

## Impact Story Gendered under involvement in development of products

<p><b>Impact Story</b></p> <p>Gendered user involvement in development of products</p>
<p><b>Intervention Definition</b></p> <p>Technologies are often developed based on "I Methodology". This can lead to non-target-group-adequate products. "I Methodology" describes a development process in which (mostly male) researchers and designers see themselves as a typical user and develop products based on their needs (see Akrich 1995; Oudshroon et al. 2004). This can be problematic because (male) researchers have a special "insider relationship" with technology, because they are technology experts. That makes their worldview different from that of other male and female users of their product.</p> <p>The gender equality intervention "gendered user involvement" describes an approach in the development of new products that focuses on usability for women and men (and other diversity dimensions like e.g. age, education or geographical location). This will be achieved by involving (future) female and male users of a product in the development process (see Schraudner et al. 2013) and identify their needs and requirements for the product. Ideally, relevant dimensions of diversity should be identified at the beginning of the development process. These dimensions should subsequently be taken into account in sample formation in all user surveys and usability tests. At the beginning of the development process, demand and acceptance analyses should be carried out with potential users and requirement profiles for the technology should be identified. The results of these analyses should be considered in the development process. Different users should test the developed prototype (Reidl 2016).</p>
<p><b>Intervention Definition Short</b></p> <p>The intervention "gendered user involvement" describes an approach in the development of products that focuses on usability for women and men (and other diversity dimensions). This will be achieved by involving potential female and male users of a product in the development process (see Schraudner et al. 2013) and identify their needs and requirements for the product.</p>
<p><b>Objectives</b></p> <p>(5) Integrate the gender dimension in research and teaching</p> <p>(6) Foster ethics, public engagement, science education, open access and/or governance</p> <p>(7) Increase R&amp;I outputs and impacts</p>
<p><b>Output</b></p> <p>The measure's short-term output consists in information gained from gendered needs assessments, usability tests, participatory co-designing etc. (see Nedopil et al. 2013; Rommes 2014). If the information was already used to develop a gender sensitive prototype, this prototype is also seen as an output of the initiative. In addition, methodological knowledge about how development processes can be made gender-sensitive, which was gained in the context of the development process, is an output of the measure.</p> <p>Indicators for this output are whether needs assessments and usability tests have been conducted and recommendations for the technology development process have been formulated. In the example of FEMtech Research Projects, this was measured by identifying different types of results of funded projects like guidelines for research, guidelines for practice, reviewed products/services from a gender perspective, developed products/services etc.</p>

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<p><b>Output indicators</b></p> <p>5.1.1 New, altered or improved research tools &amp; techniques, models and simulations</p> <p>5.2.1 demonstrators of innovative solutions</p> <p>5.2.1 new context-adapted solutions</p> <p>5.5.3 Conducting the research (data collection, data analysis)</p>
<p><b>Outcome</b></p> <p>The measure's middle-term outcome is products that meet the different needs of various user groups. Considering diversity dimensions can lead to an extension of the target group of a product and thus to an increase in market opportunities (Schraudner and Lukoschat 2006) and an increase in sales figures (for example due to customer satisfaction and recommendations). In addition, an early involvement of users in development processes may limit the risk of development mistakes by taking into account user needs right from the beginning of the development process and thus reduce possible development costs (Bevan 2005, 3).</p> <p>Policy designers of a funding programme for considering gender dimension in technology development projects expect competitive advantages and a higher innovation potential as the outcome of the funded projects. Outcome in the case study was measured by the indicator "Type of further use of results". With this indicator, funded projects were identified whose results are used in further research or that led to subsequent projects. One interview showed that one follow up project already led to the market launch of a product.</p>
<p><b>Outcome Short</b></p> <p>The measure's middle-term outcome consists in products that meet the different needs of various user groups. These products can lead to an extension of the target group, an increase in market opportunities (Schraudner and Lukoschat 2006) and an increase in sales figures. Gendered user involvement in the development of products is expected to lead to competitive advantages and a higher innovation potential.</p>
<p><b>Outcome indicators</b></p> <p>5.2.1 new products, processes and methods launched into the market</p> <p>5.2.1 turnover from innovation; sales of new to market and new to firm innovations</p> <p>5.2.2 improved market uptake and replication of tested technologies</p> <p>5.2.2 improved cost-effectiveness and sustainability of solutions</p> <p>5.2.2 improved time-to-market</p> <p>5.3.1 turnover of company</p> <p>5.4.2 competitive advantage through increased usability of products</p>
<p><b>Impact</b></p> <p>Taking into account different diversity dimensions of potential users when developing technological products, creates an added value since research and development is aligned with the</p>

demands of society and thus excellence and quality of the results is promoted (see genSET 2010; Von Schomberg 2013; Kristensson et al. 2004; Lüthje 2003; Rauterberg 2003). When gendered user involvement is practiced by many companies of an economy, this might also have positive economic effects at the national level (hypothesis) because national products are becoming more internationally competitive and are in demand by a larger target group.

#### **Impact short**

Taking into account different diversity dimensions of potential users when developing technological products, creates an added value since research and development is aligned with the demands of society and thus excellence and quality of the results is promoted (see genSET 2010; Von Schomberg 2013; Kristensson et al. 2004; Lüthje 2003; Rauterberg 2003). When gendered user involvement is practiced by many companies of an economy, this might also have positive economic effects at the national level (hypothesis). Unfortunately, the case study FEMtech Research Projects cannot contribute evidence on the level of impact.

#### **Impact indicators short**

- 5.1.4 Reputation and excellence of Europe in technological research
- 5.2.1 better innovation capability of EU firms
- 5.3.1 EU technological leadership & strengthened competitive position of European industry
- 5.3.4 enhanced innovation capability and competitiveness of European enterprises in global market
- 5.3.4 improved performance of existing businesses

#### **Policy Context**

National research and innovation policies can foster the gendered user involvement in development of products by funding research and development research projects that consider the gender dimension. Such funding programmes contribute to the emergence of gender knowledge in a wide variety of disciplines, highlight the relevance of gender in product development and raise awareness regarding the gender dimension among researchers and developers. The size of such funding programmes determines their effect. The more projects that can be funded, the more knowledge is created. The more invested in the dissemination of results, the more visible they become to other actors. If there are no national activities to support the integration of gender dimension in research, gender criteria in European research funding programmes can be an incentive to deal with the issue (EC 2016).

#### **Organisational Context**

At the organisational level, the existence of social science- and gender-knowledge is central for the high-quality implementation of a gender-sensitive development process.

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