



# Evaluation Framework for Promoting Gender Equality in Research and Innovation

## Evaluating Gender Equality in Research and Innovation – Theories, Methods, and Results from the EFFORTI project

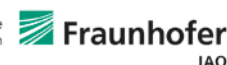
**EFFORTI Final Event  
21st May 2019, Brussels**

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Fraunhofer Center for Responsible Research and Innovation



# Content



- Our background: who we are and what the project is about
- Our ambition: what did we want to achieve?
- Our approach: how did we proceed to reach our aims?
- Our achievements
- Our future

# Background

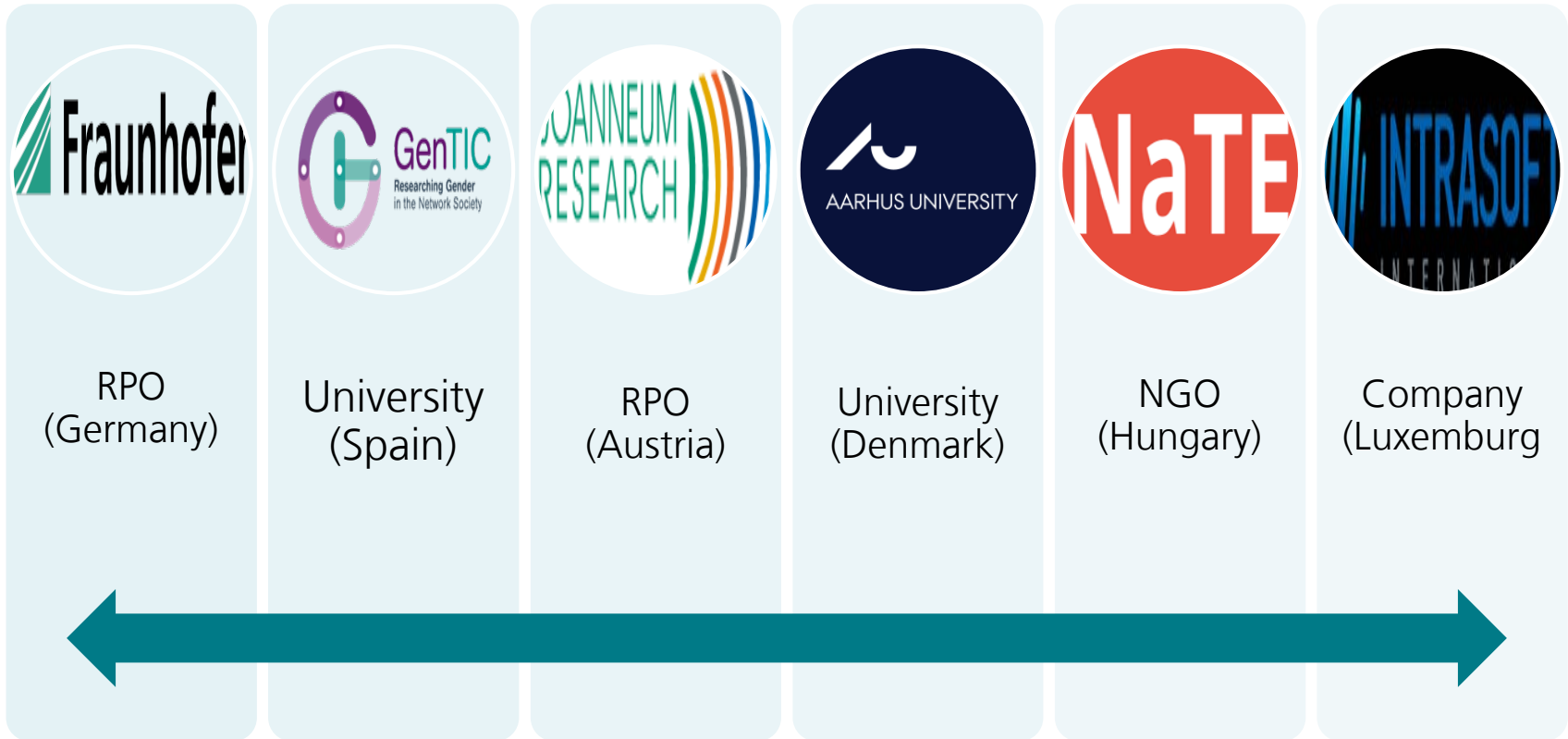
# Basic Information

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- Project: EFFORTI – Evaluation Framework for Promoting Gender Equality in Research and Innovation
- Programme: H2020 – Science with and for Society (SWAFS)
- Type of Action: Research and Innovation Activity – RIA
- Duration: June 2016 – May 2019
- Budget: approx. 2 Mio. EUR

# The EFFORTI Project Team



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# Stakeholder involvement



Policy designers, officers and evaluators from the realms of research funding, ministries and research performing organizations

- Dr. Elizabeth Pollitzer, Director Portia Ltd.
- Dr. Klaus Schröder, design-people Strategic Innovation Director, partner/CEO
- Prof. Barbara Poggio, University of Trento, Vice-Rector Equality and Diversity Policies
- Prof. Gabriele Jacobs, Rotterdam School of Management, Erasmus University (RSM).

Contributing to a transnational expert community

# Ambition



# Motivation

## ■ Motivation

- Gender equality (GE) is one of the top priorities since decades
- The scientific knowledge of the underrepresentation of women within research and innovation (R&I) systems and the most important hindrances are comprehensive
- A plenty of measures and toolkits exist that aim at the promotion of GE
- Progress is made at a rather low pace

➔ More evidence is needed that gender equality leads to improved R&I outcomes and processes, e.g. improved societal relevance of R&I, better contribution of R&I to societal challenges, innovations better suited to markets (H2020 Interim Evaluation on GE)

➔ EFFORTI aims to deliver such evidence by developing an evaluation framework which establishes the link between Responsible R&I and Gender Equality

# Our Objectives

## Generation of knowledge on

- the link between GE interventions, GE outputs and R&I outcomes and impacts
- with a special emphasis on innovative indicators like RRI

## Tools & Products

- Conceptual Evaluation Model (EFFORTI 1.0)
- Evaluation Toolbox (EFFORTI 2.0)

## Community Building

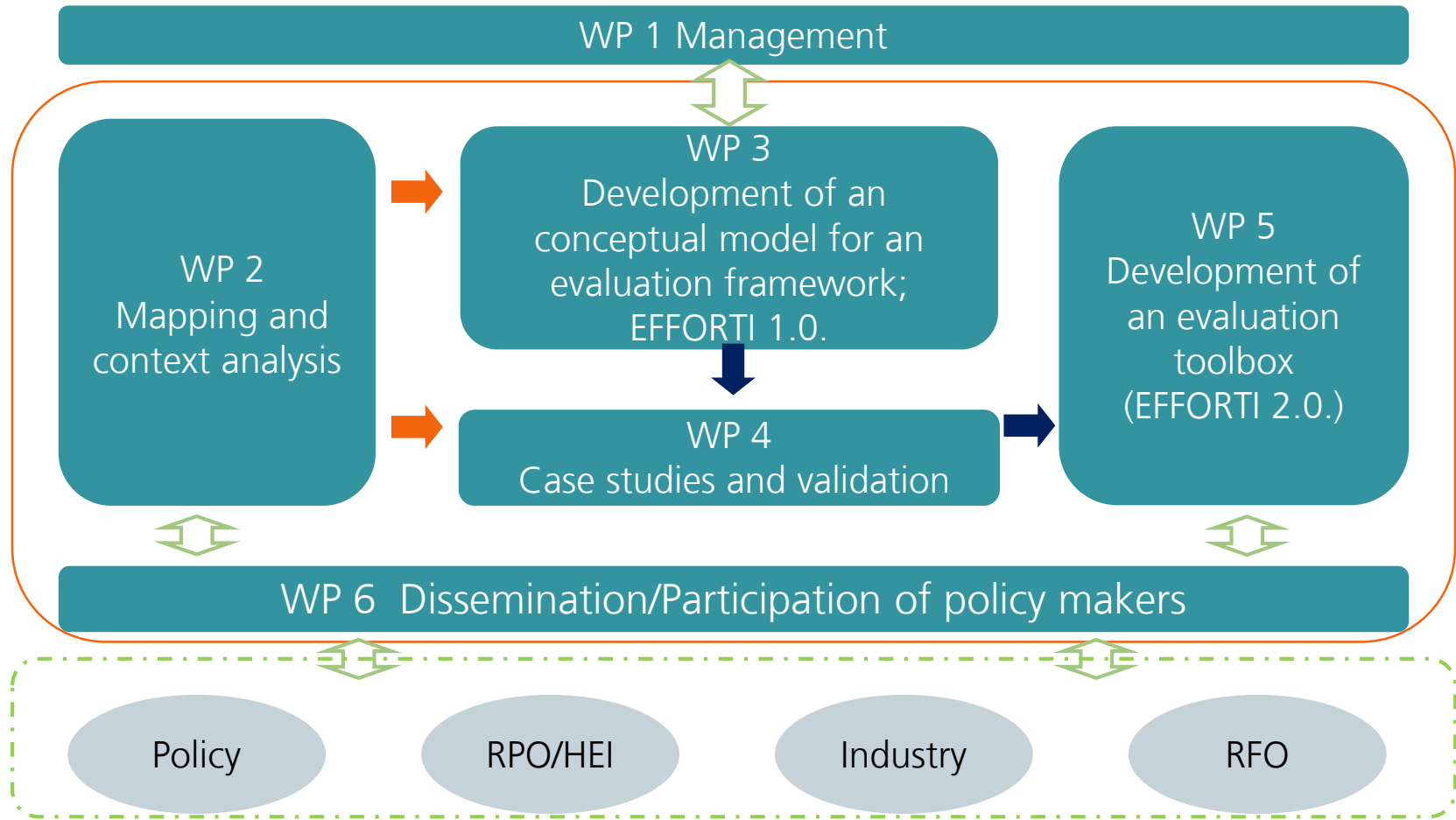
- National Stakeholder Workshops
- International Conferences
- Platform for information sharing

## Policy Recommendations

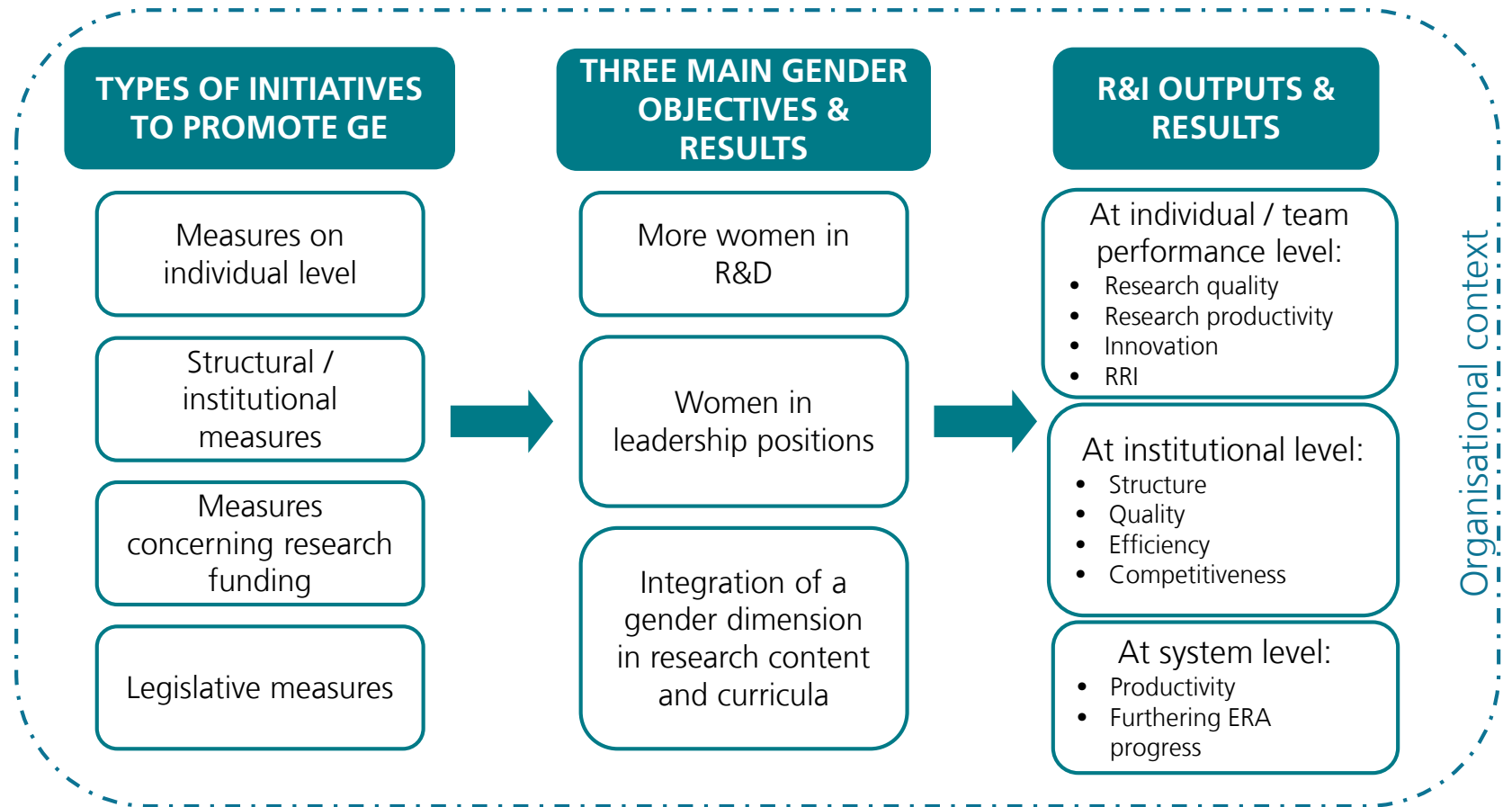
- for the design and implementation of GE interventions
- for evaluations and impact assessments

# Approach

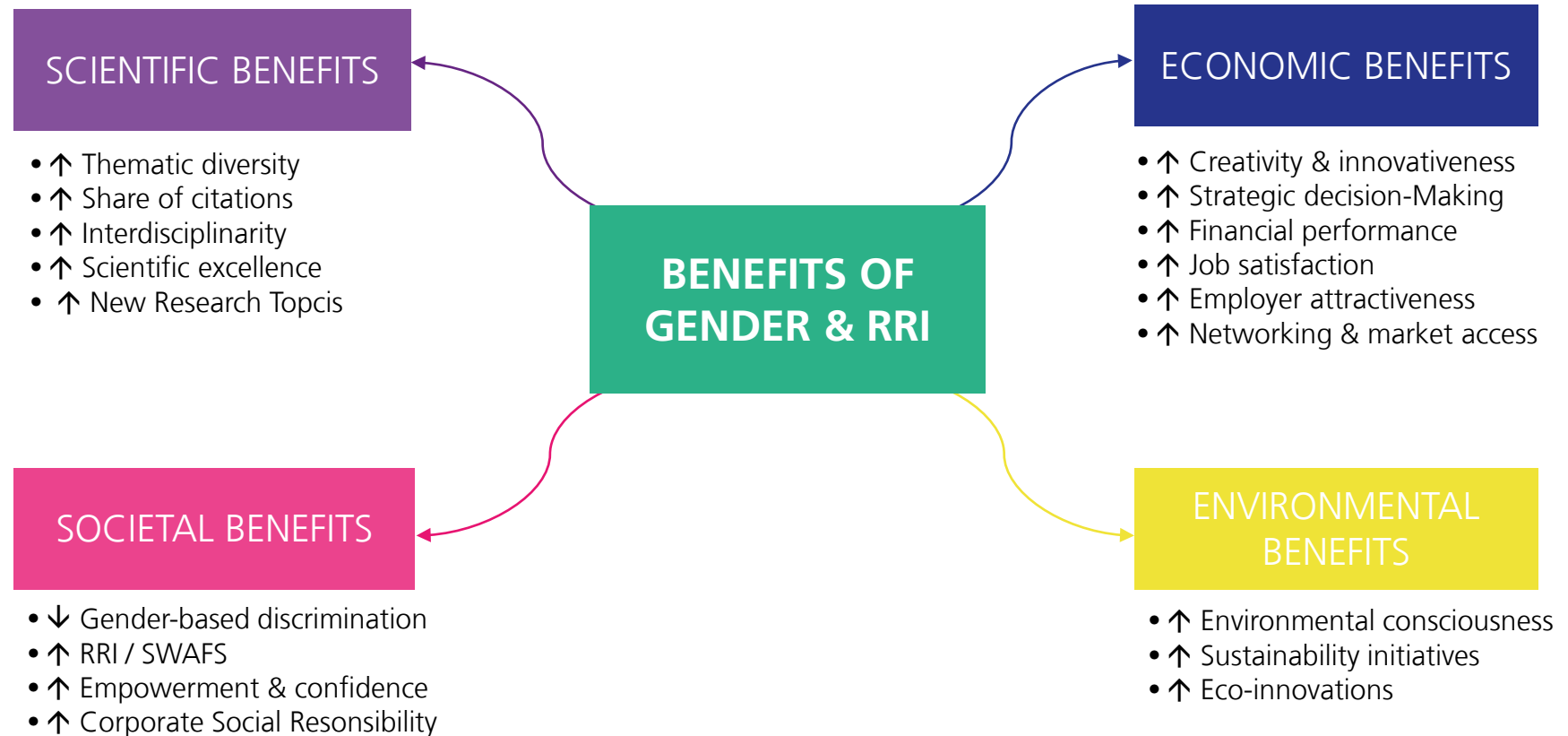
# Work Packages



# The EFFORTI Core Model



# Performance Effects of GE

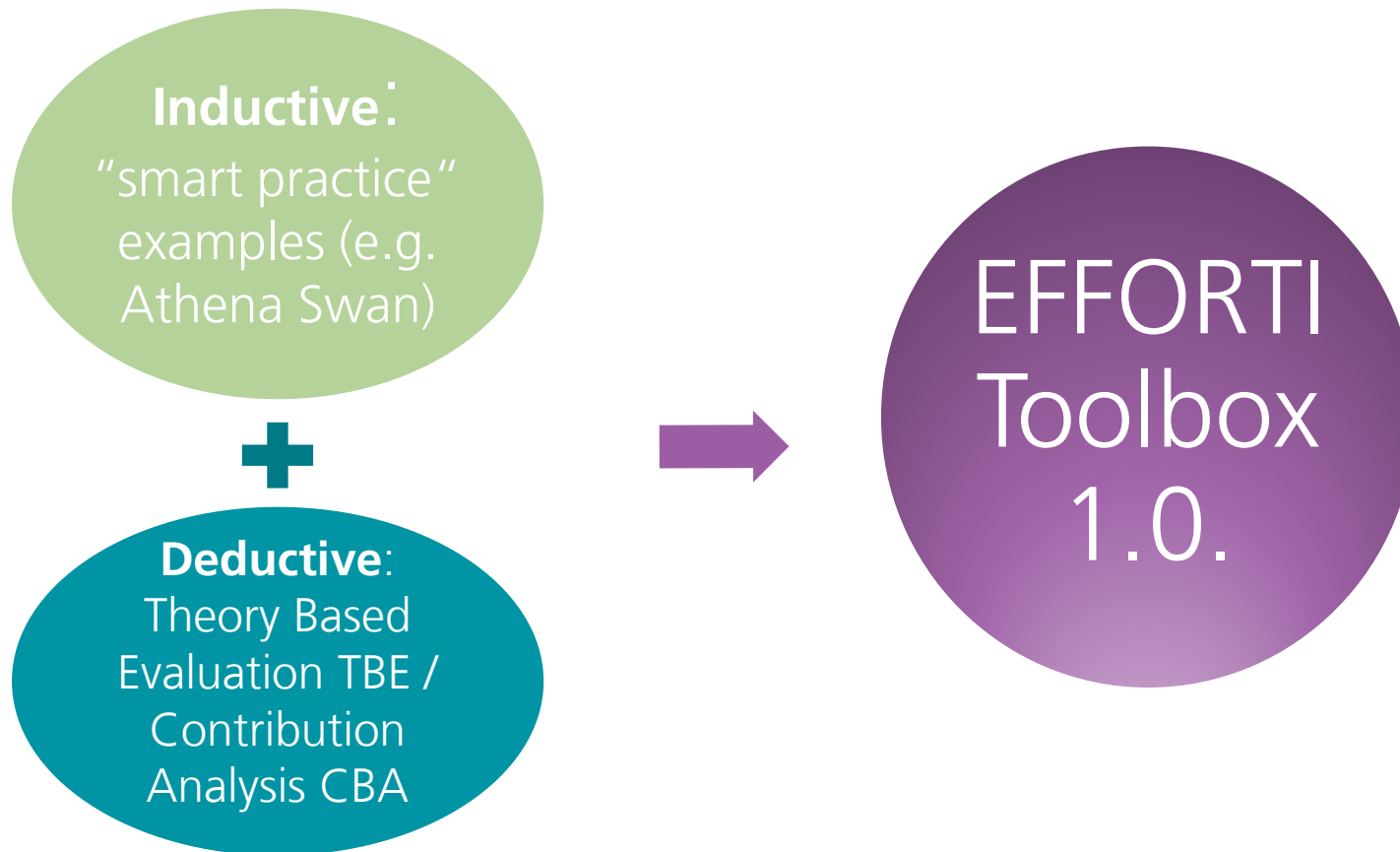


# Evaluation Key Terms

## Evaluations can ...

- take place ex ante, **interim, ex post** or as an accompanying exercise
- address different levels and “objects” (single researchers / teams, projects, **programmes/ interventions**, institutions or whole R&I systems)
- serve different purposes: **legitimation** for the allocation of public money, **targeting and controlling** of funding, improvement of the management and “**fine tuning**” of programmes, but also **learning**.
- investigate different types of effects, i.e. **outputs** as (measurable) results of the intervention, **outcomes** as broader effects on the beneficiaries but also **mid- and long-term effects / sustainable changes** (typically called **impacts**).
- look at **indirect** as well as **intended** and **unintended effects**

# The Evaluation Approach





## Two main components

### Conceptional component

Design of a programme or **intervention theory / theory of change**: implicit or explicit assumptions how and why an intervention should work (impact pathways and mechanism)

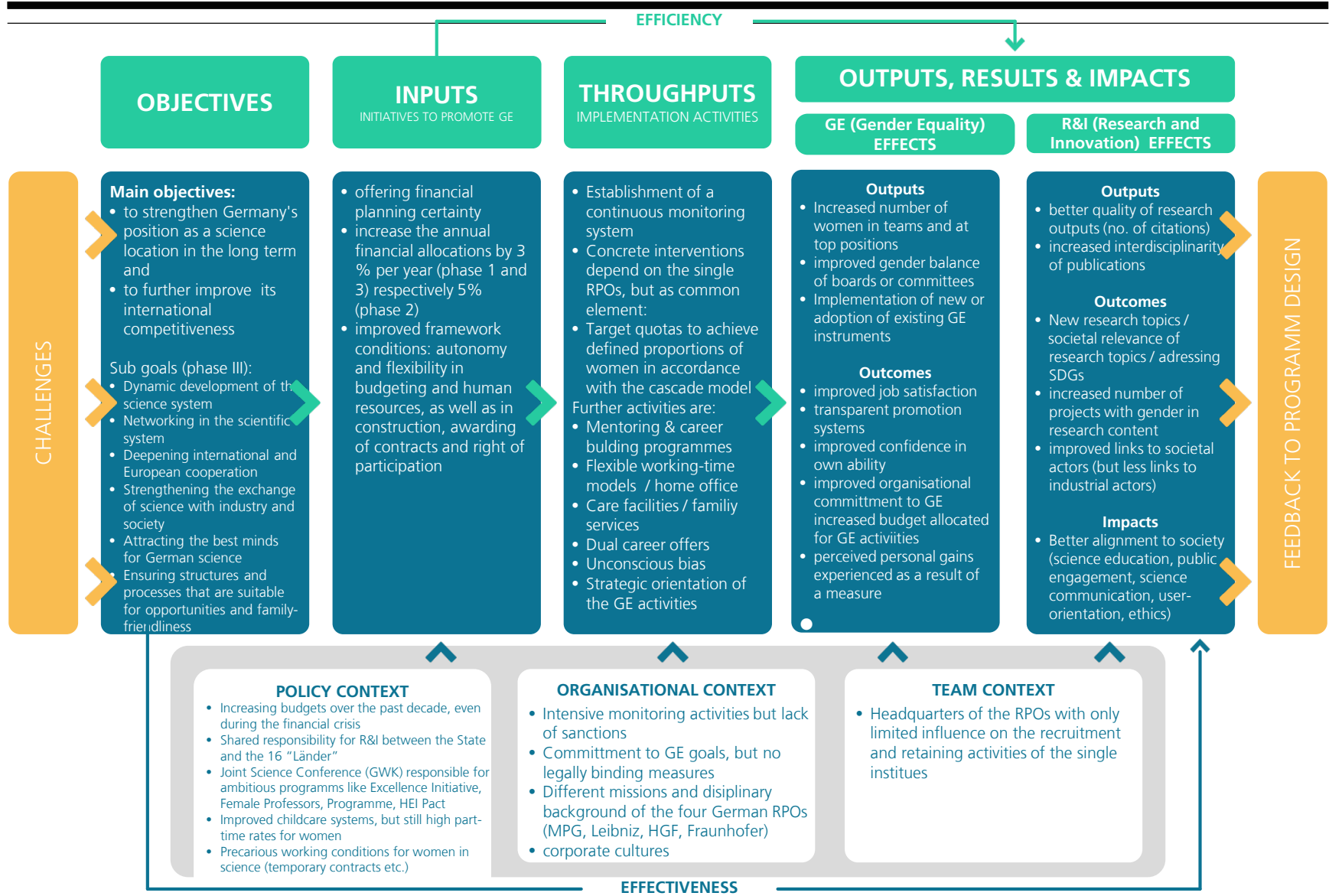
### Empirical investigation

of the programme / intervention theory

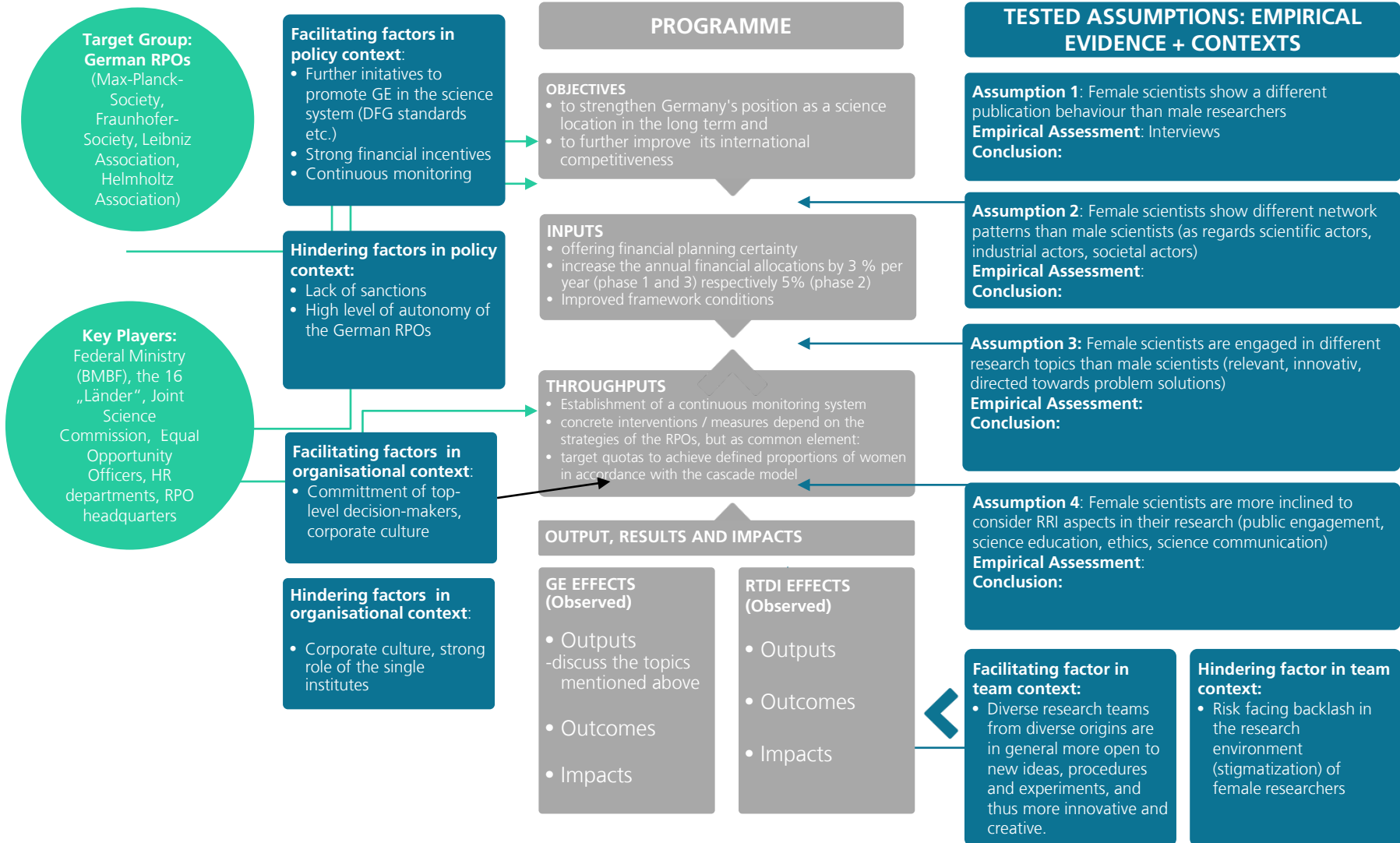
- TBE applies a variety of **qualitative & quantitative** methods
- Useful approaches for TBE: Contribution Analysis (CA), Casual Process Tracing (CPT)

Investigate “contributions” instead of attributions

# Intervention Logic Example



# Theory of Change Example

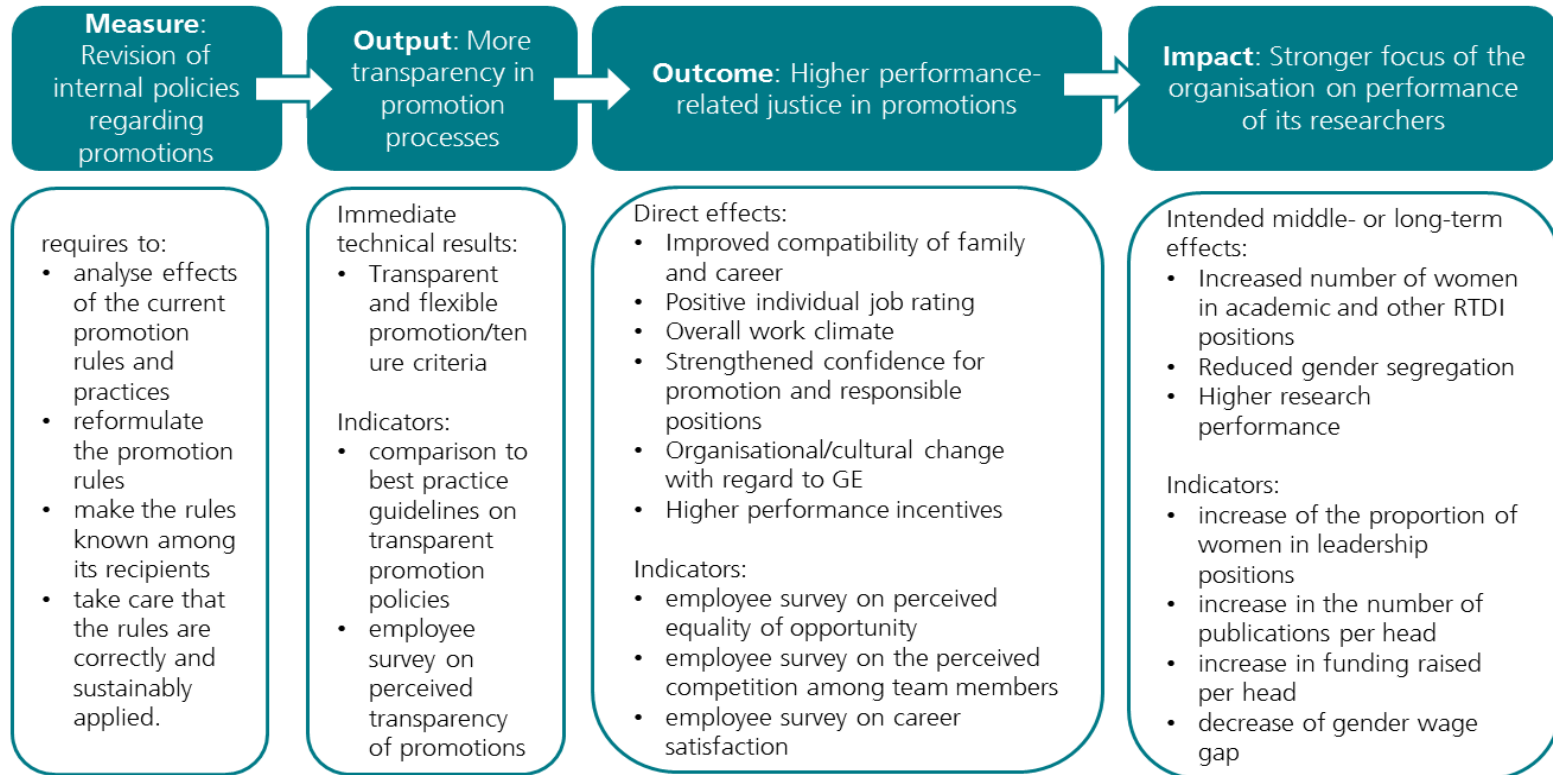


Reduce  
complexity

Connect the  
conceptual  
evaluation  
framework  
with the case  
study work

Build the  
basis for the  
EFFORTI  
online  
toolbox

# Impact Stories



# Achievements

# WP2 Context Analysis

- **Objectives:** Understanding the influence of the context
  - Research and Innovation system
  - Gender equality in the labor market & welfare policies
  - Governance of gender equality in R&I / situation of women in R&I
  - Evaluation culture and policy
- **Tangible Outcomes:**
  - Seven "National Country Notes" (AT, DE, DK, ES, FR, HU, SE)
  - Comparative Background Report
  - Presentation synthesizing main findings
- **Knowledge Outcomes:** Identification of
  - The influence of the general labour market situation on R&I by comparing gender equality in the labour market and in R&I
  - Main strengths and weaknesses of the innovation system and their impact on GE in R&I
  - Main issues of evaluation culture and policy in R&I and the role of the gender dimension in it

# WP3 Evaluation Framework



## ■ Objectives:

- Development of a tentative conceptual evaluation framework on how GE measures can affect output and other outcomes
- Draft proposal of the evaluation framework that was tested and refined during the case study work (EFFORTI 1.0.)

## ■ **Tangible** Outcomes: Comprehensive conceptual framework including

- A detailed description of the EFFORTI categories, dimensions and subdimensions
- More than 700 indicators with extended descriptions of key indicators per category
- Smart practice examples and impacts stories

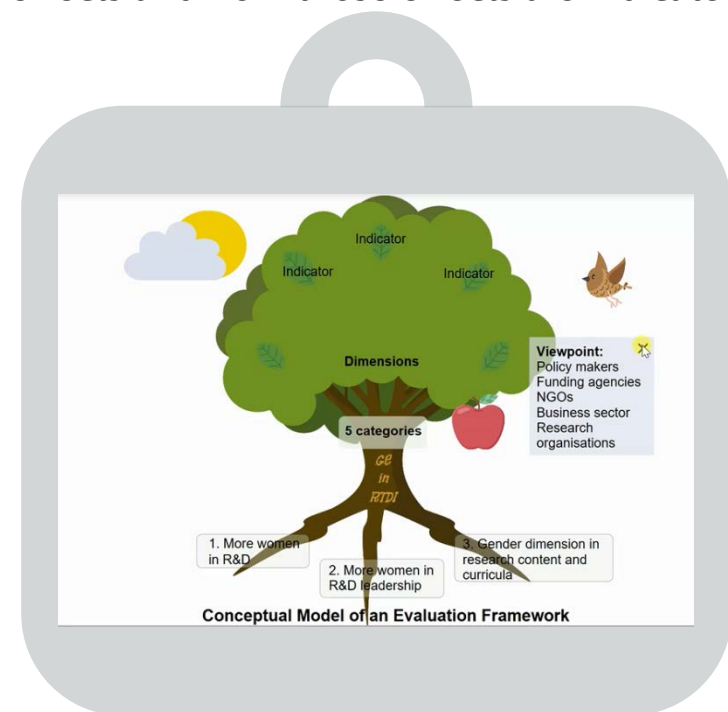
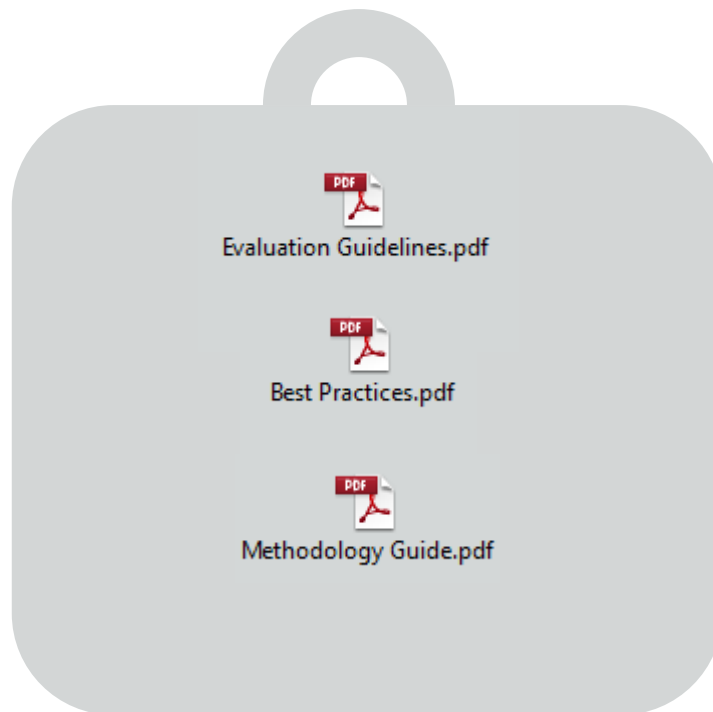
## ■ **Knowledge** Outcomes: Scientific knowledge on theories of change how

- Contextual and cultural issues influence evaluation at **national/system** level
- Contextual and cultural issues influence evaluation at **organisational** level
- Contextual and cultural issues influence evaluation at **team** level
- Gender equality shapes **research and innovation** processes and outcomes



# Key Components of the Toolbox

1. Static toolbox (guidelines, smart practices, methodology guide) with tools that have to be adapted to an evaluation case
2. Dynamic toolbox (Efforti Tree) with theory-based impact models showing which measures/interventions contribute to which effects and how those effects are indicated



## ■ Objectives:

- Validation of the EFFORTI evaluation framework EFFORTI 1.0
- Conduction of impact assessments for the selected case studies
- Developing and testing theories of change
- Identifying smart practices of promoting gender equality in R&I systems

## ■ Tangible Outcomes:

- Synthesis report comparing results of all case studies
- Collection of good practices and lessons learnt

## ■ Knowledge Outcomes:

- Strengths and weaknesses in terms of the design of the intervention
- Strengths and weaknesses in terms of the implementation of an intervention
- Facilitating and hindering factors for impacts
- The difficult and problematic nature of ascribing outcomes and impacts as direct effects of the interventions

## ■ Objectives of WP5:

- Design and establish the methodology for building the EFFORTI evaluation toolbox, including indicators who pass the validation phase.
- Develop and test the final version of the EFFORTI evaluation toolbox (EFFORTI 2.0).
- Synthesis of information contained in the knowledge base.
- Revising and completing EFFORTI Toolbox, based on the outcomes of the validation phase when this evaluation framework will be tested, validated and improved.

## ■ Tangible Outcomes: Three reports

- Report describing the methodology & design principles of the EFFORTI Toolbox
- Final version of the EFFORTI Toolbox (EFFORTI 2.0) (Web tool)
- Report on methods and guidelines for evaluating relevant GE measures

## ■ Knowledge Outcomes:

- A methodological approach for designing complex web-based services and tools on policy management and evaluation structures.
- Elements of adaptable knowledge representations, dynamic graphs, auto-predictive searching, including UX aspects and process flows.

# Our future

# Outlook



- EFFORTI Online Toolbox
- Scientific Publications:
  - Special Issue of Interdisciplinary Science Review on Gender in Science
  - Special Issue of Evaluation and Programm Planning
- Conference presentations, e.g.
  - ESA (European Sociological Association)
  - Eu-SPRI (European Forum for Studies of Policies for R&I)
  - ISSI (International Conference on Scientometrics and Infometrics)
- Further networking via ACT and other H2020 projects the team member are engaged in (e.g. SUPER-MoRRI, NewHoRRlizons)

Thank you very much  
for your attention!

[www.efforti.eu](http://www.efforti.eu)

# Instant Poll

# Which country are you from?

Denmark, Finland, Sweden, Norway

UK, Ireland

Germany, France,  
the Netherlands,  
Belgium,  
Luxembourg,  
Austria, Switzerland

Hungary, Poland,  
Czech Republic,  
Slovenia,  
Slovakia, Estonia,  
Latvia, Lithuania

Croatia, Cyprus,  
Greece, Bulgaria, Romania

Italy, Malta, Portugal, Spain



# Institutional background



