assess team processes and their impact on the research performance of teams and organizations. We are using sociometric badges to implement four case studies to develop relevant methods.
- Assessment of the advantages of gender diversity for the team and organizational level. An online survey will provide the empirical basis for this assessment.
- 3. Analysis of the innovativeness of R&D teams behind databases such as ISI Web of Science (for publications) and Patstat (for patents) using data mining.
- 4. Communicatio of our results to the scientific community, industry, policy-makers and society in order to advance the social dialogue on gender diversity.
- 5. A self-assessment tool will help R&D teams analyse their diversity and innovativeness.

## Where do you see the opportunities and challenges for a project under Horizon 2020?

Work in an international team is an enriching experience with regard to both working methods and contents – in particular when dealing with interdisciplinary research topics. An international and interdisciplinary team is more willing to respect national particularities and value team members' understanding of R&D practice. The administrative assistance provided by the National Contact Points and the Project Officer is also very positive as they always provide competent support. The biggest challenge is that cooperation is mostly virtual. That is why it is all the more important for project teams to hold well-prepared regular meetings.



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