Policy Learning International Workshop
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Background and Motivation

- **Background**
  - H2020 project EFFORTI (Evaluation Framework for Promoting Gender Equality in Research and Innovation), funded under SWAFS (Science with and for Society)
  - Duration: June 2016 until May 2019
  - Six Partners:
Motivation

- Gender equality (GE) is one of the top priorities since decades
- The scientific knowledge of the underrepresentation of women within R&I systems and the most important hindrances are comprehensive
- A plenty of measures and toolkits exist that aim at the promotion of GE regarding the ERA objectives (e.g. GENDER-NET IGAR tool 2009, EIGE GEAR tool 2016, GARCIA tool 2015)
- But: Progress is made at a rather low pace

More evidence is needed that diverse perspectives lead to more responsible R&I

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

Generation of knowledge on
• the link between GE measures, 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 Making
• Improvement of Measures
• Improvement of Evaluations
• Improvement of RTDI outcomes
The EFFORTI Core Model

Types of Initiatives to Promote GE

- Measures on individual level
- Structural / institutional measures
- Measures concerning research funding
- Legislative measures

Three Main Gender Objectives & Results

- More women in R&D
- Women in leadership positions
- Integration of a gender dimension in research content and curricula

RTDI Outputs & Results

At individual/team performance level:
- Research quality
- Research productivity
- Innovation
- RRI

At institutional level:
- Structure
- Quality of the workplace
- Recruitment capacity
- Efficiency
- Competitiveness

At system level:
- Intensity
- Productivity
- Furthering the ERA progress

Organisational Context
Work Packages

WP 1 Management

WP 2 Mapping and context analysis

WP 3 Development of an conceptual model for an evaluation framework; EFFORTI 1.0.

WP 4 Case studies and validation

WP 5 Development of an evaluation toolbox (EFFORTI 2.0.)

WP 6 Dissemination/Participation of policy makers

Policy  RPO/HEI  Industry  RFO
The Evaluation Approach

**Deductive:**
Theory Based Evaluation TBE / Contribution Analysis CBA

**Inductive:**
„smart practice“ examples (e.g. Athena Swan)

EFFORTI Toolbox 1.0.
Central Aspects of TBE

**Intervention Theory** = action and change theories: implicit or explicit assumptions how and why an intervention should work (impact pathways and mechanism)

**Contribution** instead of attribution

**Two main components**
- **Conceptional component:** design of a programme theory / theory of change
- **Empirical investigation** of the programme / intervention theory
TBE typically applies a variety of **qualitative** and **quantitative** methods.

**Useful approaches for a TBE:**
- Contribution Analysis (CA)
- Casual Process Tracing (CPT)
- Congruence Analysis (CON)
CASE STUDY WORK: LOG FRAME Example

OBJECTIVES
- Main objectives:
  - to strengthen Germany’s position as a science location in the long term and
  - to further improve its international competitiveness
- Intermediate goals (phase III):
  - Dynamic development of the science system
  - Networking in the scientific system
  - Deepening international and European cooperation
  - Strengthening the exchange of science with industry and society
  - Attracting the best minds for German science
- Ensuring structures and processes that are suitable for opportunities and family-friendliness

INPUTS
- Initiatives to promote GE
  - offering financial planning certainty
  - increase the annual financial allocations by 3% per year (phase 1 and 3) respectively 5% (phase 2)
  - improved framework conditions: autonomy and flexibility in budgeting and human resources, as well as in construction, awarding of contracts and right of participation

THROUGHPUTS
- Establishment of a continuous monitoring system
- Concrete interventions depend on the single RPOs, but as common element:
  - Target quotas to achieve defined proportions of women in accordance with the cascade model
  - Further activities are:
    - Mentoring & career building programmes
    - Flexible working-time models / home office
    - Care facilities / family services
    - Dual career offers
    - Unconscious bias
    - Strategic orientation of the GE activities

OUTPUTS, RESULTS & IMPACTS
- Outputs
  - Increased number of women in teams and at top positions
  - Improved gender balance of boards or committees
  - Implementation of new or adoption of existing GE instruments
- Outcomes
  - Improved job satisfaction
  - Transparent promotion systems
  - Improved confidence in own ability
  - Improved organisational commitment to GE
  - Increased budget allocated for GE activities
  - Perceived personal gains experienced as a result of a measure
- Impacts
  - Improved work climate
  - Equal success rates of men and women applicants
  - Reduced gender pay gap
  - Overall strategic equality policies in place
  - Sustainability of GE initiatives

POLICY CONTEXT
- Increasing budgets over the past decade, even during the financial crisis
- Shared responsibility for R&I between the State and the 16 “Länder”
- Joint Science Conference (GWK) responsible for ambitious programmes like Excellence Initiative, Female Professors Programme, HEI Pact
- Improved childcare systems, but still high part-time rates for women
- Precarious working conditions for women in science (temporary contracts etc.)

ORGANISATIONAL CONTEXT
- Intensive monitoring activities but lack of sanctions
- Commitment to GE goals, but no legally binding measures
- Different missions and disciplinary background of the four German RPOs (MPG, Leibniz, HGF, Fraunhofer)
- Corporate cultures

TEAM CONTEXT
- Headquarters of the RPOs with only limited influence on the recruitment and retaining activities of the single institutes

CHALLENGES
- Increased number of women in teams and at top positions
- Improved gender balance of boards or committees
- Implementation of new or adoption of existing GE instruments
- Improved job satisfaction
- Transparent promotion systems
- Increased budget allocated for GE activities
- Perceived personal gains experienced as a result of a measure
- Improved work climate
- Equal success rates of men and women applicants
- Reduced gender pay gap
- Overall strategic equality policies in place
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EFFORT CASE STUDY WORK: THEORY OF CHANGE Example

OBJECTIVES
- to strengthen Germany’s position as a science location in the long term and
- to further improve its international competitiveness

INPUTS
- defining financial planning certainty
- increase the annual financial allocations by 3% per year (phase 1 and 3) respectively 5% (phase 2)
- Improved framework conditions

THROUGHPUTS
- Establishment of a continuous monitoring system
- Concrete interventions/measures depend on the strategies of the RPOs, but as common element:
- target quotas to achieve defined proportions of women in accordance with the cascade model

OUTPUT, RESULTS AND IMPACTS

GE EFFECTS (Observed)
- Outputs
  - discuss the topics mentioned above
- Outcomes
- Impacts

RTDI EFFECTS (Observed)
- Outputs
- Outcomes
- Impacts

• Facilitating factor in team context: Diverse research teams from diverse origins are in general more open to new ideas, procedures and experiments, and thus more innovative and creative.

Hindering factor in team context: risk facing backlash in the research environment (stigmatization) of female researchers

Facilitating Factors in policy context:
- Further initiatives to promote GE in the science system (DFG standards etc.)
- strong financial incentives
- continuous monitoring

Facilitating Factors in organisational context:
Commitment of top-level decision-makers, corporate culture

Facilitating Factors in organisational context:
corporate culture, strong role of the single institutes

Hindering in policy context:
- lack of sanctions
- High level of autonomy of the German RPOs

Hindering in policy context:
Key Players:
Federal Ministry (BMBF), the 16 „Länder“, Joint Science Commission, Equal Opportunity Officers, HR departments, RPO headquarters

Target Group: German RPOs (Max-Planck-Society, Fraunhofer-Society, Leibniz Association, Helmholtz Association)

TESTED ASSUMPTIONS: EMPIRICAL EVIDENCE + CONTEXTS

Assumption 1: Female scientists show a different publication behaviour than male researchers
Empirical Assessment: Interviews
Conclusion:

Assumption 2: Female scientists show different network patterns than male scientists (as regards scientific actors, industrial actors, societal actors)
Empirical Assessment: Conclusion:

Assumption 3: Female scientists are engaged in different research topics than male scientists (relevant, innovativ, directed towards problem solutions)
Empirical Assessment: Conclusion:

Assumption 4: Female scientists are more inclined to consider RRI aspects in their research (public engagement, science education, ethics, science communication)
Empirical Assessment: Conclusion:
Timetable

2017
- March - May: Context Analysis
- June-Oct: EFFORTI 1.0
- 19th Oct: 1st International Conference

2018
- Feb / March: National Workshops
- April - September: Case Study Reports
- November: Policy Learning Workshop

2019
- Feb / March: National Workshops
- May: Final Version of the EFFORTI Toolbox 2.0
- May: Second International Conference
Thank you very much for your attention!

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