

‘They made their point’

Horizon Europe’s gender dimension:
a mixed-methods study on the experiences
of researchers in Flanders, Belgium

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Abstract

The European Commission introduced mandatory consideration of the gender dimension in all research funding applications in 2021. To date, however, little is known about researchers' response to this requirement. Is the gender dimension section actually leading to more inclusive research practices? Do researchers need more support? This study aims to answer these questions by investigating the experiences of researchers affiliated with the five universities in Flanders, Belgium. A sequential mixed-methods approach is used to combine qualitative and quantitative data collected across three phases. The findings suggest that, while researchers generally agree that the gender dimension section can enhance research quality and stimulate societal transformation, there are concerns about the true extent of its impact. The study underscores the importance of developing gender competence and of tailoring support initiatives to specific disciplines. The results may help Flemish universities move beyond mere compliance towards more transformative practices in European research and innovation.

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List of Abbreviations

EU	European Union
GEP	gender equality plan
GRI	gendered research and innovation
HR	human resources
IGI	inclusive gendered innovation
LERU	League of European Research Universities
R&I	research and innovation
SDG	sustainable development goal
SRC	Swedish Research Council
STEM	science, technology, engineering and mathematics
UN	United Nations
VLIR	Flemish Interuniversity Council (Dutch: <i>Vlaamse Interuniversitaire Raad</i>)

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Chapter 1:

Introduction

This thesis explores researchers' experiences of integrating the 'gender dimension' into their Horizon Europe funding applications, which has been a requirement by default since 2021. Why this topic? Long before I began the Master of Arts in Gender and Diversity, I had developed an awareness of bias in science, design and medical care. As a hearing aid user, I have endured years of frustration caused by the rustling sound that my long hair makes against the microphones at the back of my hearing aids. Are new hearing aids not tested among users with long hair? Similarly, as a new mother, I was shocked by news stories about maternal care disparities and higher maternal mortality rates among racialised women, especially after the fall of *Roe v. Wade* in the United States in the summer of 2022. I began this master's programme in the autumn of that year and, while attending Professor Draulans's seminar module in the first semester, my interest was immediately piqued by Catherine Vidal's text on 'the sexed brain' in *Gendered Ways of Knowing in Science*. I opted to explore this topic further in my final paper for the seminar module, and it was while writing that paper that I learnt more about Professor Londa Schiebinger's work on gendered research and innovation.

Another reason I felt an affinity with the topic of this thesis is my professional background. Prior to this master's programme I worked as an English for Academic Purposes teacher for over 15 years, specialising in academic writing in the research context. I worked closely with researchers and academics, assisting with the preparation of papers and proposals. This experience provided me with a good understanding of what proposal writing entails, as well as the various actors and bodies involved in the research process as a whole. It also gave me an appreciation of the challenges that researchers face when writing funding applications and the types of support that they need, which may or may not be freely available at their institutions. For this reason, it was important to me that my thesis would not only explore researchers' experiences with the Horizon Europe gender dimension but also map their support needs, so that universities can equip their researchers with the tools they need to respond to the gender dimension question more effectively.

The thesis is structured as follows. First, in Chapter 2, the literature review describes the previous scientific work that has shaped my approach to the topic and sets out the overall aim and specific research questions of the thesis. Next, in Chapter 3, I present the methodology and results of the thesis research, which is divided into three phases: methodology and results of Phase 1 (informal qualitative exploration), methodology and results of Phase 2 (formal quantitative survey), and finally the methodology and results of Phase 3 (formal qualitative interviews). I have opted to use this chronological structure rather than combining the methodology of all three phases in a methods section followed by the results of all three phases in a separate results section because the results of each phase had an impact on the methodological choices made in the next phase. Subsequently, in Chapter 4, I discuss the answers to the research questions in relation to the literature, before formulating the strengths and limitations of the research and a number of recommendations. Finally, Chapter 5 comprises a brief conclusion.

Chapter 2:

Literature review

In the literature review that follows, I first define the key concepts that are relevant to the thesis. Next, I explore the academic literature that has shaped and informed my understanding of the topic and my approach to the research. The literature review concludes by defining the overall aim of the thesis and the main research questions.

2.1 Concept definition

The most important concepts to be defined at the outset of this thesis are 'gender' and 'sex'. Major international organisations such as UN Women, the World Health Organisation and the European Commission are consistent in their understandings of these two terms, in that their definitions describe gender as a *social* construct and sex as pertaining to *biological* characteristics (UN Women Training Centre, n.d.; World Health Organization, 2024; European Commission, 2023b). More specifically, 'gender' is understood as a social construct that encompasses the behaviour, roles and characteristics that are believed to be appropriate for and valued in men and women in a certain society at a certain point in time. It reflects societal norms and power inequalities. 'Sex', on the other hand, refers to the biological and physiological characteristics that are typical of males, females and intersex people, such as their reproductive organs, chromosomes, and hormones.

While there seems to be a clear distinction between gender and sex, in fact the concepts overlap and interact because of the complex entanglement between social environment and biology (Butler, 2008; Lips, 2020). It is unsurprising, then, that a degree of confusion and conflation occurs in the use of the two terms. Some authors have even argued for the two terms to be joined into one umbrella term, 'gender/sex', in order to acknowledge the overlap and interaction between the two (Van Anders, 2015; Schellenberg & Kaiser, 2018). Other authors have opted to use 'gender' as a catch-all term for discussing female-male disparities caused either by the social environment, or by biological factors, or by a combination of the two (e.g. Lips, 2020). The latter approach is also used in this thesis, because this choice ties in with the European Commission's own use of 'the gender dimension' to cover both gender and sex analysis in research content.

2.2 Gender in policy-making

Gender equality is one of the United Nations' Sustainable Development Goals (SDGs), but not just any of these goals: according to a report by UN Women on why gender equality matters across *all* SDGs, it is "a driver of sustainable development in all its dimensions, from ending poverty and hunger, promoting prosperity and inclusive growth and building peaceful, just and inclusive societies to securing the protection of the planet and its natural resources" (2018). Gender equality is also high on the agenda at European level and has been promoted in the discourse of the European Union since Article 119 of the Treaty of Rome introduced the principle of equal pay in 1957: "Each Member State shall during the first stage ensure and subsequently maintain the application of the principle that men and women should receive equal pay for equal work" (today Article 157 of the Treaty on the Functioning of the European Union, 2009; European Commission, 2020b). Europe has been committed to gender mainstreaming, as a means of fostering gender equality, since 1996 (European Commission, 1996).

Interest in gender equality and gender mainstreaming has also been growing in academia in recent decades. In particular, much attention has been paid to initiatives designed to foster the recruitment and promotion of women academics, in order to address the 'leaky pipeline' – the phenomenon whereby the proportion of women progressively decreases with advancing career levels – and transform the masculine institutional culture of academia (see for example Clark Blickenstaff, 2005; Iaria, Schwarz, & Waldinger, 2022). This drive to 'fix the numbers' and 'fix the institutions' – the human resources side of gender equality in academia – was given a new impetus with the launch of Horizon Europe, the European Commission's most recent multi-year 'framework programme' for research funding, with a budget of 95.5 billion euros for the period 2021-2027: since the launch of Horizon Europe in 2021, all research institutions wishing to apply for funding – including universities – are required to draw up and publish a gender equality plan (GEP) detailing the institution's commitment to gender equality in its personnel as well as the resources and actions that will be put in place to achieve this end.

The work of Professor Londa Schiebinger has shown that in addition to fixing the numbers and fixing the institutions, there is also a third area in the struggle, namely 'fixing the knowledge' (see for example Schiebinger & Schraudner, 2011; Schiebinger, 2014). This third area, known as gendered research and innovation (GRI), involves integrating the gender dimension (meaning gender/sex analysis) into the research process in order to ensure that the knowledge produced does not reproduce harmful societal norms and inequalities. In recent years, major research funding bodies worldwide have increasingly recognised the importance of GRI and have begun to implement policies to stimulate its growth and normalisation. According to an analysis of funding bodies' GRI policies conducted by Gendered Innovations (a peer-reviewed project focusing on GRI at Stanford University which Schiebinger was involved in between 2009 and 2020), the European Commission was among the first research funding bodies to introduce such a policy by endorsing, in 2003, the systematic questioning of "whether, and in what sense, sex and gender are relevant in the objectives and methodology of projects" (Hunt, Nielsen & Schiebinger, 2022). Over the years, this policy has been expanded and strengthened in the European Commission's research funding framework programmes Horizon 2020 and, most recently,

Horizon Europe. Similar policies have also been developed internationally, including at the Canadian Institutes of Health Research, the United States' National Institutes of Health, the National Research Foundation of Korea, and the research councils of Norway and Sweden (Schiebinger et al., 2021).

Yet, if gender equality and mainstreaming are to be achieved, the implementation of GRI requires continued attention (Buitendijk & Maes, 2015). In Europe, She Figures statistics from 2021 show that despite the pioneering GRI policy of the European Commission, less than 2% of European (EU-27) publications included gender/sex analysis between 2015 and 2019, and also that the proportion of European publications that included gender/sex analysis had increased by “just under 1 p.p. since 2010” (European Commission, 2021c, p. 261). As a result, another gender-equality measure launched with Horizon Europe in 2021 is the requirement that all researchers applying for funding must now include a description of how the gender dimension has been taken into account in their proposed research methodology by default, or a justification of why it has not been considered. In this way, the burden of proof is reversed: previously, a gender-flagging approach was used to highlight research topics that required sex/gender analysis; now, under Horizon Europe, only topics that do not require the gender dimension are flagged. The European Commission's GRI policy thus goes further than the GRI policies of many other research funding bodies worldwide because it applies by default to all research disciplines, and not only to health research for example. It is hoped that, alongside the institutional GEPs mentioned above, the mandatory consideration of the gender dimension in all research projects will “improve the European research and innovation system, create gender-equal working environments where all talents can thrive and [...] improve research quality as well as the relevance to society of the knowledge, technologies and innovations produced” (European Commission website, n.d.).

2.3 The benefits of gendered research and innovation (GRI)

Numerous studies have already demonstrated that GRI leads to groundbreaking insights and better-quality research, saving lives and money (Schiebinger & Schraudner, 2011; Roth et al., 2014). Many analyses in the literature have shown the harmful and even deadly effects of gender-blind research in various fields, ranging from cardiovascular disease and osteoporosis to seatbelts and cyber violence, taxes and poverty (European Commission, 2024b). When ‘male’ is treated as the norm in scientific research, the research produces results, recommendations and innovations that may have harmful effects on users who do not conform to male characteristics. For example, car crash safety tests traditionally used dummies with average male proportions, leading to a higher risk to women of serious injury and death following an accident; similarly, medical and toxicology experiments that primarily used male mice have led to the production of medications that may have adverse effects on women (Zucker & Prendergast, 2020). In another example, Catherine Vidal analysed several neuroscientific studies from which it had been inaccurately deduced that the differences in cognition and behaviour between men and women have a basis in biology. Her analysis revealed that ‘gender-blind’ research – which does not take gender or sex into account sufficiently – can lead to faulty interpretations and the perpetuation of dominant and harmful gender norms (Vidal, 2012).

While the gender dimension is not relevant to all research questions and projects – exceptions include, for example, certain subdomains of mathematics and physics (Buitendijk & Maes, 2015; Elsevier, 2017; Roth et al., 2014), the policy reviews and guidelines published by the European Commission – Gendered Innovations (2013) and the updated version Gendered Innovations 2 (2020) – are rich in specific and detailed examples of GRI from across a wide range of fields. Gendered Innovations 2 lists a range of methods for intersectional analysis and goes on to describe 15 case studies with specific examples of how sex/gender analysis has been incorporated into research in the fields of health; climate change, energy and agriculture; urban planning and transport; information and communication technology (ICT); and finance, taxation and economics. In each of the cases, the innovative aspects of the sex and/or gender analysis used in the study are highlighted. For example, in the field of urban planning, gender impact assessments reveal how children of different genders use playgrounds in different, sometimes conflicting ways; these insights could allow urban planners to design and build playgrounds that are more inclusive of all children. Similarly, in the field of health, a case study shows how sex and gender affect the prescription of drugs; a more innovative approach to reporting sex differences on medication labels could lead to more accurate drug prescriptions. Taken together, the examples given in these documents convincingly demonstrate how the gender dimension can be incorporated into the vast majority of research proposals, which will ultimately lead to higher levels of excellence in research, policy and practice (European Commission, 2013; 2020).

2.4 Responsibility for GRI

As discussed above, there are two key measures designed to foster gender equality under Horizon Europe: institutional GEPs and the requirement for researchers to consider the gender dimension (gender/sex analysis) in their proposals. The main focus of the GEPs lies on the human resources side of gender equality in academia, namely on ‘fixing the numbers’ and ‘fixing the institutions’. The integration of the gender dimension into research content (‘fixing the knowledge’) is included as a recommended GEP content area, but it is not mandatory. Thus, I perceive an enforceability gap exists between the two measures: institutions are only *advised* to consider how gender can be integrated into research in their GEPs, yet researchers are *required* to discuss the gender dimension of their research in order to be considered eligible for funding.

At present, then, the responsibility for GRI lies mainly with individual researchers rather than with their universities or other research-performing organisations. When I began working on this topic in 2022, the GEPs of the five universities in Flanders (the Dutch-speaking, northern region of Belgium) included no description of support provided to their researchers with regard to the gender analysis required for their Horizon Europe proposals, with the exception of a half-day of training provided at one university. One of the tools available in Flanders to help researchers tackle the gender dimension is Mind the GAP (where GAP stands for ‘good academic practices’), an online training tool for researchers launched by the Flemish Interuniversity Council (Dutch: *Vlaamse Interuniversitaire Raad*, VLIR) in 2021. When it comes to gender issues, Mind the GAP refers researchers to resources and short training courses. This

referral to extra resources is in itself positive, as research has shown that more gender competence in the research team – especially in central roles – leads to better GRI results (Palmén et al., 2020).

However, research also shows that training courses on implicit bias have little effect on the organisation or institution as a whole over the longer term (Forscher et al., 2019; Onyeador et al., 2021). Instead, Onyeador et al. (2021) recommend implementing structures and processes that foster accountability for diversity and inclusion at organisational/institutional level, to reduce the impact of individual/interpersonal bias and lack of gender competence. A report by the League of European Research Universities (LERU) also recommends integrating GRI “at all levels: through inclusion in government policies and strategies, funders’ granting programmes, universities’ research activities and researchers’ projects” (Buitendijk & Maes, 2015). The fact that GRI is not (yet) a mandatory aspect of institutional GEPs means that there is a missing puzzle piece at university level. The current lack of GRI support at universities raises questions about researchers’ ability to complete this gender/sex analysis effectively, and consequently about the efficacy of this part of the Horizon Europe application form as a stimulus for gender equality.

2.5 Efficacy of the gender dimension section

A further issue in terms of the efficacy of the gender dimension section as a tool for fostering gender equality is the question of whether the experts responsible for evaluating Horizon Europe funding applications have received sufficient training and possess sufficient gender competence to assess the section on the gender dimension. Unsurprisingly, previous studies have highlighted the need to develop gender competence among evaluators and to train them beyond, for example, the counting of keywords such as sex or gender, in order to allow for in-depth assessment (Palmén et al., 2020; Wroblewski, 2016). Currently, according to the standard briefing and evaluation forms for Horizon Europe, experts are only required to decide whether the gender/sex analysis described by researchers in the Horizon Europe gender dimension section is ‘appropriate’ or has been ‘properly taken into account’ in the proposal (European Commission, 2021a). The briefing document for experts includes a link to a support video on assessing the gender dimension, but as of spring 2024, the link is a dead end, and I was unable to find the video referred to in the briefing document. To date, it seems that the gender dimension section is not being assessed robustly, and support for evaluators appears scant. Again, this raises questions about the extent to which the Horizon Europe gender dimension section is actually able to stimulate GRI.

Of course, it is important to bear in mind that we are only around halfway through the implementation period of Horizon Europe (2021-2027) – and also that this was the first framework programme to make the integration of the gender dimension a mandatory requirement for all proposals. New requirements, such as the gender dimension, are likely to be introduced gradually in order to minimise resistance to change and to allow for scaling-up once researchers have become familiar with the new requirements. However, gender and politics scholars have noted that the integrationist approach used in the European framework programmes – which involves integrating gender into existing policy and

procedures, despite the fact that existing policy considers gender to be irrelevant – actually serves to depoliticize gender mainstreaming (Cavaghan, 2017; Vida, 2021). Vida argues that gender mainstreaming in the European Union thus “loses its political, feminist and transformative potential during the implementation process, because of individual and institutional resistance” (2021, p. 37). We might indeed wonder whether the Horizon Europe gender dimension section is able to stimulate societal transformation from within such an established institution which inevitably reflects and perpetuates existing societal inequalities.

2.6 Researchers’ experiences

At present, little is known about researchers’ experiences of integrating the gender dimension into their Horizon Europe funding proposals. One finding from a recent survey of researchers’ experiences with the Horizon Europe application form is that “researchers found completion of the interdisciplinary aspect and gender dimension the most straightforward aspects to complete” (The Guild of European Research-Intensive Universities, 2022). While this sounds positive, we might ask whether the perceived straightforwardness of the gender dimension section is in fact a sign that researchers are failing to engage with gender/sex analysis in their proposals as thoroughly or innovatively as they could. Indeed, data published from the public consultation period of Horizon Europe’s interim evaluation reveal less-positive findings about the gender dimension section. One contributor wrote, for example: “Everyone writes the same type of meaningless text in those sections, copied from one proposal to another, text that is ignored by the evaluators, or only used to extract shortcomings to favor one proposal over another” (European Commission, 2022). If researchers do indeed write generic texts in the gender dimension section that are copied from one proposal to another, and if the evaluators do assess them superficially, this might explain why researchers describe this section as straightforward to complete. Clearly, ‘straightforward’ cannot be read as a positive if this section is not achieving its aim of encouraging researchers to engage meaningfully with gender/sex analysis in their research.

In order to be able to assess the efficacy of Horizon Europe’s gender dimension section as a stimulus for GRI, there is a need to paint a more detailed picture of researchers’ experiences with and attitudes toward completing that section of the application form. To what extent is the gender dimension section a stimulus for researchers to consider gender/sex analysis in their research? What do researchers typically write about in the gender dimension section? Do they need more support from their institutions, and if so, which types of support? Do experiences and attitudes vary depending on scientific discipline, or some other factor? Using the five Flemish universities as a case study, this study set out to answer these questions with the aim of assessing whether and which types of additional support would be valuable to researchers. The results may provide a useful starting point for universities in Flanders and elsewhere to design evidence-based policies and practices that can foster the development of GRI. In this way, the study may also contribute to enhancing the transformational potential of the Horizon Europe gender policies.

Chapter 3:

Methodology and results

This chapter presents the research questions and study design, followed by the methodology and results of each of the three phases of the thesis research in turn: methodology and results of Phase 1, methodology and results of Phase 2, and finally the methodology and results of Phase 3. As the results of each phase had an impact on the methodological choices made in the next phase, I have opted to integrate this information chronologically in one reader-friendly chapter rather than writing separate methodology and results chapters.

3.1 Research questions and study design

The research questions were defined as follows:

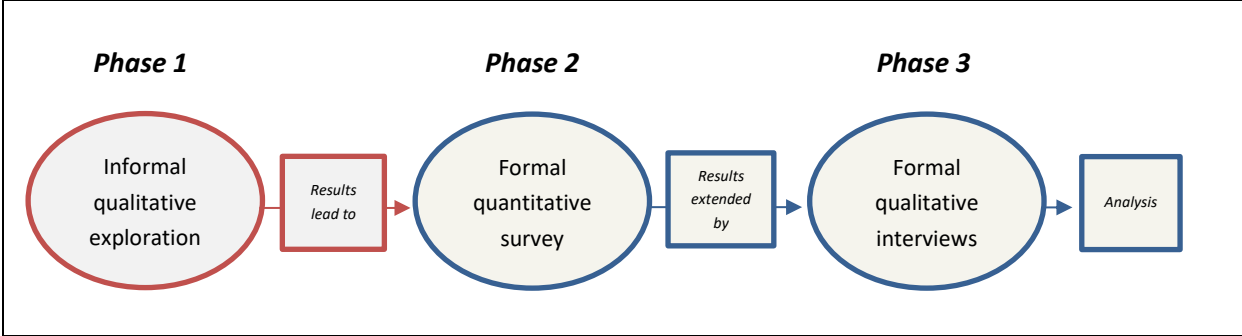
- 1) To what extent is the gender dimension question a stimulus for researchers to consider gender and/or sex analysis in their research and which factors play a role in this?
- 2) What do researchers write in the gender dimension section and which factors play a role in this?
- 3) Which types of support do researchers need when answering the gender dimension question and which factors play a role in this?

I opted to use a mixed-methods study design because different elements of my study were suited to different research methods: on the one hand, I selected a quantitative survey approach because I wished to map the views of the broad population of researchers at the Flemish universities, and also to determine whether there were any relationships between certain variables, such as a researcher's discipline or attitudes and their interest in receiving more support with the gender dimension section, that could guide future support initiatives. On the other hand, I expected the quantitative data alone to be insufficient – firstly because I was not confident that the response rate would be high enough to produce sound conclusions, secondly because (to the best of my knowledge) this would be one of the first studies to explore researchers' experiences of the mandatory gender dimension section and I would therefore need to do some qualitative data collection *before* the survey to help narrow down which questions to ask, and thirdly because I would also need to collect some qualitative data *after* the survey to explain and add depth to the quantitative results (Creswell & Clark, 2018). By using a mixed-methods approach, I aimed to mitigate the limitations of each individual method and gain a more comprehensive, holistic insight into researchers' experiences.

More specifically, the study had an *explanatory sequential design* consisting of two main formal phases: a quantitative phase, which took the form of an online survey, and a qualitative phase, which involved follow-up interviews and aimed to provide more detailed explanations of the survey results

from the previous phase (Creswell & Clark, 2018). However, because of the newness of this research topic and the need to determine which questions could be meaningfully included in the quantitative survey, the formal data collection was preceded by an additional, informal qualitative data collection phase that is more typical of an *exploratory* sequential design (see Figure 1, below). The three phases of the study – one informal followed by two formal – are explained in more detail below.

Figure 1: Research design



3.2 Phase 1: Informal qualitative exploration

3.2.1 Phase 1 Methodology

This initial exploratory phase took place alongside the literature review. On the advice of colleagues in the Diversity & Inclusion team at the University of Antwerp, I first approached the working group on Social Policy and Diversity at the VLIR, which consists of representatives from all five universities in Flanders (Ghent University, Hasselt University, KU Leuven, the University of Antwerp and Vrije Universiteit Brussel) to gauge their interest in a study about the experiences of researchers in Flanders with Horizon Europe’s gender dimension (see video pitch in Appendix 3). Having obtained the working group’s support, I was put in touch with each university’s research administration department, who would be able to facilitate access to the research participants, namely researchers who had been involved in completing the gender dimension section of one or more Horizon Europe applications. I then held short, online meetings (in MS Teams) with one or more research administration staff at each university to assess the feasibility of sending a survey to their researchers by email in the next phase. These meetings were informal by nature and were therefore not recorded, though I did use a predetermined list of questions and take detailed notes (see Appendix 4: Phase 1 interview guide). The meetings provided me with invaluable information that complemented the literature review and shaped the questions for the formal quantitative survey that would be administered in the next phase, which is why I have included this initial informal phase in the description of my methodology.

3.2.2 Phase 1 Results

The key results of the informal meetings with research administration staff and their impact on the development of the survey for Phase Two are shown in Table 1, below.

Table 1: Results of Phase 1 (informal qualitative exploration)

	KEY RESULTS OF THE INFORMAL MEETINGS WITH RESEARCH ADMINISTRATION STAFF	IMPACT OF THESE RESULTS ON THE DEVELOPMENT OF THE PHASE 2 SURVEY
1	<p>Contextual information provided by the research administration staff</p> <p>a) The five universities took different approaches to administering their Horizon Europe proposals in the various pillars and clusters: some research administration teams had easy access to researchers' contact details and worked closely with researchers themselves, whereas other research administration teams worked more at policy level and were less often in direct contact with researchers.</p> <p>b) The amount and types of support that the five universities' research administration teams were already offering to their Horizon Europe applicants varied widely. Some universities offered training and project-specific advice with regard to gender, whereas other universities were not (yet) focusing on this aspect and simply advised their researchers to write 'something' in the gender dimension section.</p> <p>c) As a result, the research administration teams' existing expertise or competence regarding gender also varied widely. Some research administration teams were already able to share lessons learnt with regard to the types of support their researchers seemed to appreciate, what worked well and what worked less well, whereas other universities expressed an interest in learning more about how they could support their researchers.</p>	<p>a) I opted to disseminate an anonymous survey via a link in an email. Some universities agreed to provide me with a list of researchers they would select to participate, who I would then contact myself. Other universities would receive the invitation email and link from me, which they would send on to their researchers.</p> <p>b) I included a question about the tools/support researchers had used to complete the gender dimension section, and a separate question about which tools/support researchers felt would be most useful for them and their teams. The multiple-choice options were based on the types of support mentioned by the research administration teams, supplemented by ideas from the literature and an 'Other' option.</p> <p>c) No impact, as I did not intend to ask researchers directly about gender competence. The survey did include questions about the tools/support researchers had used and whether they felt more support was needed, so this could provide a reflection of the gender expertise/competence present at the university in question.</p>
2	<p>Challenges reported by the research administration staff</p> <p>a) Confusion among researchers about the difference between sex and gender.</p> <p>b) Confusion among researchers about the difference between gender balance in the team and gender in the research content.</p> <p>c) Confusion among researchers and research administration staff about what Horizon Europe evaluators expected of the gender dimension section.</p> <p>d) Strong suspicion that the gender dimension section was a box-ticking exercise for many researchers <i>and</i> evaluators.</p>	<p>a) I decided not to include a question on the difference between sex and gender because I was concerned that it would come across as testing respondents' knowledge and perhaps lead to survey abandonment. I made a note of it as a potential topic to address during the follow-up interviews in Phase Three.</p> <p>b) I decided to invite respondents to paste an example text from a Horizon Europe gender dimension section into an open text field in the survey (see also 3a, below). The content would allow me to assess how often gender balance in the research team was mentioned in the gender dimension section, without asking respondents directly, which would perhaps lead to survey abandonment.</p> <p>c) I included a question about whether more support should be provided, and if so, which types of support would be most useful.</p> <p>d) I included some questions to probe researchers' attitudes as to whether the gender dimension question</p>

		<p>is a waste of time, a stimulus to improve research quality, etc. as well as a question exploring the extent to which this question may have had an impact on researchers' approach to gender in their research. I did not include a question about evaluators' attitudes but made a note of this for the follow-up interviews in Phase Three.</p>
<p>3</p>	<p><i>Practical tips offered by the research administration staff</i></p> <ul style="list-style-type: none"> a) Include a text box for researchers to paste examples of texts they had submitted under the gender dimension section (on a voluntary basis). b) Make sure it is clear which part of the application form the survey is about (to avoid confusion with gender balance in the research team). c) Make sure it is clear who should answer the survey (i.e. the person who actually completed that part of the application). d) Make it possible for the survey to explore researchers' experiences across several proposals (not limited to a single proposal) as researchers often work on multiple projects. e) Avoid very busy periods (examinations, proposal deadlines, etc.) and holiday periods when administering the survey. f) Make sure the introductory email and survey are available in English as well as Dutch (the local language in Flanders) to ensure that international researchers who do not speak Dutch can also participate. 	<p>All of the tips a)-f) were implemented in the final design of the survey and undoubtedly had a positive impact on its quality and efficacy. See Appendix 5 for the invitation email and Appendices 6 and 7 for the survey questions.</p>

The contextual information, challenges and practical tips, summarised above, that emerged from the informal qualitative exploration in Phase 1 served to sharpen my focus and helped me to make decisions with regard to the design of the formal quantitative survey that would be administered in Phase 2.

3.3 Phase 2: Formal quantitative survey

3.3.1 Phase 2 Methodology

In the second phase, I conducted a cross-sectional survey to gather mostly quantitative data from a broad population consisting of all researchers and research administrators at the five Flemish universities (Ghent University, Hasselt University, KU Leuven, University of Antwerp and Vrije Universiteit Brussel) who had been involved in completing the gender dimension section of a Horizon Europe funding application form as a coordinating partner. The list of research participants to be invited at each university was drawn up by the relevant research administration staff members I consulted in Phase 1. Participants were drawn from all pillars and clusters of Horizon Europe and included principal investigators, research managers, postdoctoral researchers and other members of

the team whom the research administration staff member believed would be able to offer valuable insights. Researchers involved in both successful and unsuccessful funding applications were included, since I was interested in the pre-award phase.

The participants selected by their universities' research administration teams were invited to take part in the survey by email. Two universities' research administration teams chose to send this invitation email themselves, so as not to share their list of researchers' contact details with an external party, whereas the three other universities provided me with a list of their researchers' email addresses so that I could contact them myself, since those contact details were already publicly available (e.g. via the FRIS research portal). In total, 510 researchers from the five Flemish universities were invited to participate in the survey (see Appendix 5 for the Phase 2 invitation email).

The survey (see Appendices 6 and 7) was administered online in February 2024 using the Qualtrics Experience Management software platform. It was set up as an anonymous survey so that respondents' IP addresses, location data and contact information would not be collected. The survey was available in two languages: Dutch (the official language of the universities being studied) and English (the working language of many researchers in Flanders and of the Horizon Europe application process). To ensure the quality and equivalence of the two language versions, and thus to avoid errors in the data caused by discrepancies between the two versions, I first created the survey in English (my native language) and had it tested by peers, my supervisor, and my contacts in the five universities' research administration teams before translating it into Dutch and having the Dutch version checked and corrected by Chat GPT (version 3.5) and a native speaker of Dutch.

3.3.2 Phase 2 Results

Response rates

Of the 510 participants invited to participate in the survey, 81 responded, giving an overall response rate of 15.88%. A total of 10 participants were excluded from the analysis because they started the survey but were not eligible to participate, either because i) they selected '0 (never)' in answer to the question "How many times (approximately) have you been involved in completing the gender dimension section of a Horizon Europe application form (i.e. how many different applications)?", or because ii) they selected 'None of the above' in answer to the question "Which university have you most often been affiliated with for Horizon Europe applications? If you don't work in Flanders but received this survey from a colleague at a partner institution, please select their institution".

When comparing the survey response rates across the five Flemish universities, University C is an outlier with a response rate of 29.79%, which is almost three times as high as the average response rate of the other four universities (10.06%):

Table 2: Response rates by university

University	Invited	Responded	Response rate
University A	190	20	10.53%
University B	135	14	10.37%
University C	94	28	29.79%
University D	57	6	10.53%
University E	34	3	8.82%
Excluded (not eligible to participate)		10	
	Total: 510	Total: 81	Average: 14.01%

A myriad of contextual factors may have contributed to this higher response rate at University C. Two possible factors can be found in the results of Phase 1 (see Table 1). Firstly, during the informal meetings with research administration staff in Phase 1, I learnt that – unlike the other Flemish universities – University C had already invested in increasing the gender competence of its researchers and research administration staff through train-the-trainer workshops taught by gender experts and writing workshops that focus on specific sections of the Horizon Europe application form, including the gender dimension section. This effort on the part of University C to sensitise its research staff to the gender dimension in research might have made them more likely than staff at the other universities to respond to the survey. The second factor that might have affected University C’s response rate is the relationship between the respondents and the member of staff who invited them to participate in the survey: University C was one of the two universities that chose to distribute the survey themselves rather than providing me with researchers’ email addresses; if the member of staff who sent the invitation email to potential participants had a particularly good working relationship with those researchers, this may also have had a positive impact on the response rate. It is important to note that while University C was one of the two universities that contacted its own researchers directly, the *selection* of participants occurred in the same way across all five universities, in that it was the research administration staff members themselves who either contacted their researchers or drew up the list of researchers to contact. The risk that the research administration staff member primarily selected respondents who were likely to respond positively to the survey was thus the same across all five universities.

Respondent characteristics

The survey asked respondents about their i) amount of experience with Horizon Europe applications, ii) institution (Flemish university), iii) role in the application process, iv) scientific disciplines, and v) pillars and clusters of the Horizon Europe framework. I selected these respondent characteristics, rather than personal characteristics such as age, legal sex, gender identity and so on, because my aim was ultimately to determine which researcher profiles within an institution could be best served by which types of support when it came to writing the gender dimension section of a Horizon Europe application. I did not expect personal characteristics such as age or legal sex to be relevant characteristics of a given researcher profile, whereas i) amount of experience, ii) institution, iii) role, iv) scientific discipline (as a proxy for gender competence, which I decided not to measure directly due to the limited scope of the thesis) and v) Horizon Europe pillar/cluster could reasonably be expected to have an influence on whether and how much support a researcher might need with the gender dimension section.

The survey respondents' characteristics can be summarised as follows: i) the average respondent had been involved in completing the Horizon Europe gender dimension section 2-5 times; ii) more than a third of the respondents were affiliated with University C and more than a quarter with University A; iii) more than two thirds of the respondents were principal investigators; iv) the survey was completed by respondents from all six discipline categories of the Flemish Research Discipline Standard; v) more than half (n=42) of the respondents had submitted Horizon Europe funding applications under more than one pillar or cluster.

Survey responses

The six main survey questions focused on: i) tools used when completing the gender dimension section; ii) whether more support should be provided; iii) if so, which types of support would be most useful; iv) perception of how relevant gender is to their research proposals; v) whether the gender dimension is a stimulus for research quality, a waste of time, a stimulus for societal transformation, and should be expanded to include other diversity aspects; and vi) which aspects of the research process were discussed in the gender dimension section.

The results for these questions can be summarised as follows: just over half (n=39) of the respondents stated that they had never used any tools or support to complete the gender dimension section. Similarly, just over half (n=39) of the respondents answered 'no' to the question of whether they thought more support should be provided to researchers and research managers who complete the gender dimension section of Horizon Europe funding applications. Interestingly, there was not an overwhelming overlap between these two groups: of the 39 respondents who had never used any tools or support, around half (n=19) were in favour of providing more support, while the other half (n=20) did not think more support was necessary. Among the respondents who were in favour of providing more support, the two most popular types of support were project-specific support from internal experts (n=19) and reference resources (e.g. checklists, examples, guidelines and templates) (n=19).

Respondents were invited to enter into a text box the reasons they were in favour of or against providing more support with the gender dimension section. These qualitative textual responses provided interesting insights into the various motivating factors behind respondents' interest or lack of interest in additional support. Of the 30 respondents who answered 'yes' to the question of whether more support should be provided, 23 entered one or more reasons. The most frequently given reasons were as follows: gender competence is lacking (n=8), support would increase the chances of success (n=6), I want to go beyond box-ticking (n=4), it will improve research quality (n=3), and support is needed when the project does not appear to have a gender dimension (n=3). Two respondents mentioned working in a male-dominated field as a reason for needing more support with the gender dimension section, and one respondent reported a need for clarity about whether the gender dimension also applies to research in animals. Of the 39 respondents who answered 'no' to the question about more support, 34 entered their reasons into the text box. In order of frequency, these reasons were: there is enough support available (n=11), the gender dimension is not relevant to my proposals (n=8), the research team should be able to do it themselves (n=7), the gender dimension section is not an important factor in the proposal's chances of success (n=7), and the gender dimension section is not difficult to complete (n=4). Some researchers also used this text box to share negative

sentiments about the gender dimension section, such as “This section is a bit of bs anyways. Typical EU proposal filler stuff. Zero contents” and “Having ‘support teams’ for filling out the annexes (data management plan, gender dimension, sustainability report, etc.) is just stealing money from researchers that do the actual work”.

With regard to the relevance of gender/sex analysis in their research proposals, 39% of the respondents stated that it had always been relevant, 32% reported that it was not relevant, 21% said that the Horizon Europe gender dimension section had led them to reconsider its relevance, and 8% said they had reconsidered its relevance but not because of the Horizon Europe application form. The fact that the largest group here is respondents who stated that gender/sex analysis had always been relevant to their research proposals may indicate a participation bias in the sense that there is a high proportion of researchers who are already engaging in gender/sex analysis. Indeed, the results of the four attitude questions (gender dimension is a stimulus to improve research quality/waste of time/stimulus for societal transformation/should be expanded to include other diversity aspects) indicate a positive attitude overall: the options that received the most responses were ‘somewhat agree’ to both ‘the gender dimension section is a stimulus to improve research quality’ (n=25) and ‘the gender dimension section is a stimulus for societal transformation’ (n=28). The questions that produced the most responses at the extreme ends of the attitude scales were ‘strongly disagree’ to ‘the gender dimension section is a waste of time’ (n=13) and ‘strongly agree’ to ‘the gender dimension section should be expanded to include other diversity aspects’ (n=14). While the results of these attitude questions do reflect a range of attitudes, when taken together they indicate a generally positive attitude among the respondents towards the consideration in research proposals of gender and other diversity aspects.

The most frequently selected aspect of the research process written about by researchers in the gender dimension section was ‘methodology’ (n=37), followed by ‘outcomes and impacts’ (n=24) and ‘analysis’ (n=22). Respondents also had the option to specify other aspects in a text box: analysis of these textual responses shows that many researchers also wrote about the gender balance in the research team in this section, despite the fact that the application form has a separate section for that information. This practice confirms information provided by the university research administration teams in my informal meetings with them in Phase 1, namely – on the one hand – that there may be confusion among researchers about the difference between the gender balance of the research team and the gender dimension in research content, and – on the other hand – that researchers might sometimes write about the gender balance of the research team in the gender dimension section in order to have *something* to fill in in that section.

The survey concluded by asking respondents if they would be willing to take part in a follow-up interview. If a respondent answered yes, they were automatically redirected to a separate survey (see Appendix 7) and invited to enter an email address so that I could contact them to follow up. The email addresses were collected and stored through this separate survey in order to maintain the anonymity of the main survey responses. In total, 23% (n=15) of the respondents agreed to be contacted for a follow-up interview.

Preparation for Phase 3

In the interim phase between the formal quantitative (Phase 2) and qualitative (Phase 3) parts of the study, I analysed the survey results to discern patterns and trends relevant to the study's objectives that would be worth exploring in the qualitative interviews that would follow in Phase 3. To do this, I used the analysis tools in the Qualtrics Experience Management software platform and IBM SPSS Statistics (version 29). Unfortunately, the response rate for the survey was not high enough to perform meaningful statistical analyses on the data or draw conclusions about links between researcher characteristics such as experience or discipline (as a proxy for gender competence) and their attitudes towards the gender dimension section. However, some of the results did provide an interesting starting point when determining which questions would be most useful to ask in the follow-up interviews, especially in combination with the results of Phase 1.

First, I opted to focus on two of my three main research questions in the interviews (namely 'Is the gender dimension question in the Horizon Europe application form a stimulus for researchers to include gender and/or sex analysis in their research?' and 'Which types of support are helpful for researchers when completing the gender dimension section?') because the third question ('What do researchers write in the gender dimension section?') had been adequately answered in the survey results.

Second, I examined the survey results more closely and arrived at a number of supplementary questions that would help me either to clarify some of the survey results that I was struggling to interpret or to explore some of the challenges raised by the research administration teams in the informal conversations in Phase 1 that had not been addressed in the Phase 2 survey. These supplementary questions were:

- Why do researchers so often include information about the gender balance in their research team in the gender dimension section, which focuses on the research content? Are they truly confused about the difference between gender balance in the team and the gender dimension in the content, or is there some other reason they write about it?
- Are researchers in favour of shifting away from a narrow focus on gender towards a broader, more intersectional approach?
- Subject-specific questions:
 - o Social sciences: what might explain the 50/50 split in the survey results between social sciences researchers who do and do not believe that researchers need more support with this section?
 - o Natural sciences: why do natural scientists generally not consider gender or sex analysis to be relevant to their research?

I prepared the interviews as semi-structured interviews, in that the list of questions would serve as inspiration but could be adapted depending on the specific characteristics or interests of the interviewee (see Phase 3 interview guide in Appendix 9).

3.4 Phase 3: Formal qualitative interviews

3.4.1 Phase 3 Methodology

In the third phase, in March and April 2024, I carried out semi-structured interviews with a voluntary subset of the survey respondents as well as with my Phase 1 interviewees in the research administration teams, as expert informants, in order to gather qualitative data that would enable me to explain and better understand the quantitative survey data. As described above, interviewees were recruited through self-enrolment during the survey in the previous phase.

I emailed the survey participants who had volunteered to take part in a follow-up interview and my research administration contacts to provide them with information about the interview format (approximately 30 minutes, online via Microsoft Teams, in English, one-to-one conversation with me) and invited them to select an interview slot using Microsoft Bookings (see Appendix 8 for the Phase 3 invitation email). At the beginning of each interview, I asked for permission to record the conversation. I then enabled recording and transcription in the Microsoft Teams environment. At the end of each interview, I encouraged the interviewee to contact me if they had any further questions or comments about the study, or additional materials that they wanted to share. After the interviews, the recordings and transcriptions were stored securely in Microsoft OneDrive to enable maximum protection of the data.

Before coding the qualitative interview data, I watched the recordings again and edited the automatic transcripts that had been produced in MS Teams. I then imported the transcripts to QSR NVivo 14 and coded the content of the interviews according to a linear process of open, axial and selective coding as described in Mortelmans (2011) and Williams & Moser (2019). Although the Phase 2 survey results had already given me some insights into the themes that might emerge during the interviews, I attempted to stay as close to the data as possible in the first phase of coding, focusing on semantic analysis of what the respondents had said without making assumptions about the underlying reasons behind their statements. In the later phases of coding, I aimed to uncover deeper meanings and patterns in the data through latent analysis (Braun & Clarke, 2006; Maguire & Delahunt, 2017).

3.4.2 Phase 3 Results

Interviewee characteristics

As mentioned above, 15 (23%) of the Phase 2 survey respondents agreed to be contacted for a follow-up interview. Of these 15, 14 respondents provided an email address so that I could contact them, and 7 of these subsequently responded to my invitations to schedule a one-to-one follow-up interview. Besides these 7 researchers, 5 members of the university research administration teams (one from each university) whom I had interviewed more informally in Phase 1 also agreed to take part in a second, more in-depth interview as expert informants.

I did not collect demographic information such as the interviewees' legal sex, gender identity or age as these variables were not relevant to my research questions. Relevant characteristics – such as amount

of experience with Horizon Europe applications and research field(s) – were collected during the interviews but are not reported here in order to protect the interviewees’ anonymity. A general summary of the interviewees’ university affiliations and roles (researcher or research administrator) is shown in the table below.

Table 3: Interviewees’ university affiliations and roles

University	No. of researchers	No. of research administrators	Total no. of interviewees
University A	2	1	3
University B	0	1	1
University C	4	1	5
University D	1	1	2
University E	0	1	1
Totals:	7	5	12

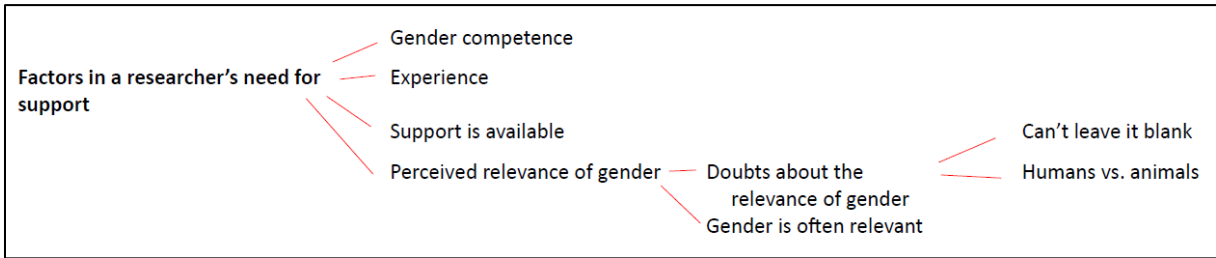
Interview results

In what follows, I present the results of the Phase 3 formal qualitative interviews. The results are organised into three sections corresponding to the three main themes that emerged during the coding process and thematic analysis: 1) Factors in a researcher’s need for support, 2) Types of support, and 3) Weaknesses of the gender dimension section as a tool for fostering gender equality. For a schematic overview of these themes and their underlying codes, please see the coding tree in Appendix 10. I illustrate the results with anonymous excerpts from the interviews. Each interviewee is referred to using an impersonal alias e.g. Interviewee A (Int-A); I have opted to use neutral, impersonal aliases in the reporting rather than pseudonyms in order to avoid introducing information and potential unconscious biases regarding the gender identity, age or ethnocultural background of the interviewees through the pseudonyms.

1) Theme 1: Factors in a researcher’s need for support

The first theme to emerge from the coding process and thematic analysis covers the factors which determine whether a researcher might need more support when completing the gender dimension section of the Horizon Europe application form. Under this theme, I group together four codes (and their subcodes) which I have interpreted as factors in a researcher’s need for support: i) the researcher’s level of gender competence, ii) the researcher’s level of experience of submitting Horizon Europe funding applications, iii) the amount of support already available, and iv) the perceived relevance of gender/sex analysis to the proposal in question. See Figure 2, below, for a visual representation of this theme:

Figure 2: Visual representation of Theme 1



i) The first factor, the researcher's level of gender competence, was decisive in whether a researcher expressed the need for more support with the gender dimension section during the interviews. The interviewees whom I coded as having a low level of gender competence – based on what they said during the interviews and also on their research disciplines and professional experience – expressed an interest in receiving more support with the content of the gender dimension section. In contrast, interviewees whom I coded as possessing a higher level of gender competence reported that they did not require additional *substantive* support with the content of the gender dimension section:

"I think it's already quite central to the research that I do. So it's maybe easier for me to think of it anyway. [...] It is something that we naturally think about in the type of research that we're in." (Int-J)

However, the interviewees whom I coded as possessing a high level of gender competence did express a need for a different type of support. They did not need examples of how gender or sex analysis could be incorporated in their proposed methodology, but rather examples of gender dimension texts that had received positive evaluations from the evaluators. The focus was thus more on practical or procedural support, to help increase their chances of success in the application process:

"If I could get an example text of a project that was funded and they say look, this was rated or evaluated very positively for these and these and these reasons, that would be helpful." (Int-D)

This might explain the 50/50 split identified in the Phase 2 survey between social sciences researchers who do and do not believe that researchers need more support with this section: as social sciences researchers are likely to possess a certain level of gender competence, many researchers may not require substantive support, but some may be interested in procedural support to help them increase their chances of receiving funding.

ii) The second factor in whether a researcher might need more support which emerged while coding the interviews was the researcher's level of experience of submitting Horizon Europe funding applications (code: 'experience'). Unsurprisingly, the interviews suggested that the need for support decreased as the amount of experience increased. This may be the experience of an individual researcher or the combined experience of the members of the research consortium.

iii) Similarly, the third factor – namely the perceived amount of support already available (code: 'support is available') – bore a logical relationship to whether the interviewees expressed a need for more support. Interviewees who were already aware of and/or using the support that was available at their institution often reported that the support available was sufficient. The interviewees who called for more support were often unaware of or unfamiliar with the support available to them (if any).

iv) The fourth factor that arose during the interviews in relation to a potential need for additional support was the perceived relevance of gender/sex analysis to the proposal in question. During

the coding process, I was particularly interested in the data that I coded ‘doubts about relevance’, which were parts of the interviews in which the interviewees expressed uncertainty about how relevant the gender dimension was to their proposals. I wished to explore the potential reasons or motivations behind their doubts about its relevance, so I analysed this data in more depth and found that two main subcodes emerged. These two subcodes were: ‘can’t leave it blank’ and ‘humans vs. animals’. The first subcode, ‘can’t leave it blank’, covered parts of interviews with researchers who believed that the gender dimension was not relevant to their research, but who were concerned that their proposals would be evaluated negatively if they did not write anything in the gender dimension section. Among researchers whose work genuinely has no gender dimension, there appears to be a need for more support regarding what to write or how to justify the non-inclusion of a gender dimension in the proposed research:

“I said, ‘I cannot complete this because it’s really not relevant, so can I leave it out or should I just say, ‘not relevant’?’ and then they advised me to put something anyway so that we could show that we included it, and then to me it feels a bit like, yeah, it’s a bit weird, right?” (Int-D)

The second subcode, ‘humans vs. animals’, related to doubts about the extent to which the gender dimension section applied only to research in humans or also to research in animals. Here, there was the belief that the gender dimension could potentially be relevant to research conducted in animals, but there was a lack of clarity about whether it was required to complete the gender dimension section in this case or not:

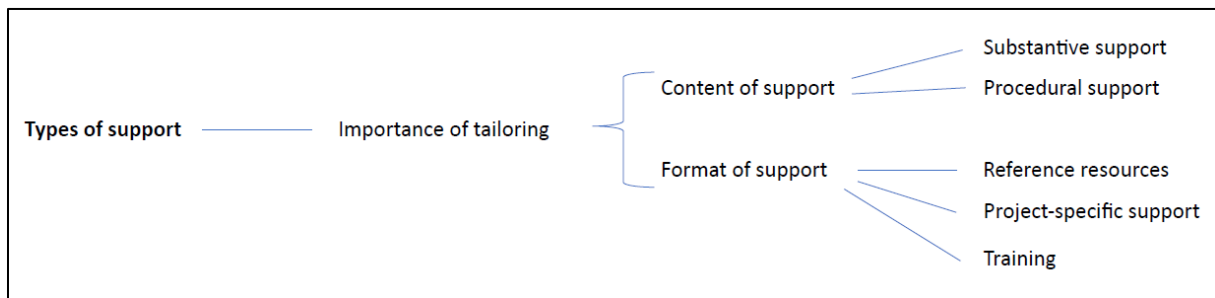
“We study, yeah, some very basic questions on how the form of an animal relates to function. And how this [...] has implications for gender equality? Yeah, that’s sometimes not clear, and of course, it’s fundamental research, and maybe on the long term, it will become relevant for clinical research. You never know.” (Int-H)

The codes and subcodes grouped under the first theme, discussed above, thus provide insights into the factors that may determine whether a researcher requires additional support – and which types of support – when completing the gender dimension section of the Horizon Europe application form. They may provide a useful starting point for designing support initiatives.

2) Theme 2: Types of support

The second theme that emerged during the analysis of the Phase 3 interviews includes all of the codes and subcodes related to the types of support that could be available to researchers when completing the gender dimension section. A key, recurrent concern throughout the theme of support was i) the need to tailor support initiatives appropriately to the proposals in question. The other main codes in this theme can be grouped into two categories: ii) the *content* of support initiatives, and iii) the *format* of support initiatives. See Figure 3, below, for a visual representation of this theme:

Figure 3: Visual representation of Theme 2



i) The importance of tailoring support appropriately to both the research discipline and the call or project type emerged as a common thread during the interviews. Indeed, as discussed above, the research discipline may be related to the amount of gender competence already possessed by the researcher, which will determine whether they need substantive or procedural support. Similarly, the research discipline and the project type will affect how relevant the gender dimension is to the proposal – which will determine whether the researcher needs help justifying why it is *not* relevant or, instead, needs examples of how the gender dimension might be developed more effectively in the proposal:

“You are there with a diverse group, right? Some are in health, some are in geography. So how do you tailor your examples to fit all of their interests? [...] So we provide them with good examples from yeah, a diverse range of fields [so] that they can see, ‘ah, OK, that’s how to tackle this in my research domain’ or ‘this is how I could look at it.’” (Int-C)

ii) With regard to the *content* of support initiatives, and as discussed above, the coding process revealed a distinction between substantive support – which focuses on helping researchers incorporate gender/sex analysis into their proposals – and procedural support, which focuses on helping researchers formulate a text that is more likely to be evaluated positively. As described above, substantive support was less interesting for interviewees coded as possessing a high level of gender competence. Additional procedural support, on the other hand, was welcomed by a variety of interviewees with different characteristics – both researchers and research administration staff, and those with low and high gender competence. Many interviewees referred to the need to succeed in the application procedure and secure project funding: success was clearly a motivating factor in researchers’ engagement with the gender dimension section and this is thus reflected in the call for additional procedural support that could help secure that success.

iii) The final group of codes under the theme of support in the interviews relates to the *format* of support initiatives. Firstly, reference resources such as checklists, examples, annotated templates and decision trees were suggested as useful resources by the interviewees. Secondly, project-specific support, advice or feedback from the research administration team was also mentioned (in line with the need to tailor support to the specific proposal in question). Finally, training sessions and workshops were also mentioned frequently, though not always with enthusiasm. During the coding process, I therefore analysed the ‘training’ code in more detail to unearth the reasons behind the mixed responses to this support format. The closer analysis

revealed two concerns related to training sessions or workshops, namely the fact that as a support format it is rather time-consuming, and, secondly, the quality or applicability of generic training sessions cannot always be guaranteed (cf. importance of tailoring):

“Often the gender things that you get in education and in research, they're so generic and they're so little applied to what you're doing that it just, it feels like something you have to just get over with.” (Int-B)

The closer analysis also revealed two good practices when offering training or workshops as a type of support which were mentioned by the expert-informant research administration staff: first, to have a senior researcher or project coordinator (i.e. a peer of the target audience) lead the session rather than a research administrator; and second, to mainstream gender by including it in broader sessions covering various topics rather than organising specific training sessions on the gender dimension section:

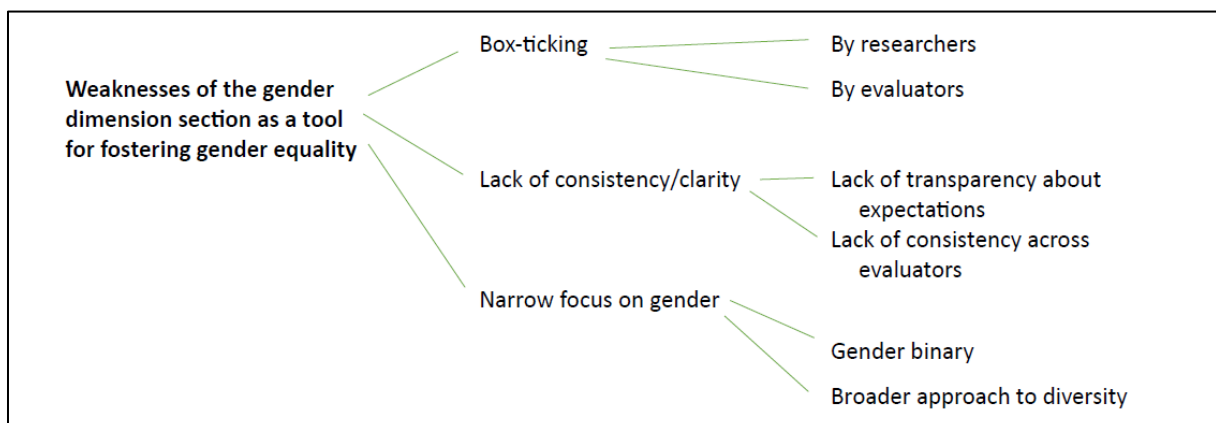
“We always combine it with the general info sessions, but we always see that... we always try to have an evaluator in our info session and always some coordinator who has gone through the writing process. Because their testimony, even if it's often a repetition of what we say, it always has a higher impact.” (Int-E)

This second theme, types of support, thus offers some initial insights into the support that various researchers might benefit from when filling out the gender dimension section of the Horizon Europe application form. Again, these findings can serve as a foundation for developing support initiatives.

3) Theme 3: Weaknesses of the gender dimension section as a tool for fostering gender equality

The third theme that emerged during the analysis of the interviews relates to the perceived weaknesses of the gender dimension section as a tool for fostering gender equality. This theme covers three codes and their subcodes, namely i) box-ticking, ii) lack of consistency, and iii) the narrow focus on gender. These codes capture many of the concerns and frustrations expressed by the interviewees with regard to the Horizon Europe gender dimension section. See Figure 4, below, for a visual representation of this theme:

Figure 4: Visual representation of Theme 3



i) The first code, 'box-ticking', concerns the perception that the gender dimension section is a box-ticking exercise, not only for some researchers but also for evaluators. For example, as mentioned previously, interviewees reported the belief that they had to write *something* in that section and cannot leave it blank, even if they do not believe their proposal has a gender dimension or do not know how to develop a potential gender dimension effectively. The texts entered in this section thus risk becoming meaningless or insincere:

"You can invite people to think about [the gender dimension], but there are certain areas where nobody is really concerned about it. [...] Then of course you ask all projects to think about it and then in fact they come up with things that are useless and stupid and are not really useful." (Int-F)

This perceived pressure to write *something* in the gender dimension section may explain why gender balance in the research team is mentioned so frequently in that section, despite clear instructions on the application form and from research administration teams:

"In physics, maths, it's more difficult to think about a gender dimension, and then that's the typical thing that they will discuss about, yeah, their team and the gender balance in the team because they want to put something in it." (Int-E)

The interviewees suspected not only researchers but also evaluators of engaging in box-ticking, in other words, of performing only superficial evaluations of gender dimension sections, due to a lack of guidelines, training and resources:

"Do they actually score it or is it just 'check', OK, and on to the next one?" (Int-H)

ii) The second code under the theme of weaknesses of the gender dimension section as a tool for fostering gender equality, is a perceived lack of consistency in the Commission's approach to the gender dimension. This perceived lack of consistency has led to frustration or even disillusionment among the interviewees. Many interviewees mentioned inconsistencies caused by what appears to be a large degree of discretion and the space for personal interpretations or human fallibility among evaluators and project officers when dealing with the gender dimension section:

"You're dealing with a moving target almost. [...] The gender issue, [...] depending on how important this particular project officer finds it, it gets highlighted a lot or not at all, which is also... That's not what should happen." (Int-D)

One interviewee also mentioned a lack of consistency across calls and pillars of the framework programme:

"The info sessions are not so consistent I think. About the gender from the European Commission itself. And also different programmes have different visions on different sections of the templates. [...] Based on the evaluation summary reports that we read, we

have the feeling that gender is more important in the Marie Curie programme than, for example, in Pillar 3.” (Int-E)

Another interviewee recounted several examples of a mismatch between the gender requirements for project proposals and the attitudes of Commission project officers, who questioned whether a young, female coordinator who had caring responsibilities at home would be up to the task of coordinating the project:

“This comment that I got [from a project officer] on my age and then in combination with my gender, it's also a reason why some of my [female] colleagues who are younger than 40 [...] they do put as the coordinator an older male colleague often, just to show like, OK, we have the fancy professor running the thing, for the Commission, and then in the background, it's actually this colleague running the whole show. And that's... I think you can make all the guidelines on publications and giving credit and so on that you want. But as long as this is a reality [...], we will never break this cycle.” (Int-D)

Finally, one interviewee alluded to the enforceability gap mentioned in the literature review: while individual proposals are required to integrate the gender dimension in their R&I content, institutions are not required to make concrete plans to foster GRI. Universities are expected to publish GEPs, but the focus in these plans is largely on the gender balance in research teams, not the gender dimension in research content. This interviewee highlighted this discrepancy as a weakness:

“If it already starts at the university level and the gender equality plan is not just an HR tool, but more like a research... yeah, proper conduct of research. Yeah, it would also make an impact.” (Int-C)

iii) The third code related to the weaknesses of the gender dimension section is its narrow focus on gender and lack of attention for other power dynamics and exclusionary mechanisms such as Western-centrism, racism, heterosexism, ableism, classism, and so on. There was a general consensus among the interviewees that the current focus on gender in some parts of the framework programme – and especially on the male/female sex binary – is too narrow. There was a sense among the interviewees that the European Commission's narrow or limited approach was frustrating given the more progressive mindset at the Flemish universities with regard to gender and diversity:

“I hope that it, that for some it does trigger something and that they need to think about it and I hope they also think about it broader than just gender, but diversity in general.” (Int-C)

However, there were some concerns among the interviewees about how the shift from gender to a more intersectional approach might be realised in practice:

“This an ongoing discussion, whether we should shift the focus from gender to intersectionality. I'm generally not against that, but it just complicates things immensely.”

Which is not an excuse. Obviously if it's worth doing... Even difficult things are worth doing.” (Int-B)

One interviewee expressed concern about the potential risks of tokenism and extra burdens being placed on research participants with certain characteristics:

“So I think that's also maybe an ethical thing to consider that if, if you're going to encourage greater diversity, that you don't end up with the few, unfortunately still few people, I think from certain backgrounds suddenly having to represent and be present in everything.” (Int-J)

Some interviewees were clearly aware of the difficulty of integrating the variety of political views across Europe with regard to diversity issues and how this might affect the ability to come to a consensus about the application procedure and also ensure a fair evaluation process across all of the countries involved in Horizon Europe:

“Yeah, I would [be in favour of expanding the gender dimension to include other diversity aspects]. I think it's a missed opportunity that they haven't done it yet. I understood that it was because some countries were, well, not in favour of it. Let's put it that way. So I hope that they found the consensus now in the next framework programme, that it can be included.” (Int-C)

“If the evaluators are from different parts of Europe and not every part of Europe is as open-minded as maybe we are [...] So, we are a bit afraid of how it will be evaluated. So we don't dare to be too progressive.” (Int-E)

The codes discussed above, under the third theme concerning the perceived weaknesses of the gender dimension section as a tool for fostering gender equality, offer insights into the main concerns and frustrations that were expressed by the interviewees. They may be used to design the content of support initiatives (i.e. to help researchers overcome or circumvent these frustrations) or as a guide for policy-makers when making decisions about how to further advance the struggle for gender equality in research and innovation (R&I).

Chapter 4:

Answering the research questions & discussion

The aim of this study was to explore researchers' experiences of completing the gender dimension section of the Horizon Europe funding application form, with the ultimate aim of assessing whether and which types of additional support would be valuable. Using a sequential mixed-methods approach, I collected both qualitative and quantitative data in an attempt to answer the following research questions:

- 4) To what extent is the gender dimension question a stimulus for researchers to consider gender and/or sex analysis in their research and which factors play a role in this?
- 5) What do researchers write in the gender dimension section and which factors play a role in this?
- 6) Which types of support do researchers need when answering the gender dimension question and which factors play a role in this?

In this section, I first discuss each research question in turn, focusing on how the quantitative survey results are supplemented and explained (or not) by the qualitative interview data, and drawing on relevant literature. At the end of the section, I discuss the implications and practical application of my conclusions, the limitations of my study, and recommendations for future research.

4.1 Integration of findings

4.1.1 Research Question 1

To what extent is the gender dimension section a stimulus for researchers to consider gender and/or sex analysis in their research and which factors play a role in this?

The informal talks with research administrators in Phase 1 revealed some scepticism about the extent to which the gender dimension section of the Horizon Europe application form was in fact a stimulus for researchers to engage with gender in their research content. The research administrators indicated that they suspected it was largely a box-ticking exercise for both researchers and evaluators. At the end of Phase 1, this scepticism about the extent to which it truly is a stimulus became one of the central concerns of the study and the main research question to be answered by the survey in Phase 2 and interviews in Phase 3.

The results of the Phase 2 quantitative survey indicated that the Horizon Europe gender dimension section is in fact a stimulus to engage with gender/sex analysis among researchers who do not *typically* take gender or sex into consideration in their research: 21% of the survey respondents reported that

the Horizon Europe gender dimension section had led them to reconsider the relevance of gender/sex analysis in their proposals (compared to 39% of respondents who stated that it had always been relevant, and 32% who reported that it was not relevant). Similarly, in the attitude questions, the options that received the most responses on the survey were ‘somewhat agree’ to both ‘the gender dimension section is a stimulus to improve research quality’ (n=25) and ‘the gender dimension section is a stimulus for societal transformation’ (n=28).

In Phase 3, the generally positive attitude seen in the survey was echoed in the interviews. There was an overall consensus among interviewees that the gender dimension question is indeed a stimulus for researchers to at least begin to think about how gender and/or sex might play a role in their research. Researchers who had indicated on the survey that gender was always relevant in their proposals still felt that it was a valuable section of the application form and that it would serve as a trigger for other researchers who were not typically engaged with gender in their research content.

Participation bias and social desirability bias

It is likely that a certain amount of participation bias (or non-response bias) exists in this study, since the invitations to participate in the various phases all clearly stated that the subject of the research was the Horizon Europe gender dimension section. It seems highly likely that a study with ‘gender’ in the title would attract certain profiles of respondents, especially given the extreme reactions to the issue of gender in the current political climate, thus leading to a participation bias (Berg, 2005; Fowler, 2009). On the survey, 39% of respondents stated that gender/sex had always been relevant to their proposals, which seems like a high proportion. However, it is not possible to check whether this does in fact indicate an overrepresentation of researchers who typically consider gender/sex analysis in their research as I have no data on the overall population. On the other hand, it is important to note that, during the interviews, even researchers who did not consider gender/sex analysis to be relevant to their work – and who therefore fell *outside* of the group that might be more likely to participate in this study because they engage with gender already – still agreed that the gender dimension section did raise awareness and trigger reflection about gender norms and biases. The title of this thesis, ‘They made their point’, is drawn from a comment made by a researcher in the latter group. Yet, in the Phase 3 interviews, social desirability bias likely also influenced participants' responses, as they may have been engaging in ‘impression management’ by avoiding expressing very negative views about the gender dimension section in order to appear more moderate and maintain the friendly mood of the interviews (Bergen & Labonté, 2020; Pauls & Stemmler, 2003). Negative reactions during the interviews were limited to long pauses, sighs and the occasional gentle joke – much less negative than the more extreme responses entered into text boxes on the anonymous survey in Phase 2 (“This section is a bit of BS”, “Standard non-useful blah-blah-blah”, “I don’t remember and I don’t care”).

Factors in the efficacy of the gender dimension section as a stimulus

The two main factors that appear to determine whether the gender dimension section is a stimulus for researchers are rather obvious. The first factor is the perception that completing the gender dimension section satisfactorily will lead to a better evaluation and thus higher chances of success in the funding application process. The second factor is the level of gender competence in the researcher: among researchers who already have a higher level of gender competence, perhaps because of the

discipline they are working in, the gender dimension section does not actually serve as a stimulus to engage with gender/sex analysis, because they are probably already doing so.

Of course, gender-competent researchers would not have been the intended target group for the European Commission's decision to integrate the gender dimension into the funding framework as a requirement – instead, the aim will have been to stimulate consideration of gender/sex analysis among researchers who do *not* typically engage with it. The results of this study reveal that scepticism remains about whether the gender dimension section actually has an impact on research practices among this group. During the study, this scepticism emerged in the form of the three key weaknesses of the European Commission's gender dimension section, namely concerns about box-ticking (surface-level engagement with gender, limited to the application process), a lack of consistency in the Commission's discourse around gender mainstreaming in R&I, and the narrow focus on gender.

It may be helpful to view these concerns within the context of a phased process of change that involves the gradual introduction and scaling up of the gender dimension requirement, in the same way that other 'cross-cutting issues' – such as ethics requirements, open access and data management, and interdisciplinarity – have been scaled up over the years (European Commission, 2023a). Those who are ready for the change are likely to feel that the programme's ambitious gender-mainstreaming goals are not being met quickly enough and that the new requirement is not being enforced robustly enough, leading to frustration and scepticism about the efficacy and integrity of the process. At the other end of the spectrum, those who are not yet ready for the change are likely to feel resistance and express more negative or dismissive attitudes such as those seen in the anonymous survey (Kotter, 2012). Yet, the concerns and frustrations at both ends of the spectrum are understandable given the early phase that we are currently still in with regard to the gender dimension in R&I content: the European Commission's previous funding framework programme for the period 2014-2020, entitled Horizon 2020, was the first in which gender was a cross-cutting issue. It is only since the launch of the current framework programme, Horizon Europe, in 2021 that the integration of the gender dimension into research content has been a requirement by default (unless explicitly specified otherwise in the call for proposals) (European Commission, 2024a). The interim evaluation of Horizon Europe is currently ongoing, with the results expected to be published in the second quarter of 2025 (European Commission, 2024c). This evaluation should enable adjustments to be made which will hopefully lead to more consistency, clearer guidelines for researchers and evaluators, and more robust mechanisms in place to ensure compliance and effectiveness, thus addressing the concerns expressed by researchers in this study.

Indeed, the recently published Horizon Europe Strategic Plan 2025-2027 reiterates the aim to “eliminate gender inequality and intersecting social inequalities – including those based on age, disability, ethnic or racial origin, and LGBTIQ identity – throughout R&I systems” (European Commission, 2023c, p. 41). While the wording of this statement appears to suggest that the focus in the next period will be broader and more intersectional in its approach than the current focus on gender alone, a comparison with the wording of the Horizon Europe Strategic Plan 2021-2024 reveals that it is in fact almost identical: only 'age' has been added (European Commission, 2021b). Despite the inclusive wording of the Strategic Plan 2021-2024, on the application form itself, only gender is mentioned. My thesis study revealed a high degree of support among the researchers I surveyed and

interviewed for extending the gender dimension beyond gender to consider other identity markers related to inequality. The need to include intersecting identity markers (such as age, disability, ethnicity, sexuality and gender identity) in GRI initiatives was also articulated in a recent scoping review of scientific and policy literature on gendered innovations: the authors emphasise the importance of developing the concept of ‘*inclusive gendered innovation*’, or IGI, which builds upon Schiebinger’s original concept to consider “how broader societal influences, such as unconscious bias, gender relations, and intersecting inequalities already present in institutional frameworks and organisational structures, as well as local context, affect innovation development and innovation beneficiaries” (Karaulova et al., 2023).

The expert-informant interviews conducted with research administration staff in Phase 3 of this study revealed the belief that a more progressive, intersectional approach to the gender dimension section in Horizon Europe has been held back by more politically conservative European countries. To circumvent this barrier to the implementation of a more intersectional and inclusive ‘gender’ dimension section, the Flemish universities might consider stimulating inclusive research practices locally, without waiting for the top-down European requirement. Indeed, this shift has already begun: in the period in which this thesis was written, some of the Flemish universities’ gender equality plans have been absorbed into broader ‘inclusion plans’ and ‘diversity policy plans’ that aim to tackle not only gender inequality but also other types of inequalities present in the institutions. In this way, Flemish universities can respond to the positive attitude towards a broader, intersectional approach that I observed among my study participants and push their own policies beyond Horizon Europe’s narrow focus on gender.

4.1.2 Research Question 2

What do researchers write in the gender dimension section and which factors play a role in this?

In Phase 1, during informal meetings, research administration staff revealed that in the gender dimension section, researchers often write about the gender balance in the research team rather than the gender dimension of the research content. It was a common belief among research administrators that researchers were confused about the distinction between gender balance in the team and the gender dimension of the research content, though some also expressed a suspicion that researchers were including information about gender balance in the team in order to have *something* to write in the gender dimension section in cases where they were unable to provide a lengthy description of how gender/sex analysis would be integrated into the research methodology.

In Phase 2, the results of the formal quantitative survey revealed that, besides methodology, outcomes/impacts and analysis, researchers do indeed mention research team elements (e.g. recruitment, gender balance, gender of the work package leader, etc.) in the gender dimension section. During Phase 3, the qualitative interviews, respondents whom I assessed as having a lower level of gender competence (using discipline as a proxy measure, supplemented by my impression of their gender competence during our talks) confirmed that they tended to include information on the gender balance in the research team in order to provide more content for the gender dimension section, even

though the instructions on the application form clearly distinguish between the two types of gender-related information. This finding ties in with the results of Sjöö & Kaltenbrunner's (2023) recent study of the gender-dimension requirement in science, technology, engineering and mathematics (STEM) proposals submitted to the Swedish Research Council (SRC): the authors found that 'performer-centred' information (i.e. information about the research team) was frequently included in the gender dimension section of the SRC proposals analysed, despite clear instructions from the SRC that this type of information was irrelevant.

In Phase 3 of my study, a reason for including information about the team's gender balance cited frequently by interviewees was the desire not to 'just leave it blank': the interview respondents believed that leaving the gender dimension section blank would be more negatively evaluated than filling in irrelevant information or information meant for a different part of the application form. This was not the case among interviewees whom I assessed as having a high level of gender competence, who were used to writing about how the gender dimension would be integrated into their research content, and who therefore had enough to write about in the gender dimension section.

The key factor in the decision whether or not to write about research team characteristics in the gender dimension section thus appears to be the level of gender competence of the researcher. It was unfortunately beyond the scope of this thesis study to measure gender competence directly, and I instead used discipline as a proxy as well as an informal assessment of gender competence during the follow-up interviews. However, a tentative interpretation suggests that gender competence plays a key role, not only in determining what researchers write about in the gender dimension section but also in the extent to which the gender dimension section is a stimulus to engage with gender (see Research Question 1, above) as well as in the types of support that researchers need (see Research Question 3, below). This finding echoes the results of Palmén et al. (2020), who found that the successful implementation of gender dimension interventions depends on the availability of gender competence in the research team. Accordingly, the interim evaluation of the previous framework programme, Horizon 2020, attributed the poor uptake of sex/gender analysis in funded proposals to a lack of knowledge and absence of training on gender issues (European Commission, 2017).

4.1.3 Research Question 3

Which types of support do researchers need when answering the gender dimension question and which factors play a role in this?

In Phase 1, the informal meetings with research administration staff revealed considerable variation in the amount and types of support available to Horizon Europe applicants at the five Flemish universities: some universities offered training and project-specific advice on the gender dimension section, whereas research administrators from other universities tended to advise their researchers simply to write 'something' in the gender dimension section so as not to leave it blank (as discussed above). Accordingly, the self-reported degree of gender competence in the research administration teams also varied widely.

One of the main aims of Phase 2, the quantitative survey, was therefore to establish a picture of the support needs among researchers in Flanders when it came to the gender dimension section – did they feel that they would benefit from more support (and if so, which type), or were they satisfied with the support already available? However, the survey results revealed a degree of variation similar to that seen in Phase 1 and no clear preference among researchers for a particular type of support. For example, a small majority of respondents stated that they had never used any tools or support to complete the gender dimension section, and a similarly small majority did *not* believe more support should be provided to researchers and research managers who have to complete the gender dimension section of Horizon Europe funding applications. Yet, there was no clear overlap between these two groups: of the 39 respondents who had never used any tools or support, around half (n=19) were in favour of providing more support, while the other half (n=20) did not believe more support was necessary. There was also little consensus per university or per discipline: most universities and disciplines showed an almost even split among researchers who did and did not perceive a need for more support. In any case, unfortunately, the sample size was too low to be able to discern patterns and draw meaningful conclusions.

The qualitative follow-up interviews conducted in Phase 3 did aid in clarifying some of the conflicting and incomplete results of the Phase 2 survey, thus confirming the benefit of using a mixed-methods approach in cases when a single data source is insufficient (Creswell & Clark, 2018). For example, I had expected before the survey that a researcher's discipline would predict whether or not they were interested in receiving more support; more specifically, I expected researchers who were likely to have a degree of gender competence because of their discipline (e.g. social sciences researchers) to be less interested in receiving extra support. Yet, as noted in the interim phase between the survey and the interviews, the survey results showed a 50/50 split between social sciences researchers who did and did not believe more support was needed (n=10 more support, n=10 not more support, out of a total of 20 social sciences researchers who answered the survey). The results of the Phase 3 interviews revealed that social sciences researchers were interested in a particular type of procedural support, unrelated to gender competence, namely guidance about the evaluators' expectations and how to increase their chances of success in the application process. This information may explain the 50/50 split on the survey when it came to support needs among social sciences researchers: while they did not require more support with the gender element of the gender dimension section, perhaps they were indicating a need for more support with writing a gender dimension section that would be evaluated positively by the evaluators.

Similarly, I had expected before the Phase 2 survey that in certain disciplines where the gender dimension was not considered to be relevant, researchers would not be in favour of providing more support. When I filtered my survey responses to focus on those who had indicated that the gender dimension was not relevant to their research proposals (n=21), two main disciplines emerged in the group: i) engineering and technology (n=8) and ii) natural sciences (n=10). Yet I observed an interesting difference between the two disciplines: none of the engineering and technology researchers were in favour of providing more support with the gender dimension section, while half of the natural sciences researchers (5 out of 10) answered 'yes' to the question of whether more support should be provided. It is essential to keep in mind here that the survey response was too low to provide results that were statistically significant. We should also bear in mind that the relationship between discipline and the

relevance of gender/sex analysis is not clear-cut – both natural sciences and engineering and technology were also represented in the group of researchers who reported that gender/sex analysis *is* relevant to their proposals. However, I found this difference between the two disciplines interesting enough to justify asking a question about it during the interviews with researchers from those disciplines in Phase 3.

The results of the Phase 3 interviews revealed that natural sciences researchers, in particular, drew a distinction between research in humans and research in animals in order to decide about the relevance of the gender dimension, citing a belief that the gender dimension was only relevant when research was being conducted in humans. This distinction was also mentioned by a research administrator in a Phase 3 interview, who had been surprised to hear it during a European Commission information session because it was not consistent with other guidance they had received. As sex analysis could be relevant in research in animals, but gender analysis less so, the extra support needs indicated by natural sciences researchers could reflect their lack of certainty about the extent to which sex/gender analysis is in fact relevant in their proposals and whether it is sufficient simply to write in the gender dimension section that it is *not* relevant.

Factors in a researcher's need for support

Taken together, the results of the three phases used in this study provide deeper insights into the four main factors that appear to influence whether or not a researcher needs more support when completing the gender dimension section, namely i) the researcher's level of gender competence, ii) the perceived relevance of gender/sex analysis, iii) the support available, and iv) the researcher's experience. In what follows, I describe each of these four factors and explain how they might lead to a researcher reporting that they do *not* need more support. Firstly, as we have seen above in relation to the social sciences researchers, researchers in academic disciplines that are likely to have a higher level of gender competence are unlikely to require extra substantive support with the gender dimension section. Secondly, researchers who are convinced that gender/sex analysis is *not* relevant to their proposals (as in the case of the engineering and technology researchers described above) will also be unlikely to ask for more support because they will simply indicate in the gender dimension section that it is not relevant. The third factor relates to the researcher's perception that sufficient support is available: researchers who were able to complete the gender dimension section satisfactorily using the resources and/or support they already had access to would not need to ask for extra support. The closely related fourth factor is experience. More experienced researchers who have already submitted one or more Horizon Europe applications, or who can rely on the support of colleagues who have, will also be less likely to ask for extra support, and especially when those applications were successful.

Conversely, the factors that could make researchers more likely to need extra support are therefore i) a lower level of gender competence; ii) more doubt about the relevance of gender/sex analysis to the proposal (as in the case of the natural sciences researchers described above) – or, on the other hand, a conviction that gender/sex analysis *is* relevant, coupled with a low level of gender competence; iii) a lack of resources or support within the institution or consortium; and/or iv) a lack of experience or a lack of success in the Horizon Europe application process. In the latter case, unsurprisingly, the results of all three phases indicated that inexperienced researchers would need support with all aspects of the application process, not just with the gender dimension section.

Support types

The results of the three study phases also shed light on the *types* of support that researchers might need. The Phase 2 survey showed that, among the respondents who were in favour of providing more support (n=30), the two most frequently requested types of support were reference resources (e.g. checklists, examples, guidelines and templates) (n=19) and project-specific support from internal experts (n=19). With regard to reference resources, the Phase 3 interviewees expressed interest in clearer guidelines, annotated templates, and examples of successful submissions so that they would be better able to assess the suitability of what they were writing in the gender dimension section. A natural sciences researcher also suggested developing a decision tree for researchers in that discipline that could aid in the process of deciding what and how much to write in the gender dimension section (cf. distinction between research in humans and animals, above). With regard to project-specific support from internal experts, this type of support was mentioned as a logical next support step in cases where the reference resources were insufficient.

A recurring theme throughout the study in relation to support types was the emphasis on *tailoring* the support to the proposal in question. While tailoring might involve considering the call type or research design, the respondents in this study mainly referred to tailoring support to different disciplines in order to acknowledge how gender/sex analysis would inevitably vary from discipline to discipline. For example, the interviewees in Phase 3 stressed the usefulness of providing good examples of texts submitted in the gender dimension section that were drawn from a range of disciplines, so that researchers with a lower level of gender competence or a lack of experience could begin to understand how gender/sex analysis might be relevant to what they were doing.

Interestingly, when the Phase 2 survey respondents were asked to indicate which types of support are/would be most useful for them and their teams, the option ‘training, workshops, seminars, etc.’ was selected much less frequently (n=9) than were reference resources (n=19) and project-specific support from internal experts (n=19). The Phase 3 interviews provided some insight into why this might be. Two main concerns that were mentioned during the interviews in relation to training as a means of support were as follows: firstly, workload pressures among researchers led to the difficulty of ‘sacrificing’ half a day’s work to attend a workshop or training session and then having to apply the content of the workshop to the specific text to be entered in the gender dimension section, compared to using reference resources such as a checklist to review the text quickly; and secondly, interviewees raised doubts about the quality or usefulness or applicability of training sessions, especially when such sessions are generic trainings and not tailored to specific disciplines or types of proposal (cf. tailoring, above). Indeed, as seen in the literature review, research on diversity management practices has shown that tackling bias through training has no clear effect: some positive effects are observed when responsibility structures are present in the organisation to ensure compliance, but without responsibility structures in place, diversity training can actually lead to negative effects, such as backlash (Kalev et al., 2006; Devine & Ash, 2022).

Expert-informant interviews with the research administration staff in Phase 3 revealed two main good practices that could aid universities in overcoming the perceived negatives or concerns related to training as a means of support mentioned in the previous paragraph. The first good practice involved recruiting experienced researchers to lead training or inspiration sessions, rather than having a

member of staff from the central research administration team lead the training session. The research administration staff expressed the belief that hearing about the gender dimension from a peer evoked less resistance among researchers and came across as inspiring and relevant rather than a top-down requirement imposed upon researchers by ‘administrators’. This belief is supported by the literature on social identity and self-categorisation: leaders (in this case trainers) who are perceived to be prototypical group members (successful researchers) are more easily liked and able to exert influence and ensure compliance among the group (Hogg & Terry, 2000; Mathis, 2020). The second good practice mentioned during the expert-informant interviews was to include information on the gender dimension section in training sessions that also cover other, related topics. That way, when the gender dimension is mainstreamed in broader training initiatives, there is a higher likelihood of reaching a larger audience – because researchers may opt out of attending a session entitled ‘the gender dimension’ if they believe, rightly or wrongly, that it is not relevant – and also a higher likelihood of normalising the consideration of gender/sex analysis in *all* proposals, which is ultimately the European Commission’s aim.

4.2 Implications and practical application

The majority of researchers and research administrators I surveyed and interviewed in this thesis study agreed that the Horizon Europe gender dimension section may indeed serve a stimulus both for research quality and for societal transformation. This finding indicates the potential of this section of the application form to promote inclusivity and address gender disparities within research practices. However, despite the perceived effectiveness of the gender dimension section, scepticism persists about whether researchers with a lower level of gender competence are in fact engaging with gender/sex analysis in a meaningful way in their research practices. The study raises questions about how to evolve from basic compliance to meaningful and impactful practice in European R&I endeavours.

A key implication of this study therefore relates to the necessity of designing targeted support initiatives aimed at encouraging researchers to engage with gender/sex analysis more meaningfully in their research content. In doing so, it will be crucial to differentiate among the types of support needed by certain profiles of researchers. Researchers with a high level of gender competence, for example, are likely to require guidance on how to obtain a positive evaluation by the evaluators and increase their chances of success in the application procedure rather than guidance on inclusive research practices. Researchers who perform research in animals, on the other hand, may benefit from support that clarifies the distinctions between gender and sex and humans and animals, and that also clarifies evaluators’ expectations with regard to the gender dimension section in proposals focusing on research in animals. The majority of researchers who fall into neither of these categories are likely to benefit from reference resources such as checklists and examples, as well as training sessions led by experienced researchers who can challenge perceptions of irrelevance and inspire hesitant researchers

to incorporate gender/sex analysis into their research content more robustly and meaningfully. In addition, when designing training activities for researchers, support teams should take care to ensure that examples and advice are sufficiently tailored to the disciplinary needs of the audience, that the gender dimension is incorporated into broader research training programmes in order to normalise its incorporation and prevent non-uptake due to perceived irrelevance, and also that training contributes to gender competence and research skills effectively and sustainably over time.

A further implication is the need to close the enforceability gap and ensure that GRI is considered a responsibility not only of researchers but also of their institutions. This can be achieved by making sure that GRI receives sufficient attention in institutional GEPs or the broader, more inclusive policies that are replacing them. This step would provide the responsibility structure that is necessary to normalise the consideration of gender and other intersecting systems of inequality in R&I content. Additionally, it would ensure that sufficient resources can be allocated to developing the tailored training initiatives described above.

4.3 Strengths, limitations and recommendations for future research

One of the primary strengths of this thesis study is that it provides some of the first insights into how researchers are responding to Horizon Europe's requirement to integrate the gender dimension into R&I content. The analysis offers a useful initial understanding of the impacts and challenges associated with this mandate. Additionally, the study synthesises data from across the five Flemish universities, highlighting best practices and areas for improvement. By integrating quantitative and qualitative data in a mixed-methods approach, the research also counteracts the limitations inherent in each individual method, thus achieving a fuller and more nuanced picture of researchers' experiences and attitudes. This comprehensive approach ensures a more robust and detailed exploration of the subject matter, enhancing the reliability and depth of the study's findings.

An important limitation of this thesis research is the low response rate to the survey in Phase 2, which, although partly compensated for by the mixed-methods approach, still limits the quantitative data. The low response rate may also have introduced a participation bias, as those who chose to respond might have held stronger opinions or had more interest in the gender dimension requirement, potentially skewing the results. Furthermore, social desirability bias in the interviews represents another limitation, with participants possibly giving more polite or favourable responses in order to maintain a pleasant atmosphere in the interviews. The positive atmosphere of the interviews contrasts with the more candid and often negative responses observed in the anonymous surveys, suggesting that the interview data might underreport negative attitudes or experiences. Another limitation of the study is the use of discipline as a proxy for gender competence rather than measuring that competence directly. Taken together, these factors highlight the need for cautious interpretation of the findings in light of the potential for bias and incomplete representation.

Recommendations for future research to be conducted by research administration teams themselves or by other researchers interested in European gender mainstreaming therefore include selecting or

developing methodologies that attempt to circumvent the limitations described above. One example could be for universities' research administration teams to perform or commission content analyses of all the gender dimension texts submitted by their researchers, which would not require researchers to opt in to a study. Engaging researchers through focus groups facilitated by neutral third parties could also provide deeper insights and encourage more open discussion. Another approach could involve the implementation of longitudinal studies to track changes in attitudes and practices over time, providing a more dynamic understanding of the impact of gender mainstreaming policies as these mature throughout the framework programmes.

Chapter 5:

Conclusion

The purpose of this thesis study was to explore researchers' experiences with the Horizon Europe gender dimension section and assess the need for additional support. Using a sequential mixed-methods approach divided into three phases, both qualitative and quantitative data were collected in order to determine whether the gender dimension question is really a stimulus for researchers to consider gender/sex analysis in their research, what support needs they have, and which factors play a role in researchers' experiences. The findings reveal that, while researchers generally perceive the gender dimension section as a stimulus for research quality and societal transformation, doubts remain about the extent to which it is currently having an impact on research practices in projects with limited gender competence. Besides reiterating the key role of gender competence, the results also highlight the importance of tailoring support initiatives to the needs in certain disciplines, of challenging the perceived irrelevance of gender/sex analysis in certain fields, and of ensuring that inclusive GRI measures have a place in institutional GEPs. Taken together, the study's findings offer insights into how universities in Flanders might move beyond basic compliance to more meaningful and transformative practices in European research and innovation.

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Appendices

Please see the separate document attached.