Gender mainstreaming in times of crisis: Missed opportunities in pandemic policymaking

Anne-Charlott Callerstig
Örebro University. School of Humanities Education, and Social Sciences. Centre for Feminist Social Studies. Sweden
https://orcid.org/0000-0003-2741-7263; anne-charlott.callerstig@oru.se

Sofia Strid
University of Gothenburg. Department of Sociology and Work Science. Sweden
Örebro University. School of Humanities Education, and Social Sciences. Centre for Feminist Social Studies. Sweden
https://orcid.org/0000-0001-7822-4563; sofia.strid@gu.se

Received: 21-10-2022
Accepted: 09-05-2023
Published: 13-07-2023


Abstract

This article problematises gender-mainstreaming in Swedish policy responses to COVID-19 in relation to economic politics. The aim is to understand how gender mainstreaming was implemented, and with what effects. Little is still known about gender mainstreaming in crisis management and policymaking, and even less is known in relation to pandemic policy responses. To contribute to this field of knowledge, the article therefore analyses the Swedish National Recovery and Resilience Plan, supplemented by interviews with public servants, to understand the factors that impact the implementation of gender mainstreaming in policymaking in times of societal crises. At a theoretical level, the article draws on feminist institutionalism and implementation studies, the notion of resilience, and insights from critical frame analysis. The data is based on a larger dataset collected as part of the EU-funded RESISTIRÉ: Responding to Outbreaks through Co-creative Inclusive Equality Strategies project. The results indicate that gender mainstreaming is limited in its rationale and scope in times of crisis and that the integration of a gender equality perspective in crisis management needs to be developed in several important ways.

Keywords: crisis; economy; gender equality; gender mainstreaming; National Recovery and Resilience Plan; pandemic policymaking; RESISTIRÉ; Sweden
Resumen. Integración de la perspectiva de género en tiempos de crisis: oportunidades perdidas en la formulación de políticas para pandemias

El artículo problematiza la integración de la perspectiva de género en las respuestas políticas suecas al COVID-19 en relación con la política económica. El objetivo es comprender cómo se implementó la integración de la perspectiva de género y cuáles fueron sus efectos. Aún se sabe poco sobre la integración de la perspectiva de género en la gestión de crisis y la formulación de políticas, y se sabe aún menos en relación con las respuestas políticas a la pandemia. Con el fin de contribuir a este campo de conocimiento, el artículo analiza el Plan Nacional de Recuperación y Resiliencia de Suecia, complementado con entrevistas a funcionarios públicos, para comprender los factores que inciden en la integración de la perspectiva de género en la formulación de políticas en tiempos de crisis social. Teóricamente, el artículo se basa en el institucionalismo feminista y los estudios de implementación, la noción de resiliencia y los conocimientos del análisis crítico del marco. Los datos se basan en un conjunto de datos más amplio recopilado en RESISTIRÉ: Responding to Outbreaks through Co-creative Inclusive Equality Strategies, proyecto financiado por la UE. Los resultados indican que la integración de la perspectiva de género está limitada en su racionalidad y alcance en tiempos de crisis y que en la gestión de crisis debe desarrollarse de varias maneras importantes.

Palabras clave: crisis; economía; igualdad de género; integración de la perspectiva de género; Plan Nacional de Recuperación y Resiliencia; formulación de políticas para pandemias; RESISTIRÉ; Suecia

Summary

1. Introduction
2. The case of gender mainstreaming in the economic area in Sweden
3. Implementing gender mainstreaming in economic and crises policymaking: lessons from previous studies
4. Data and methodology
5. Gender mainstreaming in Swedish economic policymaking during COVID-19
6. Discussion and conclusions
Acknowledgement
Bibliographic references

1. Introduction

The impacts of the COVID-19 pandemic on gender equality across Europe have been severe. They go further than health-related effects and are visible in, for example, increased economic gaps, increased care gaps, a return to traditional gender roles, and increased levels of gender-based violence (Axelsson et al., 2021; Sandström et al., 2022; Stovell et al., 2021). Many of these impacts result from the policy responses introduced to address the pandemic, rather than from the virus itself (Cibin et al., 2021, 2022). Due to the drastic measures taken to close down parts of society, the pandemic was problematized early on as a social and economic crisis as well as a health crisis. In recent European pandemic policy responses, European economic recovery has been in focus
(EC, 2022). The economic situation for individuals prior, during and post the pandemic are unequal and intertwined with multiple intersecting inequalities. For decades, gendered differences in income and pensions due to low and discriminatory wages have had a gender-unequal impact on living standards. As a result, the capacity to cope with the economic effects of the pandemic is low for large groups of women; and a vicious circle of being low-paid, overworked and highly exposed to the virus itself, and with fewer economic means to cope with sick leave, extra family care burdens and redundancies, appear to have created a downward spiral of inequalities, in turn making it increasingly difficult for groups of women to catch up. In the long term, the pandemic risks further widening the gender pension gap and other economic gender inequalities for decades to come (EC, 2021; Axelsson et al., 2021).

As the pandemic spread fast in 2020, governments introduced social isolation, remote working and, in many cases, severe lockdown polices. In Sweden, however, the policy responses introduced did not enforce nationwide lockdowns. Instead, restaurants and bars kept serving, schools and nurseries remained open, and public transport kept running. The majority of changes were in the form of recommendations. Sweden saw strong public agreement and adherence to the general recommendations set out to minimise the spread of the virus, including high levels of trust in pandemic research and policy (Public & Science, 2021/2022). Yet, as in other countries, society in many ways came to a halt, with increased remote working and restrictions on restaurants, shops and travelling. Thus, also in Sweden the effects on society, and especially for women, were severe, and have resulted in vast social and economic consequences, in addition to the health-oriented ones.

Despite Sweden’s long history of gender mainstreaming and repeated top positions in various gender equality rankings, the Swedish Gender Equality Agency (GEA)’s evaluation of the impact of the pandemic and its policy responses on gender equality concluded that all areas of the six national gender equality objectives were negatively affected (GEA, 2021a, 2021b). Further, the GEA concluded that policy responses introduced to mitigate the effects of COVID-19 had paid little or no attention to gender equality (see also Cibin et al., 2021, 2022). The only exception related to the objective of eliminating men’s violence against women and children, where the GEA found that measures were gendered and gender-mainstreamed (GEA, 2021a, 2021b, 2021c).

These conclusions might seem surprising given Sweden’s long history of gender mainstreaming policies and as a top-ranking country in gender equality in the EU (EIGE, 2020), and with a self-proclaimed feminist government at the time. As such, and with the declared aim of including a gender equality

---

1. The argument for this approach, informed by the Swedish Public Health Agency, was that policy responses must take into account medical aspects and be based on a broad and long-term notion of public wellbeing, including gender equality, and be sustainable in the long run. Recent studies have concluded that the effects of other pandemic responses on death rates have been similar to countries that had lockdowns.
perspective in public health policy, it could be argued that Sweden is a “most likely case of gender mainstreaming” (Sainsbury & Bergqvist, 2009). The country would thus seem better positioned than many others to mitigate the negative effects on gender equality in relation to pandemic policy responses. The initial analysis of the GEA therefore seems puzzling, and warrants further interrogation of pandemic policymaking. In this article we do this by investigating how gender aspects were considered in relation to pandemic policymaking, and with a focus on economic policymaking. This focus is motivated by the GEA’s evaluation showing the relative lack of gender concerns in the area of economic policymaking. Furthermore, economic policy was identified early on as central to gender mainstreaming, both by representatives of the Swedish Government (Linde & Regnér, 2020) and by the EU (European Parliament & the European Council, 2021).

Overall, little is still known about gender mainstreaming in crisis policymaking and even less in relation to pandemic policy responses in Sweden or internationally. Previous research has suggested that one of the most important yet little studied factors that impact gender mainstreaming is how gender equality is understood in the area where it is to be implemented (Verloo 2007; Callerstig, 2014; Lowndnes, 2020; Bustelo & Mazur, 2023). We aim to further understanding of the interplay between actors, institutions and ideas in the post-adoption stages of gender equality policy (Mazur & Engeli, 2018; Bustelo & Mazur, 2023) and in particular by focusing on the ideational aspects of implementation. In doing so we aim to contribute to what has been called the “elusive recipe for successful gender equality policy” (Mazur & Engeli, 2018: 112).

This article problematizes how gender mainstreaming has been implemented in Swedish policy responses to COVID-19 by analysing the Swedish National Recovery and Resilience Plan (NRRP), a policy which had clear directives to conduct and present gender analysis (Swedish Government, 2021). It contributes to the understanding of what affects the implementation of gender mainstreaming in policy in times of crisis, with a focus on the discursive elements of implementation. The Recovery and Resilience Facility of the NextGenerationEU fund was set up to mitigate the negative effects of the pandemic. The NRRP presents a good opportunity to examine how gender equality is understood and operationalised in relation to economic concerns, as the EU demands the inclusion of a gender equality perspective and gender impact assessments of all proposed measures. The EU asks its member states to explain explicitly both the principles of how gender mainstreaming is going to be implemented in the operational stages, and how gender equality is assessed in relation to each policy measure. Being a broad policy programme to mitigate the negative effects of the pandemic and boost economic recovery in its late and post phases, it also offers an opportunity to investigate how many of the insights from the pandemic gender assessments made by other gender equality bodies, in this case the GEA, are integrated; and thus also to see how gender mainstreaming operates across policy institutions; and to assess its ability to “stick” over time.
At a theoretical level, this article utilises a feminist institutionalist perspective to understand gendered institutional factors that may impact the implementation of gender mainstreaming during crises at various levels of implementation (Levitt & Merry 2009; Ahrens & Callerstig, 2017; Gains & Lowndes, 2014). We take as our starting point the understanding of gendered implementation as consisting of both material and discursive elements as determinants for the way gender equality will be enacted in the implementation (Callerstig, 2014). The article also draws on critical frame theory (Verloo, 2005, 2007) to understand the discursive aspects of how the overarching objectives (“rules in form”) of gender mainstreaming are translated into action (“rules in use”). This involves an analysis of how gender equality is included in the pandemic policy responses. Specifically, critical frame theory distinguishes between the diagnosis of a policy problem – that is, the description of a policy problem – and the prognosis – that is, the solutions to a policy problem. For a policy to enable change, the prognosis is essential; without prognosis, policy remains merely descriptive rather than prescriptive (Verloo, 2005, 2007).

The aim of the article is to contribute to the understanding of the implementation of gender mainstreaming in times of crisis, not only to understand the consequences of the pandemic itself and for the possibilities to mitigate its negative effects, but – to use a popular term – to “build back better” (Sandström et al., 2022). Increasing the knowledge of how gender mainstreaming operates in times of crises provides insights to strengthen the future resilience of society. It thereby provides an opportunity to learn how to better cope not only with future pandemics but with societal challenges and crises to come. The overarching question guiding the article is: How has gender mainstreaming been implemented in the Swedish pandemic policy responses? More specifically we ask: In what way was gender equality seen as relevant and operationalised to the addressed policy problems? In the final discussion, the results of the analysis of the NRRP are discussed, drawing on insights from interviews with economic policy experts with a central position in public administration and in close interaction with the government. This approach deepens our understanding and offers indications for future research.

Below, the article briefly introduces the general objectives and organisation of gender mainstreaming in the economic policy area in Sweden and how the pandemic has impacted economic gender equality according to the assessments by the GEA. Then it turns to the literature to look at factors that have been found to impact the implementation of gender mainstreaming in the economic policy area, and in times of crises. Then the methodology, including the specific case – Swedish pandemic policy – are laid out. This is followed by the findings and analysis, and a discussion of these, including how and why

---

2. “Build back better” was coined by a UN task force with the objective of creating improved disaster-recovery plans. Initially, according to Kaplan (2020: PP) building back better meant: “using recovery after calamities (such as earthquakes and hurricane) to restore equitable social systems, revitalise livelihoods and protect the environment”.

gender mainstreaming was implemented. Finally, the conclusions and their implications for further research are discussed.

2. The case of gender mainstreaming in the economic area in Sweden

Gender mainstreaming has been the main Swedish political strategy for implementing national gender equality policy goals since the mid-1990s. To assist in the implementation, the Gender Equality Agency (GEA) was established in 2018. The GEA works on policy analysis and follow-up of progress against the gender equality goals; coordination and support to government agencies and universities on gender mainstreaming; as well as international exchange and cooperation. Besides the GEA, a designated Gender Equality Unit, located in the government offices alongside the different ministries, supports the implementation of gender mainstreaming, but all ministries have an independent duty to implement gender mainstreaming in their policy areas.

Economic gender equality is one the Swedish government’s six gender equality objectives. Its relevance and content is defined as follows: “The overall objective of gender equality policy is that women and men shall have the same power to shape society and their own lives. The distribution of economic resources is a central part of this goal. The objective of economic gender equality is that women and men must have the same opportunities and conditions regarding paid work that provides economic independence throughout life […] Another part of this objective is that women and men must have the same opportunities and conditions regarding access to work and the same opportunities and conditions both regarding working conditions, including terms of employment and pay, and regarding opportunities for development at work. The aim is to have a life-cycle perspective implying that paid work should provide economic security and independence during retirement too.” (Government Offices, 2021: 2). In 2022, the GEA reported on how the economic objective had progressed since 2015. Besides the above-mentioned areas, it also included a specific focus on the effects of COVID-19 on economic equality, as well as economic equality and public business financing; economic violence; and the undervaluation of female-dominated work (GEA, 2022). Even if the situation in Sweden has differed from other European countries, the pre-pandemic economic inequalities – such as a pay-gap on an average EU-level, comparatively low pension rates and a highly gender-segregated labour market – follow the same pattern as in other European countries, in turn making the gendered economic consequences also follow the same gendered pattern as elsewhere in Europe. Besides the findings in its report of 2022, the GEA also concludes, in a series of reports, that the pandemic has had an overall negative impact on economic equality in Sweden (GEA, 2021a, 2021b, 2021c, 2022). The Swedish NRRP was approved on 4 May 2022. It represents the Swedish response to “the need of fostering a strong recovery and making Sweden future ready” (EC, no date). The reforms and investments introduced in the NRRP set out to “help Sweden become more sustainable, resilient and better prepared
for the challenges and opportunities of the green and digital transitions”. (EC, no date). It consists of 26 reforms and investments, supported by €3.3 billion in grants. It has a clear focus on green and digital transition, with 44% of the measures supporting climate objectives and 21% supporting the digital transition. The plan’s four chapters and 203 pages identify: 1) the current state of affairs (a diagnosis); 2) six focus areas/pillars of recovery, each pillar including subsections on challenges and objectives, reforms and investments, the pillar’s green components, and the pillar’s digital components; 3) Cohesiveness and implementation; and 4) Impact assessment. A special three-page section in the first chapter addresses gender equality and equal opportunities. In addition, each of the six pillars includes specific measures.

The GEA’s analysis of economic policy responses during the pandemic shows that employment has remained fairly high overall thanks to policy support, while at the same time contributing to an increased gender employment gap and with subsequent effects on economic equality, one example being differences in the distribution of support regarding short time work. The GEA (2022: 5) also stresses the overall necessity of integrating gender equality in the public authorities, particularly taking into account that their activities may wrongly be reviewed as gender neutral when the systems are shaped from the beginning based on a male norm. Finally, the GEA (2021b) also concludes that while economic recovery has been faster than expected, recovery raises several inequalities concerns that need to be addressed.

In the following we will discuss some theoretical insights that may help shed light on this puzzle, and will also present our analytical framework.

3. Implementing gender mainstreaming in economic and crises policymaking: lessons from previous studies

Even though it has been suggested that crises – such as the pandemic – offer an opportunity to re-shape and create an acceptance for new norms (Chappel, 2006), earlier studies of gender mainstreaming in European economic crises have demonstrated an “extreme side-lining of gender equality concerns and gendered analysis” (O’Dwyer, 2022: 158). Previous research has suggested that one of the most important factors impacting the implementation of gender mainstreaming is how gender equality is understood by the actors involved (Verloo, 2005, 2007; Callerstig, 2014; Lowndnes, 2020; Bustelo & Mazur, 2023). For gender mainstreaming in the area of economic policy, a lack of experience and knowledge of gender analysis by experts involved in policy analysis, as well as the general absence of gender perspectives in the field to begin with, have been found to be key obstacles to implementation. In particular, integrating a gender perspective while at the same time sticking to traditional economic methodologies in which individuals are often absent from the analysis and the focus is on “measurability”, have been found to complicate gender analysis. Another difficulty highlighted is that gender objectives are often regarded as political by economic analysts, and therefore lacking in scien-
tific legitimacy and as compromising the integrity of economic experts (Sjöö & Callerstig, 2021). One study on policymaking in the field of economic growth and labour market politics (Ahrens & Callerstig, 2017) found that the importance of gender equality and gender mainstreaming was indeed recognised as such and did not meet with any major resistance. It was not clear, however, what the aims of the gender mainstreaming strategy should be for the policy area. At best, it was understood instrumentally to reach other policy goals; that is, gender equality as a strategy rather than as a vision. Without a clear focus in the first steps of policy prioritisation, this led to gender mainstreaming being left “open”, and applied in the very last step as a demand for local projects, leading to unfocused and weak implementation (Ahrens & Callerstig, 2017).

In crisis policymaking, it has been suggested that the lack of gender perspectives in economic policymaking may be even greater, since policymakers are pushed to make quick decisions. Also, the uncertainty of new and untested situations may lead policymakers to fall back on implicit gender stereotypes, or to completely side-step gender mainstreaming altogether (O’Dwyer, 2022). For the COVID-19 pandemic, the lack of gender concerns was different to previous European economic crises. Some explanations for this are that the COVID-19 crisis was not framed only in economic terms; there was greater visibility of the gendered impacts of the crisis; the pandemic affected (and re-valued) female-dominated labour differently to other crises; and policy learning occurred because gendered aspects had not been addressed in responses to earlier economic crises (Rubery & Tavora, 2021; O’Dwyer, 2021). Even though progress seems to have been made in terms of the initial pandemic policy responses, concerns about the need to integrate gender into recovery policies have been raised. It has been suggested that the implementation of gender mainstreaming in the recovery phase has been hampered by a misrepresentation of women and a lack of gender concerns in relation to the policy measures proposed (O’Dwyer, 2022). Furthermore, it has been argued that gender mainstreaming can be implemented as long as it does not jeopardise or challenge the fundaments of the policy itself, which, it has been suggested, is the case with the EU recovery fund (Elomäki & Kantola, 2022). In sum, gender mainstreaming in the area of economic crisis policymaking has been found to be impacted by several factors relating both to actors and to organisational features, the crisis as context as well as the overall contextual understanding of gender equality within economics, which provides a useful starting point to our theoretical framework for this analysis.

Our analysis of the implementation of gender mainstreaming in Swedish economic crisis policymaking draws on feminist institutional theory, which allows for a problematisation of how gendered institutions and actors mutually affect the outcome of policy implementation, and how and if “rules in form” become “rules in use” (Ostrom, 1999: 38). Feminist institutionalist theory takes as its point of departure the idea from new institutionalism (March & Olsen, 1984), that “the organisation of political life makes a difference” and sets out to understand more specifically how gendered aspects, both formal and
informal, make a difference on how they affect the organisation of politics and policy processes (Gains & Lowndes, 2014). The institutional environment that both “policy makers” and “policy takers” operate within can be understood as being “comprised of regulative, normative and culture-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life” (Scott, 2008: 48). The gendered effects on policy implementation processes are visible in the choices made by actors operating within those institutions (Levitt & Merry, 2009; Ahrens & Callerstig, 2017; Gains & Lowndes, 2014). Societal gender institutions, or what have been called the “deep structures of organisations”, affect policy implementation in a multitude of ways, and constitute policy actors’ shared frameworks, which underlie their decision-making and actions (Rao & Kelleher, 2005: 64). More specifically it means that political organisations in their daily operations create and reproduce gendered divisions of labour, cultural definitions of masculinity and femininity, and ways of articulating men’s and women’s interests that reach beyond their borders (Acker, 1992; Connell, 2006). Yet, the impact of societal gender institutions in policy implementation often remains unnoticed by the institutional actors that reproduce them (Freidenwall, 2020).

One explanation for the popularity of gender mainstreaming as a strategy is exactly that it questions the liberal idea of public policies as neutral (Stratigaki, 2005). Thus, a fundamental aspect of the gender mainstreaming change logics and methodology consists in assessing and reformulating polices to bring gender into focus (The Council of Europe, 1998: 15). According to Jahan (1995), the strategic underpinning and transformative potential of gender mainstreaming aims to give priority to gender objectives over competing issues, and to re-think and re-articulate policy ends from a gender perspective. In doing so, “women not only become part of the mainstream, they also re-orient the nature of the mainstream” (Jahan 1995: 13). Studies of gender mainstreaming have, however, shown disappointing results: gender equality is rarely a priority in organisations, including those with direct instruction to implement it, and consequently there are gaps in both the knowledge and resources needed to implement it. In Sweden, this is reinforced by a general belief that Sweden as a nation has already succeeded in reaching gender equality (Callerstig, 2014; Sainsbury & Bergqvist, 2009).

In our analysis we take as our point of departure a theoretical framework in which gendered implementation is understood to be affected both by the material aspects of implementation (e.g. providing necessary resources, sufficient support, monitoring and steering mechanisms, et cetera), combined and intertwined with the non-material aspects of implementation (e.g. understanding how and why gender equality is relevant and thereafter operationalisation into concrete measures) (Callerstig, 2014; see also Bustelo & Mazur, 2023; Verloo, 2005, 2007). The two aspects – the material and non-material – are seen as interrelated: if gender equality is seen/not seen as relevant for the area of implementation, the material aspects of implementation will be affected (Callerstig, 2014). From critical frame theory (Verloo, 2005, 2007), we deploy
the suggestion to analyse how gender equality is included in implementation and to distinguish between the diagnosis, i.e. the description of a policy problem, and the prognosis, i.e. solutions to a policy problem.

The process of turning gender equality objectives into concrete actions is understood to be a challenge in itself. Gender equality objectives are often not operationalised when implementers are tasked with implementing them, in the sense that the objectives rarely include the exact means and measures for diagnosis and prognosis, i.e. how to determine if something poses a gender equality problem and how it should be addressed in the area of implementation. In most cases, therefore, implementation entails a learning process in which implementers “invent” solutions to policy problems presented to them (Schoefield, 2004). To add to the complexity, the policy problems of gender equality seldom have a simple solution and are often dilemmatic to its character (Callerstig & Lindholm, 2011). How implementers understand gender equality has been found to be intertwined with personal attitudes and beliefs concerning gender relations, and the appropriate role of the state and public servants in addressing them (Paterson & Scala, 2017; Callerstig, 2012). To integrate gender equality objectives as part of the gender mainstreaming process, implementers need to reflect and make decisions in relation to different aspects of gender equality. This includes to consider the broader concepts of “gender”, “equality” and also “change”, i.e. how to go from gender inequality to gender equality. In this process, each concept raises additional questions. For example, for “gender”: What is the relevance of gender to the area in focus? Are the observed gender differences a problem or not? Are differences always the same or do they differ in accordance with various intersectional interferences? For “equality”: What does equality in relation to gender aspects mean? Should the goal be equality of opportunities or equality in outcomes? In relation to “change”: How can and should gender equality be achieved? Should it be through changing the mind-set of people, or by coercive mechanisms such as quotas, or both? (Callerstig, 2014).

Previous research shows different gendered institutional norms within specific policy areas, affecting both the diagnosis and prognosis. Thus the implementation of gender equality in different policy areas will also look different, even when the objectives are similar. These gendered “rules of the game” set the conditions for policymaking within the particular area in which it is applied (see Kenny, 2007, 2013, 2014; Krook & Mackay, 2011; Mackay & Waylen, 2014). Chappel (2006) describes how the “gendered logic of appropriateness” looks different in different sectors, and prescribes different knowledge claims and methodological choices to be more salient than others (Chappel, 2006). We understand this complexity as expressions of institutional gendered knowledge regimes that will determine what is the appropriate and legitimate way to understand and implement gender equality objectives in a specific policy area (Dy & Vershinina, 2019). Gendered knowledge regimes are prescriptive for understandings and behaviours. They rest on the shared beliefs within a particular field that explain why different actors can come to
the same decisions. Specific gendered knowledge regimes in various policy areas are likely to be affected by historically rooted, epistemological world views, and by the state of the art of gender knowledge in the field. Knowledge regimes become visible when opposing views are presented, one example being gender training in which a particular form of resistance is common in not just questioning the need for such training or that gender equality poses a problem, but in questioning the legitimacy and validity of gender knowledge itself (Lombardo & Mergaert, 2013). The impact of knowledge regimes is likely to be higher the vaguer the strategic aims and objectives are (Riley & McGinn, 2002). Gender mainstreaming, being an open-ended process and to a large degree open for interpretation, is thus one area of gender equality policy where the impact of different gendered knowledge regimes could be higher.

Overall, feminist economists have for many decades pointed to strong, implicit norms that are taken for granted within the field of study and also underpin the fundamentals of economy itself (Elson, 1994; Costanza et al., 2023). Mainstream economy theories and its models and methods have been argued to have a strong androcentric and market-oriented bias, favouring men and masculine topics and the economic case for gender equality, while the general assumption is that studies are objective and neutral (Nelson, 1995; Pearse & Connell, 2016; Elomäki, 2015). As discussed at the start, failures to integrate gender into economic policymaking through gender mainstreaming efforts is not always due to applying it incorrectly, but leaving implementation to others or not applying it at all (also Elson, 1991; O’Dwyer, 2022). “Bias through omission” often through assuming policy to be neutral, may in fact be the key mechanism in which economic policy generates gendered, biased policy that increases inequalities (O’Dwyer, 2022: 60). As pointed out by Bakker (1994), omission can even be strategic, as it efficiently hides gendered consequences, which could jeopardise the legitimacy of the economic policy.

4. Data and methodology

This paper is based on an analysis of the Swedish National Recovery and Resilience Plan (NRRP), which contains 26 policy measures to promote recovery from the pandemic. To illustrate the problems identified in the analysis of the NRRP and to bring additional insights to the results, we compare the findings with interview accounts from three public officials. The data were collected from a larger data collection initiative within the EU H2020 RESISTIRÉ: Responding to Outbreaks Through Co-Creative Inclusive Equality Strategies project and collaboration in researching the impact of COVID-19 and its policy and societal responses on inequalities in 31 European countries, including Sweden.

In the analysis of the NRRP, we seek to understand how gender mainstreaming was implemented, and in particular to analyse the way the NRRP describes the problem of gender (in)equality. This offers a way to understand
both the formal and informal gendered institutions that may affect its implementation (Bustelo & Mazur, 2023; Chappel, 2006). We start with the overall question of how gender equality is included in the NRRP, and distinguish between the diagnosis, i.e. the description of the problem of gender (in)equality, and the prognosis, i.e. the solution of gender (in)equality (Verloo, 2007). The analysis particularly focuses on the underlying understandings of the concepts of “gender”, “equality” and “change” inherent in the broader understanding of how and why gender equality is a problem (or not), and how it can be resolved (Callerstig, 2014).

Following these overall questions, the NRRP is analysed using thematic analysis (Braun & Clarke, 2006; Ahrne & Svensson, 2011). It was coded in multiple steps, which encompassed thorough reading of the entire material and recording of word choices and expressions. By reading the notes and the material alternately several times, the NRRP was categorised and thematised. Themes consisted of common or recurring gender equality approaches in the overall descriptions and in the gender equality assessments of the different measures proposed. The analysis work included noting, as an example, differences in the assessments made and whether the assessments were coherent with the overall descriptions made of gender inequalities in the document. Five specific questions guide the analysis:

1. Is gender mainstreaming applied in a coherent and specific way?
2. In what way does the initial analysis reflect the economic consequences pointed out by the Swedish GEA?
3. Are there specific initiatives suggested to mitigate the negative effects of the pandemic on gender equality in the measures?
4. In what ways are the national gender equality objectives reflected in the measures?
5. How is the NRRP’s initial analysis of gender equality integrated in the measures?

To shed light on the findings of the analysis of the NRRP, and to understand what factors hinder or contribute to the implementation of gender mainstreaming, three interviews with public authority officials were analysed. Two of the interviewees worked on mainstream macroeconomic analysis for state authorities, one worked on gender equality and economics for state authorities. The interviews were semi-structured, recorded and transcribed. Thematic analysis (Braun & Clarke, 2006; Ahrne & Svensson, 2011) was used in the analysis of the responses. The interviewees were asked what effects they had observed in pandemic policy responses from a gender equality perspective. They were also asked about economic pandemic policymaking and how a gender equality perspective had been integrated into policy responses, and why. This article now turns to the findings.
5. Gender mainstreaming in Swedish economic policymaking during COVID-19

In the following section we will first present the analysis of the Swedish NRRP and the findings from the governmental economic policy experts interviewed. The analysis is divided into three sections: 1) Gender mainstreaming in Sweden’s NRRP (including diagnosis of the problem of inequality and the prognosis/solution to inequality); 2) Gender mainstreaming in the NRRP measures; and 3) Illustrations and insights from governmental economic experts.

5.1. Gender mainstreaming in Sweden’s National Recovery and Resilience Plan

The findings are presented according to what is described as the problem of gendered inequality (the diagnosis), and what is prescribed as the solution to the problem of inequality (the prognosis) in the general sections of the NRRP.

5.1.1. The problem of inequality (diagnosis)

The section on the social effects of the pandemic occasionally comments on the effects on women and men, and young people. The analysis and discussion concern the economic recession, effects on companies and unemployment, and the risk of long-term negative effects on “already vulnerable groups” later described as “people who are born outside Europe, who have a reduced ability to work or who do not have a high school education.” (p. 7). It is stated that the pre-pandemic segregated labour market risks further segregation. The situation in the healthcare sector is discussed, such as the need to recruit employees in the future. Nurses are said to need better working conditions and opportunities at work, but there is no mention of a gender equality perspective in the analysis. Some gender statistics are brought up, for example relating to the retirement age for women and men. The analysis is overall predominantly focused on economic effects, and foremost discusses gaps and differences concerning groups based on gender, foreign-born people and younger persons, in relation to the functionality of different economic systems.

The NRRP contains a section in the introduction entitled “1.3 Gender Equality and Equal Opportunities”. Here, income, economic differences between women and men, and again the situation for foreign-born persons compared to those born in Sweden are discussed. Part-time work and increasing differences in income from capital, and how these have erased improvements in closing the pay gap since 1995 are discussed (p. 26). Unpaid work and the situation of foreign-born women regarding employment are particularly addressed.

The analysis in the plan in the initial section (p.p. 26-29) is focused on employment levels and income differences between women and men. The analysis highlights that the employment level for women is high compared to other countries, but still lower than for men, and that this is an important explanation for the difference in income, according to the analysis (p. 26). It also
mentions that the gap is even higher between foreign-born women and men. Additional explanations put forward are that women are absent from work more than men due to parental leave and health-related issues, and have less income from capital than men. Gender segregation in the labour market is also put forward as an explanation to the overrepresentation of men in higher paid labour market sectors and occupations.

The discussion then turns to how the ongoing recession is affecting economic gender equality, and highlights how certain groups have been more affected, such as young women and foreign-born women (who had a weak position on the labour market even before the crisis). Income loss due to job loss and parental leave is mentioned, and an increase in unpaid work for women. It concludes, however, that it is difficult to determine the negative effects on the labour market for women compared to men.

5.1.2. The solution to inequality (prognosis)
What solution is suggested then? The NRRP claims that it includes two measures that are assessed as having an effect on economic gender equality: an increase in available education and the elderly care initiative. The reasons given are that since women are overrepresented in many educational contexts this will strengthen women’s opportunities for education, work and economic independence (p.27). The NRRP also claims it is expected to contribute to several of the gender equality objectives, including education, but without explaining which other objectives, or how. The “Elderly care initiative is said to benefit especially foreign-born women who need education and that could make their position on the labour market stronger” (p.27).

In sum, the problems mentioned include: lower employment levels for women (especially for foreign born women); women’s higher absence from work due to parental leave and health problems; that women have less income from capital, and work in lower paid parts of the labour market. The solutions presented in the NRRP are an increase in availability of education that will strengthen women’s opportunities for education, work and economic independence, and the elderly care initiative that will strengthen their position on the labour market, especially for foreign women, by offering job opportunities. The ambition in terms of gender equality is not to address inequalities per se, and the plan contains no concrete measures to address gender inequalities as an independent objective. The measures proposed aim most of the time to “equip” the vulnerable groups mentioned, i.e. to help them overcome barriers, rather than to address institutional inequalities.

5.1.3. Gender mainstreaming in the individual reforms
The plan consists of 26 measures (12 investments and 14 reforms). They will be supported by €3.3 billion in grants from the recovery fund. For each reform and investment in the plan there is a short section called “Gender equality perspective”. The analysis of the content is shown in the table below. Of the 26 assessments of the impact on gender equality made, only eight refer to a
specific national gender equality objective in the analysis. For the rest, it is unclear what criteria the analysis is based on, e.g., why certain gender statistics are brought up and not others. When a specific gender equality objective is mentioned, all but one (that mentions education) relate the analysis to the objective of economic equality. The analysis made concludes that the effect is
positive in eight cases, negative in one case, and will have no effect on gender equality in eight cases. In two cases no analysis has been made, and the report says it will be made later. In seven cases, the assessment is indecisive, i.e., it is not possible to determine what the outcome of the assessment is, based on the description, and no clear result is presented. In four cases, variables other than gender are explicitly mentioned, in three cases foreign-born persons are mentioned, and in one case age is mentioned.

In sum, the assessment shows that 18 out of the 26 measures in the plan will have no effect (gender neutral), have a negative effect, are inconclusive, or no analysis has been made. Most of the assessments (approximately 70%) have been made without an explicit reference to a gender equality objective, in turn making it difficult to understand the results in relation to gender mainstreaming's aim to be a steering mechanism for the national gender equality objectives. The gender impact assessment (GIA) varies between different areas. Assessments are generally more thorough concerning softer policy areas such as Education and readjustment, and less thorough in the areas of Green recovery and Expansion of broadband, digitalisation of public administration and research. Overall, several tendencies can be noted in the assessments. One is that there is often an over-simplified and blunt calculation of resources spent on women and men, as in the measure “Administrative digital infrastructure”, where the GIA concludes that, “It is possible that more women than men will benefit from the measure, as a majority of public sector employees are women.” (p.114). This type of tendency to miss the bigger problem – or, as a popular Swedish saying goes, “to not see the forest because of all the trees” – is visible in many of the GIAs. Another example is the measure “Protected professional title for the profession of assistant nurse” (p.100), where the assessment is that this benefits women, who constitute 90% of the nursing workforce, who get a better chance of permanent employment. The immense gender segregation in the profession itself is not addressed, however. In another measure “Äldrelfyttet” (‘The Older People Boost’), where the aim is to ensure enough staff for care for older people, improving working conditions is said to be beneficial for the recruitment of more men to the profession, but the measures in the plan contain no concrete measures or suggestions for how this can be done. Furthermore, the impact of and lessons learned about the relationship between bad working conditions (including health hazards), pay levels and professional skills in elderly care from the pandemic are not discussed.

Another observation is that an analysis of the prevailing and systematic gender inequalities that may be counterproductive to the positive assessment made is often missing. One example is the reform “Extended working life – adjusted age limits in the social insurance and tax systems”. Here the GIA concludes first that the pension rules are gender neutral, and second that because women live longer than men, they tend to receive on average more pension during their lifetime than they have paid into the pension system, which means that the pension system redistributes resources from men to women. The GIA continues to describe how an important motive for raising the age limits is
that it is expected to lead to more people working longer and thus receiving higher incomes both during working life and during their time as a pensioner, and that this applies to both women and men. And because women on average have lower pensions than men, the increased opportunities for a better financial standard are particularly important for women. (p.105). The assessment is therefore that the rules themselves are neutral, the effects are even favouring women (redistributing money to women), and the reform will be especially good for women. There is however no mention of how work in sectors dominated by women and work in sectors dominated by men are valued differently, or gender differences in other economic aspects, such as in capital income, and how working conditions differ (which can make a higher pension age become particularly problematic in certain professions dominated by women). The value of unpaid care-work is not included in the reflections on re-distribution between women and men. A third observation is that gender mainstreaming is often left to the implementers in the following steps. One example is the investment “Local and regional climate investments (Klimatklivet)”, where it is said that The Swedish Environmental Protection Agency, the National Board of Health and Welfare, and the Swedish Energy Agency all have the duty to implement gender mainstreaming, which will create “good opportunities” to integrate gender into the investment (p.35).

5.2. Interviews with governmental economic experts

The interviews conducted with the economic policy experts provide additional insights into how gender equality is understood in relation to economic policy responses in the pandemic. The first conclusion from the interviews is that even when economic policy experts recognise that gender equality matters to the area in focus, it is not considered their job to address them. For example, when gender differences – such as in labour market segregation or in working conditions – are brought up, the informants do not see how, or indeed why, these factors should be integrated into the macro-level analysis. The reason is that they conceptually gender differences as individual rather than structural, and therefore addressing them falls outside the remit of their jobs. First, in this line of reasoning, gender inequalities both get individualised and detached from the analysis of the developments in different sectors, industries and companies. Second, gender inequalities are understood as the effect of how the market is operating, e.g. if jobs are lost within a sector dominated by women, it will have a greater effect on women than men, rather than being the conditions of how the market operates. The third conclusion of the analysis is that when gender equality is seen as important, it is in an instrumental way, such as when gender inequality could pose an obstacle to long-term productivity levels. One example mentioned is the lack of employees in the health sector. The final and fourth conclusion is that the interviews demonstrate how gender equality can increase through efforts to help individuals to get a better position in the labour market. Examples from the interviews include offering education to women and other
vulnerable groups. One of the experts interviewed even suggests that this could be made a condition for companies to receive state support.

The interviews also provide insights into how the policymaking process has affected the implementation of gender mainstreaming. All the experts interviewed raise the criticism that the economic policy responses focused too much on the so-called “insiders”, i.e. those who already have a strong foothold in the labour market, and relied too much on already-existing systems, at least in the beginning, rather than designing new ones.

6. Discussion and conclusions

The article has analysed national policy responses to COVID-19 and interviews conducted in Sweden to understand the factors that impacted on the implementation of gender mainstreaming during the pandemic, with a specific focus on how gender equality is understood in relation to pandemic economic policymaking. In the final section, we now return to the initial questions posed: How has gender mainstreaming been implemented in the Swedish pandemic policy responses? And more specifically, in what way was gender equality seen as relevant to, and operationalised in, the policy problems addressed? We will highlight some of the conclusions from the analysis and reflect on the puzzling question of why the Swedish governmental aim to integrate gender concerns in all policies related to the pandemic seem to have failed to deliver on its promises. We will discuss how particular understandings of the concepts of “gender”, “equality” and “change”, inherent in the broader understanding of how and why gender equality is a problem (or not) and how it can be solved, have affected the implementation and can shed some light on its difficulties. A general conclusion is that gender mainstreaming in economic policy is limited in its rationale and scope in times of crisis. It is affected by several factors, some more general, concerning gender mainstreaming in the economic area that has been pinpointed in earlier studies, and some that we argue are more specific to crises.

The diagnosis and prognosis of gender equality in the NRRP are made mainly in terms of economic consequences of unemployment. With few exceptions, the favoured solution is increased employment levels. This tendency has also been witnessed in earlier economic crisis responses where gender equality is understood as “as equivalent to (and limited to) labour force activation leading to the co-option of gender equality language in the pursuit of labour market deregulation” (O’Dwyer, 2022: 161). There is no mention of other types of effects (with impact on the economy), such as the increase in gender-based violence linked to the increase in unpaid housework or unemployment, which could have been a significant economic analysis. Young persons and (im)migrants are highlighted as having a particularly difficult situation linked to unemployment or establishment in the labour market. The NRRP contains measures that are claimed to mitigate these effects and increase the possibilities to readjustments, including e.g., opportunities for education and vocational
training. There is, however, with few exceptions, no mention of the need to address and counteract stereotypes or discrimination facing different groups in society.

Both the diagnosis and prognosis detected in the analysis mainly discuss gender inequalities from a woman’s perspective, i.e., that women have lower employment levels, are absent more from work, have less income from capital, work in lower paid parts of the labour market, etc. The solutions suggested are to help women to strengthen their position (including foreign-born women and young women). There is a general lack of problematisation of the role of men or problematisation of gender inequalities as relational, not individual. In general, there is a lack of a perspective that seeks to alter not only symptoms, but the underlying causes of gender differences. This includes, e.g., the historical undervaluation of female-dominated work areas or the need for a more family-friendly work life. Many assessments focus on whether rules are neutral and apply to all (de jure equality). Fewer focus on problematising aspects that may lead to different gendered outcomes (de facto equality) such as in the case of increasing the pension age. Many assessments also lack a clear reasoning or are inconclusive. The majority (18 out of 26 measures) are assessed to have no effect on gender equality, i.e. they are considered to be gender neutral.

The link to the economic consequences of the pandemic and the national sub-target on economic gender equality is vague. No measure takes as its starting point gender inequalities caused or deepened by the pandemic. The analysis made in the introduction, which highlights gender segregation in the labour market, and which is also mentioned in several of the gender equality assessments, is an example that could have been the starting point for a measure on its own. This analysis, and the way it limits gender equality concerns to only address parts of a problem in its operationalisation, are examples of how the non-material or discursive aspects of implementation will impact on its outcomes (Callerstig, 2014).

Similar findings have been found comparing implementation in EU member states, showing no or very little overall gender equality concerns in their NRRPs. In their practical implementation, most NRRPs include a chapter or a separate section dedicated to gender equality, and the issue is among the challenges to be addressed; however, the number of targeted gender equality measures is limited (Sapala, 2012). The androcentric focus in economic policy (Nelson, 1995; Pearse & Connell, 2016) is also visible in the NRRPs’ focus on the green economy and the digital economy, which are traditionally dominated by men; the comparatively more limited focus on sectors profoundly affected by the COVID-19 crisis which are traditionally dominated by women is likely to increase the gender divide in the labour market (Klatzer & Rinalidi, 2020). When actions to mitigate gender inequalities are indeed included, it is mainly in the area of work, education and care. There is a striking lack of measures in other areas, such as decision-making and gender-based violence; gender is often considered in isolation, and the NRRPs lack an intersectional perspective (Cibin et al., 2022).
Our conclusion is that the implementation of gender mainstreaming in the Swedish NRRP remains symbolic, rather than substantive. It is decoupled from the proposed measures, which are seemingly assessed ad hoc, rather than systematically. There is a weak coherence between the initial analysis and the assessments of the individual measures, and GIA assessments are also varying and inconsistent, e.g., gender segregation in the labour market is brought up in some cases and not in others. The results from the Swedish GEA show that many aspects of the negative impact of the pandemic on economic gender equality have been lacking in Swedish pandemic policymaking, such as the impact of remote working on digital transition, or the long-term effects caused by the high impact on many female-dominated, so-called first-line or essential professions (that are likely to linger for decades). Our analysis shows also how the NRRP fails to address many aspects of these consequences, as well as parts of the economic gender equality objective itself, such as the impact on entrepreneurship.

In terms of why gender mainstreaming was implemented in this way, additional understanding is provided through the interviews. One of the overall conclusions from the interviews is that integrating gender perspectives into the economic analysis or policy considerations is not seen as a stated task of the economic policy experts, either because the data does not allow for it or because gender equality is neither the starting point nor the end-goal of the analysis. They also show how a gender equality analysis is seen as difficult to make, since it would concern individuals, which is the “wrong” unit of analysis. The task of working with gender equality is seen as the duty of other parts of the state machinery. The policy experts interviewed also discuss how few new responses were made in the pandemic policy responses but rather alterations of already existing ones were prioritised. This was discussed as problematic since these systems are built on a norm that prioritises “insiders”, i.e., those who had a regular job prior to the pandemic and to compensate for their loss. This approach ignores the way that the economy itself is gendered, as pointed out in feminist research for decades (Elson, 1991; O’Dwyer, 2022). This means that gender not only needs to be integrated into economic policy, but there also needs to be an understanding that economic policy is already gendered to start with.

a. The implementation puzzle

In public organisations, experts are confronted with contradicting aims to both contribute to normative political ambitions and to deliver scientifically robust analysis; they resolve this through different practices in order to be perceived as credible in terms of objectivity, reliability and efficiency (Bandola-Gill, 2021). In the analysis of the NRRP, and supplemented by the interviews, the commonly shared understandings, the gendered knowledge regime, that guides actors in their assessment of gender equality becomes visible. These relate to particular accepted understandings of “gender”, “equality” and “change”,
and can explain the reasoning and assessments made. The analysis shows how gender is predominantly understood as a discrete element and most of the time is understood in isolation from other intersectional aspects. Gender is also understood as a commodity inherent in a person rather than as a relational and contextual construct. Equality is most often understood in a de jure manor, focusing on equality in opportunities, not outcomes. And change is understood as being incremental and rational, i.e. if the right incentives and pre-conditions are right and equally distributed, gender equality will follow. Gender inequality is thus understood foremost as the problem of individuals, and the solution becomes to help women who are working in low paid sectors, lacking education and so on. The system, rules and regulations are understood as gender neutral, and gendered aspects of individual choices made or how gender relations are determinate for the economy, such as unpaid care work, is not discussed.

The policy experts interviewed also describe how the initial policymaking during the crisis was conducted under time pressure and in the context of a previously unprecedented situation, with little earlier experience to fall back on. Gender equality was not considered and not seen as a main task; the focus was on supporting the “insiders”, which later was understood as a mistake to some degree. These conditions had however changed considerably for the drafting of the NRRP; gender mainstreaming and mitigating the negative effects of the pandemic on gender equality was a clearly articulated demand, and there was not the same time-pressure. Even so, gender mainstreaming has been integrated in a way that is not likely to generate any substantial effect on gender equality. Our conclusion is that the overall gendered knowledge regime in the economic field, including the understanding that gender equality is not relevant for the analysis, can explain both how and why (not) gender mainstreaming was implemented, and why Sweden, a European champion in gender equality, shows disappointing results.

b. Policy implications for gender mainstreaming in crises policymaking:
A lost momentum

In most cases, the overall lack of direction and intention in relation to gender mainstreaming and analysis is decoupled from the reforms outlined, which increases the risk for non-implementation in the further implementation of the NRRP in the years to come. This also means that at the same time an important step in gender mainstreaming is missed out. As described earlier, this particular absence of policy direction, with the gender analysis (diagnosis and prognosis) in gender mainstreaming failing to bring gender in, has been observed in other cases in economic policy (Ahrens & Callerstig, 2017; Sjöö & Callerstig, 2021). And as pointed out by several authors, gender bias in economic policy is not always explicit (Elson, 1991; O’Dwyer, 2022), and “bias through omission” may risk increasing inequalities (O’Dwyer, 2022: 60).
The main conclusion from the analysis is that the NRRPs, which could have been a window of opportunity for gender mainstreaming and for which Sweden would have been the ideal case for this, instead rather lost momentum. In relation to the crisis, a popular concept has been resilience, i.e. to understand how society is able to cope with crises or the “capacity of a system to absorb disturbance and reorganise while undergoing change to still retain essentially the same function, structure, identity, and feedbacks” (Forbes et al., 2009: 22041). We can conclude, in terms of gender mainstreaming, that its resilience in how it operates in times of crisis is no better than at the outset. If gender mainstreaming is working poorly in an area prior to a crisis, this is also likely to be the case during the crisis. In fact, one may turn the question around and conclude that resilience is strong in terms of the particular gendered knowledge regime in the economic policy area and how it retained its modus operandi during the crisis.

What to do then to increase the resilience of gender mainstreaming in future crises? The interview responses suggest that there indeed is a difficulty in understanding both the relevance of, and how to integrate, a gender perspective in relation to macroeconomic initiatives to the pandemic. Furthermore, in times of crisis the urgency of policy responses might make the implementation of gender mainstreaming more difficult, due to time pressure and a general lack of framing of gender relevance in relation to the crisis, i.e., it was seen foremost as a health crisis, with secondary consequences (from health prevention measures undertaken) being mainly economic. From earlier crises we know that gender equality concerns are often downplayed in times of crisis, not only during but also after them – in the recovery phases (O’Dwyer, 2022). The impact of the particular and gendered knowledge regime on the implementation partly relates to the openness of gender mainstreaming as a strategy where actors normally involved in policy-making, not gender experts, are responsible for integrating gender equality. This openness also brings the risk of policy vagueness being transferred to other levels and actors in the implementation (Candel, 2017), or even to the last instance. To strengthen the implementation one suggestion is to take both these aspects into consideration, i.e. both the understanding of gender equality in relation to the area but also the understanding of gender mainstreaming as a strategy.

c. Limitations and future research

In this study we have focused on analysing gender mainstreaming in the Swedish NRRP and complementary interviews with experts to deepen our understanding of the problems at hand. The results indicate that the strong gendered knowledge regime in the area determines both if and in what way gender equality will be translated into action, and who is seen as responsible for its implementation. Additional interviews with policy actors within the area can provide a deeper understanding of how and why gender equality is perceived differently.
in different policy areas and how material aspects of implementation are affected by these different understandings. Comparative studies of the discursive aspects of implementation of gender mainstreaming in economic policy both in Sweden and with other countries could lead to additional insights. Comparative studies of the implementation of gender mainstreaming in other policy areas could also increase this knowledge. Also, studying the implementation of the NRRP in its further steps can increase the knowledge of how gender equality will be picked up by actors operating within other knowledge regimes.

Acknowledgement
The authors would like to thank the anonymous reviewers for their very helpful comments, the journal editors for their effective administration and patience, and the Special Issue editors for their encouraging support.

Funding
The paper is based on research carried out in the EU H2020 funded RESISTIRE, Grant Agreement number 101015990.

Bibliographic references


