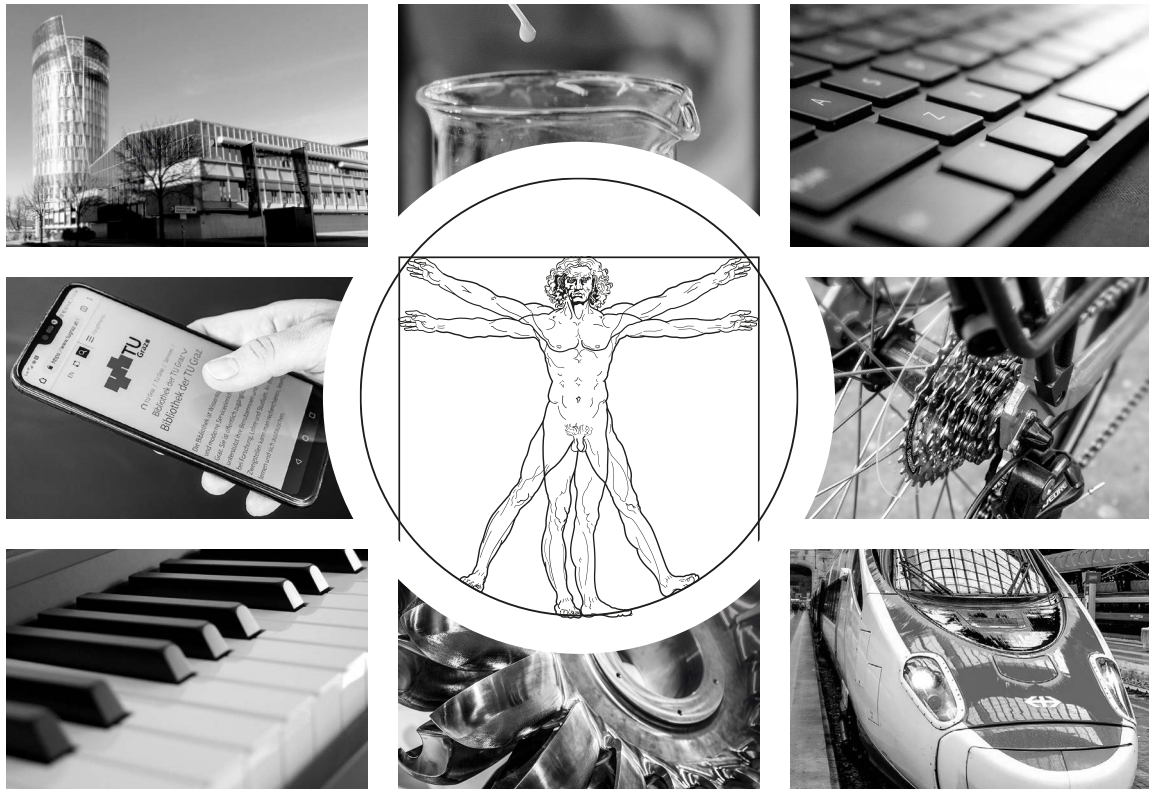


SCIENCE, TECHNOLOGY AND SOCIETY



Günter Getzinger | Michaela Jahrbacher | Franziska Häller (eds.)

Conference Proceedings of the STS Conference Graz 2023

Critical Issues in Science, Technology,
and Society Studies

8–10 May 2023



Editors: Günter Getzinger, Michaela Jahrbacher, Franziska Häller
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2024 Verlag der Technischen Universität Graz
www.tugraz-verlag.at

E-Book

ISBN 978-3-85125-976-6

DOI 10.3217/978-3-85125-976-6



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Preface

Critical Issues in Science, Technology and Society Studies

Conference Proceedings of the STS Conference Graz 2023, May 8th – 10th

The annual STS Conference Graz provides a space for scholars from all parts of the world to present and discuss their research with peers. In their papers, the conference participants address the complex ways in which science, technology and society coevolve and mutually shape one another. Without exception, the participants of the conference aim to provide a better understanding of the world(s) in which we live. This includes the assessment of emerging technologies, the scrutiny of ethical, legal and social aspects of contemporary scientific practices as well as the transition to environmentally friendly and socially desirable techno-scientific futures.

This volume of proceeding documents is part of the work that has been presented at the 21st STS Conference in Graz in 2023. It presents the wealth of ideas discussed at this occasion and fosters collaboration. The STS Conference Graz is the joint annual conference of the Science, Technology and Society (STS) Unit at Graz University of Technology, the Interdisciplinary Research Centre for Technology, Work and Culture (IFZ) and the Institute for Advanced Studies on Science, Technology and Society (IASSTS).

Find the Book of Abstracts at the DOI: [10.3217/978-3-85125-955-1](https://doi.org/10.3217/978-3-85125-955-1)

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Getting Closer to Gender Equality in Research Performing Organisations through Gender Equality Plans?

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DOI 10.3217/978-3-85125-976-6-22

Abstract. To what extent Gender Equality Plans (GEPs) can get Research Performing Organisations (RPOs) closer to gender equality and how to detect whether their actions could really be able to make a difference in creating a gender equal environment? And what are the factors affecting the spread of GEPs and enhancing their transformative power? These are the key questions that this paper tries to address with a focus on Italy, a country that on one hand is characterized by higher gender inequalities than on average EU-27 countries and by a relevant gender gap at the disadvantage of women in the higher level of academic career, while on the other hand sees an increasing effort by the Conference of Italian University Rectors (CRUI) and the National Conference of Equal Opportunities Bodies of Italian Universities (COUNIPAR) to support with guidelines and training the universities' path towards gender equality. Specific cases of RPOs' GEPs located in different areas of Italy that are characterized by different levels of gender inequality are also analysed, to show how actions are tailored to the context and are consistent with the gender equality objectives already expressed by their Strategic Plan, reinforcing them and providing the framework for a real change.

Keywords: Gender equality, research performing organizations, participatory process, Gender Equality Plan, structural change

1 Introduction

Following the introduction of the requisite of Gender Equality Plan to access funds in Horizon Europe Programme, an increase in the number of universities and research centers adopting Gender Equality Plans has been observed in the last year. A further impulse in the adoption of Gender Equality Plans (GEPs) by Italian Universities has also been provided through the Conference of Italian Rectors' Guidelines already issued by the Thematic Group on Gender before the complete European Commission Guidelines were published⁶². In the design and monitoring process of GEPs, Italian Research Performing Organisations (RPOs) received support from European Commission-funded projects and could take advantage of training sessions provided within the same projects or organized by the Conference of Italian Universities Equal Opportunities Bodies. The paper provides an analysis of GEPs adopted by Italian Universities in 2021-2022 by means of a mixed-methods approach that combines: 1) a quantitative analysis of the data collected through a survey on the Equal Opportunities Committees of Italian Universities, that aims at improving the knowledge of the process followed by each university in the design and implementation of GEP, in particular by highlighting to what extent the Equal Opportunities bodies have been involved in the design of the Plans and in their implementation; 2) a qualitative analysis of the GEP of six Italian universities, distributed throughout the national territory and chosen as case studies.

The aim of the paper is to ascertain GEPs' compliance with the Conference of Italian Rectors (CRUI) and European Commission Guidelines, with particular attention on the presence of actions covering all the priority thematic areas indicated in the guidelines and the inclusion of equal opportunities committees in the process.

In the GEPs analysis, special attention is also provided to the interconnection of GEPs with RPOs' Strategic Planning and within the gender budgeting cycle.

The paper allows a reflection on the process of increasing investment by Italian universities on the topic of Gender Equality promotion, fight against inequalities, and diversity support, with the aim of highlighting how much has the GEP - as a strategic planning tool - strengthened or accelerated this process. The interest in analysing the role of GEP in this process stems from the authors' expertise as researchers in the field of gender studies in academia, involved in the implementation of GEPs in different Italian

⁶²The Vademecum for the elaboration of the Gender Equality Plan in Italian universities was produced by the GEP Working Group of the CRUI Commission on Gender Issues, and approved at the CRUI General Assembly on 22 July 2021

(<https://www.crui.it/archivio-notizie/vademecum-per-l%E2%80%99elaborazione-del-gender-equality-plan-negli-atenei-italiani.html>).

universities promoted by different European projects, and with different roles in activating gender policies in Italian academia.⁶³ Being the monitoring process in progress, the paper also allows a critical assessment on what is required to make the GEP adoption not just another regulatory compliance, but the lever to propel institutional change towards better inclusion and enhancement of diversity already underway in Italian universities.

2 Gender Equality in Italian Universities

The focus of this paper is on the current situation regarding the impact of Gender Equality Plans on the path to gender equality in Italian universities. The choice of Italy is justified in terms of a still low and improvable general achievement in terms of gender equality, with respect to other EU countries, but, at the same time, of a remarkable effort made by Universities' associations to drive a process of change towards gender equality supported by the European Commission Programmes and actions.

Not only the last available EIGE data on the Gender Equality Index show a sensibly lower percentage of graduates amongst 15+ Italian population both for men and for women, but also Italy is the last, in terms of gender balance, in the work dimension, with an achievement of 63.2 against the EU average of 71.7. On the whole the Gender Equality Index in Italy is below the EU average (65 against 68.6) (Table 1).

Table 1 – Indicators on Graduates by gender and Gender Equality Index

	EU-27	IT
%M Graduates on 15+ M	26	14
%W Graduates on 15+W	27	17
Work dimension	71.7	63.2
GEI	68.6	65

Source: EIGE (2022) data available at <https://eige.europa.eu/gender-equality-index>

Turning to the academic staff in Universities, as the last available indicators in the report *She Figures* shows (European Commission, 2021a), Italian women's representation in different grades of their academic career is lower than men in Grade A, B and C and their

⁶³ The authors took part, with different roles, to the following EU funded research projects: GENOVATE (FP7 - 321378), LeTSGEPs (H2020-SwafS-2019 – 873072), EQUAL-IST (Horizon 2020 GERI-4-2015), SUPERA (Horizon 2020 research and innovation programme - 787829) and are members of the Conference of Italian Rectors Group entrusted to write the guidelines on GEPs for Italian Universities.

share is in general lower than the average for EU-27 countries in Grade A and Grade B (Table 2). The percentage of women in Grade A position in STEM fields is even lower than in EU-27 countries on average (Table 3).

Table 2 – Share of women by Grade in the academic career – Italy and EU

	EU-27	IT
Grade A	26.18	23.74
Grade B	40.29	38.41
Grade C	46.61	46.77
Grade D	47.98	50.13
Total	42.32	40.48

Source: European Commission (2021a)

Table 3 – Percentage of women among grade A staff, by main field of R&D, 2018 –

Italy and EU

	EU-27	IT
Natural Sciences	21.99	24.3
Engineering and Technology	17.91	13.84
Medical Sciences	30.08	17.05
Agricultural Sciences	28.5	19.45
Social Sciences	30.85	27.46
Humanities	34.95	37.43

Source: European Commission (2021a)

3 The Role of the European Commission for the adoption of GEPs in Italian Universities

In recent years, the new provisions introduced by the European Commission to access research and innovation funding programmes and the availability of dedicated guidelines has greatly contributed to boost the design and the adoption of GEPs in all Italian universities. As is well known, indeed, the European Union's Framework Programme for Research and Innovation “Horizon Europe” prescribed new requirements to strengthen gender equity in European organizations. According to these indications, adopting a GEP is an eligibility criterion for research organizations and higher education institutions to access Horizon Europe research program funding. Addressing these specific contexts, the European Commission defines a GEP as a strategic plan aimed at: a) conducting impact assessments/audits of procedures and practices to identify gender biases; b)

identifying and implementing innovative strategies in order to correct gender biases; c) defining objectives and processes to monitor progress through indicators. The European Commission also provided precise indications on the implementation of GEPs, which should have been adapted for fitting the normative, social, and cultural diversities that distinguish the States members of the European Union and the specific organizations in which these directions were to be applied. In particular, the European Commission has specifically requested to pay attention to the following areas of intervention, for the identification of the actions proposed in the GEP: Area 1, Work-life balance and organisational culture; Area 2, Gender balance in top positions and decision-making bodies; Area 3, Gender equality in recruitment and career advancement; Area 4, Gender mainstreaming in research and teaching programmes; Area 5, Measures to combat gender-based violence, including sexual harassment.

In the Italian academic context, in accordance with the Gender Mainstreaming Strategy, the GEP has been interpreted as the main document that defines the universities' strategy for gender equality, first of all aimed at strengthening the introduction of a gender-sensitive perspective in their Strategic Plans. To achieve this goal, the GEPs have to be formally included in the universities' planning procedures and synchronized with the Positive Action Plan (PAP) already provided by the Italian regulations, and, finally, drafted in continuity with the Gender Budgeting (GB) process, that has been described in a quite recent dedicated document by the CRUI Gender Issues Commission, CRUI (2019)⁶⁴.

Indeed, as we already mentioned, a big effort has been made both by the Conference of Italian Universities Rectors (CRUI) and by the National Conference of Equal Opportunities Committees (COUNIPAR) to positively contribute to the adoption both of GBs and GEPs in Italian Universities, by supporting them in the design and implementation of these tools through dedicated guidelines. Specifically, the guidelines for gender budgeting (Addabbo et al., 2018; CRUI, 2019) as well as for Gender Equality Plans (CRUI, 2021), together with training courses and workshops have strongly enhanced the degree of awareness and knowledge on the more suitable and effective practices for achieving gender equality. To what extent this attention at national level and the spread of gender budgeting in regions and in municipalities in Italy - strengthened by the choice of the National Recovery and Resilience Plan (NRRP), in 2021, to make gender budgeting structural throughout the Public Administration - can be related to the observed high presence of gender budgeting in Italian Universities has been discussed in Addabbo, Badalassi and Canali (2021) and can also be related to the current observable propagation of GEPs in Italian universities, the main focus of this paper.

⁶⁴ <https://www.crui.it/bilancio-di-genere.html>

Moreover, a major factor in ensuring GEPs' circulation in Italian universities is related to the well-established existence of dedicated EU funded programmes, as a significant number of Italian Research Performing Organizations have been or still are part of Sisters Projects aimed at supporting them in the process of GEPs' design and implementation.

4 The presence of GEPs in Italian Universities

We propose here a preliminary analysis on the adoption of GEPs by Italian Universities in 2021-2022, based on microdata collected through a Survey on the Equal Opportunities Committees of Italian Universities carried out by COUNIPAR in 2021 and 2022. The survey aims at improving the researchers' knowledge on the process followed by each university in the design and implementation of GEPs and on the role specifically played by Equal Opportunities bodies in each step; a knowledge that is shared, during the annual conference of COUNIPAR, gathering equal opportunities delegates and members of the Equal Opportunities bodies of Italian Universities.

The Sample is made out of 45 Committees that took part in the Survey in July-September 2022 (22 of them took part also in the 2021 survey), and 34 in 2021 (out of 97 Italian universities, of which 67 public, 19 private legally recognized, 11 telematic private legally recognized).

As shown in Table 4, there has been an enormous increase in the number of universities that have now a GEP, from 9% in 2021 to 89% in 2022. The timing of the GEPs' approval is also showing the impact of the new Horizon Europe mandatory prerequisite, from the end of 2021 onwards. In fact, of those universities that had a GEP in 2022, 27% approved it in 2021, 61% in 2022; only 7% adopted it since 2020, and just 5% before.

Another interesting peculiarity of Italian universities is that before the GEPs became prescriptive, they were required by Italian Law to provide a Positive Action Plan having a wider focus than GEPs. However, the analysis shows the potential higher impact of GEPs also in this case, since only 50% of the Positive Action Plans, designed by the universities involved in the survey, linked their actions to specific key performance indicators (KPIs), against 98% of GEPs, thus increasing the potential effectiveness of each proposed action. This is also in line with the requirements pointed out by the Horizon Europe Guidelines, to which as much as 90% of the analysed universities stated to be compliant (while 76% declared they were compliant to the CRUI guidelines issued before the European ones).

Table 4 – Percentage of Italian Universities involved in the COUNIPAR surveys by GEPs' status

	2021	2022
In progress	73.5	6.7
No	17.7	4.4
Yes	8.8	88.9
Observations	34	45

Source: Our elaborations from COUNIPAR data

A first important indicator of the degree of participation in the process of GEP's design is to what extent the Equal Opportunities Committees have been involved in each step. Actually 95% of GEPs have shown the involvement of Equal Opportunities Committees, a much higher degree of involvement than in other Strategic Planning Processes (where the figure is around 60%).

The interaction between the presence of Gender Budgeting and GEP seems to occur quite frequently, since 37% of the universities that in 2022 were reported to have adopted a GEP, also had Gender Auditing and Budgeting, while 42% had only Gender Auditing and 20% stated to have started drafting their Gender Auditing.

These first figures would look promising in supporting the hypothesis that GEP adoption in Italian Universities hasn't been just another regulatory compliance, but the lever to propel institutional change towards better inclusion and enhancement of diversity, already underway in most of them. However, Monitoring & Gender Impact Evaluation of GEPs actions are currently taking place and their real transformative impact cannot be evaluated at this stage. So, it will be necessary to wait at least for the expiry of the first waves of GEPs to be able to make medium-term assessments.

However, we can already try to "enter" into the logic and mechanisms activated by Italian universities to assign a real transformative scope to their GEPs, taking into consideration some specific cases by way of example. Specifically, in the following section we will analyse six case-studies related to RPOs located in different areas of Italy and characterized by a different baseline situation in terms of gender equality.

5 Different paths to Gender Equality: some case-studies based on Italian Universities' GEPs

In order to understand the impact of European guidelines on the institutional policies of Italian universities, after presenting some results of the survey carried out by the COUNIPAR, we applied qualitative research techniques for analysing six GEPs recently adopted by six different universities. For this pilot study, we selected GEPs from universities that have achieved a well-known experience in institutional gender equality policies, having been partners in European funded projects aimed at the implementation of gender equality actions. In particular, for this analysis, it was decided to choose large and medium-sized universities according to the criterion of ensuring a geographical representation of the whole Italian territory.

The GEPs analysed are generally concise, which is understandable, given the need to adapt their strategic objectives to European indications within a very tight timeframe. They were approved by each university academic body (the Senate and the Board of Directors) within the end of 2021 (in one case in 2020, even before the guidelines were published) and made available on their official websites no later than early 2022, i.e. only a few months after the publication of the EU guidelines. Therefore, the design of the actions included in these GEPs has been largely based also on documents previously drawn up by academic institutions, such as the Gender Budgeting, which had already provided useful in-depth context analyses, and the Positive Action Plans, already promoted by the CUGs.

In order to systematize our comparative study of GEPs, we identified five main analytical dimensions:

- 1) their consistency with CRUI and Horizon European guidelines;
- 2) their direct linkage with specific European projects;
- 3) the coherence of their designed actions with the main needs that emerged from the previous context analysis;
- 4) the activation of participatory processes in each step, through the involvement of different actors from the design of the GEP to its implementation;
- 5) the GEP's publication and dissemination strategies.

Proceeding point by point, first of all the analysis of the GEPs shows a general consistency with the European indications and their contextualization in Italian academic institutions provided by the CRUI working group. Specifically, the actions reported in all documents covered the five thematic areas of intervention identified by the European Institute for Gender Equality (EIGE), just as the four mandatory qualitative requirements for the drafting of GEPs appear to be respected: their public configuration, the provision

of dedicated resources, the guarantee of data collection and monitoring, and the relevance attributed to training. Explicit reference is also made to the KPIs for the monitoring and evaluation phases and to the collaboration established with the universities' stakeholders in drafting the GEP.

Regarding the second point, although all the universities involved in this first analysis had participated in European projects aimed at bringing about conditions of greater gender equality, not all the GEPs analysed explicitly mention these projects. While in three cases the adoption of the GEP was part of the project tasks or its main output, in others not only is the European experience not mentioned, but the expertise developed thanks to that international co-learning opportunity has been only partially used in the drafting of the document.

Moving on to the third point, the connection between the type of actions designed in the final document and the previous context analysis is not always clear or mentioned in the GEPs under study analysis. If, in some cases, the context analysis is not reported in the GEP, in others it is limited to a very brief report with statistical and descriptive information without entering into the merits of the processes that contribute to determining, for example, the segregation phenomena observed. Just in one case, the document specifies the expectation of research results aimed at taking a better picture of that university from a gender perspective, which may contribute to the strengthening of its GEP and the definition of structural and cultural actions more targeted to counteract the detected asymmetries. In two other cases, the GEPs took also advantage of very recent in-depth context analysis carried out by those universities as a basis of their Gender Budgeting Reports, that are reminded in the first part of the GEPs, while only in one case specific references are made to the related actions. A system of indicators shared within EU funded projects is explicitly used and referred to in two of the GEPs, that explicitly make reference to those international projects as the levers of the cultural and organisational change in a gender-sensitive way. One of them also refers to an ad hoc survey carried out to gather the degree of consensus on potential Gender Equality Actions and to investigate perceived discrimination.

Regarding the participative aspects, the GEPs analysed were drawn up by boards that involved the CUG, sometimes the Gender Budgeting Working Group, and sometimes members of European gender projects or research councils already established within the universities, before being discussed and approved by the top management. From the documents analysed, however, it is not always possible to deduce the activation of participatory processes aimed at involving the various actors who, within the institutions, could have consolidated expertise on gender issues and for this reason could have contributed to a greater acceptance and a better dissemination of the policies promoted. Nor is it possible to identify the qualitative or quantitative methods applied to involve

representatives of all the different bodies and populations present at the university (teaching and technical-administrative staff, students) and to gather their participation in producing the final document. Nevertheless, in at least three cases some evidences accompanying and presenting the GEPs (e.g. news collected by the press offices and linked to the universities' webpages dedicated to gender promotion policies) mention experiences like fab labs or focus groups, that have been conducted in the drafting phase.

However, in general the short time available - from the issuing of the guidelines to the expiry of the first call for proposals to access EU funds, that required the publication of a GEP - hindered other actors' involvement in the design process, which would have required time-consuming procedures. In the coming years, it will therefore be essential to continue evaluating the policies that academic institutions will pursue in favour of gender equality in order to understand whether the limits currently encountered can be overcome over time, and to ensure that the institutionalization of gender equality does not become a bureaucratic exercise, but, on the contrary, is able to promote real participatory and transformative processes implemented within academic institutions.

Turning to the last point, the publication and dissemination strategies of the GEPs analysed, we can confirm that they have all been approved by the academic bodies and published both in Italian and in English on the Universities' websites, sometimes on dedicated sections linked to the official homepage to be as accessible as possible, or within the strategic planning or open budget data section of the website. In all cases, the websites' archives also show evidence of the news on the GEPs' approval or their public presentation. In one of the GEPs analysed, reference is made to the design of GEP's communication stressing the importance of being both internal and external, with the aim of involving external stakeholders but also of getting as wider as possible within the university, in order to communicate the actions and involve in their implementation all the components at department level.

6 An example of strategic action for gender equality: work-life balance and organisational culture

An in-depth analysis of the different GEPs, which goes beyond the aggregated data that reveal the current trends on this policy front in the Italian academic landscape, allows us to address some key issues. In particular, two questions appear interesting: to what extent the proposed actions are designed by taking into account the RPO's critical areas in terms of gender equality? Is there a continuity with regards to the actions included in the Positive Action Plan?

To answer these questions, in the final part of this paper we propose a little analytical exercise, referring to a specific strategic action, connected to the area of work-life balance and organisational culture.

One of the priorities that, according to the Horizon Europe guidelines (European Commission, 2021b), RPOs should affect by the actions included in their GEPs is work-life balance and organisational culture. All the analysed GEPs include actions to address this priority. And in these cases, the actions designed in the area of work-life balance reflect the different situations of the areas where the universities analysed are located. In fact, in 2021, the percentage of children attending kindergarten on the total population aged 0-2 ranges from 6.7% in the South to 19% in the Centre-North (Table 5). To increase the coverage of early childcare service, a three-years plan to develop childcare facilities has been introduced by the 2007 Budget Law (Law 296/2006) and then renewed in the following years. However, though there has been an increase of kindergartens the gap at the disadvantage of Southern regions persists (Giorgetti & Picchio, 2021).

The lower presence of early childcare services in the areas where two of the Universities analysed are located, is reflected also in the needs of the personnel, as resulting from a survey delivered by the same Universities. The actions designed, linked with the policies in their Positive Action Plans, aimed at improving childcare services within the workplace and the development of nursing areas.

Different actions on work-life balance have been developed by another medium dimension university located in the North of Italy, in an area where the coverage of kindergartens is much higher than on national average. Again, in continuity with policies in its Positive Action Plan, the GEP action consists in promoting a survey on the need of the personnel to design policies able to improve work-life balance, taking into account the existing childcare services and social infrastructures, in order to provide attention also on early career researchers and students as care-givers, in a context characterized by very low fertility rates and by a high degree of population ageing. In analysing GEPs actions in the area of work-life balance, one has to consider the inequality in the allocation of care work within the Italian couples, still characterized by a much higher amount of time and care responsibilities by women than men and by a very low take-up of fathers' parental leaves (Addabbo *et al.*, 2022) that call for a more equal gender distribution of unpaid care work and dedicated policies.

Table 5 – Percentage of children attending kindergarten on the total population aged 0-2
by area.

	2021
Centre-North	18.8
South	6.7
Italy	14.5

Source: ISTAT (2022) data available at:
http://dati.istat.it/Index.aspx?DataSetCode=DCIS_SERVSOCEDU1

So, here are some tips for further analysis on these topics. Specifically, the following processes should be detected within different Italian universities, located in areas that are characterized by a different presence of childcare services:

- Awareness of the external and internal situation in terms of work-life balance;
- Design of actions consistent with the external and internal context, in terms of presence of childcare services, by detecting the needs expressed by the personnel through a specific survey, before the action design is carried out (as done by the mentioned Southern Universities); or by detecting other different needs expressed by the personnel, when they are already aware of the existence of a good coverage of childcare services, in order to collect further suggestions, in terms of agreements with the existent services or for introducing forms of working time flexibility to match the childcare services time schedule (as done by the mentioned Northern University);
- Link with previous Positive Actions Plans;
- Presence of specific KPIs that can allow monitoring of the actions, thus potentially increasing their efficacy.

7 Conclusions and further developments

The investigation presented in this paper provides a pilot study that, through a mixed-methods approach, indicates a methodology of analysis aimed at understanding how policies promoted by the European Commission can (or cannot) be translated into transformative practices within academic institutions.

The increase in the number of Universities in Italy approving GEPs can be related to the inclusion of the GEP as a pre-requisite to Horizon Europe funding, and to the diffusion of GEP's guidelines issued by the EC and by the Conference of Italian Universities Rectors.

Almost all the GEPs analysed report compliance with these guidelines and have involved the Equal Opportunities Committees in the process.

In the Italian context, there is also a high co-presence of Gender Budgeting (GB) and Gender Equality Plans (GEP) processes and more attention should be paid on the interaction between the two in shortening the path to gender equality. Will the presence of GB enhance the transformative process of GEPs? What is then the added value of the interaction of GEP and GB for sustainable and transformative GEPs? Should Gender Auditing be extended to analyse the GEPs actions?

GEPs have been approved by most of the Italian universities in 2021 and in 2022 and many of them are currently undergoing a monitoring process, leading to reflect upon the actions designed, the barriers to their development and the need for new actions.

As displayed by the six case-studies chosen for exploring, in a comparative way, the content of some GEPs from Italian universities located in different areas of the country, it is precisely in this phase of almost total flowering of GEPs that it is important to promote well-documented analyses, capable of going beyond the drafting step, in order to provide insights on the link between the actions designed and the degree of knowledge of the current context, as well as on the impact of these actions in the next future.

Acknowledgements

Funding from LeTSGEPs (Leading Towards Sustainable Gender Equality Plans in research performing organisations, H2020-SwafS-2019, Grant Agreement n° 873072) project are gratefully acknowledged by the authors.

The authors' stimulating experiences in different EU funded sister projects [LeTSGEPs (H2020-SwafS-2019 – 873072), GENOVATE (FP7 - 321378), EQUAL-IST (Horizon 2020 GERI-4-2015) and SUPERA (H2020 SwafS-787829)] have been an important source of inspiration.

The authors thank two anonymous referees for their insightful comments and suggestions.

The responsibility for the content and any remaining errors remains exclusively with the authors.

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