



# Redesigning Equality and Scientific Excellence Together



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RESET aims to address the challenge of Gender Equality in Research Institutions in a diversity perspective, with the objective to design and implement a user-centered, impact-driven and inclusive vision of scientific excellence.

## Consortium partners





Redesigning  
Equality and  
Scientific  
Excellence  
Together

# Co-design starter kit

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## Abbreviations

CoP	Community of Practice
GE	Gender Equality
GEB	Gender Equality Board
GEP	Gender Equality Plan
GIA	Gender Impact Assessment
HCD	Human-centered design
HCI	Human Computer Interaction
PD	Participatory Design
RESET	Resetting Equality and Scientific Excellence Together
UCD	User-centered design
WP	Work Package

## Executive Summary

The *Redesigning Equality and Scientific Excellence Together (RESET)* project involves seven large multidisciplinary universities from Europe. RESET will address the challenge of Gender Equality (GE) in Research Institutions, with the objective to design and implement a user-centered, impact-driven and inclusive vision of scientific excellence and to achieve a structural and cultural change in partner universities. For this purpose, RESET experiments with and develops a “co-design approach”, an innovative approach for addressing gender equality in higher education institutions. Co-design enables the RESET consortium to politically frame and sustainably implement gender and diversity-friendly practices in the work environment. Mainstreaming the co-design approach as an institutional practice for efficient gender equality policy-making and greater stakeholder engagement and support will underpin high-quality and high-impact actions.

This deliverable contains the co-design starter kit (D9.2), part of Work Package 9 – Manage RESET and ensure the quality of its implementation. The purpose of the deliverable is to introduce co-design, including its theoretical background, principles, and practices as well as to offer support for its implementation. The latter is achieved by discussing aspects relating to how to take the context into account in co-design in different contexts as well as by offering a set of tools (example methods) to use within different co-design practices. This starter kit is based on decades of research on participatory, user- and human-centered design with different computing and design disciplines. Initial empirical research has also already been conducted in RESET partner universities on contextual factors shaping co-design of gender equality, from which some empirical insights are presented.

In Part A, this starter kit contains a conceptual framework that discusses the background, principles, and practices of co-design as well as its context-sensitivity. Part B contains altogether 16 tools derived from the literature on co–design, categorized into different practices of co-design: 1) Understanding and sensitizing with the topic; 2) From insights to ideas; 3) Creating design solutions; and 4) Reflecting on and evaluating the designs. For each practice, four example tools are provided, aiming at showing versatility in the method repertoire than can be used. These are complemented with a section on considerations of context. For each method, it is emphasized that tailoring and modification can be done whenever needed. For each method, it is important to acknowledge that familiarizing with the method in more detail is always needed before its use. This document contains only a limited overview of each method. After the tools, a set of questions with which to reflect on and prepare for the contextual aspects intermingled with co-design of gender equality are presented. This co-design starter kit is a work-in-progress and closely interwoven with the ongoing work of the RESET project. It will be enriched as the project evolves during the next three years timespan.

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## 1. INTRODUCTION

The Redesigning Equality and Scientific Excellence Together (RESET) project involves seven large multidisciplinary universities from Europe. RESET will address the challenge of Gender Equality in Research Institutions, with the objective to design and implement a user-centered, impact-driven and inclusive vision of scientific excellence. Combining an intersectional approach to gender equality (GE) with the collective intelligence fostered and harvested through the co-design of the Gender Equality Plans (GEPs), RESET will ensure that proposed changes are met with sustainability and ownership. Supervised by Gender Equality Boards (GEBs), GEPs will be co-designed, revised and upgraded collaboratively by stakeholders during the project lifetime. Overall, through collective intelligence RESET fosters the emergence of upgraded, pragmatic, user-centered action plans which support structural and cultural change, capitalizing on each institutions' experience.

For this purpose, RESET experiments and develops a “co-design approach”, an innovative approach for addressing gender equality in higher education institutions. Co-design provides an approach that will enable the RESET consortium to politically frame and sustainably implement gender and diversity-friendly practices in the work environment. Mainstreaming the co-design approach as an institutional practice for efficient gender equality policy-making and greater stakeholder engagement and support, will underpin high-quality and high-impact actions. Maximum impact is ensured through target-specific approaches: for doctoral students, researchers, middle management, top management and administrative institutional services.

### 1.1 INTRODUCING THE CO-DESIGN STARTER KIT

This deliverable presents the co-design starter kit (RESET D9.2), which aims to target the needs of each RESET work package early in the project, in line with RESET's train-the-trainers approach. The starter kit is based on state-of-the-art literature on co-design as well as on initial empirical research carried out on the potential and implications of co-design in RESET partner universities during the first year of RESET. Reflective workshops on the topic have been arranged. The data generated in the workshops has been analyzed and is utilized as a basis of this deliverable. In addition, for the purpose of co-design of gender equality, interviews, focus groups and workshops of different kinds have been initially experimented with in RESET, and mentoring on co-design has been provided. All this acts as a basis for the contents of this deliverable.

This co-design starter kit represents work in progress: it will be iteratively experimented with and developed further during the entire project lifetime. Hence, the co-design starter kit represents the first outcome of iterative development of the co-designing approach ('co-design of the co-design approach') to fit the context of gender equality work in higher education institutions.



### Co-design in RESET

Co-design refers to “collective creativity as it is applied across the whole span of a design process” (Sanders and Stappers 2008, 6). Co-design has its roots in various research and design disciplines and practices originating strongly from Scandinavia but also from other European countries and the United States (see e.g., Asaro 2000; Spinuzzi 2002). The background is particularly in user- and human-centered and participatory design approaches, while co-design is often also associated with more business-oriented co-creation approaches (e.g., Ramaswamy and Ozcan 2018). In European Commission funded research projects, including those on gender equality, there has recently been a heavy emphasis on co-design and co-creation approaches. Projects working on gender equality, such as GEECCO<sup>1</sup>, Gender-SMART<sup>2</sup>, GE Academy<sup>3</sup>, Gearing Roles<sup>4</sup>, SUPERA<sup>5</sup> and ACT<sup>6</sup> have been inspired by co-design and co-creation approaches with notable developments particularly in Gearing Roles<sup>7</sup> and ACT (see Thomson and Rabsch 2021).

In RESET, we build on the valuable developments of sister projects while placing the co-design approach in its historical and theoretical context. We discuss the underlying principles and practices of co-design with associated scholarly literature. Co-design in RESET aligns closely with its roots in Scandinavian participatory design tradition, in which power, politics, democratic practices and empowerment of those marginalized are emphasized (see e.g., Bjercknes and Bratteteig 1995; Greenbaum and Kyng 1991; Greenbaum and Loi 2012; Luck 2018; Schuler and Namioka 1993). Such an approach to co-design is well in line with RESET’s goals of transforming power relations in higher education institutions, tackling resistances to organizational change towards greater equality and ensuring stakeholders’ participation. In RESET, co-design is operationalized as collaborative design. A set of example tools for co-design are presented. The example tools act as a guide to collaboratively exploring current gender equality practices, policies and tools as well as to iteratively envisioning and designing future policies, practices, and associated tools. It is emphasized that in this process valuing each other’s expertise and skills is essential and that the design process necessitates ‘mutual reciprocal learning’ by all participants. RESET’s approach to co-design also emphasizes sensitivity to contextual and situational factors as well as equalizing power relations and empowerment of those who may otherwise be marginalized (Bjercknes and Bratteteig 1995; Greenbaum and Loi 2012; Greenbaum and Kyng 1991; Luck 2018; Sanders and Stappers 2008).

<sup>1</sup> GEECCO, updated October 29, 2020, <http://www.geecco-project.eu/home/>.

<sup>2</sup> Gender-SMART, accessed December 14, 2021, <https://gender-smart.eu/>.

<sup>3</sup> GE Academy, accessed December 14, 2021, <https://ge-academy.eu/>.

<sup>4</sup> Gearing Roles, accessed December 14, 2021, <https://gearingroles.eu/>.

<sup>5</sup> SUPERA, accessed December 14, 2021, <https://www.superaproject.eu/>.

<sup>6</sup> ACT, accessed December 14, 2021, <https://act-on-gender.eu/>.

<sup>7</sup> “Participation techniques”, SUPERA, accessed December 14, 2021, <https://www.superaproject.eu/participatory-techniques/>.

### *Benefits of co-design*

- co-design fosters collective creativity, utilization of and engagement with the versatile expertise available in RESET organizations
- co-design increases workplace democracy, more inclusive and democratic practices, and empowerment of those otherwise marginalized
- co-design increases the quality of design solutions (new practices, policies, tools), due to them being based on, informed by, and shaped by a large number of stakeholders with diverse expertise, interests and needs
- co-design increases acceptability, ownership, and adoption of the design solutions due to stakeholders being able to voice their concerns and impact the design solutions during their development

(Greenbaum and Kyng 1991; Schuler and Namioka 1993, Markus and Mao 2004; Sharp, Rogers, and Preece 2019; Sanders and Stappers 2008)

### *Contents of the co-design starter kit*

This starter kit will present

- co-design principles (section 2)
- co-design practices (section 2)
- contextual and cultural factors that may be intermingled with co-design in the partner universities (section 3)
- A set of practical example tools that partner universities can utilize and modify in their work (section 4)

The tools will be categorized according to the four practices of co-design, and complemented with contextual considerations in the end:

- Understanding and sensitizing with the topic
- From insights to ideas
- Creating design solutions
- Evaluating and reflecting on designs
- Considering contextual and cultural factors

### *The co-design starter kit targets a variety of stakeholders at our universities:*

The co-design approach should engage a number of different stakeholders both horizontally and vertically

- top management
- middle management
- researchers

- teachers
- administration
- doctoral students
- representing different faculties and disciplines

## 1.2 RELATIONSHIP WITH RESET WORK PACKAGES

Although co-design characterizes RESET activities very comprehensively, it is particularly associated with the following work packages and tasks:

### *WP1: co-designing GE surveys and GEPs as a regular, intersectional and institutional practice*

Task 1.2: Co-designing GE survey at partner organizations. Task 1.2 will collect and compare existing GE surveys, co-design a GE survey including both a section common to all partners and an individual section tailored to each partner. Within each partner institution, a diverse and intersectional group of stakeholders crossing gender, age and other aspects will be identified (T3.1) to co-design the survey by participating in open Focus Groups (FGs) sessions, where their concerns on GE are shared and reflected upon.

Task 1.4: Drafting partner organizations specific GEPs. The GEPs will benefit from the bottom-up and intersectional approach made possible by the co-design approach used on T1.2. A participatory intersectional approach will be also ensured by the GEB and the stakeholder groups in co-designing joint measures for GEPs.

### *WP4: training communities – an inclusive approach to pave the way for the on-site co-design of a new framework and of new practices*

Task 4.1: Recognizing the specific needs for gender training of each university and reviewing existing state-of-the art training programmers/courses/workshops developed in previous or ongoing European or national projects. From there, hands-on training methods and reflections on the challenges and possibilities will be co-designed, considering the different institutional structures and operational systems of the RESET universities. They will be worked out on the basis of national/local contexts and more inclusive, complex, but to certain extent universal training schemes.

### *WP5: co-designing a sustainable cultural change by establishing a gender and diversity-friendly environment*

WP5 aims through co-designing a cultural change with all levels of local stakeholders a more inclusive institutional framework and work environment. Cultural change and local impact will be achieved through co-design of evaluation policies and processes taking intersectionality and parenthood into account. Co-design will also entail, with local communities and the RESET institutions' communication departments, a toolbox for institutions to help them communicate in an inclusive, gender-neutral form (inclusive language,

display and promote diversity in the communication channels, ensure that communication for position openings is gender-neutral).

Task 5.3: Engaging laboratories as drivers of change among their communities, organizing their accountability. Embarking on the heads of laboratories and team leaders, we will organize workshops to raise awareness and accompany them in co-designing and upgrading their own initiatives, supported by the WP1-WP3 analysis of the gendered data collected at laboratory-scale (namely in scientific decision-making positions).

***WP6: co-designing governance and existing excellence policy towards greater inclusiveness***

WP6 entails co-designing policies and practices for recruitment and career promotion, incentives and regulations to ensure equality and diversity in decision-making positions, middle and top management, new practices and guidelines to balance personal life and work, and joint policies and statements on gender equality in excellent research schemes. The work package emphasizes including stakeholders broadly as full contributors to the co-design activities for the redefinition of their work environment into a place where they feel considered and heard.

Task 6.1: Co-designing refined policies and practices for recruitment and career promotion, to achieve equality and diversity for scientific excellence. T6.1 addresses both recruitment policies, recruitment practices and awareness of recruiters of issues of equality and diversity. The aim is to act on three levels: 1) in a structural level, co-design or revise a regulatory framework favoring equality and establish refined application and selection criteria for researchers, taking into account gender-sensitivity, adequation to our definition of excellence and addressing the gender pay gap and gendered budget allocation; 2) in an operational level, take all types of publications into account, promote female candidates for the opening of positions in middle management/A-rank status, co-design a financial incentive for the appointment of female professors; foster proactive recruitment strategies, to approach female researchers in disciplines in which they are underrepresented 3) in a personal level, take direct action towards middle management and selection boards, sharing recommendations and processes to achieve it and educating on new recruitment/selection practices.

Task 6.2: Co-designing incentives and regulations to ensure equality and diversity in decision-making positions, middle and top management. T6.2 addresses different strategic positions and fields of gatekeeping in middle and top management to encourage the participation and nomination of women at decision-making levels. This will be attained through a set of co-designed incentives (direct encouragement, supporting staff, teaching assignment discharge, etc.) and co-designed regulations. On an structural level, it aims at 1) focusing on gender parity of decision-making boards and committees; 2) fostering feminization of selection committees and their presidency; on an operational level, it aims at 3) ensuring parity participation to the elective councils and Rectorate team;



4) giving privilege to the nomination of female candidates as vice president for research, on a personal level 5) fostering participation of female researchers to boards of academic self-administration as means to boost their networks and careers.

Task 6.4 Co-designing new practices and guidelines to balance personal life and work / studies. T6.4 will address the institutions' awareness and responsibility towards their employees and students. On an operational level, it will support the co-design and implementation of measures that ensure the compatibility of career / studies and personal life (childcare, single parenting, elder care, digitalization for flexible and remote work, dedicated spaces on campus). Additionally, on a personal level, young fathers will be encouraged to engage more actively in parental care through a set of co-designed incentives (e.g. brochures on possibilities and gains of parental care that also address young fathers explicitly).

Task 6.5: Involving top management of each RESET institution to co-design joint policies and statements on gender equality in excellent research schemes. On a yearly basis, meetings will be organized to share experience and co-design new practice in relation to our shared definition of excellence. We will have encouraged our middle management and research committees questioning their own standards for excellence (T4.2) and assessing the impacts of their incentives (T2.3, T5.3). The meeting will bring together - for each RESET institution - Vice-Rectors, Human Resources managers and the GEB to support the upgrading of our scientific excellence programs, in making them more inclusive and societally relevant, anchored within our institutional culture.

Task 6.6: Co-designing and implementing our definition of scientific excellence. T6.6 aims at promoting our joint definition of scientific excellence and in favor of supporting research when inclusive, impact-driven, tailored to all participants of society, carried out by talented people regardless of their personal background. This aim will be achieved by involving the RESET top management network in sharing our vision and practices in all of our formal events and with our networks.

***WP7: co-designing the gender dimension in the design of research activities and products, co-designing context-specific Gender Impact Assessment (GIA) tools***

Through the gender analysis of research proposals, WP7 will co-design a protocol, guidelines and a checklist to integrate gender dimension in research and innovation.

Task 7.1: Co-designing context-specific Gender Impact Assessment. T7.1 will focus on co-designing context-specific practical GIA tools that will enable researchers to identify and address gender dimension, when planning research project proposals. First, key stakeholders within the RESET universities will be identified and gathered to form local communities of practitioners (CoPs) on M2. Secondly, GIA Checklists will be co-designed in collaboration with the local taskforces (CoPs).



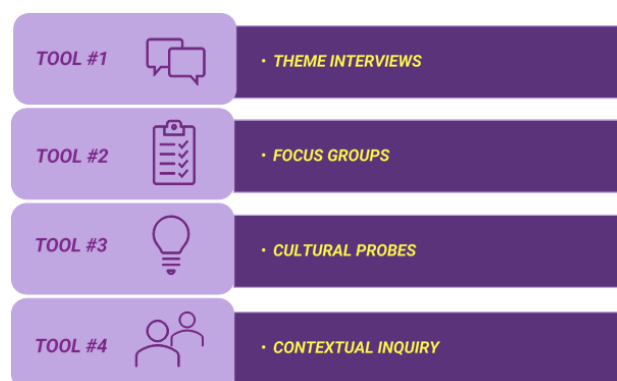
Task 7.3: Executing the GIA and collecting follow-up data on Gender Impact Assessment. GIA implementation will be followed up to ensure optimal results. A template for bi-annual follow up with a special focus on impact will be co-designed together with the CoPs who will establish a database for follow-up data. UOULU is also in cooperation with WP3 in co-designing the necessary digital tools to support GIA policymaking.

As can be seen, the central tasks of RESET, in many of the WPs, call for the co-design approach. Hence, it is necessary to specify for RESET the practicalities around implementation of the approach.

### 1.3 HOW TO USE THE CO-DESIGN STARTER KIT

The co-design principles and practices presented in this deliverable offer a general understanding of how one should approach co-design. They are consolidated based on an extensive literature support on co-design and related developments. The co-design tools shared in this deliverable have been carefully selected to suit the RESET context. A number of widely used co-design tools have been considered and those included in this deliverable have been evaluated as fitting the RESET goals of designing gender equality tools, policies and practices and the university context. Furthermore, tools aligning well with the co-design principles as well as tools offering variety to the co-design tool repertoire have been included. However, the tools are to be seen as examples only, as there are several hundred if not even thousand co-design tools available. The example tools also need to be critically reflected on in relation to the situation at one's own institution. The tools can and should be tailored for the specific contexts and target groups. They can be combined, parts of them can be removed and novel aspects added, while always keeping in mind the general value orientation of co-design.

***This starter kit contains 16 tools, categorized into four co-design practices:***



**Figure 1: Overview of tools for understanding and sensitizing with the topic.**

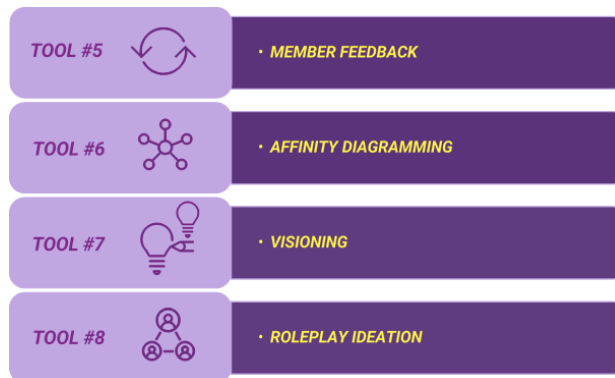


Figure 2: From insights to ideas.

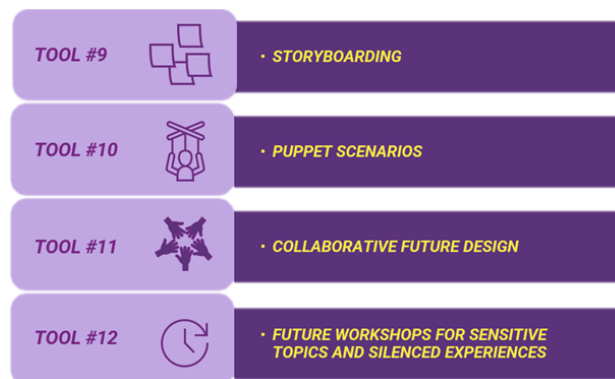


Figure 3: Overview of tools for creating design solutions.



Figure 4: Overview of tools for evaluating and reflecting on the designs.

## 1.4 STRUCTURE

*Part A* contains the conceptual framework of the co-design starter kit, presenting the characteristic features of co-design that should be kept in mind always when carrying out and modifying specific co-design activities.

In section 2, the conceptual framework of co-design is discussed. This includes discussion of the historical roots of co-design as well as the basic principles and practices of co-design that should be guiding all the co-design activities in RESET.

In section 3, as it is acknowledged that co-design is always context sensitive, contextual factors that might be influencing co-design activities in RESET are discussed. Some empirical findings from RESET partner universities are also outlined. Context sensitivity from the perspective of cultural factors is particularly focused upon and some existing guidance on cultural factors and how they can be taken into account in organizational change endeavors are presented.

**Part B** contains concrete examples of co-design methods that RESET partners can use as a basis or inspiration in their co-design activities.

Section 4 presents a set of example tools that are considered suitable in the context of RESET for the different co-design practices. Important to note is that there are hundreds of tools to consider, while this deliverable has included several widely known and used ones as well as ones that seem suitable for the RESET context. They provide a starting point, i.e., they can and should be modified to fit the context of use. It is also important to acknowledge that the starter kit is a work-in-progress and closely interwoven with the ongoing work of the RESET project. The starter kit will be empirically experimented with and evaluated throughout the RESET project lifetime.



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# Part A – Conceptual Framework

## 2. PRINCIPLES AND PRACTICES OF CO-DESIGN

### 2.1 BACKGROUND OF CO-DESIGN

Co-design has its roots in divergent traditions in design and computing fields. It is strongly inspired by human and user-centered design tradition in Human Computer Interaction (HCI) as well as by the Scandinavian participatory design (PD) tradition.

The field of HCI has advocated easy to learn, usable systems and ‘taking users into account’ in interactive systems development already since the 1970s. The HCI field had heavy reliance on the tradition of psychology during its early days and focused on individual users working with computer systems with the studies being controlled laboratory experiments. Later, HCI has also been strongly inspired by human sciences such as sociology and anthropology as well as by different design disciplines, resulting in user studies and ethnography inquiries being integrated into the design process and to more focus as well as more creative view of design being adopted (Bannon 1991; Grudin 1990; Sharp, Rogers, and Preece 2019). Along this trajectory, very practical HCI methods labeled as user- or human-centered have been emerging, calling for early and continuous focus on users, their characteristics, their goals and tasks and their contexts of use as well as for the involvement of users in the development of interactive systems (Gould and Lewis 1985; J. livari and livari 2011; Nielsen 1993; ISO 1999). Active user participation, multidisciplinary design and iterative design have become established features of human and user-centered design (HCD, UCD) methods over the years (Gulliksen et al. 2003; ISO 1999; J. livari and livari 2011).

Another highly influential tradition has been participatory design, which originally focused on advocating workplace democracy and worker empowerment in systems design. Initially, the tradition had a very political agenda with an emphasis on the conflict between capital and labor, arguing for the involvement and influence of workers and their trade unions on the development of computer systems in the workplace. The focus shifted in the early 1980s from political and critical concerns to the collaborative nature of the design process with associated methods development. Along this trajectory design became viewed as cooperative work and including mutual reciprocal learning by both users and designers. Both were to be seen as possessing valuable expertise for the design process, while designers were to support users’ participation the best way possible (Bjerknes and Bratteteig 1995; Greenbaum and Kyng 1991; Schuler and Namioka 1993). Although the original critical concerns were less in focus for a couple of decades, recently, research inspired by the Scandinavian participatory design tradition has again strongly emphasized its critical and political underpinnings: participatory design has become considered valuable for design for and with a variety of communities, publics, and societies (Bødker, Dindler, and Iversen 2017; Karasti 2014; le Dantec and DiSalvo 2013; Rachel C Smith et al. 2020; Rachel Charlotte Smith and Iversen 2018; Björgvinsson, Ehn, and Hillgren 2010).

Co-design in RESET is strongly inspired by both of these traditions. It emphasizes the importance of understanding the local conditions in which the design solutions will be used: who will be the main users and/or affected by the design solutions? What are their skills, characteristics, needs, desires, goals, and tasks? In what kind of context will they use the design solutions? Their participation in the design process is considered essential. Co-design will entail varying kinds of collaborative activities, often arranged in workshops, in which 1) requirements, concerns, needs and desires are collaboratively explored, collected, generated, and reflected upon; 2) alternative currents and futures are collaboratively envisioned, negotiated, challenged and refined; and 3) developed solutions are iteratively evaluated, reflected upon and developed further. For the stakeholders, co-design activities need to be a lightweight way to contribute. It is important to ensure that participation provides a meaningful experience for people as well as that their involvement actually has an effect. It is also significant to ensure respect among the participants: each stakeholder group possesses valuable expertise for the design process. Co-design also always needs to be seen as intimately intertwined with power and politics and empowerment of the power-weak needs to be underscored.

## 2.2 CO-DESIGN PRINCIPLES

A set of principles guiding co-design can be identified, inspired especially by the Scandinavian tradition of participatory design (Bjerknes and Bratteteig 1995; Greenbaum and Kyng 1991; Greenbaum and Loi 2012; Luck 2018; Schuler and Namioka 1993):

- Active, effective, meaningful stakeholder participation
- Mutual reciprocal learning, valuing each other's' expertise
- Iterative, collaborative design, collaborative creativity
- Equalizing power relations, striving towards democratic practices, giving a voice and a say to those who might otherwise be marginalized
- Contextual, situational, cultural sensitivity

### *Active, effective, meaningful stakeholder participation.*

This principle emphasizes, first and foremost, the need to consider who all are to be considered stakeholders: who will be using the design solution in their work or activities and who will be affected by it somehow. They all should be invited to contribute to the design process. Another significant consideration is that their participation needs to be meaningful and effective: their participation needs to be meaningful in the sense that the participants see its relevance, its connection to their lifeworld, needs and interests (Chawla and Heft 2002; Kinnula and Iivari 2021; Greenbaum and Loi 2012; Luck 2018). For some participant groups this might not be an issue – they might be very interested in participating to begin with. For others, this might be a real problem to consider. Additionally, the impact of the participation must be considered: the participants need to see that their involvement makes a difference and has an influence in the world (Chawla and Heft 2002; Kinnula and Iivari 2021; Greenbaum and Loi 2012; Luck 2018).

### *Mutual reciprocal learning, valuing each other's expertise.*

This principle underscores a respectful attitude in all co-design activities. Everyone needs to understand that each participant group possesses a valuable kind of expertise that is needed for the design process and that the other expert groups lack. Everyone needs to acknowledge also that everyone will be learning along the way. Such a learning process will be inevitable: combining different types of expertise in a collaborative, creative process generates something novel for all involved in any case (Chawla and Heft 2002; Kinnula and Iivari 2021; Greenbaum and Loi 2012; Luck 2018). This leads directly to the next principle.

### *Iterative, collaborative design, collaborative creativity.*

This principle reiterates the creativity resulting from combining multiple types of expertise. Another important element is iteration: it is significant to understand that the goal is not to come up with a perfect solution once and for all, but to be prepared for and appreciate the emerging learning process during which the solution is refined repeatedly (ISO 1999; Sanders and Stappers 2008).

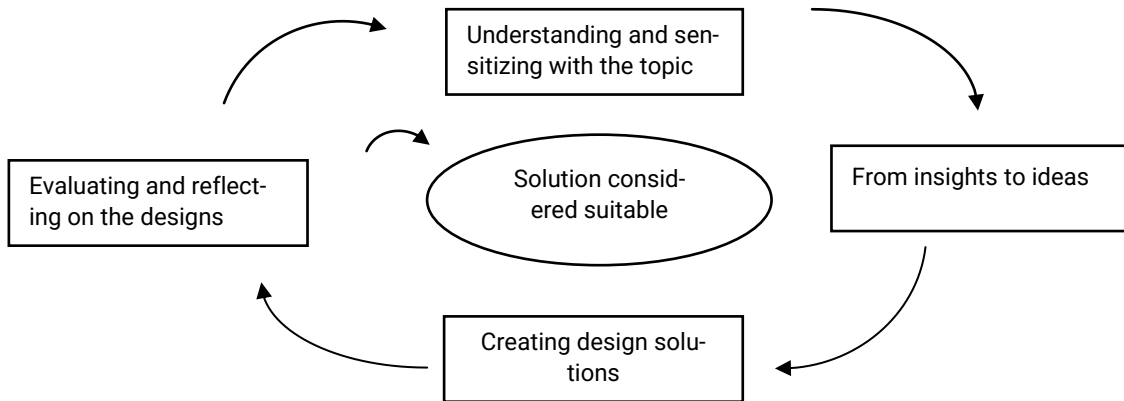
### *Equalizing power relations, striving towards democratic practices, giving a voice and a say to those who might otherwise be marginalized.*

This principle is very important in co-design in RESET. Each partner should be reflecting on who might be marginalized, who have not had a voice and a say in their university, regarding GE or any other matter. Co-design activities should be devised so that these groups can be included. Also, within the activities, specific attention needs to be paid to emerging power issues: the activities and their facilitation needs to be planned in such a way that participants are treated equally and power differentials if any are addressed. The composition of participants in different activities needs to be considered. Separate sessions may be arranged for different groups. The design and execution of the activities needs to be sensitive, respectful, and encouraging so that everyone feel comfortable contributing (Bjerknes and Bratteteig 1995; Greenbaum and Kyng 1991; Greenbaum and Loi 2012; Luck 2018; Chawla and Heft 2002; Kinnula and Iivari 2021; Schuler and Namikawa 1993).

### *Contextual, situational, cultural sensitivity.*

This principle underscores that there is no 'one size fits all' for co-design, but it always takes place within a particular context: cultural, organizational, social, political, historical. Hence, modification of the co-design approach and appropriation of it within a particular context always takes place and should be carefully considered in advance (Greenbaum and Loi 2012; Luck 2018; Chawla and Heft 2002; Kinnula and Iivari 2021; N. Iivari 2006; 2010; R. Scollon and Scollon 2004). This principle will be addressed in depth in section 3.

## 2.3 CO-DESIGN PRACTICES



*Figure 5: Practices of co-design (modified, based on ISO 1999; Sharp, Rogers, and Preece 2019)*

Co-design practices are summarized in Figure 5. These four practices can be considered as containing several activities relying on different kinds of methods that will be discussed in Part B of this deliverable. In this chapter, these practices are presented on a general level.

### *Understanding and sensitizing with the topic*

This practice is significant in creating a basis for the other co-design practices. This is a collaborative activity in which the people whose practices are to be changed or who are otherwise to be affected by the change are to be involved in addition to the designers. It is important to understand the current situation, concerns, and people involved: their skills and characteristics, their current practices, their tasks, goals, needs, challenges, desires and dreams as well as the context in which they operate, which is to be approached from multiple perspectives (Beyer and Holtzblatt 2016; Greenbaum and Kyng 1991; ISO 1999; Kumar 2012; Sharp, Rogers, and Preece 2019; Schuler and Namioka 1993).

### *From insights to ideas*

This practice provides an essential step in the move towards design. It entails analyzing and reflecting on the data collected from the current practice as well as getting inspired by it as a basis for brainstorming and envisioning the future. Again, this should be a collaborative effort with various kinds of participants and expertise (Beyer and Holtzblatt 2016; ISO 1999; Kumar 2012; Sharp, Rogers, and Preece 2019).

### *Creating design solutions*

This practice is essential in any co-design project: engaging in creative, constructive design activities, in which novel solutions are envisioned, generated, reflected upon, refined, iterated, crafted, prototyped, developed. Such a design needs to be a collaborative



and participatory effort, within which means and tools supporting creativity, collaboration, participation, mutual learning, and hands on learning that are to be relied on (Beyer and Holtzblatt 2016; Greenbaum and Kyng 1991; ISO 1999; Kumar 2012; Sharp, Rogers, and Preece 2019; Schuler and Namioka 1993).

### *Evaluating and reflecting on the designs*

Closely intertwined with design is the practice of evaluation and reflection. In iterative design it takes place inevitably during iterative cycles of reflective practice, entailing learning. It is important to remember that when creating something novel, it is essential to allow the people whose practices are to be changed or who are otherwise to be affected by the change to be involved in evaluating the design solutions – they should be considered as the most significant group of evaluators. Such evaluation should be enabled as early as possible, and it should be continuous until the design solution is considered satisfactory. These people must be provided with means and tools that enable trying out the design solutions in practice, in the actual context of use. Even if designers can also carry out evaluations themselves and evaluations can be conducted in artificial settings, for example in laboratories, it is most important to evaluate the solutions by their actual users in the actual context of use, i.e., in the wild (Beyer and Holtzblatt 2016; Greenbaum and Kyng 1991; ISO 1999; Kumar 2012; Sharp, Rogers, and Preece 2019; Schuler and Namioka 1993).



### 3. CONTEXT SENSITIVITY OF CO-DESIGN

#### 3.1 INTRODUCING CONTEXT SENSITIVITY

A multidisciplinary literature base has for long acknowledged that context plays a significant role as regards participation and design (e.g., Chawla and Heft 2002; N. livari 2006; 2010; Kinnula and livari 2021) as well as gender equality (e.g., Lombardo, Meier, and Verloo 2009; Forest and Lombardo 2012). Kinnula and livari (2021), citing Scollon and de Saint-George, remind us that one should “avoid uprooting words and actions from the historical bodies of the individuals performing them, or disconnecting the discourses and actions from the sociocultural context of their formation and realization, or ignoring the history of these actions and discourses for the individual and in the situation” (S. W. Scollon and de Saint-Georger 2013, page 72), this view aligning well with the current discourses on gender equality (Lombardo, Meier, and Verloo 2009; Forest and Lombardo 2012). Kinnula and livari (2021) apply nexus analysis for making sense of participation of people in design, thus underscoring how specific contexts—historical and social/societal – and specific places and times in which the social action of design happens affect the process as well as the outcomes. They end up maintaining that everything happens in context, which needs to be considered broadly, including cultural, social, political, historical, physical and even aesthetic ones, among others (Kinnula and livari 2021).

In the literature on co-design, it has also been acknowledged that there is no ‘one size fits all’ approach for co-design– or more specifically for user- or human-centered design, which have been carried out and introduced into organizations and projects of varying kind, with different kinds of outcomes and trajectories (N. livari 2006; 2010; Rajanen and livari 2015). Also, this literature indicates that historical as well as social, organizational, cultural and political factors may be critical for the success or failure of co-design. We rely on this literature base to generate findings on the contextual factors of co-design to be carefully considered in RESET. We note there is a lack of literature on co-design in the university context. Therefore, we have already carried out initial empirical research on the topic. However, future research is needed on this topic in RESET.

In the following section, we will discuss guidelines derived from the literature on context sensitive co-design, particularly on cultural factors shaping co-design and how to aim towards culturally compatible co-design. We will first discuss some empirical findings on the contextual factors to be considered in RESET. In RESET, we have already arranged collaborative workshops discussing co-design in the context of the partner universities. Based on these reflective discussions, we have identified the influence of the local context in a variety of ways; the data indicated several aspects in space and time to consider. The data showed that national, organizational, and disciplinary contexts with historical trajectories may be intimately intertwined with co-design of gender equality work. Overall, we have identified both national, university and discipline/epistemology level contextual factors to be considered as well as potential friction as intermingled with co-design for gender equality to be acknowledged in RESET (N. livari et al., n.d.).

## 3.2 EMPIRICAL INSIGHTS IN RESET

We have conducted initial empirical research on the potential and implications of co-design in RESET partner universities. We opted for a qualitative, design-oriented approach to explore the topic. To discuss, negotiate and build a shared understanding of what co-design in this context may mean, five semi-structured group discussions entailing collaborative reflection were held with a total of 13 participants from five RESET partner universities. The discussions took place online via video conferencing and were recorded, totaling 7 h 4 min 57 s, supplemented with observation notes. Each meeting began with a discussion of the core principles of co-design. The participants were then invited to consider gender equality work in their institutional, societal, and cultural context through a framework of questions related to co-design. An iterative data driven analysis of the meeting recordings and notes was subsequently carried out. The analysis started with careful examination of each workshop and reporting of the insights particular to each. Afterwards, the separate findings were combined and contrasted with each other. This section reports on some of the results gained, while remaining on a general level for preserving the anonymity of the informants.

### *Influence of the national context*

At the national level, the participants highlighted the significance of national politics, legislation, religion, and public discourses produced and reproduced in the society, which are also intertwined. As for national politics, the participants brought up that in many European countries, extreme right-wing parties are getting prominence and this may have an influence. The impacts may concern funding for higher education: which disciplines and degree programs do or do not get resources. Along this trajectory, discriminatory public discourses are becoming legitimized in the current political climate, those being in clear opposition to gender equality work and in relation to which gender equality work must operate. Religion seems to have a differing position in different European countries and its impact on gender equality work ranges from none to some, in which case it may relate to public discourses and legislation, for example. On a positive note, public discourses, especially among the young generation, can be considered as very positive developments in terms of gender equality: the young generation may be grown into the equality discourse and be heavily inspired by the #metoo movement. In some countries, universities' competition for excellence labelling may also be a contributing factor for gender equality work<sup>8</sup>. Moreover, some European countries already have a legislation requiring equal treatment of men and women, forcing universities to take action as regards gender equality, legitimizing gender equality work. Other countries may still

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<sup>8</sup> We acknowledge that the situation can also be the opposite: universities striving for excellence can be detrimental to gender equality.

be lacking such and gender equality work requires other motivation. Moreover, legislation does not guarantee equality: public discourses may still be ambivalent and discriminatory.

### *Influence of the university context*

The participants acknowledged the importance of the local context of their university. All of them characterized their universities as hierarchical and shaped by a multitude of power dynamics and politics-related aspects. The universities were seen to include a variety of stakeholder groups for gender equality work. In some universities, there was a long history of gender equality work, some had both influential and interested advocates of gender equality eager to engage in co-design of GEPs and related work, while in other universities, such communities were just being built around the topic. Some of them had plenty of disciplines and researchers working on gender equality related topics. Some universities were struggling in finding influential or interested participants. The participants believed it is essential to address power differentials when arranging co-design sessions: professors, deans, rectors, i.e., top and middle management, were considered as the ones in power, for whom separate sessions might be needed, to enable also other participant groups to have a voice and a say. It was claimed essential to arrange sessions suitable for the target groups, e.g., too playful sessions were to be avoided with high level participants. A rather coherent view on those in less powerful positions inside the universities was expressed. Those tended to be identified along the lines of gender diversity, sexual orientation, age, ethnicity, disability, religion, or class. People representing minorities, non-permanent staff, international staff and students were considered as marginalized or silenced. Their participation in co-design of a GEP and associated work was considered essential. The importance of a good moderator was also emphasized: the one that is sensitive to the power dynamics and different participant needs, particularly of those previously marginalized<sup>9</sup>.

### *Influence of the disciplinary/epistemological context*

Interestingly, stakeholder groups advocating gender equality but being in opposition to the approach of the project, were also pointed out. There are groups that consider it necessary to adopt a more radical approach towards gender equality. They express hostility towards 'mainstream gender equality work', which is seen to aim at serving the management and to prioritize excellence labeling and success of external funding application. Radical feminist groups were identified as adopting a more radical stance towards gender inequality and violence. Hence, there seems to be ambivalence in positioning gender equality work along the lines of the grassroots and the management. Then again, it was also pointed out that gender equality has actually originated from the grassroots but is now entering the level of science policy and university management and

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<sup>9</sup> We acknowledge that there are many requirements for good moderation, see e.g. GE Academy project D1.2. guidelines (Aït Ali and Kohler 2009).

administration. Along the lines, management orientation, mainstreaming of gender equality work and sustainability of gender equality work were prioritized and a sustainable organizational change was called for. Establishing an office and integrating gender equality into policies and practices became underscored. Within this discourse also a need for a digital infrastructure serving gender equality work and its impact assessment became highlighted.

### *Friction to be acknowledged in co-design*

Based on the findings, we have identified lots of friction (Forlano and Mathew 2014) that co-design for gender equality has to acknowledge, navigate with and address.

Some of the friction we identify is something we have to be aware of while not being able to directly battle in any significant way. Among such factors are national politics, religion and associated public discourses. One can identify many discourses and developments that are problematic for co-design and gender equality work (e.g., public discourse and developments banning gender studies in universities, creating a climate of defiance or fear), gender equality and co-design sharing a similar value base (emphasis on equality, equity, inclusion, empowerment). How our work is approached and advertised within and beyond universities places us under public scrutiny which is not controllable by us. Nevertheless, being prepared for such developments is valuable. Moreover, it is essential to acknowledge that public discourses are not necessarily a problem, quite the contrary: many positive developments and discourses could be identified which could be utilized as resources for driving co-design and gender equality work.

Inside universities, there is also plenty of friction to be acknowledged and potentially to engage with. Universities are hierarchical organizations with rectors, deans and unit leaders being in the position of power, while other personnel more or less lack such. There were many marginalized groups identified in terms of gender, sexual orientation, age, disability, religion, ethnicity, language, and class. International staff, students, administrative staff, and non-permanent staff were considered as potentially silenced and in need of special attention to ensure their full participation in co-design of gender equality. Arranging co-design requires sensitivity towards participant profiles, moderation and method choices in the sessions.

Moreover, even among the advocates of gender equality work, distinctions could be identified between those advocating sustainable gender equality work, addressing the management and sustainable organizational change and those arguing for radical change and acts against violence based on the ideals of radical feminism. This indicates that various discourses (e.g., Deetz 1996) on gender equality are to be acknowledged in higher education institutions. One might also need to take a stand and position within some of the discourses. This requires value-laden and political choices from us.

Figure 6. summarizes our findings on the contextual factors and potential friction influencing co-design for gender equality work in higher education.

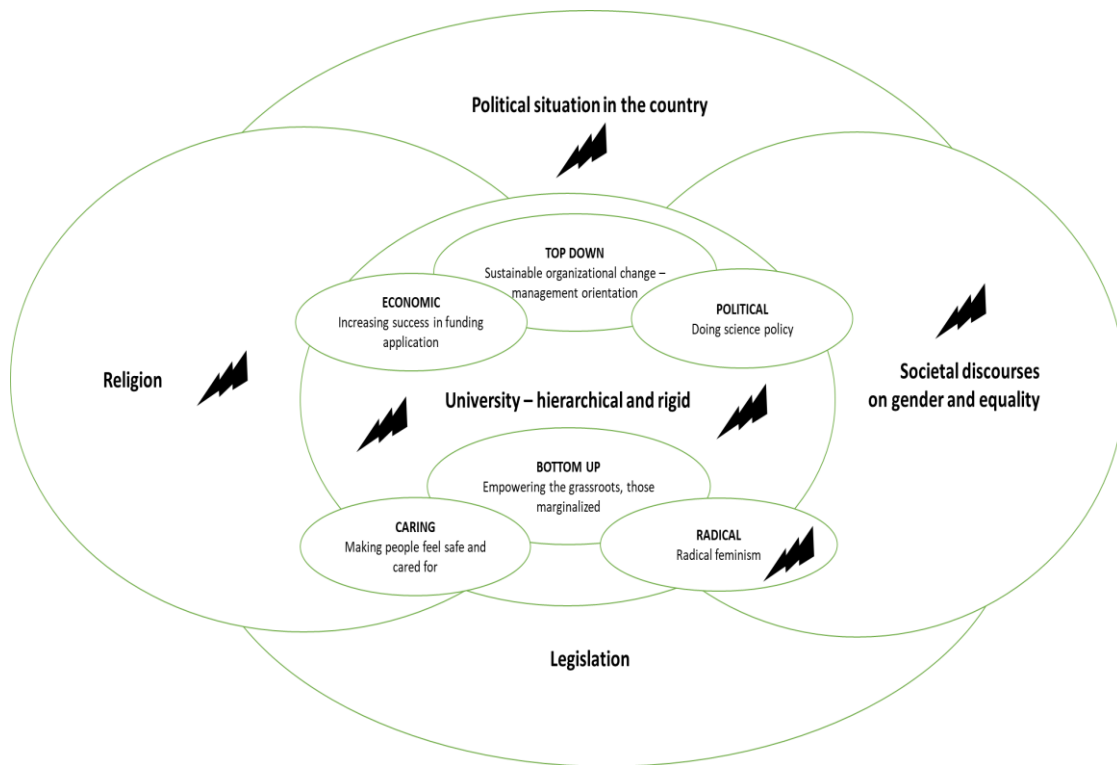


Figure 6. Contextual aspects and associated friction in co-design for gender equality (N. livari et al., n.d.)

### 3.3 INTRODUCING CULTURE SENSITIVITY AND COMPATIBILITY

In the literature on co-design, cultural context has already received some attention. This literature will be discussed in this section.

Culture has been acknowledged as a very significant aspect influencing and being intermingled with different kinds of change endeavors. We acknowledge that culture is a popular topic of study within numerous disciplines, while in cultural anthropology it has been the main focus from the very beginning. In cultural anthropology a famous view of culture introduced by Geertz (1973, 5) is as follows: *“Man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning”*. Later on, culture has become a popular topic of study within a number of other disciplines, the studies often concentrating on national or organizational cultures and their effects on change endeavors of various kind. Within these disciplines, the interest is often on culture as an independent or dependent variable rather than the sole focus of study. Either the studies have considered how culture affects change efforts or how the change efforts affect culture, sometimes also in the sense of how culture can be manipulated and changed (N. livari 2006; 2010). Next, these different strands are discussed.



Culture studies have been labeled as pragmatist or purist in the literature (Alvesson 1990; Czamiawska-Joerges 1992). Purist view maintains see that cultures cannot and do not change easily, but instead culture change needs to be seen as evolutionary and unpredictable in nature. This view leans strongly on the anthropological notion of culture. It is acknowledged that cultures change, but they do so without a plan. Pragmatist view, then again, approaches culture as a phenomenon, which can be intentionally changed and even be designed and manipulated towards a particular direction. This view can be criticized to rely on naïve notions of culture and change. It is recommended that one should acknowledge that it is very difficult manage culture change; one needs to understand that people's interpretations cannot be controlled or managed. Then again, it is important to note that cultures and change programs do shape each other: cultures influence change programs while change programs also have influences on cultures. Nevertheless, cultural change should be viewed as uncontrollable and unpredictable, even sometimes undesirable (Alvesson 1990; Czamiawska-Joerges 1992; Hatch 1997).

Some studies have already addressed co-design within its cultural context of organizations or projects. These studies point out literature that examines cultural clashes between engineers and designers or between designers and users in organizations. Some of these studies argue that there is a need to align the work of the designers with that of the engineers or that of the users, i.e., they call for culture change considering the culture and practice of the designers. Some studies recommend empirically examining and appreciating the different cultures projects and organizations have and within which co-design has to manage. Other studies, instead, consider what would be an ideal culture for co-design or even how to create such a culture for organizations and projects. Many studies emphasize the importance of cultural compatibility: they show that organizations or projects seem to have culturally compatible approaches adopted for co-design. Certain cultural characteristics are associated with certain characteristics of co-design, showing they are aligned. It remains an open question whether the approach to co-design was modified based on an understanding of the cultural context or whether the co-design approach has managed to change the cultural context. There seems to be a reciprocal relationship between them, both shaping one another in an emergent process of sense making (N. Iivari 2006; 2010; Rajanen and Iivari 2015).

### 3.4 AIMING AT CULTURAL COMPATIBILITY IN RESET

In our case, there are several aspects to consider. We discuss in this section cultural compatibility from the viewpoint of co-design in partner universities, while we acknowledge that cultural compatibility of gender equality work in partner universities is even a more essential consideration – co-design being merely a means to achieve the ends relating to gender equality<sup>10</sup>. We can assume the partner universities have at least

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<sup>10</sup> We acknowledge there is a separate literature base addressing contextual, also cultural, factors of gender equality work that is impossible to review in the context of this deliverable focusing on co-design. Further research on this cross-disciplinary topic is recommended.

somewhat differing cultural contexts. We can consider each cultural context and how well co-design as well as gender equality work fit in. Alternatively, we can consider what could be an ideal cultural context for both of them: for co-design and for gender equality work. In relation to this, it is important to consider whether we view culture as manageable and designable. If that is the case, we may consider how cultures of the partner organizations could be designed so that they become more compatible with co-design as well as with gender quality work. Alternatively, we can consider cultures as very difficult to change, but approach co-design as well as gender equality work as something that can be designed and changed to be more compatible. We commended adhering to the latter view rather than the former one.

Although we have not yet carried out empirical research on this topic, we can speculate on some issues based on the existing literature on co-design. livari (2010) has identified two culturally compatible approaches to usability work in two product development organizations, usability work referring to how user-centered design has been realized in these organizations. She argues that in both organizations a culturally compatible approach has been adopted for usability work. Her findings are shown in Table 1.

	Unit A	Unit B
<b>Identity and Joint Enterprise</b>	A product development unit producing functionally correct manager user interface software within set schedules	A product development unit staying at the cutting edge of technological development, a pioneer
<b>Shared Practice</b>	Manager user interface software development the only real job, relies on controlling, monitoring and measuring; control mechanisms and processes in place and useful	Engine software development the only real job, relies on ad hoc ways of working, innovating, experimenting and taking initiative
<b>Mutual Relationships</b>	'We are all valued workers', harmonious relationships important	Competent, innovative people respected, 'blood and thunder fights'
<b>Motives for Usability Work</b>	Improves the design process	Is used as a selling argument, image factor, influencing strategic decision making
<b>Practice of Usability Work</b>	Usability specialists represent the users in political sense in informative and consultative roles, representing the user in presen-	Usability specialists represent the users in political sense in participative and designer roles, sneaking in strategy for designer, sales and marketing involvement



	tational sense important, controlling strategy for designer involvement	
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*Table 1. Culturally compatible co-design (modified, based on livari 2010)*

Based on these findings, we can consider what kind of culture there might be in partner universities and what kind of co-design (and gender equality) approaches might be compatible with them. Although the data indicates all universities are hierarchical and rigid, there likely are cultural differences. For co-design (and gender equality), one might go for a control-oriented strategy, in which co-design (and gender equality work) are imposed, controlled, and measured. The advocates of co-design (and gender equality) should thus convince the decision-makers to gain power to implement the controlling measures. An alternative strategy would be to try to sneak in co-design (and gender equality), without others even noticing it. This would entail interacting with people in informal ways, arousing their interest and support in subtle ways, with the aim of showing the relevance and value of co-design (and gender equality work) for them and the organization.<sup>11</sup>

Another study (Rajanen and livari 2015), inspired by a competing values model on cultures, considers the relationship between project culture and usability work (i.e., user-centered design). The competing values model has been popular in comparing and mapping different kinds of organizational cultures (see e.g., Denison and Spreitzer 1991). It contains two axes with different value orientations: change vs. stability and internal vs. external focus. Change underscores flexibility and spontaneity, whereas stability emphasizes control, continuity, and order. Internal focus underscores integration and maintenance of the existing system, whereas external focus highlights competition and interaction with the organizational environment. Based on these distinctions four culture types can be identified (see Figure 7).

However, it is worth noting that the competing values model offers one framework within which to analyze and categorize organizational culture. With it, organizational culture is in a sense diagnosed through a survey instrument. However, it needs to be remembered that this kind of approach provides by no means exhaustive results on culture; organizational cultures require more in-depth studies. Nevertheless, the model and associated survey instrument can be used to position organizations within a given framework and this positioning may give guidelines for further development actions.

<sup>11</sup> We acknowledge there is literature on different strategies on gender equality work that could be combined with this literature. Further research is required on this cross-disciplinary topic.

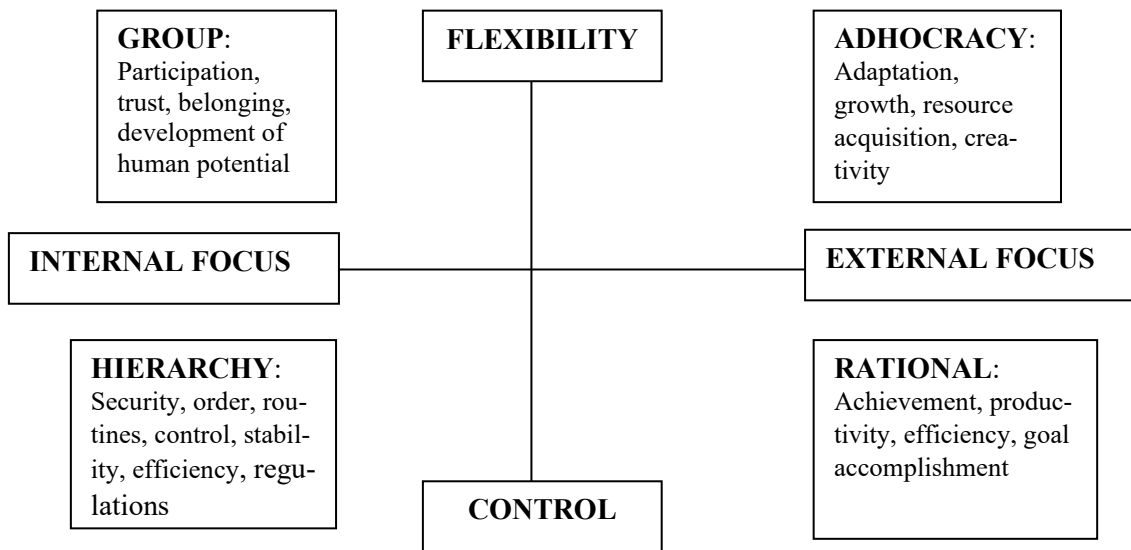


Figure 7: Competing values model (based on Denison and Spreitzer 1991)

Rajanen and Iivari (2015) have relied on the competing values model (see e.g., Denison and Spreitzer 1991) in the analysis of empirical data from projects they have studied entailing usability work. They argue that the adhocratic culture type seems to be the most suitable culture type for usability work in their context, i.e., it might represent an ideal culture type for usability work in the projects they had studied. However, they also point out that an alternative is to consider how to adapt usability work to fit any of these culture types. They point out the following advice (modified for the RESET context)<sup>12</sup>:

- ✓ Within the group culture type, the emphasis as regards co-design (and gender equality work) should be on group spirit, communal decision-making, informal information sharing, and teamwork;
- ✓ Within the adhocracy culture type, the emphasis as regards co-design (and gender equality work) should be on innovation, experimentation, teamwork, brainstorming and iteration;
- ✓ Within the hierarchical culture type, the emphasis as regards co-design (and gender equality work) should be on controlling, monitoring, careful planning, measurement and establishment of clear rules, procedures and documentation;
- ✓ Within the rational culture type, the emphasis as regards co-design (and gender equality work) should be on fast achievements, cost benefit considerations and offering rational justifications, the business case, for gender equality work.

<sup>12</sup> Linking of these recommendations for the gender equality scholarship is recommended in the future RESET research

Overall, Part A has discussed the principles and practices of co-design and considered how contextual factors, especially cultural aspects, may be relevant in the implementation of co-design in partner universities. For RESET partners, it is important to keep the co-design principles in mind and to ensure different co-design practices are carried out. It might also be useful to reflect on contextual aspects: how the national, university and disciplinary contexts may be influencing the work. One might also consider the cultural context of the university in question and contemplate what might be a culturally compatible approach for co-design. One might also rely on the competing values model categorizing different culture types, identify the dominant culture type of the university in question and to consider what kind of approach to co-design to adopt.





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Equality and  
Scientific  
Excellence  
Together

## Part B – Tools

TOOL #1



• **THEME INTERVIEWS**

TOOL #2



• **FOCUS GROUPS**

TOOL #3



• **CULTURAL PROBES**

TOOL #4



• **CONTEXTUAL INQUIRY**

TOOL #5



• **MEMBER FEEDBACK**

TOOL #6



• **AFFINITY DIAGRAMMING**

TOOL #7



• **VISIONING**

TOOL #8



• **ROLEPLAY IDEATION**



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Equality and  
Scientific  
Excellence  
Together

TOOL #9



• **STORYBOARDING**

TOOL #10



• **PUPPET SCENARIOS**

TOOL #11



• **COLLABORATIVE FUTURE DESIGN**

TOOL #12



• **FUTURE WORKSHOPS FOR SENSITIVE  
TOPICS AND SILENCED EXPERIENCES**

TOOL #13



• **CONCEPT EVALUATION**

TOOL #14



• **SOLUTION ENACTMENT**

TOOL #15



• **EVALUATION PROBES**

TOOL #16



• **USER EVALUATIONS**

## 4. TOOLS

This section presents a selection of tools for different co-design practices: creating understanding of the existing conditions of equality at an institution, turning these insights into ideas, creating solutions, and evaluating the suitability of those solutions. The tools have been selected by careful consideration of the state of the art tools in co-design, by relating this repertoire to the gender equality work in universities and by reflecting on the RESET partner needs and wishes that have emerged during the first year of operation. For all tools, we emphasize the need to tailor them to fit the specific contexts, topics and participants, taking also into account the resources available. The tools can be combined and modified, new aspects can be integrated, and others removed.

We also emphasize that the RESET partners organizing co-design in their local contexts will often have to act as facilitators or moderators of the sessions. Working as a facilitator or moderator requires specific kind of expertise. Co-design literature is not particularly informative on this aspect, while there is some discussion on the variety involved in this role (e.g., N. livari et al. 2009; Norouzi, Kinnula, and livari 2021). However, the RESET partners are recommended to familiarize with this important topic by relying on the insights generated within other disciplines.

Another noteworthy issue concerns motivating participation. Co-design literature tends to assume people are interested in participating in co-design whenever given a chance (e.g., J. livari and livari 2011). This is, however, not always the case. For motivating people to participate, co-design literature offers very limited insights, but some guidelines can be given. For motivating people to take part, one may use material or immaterial means, which may relate to either intrinsic and extrinsic motivation (Hansen and Iversen 2013): the participants may be given material rewards or gifts of various kinds, but they may also be motivated to participate through opportunities for collaboration, feelings of belonging, networking, development of expertise, recognition, respect, or expression of own views and being heard. One might also approach participation in co-design through the lens of value co-creation, which emphasizes that all participants need to experience gaining value from the joint effort for successful collaboration (Kinnula et al. 2018). One can consider needs and interests of people from the perspective of role fulfilment in their organization and work, but also basic human needs relating to interaction and self-fulfillment – all these have been shown relevant for taking part in co-design (Kinnula et al. 2018). However, also concerning this topic the RESET partners are recommended to familiarize with insights generated within other disciplines on motivating people.

### 4.1 UNDERSTANDING AND SENTIZING WITH THE TOPIC

The first four tools are examples of suitable methods for exploring the current situation of gender equality work in an institution and for generating requirements for the RESET tools, policies and practices to be developed using co-design. The tools allow versatile data collection from individuals and groups, through interviews and observations as well

as data collection without researcher presence. Theme interviews and focus groups have already been carried out in RESET to address gender equality topics.

## TOOL 1: Theme interviews

The description is based on Sharp, Rogers, and Preece (2019, 268–71).

Theme interviews are loosely structured conversations between two people: the interviewer and the interviewee. The interviewer initiates and plans the interview. However, questions are not strictly worded but consist of themes, which are used to keep a conversation on the topic and to ensure all key topics are touched upon (Sharp, Rogers, and Preece 2019, 268–71). Within this framework, the conversation is allowed to meander and pause, so as to give the interviewee time to consider the topic.

### WHY

Theme interviews allow the exploration of topics in an open manner and from the interviewee's perspective. This enables revealing novel and rich insights on the topic. Theme interviews are suitable for exploring sensitive topics in an informal conversation between two people. Confidentiality is emphasized in such a situation and the anonymity of the interviewee needs to be preserved. These features make theme interviews suitable for RESET and they have already been experimented with in RESET. Individual interviews enable exploring current practices, associated challenges, people's skills and competences, their values, goals, needs, hopes and dreams for the future. Compared to structured interviews, theme interview allows the conversation to flow more naturally, giving interviewees time to think of viewpoints and details they may not come up with immediately when asked direct questions. Theme interviews are less dependent on the interviewer's preconceptions of the topic as questions are more open and their wording may be shaped by the ongoing conversation. In a theme interview, the interviewee has more agency in steering the tone of the conversation, which gives room for novel, unexpected viewpoints to emerge. The interviewer should be continuously ready to explore further the aspects brought up by the interviewee.



## HOW

1. Select and recruit participants. Key informants within the institution should be identified.
2. Select a suitable space and time for the interview (with no disturbances).
3. Create and follow a loose pre-prepared interview agenda to ensure all key topics are touched upon.
4. When given an answer, ask further questions to probe deeper, until no new information comes up on the topic.
5. Give the interviewee time to think about their answers and tolerate silences.



Figure 8: Interview<sup>13</sup>

## CONSIDERATIONS

- Personality matters a lot – the interview situation is heavily shaped by the personalities of the interviewer and interviewees, which should be acknowledged as a fact, while the interviewer needs to remember that it is always the responsibility of the interviewer to make the situation as relaxed and pleasant as possible.
- The interviewer should avoid influencing the interviewee as much as possible:
  - questions should not be posed in a way that seems to suggest a preferred answer.
  - the interviewer should try to avoid body language, tones and word choices which suggest (dis)approval of the interviewee's thoughts – instead aim for an air of sympathy.
- The interviewer should be aware that even the topics that they bring up suggest biases and should therefore try to convey open-mindedness to the interviewee as much as possible.
- The place and time should be chosen in a way that ensures participants are as physically and mentally comfortable as possible (e.g., they are not hungry, the place was convenient to reach, confidentiality is discussed etc).
- Theme interviews demand resources for data collection and analysis more than some other methods, such as questionnaires, meanwhile they offer much richer insights and enable addressing sensitive topics.

<sup>13</sup> Jarret Callahan, *Interview*, 2008, <https://www.flickr.com/photos/jabzg/2466454100>.



## TOOL 2: Focus groups

The description is based on Sharp, Rogers, and Preece (2019, 271–76).

Focus groups are a type of a group interview led by a facilitator, often to elicit diverse, even sensitive issues that might otherwise be missed in individual interviews. Focus groups also allow studying interactional phenomena during the event.

### WHY

Focus groups have been developed based on the idea that human opinions emerge in dialogue with others. The goal is to encourage people to share their opinions by placing them in a supportive environment (Sharp, Rogers, and Preece 2019, 271–76). Similarly to individual interviews, focus groups enable exploring current practices, associated challenges, people's skills and competences, their values, goals, needs, hopes and dreams for the future, while in focus groups this is done collaboratively and the participants may stimulate and inspire each other. For many RESET topics, focus groups can be considered to be very suitable and they have already been experimented with in RESET. However, one should be aware that for sensitive topics, the group needs to be homogenous and the environment has to be safe and confidential.

### HOW

1. Select and recruit participants. Key informants within the institution should be identified. Within these demographics, representative samples of 3-10 people are brought together as a group. Depending on the topic, relatively homogenous groups should be formed.
2. Select a suitable space and time for the focus group (with no disturbances).
3. Create and follow an agenda for the conversation but also allow unforeseen issues to be discussed past the agenda.
4. Pay attention to the interaction within the group. Encourage silent people to participate and ensure no one dominates the conversation.



*Figure 9: Consider different social forms for the focus group.*

## CONSIDERATIONS

- The thoughts and opinions people are willing to express naturally depend on the group they are in. Groups should therefore consist of peers as much as possible. Interpersonal issues present in institutions may also influence the conversation. Homogenous groups should be preferred in hierarchical organizations, such as in higher education institutions, to enable participants to express their opinions and insights as freely as possible.
- Careful consideration is needed for sensitive topics: whether they are something that benefit from group interaction and collective reflection or whether they should rather be addressed in individual interviews.
- The place and time should be chosen in a way that ensures participants are as physically and mentally comfortable as possible (e.g., they are not hungry, the place is convenient to reach, confidentiality is discussed etc).
- The facilitator should be very sensitive towards personality and power related issues and react whenever support is required for any of the participants or inappropriate behaviour emerges.

## TOOL 3: Cultural probes

The description is based on Gaver, Dunne, and Pacenti (1999).

The idea of a cultural probe was developed by Gaver, Dunne, and Pacenti (1999) as part of their Presence Project where they wanted to learn more about elders' local culture for the purposes of their design project. They created cultural probes kits (packages including various kinds of material, tools, and tasks for the participants) to gain inspiration for design in a way that enabled participants to generate material by themselves in their personal contexts, without the designer's presence. Even though cultural probes help to gain important information from the perspective of the participants, cultural probes should not be used as a tool to get specific requirements but more as an inspirational tool for design. (Gaver, Dunne, and Pacenti 1999).

## WHY

Cultural probes are collections of artefacts (e.g., art and craft materials, maps, postcards, tasks for diary writing, text messaging, photographing or video recording on specific topics) that are designed to elicit requirements, ideas or opinions from participants in specific contexts by prompting participants into action by interacting with those artefacts in their personal contexts. Cultural probes may reveal unexpected insights and ideas (Gaver, Dunne, and Pacenti 1999). In RESET, cultural probes can be used for getting familiar with the cultures and practices of stakeholder groups with whom one is not yet familiar as well as for learning about their everyday life, values, concerns, and opinions. Cultural probes enable exploring current practices and challenges as well as participants' values, goals, needs, hopes, and dreams for the future. Cultural probes may allow

surprising findings to emerge as the probes are interacted with by the participants without the designer presence. Cultural probes also allow collecting longer-term data from the participants: the participants can be asked to generate data for example weekly for the period of several weeks (e.g., to report with text messages or video clips problems relating to gender equality in their work).

## HOW

1. Design the cultural probes kit – decide what kind of data you want to gather. Include artefacts and design tasks associated with them. A cultural probe can be for example a map where participants mark specific places relating to gender equality work. Another one can be a diary into which participants write entries whenever something related to gender equality happens. The probes can be imaginative, provided they are approachable for the participants.
2. Select and recruit participants.
3. Decide how to deliver the cultural probes kit for the participants and how they return the materials - make it easy for the participants to take part.
4. Deliver the kit for the participants – consider if you want to introduce the kit for the participants personally.
5. Receive material from the participants.
6. Go through the returned material and seek inspiration for design - remember that cultural probes are not designed to be analysed in a similar way than data gained through more traditional data gathering methods - cultural probes aim at offering inspirational material for design.



**Figure 10: Cultural probes may be digital or physical and consist of many types of materials.**

## CONSIDERATIONS

As cultural probes are geared towards providing inspirational material for design, the data should not be treated as specific requirements or analysed in a similar way as other collected data.

It is important to remember that cultural probes require effort from participants rather than from the designers. One should be careful not to design cultural probes kits which demand too many resources.

## TOOL 4: Contextual inquiry

The description is based on Sharp, Rogers, and Preece (2019, 400–401).

Contextual inquiry is an ethnographically informed type of interview, which takes place at the interviewee's place of work while normal work tasks continue. The interviewer acts as a kind of apprentice to the interviewee, learning the interviewee's "trade" (Sharp, Rogers, and Preece 2019, 400–401).

### WHY

Contextual inquiry is often used to gather information about requirements for a new tool or system to be developed. It enables getting rich insights on how the work to be supported by the system or tool is accomplished in its actual context. In the context of RESET, contextual inquiry can thus be applied to understand the everyday work practices and contexts of different key actors in an institution (i.e., users of the tools RESET creates, such as research funding coordinators). This will allow the tools offered by RESET to be shaped to fit the work context of their users without causing disruption, which will encourage people to use the tools.

### HOW

Contextual inquiry follows a set of four principles, which can be summarized as follows:

1. The interview should happen at the workplace of the interviewee (context principle).
2. The interviewer and interviewee should collaborate as equals in creating a shared understanding of the work that is happening, rather than the interviewer being in control of the conversation (partnership principle).
3. As with other interviews, the contextual inquiry interview is recorded, but the interviewer also makes observations about the situation. These observations should be discussed with the interviewee to verify that the conclusions drawn from the observations are correct (interpretation principle).
4. As any unstructured interview, a contextual inquiry can easily wander off topic. This is avoided by establishing a goal or focus for the project – what exactly is to be learned from the interview – to guide the interviewer (focus principle).



*Figure 11. Observing a participant's environment can reveal details they would not think to mention in a traditional interview.*

## CONSIDERATIONS

Contextual inquiry does not need to be a long, drawn-out affair that disrupts the key actors' day. Instead, it can consist of short visits to workplaces, with specific goals to understand aspects of the work that is being done.

One should pay attention to involving all the stakeholders in conducting contextual inquiry to make sure you identify all the groups impacted by the "tool" you are developing – be it documentation or a new model for training staff.

Involve several people from each key actor group, as one should not expect one individual can comprehensively address aspects of the work being supported.

## 4.2 FROM INSIGHTS TO IDEAS

These tools are useful when generating insights and coming up with development ideas based on the understanding created in the previous phase. In RESET, questions regarding the further processing of the data collected have been presented. These tools offer examples of steps to be taken after data collection. Two tools contain collaborative data analysis while two tools include collaborative ideation of future solutions.

## TOOL 5: Member feedback

The description is based on N. livari (2018).

Member feedback is qualitative research practice where informants are "invited to check, comment on, or approve researchers' data or interpretations" (N. livari 2018, 112) after data collection to see whether it is correct and meaningful.

## WHY

It is useful for designers to know that their data is correct, and their reconstructions are recognizable to the informants. Member feedback also increases the validity or credibility of the design solution created based on the data, as possible factual and interpretive errors can be corrected. Member feedback also enables the inclusion of informants in the design process and the co-construction of the outcomes together. It also increases “the fidelity of the research which refers to the faithfulness and integrity of the researcher in maintaining the informant’s worth and integrity” (N. livari 2018, 114). RESET data collection can be complemented with member feedback sessions, in which participants from higher education institutions go through and discuss, for example, the results generated via institutional data collection and consider paths for future development of GEPs based on those. Collective reflection on the results gained may act as a valuable catalyst for further ideation on improvement and development actions.

## HOW

1. Before performing member feedback, prepare initial analyses from raw data.
2. Invite informants to verify, clarify, or elaborate on the results.
3. Arrange a workshop where you go through the results with relevant informants – consider not using raw data there.
4. Let informants get familiar with results and discuss those – try to keep discussion within the design context.
5. Allow informants to confirm or correct your interpretations. They may also challenge inaccurate interpretations and/or reassess their own viewpoints.
6. One may encourage the informants to discuss the implications of the findings for their work to generate ideas for the design process.
7. Collect any new findings that came up in the workshops and refine your design based on that.
8. If needed, arrange additional workshops – these can be arranged after major data collection steps. For example, one workshop can be performed after a questionnaire study and another one after theme interviews.

## CONSIDERATIONS

When performing member feedback, one should consider the power relations between designers and informants – sometimes designers are the powerful actors in the process while sometimes the informants might be the powerful ones and they might focus heavily on furthering their personal issues and agendas.

Member feedback can also change the way how informants think and talk about things and this might have an impact on the context.





This method can also impact negatively on how the informants think about themselves or their lives. One needs to make sure that member feedback does not end up being harmful for the informants.

## TOOL 6: Affinity diagramming

The description is based on Beyer and Holtzblatt (2016, 127–46).

Affinity diagramming is a technique for exploring data, identifying themes, and looking for an overall narrative. The idea is to group previously gathered data, ideas, and insights into a hierarchy to show common structures and themes. The groups are not pre-defined but instead emerge from the data to avoid focusing on specific issues and questions.

### WHY

An affinity diagram helps to understand the big picture of the collected data. When using this method within the design process, this tool helps to understand problems and what kind of issues are related to that. The point of the affinity diagram is to tell a story of the user's life – the grouping helps to wire the story together in an understandable manner to showcase smaller chunks of users' life (Beyer and Holtzblatt 2016, 127–46). In RESET, affinity diagramming can be used as a collaborative tool for data analysis, for producing the big picture of the collected data, which should act as a basis in the later design activities. For example, for the data collected through focus group sessions, affinity diagramming can be accomplished, focusing for instance on problems preventing the realization of gender equality in the university in question.

### HOW

Affinity diagramming sessions consist of three (3) different phases. The first phase is a preparatory phase where facilitators plan and make preparations for the affinity diagramming session. The second phase is “The Morning” which is the first part of the session itself. The third phase is “The Afternoon” which spans until the end of the session.

Preparatory phase before affinity building session:

- Get e.g., sticky notes in four different colours for affinity diagram building. Affinity diagram consists of three levels of labels and one level of notes from data. Each level should have notes of one distinct colour. The number of notes depends on the size of the affinity diagram. For example, if you have 1000 notes from the data, you should prepare to have 500 1<sup>st</sup> level label notes, 85 2<sup>nd</sup> level label notes and 25 3<sup>rd</sup> level label notes. Look at Figure 12 to see how you should use these labels when building the affinity diagram.
- Print all data gathered to sticky notes of the same colour in random order. Also print all notes in an ordered list for reference.

- Prepare a room with empty walls and an area where the affinity diagram is going to be built.
- Decide who should participate in the session – try to include relevant people who are in important roles from the perspective of the design process or otherwise interested in this design process. Aim to have about 300 notes per 4-5 participants.
- Arrange session(s) where participants as a team build the affinity diagram. Remember that it can take a few days to build the affinity diagram but aim for one day of work. Avoid doing this online – you will miss important team interaction and there would be too much data and manipulation.

“The morning” - beginning of affinity diagram building:

- Give everyone 8-10 notes to start.
- For the first 20 notes, follow a formal process where everyone reads notes aloud one at a time and places them either to an existing group of notes or creates a new group.
- After the first 20 notes, allow everyone to work individually – give more notes for the team as the work progresses. Make sure that the team communicates while working – they should know where different groups are located and what kind of information they contain.
- This is an iterative process – let the team reorganize notes if they feel that way when they learn about new data.

“The afternoon” - rest of the process (and possible subsequent days):

- Before formal labelling, put some rough labels using any other colour than what the notes from the data have.
- Collect and reorganize the affinity diagram in a way to group similar groups together based on the rough labels.
- Introduce and start formal labelling using three different types of notes. Split the team into pairs and assign each pair a part of the wall where they write labels for their own part and allow them to relocate notes if they feel that they do not belong to the group. Do priority areas first and start with the 1<sup>st</sup> level labels. If the groups are bigger than desired, break them down and group them with more refined labels.
- Add 2<sup>nd</sup> and 3<sup>rd</sup> level labels to collect groups.
- Check all sections and labels for quality and make sure that key distinctions have come up.
- Discuss in the group the story of the user’s life and its implications for the design process.
- Other groups can be invited to familiarize with the affinity diagram afterwards to communicate its main findings to the broader audience.



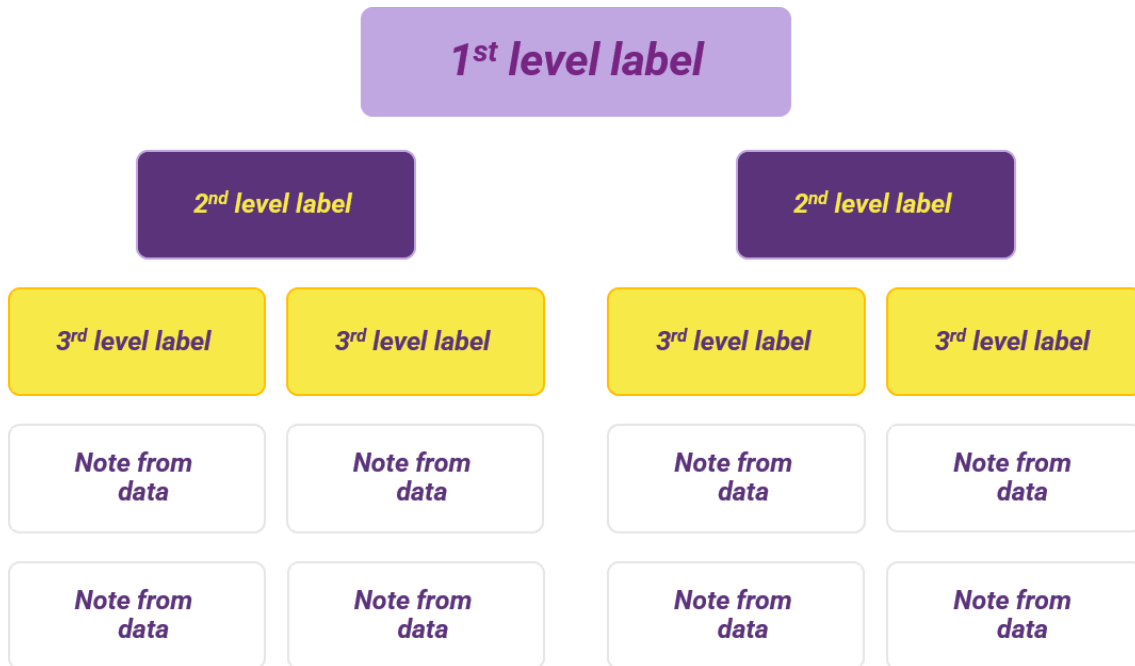


Figure 12. Notes from data are grouped under three different levels of labels. Use different colored sticky notes to distinguish groups from each other.

## CONSIDERATIONS

This method is time-consuming and requires that you can get multiple relevant participants to participate for a longer period. Building an affinity diagram can also be hard and overwhelming for individuals and you should describe this process beforehand for them and make sure that they understand why this process is valuable. A big part of building an affinity diagram successfully is managing expectations of people and motivating them to accomplish the work.

## TOOL 7: Visioning

The description is based on Beyer and Holtzblatt (2016, 277–94).

Visioning is a brainstorming method in which a team creates vision pictures built as a story. Every idea is an addition to one story. Each vision is created from the perspective of a specific user, persona or individual, and structured as storytelling, creating coherent descriptions of everyday life of the target users or groups. In the end of the visioning session, different visions generated are evaluated and potentially combined, with the aim of coming up with concepts that drive the future design work. (Beyer and Holtzblatt 2016, 277–94).

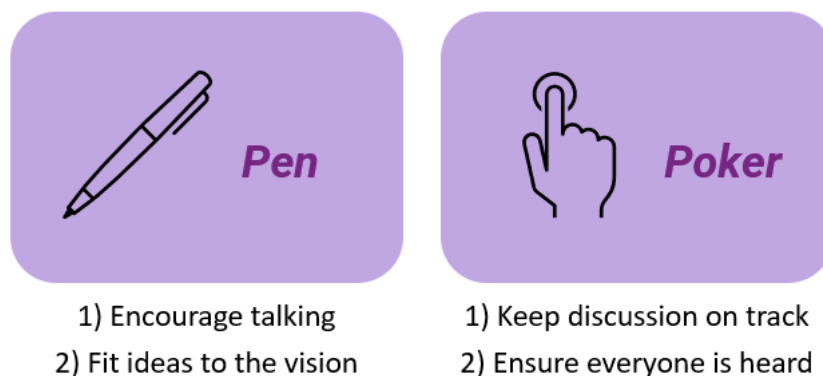
## WHY

The vision pictures are useful for creating ideas for new designs as well as illustrating what the new design (e.g., a new gender equality policy, practice, tool) is about and how it would look like in practice. This method allows teams to explore how a novel design would resolve different issues in its users' everyday lives. Focusing on storytelling keeps the team focused on brainstorming for the big picture instead of small details. Based on the results of visioning sessions, designers can combine useful parts from the visions and then possibly continue to explore others. (Beyer and Holtzblatt 2016, 277–94). In RESET, vision pictures can be collaboratively created for the purpose of describing how the world is like when new gender equality policies, practices or tools are in use.

## HOW

Two persons are assigned with roles, the *Pen* and the *Poker*:

- The purpose of the *Pen* is to 1) encourage people to talk; and 2) fit participants' ideas to the vision under development. The *Pen* is not allowed to create their own ideas. If that happens, they should give this responsibility to someone else. The *Pen* should be one member of the team, and this responsibility can be rotated within the team as the session progresses.
- The *Poker* is a facilitator, whose purpose is to keep the team on track making sure the team follows visioning rules and that everyone in the team is heard. The *Poker* should be one of the people who arranged the Visioning Session.



*Figure 13: Roles of the Pen and the Poker*

The *Pen* and the *Poker* listen to the ideas and decide whether they fit in the theme and are not too “high flying”. The visioning session should be as follows:

- Arrange visioning session – remember that each vision takes 20-45 minutes to create, and you also need to have one e.g. flip chart, where the vision is drawn.
- Select one person to be the *Pen* and one to be the *Poker*.

- Start visioning with an idea, persona or activity – e.g., a description of a starting situation. This should be derived from the data.
- Other participants in the session should share and discuss ideas, which the Pen then adds to the vision. The core question for the team is “Who am I and what am I doing” – the ideas should be described from personas’ or users’ point of view and presented in the vision as such.
- Continue adding ideas to the vision until the team is out of ideas for a specific vision. You can pursue multiple directions for each vision if suitable, or only focus on one of them.
- Start a new vision.

After visions are created, one combined vision should be created.

- Go through every vision following this checklist: 1) Does it fit the users’ practice? 2) Is it feasible? 3) Does it fit with the mission and organizational skills?
- Make this decision for each part of the vision and indicate the decisions with flags: Green – team believes in it and can do it; Red – team hates it, does not believe in it and wants to eliminate it; Yellow – needs more exploration.
- List the positive and negative aspects and design ideas of each vision. Design ideas should be focused on the negatives and how those could be solved. The idea is to treat visions as collections of independent parts that could be used independently in different designs instead of as one monolithic whole.

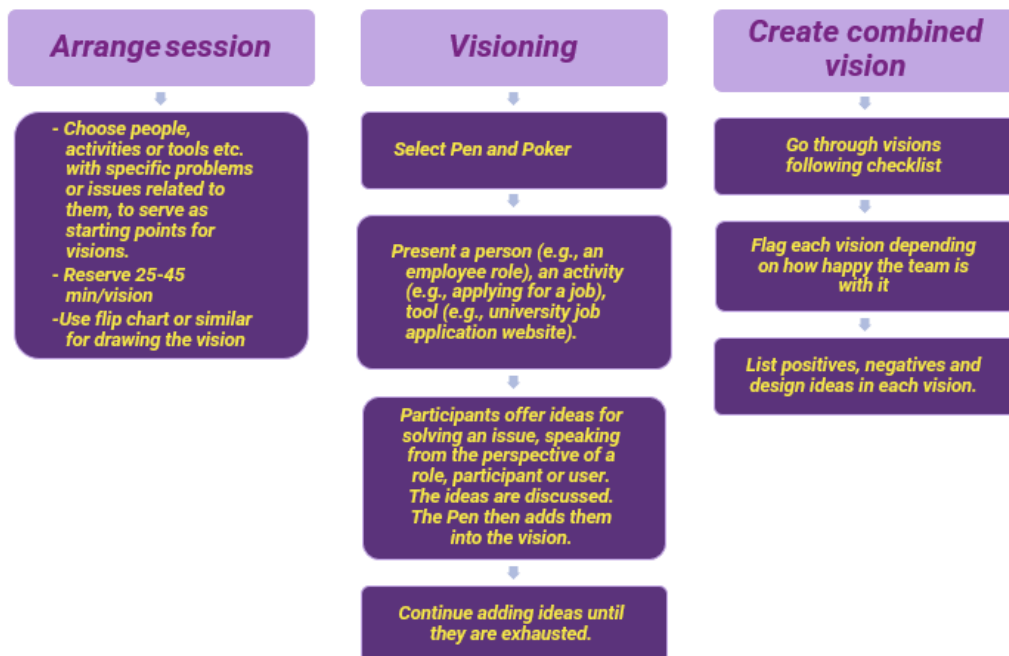


Figure 14: Steps for visioning

The goal is to come up with concepts driving future design work. Let the team draw general concepts separately based on the visions – elements of concepts should be pulled from the visions. Each concept should be a simple collection of design ideas that clearly show how each concept delivers target users value within the mission.

## CONSIDERATIONS

Pictures from visioning sessions are quickly drawn and without a lot of structure. They are very informal. There can be multiple different solutions to the same problems that have emerged from the visions. In this case, it is the designer's responsibility to choose one path to pursue further.

## TOOL 8: Roleplay ideation

The description is based on Kumar (2012, 222–23).

Ideation is an essential step in co-design. Usually, it is useful to generate a lot of ideas from different perspectives. Role play involves team members taking on the roles of different stakeholders for the purpose of coming up with ideas from the point of view of another person (Kumar 2012, 222–23).

## WHY

Ideation is an essential element in the design process: it entails multiple ideas to be expressed, evaluated, and refined. Role play ideation can give new perspectives to the participants, who are taken out of their usual mindsets during the exercise. It strengthens empathy and challenges unconsciously held assumptions while giving inspiration for ideation and generating discussion. The method can also be used alone to generate ideas without a team. For RESET, roleplay ideation can be considered as a very suitable exercise: before starting a detailed design of a gender equality tool, practice or policy, different kinds of ideas are generated, evaluated, and refined to provide a basis for the design. Roleplay ideation is particularly useful as it guides to consider the perspectives of different stakeholders associated with the design solution.

## HOW

1. Identify relevant stakeholders.
2. Assign each participant in the session a role to play during brainstorming.



3. Focus on an issue and challenge each participant to imagine how they would solve it or what their needs would be if they were the person whose role they are playing.
4. The brainstorming can be implemented as a group discussion, in which free sharing of ideas is encouraged and ideas are not criticized.
5. Vary roles from time to time to keep ideas coming.
6. Discuss the ideas generated with the actual stakeholders to get feedback.

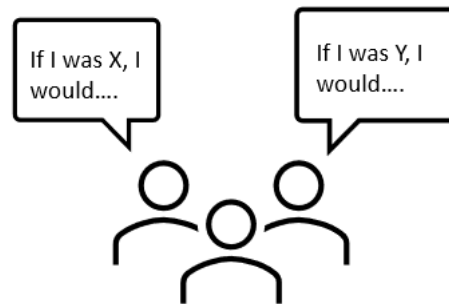


Figure 15: Roleplay ideation

## CONSIDERATIONS

Gaining feedback from the stakeholders themselves is essential to check the veracity of the ideas as well as to expand on them. The ideas generated through role play may also act as scaffolding for approaching stakeholders.

If stakeholders are involved in the roleplay ideation, it may be beneficial to downplay the playful aspect of the tool and instead focus on the importance of empathy in ideation for the benefit of others.

In the context of gender equality, roleplay ideation may include very sensitive, ethical, and power laden aspects. Careful consideration is needed on whether roleplay ideation is a suitable method concerning the topic and the participants involved. On the other hand, as it aims at increasing empathy for different stakeholders, it provides a very valuable method to address gender equality concerns.

## 4.3 CREATING DESIGN SOLUTIONS

In co-design, engaging in actual design activities is essential. Some example tools for the purpose are presented below. Two of them are relatively fast and easy ways to proceed in design, while two of them are more complex ones which integrate a number of steps and perspectives into the design process.

### TOOL 9: Storyboarding

The description is based on Beyer and Holtzblatt (2016, 315–29).

Storyboard is an illustrative method to present how people for whom the design is aimed at will carry out their work in the future, including how they will interact with the new design and what will be involved in it. Storyboards are cartoon-like descriptions of user activities in a new world where the design solution has been taken into use. (Beyer and

Holtzblatt 2016, 315–29). In the case of RESET, storyboards can be used to illustrate and reflect on how new processes or tools are used in practice before actual implementation to understand how they work and to develop them further. Storyboards also help to explore different viewpoints; for example, how managers interact with the design solution and how this compares to other personnel.

## WHY

Storyboards help to figure out how user activities work out with the new design solution under development. They show how activities and situations are handled step by step from the user's perspective, how user goals are achieved, what actions are involved, how users interact with other products or designs. This is especially important when making sure that the new design does not break existing designs, and when trying to understand why/how new design improves existing designs. (Beyer and Holtzblatt 2016, 315–29). In RESET, storyboards enable collaboratively envisioning how people will carry out their work/tasks in the future, when the new gender equality policies, practices or tools are in use. The storyboards capture step-by-step descriptions of people's activities, including interaction with the new design solutions.

## HOW

Storyboards are created by the team who is responsible for the new design.

- Start with creating a list of cases and situations you want to include in storyboards based on user data and assign two to three people to create each storyboard.
- Start with core storyboards – ignore edge-cases and less important parts.
- Create separate storyboards for different parts of the activity. Remember that you can create more storyboards as you extend your design. Try to keep storyboards focused on specific parts of activities and scenarios.
- Limit each storyboard cell to a certain size, e.g. half of A4 (8,5x11 paper) – you do not have to go into too much detail, instead focus on overall design over covering every small detail. Also try to think about all kinds of situations, including difficult and annoying ones.
- Focus on consistency of action and intent – do users actually want to do the

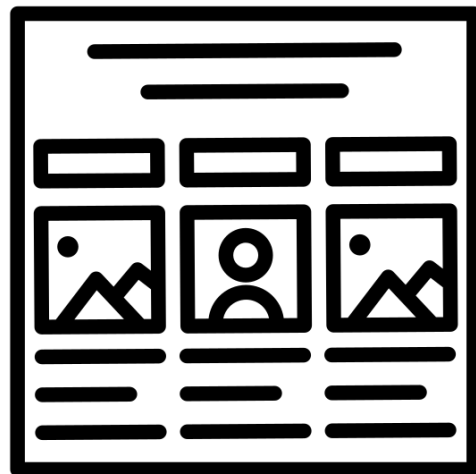


Figure 16: Film Storyboard Vector<sup>14</sup>

<sup>14</sup> Vectors Point, *film storyboard vector*, 2019, <https://thenounproject.com/icon/film-storyboard-vector-2706699/>.

things you have designed for them, what do they ask at each step, do they know what to do next, what guidance is needed to lead them through the activity?

- Lastly, review the storyboards – introduce criteria for review so that you can gather feedback which then again can be used to improve the storyboards. This should be done at a workshop where everyone showcases their storyboards and discusses them.

## CONSIDERATIONS

This method should not be used to create a detailed final version of the design solution. Instead, this should be used as a method to understand the big picture during early phases of the design process. This method also demonstrates how the design works in practice, but at the same time, the creators of the storyboards need to be careful in ensuring that the designs they propose are usable when combining different activities together, i.e., in addition to the storyboards, they need to consider the big picture.

## TOOL 10: Puppet scenarios

The description is based on Kumar (2012, 228–30).

This tool involves creating scenarios (stories) which represent current issues and possible solutions to them, and then enacting these scenarios as narratives (Kumar 2012, 228–30).

## WHY

The goal is to enhance collaborative ideation between different stakeholders, resulting in tangible ideas for solutions to everyday issues. The activity brings together people with different backgrounds and expertise and affords them a way of relating to one another, and shared issues, in a way that is outside their usual everyday confines. In RESET, puppet scenarios expressed as narratives, potentially played out as puppet theatre performances, are a way to envision users' activities in the future world, when the new design solution is in use, based on the problems and issues identified during the earlier phases of the design process.

## HOW

- Before a session, use the information gathered in earlier stages of the design process to prepare 'design' and 'what if' cards on post-it notes or paper slips.
  - Design cards should present pictures, illustrations, statements, or questions which evoke problems or issues related to the topic of the workshop for the participants.
  - What if cards, in turn, should present possible scenarios of change or solutions to the issues at hand.



- Each participant should choose 1-2 design cards and present them to the others by putting them on a white-board or large table, explaining why they chose these issues. Subsequent participants should add their cards, explaining also whether and how they are connected to the issues already presented by others. In this way the group collectively prioritizes issues that are most important to them.
- The participants are asked to add what if cards on the board. These are used to discuss possible solutions to the issues identified in the previous round with the design cards.
- In the final stage, the group chooses one issue and solution to enact as a narrative: for instance, if the group created new practices for recruiting, they would now come up with a narrative of how those solutions would work, and then practice and enact the scenario. The enactments can be done with puppets, which can be either provided by you or made by the participants. The roles can also be played out by people. The final enacted narratives can also be videoed and shown to other groups doing the same activity – simultaneously or concurrently – to evoke conversation



Figure 17: 'Design' and 'what if' cards in use

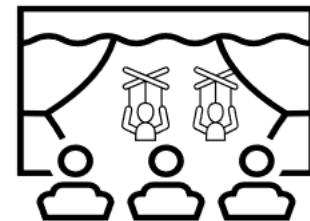


Figure 18: Visualization through enactment

## CONSIDERATIONS

If the participants are to make the puppets, materials for this needs to be provided. The enactment of the narratives may demand resources. Cost effectiveness needs to be considered in this method.

## TOOL 11: Collaborative future design

The description is based on Vavoula and Sharples (2007).

Collaborative future design is a toolkit for imagining and designing interactions between future and current situations, described by Vavoula and Sharples (2007). In it, people with ordinary everyday experience in a specific topic area work together to explore future scenarios from a number of perspectives.



## WHY

Collaborative future design allows for future solutions (e.g., tools, policies, practices) to be designed in a way that takes into account their interactive, collaborative nature – rather than relying on designs stemming from single perspectives, envisioned outside the usual context in which the solution will be used. The method has been developed specifically to create “radically new or disruptive” solutions “through envisioning how people might learn, work or play collaboratively...” (Vavoula and Sharples 2007, 399). For RESET, this method is valuable as it emphasizes the participatory nature of the design process of gender equality tools, policies, and practices as well as guides to consider the evolving design from a number of perspectives.

## HOW

Using this tool, stakeholders participate in a guided process in which they explore and design interactions between existing and new design solutions and activities. This is done with a series of seven sessions with 6-20 participants and 2-3 facilitators. Each session has a defined outcome which is recorded. Vavoula and Sharples (2007) suggest arranging these as half-day events with 2 hours used for the first four sessions, a one-hour break in between, and a further 1.5 hours for the remaining three sessions. Vavoula and Sharples (2007) outline four questions which the sessions will answer:

- How are current activities done with the support of current solutions?
- How could these activities be done with new design solutions?
- What new activities might the existing solutions support?
- What new activities could the new design solutions support?

The seven sessions are as follows:

1. **Imagineering:** Participants brainstorm ideas for the future, for instance related to gender equality, in terms of needs satisfied by a new design solution.
2. **Modelling:** Participants are divided into groups and create simple scenarios of the contexts of future activities, related for example to RESET themes.
  - Brainstorming questions may take the form of “Imagine you are in the future, and you have all the necessary tools to act in a way that promotes/allows you to achieve gender equality in your position. What kind of activities do you think you would want to accomplish if you were in that situation?” (adapted from Vavoula and Sharples 2007). Each group should receive a different thought exercise.
3. **Role play:** Participants exchange models with other groups and then create and act out scenarios built on the models. This exercise subjects each proposed model to a new set of perspectives.

4. Retrofit: The previous scenarios are modified to only make use of existing solutions, rather than relying on future design solutions that have not yet been implemented. This allows participants to imagine how the future desired goals might be achieved within the framework of the existing solutions.
5. Everyday: Participants discuss and list current activities in their everyday lives related to the topic addressed, for example to gender equality, and problems they have in achieving it.
6. Futurefit: The models are now modified so that they support current as well as future activities.
7. Requirements: The smaller groups are disbanded and the whole group is asked to list requirements for each model of the future design solution. The requirements are thought of as a set of instructions for the entity that would implement the new design solution in practice.

## CONSIDERATIONS

This is a simplified explanation, while Vavoula and Sharples (2007) describe the process in detail.

## TOOL 12: Future workshop for sensitive topics and silenced experiences

The description is based on Alminde and Warming (2020).

Future workshops have been widely utilized in co-design as well as in many other disciplines, serving many different needs and participants. Robert Jungk, Ruediger Lutz and Norbert R. Müllert specify the purpose of future workshop to be to “*generate new ideas and solutions to social problems by gathering small groups of people to dream up and implement creative ideas and projects*” (Alminde and Warming 2020, 435). Future workshops have also been modified to fit sensitive topics and silenced experiences.

## WHY

Future workshops are aimed at collaboratively generating new ideas and solutions, while this tool aims to offer an inclusive and democratic methodology, which can be used for exploring children’s and young people’s perspectives where there are different kinds of ethical challenges involved as well as for addressing sensitive topics and silenced experiences (Alminde and Warming 2020). For RESET, this type of future workshop is a very suitable method in terms of its emphasis on inclusive, democratic, ethical and sensitive aspects, which are central also in gender equality work.

## HOW

- Start with the *preparatory phase* – in this phase, decisions on the topic and practical arrangements are handled by both participants and facilitators together. However, facilitators can arrange some snacks and even decide the topic beforehand to save some time.
- Introduce the topic and build rapport with participants. You can e.g. play games with participants to break the ice. Also, remember to make sure that participants are aware of their rights about participation.
- Continue with the *critique phase* – the idea is to identify real problems and frustrations in people's everyday lives. Utilize brainstorming in a way that participants are free to contribute with argumentation and note their thoughts on e.g., a flip chart. Here counter-arguments are not allowed by participants or facilitators.
- After critique, move on to the *fantasy phase* where participants are working with utopian ideas – meaning the best possible ways to solve problems that came up in the critique phase, without thinking about reality. You can utilize the similar brainstorming method here as with the previous step or you can use other methods e.g. creative work in smaller groups. You should think and decide on the suitable methods before the workshops. Lastly, let the participants present their ideas to each other.
- Last phase is the *implementation phase* where the participants are supposed to explore and plan how to transform the ideas to reality – it is important to understand that not every idea is possible to transform into reality. You can tweak this step to make it match better with the design goal.

## CONSIDERATIONS

As this kind of future workshops are used to address sensitive topics and silenced experiences, it might be hard to recruit participants. Time and effort may hence be needed for this phase. It is also important to get consent and make sure the participants are aware of their rights related to that.

### 4.4. REFLECTING ON AND EVALUATING DESIGN

As part of the iterative co-design design process, it is necessary to reflect on and evaluate the designs created. Four tools are proposed here, including such that involve expert reviews of the design solutions and such that involve future users of the solutions and are conducted in the actual context of use.

## TOOL 13: Concept evaluation

The description is based on Kumar (2012, 258–59).

This method is used to evaluate the value of developed ideas for any two stakeholders (Kumar 2012, 258–59).

### WHY

Ideation can result in dozens of ideas, creating a need to identify the most valuable concepts to focus on and develop further. This method of evaluation helps to evaluate concepts from the viewpoint of needs of two stakeholder groups. Such evaluation may be common in RESET as well: one may want to evaluate a solution for example from the perspectives of the RESET project group and another stakeholder group, or from two other stakeholder group perspectives such as two groups working together with gender impact assessments.

### HOW

1. Define a finite list of ideas or concepts that have come up in the design process.
2. Create criteria according to which the concepts will be evaluated. For instance, identify the most important needs of GIA educators and of researchers, against which each idea or concept will be assessed.
3. Create a concept evaluation matrix in a spreadsheet with the concepts (ideas) listed in the left column and your stakeholder value criteria on the right in two separate sections. Add a total value column for each stakeholder.

IDEAS	SH1:Need	Need	Need	TOTAL	SH2: Need	Need	Need	TOTAL
X								
Y								
Z								
A								

*Figure 19: Concept evaluation matrix*

4. Score concepts: Score each idea against the two sets of different criteria – a 5-point scale is probably detailed enough. Add up the scores for each idea and note them in the total column of that stakeholder’s criteria.
5. Plot ideas on a map: use the stakeholder values as the x and y axes and place the ideas on the map according to the two total values they received.
6. Analyse the distribution of ideas: Draw a diagonal line connecting the high ends of the axes, dividing the field in two. The ideas which fall in the top half of the map should be considered first for further development.

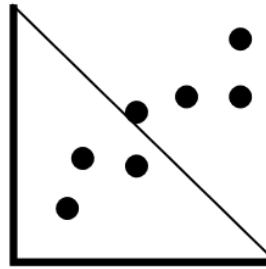


Figure 20: Idea scores plotted on x and y axes

## CONSIDERATIONS

Concept evaluation is to be done by experts who have understanding of the different stakeholders' needs. Otherwise, the evaluation results can be very misleading. Another issue is that the actual users of the design solutions should always be involved in the evaluations of design solutions. This method should be complemented with methods that enable user participation.

## TOOL 14: Solution enactment

The description is based on Kumar (2012, 270–71).

Solution enactment can be used to critically evaluate whether a solution is in line with its goals (Kumar 2012, 270–71). It involves acting out a solution to an audience of stakeholders to demonstrate how it would work in practice and get feedback from the stakeholders.

## WHY

Acting, like storytelling, helps to translate abstract ideas into concrete ones. While storyboarding (above) can be used to present a narrative of a whole solution system, enactment is best used for focusing on a single scene in the larger narrative. In RESET, this type of evaluation is valuable as it helps a broader audience to take part in the evaluation.

## HOW

1. Imagine a future in which the solution being considered exists. Focus on the stakeholders' interactions around the solution and create a narrative out of these with the stakeholder as the main character. Consider what the stakeholder's state of mind is at each point in the narrative.
2. Once the basic narrative is set, explore different experiences a stakeholder might have during the interaction points in the narrative. Record alternative scenes, focusing on the ones that emphasize what you want your audience to focus on during your enactment.

3. Rehearse the enactment. Spend some time anticipating and rehearsing alternative dialogues to address any concerns or questions your audience may have.
4. Enact the solution to your audience. If suggestions come from the audience, incorporate them in the scene if necessary.
5. Document feedback on the enactment for future development.

## CONSIDERATIONS

Solution enactment can be done solely by experts who do not represent the users. However, it is highly recommended to have representative users in the audience to provide their feedback.

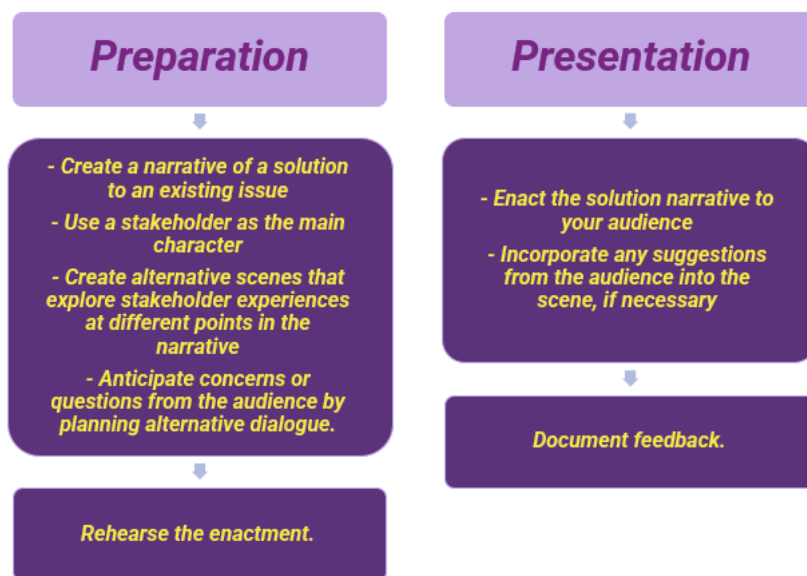


Figure 21: Steps to prepare for and carry out solution enactment

## TOOL 15: Evaluation probes

The description is based on Luusua, Ylipulli, Jurmu, Pihlajaniemi, Markkanen, and Ojala (2015).

Evaluation probes are comparable to cultural probes but created for evaluation purposes. In this method the prototypes or design solutions created can be considered as probes with which participants will interact in their natural settings without the designer’s presence. The designer provides an evaluation probes kit with instructions for the participants to conduct the evaluation and generate data. (Luusua et al. 2015).

## WHY

The intent of evaluation probes is to generate evaluation data “in the wild”, in the real context of use, efficiently and flexibly, without the designer’s presence. This allows the

data to reflect experiences and feedback that are closer to real life, as users interact with the design artefacts in peace with their own pace and initiative, compared to a situation in an artificial setting with direct designer presence. This method is flexible as it allows many different kinds of communication methods for participants, as some may prefer using text notes, others drawings or video clips, and so on. This method helps to gain fresh and unexpected views, as the participants are encouraged to reflect on the design artefacts against their everyday routines. The method also enables us to gain many types of knowledge, for instance on emotional experiences. (Luusua et al. 2015). For RESET, this method enables the actual future users to try out the design solutions in the context of use, which is considered critical in any co-design activity.

## HOW

1. Think of the aim of the probe, the physical form of the probe and how the participants interact with the probe (e.g., your prototype).
2. Select and recruit the participants
3. Design the evaluation probes kit – decide the aim and physical form of the probes and on how participants interact with them.
4. Decide how to deliver the evaluation probe kit for the participants and how they return the materials - make it easy for the participants to participate.
5. Deliver the kit for the participants  
- consider if you want to personally introduce the kit for the participants.
6. Receive material from the participants.
7. Go through the returned material using qualitative analysis methods – compared to cultural probes, consider doing more in-depth analysis.



*Figure 22: In RESET, a probe for evaluation may be, for instance, a new form or other document that is being deployed.*

In RESET, a probe for evaluation may be, for instance, a new form or other document that is being deployed

## CONSIDERATIONS

When designing an evaluation probes kit, one should consider what kind of participants the kit is tailored for – age, gender and cultural background are something that should be considered. Also, as evaluation probes generate thick and rich data, one should carefully consider what kind of data is needed and how one can analyse them.



## TOOL 16: User evaluations

The description is based on Dumas and Redish (1993), and Rubin (1994).

The most common and fundamental evaluation method in co-design is user evaluation, in which representative users do given tasks using a finished product or some sort of prototype (digital, paper based, etc.). Users are asked to think aloud so that the observers can find out what the users are trying to do and why they make certain decisions (Dumas and Redish 1993; Rubin 1994).

### WHY

Usability evaluation can be used for evaluating both finalized products and prototypes. The primary goal is to find problems for improving the design solution. There can be also more specific goals such as evaluating usability, learnability, usefulness, acceptability of the solution etc. With prototypes, the evaluation is related to high-level aspects of the design. Usually there is extensive interaction between the test participants. In RESET, user evaluation is recommended for all design solutions – the best feedback comes from users experiencing the design solutions in use. The prototype or finished product to be evaluated can be for example a Gender Impact Assessment tool, a checklist, a new policy formulation, a new practice. The design solution needs to be formulated in such a way that the users can somehow interact with it: they need to be able to carry out their work tasks related to it and along the way see how well the design solution fits or supports their work and how it could be improved.

### HOW

There are three main phases: 1) design and preparation of the evaluation; 2) conducting the evaluation and 3) analysing and reporting the results.

- Design and preparation: an evaluation plan is produced, the goals of the evaluation are defined, the user group for the evaluation is defined, representative users are recruited, user tasks to be carried out during the evaluation are defined, evaluation material is produced, evaluation team is prepared, and a pilot test is carried out.
- Evaluation: Users are asked to carry out their tasks with the product or prototype and at the same time think aloud. Typically, the evaluations are video recorded
- Analysis: the materials gathered are analysed and the problems users encountered are identified and classified. Usually, the scope and severity of the problems is used as classification criteria. A report is produced including the identified problems and recommendations for changes in the design solution under evaluation to fix them.



## CONSIDERATIONS

User evaluation is a fundamental evaluation method in co-design. It is however more resource demanding than expert based methods. Representative users need to be recruited to gain valid results. At least a prototype needs to be available for users to be able to interact with it and experience it in practice.

### 4.5 CONTEXTUAL CONSIDERATIONS

The impact of context has already been acknowledged in RESET. Partner universities can reflect on the context on different levels in relation to co-design of gender equality and mainstreaming of it, with the set of following questions:

- National context: Do national politics, legislation or public discourses help or hinder co-design of gender equality? What kind of measures may be taken in relation to them, if any? Can one prepare for their impact somehow? Can one take advantage of them?
- University context: What kind of stakeholder groups can be identified for co-design of gender equality in the university? Are there helping or hindering stakeholder groups? How should one approach them, invite them in, mobilize them? Are there influential and/or highly interested in advocates for RESET in the university? How to ensure and benefit from their participation? What kind of power differentials between and among the stakeholder groups there are? How to manage the power differentials in co-design of gender equality? Who are the marginalized, silenced, excluded stakeholder groups who should particularly be given a voice and a say in RESET? How to ensure their meaningful and effective participation – what kind of practices, methods and moderation is needed?
- Disciplinary/epistemological context: Are there different discourses on gender equality prevalent in the university? How to navigate and manage among the different discourses? How to advocate and manage participation of stakeholders with different perspectives on gender equality?

Regarding the cultural context, the following questions may be contemplated:

- How can one characterize the culture of the university?
- Is there an ideal culture for gender equality work in higher education institutions? What kind of culture that may be? How well the university fits with the ideal culture?
- How co-design (and gender equality work) could be adapted to fit the cultural context? What kind of co-design (and gender equality) approaches might be culturally compatible for the university? How co-design (and gender equality) approaches may be tailored to fit the cultural contexts?

- For a very hierarchical and measurement oriented organization, for co-design (and gender equality) one might go for a control oriented strategy, in which co-design (and gender equality work) is imposed, controlled and measured. The advocates should convince the decision-makers and gain power to implement the controlling strategy.
  - For a more flexible, innovation oriented organization, for co-design (and gender equality) one might go for a sneak in strategy, in which co-design (and gender equality work) is introduced through active collaboration with stakeholders, them without necessarily even noticing the strategy. This would entail building rapport with people and arousing their interest and support in subtle, collaborative ways.
- Competing values model or other instruments for culture studies may also be considered for analyzing and mapping the cultural context; however, keeping in mind that such instruments offer very limited views of the cultural context. Based on the analysis, one might consider the following advice depending on the cultural context:
- Within the group culture type, the emphasis as regards co-design (and gender equality work) should be on advancing group spirit, communal decision-making, informal information sharing, and teamwork;
  - Within the adhocracy culture type, the emphasis as regards co-design (and gender equality work) should be on supporting innovation, experimentation, teamwork, brainstorming and iterative development;
  - Within the hierarchical culture type, the emphasis as regards co-design (and gender equality work) should be on control, careful planning, measurement, and establishment of clear rules, procedures and documentation;
  - Within the rational culture type, the emphasis as regards co-design (and gender equality work) should be on fast achievements, cost benefit considerations, and rational justifications for gender equality work.

## 5. CONCLUSIONS AND FUTURE WORK

This deliverable presented the co-design starter kit (D9.2), part of Work Package 9 – Manage RESET and ensure the quality of its implementation. The deliverable introduced the theoretical background, principles and practices of co-design as well as discussed contextual aspects relating to its implementation. The deliverable also identified a set of tools (example methods), which to experiment with in different co-design practices. Altogether 16 tools were presented, categorized into the four different practices of co-design: 1) Understanding and sensitizing with the topic; 2) From insights to ideas; 3) Creating design solutions; and 4) Reflecting on and evaluating the designs.

The deliverable is based on the state of the art literature on co-design as well as on initial empirical research carried out on the potential and implications of co-design in RESET partner universities during the first year of RESET. Reflective workshops on the topic have been arranged. Moreover, in the partner universities, some tools have already been experimented with (e.g. interviews and focus groups). Mentoring on co-design has also been offered for the partner universities during which some needs and requirements for the co-design tools in this context have been identified.

The co-design tools presented in this deliverable have been carefully selected to suit the RESET context. The deliverable includes widely used co-design tools as well as co-design tools introducing variety into the method repertoire. In addition, co-design tools which are considered particularly suitable for the RESET context, are seen to align particularly well with the co-design principles or are meeting the specific needs emerged during the first year of RESET work, are included.

It is important to acknowledge that for each tool, tailoring and modification is needed. One always needs to consider the topic to be addressed, the participants involved, the context of use and the resources available, and modify the methods accordingly. The methods or parts of them can be combined, some aspects can be left out, others tailored for better fit. It is however important to keep the co-design principles in mind: those should be respected no matter how the methods are tailored. For each method, it is essential to familiarize with it in more detail before its use. This deliverable offers only a limited overview of each method.

This co-design starter kit represents work-in-progress: in RESET the approach to co-design will be co-designed in an iterative process spanning next three years. In the following years, follow-up data will be collected on co-design: on partner experiences of the principles, practices and tools used. This will also include collaborative reflection on the contextual factors. Modification of co-design approach to fit the university context provides an interesting path for future work. Closer linkage of co-design and gender equality scholarly traditions, particularly those addressing contextual factors, offers also an fas-

minating avenue for future work. The co-design approach should also be enriched by multidisciplinary literature bases on the requirements of good moderation and on the motivation of participants in participatory endeavors.



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