

*Report on the Analysis of the Twitter #SpeedUpChange Campaign
Celebrating 11th of February 2021*

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List of Abbreviations

AC	Associated Countries
EC	European Commission
CSO	Civil Society Organisation
ERA	European Research Area
GE	Gender Equality
GEP	Gender Equality Plan
GEPI	Gender Equality Plan Implementer
HE	Horizon Europe
H2020	Horizon 2020
HEI	Higher Education Institutions
MS	Member State
NGO	Non-governmental Organisation
RFO	Research Funding Organisation
RPO	Research Performing Organisation
IDWGS	International Day of Women and Girls in Science
R&I	Research and Innovation
RQEO	Research Quality and Evaluation Organisation
STEM	Science, Technology, Engineering and Mathematics
UN	United Nations



Executive Summary

In February 2021, GEARING-Roles and GENDERACTION organised a Twitter campaign #SpeedUpChange focused on identifying what public authorities could do to advance gender equality in the European Research Area (ERA). This report presents an analysis of the campaign results based on the Tweets contributing to the campaign.

The analysis of the stakeholders' contributions highlights the current needs of EU-14, EU-13 and AM¹ for the fulfilment of the GE objectives in R&I within the ERA, informing on possible prospects for the development of public policies at the regional and national levels across Europe in the next course of action. Out of the 877 tweets published under the scope of the campaign, 114 had their content analysed in this report, of which 92 referred to recommendations on what is expected from public authorities to tackle the remaining challenges in the promotion of GE in the European R&I sector, and 22 related to acknowledgements of good practices that are already in place in national and regional levels. Taking into account the main goal of the campaign of getting inputs from stakeholders to identify the next steps in the advance of GE initiatives, such a difference in the number of posts relating to each type of content was expected.

In order to respond to one of our pieces of inquiry within this analysis (geographical origin of the demands), this work gathers the information keeping a geographical rationale throughout the findings. It takes into account the variances in needs and priorities in different European contexts and groups the contributions made by stakeholders from the EU-14, EU-13 and associated members into separate clusters of analysis. Such a division, however, does not disregard the many co-occurrences of realities and challenges faced in the different regions.

Given the broad topic tackled by the campaign, participants have identified a series of areas where work and investment should take place as priorities in the coming years. Overall, three were **the most mentioned areas of recommendation: institutional commitment to provide resources for GE actions; institutional commitment to establish and enforce rules and directives that contribute to the advance of GE; and gender mainstreaming in national public policies for R&I.** In addition to those, recommendations stressed specific needs linked, *inter alia*, to the inclusion of a gender approach in knowledge generation, the adequate distribution of financial resources for GE policies, the implementation of actions to combat biases and stereotypes, the promotion of an equal and inclusive leadership, and the urgency to ensure a comprehensive and multi-dimensional evaluation of GEPs and GE policy, followed by institutional accountability towards GE.

Throughout the analysis, the interdependency of many areas and the connection of many factors for the achievement of an ultimate goal were brought to light. In turn, although converging in many demands, contributions reinforced that differences on the needs and

¹ EU-14 is used instead of EU15, as the campaign was carried out after Brexit, and the UK falls under the category "associated countries".



challenges between EU-14, EU-13 and AM remain in place. In this regard, EU-13 stakeholders were considerably underrepresented in demands related to combating gender biases and stereotypes, as well as to promoting an equal and inclusive leadership. Moreover, in recommendations for financial support for GE initiatives, there was a significant disparity between the priorities signalled by the different geographical areas. While there appears to be a **demand from EU-14 stakeholders for GE funding to be invested in a wide range of GE initiatives, EU-13 focused primarily on the funding need for the creation and implementation of institutional GEPs.**

At this point, it is worth recalling that, given that the object of the analysis is a Twitter campaign, deeper analyses may be inherently limited. From the one side, although there has been a high number and diversified participating stakeholders, they do not represent the whole academic community operating in the European R&I sector. Moreover, the fact that the content analysed comes exclusively from publications on Twitter is itself a limiting factor: this type of communication forces towards simplification and mentioning of only the central aspects of the subject addressed. Nevertheless, possible limitations are taken into account and pointed out throughout the analysis, and results are drawn in consideration to those (e.g. the significantly higher general representation of EU-14 stakeholders in the campaign).



1. Context

1.1 Gender Equality in the current European R&I field

The 11th of February marks the International Day of Women and Girls in Science (IDWGS), declared by the United Nations (UN) resolution A/RES/70/212 with the aim of bringing to light the need for pursuing full and equal access and participation of women and girls in science and technology. The European Commission (EC) affirms its commitment to the goal by establishing gender equality (GE) and gender mainstreaming in Research and Innovation (R&I) as the fourth priority of the European Research Area (ERA).

Since the last EC Framework Programme (Horizon 2020), gender has been considered a crosscutting factor in projects belonging to all areas of knowledge, and the recently launched Horizon Europe (2021-2027) reinforces such a commitment. Although the 2021-2027 Framework Programme does not present a GE exclusive mission², the orientations of its first Strategic Plan are clear when providing gender as a crosscutting factor for all R&I projects, with the view that “the inclusion of gender perspectives will enable better quality and higher societal relevance of research and innovation activities.”³ In addition, the new programme goes beyond and brings with it a new eligibility criterion to all legal entities applying for funds, requiring that they have a Gender Equality Plan (GEP) in force or demonstrably planned.⁴ The new rule, officially announced during the EC’s R&I Days 2020, appears as a key means through which to ensure that gender does not remain at the borders and promote commitment towards gender structural change at all institutional levels and fields.

1.2 GEARING-Roles and GENDERACTION Campaigns

In view of the important announcement regarding gender in Horizon Europe during the EC’s R&I Days 2020, the GEARING-Roles (focused on gender structural change) and the GENDERACTION projects (a community of practice focused on capacity building, policy advice and coordination), both funded by Horizon 2020, joined forces and organised a Twitter campaign, calling stakeholders to share their ideas about the importance of GEPs in academic institutions. Carried out during the R&I Days in September 2020, the campaign received contributions from actors coming from different areas of knowledge, representing EC bodies, sister projects on structural change, GEP implementing institutions, HEIs, RFOs, projects from other work programmes, among others. The idea was to understand how actors from the R&I field interpreted the novelties brought by Horizon Europe in connection to the requirement of having a GEP in place to obtain funds from the programme. Overall, an analysis of the

² Horizon Europe is the first EC Framework programme to present the “missions approach”, which holds the common aim of tackling global challenges in line with the SDGs in a coordinated way between policy implementers and citizens/end-users. For more details on the defined missions, see: European Commission. ‘Orientations towards the first Strategic Plan for Horizon Europe’ (December 2019). Available at <https://bit.ly/3q6orxp>

³ European Commission. ‘Orientations towards the first Strategic Plan for Horizon Europe’ (December 2019). Available at <https://bit.ly/3q6orxp>

⁴ European Commission. ‘Horizon Europe: The next EU Research & Innovation Investment Programme (2021-2027). Updated presentation [May 2019]. Available at <https://bit.ly/2SHanxY>



campaign showed that GEPs are seen as a crucial tool to conquer institutional commitment and achieve sustainable changes towards GE in academia.⁵

In view of the success of this first campaign and considering the important role that has been attributed to institutions as agents of change in this new scenario for Horizon Europe, GEARING-Roles and GENDERACTION again joined forces and launched a second Twitter campaign on the 11th of February 2021, celebrating the International Day of Women and Girls in Science: the *#SpeedUpChange Campaign*. The objective was to identify what stakeholders expect from public authorities to be able to comply with the new European standards concerning GE in R&I, as well as to present good practices that have been contributing to the promotion of GE in the academic sector at national levels.

2. Campaign Design

For the organisation of the *#SpeedUpChange Campaign*, the communication teams of the coordinating projects used a peer-to-peer communication strategy to invite key stakeholders to express their insights and needs on “what national authorities should do to support gender equality in research and innovation”. Precisely, 51 emails were sent to sister projects belonging to a previously existing mail list, and 30 emails to individuals who engaged in the last Twitter campaign (EC’s R&I Days) and had signed up to a special contact list. On Twitter, 26 direct messages were sent to key accounts that had their direct message options open in the platform, identified by the identification algorithm developed by GEARING-Roles. The invitation to stakeholders to join the campaign was supported by a script in which the purpose of the campaign, templates for the posts and the official *#speedupchange* were explained in more detail, providing guidance on how to contribute and ensuring the posterior tracking of publications for impact and content analysis.

3. Campaign Impact

The *#SpeedUpChange Campaign* was highly successful and, in terms of numbers, achieved twice the impact of the first one (R&I Days Campaign). It gathered 877 posts on Twitter, coming from 323 users. In total, these posts received 2.732 engagements, reached 1.255.531 accounts and 2.378.594 impressions.



Figure 1: Overall results of the campaign on Twitter

⁵ See: Campanini Vilhena, F.; López Belloso, M.; Sanz Urquijo, B; Fernández, Lorena. (2020) Report on the Research and Innovation Days Campaign, developed under the GEARING-Roles project. Available at: <https://gearingroles.eu/wp8/>



The sentiments to the campaign were also significantly positive. These were identified using the NLTK and the VADER sentiment analysis tools.⁶ The evaluation included both tweets published in English and in other languages. For the sake of clarity, such an evaluation considers that 1 is a very positive sentiment and -1 a very negative one. The figure below shows that the overall picture of the sentiments to the campaign:

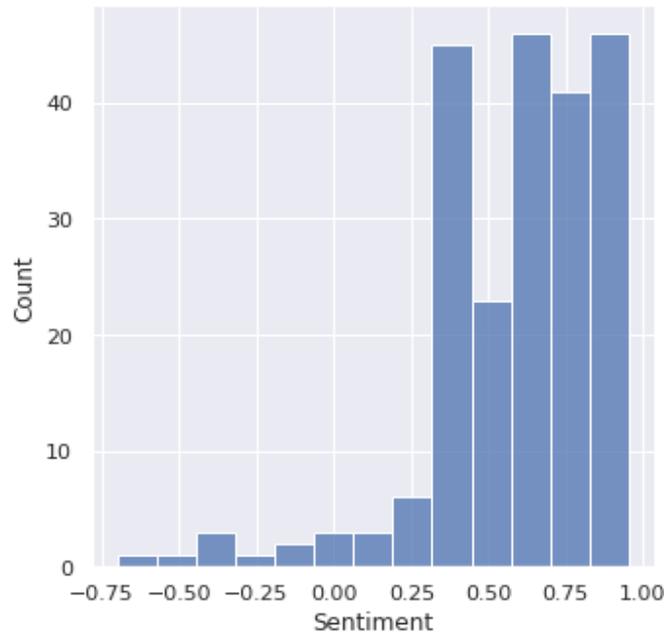


Figure 2: Results of sentiment analysis

From all these interactions, some of the tweets achieved more impact than others. To measure the impact, we selected some of the most relevant tweets according to the following criteria: number of followers and the interactions, the most influential users, the related topics shown in the hashtags, the keywords used, the location of the tweets, the gender of the users, and the impact of the campaign to other webpages. All this information is shown in the next sub-sections.

3.1 Top posts and participating actors on Twitter

This section includes screenshots of the posts with more impact, both regarding the number of users that follow the posting accounts and regarding the number of interactions that they reached. The #SpeedUpChange campaign was joined – apart from Twitter accounts of the organising projects and its members – as well a Spanish network of women in geology, Horizon Europe official account or accounts of Spanish ministry of Science, Czech Academy of Sciences or Czech Office of the Government.

⁶ Hutto, C.J. & Gilbert, E.E. (2014). VADER: A Parsimonious Rule-based Model for Sentiment Analysis of Social Media Text. Eighth International Conference on Weblogs and Social Media (ICWSM-14). Ann Arbor, MI, June 2014.





Figure 3: Top posts on Twitter (according to the analytical tool)



Figure 4: Top three engaging users on Twitter (according to the analytical tool)



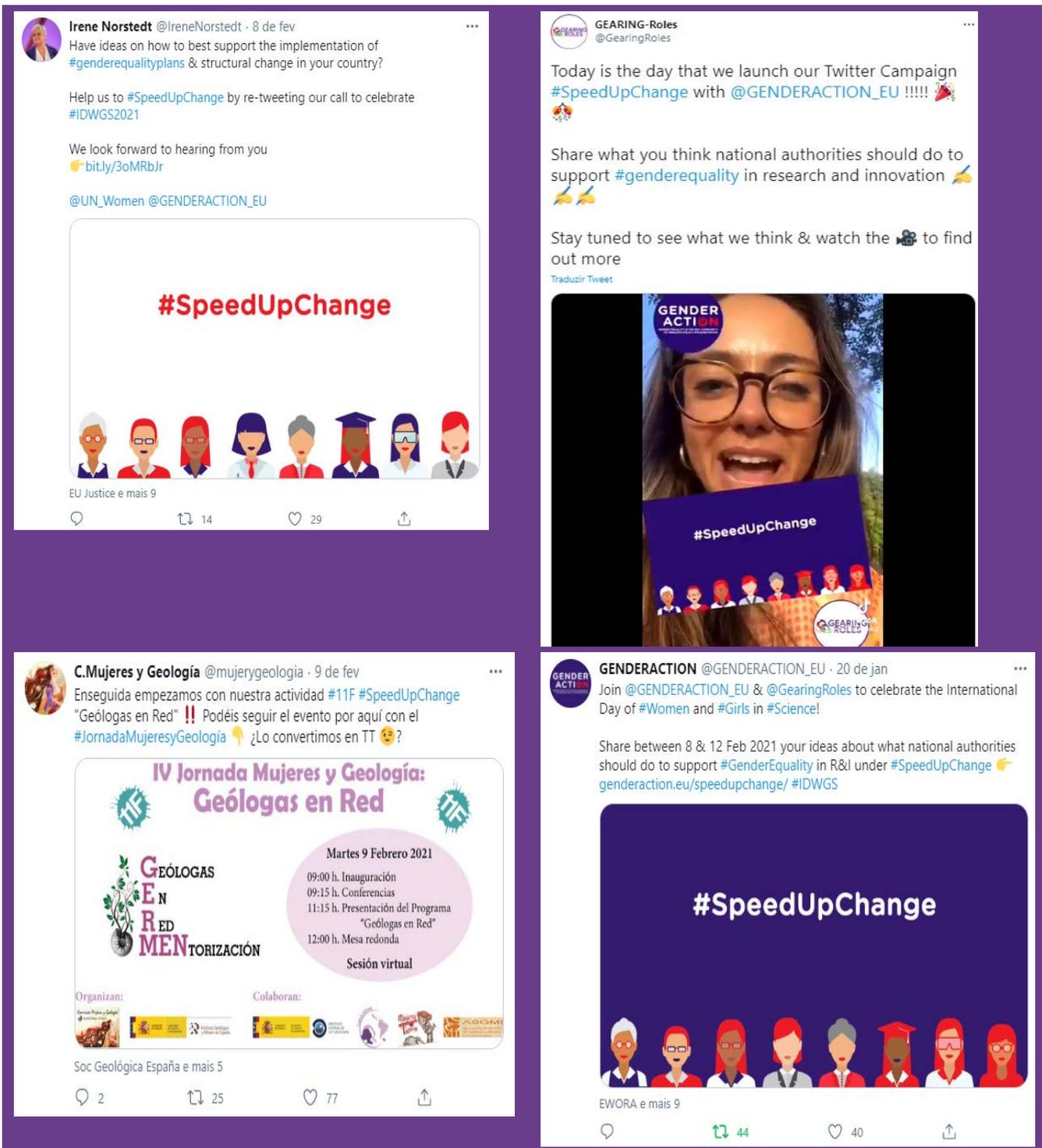


Figure 5: Most influential users on Twitter (according to the analytical tool)



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3.2 Most Relevant Hashtags and Words

An overview of the posts related to the campaign leads us to a brief selection of the most used hashtags. The figure below represents the density of their use: the bigger the hashtags, the more they appear in the posts:



Figure 6: Most relevant hashtags (according to the analytical tool)

The same logic applies to the most relevant words appearing in posts connected to the campaign. Using Natural Language Processing tools, we extracted the following most used words in the posts:



Figure 7: Most relevant keywords (according to the analytical tool)



3.3 Extension to Instagram

In addition to posts on Twitter, the #SpeedUpChange Campaign also reached Instagram with 21 publications.

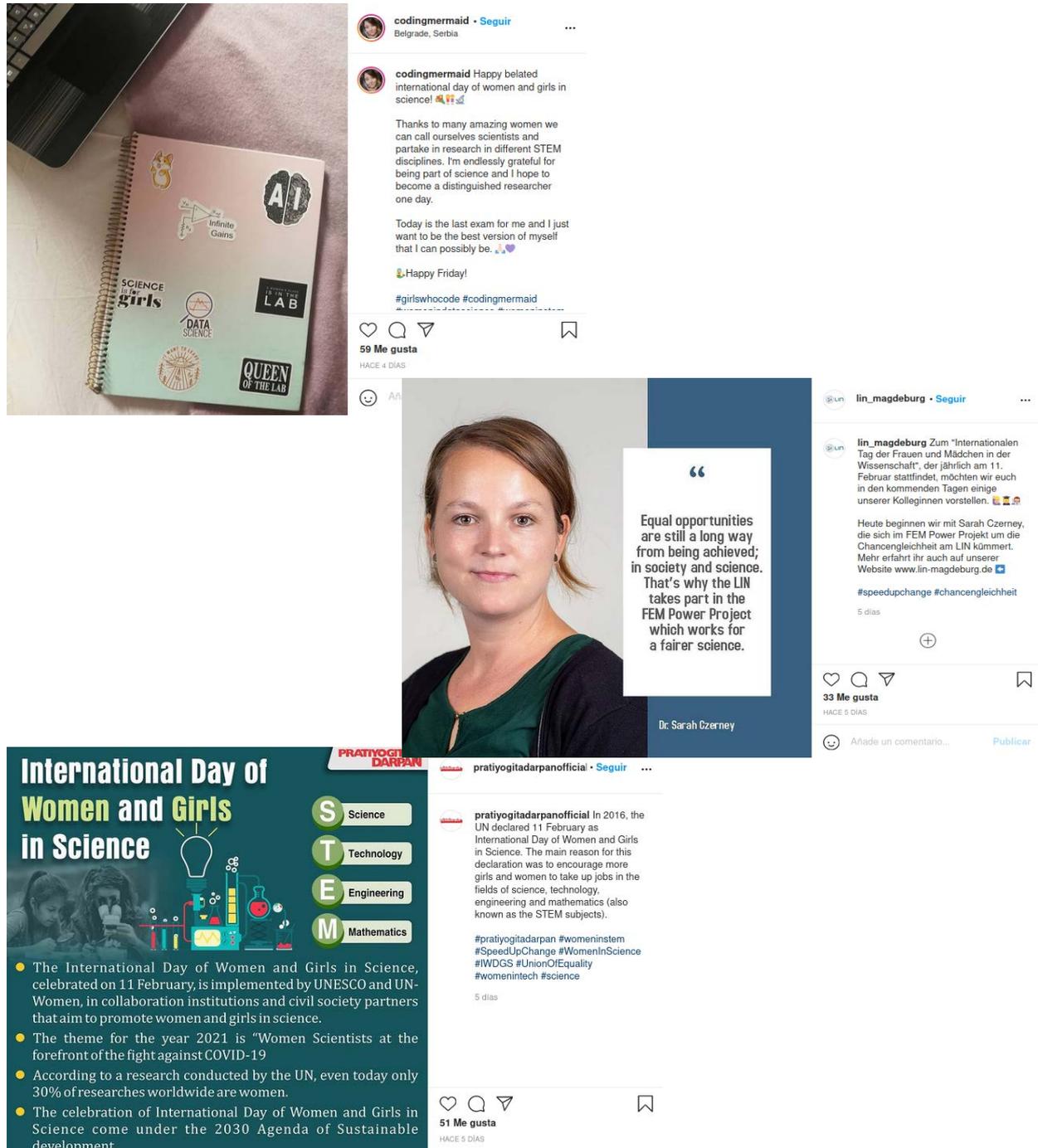


Figure 8: Top three posts on Instagram (according to the analytical tool)



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3.4 Geographic Reach

The heat map below provides us with the information of where tweets were published and the default location of the user accounts. The campaign has not only had an impact in Europe (mainly in Spain and Germany), but it also reached North, Central and South America, Central and South Africa, Australia, China, Japan and Southeast Asia. It should be noted that the analytical tool used to identify the provenience of the tweets does not have access to the IP references of the accounts. Thus, the identification of the geographical location of the publications depends on two parameters: first, that the concerned account has the location function enabled; second, that this information is openly set in the profile. Such limitations might generate significant shifts in these results, especially with regard to the participation of European stakeholders in the campaign that may not be represented on the heat map.

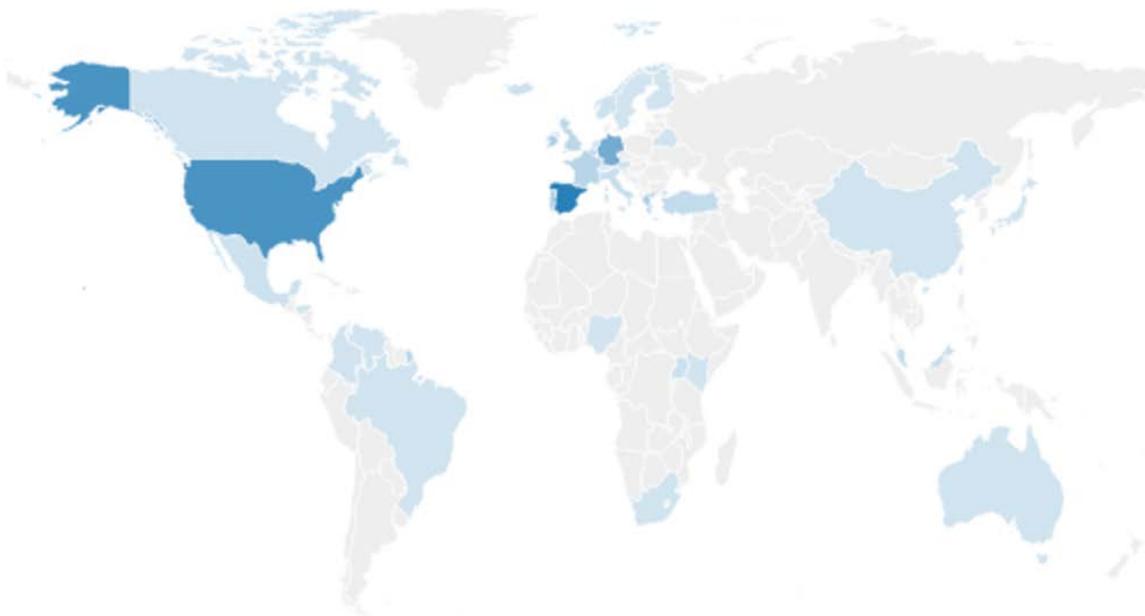


Figure 9: Heat map of the geographical location of tweet

3.5 Contributors by Gender

The algorithm used to collect the results of the campaign also provided us with an estimated percentage of female and male users participating in the campaign. Although the accuracy of the algorithm is far from perfection, it is reliable for an analysis of trend. As expected, the campaign seems to have engaged more female users.



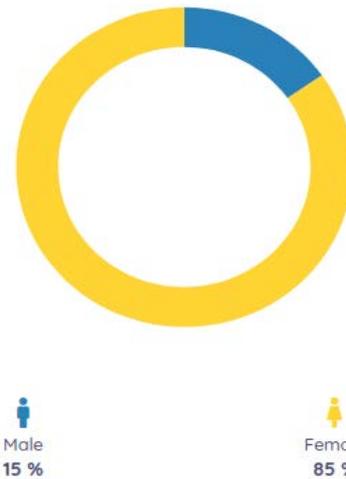


Table 1: Participating users by gender

3.6 Campaign’s link to other Webpages

Another category of data extracted by the analytical tool to analyse the impact of the campaign is its link with webpages external to Twitter. The figure below shows the mention of external webpages on tweets posted under the scope of the campaign. The GENDERACTION webpage, for instance, was mentioned in 98 posts:

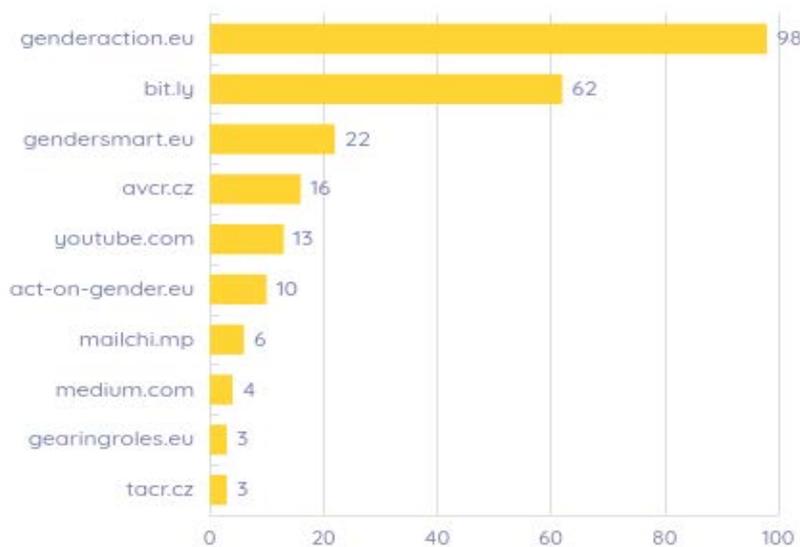


Table 2: Webpages mentioned in the campaign’s posts

In addition to that, we have extracted data on the **visits to the GEARING-Roles and GENDERACTION official webpages** during the week in which the campaign was in place. The following graphic demonstrates a significant increase in the visits to the GEARING-Roles project’s website during these days:



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Usuarios	Sesiones	Porcentaje de rebote	Duración de la sesión
673	827	78,96 %	1 min y 40 s
↑188,8 %	↑202,9 %	↓1,6 %	↑54,4 %

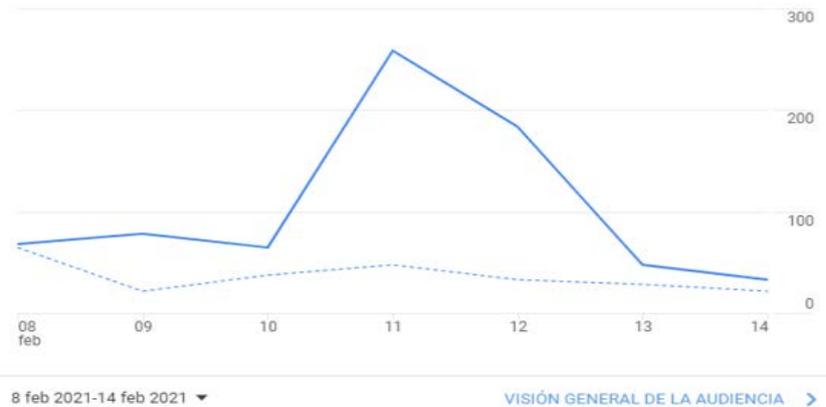


Table 3: Audience overview Feb 8-14 2021 and Feb 8-14 2020 – GEARING-Roles webpage

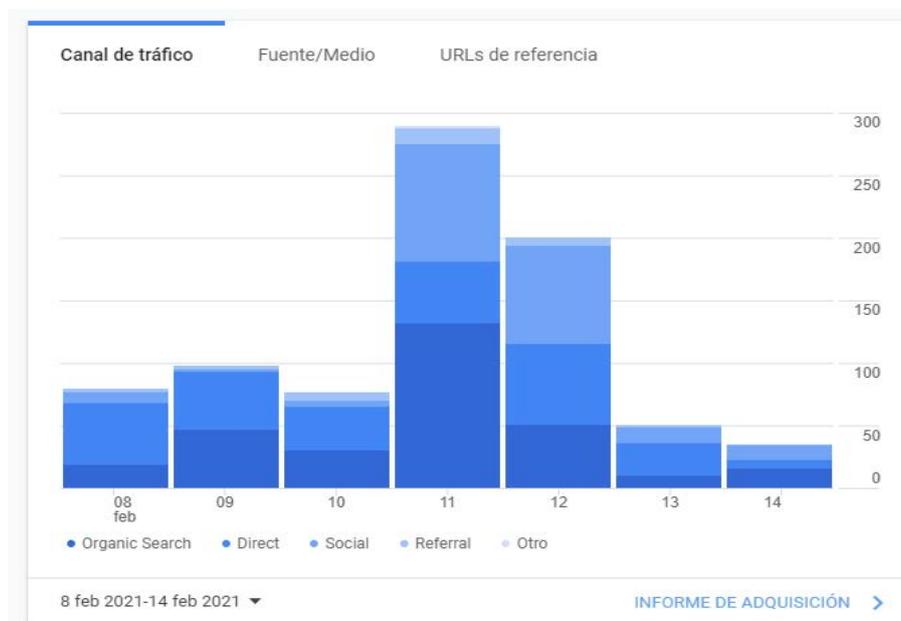


Table 4: Visits to the GEARING-Roles webpage during the campaign

In turn, the graphics below show the number of visits of the specific pages within the GEARING-Roles website: the campaign’s page (/speedupchange/) and the Nobel Run⁷ page were the most viewed (see the graph on the left). The right side shows the visits received on the website in the week of the campaign, representing the number of active users on the web, and how they increased during the campaign’s week.

⁷ A deck-building game recently launched by GEARING-Roles. See: <https://gearingroles.eu/nobel-run/>



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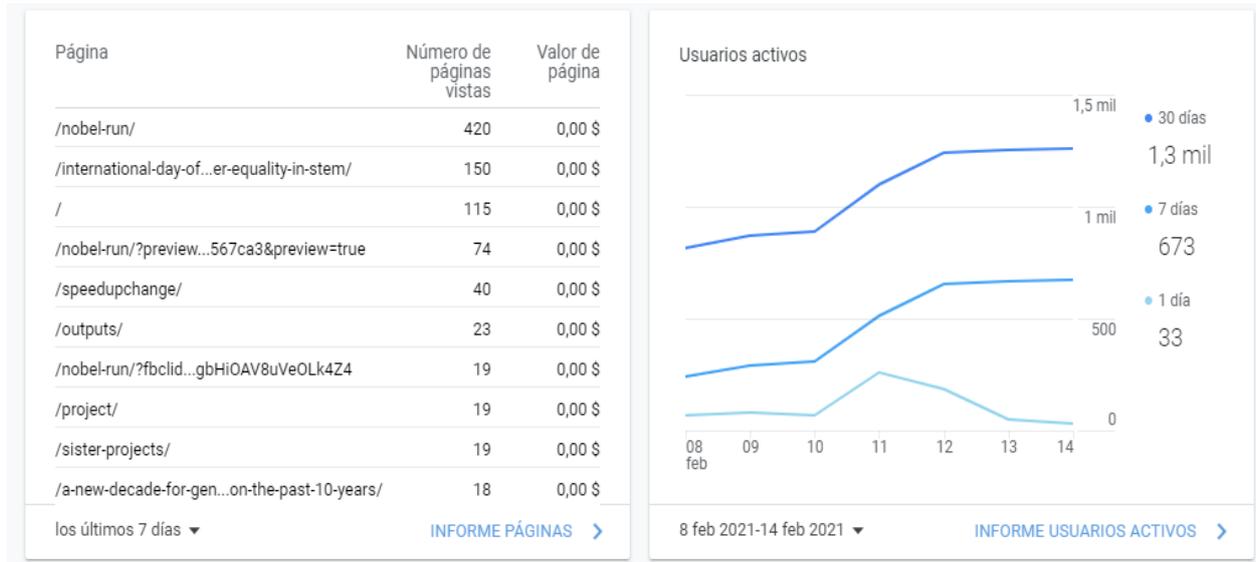


Table 5: Visits to specific pages of the GEARING-Roles webpage during the campaign

The same happened to the GENDERACTION official platform. The number of users, sessions and time spent on the webpage increased substantially in comparison to the same period last year.



Table 6: Audience overview Feb 8-14 2021 and Feb 8-14 2020 – GENDERATION webpage

Likewise, the bar chart presenting the numbers of the visitors per day between February 7 and 14, 2021 shows the increase of page users in the beginning of the week (8th -14th February), caused by the reminder of the call for action published on Twitter together with the link on the page (/speedupchange/) with details on how to participate. This page received the second highest attention among all page visitors in the monitored campaign period (after genderaction.eu home page, see Figure 7).



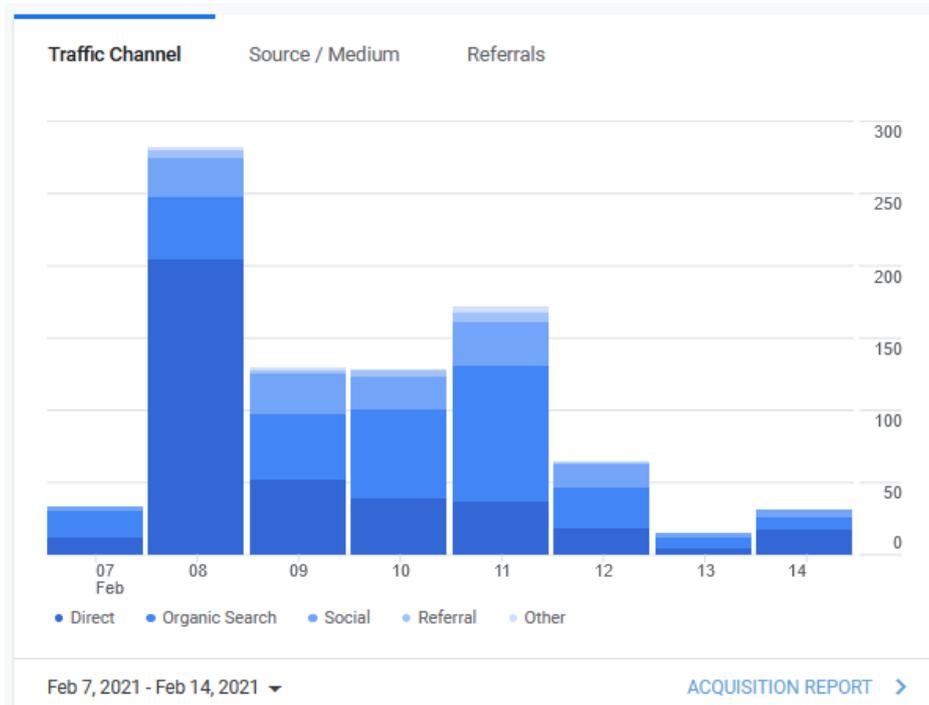


Table 7: Visits to the GENDERACTION webpage during the campaign

		1,160 % of Total: 93.25% (1,244)
<input type="checkbox"/>	1. /	336 (28.97%)
<input type="checkbox"/>	2. /speedupchange/	269 (23.19%)
<input type="checkbox"/>	3. /horizon-europe/	53 (4.57%)
<input type="checkbox"/>	4. /construyamos-una-comunidad-de-estructuras-de-genero-y-ciencia-fuera-de-la-ue/	36 (3.10%)
<input type="checkbox"/>	5. /policy-advice/gender-equality-in-era/	34 (2.93%)
<input type="checkbox"/>	6. /gender-science-structures-outside-eu/	31 (2.67%)
<input type="checkbox"/>	7. /policy-advice/gender-dimension-in-sti-international-cooperation/	29 (2.50%)
<input type="checkbox"/>	8. /speedupchange-campaign/	28 (2.41%)
<input type="checkbox"/>	9. /about-project/genderaction-at-glance/	27 (2.33%)
<input type="checkbox"/>	10. /policy-advice/erac-swgri/	19 (1.64%)

Table 8: Visits to specific pages of the GENDERACTION webpage during the campaign



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4. Analysis of mentions

During the active period of the campaign (8th-12th February 2021), 877 tweets containing the official hashtag #SpeedUpChange were collected and all the mentions arising from these publications were extracted. The graph below (Figure 10) represents the final picture of the extracted tweets: the size of the nodes represents the importance of the node (the bigger, the higher), and the edges represent the mentions. In total, this graph represents 1.484 twitter accounts and 2.261 mentions connected to the campaign.

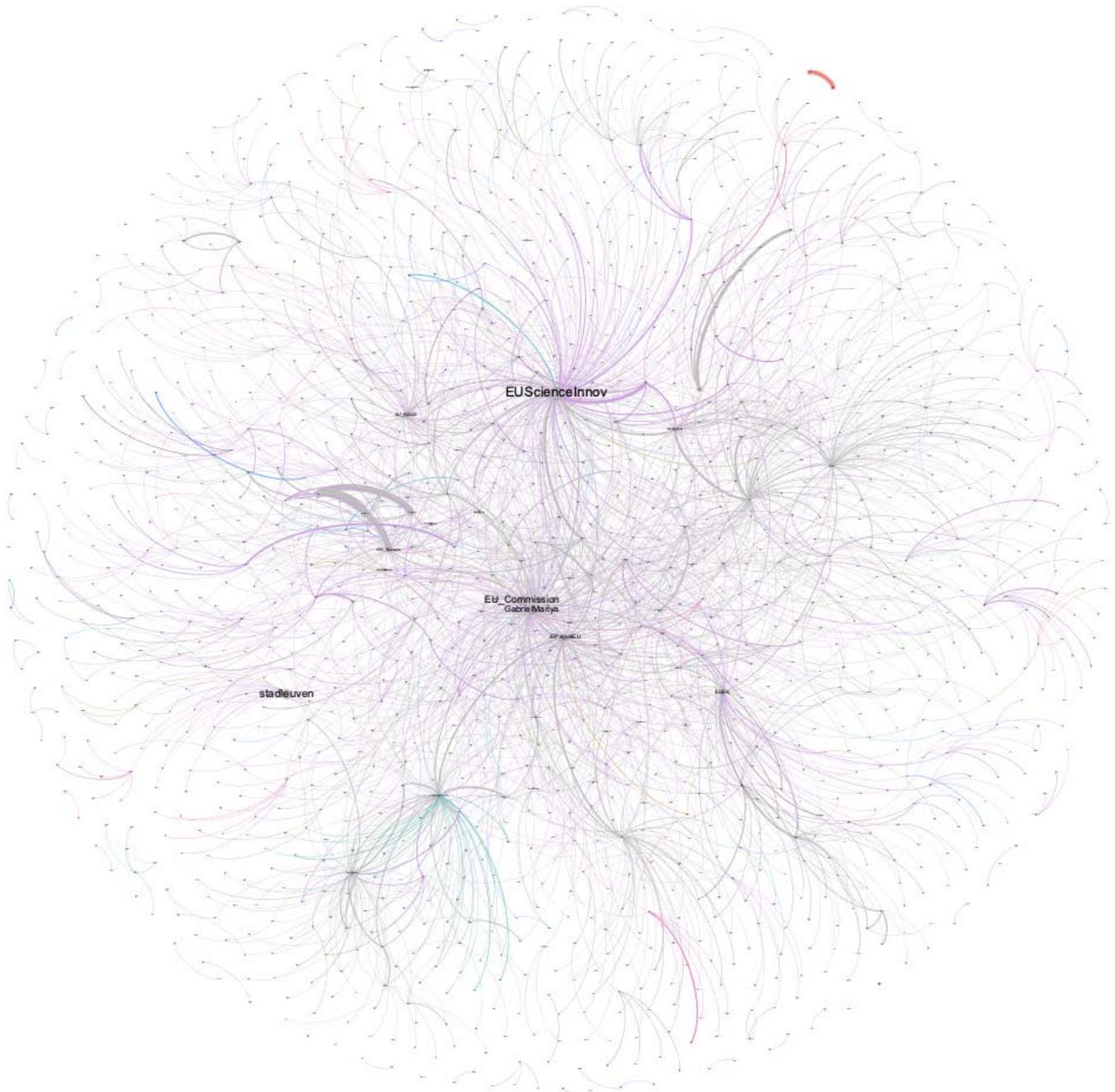


Figure 10. Graph of the mentions in the campaign



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Zooming into the centre of the graph (Figure 11), an important node is seen arising from the @EUScienceInnov profile, which is the official Twitter account of the EC’s Directorate-General Research & Innovation. The same can be observed in the left side of the figure, which shows that the @b_p_cahill account also led to a significant number of nodes; this account is the official Twitter profile of Mr. Brian Cahill, Board Member of Euro Science.

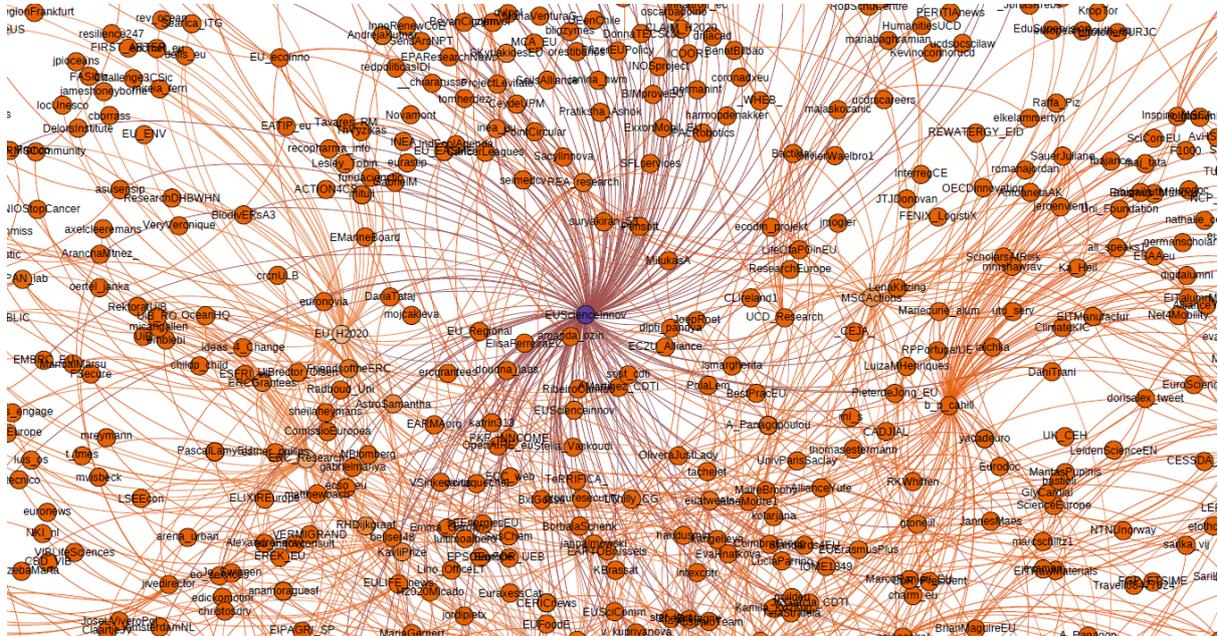


Figure 11: Zoom into the centre of the graph – EU Science Innovation nodes

The tweets coming from the @EU_Commission profile also led to important nodes, as well as those published by the European Commissioner for Innovation, Research, Culture, Education and Youth, @GabrielMariya (see Figure 12).

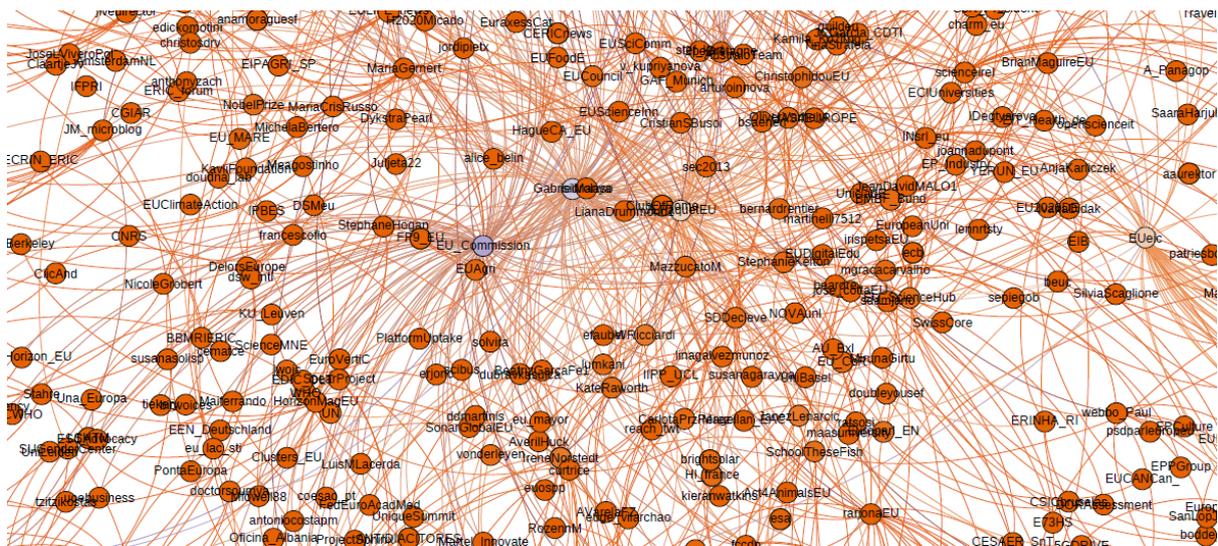


Figure 12: Zoom into the centre of the graph – EU Commission nodes



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Interesting nodes were also generated by the tweets of the @GENDERACTION_EU and @GearingRoles profiles (the campaign organisers). The graph shows that the nodes arising from such publications lead mostly to Twitter profiles of other sister projects, higher education and research institutions, as well as individual engaged researchers.

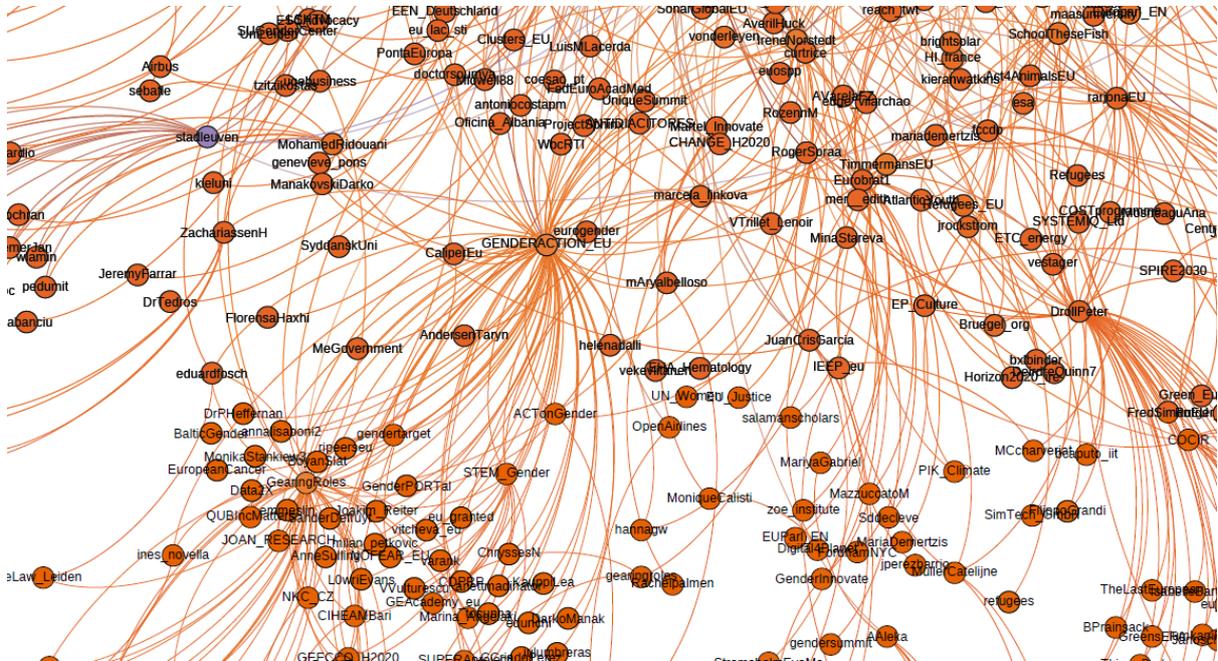


Figure 13: Zoom into the centre of the graph – sister projects nodes

Finally, using the PageRank algorithm⁸ and filtering the “value” of nodes to remove the less relevant ones, the picture below was obtained. An overall analysis of it provides a clear demonstration of the relevance of the participation of EU official accounts and its actors for the reach of the campaign.

⁸ The first algorithm used by Google to analyse the relevance of nodes (e.g. websites). See: Page, L., Brin, S., Motwani, R., & Winograd, T. (1999). *The PageRank citation ranking: Bringing order to the web*. Stanford InfoLab.



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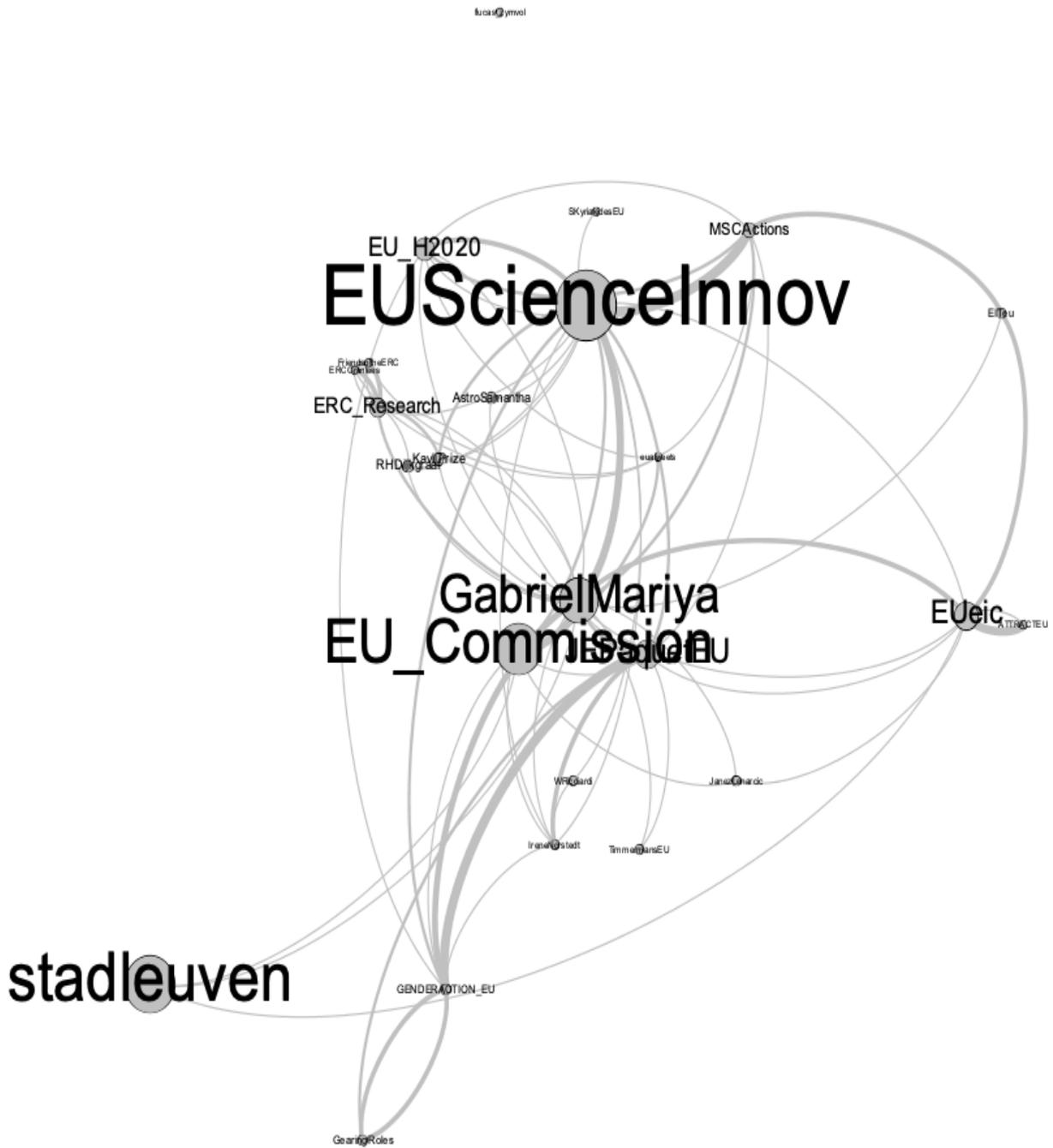


Figure 14: Zoom into most relevant nodes



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5. Content Analysis Methodology

The content of the campaign’s publications has been analysed through a qualitative approach, based on an inductive reasoning for the definition of relevant categories, variables and dimensions for the analysis. In a first stage, drawing on the academic and field experience of the campaign coordinators with processes of gender structural change in the European R&I sector, two dimensions were defined, based on the main type of content gathered in the campaign: Recommendations and best/good practices. Based on these two dimensions, an initial list of three categories to be taken into account were defined: I) Geographical setting; II) Stakeholders; III) Targets.

Dimensions	Categories	Variables
Recommendations	Geographical setting	EU-14;
		EU-13;
		Associated Members;
		EU projects;
	Stakeholders	EU-funded projects on gender structural change;
		EC and its bodies;
		RFOs;
		NGOs and CSOs;
		HEIs;
		Research Centres;
Best Practices	Stakeholders	Public Bodies;
		Individuals;
		Targets
	National public authorities;	
	Decision-makers at different institutional levels;	
	EU Member States as a community;	
	Associated Members;	
	RQEO;	
	RFOs;	
	EC;	
HEIs.		

Table 9: Qualitative analysis codification

For the analysis of the collected data, the Atlas-ti software for qualitative research was used as a codification tool, as a means to have a clear and detailed picture of the information provided by stakeholders engaging in the campaign and compare their different needs by



crossing variables and dimensions. During the process of codification, new dimensions emerged and were included in the respective lists, having finally reached 42 codes representing categories and subcategories of recommendations and acknowledgements of good practices. Among others, codes include “direct and indirect financial support”, “institutional resources”, “gender approach to knowledge generation” and “legal/regulatory frameworks for GE policy”.

The selection of tweets to be analysed, in turn, was carried out through an initial screen of the most relevant tweets by the analytical tool. This initial screen was then manually reanalysed, disregarding publications that did not include in their content any recommendation to the public authorities or any acknowledgement of practices that are already in place. Accordingly, the final analysis was conducted over 114 tweets in total, 48 of which coming from institutions in EU-14 countries, 26 from EU-13, 9 from Associated Countries and 31 are posts from sister projects, hence representing various institutions belonging to the different geographical settings.

The categories of recommendations have been aligned with those used by the Standing Working Group on Gender in Research and Innovation (ERAC SWG GRI) in its analysis of needs related to the implementation of GEPs in its new report Gender Equality Plans as a Catalyst for Change (2021).⁹ Thus, the content collected in this campaign builds on and further enhances the results emerged in the EC’s R&I Days Campaign Analysis Report on the importance of GEPs for the promotion of GE in academia.¹⁰

6. Results

Observing the general spectrum of the analysed publications, two categories of content are identified: 1) Recommendations on what is expected from public authorities to tackle the remaining challenges in the promotion of GE in the European R&I sector and 2) Acknowledgements of good practices that are currently in place at national and regional levels. Having this in mind, the analysis that follows draws attention first to the recommendations provided, finally discussing the acknowledgements of good practices.

6.1 Recommendations Content

An initial observation of the posts containing recommendations to the public authorities on what is needed to foster the promotion of GE in the R&I sector shows that the vast majority of those recommendations were produced by EU-funded projects on structural change and HEIs. Overall, these actors have been the most directly involved in processes of gender institutional transformation in recent years, especially considering their involvement in the

⁹ See: Standing Working Group on Gender in Research and Innovation. 2020. Report on the Implementation of Targets: Follow-Up on the 2018 Guidance Recommendations. ERAC. Available at <https://bit.ly/3zuNTB4> and European Commission (2018) Guidance to Facilitate the Implementation of Targets to Promote Gender Equality in Research and Innovation. Luxembourg: Publications Office of the European Union. Available at: <https://bit.ly/3wzqFHW>

¹⁰ Available at: <https://bit.ly/3pXpyzz>



EC Framework Programmes. In addition to those, contributions also came from RPOs, individual researchers and individual actors representing regional and national public bodies, as well as from RFOs.

Stakeholder	Number of contributions
Regional: Sister Projects	63
Institutional: Higher Education Institutions	42
National: Public Bodies	16
Individuals: Researchers and Public Bodies Representatives	13
Institutional: Research Centres	10
National: Research Funding Organisation	4
Regional: EU Projects from other Work Programmes	3
Civil Society Organisation and Non-governmental Organisation	2

Table 9: Number of contributions by stakeholder category

6.1.1 Main recommendations steaming from the campaign

The content analysis of such publications leads to the clear prevalence of three main requests: **a) Institutional commitment to provide resources for GE actions** (23 mentions); **b) Institutional commitment to establish and enforce rules and directives that contribute to the advance of GE** (24 mentions); and **c) Gender mainstreaming in national public policies for R&I** (23 mentions).

Initially, observing the requests for institutional resources, it is interesting to note that they not only refer to financial and structural support *per se*, but to the promotion of environments that facilitate progress on GE actions at the whole. In this light, institutional resources also refer to a wider range of initiatives, such as promoting actions to combat biases and stereotypes in the institutional environment, ensuring inclusive teaching and researching environments, fostering an equal and inclusive leadership, and training relevant actors to design, implement and evaluate actions.

*“To speed up change for gender equality in research, at SUPERA we believe that national and regional authorities **should consider gender equality policies in the wider framework of fairness and social justice. Inclusive teaching and researching environments, leadership positions accessible to female and male academics, safe places with a shared culture of aspect, fair evaluation: here are some examples of rights that should never be denied.**” – SUPERA project*

The figure below provides an overview of the areas that stakeholders mentioned throughout the campaign as connected to the need for institutional resources. There is a variety of topics stressed at this point, ranging from resources for the implementation of capacity building initiatives to the establishment of quotas systems.



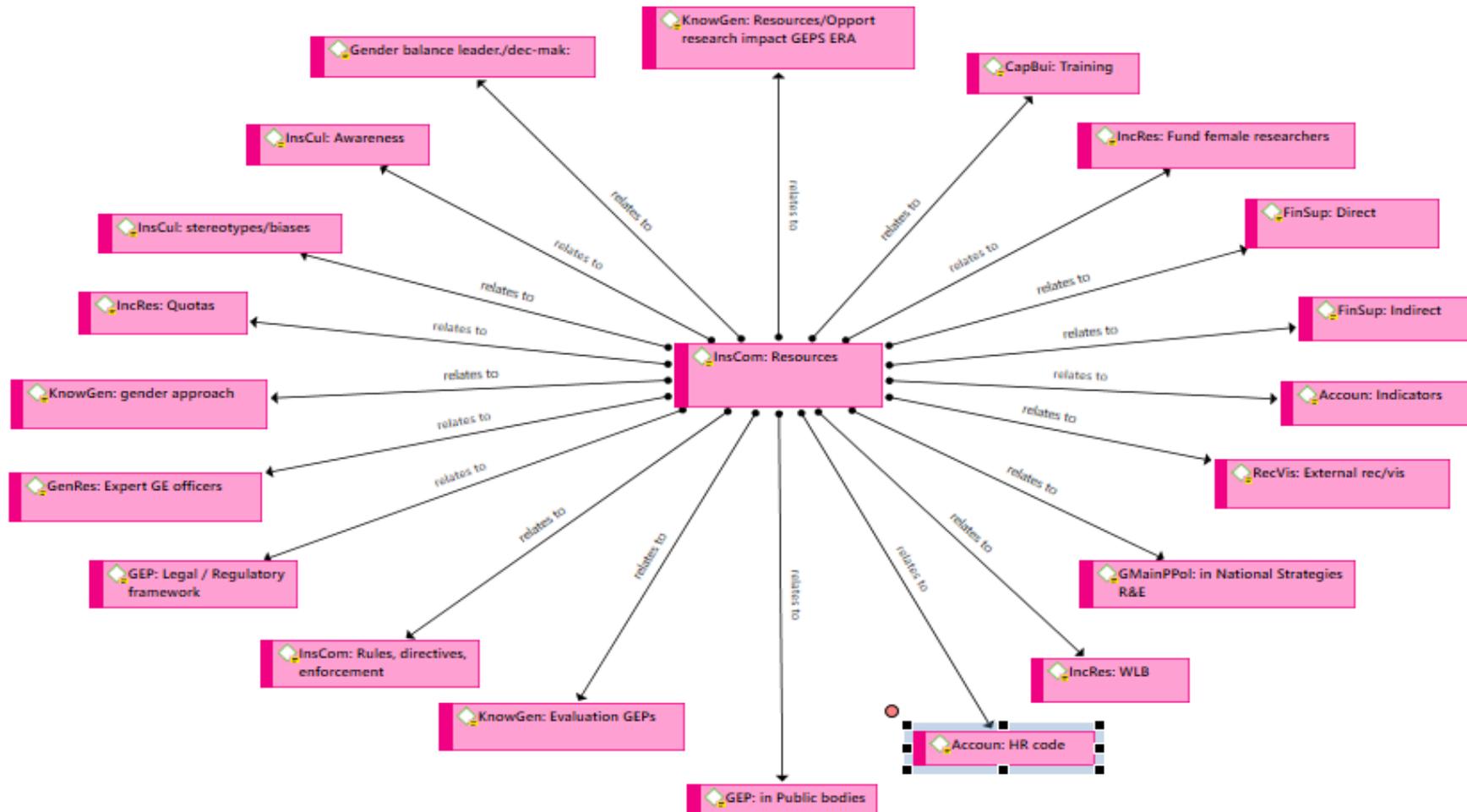


Figure 15: Recommendations connected to institutional commitment and resources for GE



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Also, an interesting figure emerges from the posts requesting the establishment and enforcement of GE rules and directives and their connections with more specific demands. As shown in Figure 16, in addition to requesting gender mainstreaming of national public policies, the establishment of national regulatory frameworks that require the implementation of GEPs in public bodies and institutions, the design of work-life balance policies and equal representation in decision-making bodies, stakeholders recalled the importance of setting rules in areas that have so far been less tackled. Among them are recommendations to oblige an adequate collection of sex-disaggregated data and consider the gender approach when providing funds for research in all areas of knowledge, to establish indicators to ensure the accountability of institutions towards minimum standards of GE, and to implement regulation on quotas.

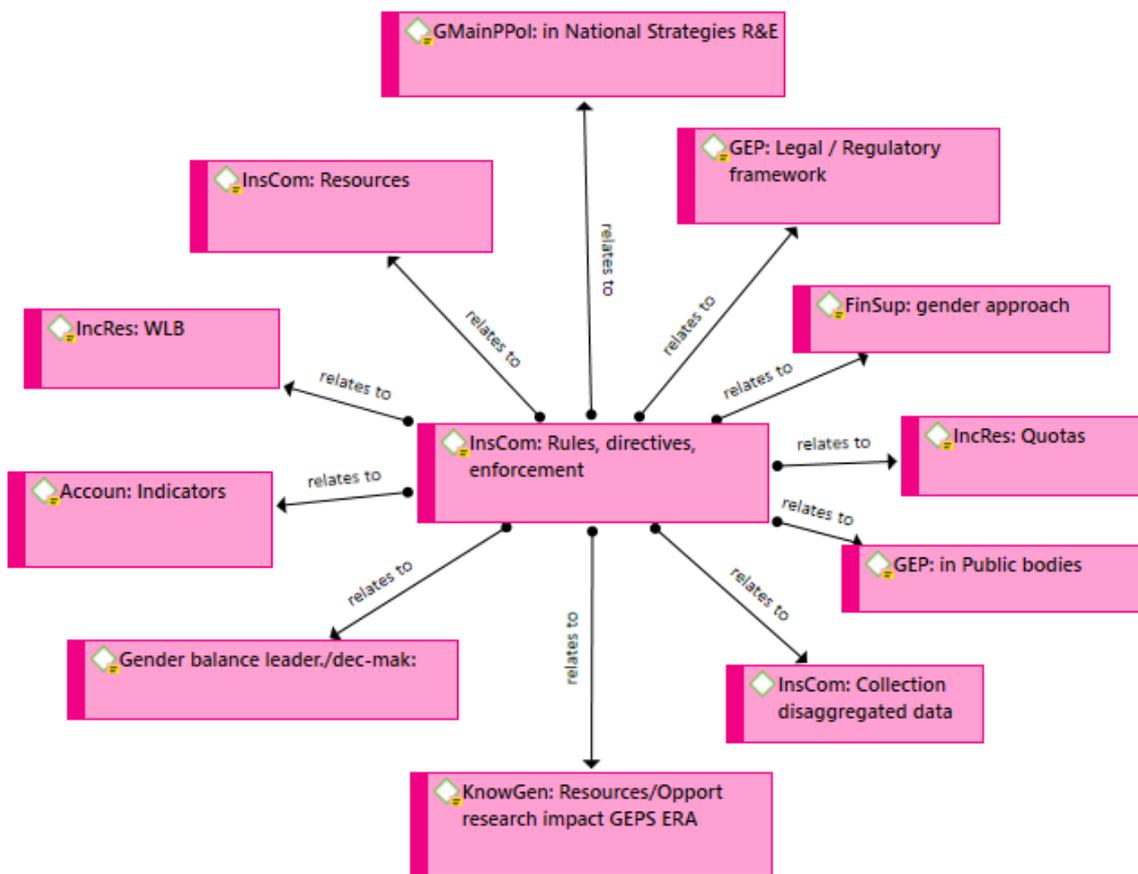


Figure 16: Recommendations connected to institutional commitment and rules for GE

The recommendations directed to mainstreaming gender into national public policies for R&I, in turn, were stressed by stakeholders from EU-14, EU-13 and AM as a means to promote the recognition of the importance of GE actions and their visibility by external actors. According to the contributions, the inclusion of the gender perspective into national strategies for R&I should tackle areas such as the provision of resources for STEM fields, the



equal representation of women and men in decision-making bodies, work-life balance, the obligation for public bodies to implement GEPs, the consideration of gender in knowledge generation in the different areas, and the obligation to hold institutions accountable for their situation regarding GE.

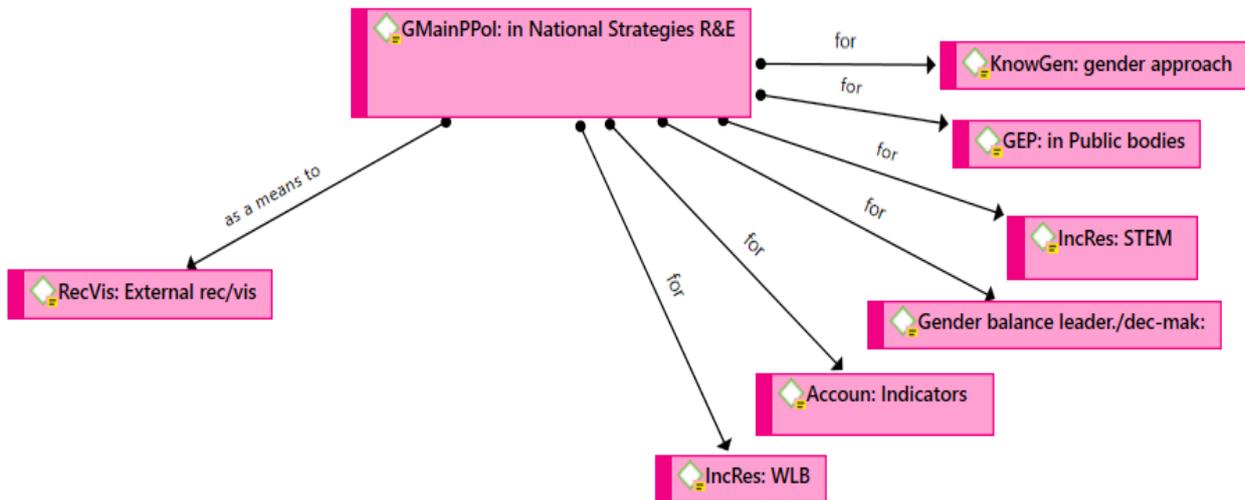


Figure 17: Recommendations connected to gender mainstreaming in R&I public policies

Regarding the geographical analysis of the aforementioned recommendations, it is noticed that the recommendations coming from EU-13 stakeholders place a significantly greater emphasis to the need for establishing and enforcing a regulatory framework for GE in comparison to those representing EU-14 members. Specifically, in comparison to EU-14, **EU-13** stakeholders place a higher weight on the need to strengthen the mainstreaming of gender in National Strategies for R&I, on the importance of public bodies having GEPs in force, as well as on the need for work-life balance regulations. Some of the stakeholders consider that the approval of certain policies will speed up change for gender equality in research, given the national policy framework that a National Strategy for the Promotion of GE would provide.

In regards to recommendations on the need for resources for GE initiatives, in the EU-13 context, for instance, it is remarkable the call to the Ministry of Education in Bulgaria to increase the public support and investment on GE as a way of positioning universities in a more competitive stance within the European funding.

EU-14 stakeholders, in turn, pay a greater attention to demands such as the consideration of the gender approach when providing funds for R&I projects in different areas (in some cases pledging for a broadening perspective that overcomes binary approaches), the provision of resources to STEM areas and specific funds for female researchers, and to the implementation of initiatives that tackle gender biases and stereotypes.

*“We the Integration Team – Human Resources, Gender and Diversity Management (IGaD) at RWTH Aachen University think that our government **should set a more***



inclusive gender equality agenda beyond the binary view in order to speed up change for gender equality in research.”- Germany

Other stakeholders are requesting the review of policies (at a national and regional level) to foster a better and more equal inclusion of women in the scientific career, with better conditions and career prospects. Within these measures, a HEI from Spain remarks the importance of gender budgeting.

“We, in GenBUDGET at Carlos III University of Madrid, ask our national and regional government to design gender budgeting for the University and incorporate measures to enable women to access top research and management positions. It could be a good way to speed up change real and sustainable change for women and girls in science”- Spain (HEI)

In general, the discussion arising from such results calls attention to the remaining divergence in the degree of implementation of GE actions at the national levels in the different EU geographical settings. This does not mean/pretend that EU-14 MS have reached the maximum standards in the regulation of GE initiatives, nor that tackling biases and stereotypes is not among the EU-13 interests, but that the settled priorities vary in the different regions according to the spectrum experienced by each at the moment. In the specific case, such differences may be related to the continued differences in national legislations and institutionalisation of GE policies between the two geographical settings. This had already been stressed in past analyses of the ERAC SWG GRI.¹¹

6.1.2 Recommendations: Gender approach in knowledge generation

Following the need for GE resources and for the establishment of regulatory frameworks, the most mentioned recommendation from both EU-14, EU-13 and AM referred to the inclusion of a gender approach in knowledge generation. The representativeness of such a demand in the contributions of stakeholders from the different geographical settings was quite similar. Although individual publications from AM were less represented in this specific topic, their needs and inputs were fairly present in the contributions from EC-funded projects that mentioned the gender approach in knowledge generation as a priority.

Overall, mainstreaming gender into knowledge generation is not only a question of women but involves other core institutional issues. Contributions in this regard highlight that the achievement on an ERA of excellence made up by national research that is competitive at the international level can only happen by introducing the gender approach into all research stages.

¹¹ See, for example, Standing Working Group on Gender in Research and Innovation. 2020. Report on the Implementation of Targets: Follow-Up on the 2018 Guidance Recommendations. ERAC. Available at <https://bit.ly/3zuNTB4>



Specifically, interesting publications from **EU-13** MS mentioned that GE is “an important precondition for the high-level education and development in all engineering branches”, and that the Green or Digital Transition are directly affected by it. Likewise, stakeholders stress that the production of knowledge to advance human development when facing global crises is not possible if the gender factor remains at the borders. In this sense, the combat of the COVID-19 crisis cannot succeed without taking into account the gender perspective. These requests are mainly targeting decision-makers and public authorities, reinforcing that institutional commitment at different levels is crucial for the actual introduction of a gender approach into knowledge generation.

EU-14 MS, instead, mainly focused on the importance of using funding instruments to promote gender research and to introduce the gender approach into all fields of knowledge. Recommendations from these actors put a strong emphasis on the need for public authorities to define means for RFOs – public and private – to consider GE in funding decisions, both with regard to the content and methodologies of funded projects and the provision of specific funds for female researchers.

In turn, **EC-funded projects**, here representing EU-13, EU-14 and AM on an equal basis, not only targeted national public authorities but also the EC itself as key actors in the promotion of knowledge generation that takes the gender factor into account. Publications encourage the EC and national governments to include GE as a prerequisite for an excellent and innovative science. More precisely, they call on governments to financially invest in training initiatives that support the development of the needed competencies in early-stage researchers to perform gender-sensitive research, as well as on female researchers in general (by allocating funds especially for female researchers in the different areas of knowledge). In addition, they reinforce the importance that the EC keeps financing projects that integrate the gender dimension in STEM research as a means to attract more women and girls to these disciplines.



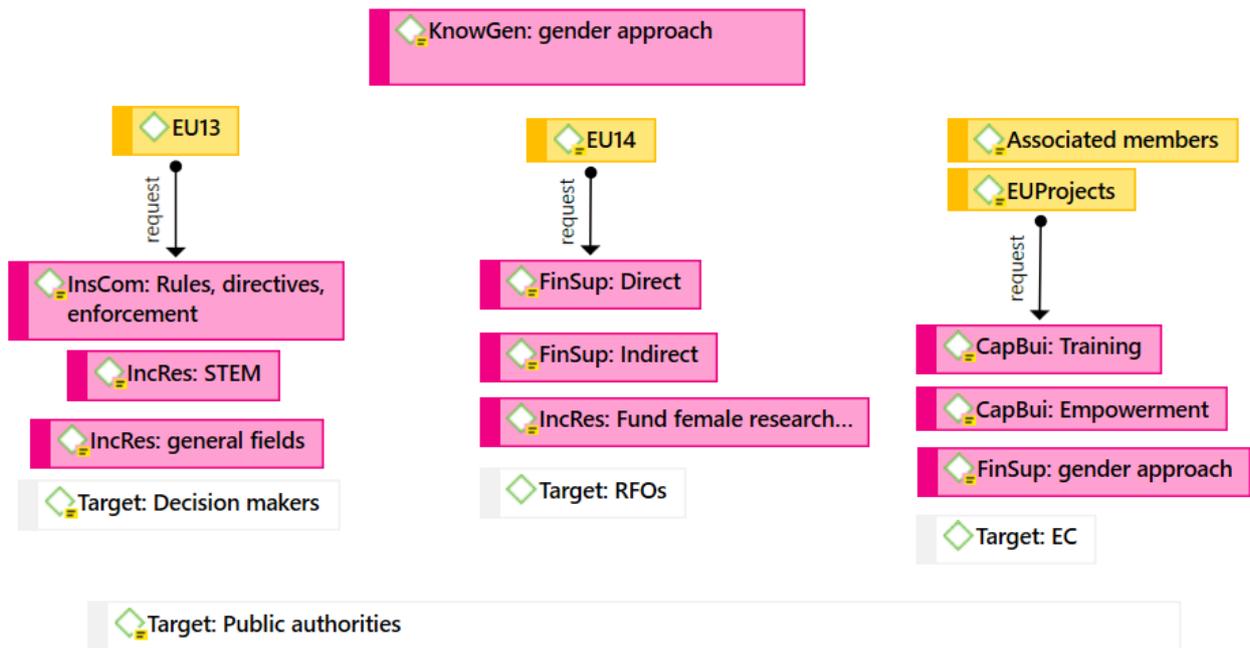


Figure 18: Recommendations: Gender approach in knowledge generation

Associated to the need for a gender approach in knowledge generation as a whole, a prominent number of posts stressed the urgency of providing resources and opportunities specifically to **research the impact of GEPs and generate thorough knowledge on the evaluation of GE actions**. Although much is known about existing gender disparities and their consequences for R&I, the real impact of the initiatives that have been put in place to resolve the problem remains poorly assessed.

Recommendations in this area were present in reactions of stakeholders from the different geographical areas and appointed decision makers at different institutional levels, public authorities, HEIs and RPOs as key actors to achieve this goal. As the figure below shows, the assessment and generation of knowledge about the real impact of GEPs is connected to a variety of other needs in several areas, including the presence of GE expert officers who monitor processes of change within institutions and the establishment of more thorough GE indicator for the evaluation and accreditation of RPOs, HEIs and study programmes.



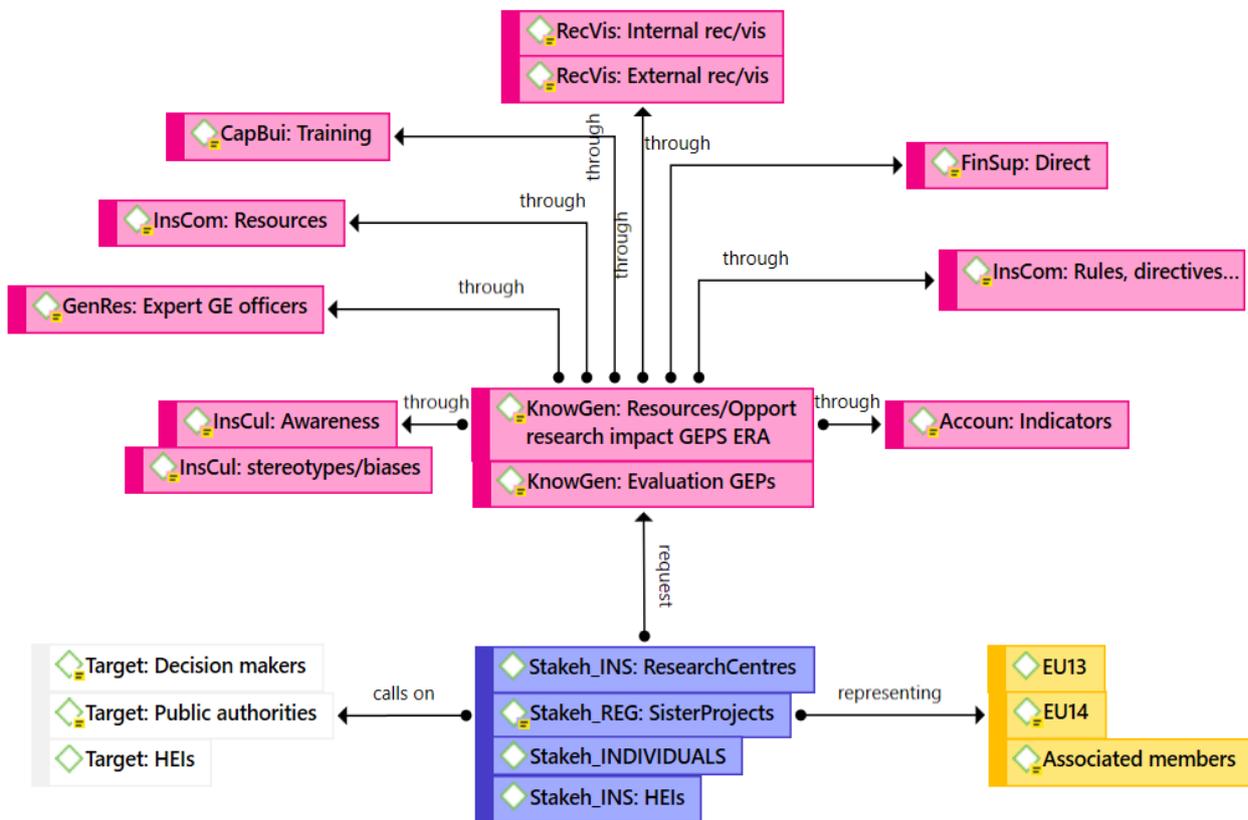


Figure 19: Recommendations: Knowledge generation on the evaluation of GEPs

In this regard, **EU-13** contributions drew attention to the need for specialised departments and in-house experts who, in addition to supporting the implementation of actions, should develop a continuous and multi-dimensional monitoring of those. **EU-14** recommendations, in turn, focused more on how the interaction with actors at different contextual and institutional settings is key for a constant and synchronised improvement of policies. Followed by internal institutional flows of practice, such an interaction for knowledge exchange can be a powerful means to make significant advances towards a more equal and excellent ERA.

Linked to all the above, **both EU-14, EU-13 and AC** stakeholders called on decision makers, public governments and the EC to develop methodologies and measures that establish gender criteria for an adequate evaluation and accreditation RPOs and HEIs. Thus, recommendations pointed to the establishment of national and European systems of indicators to be used not only as a means to recognise the efforts employed by institutions towards GE, but also as a possible way to (indirectly) sanction those that do not comply with higher standards – that is, *inter alia*, by limiting the access to certain financing programmes and/or national and/or regional recognitions.



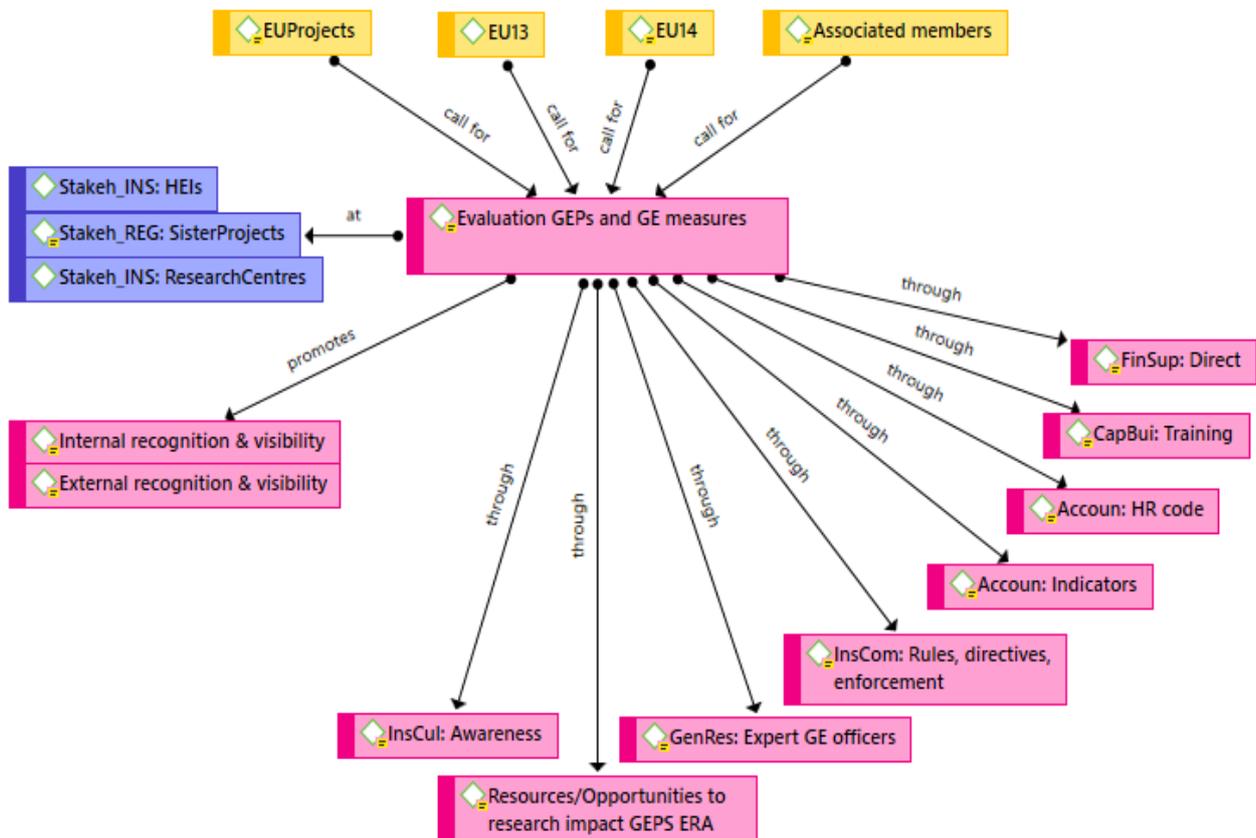


Figure 20: Recommendations: Impact evaluation of GEPs and GE measures

Given the current European R&I landscape, the great attention given by stakeholders to the urgency of integrating the gender perspective into knowledge generation and establishing a clearer and more comprehensive evaluation of GEPs and GE policy is no accident. In fact, gender mainstreaming in public policies for R&I has been increasingly required by the EC and is a priority defined in the European Gender Equality Strategy 2020-2025. The ERAC SWG GRI stressed, for instance, the need to revise the European Semester cycle to address specifically GE in R&I as a means to improve the monitoring and assessment of implemented GE policies.¹² Furthermore, the issue is a primary concern is the new SWG GRI report Gender Equality Plans as a Catalyst for Change (2021).

Even though recommendations to improve the evaluation of GEPs and GE measures were present throughout the entire campaign, there still appears to be a limitation regarding the depth of such a discussion. For instance, there is little mention of tested tools to employ comprehensive and objective impact assessments, or measures to ensure the sustainability of GE changes in the long term. Such limitations may reflect a challenge that has been noted in the last years in monitoring GE initiatives in practice. While the R&I sector has evolved

¹² Standing Working Group on Gender in Research and Innovation. 2020. Position paper on the future gender equality priority in the European Research Area 2020-2030. ERAC. Available at <https://bit.ly/3cL0uGG>



significantly in its knowledge of the existing gender inequalities and their consequences at the institutional level, progress is slower when it comes to the evaluation of actual practices of change and the extent of their effectiveness (Benschop and Verloo, 2011; Mergaert, 2012; Tijdens et al., 2010). More evidence is needed to ensure the articulation between research and policy implementation, so that the causes of change in gender relations are properly explored and identified.

Although still an emerging challenge, progress has already been made by EC-funded projects in this sense. A great example is the recently launched Gender Equality Audit and Monitoring (GEAM) Tool, developed in collaboration between the ACTonGender project (H2020), AdvanceHE (UK), Notus (Spain) and the Open University of Catalonia (Spain). The tool allows academic institutions to collect high-quality data for the creation and implementation of GE measures and carry out impact assessment on an ongoing basis, as well as to compare progress between different institutions. This tool can then be very useful for project consortia.¹³

The practical enforcement of gender mainstreaming in knowledge generation, however, depends on a number of factors ranging from financial support to awareness raising. Recommendations in these areas were also published throughout the entire duration of the campaign.

6.1.3 Recommendations: Financial support

Connected to numerous demands of other natures, financial support is the fourth most cited recommendation, mostly deriving from HEIs and RPOs. Those relate not only to direct but also to indirect financial support, as well as to the integration of the gender dimension as a default criteria in funding decisions. The figure below provides a general view of the direct connections made by stakeholders regarding the need for financial support. Precisely, it demonstrates the main areas to which stakeholders believe that direct and indirect financial support should be directed.

¹³ See: ACTonGender (2020) Gender Equality Audit and Monitoring (GEAM) Tool. Available at <https://bit.ly/3zzlYyW>



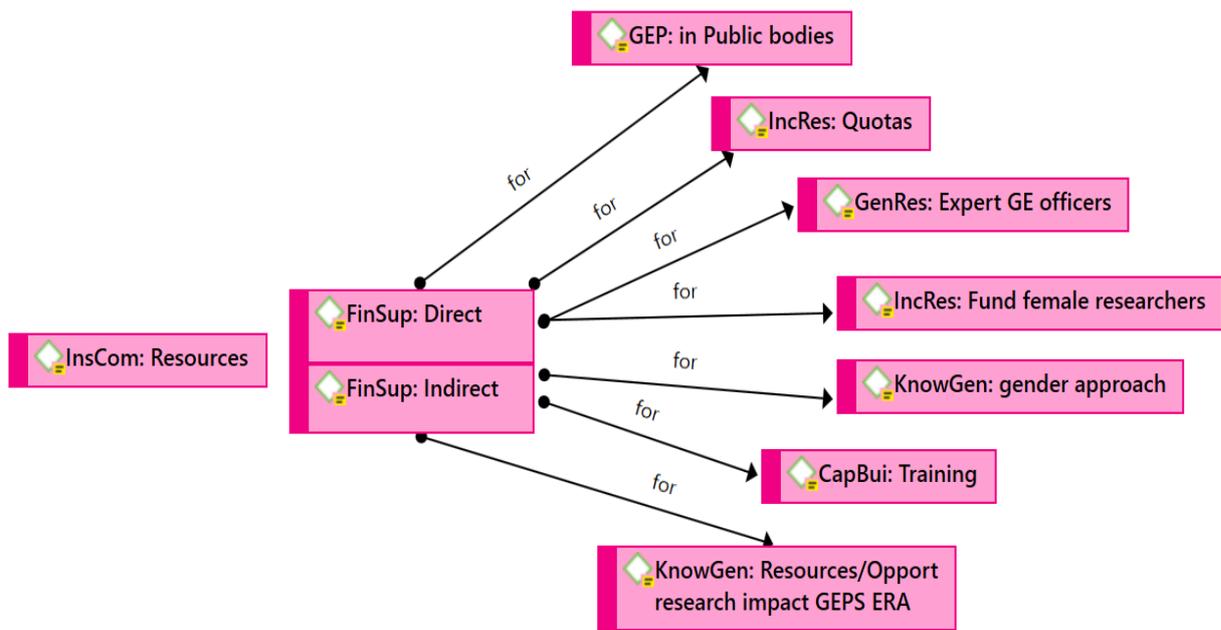


Figure 21: Financial support – connections to other recommendations

Zooming into the content of recommendations related to financial support, it is observed that **EU-14** MS draw attention to financial support initiatives such as the award of grants for gender research, the funding of measures and programmes that dismantle structural barriers for women in science – including positive actions –, as well as of gender- and diversity-sensitive media design as a means to pursue real and sustainable change for women and girls in science. For the realisation of such actions, stakeholders call especially on national governments and RFOs.

On the other hand, the **EU-13** recommendations on financial support have a different focus. They mainly call on national authorities to provide funds for RPOs for the design and implementation of GEPs. Likewise, **AC** stakeholders appeal to financial incentives for HEIs and research centres to create their own GEPs. This finding would be complementary with the higher stress on this geographical area on the aforementioned need of public bodies to support national gender strategies and having GEPs in place.

The topic has already been discussed by GENDERACTION in its Briefing Paper on the future of GE in European R&I, where it recommended that the new eligibility criterion for having GEPs in place to obtain funds from Horizon Europe should be followed by an increased budget for implementing GEPs compared to Horizon 2020. In this sense, the document highlights the added value of European cooperation among institutions and proposes the use



of European Social Fund to complement the Commission efforts at national level to support the implementation of GEPs or similar instruments.¹⁴

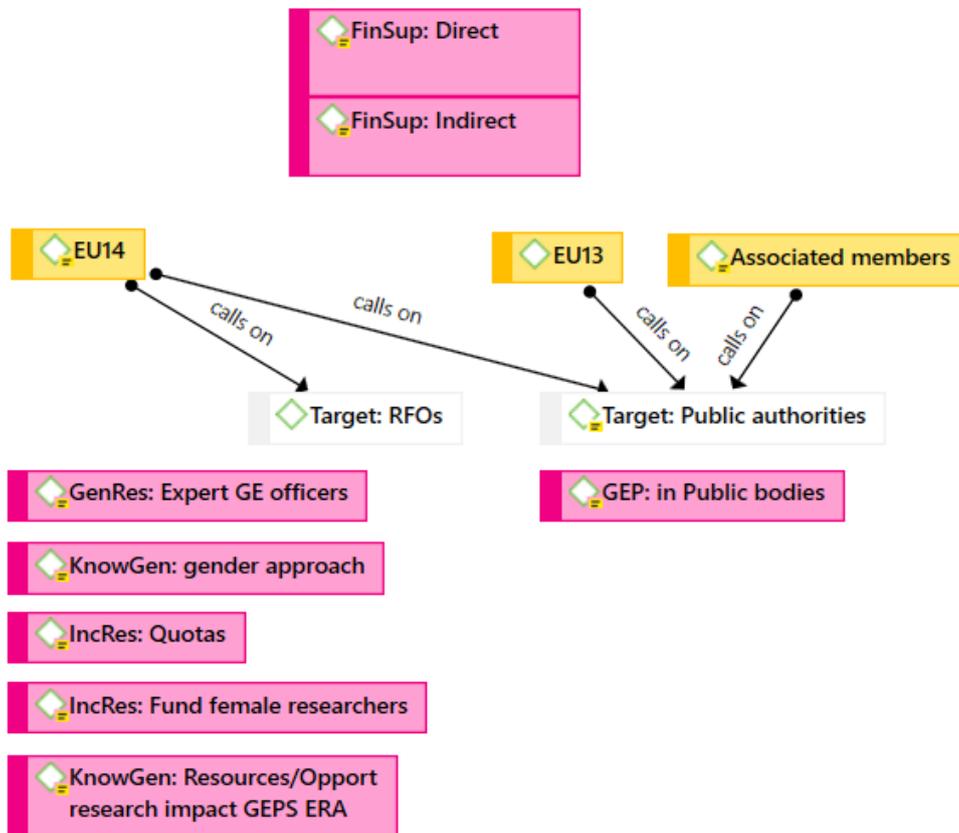


Figure 22: Financial support – EU-14 vs. EU-13 and AC stakeholders’ recommendations

Still drawing attention to the recommendations connected to financial support, a special category of requests emerged throughout the content analysis of the tweets. It refers to the recommendation of **integrating the gender dimension as default criteria in funding decisions**. Such a recommendation was present in contributions from both **EU-14**, **EU-13** and **AM** (represented by HEIs, research centres, national public agencies for GE, and sister projects) and targeted national grant givers, including RFOs and governments at the whole, as the main actors responsible for putting actions in place in the diverse fields of knowledge.

Precisely, the integration of the gender dimension in funding decisions referred not only to the direct generation of knowledge through a gender perspective, but also highlighted the various areas for which it could be useful. The contributions referred, for instance, that considering the gender factor in all research stages when taking funding decisions can be a means to tackle the underrepresentation of women at the project management level. Taking

¹⁴ Briefing Paper on the Future on gender equality in European research and Innovation (n. 11, April 2019), developed under the GENDERACTION project. Available at: <https://bit.ly/3cLuS3y>



GE into account in funding decisions, moreover, was linked to the possibility of fostering sustainable and concrete changes in structural barriers that are connected to unconscious gender discrimination.

In this vein, the SWG GRI has repeatedly recommended that the gender dimension should be a default requirement, as did the 2019 Briefing Paper developed by GENDERACTION on the future of GE in the ERA.¹⁵ The SWG GRI Position paper on the topic stresses, in recommendation 9, that RFOs should require applicants to demonstrate that they have fully considered potential biological sex and socio-cultural gender dimensions as key analytical and explanatory variables in their research.¹⁶

6.1.4 Recommendations: Biases and stereotypes

Linked to all the above, recommendations for the implementation of initiatives to tackle gender biases and stereotypes also had a significant space throughout the campaign. Different sister projects' partners from Georgia and Lithuania, for instance, made interesting calls on the respective Ministries of Education, Science, Culture and Sport (MoSCS) to:

*“We in CALIPER project at LEPL Shota Rustaveli National Science Foundation of Georgia propose that Ministry of Education, Science, Culture and Sport (MoESCS) should initiate and promote **raising awareness activities on gender equality in STEAM** to speed up real and sustainable change for women and girls in science.” – Georgia*

*“To speed up change for gender equality in R&I, in the name of Vilnius University and in name of H2020 project SPEAR, we encourage the Minister of Education, Science and Sport to **challenge gender prejudices and stereotypes throughout the education cycle, form primary school to lifelong learning, in order to reduce gender imbalances in other spheres of life.**” – Lithuania*

In the same line, EU-14 members ask for the elimination of gender biases and stereotypes towards young female researchers as a means to ensure that career development is not disproportionately detrimental to the retention of women in science. Likewise, some stakeholders are of the opinion that local governments should implement specific actions “to prevent gender stereotypes in educational centres as a basic step to avoid the reproduction of gender inequalities in science”.

For such a goal to become a reality, according to a Belgium HEI, “training on gender stereotypes is a must for teachers and professors”. Accordingly, many were the inputs of stakeholders to put measures that tackle biases and stereotypes in place. Among them, working on institutional culture aspects regarding sexual harassment, promoting gender

¹⁵ Briefing Paper on the Future on gender equality in European research and Innovation (n. 11, April 2019), developed under the GENDERACTION project. Available at: <https://bit.ly/3cLuS3y>

¹⁶ See Standing Working Group on Gender in Research and Innovation. 2020. Position paper on the future gender equality priority in the European Research Area 2020-2030. ERAC. Available at <https://bit.ly/3cL0uGG>



balance in decision-making bodies, fostering mutual learning and capacity building, and counting on the institutional recognition, as well as on the internal and external visibility, of GE actions in place.

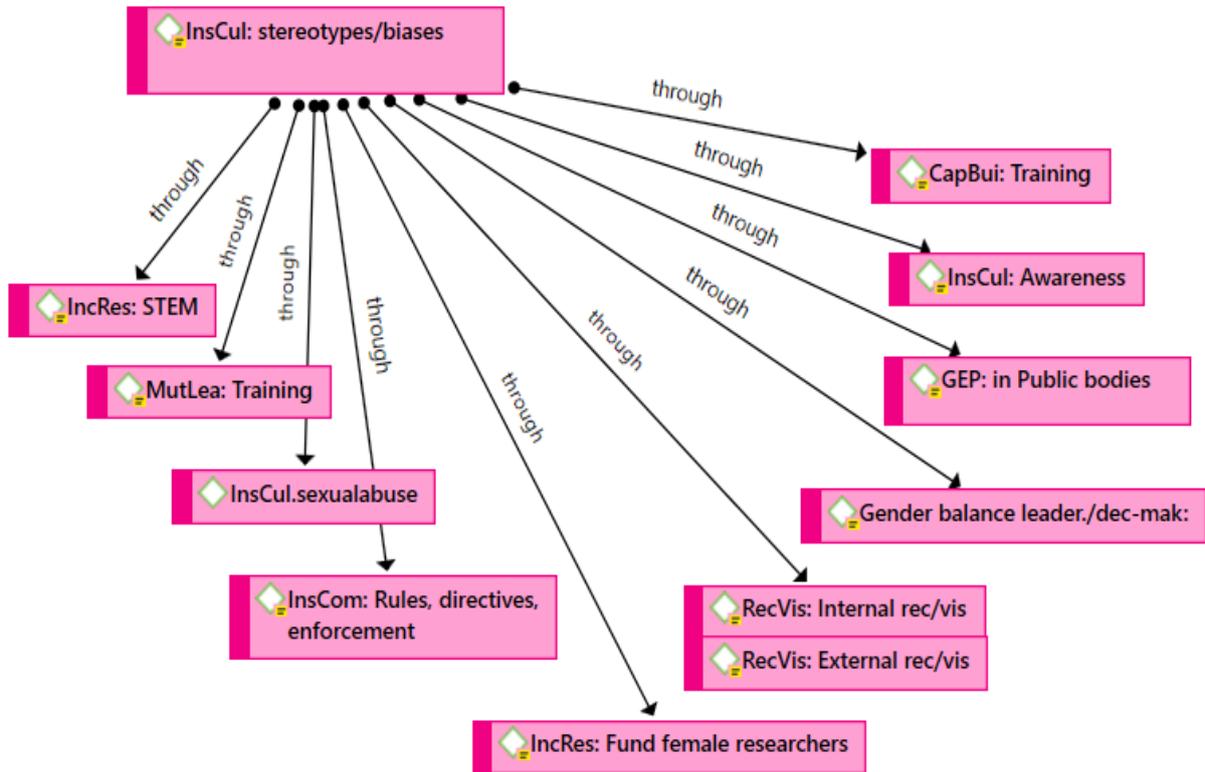


Figure 23: Connections to recommendations on tackling biases and stereotypes

Again, although a continued challenge, countering biases and stereotypes are not a new topic in the discussion on GE in the European R&I sector. The ERAC SWG GRI “Position paper on the future gender equality priority in the European Research Area 2020-2030” stresses that not only unconscious biases must be recognised, but that concrete actions must be taken to ensure that those have minimal impact on real practices.¹⁷ Not only gender biases and stereotypes are a threat to the career of women in science, but also to the generation of knowledge of excellence and the obtainment of valid results in the most different areas, especially when connected to current global challenges such as Covid-19, artificial intelligence, climate change and digital transformation.

6.1.5 Recommendations: Equal and inclusive leadership

For the first time in 2020, the Gender Equality Index presented data about the sub-domain of social power, including on decision-making in RFOs. According to the document,

¹⁷ Standing Working Group on Gender in Research and Innovation. 2020. Position paper on the future gender equality priority in the European Research Area 2020-2030. ERAC. Available at <https://bit.ly/3cL0uGG>



while the domain of power has progressed significantly and is currently a major driver of change in nearly all EU MS¹⁸, it continues to be the slowest (53.5 points).¹⁹ As one of the five priority areas in the Gender Equality Strategy 2020-2025, the EC stresses that without gain in gender balance in decision-making positions, no lasting progress is feasible in other areas.

Following biases and stereotypes, stakeholders engaging in the campaign made recommendations stressing the importance of equal representation of women in leadership and decision-making positions. Among the recommendations in this area are the commitment of national authorities and RFOs in supporting an equal gender representation in senior academic positions and in management roles in research projects. Likewise, governments and RFOs were requested to guarantee gender-balanced compositions of scientific evaluation panels and decision-making bodies at HEIs and RFOs. In addition to that, stakeholders called the attention to the importance of promoting the female participation in leadership roles not only among academic professionals but also among students and youth.

The figure below demonstrates that, according to stakeholders, the achievement of an equal and inclusive leadership in R&I is mainly connected to the promotion of actions in five branches: legal frameworks that include the obligation of equality in decision-making bodies; resources especially directed to the promotion of female academics in all fields; changes in institutional culture; the recognition and visibility of GE actions by institutions; and the strengthening of networking through capacity building and mutual learning activities.

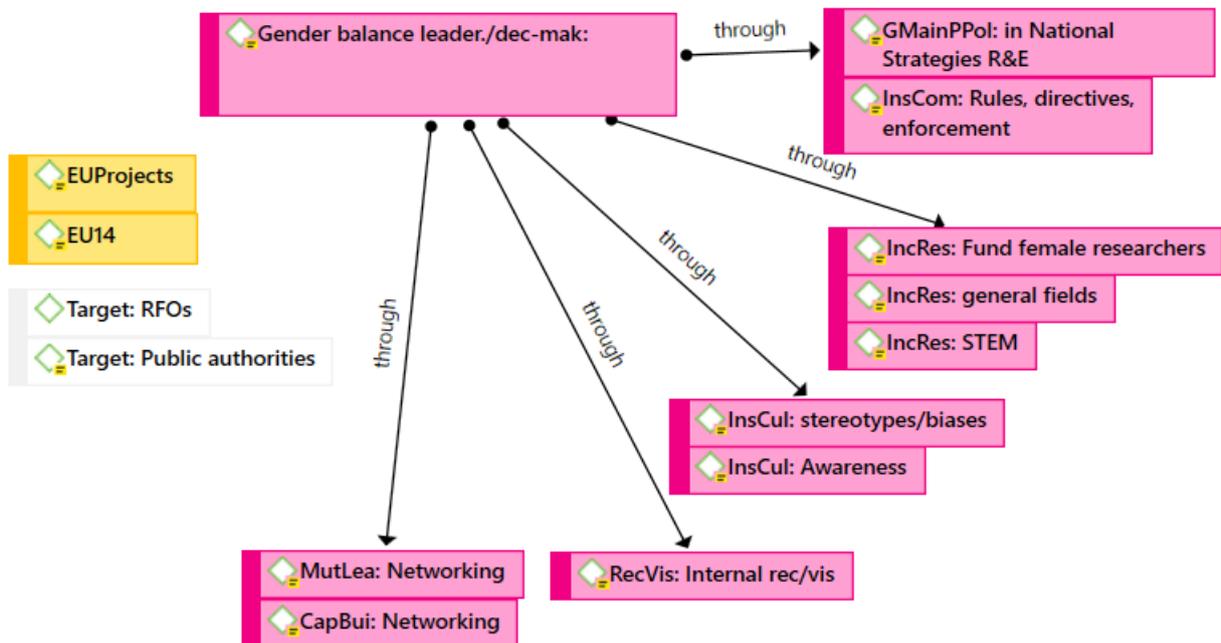


Figure 24: Connections to recommendations on gender balance in decision making

¹⁸ It represented 81% of contribution to the overall increase of GE in the EU between 2017-2018, while domains of work and knowledge contributed only 8% and 6%, respectively.

¹⁹ European Institute for Gender Equality (2020): *Gender Equality Index 2020. Digitalisation and the future of work*, Luxembourg. Available at <https://bit.ly/2TzHOMu>



It is striking – and maybe a reflection of the limitations suffered by a Twitter campaign – that no mention was made by EU-13 stakeholders on this topic. The representation of EU-13 MS was limited to one post made by an official account of a sister project (hence representing the consortium as a whole) that counts on a Hungarian institution as a partner. Such a fact may not be interpreted as an absence of interest and/or action on equal and inclusive leadership and decision making in EU-13 countries. What could be affirmed, however, is that there is a considerable and continued disparity in the existence of thorough, comprehensive and long-lasting actions tackling GE in leadership and decision making in the different geographical settings. Indeed, not only are differences noticed between EU-14, EU-13 and AM but also within EU-14 countries themselves. While many countries currently count on national legislative frameworks that require an equal representation of women and men at senior organisational levels, there is still a gap between what is provided in the regulations and the actual implementation of those.²⁰

6.1.6 Recommendations: Capacity building and Mutual learning

When it comes to capacity-building and mutual learning initiatives, stakeholders underlined **training**, **networking** and **alliances** as powerful means through which to strengthen and improve the design, implementation and evaluation of GE actions in R&I. Contributions came from stakeholders located in all geographical areas and targeted mainly public authorities as those in charge of providing the necessary resources and support for the development of capacity-building and mutual learning actions.

Overall, claims focus on the training of different actors within the R&I system (HEIs, RPOs, RFOs, EC-funded projects) at all levels of expertise and involvement with GE issues, as a means to generate and consolidate gender-mainstreaming skills and promote GE not only in research and teaching contents and methodologies, but also in other core institutional practices and logics. Those include the adoption of trainings and mutual learning practices on gender-equal practices for human resources personnel, people in leadership and decision-making positions, teachers and researchers, as well as administrative staff and students. The variety of topics in which training is needed is represented in some of the posts:

*“(...) We need to **raise awareness and train the staff** to avoid unconscious bias, especially gender bias, in the process of selection and evaluation of scientific calls and proposals” – Spain*

*“We believe that **funding for research performing organisations to implement gender equality plans and to build the capacities** will speed up change for gender*

²⁰ Good practices in EU-14, EU-13, AM and external States have been identified by GEARING-Roles and GENDERACTION in previous opportunities. See: Interactive Map of Best Practices, available at <https://gearingroles.eu/wp5/>, and Wroblewski, A. (2018) Report on national roadmaps and mechanisms in ERA priority 4. Deliverable 3.1 developed under the GENDERACTION project, available at <https://bit.ly/3vBmkTC>



equality in research. In-house experts and long-term systematic plans are essential.” – Czech Republic

*“We would welcome our governments to invest **in training initiatives for early-stage researchers specifically aiming at the development of the competences needed to perform gender-sensitive research and to include a gender dimension in research and teaching contents.**” – SUPERA project*

*“**Training on gender stereotypes is a must for teachers and professors to speed up change.**” – Belgium*

*“To speed up change for gender equality in research I would like national governments **to invest in capacity building of their RPOs and RFPs for them to build and implement inclusive GEPs.**” - Spain*

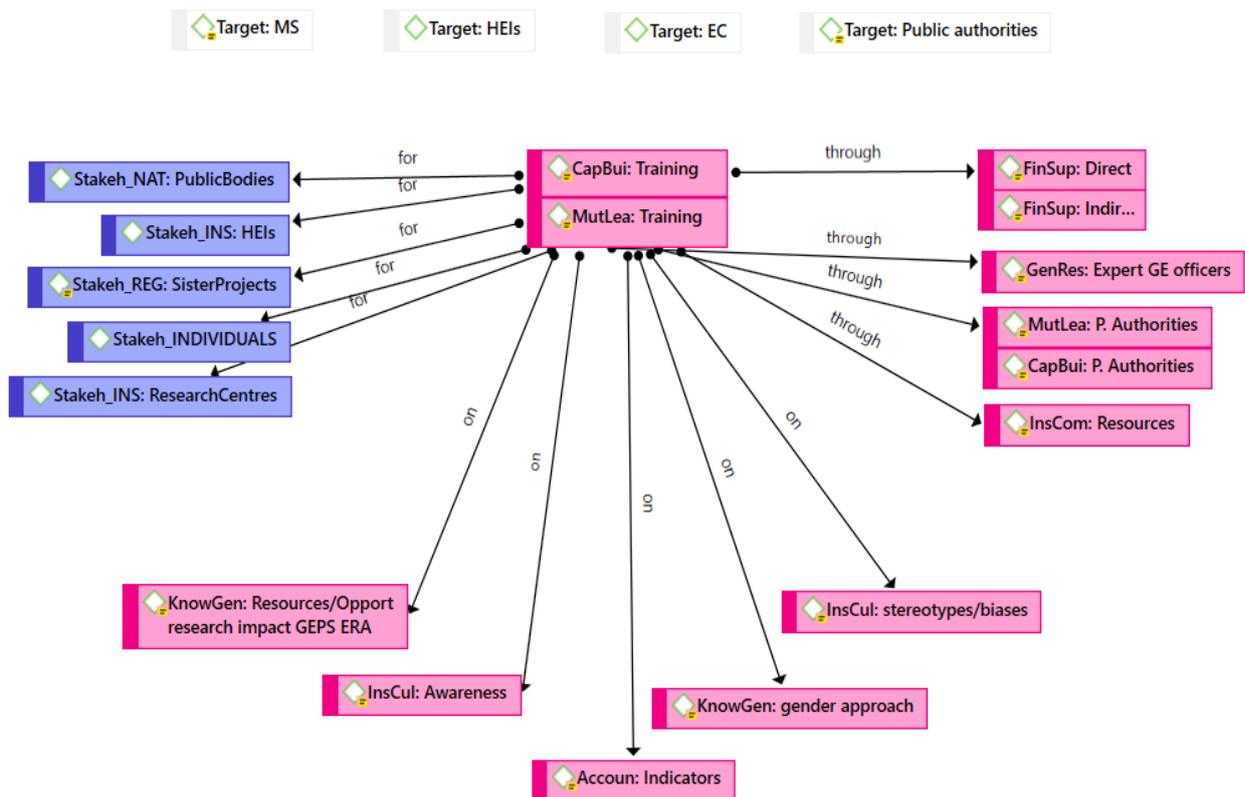


Figure 25: Recommendations: Capacity building and Mutual learning – training

Networking and alliances were also pronounced as powerful to improve the creation and implementation of practices. Numerous were the claims for the promotion of learning and practice communities at both national and European levels. Among others, the requests argue



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for the construction of national and international networks between RPOs and RFOs to share practices and experiences in the implementation of GEPs.

Stakeholders called on national public authorities, EU Member States as a community and the EC to support and promote networking between HEIs, EC-funded projects working on structural change and public bodies as a means to improve GE in various areas of in R&I. As shown in the figure below, among others, networking is seen as a means through which to strengthen alliances, foster the exchange of knowledge and improve the design, implementation and evaluation of GEPs, as well as to establish more accurate GE indicators and ensure institutional accountability.

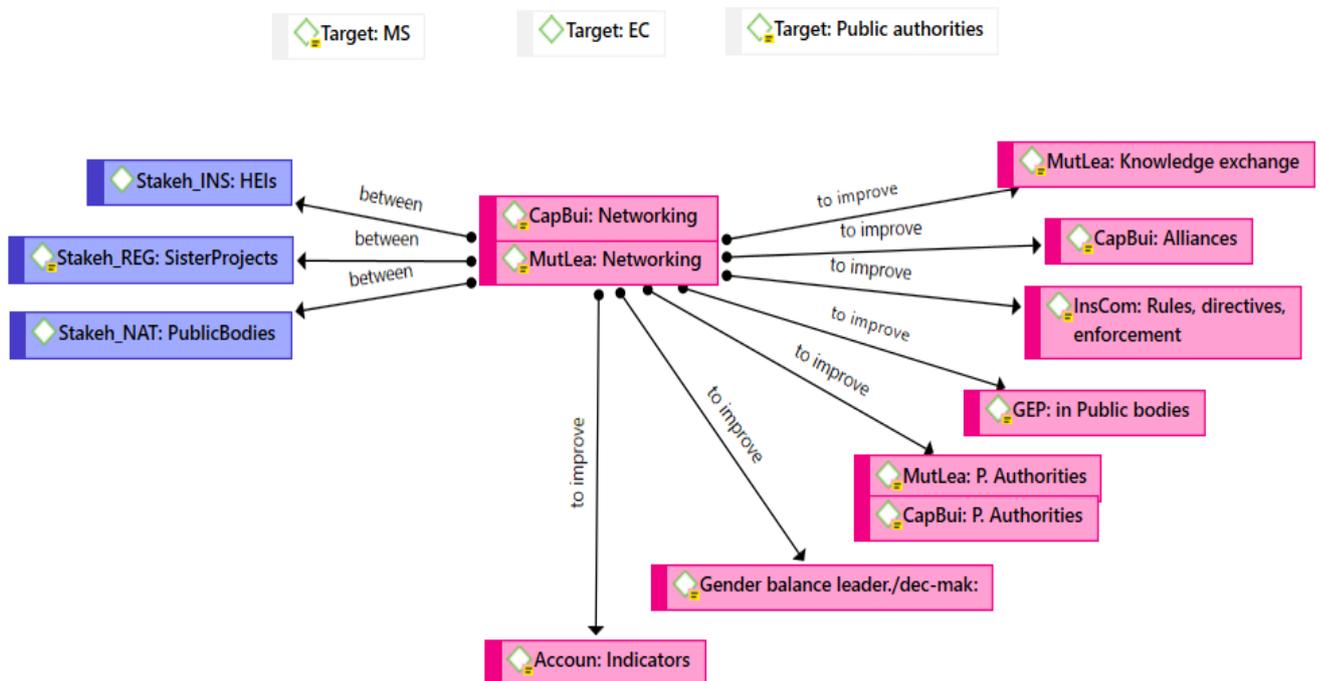


Figure 26: Recommendations: Capacity building and Mutual learning – networking

These are some of the posts containing recommendations on networking:

“ACTonGender calls European governments to support the consolidation of communities of practice on gender equality in RPO and RFO to speed up change towards more excellent and non-gendered biased science.” - Spain

“Our government should promote national and international communities of learning and practice for Gender Equality Plan implementation to speed up change for gender equality in research.” – Germany

“To speed up change for gender equality in research we would welcome governments in the EU Member States to support national networks in sharing



practices and experiences of implementation of gender equality plans in research performing and research funding organisations.” – Czech Republic

Similarly, alliances were requested between public bodies, research centres and EC-funded projects on gender structural change as a means to achieve external and internal recognition of the importance and visibility of GE actions in force. In addition, alliances between stakeholders are also pointed out as a way to promote mutual learning and capacity building of public authorities in different contexts.

An interesting data emerging from these recommendations is that the vast majority of them related to the creation and strengthening of alliances between stakeholders for the improvement of GE indicators, HR codes, and European certificates of GE. This goes in line with the growing interest in harmonising the assessment of GE standards in different European R&I contexts, as well as with the increasing establishment of GE criteria to take part in R&I funding programmes in the most different fields.

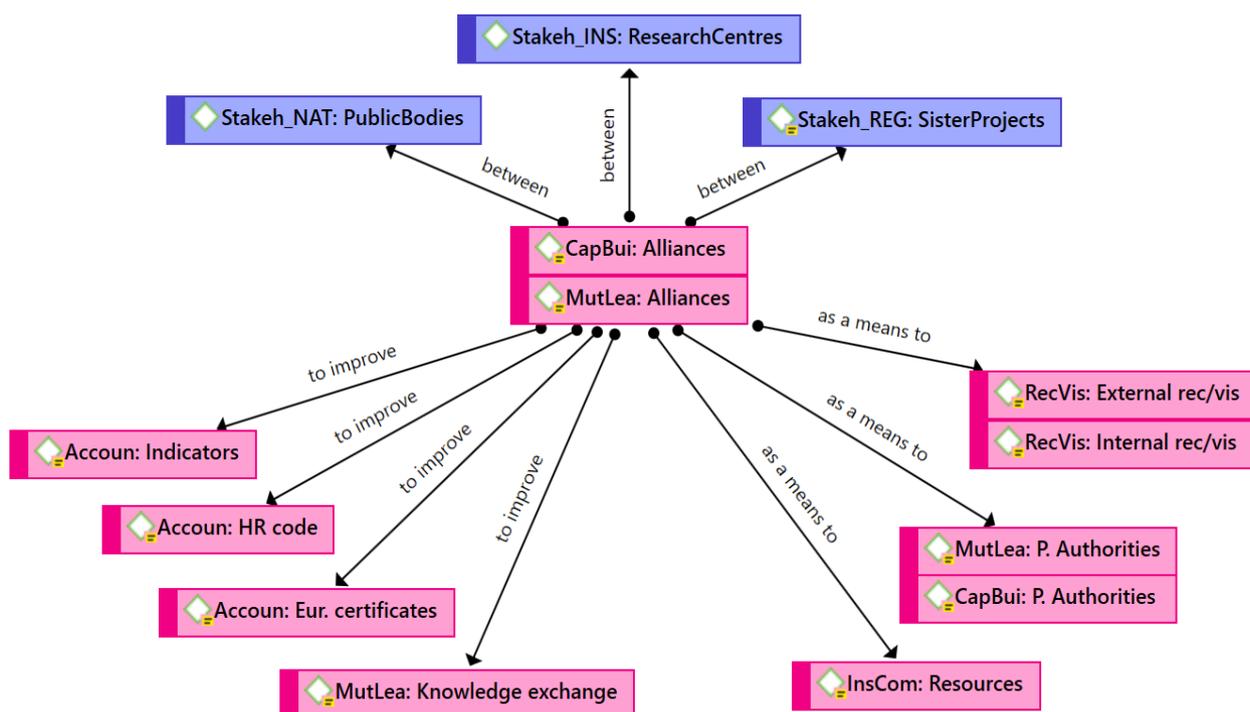


Figure 27: Recommendations: Capacity building and Mutual learning – alliances

6.1.7 Recommendations: Institutional recognition and visibility of GE initiatives

Following all the above, a pronounced number of contributions drew attention to how the recognition by institutions of the importance of GE initiatives, as well as the visibility of those in external and internal institutional contexts, impact the advance of GE in R&I.



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Recommendations in this respect came from stakeholders from all geographical settings, although AM were only represented within the scope of consortiums of sister projects. In terms of content, a slightly higher attention was paid to the recognition and visibility of GE actions in contexts external to the institutional environment, in contrast to internal visibility.

Precisely, **sister projects** representing consortiums overall argued for the importance of ensuring visibility to the GE interventions of national and regional governments, as well as of state and local administration bodies, as a way to foster the institutional commitment of HEIs, RPOs and RFOs, as well as to raise awareness in society at the whole. An interesting point raised by the SUPERA project was the need for promoting an adequate visibility of GE initiatives by communicating them to internal and external publics with non-technical language.

Along the same line, other consortiums recommended the open and clear communication by national authorities about the importance that institutions have GEPs in place, in order to ensure that RPOs, HEIs and RFOs have a clear idea of what is expected from them. Finally, sister projects stressed that manifested governmental support for Gender Studies in HEIs is key for institutions located in diverse contexts and holding different backgrounds to achieve excellence in science and contribute to the advance of GE in the ERA.

On the other hand, recommendations from **EU-14** stakeholders contained a range of different and interesting orientations. Those recalled that clear public policies and regulatory frameworks on GE can act both as a form of recognition of the importance of making progress towards a gender-equal R&I field, and as a means to put the efforts of the institutions to consolidate processes of change for GE in light.

EU-14 stakeholders also stressed the urgency to recognise and make visible the work carried out by women researchers, especially of those who occupy leadership and management positions in R&I projects, as well as those winners of scientific and innovation prizes. In this respect, recommendations specified that national governments should “tie press funding to gender- and diversity-sensitive media design”.

From the side of **EU-13** members, contributions were more general to highlight the need for open political commitment to GE by national governments, decision makers and institutions as a whole. Such an open commitment was then connected to the provision of resources for GE, the implementation of GEPs in public bodies, the fight against gender biases and stereotypes at all institutional levels, among others.

The figure below provides a general overview of the connections made by stakeholders in relation to the need for institutional recognition and visibility of GE measures:



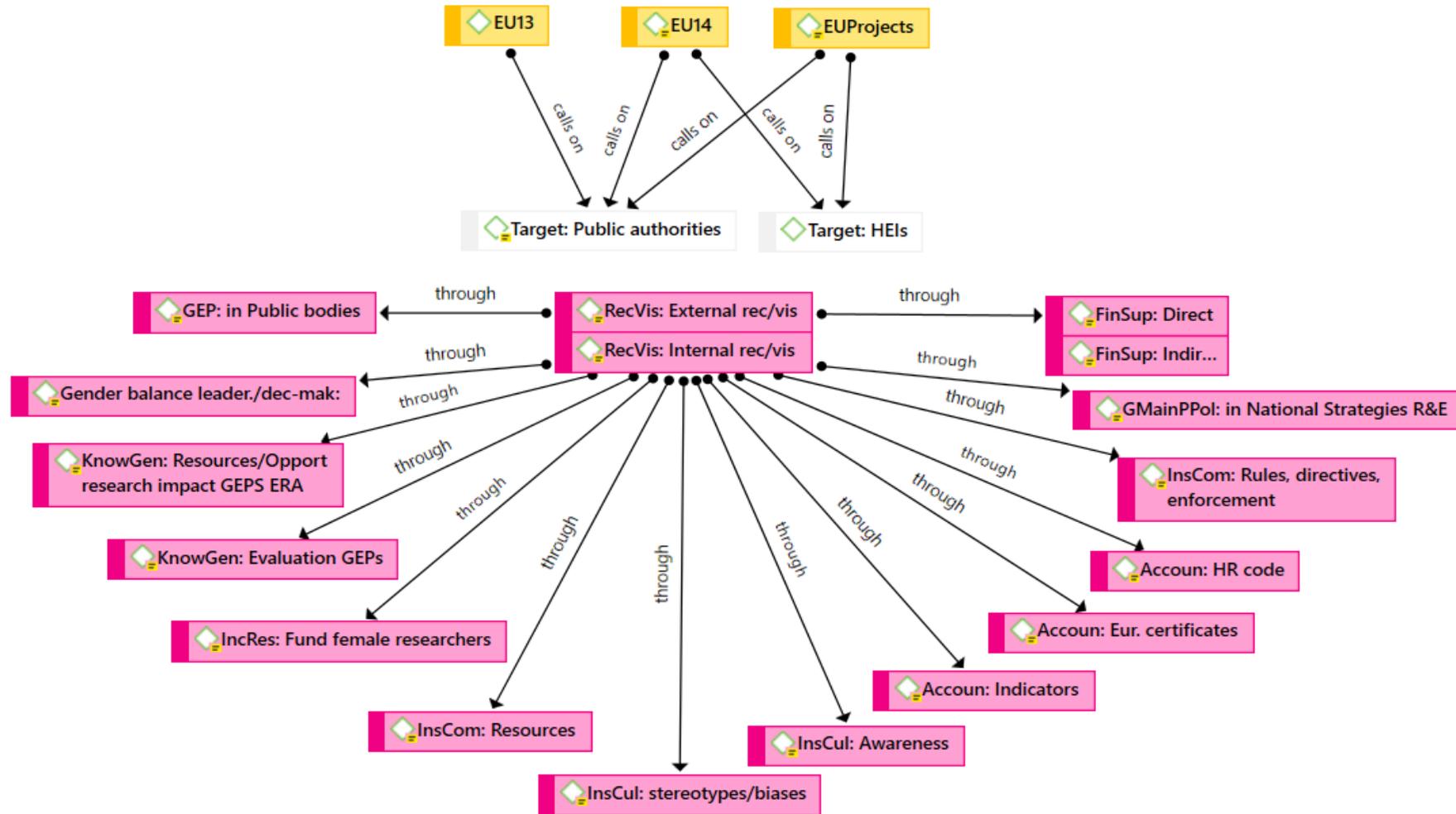


Figure 28: Recommendations: Institutional recognition and visibility of GE initiatives



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At this point, it is worth stating that obtaining open institutional recognition and visibility of GE initiatives, therefore, is not a final objective within the general goal of advancing GE in R&I, but rather it overlaps all other types of measures taken under the concerned context. It can be said that it supports and falls under the so-called idea of “building on existing resources”, in a way that the reinforcement by institutions of the importance of GE measures provides them with greater visibility and overall support and generates a chain of reproduction and strengthening of GE measures in the most diverse areas.

Further, the fact that external recognition and visibility gained a major attention throughout the requests of stakeholders is not accidental. In practice, processes of institutional change often demonstrates that external support increases the status and legitimacy of GE projects and initiatives internally. The same happens at the internal level *per se*, where the status of GE measures raises significantly among the whole institutional community when leadership and decision-making bodies engage and recognise their importance and make their outcomes visible.

Higher visibility and recognition of GE actions by a wide range of actors in different sectors, in its turn, promotes the construction of partnerships and alliances between internal and external institutions and communities, thus supporting the maintenance of the reproduction chain activity and, in consequence, the sustainability of actions in the long-term.

6.2 Acknowledgements of Good Practices

Although in a significantly lower amount, besides contributions containing recommendations on the next steps to tackle emerging challenges and advance GE in R&I in Europe, stakeholders also celebrated good practices that are in place or have been recently approved at the national levels in EU countries and AM. At a first glance, acknowledgements of good practices were mainly produced by two categories of stakeholders: national public bodies (i.e. Ministries of Science and Innovation and public agencies of research funding) and EU-funded projects on gender structural change. While national public bodies recognised the existence and success of their own national good practices, EU-funded projects’ acknowledgements were mainly directed to the initiatives that are put in practice thanks to the EC commitments and provision of funds and resources for GE under the ERA.

Looking at the different geographical areas, it is noted that, in the case of the **EU-13** area, stakeholders mainly welcomed recent implementations of **work-life balance policies**. Two Czech public institutions (the Council for Research, Development and Innovation and the Office of the Government) celebrated the measures recently put in place to adequate the research career and the effects of maternity leave in the careers of women. Similarly, there were acknowledgments to the creation of recommendations for RFOs in the area of working conditions of women in sciences.

*“(translated from original version in Czech) DYK that today we celebrate IDWGS?
On the issue of gender equality, the Council of Research, Development and Innovation*



(of the Office of the Government) approved in October 2020 Recommendations for RFOs in the area of working conditions in research.”- Czech Republic (public authority)

This leads to reflection on the great importance of setting up the correct legal and policy frameworks around work-life balance have in the research sphere, as these measures are of vital importance both for the well-being of researchers as for correcting possible gender inequalities that grow over personal circumstances.

Still within the EU-13 setting, both national public authorities and EC-funded projects recognised the potential of **GE awards** as a good practice that encourages women to keep up in science. It could be said that this type of measures provides both extra visibility and resources for women researchers, which is extremely important given the situation of initial disadvantage that female researchers face.

*“Without equal conditions for the employment of women in science and research, the Czech Republic would lose much of its knowledge potential. We therefore support **equal opportunities for women scientists and annually award the Milady Paul Award to the best women researchers** for their contribution to the development of science and technology.” – Czech Republic*

Another interesting category of acknowledgements was the **opportunity to participate in EC-funded projects and policies for GE**. Project consortia, institutions taking part in these frameworks and RFOs highlighted the influence of those in the progress and advance of GE in R&I in practice. This is mainly recognised by public institutions such as RFOs that are partners in sister projects on structural change, which stressed that being part of it has worked as a revulsive for the inclusion of new measures for GE at different institutional levels. An example of this is the inclusion of an evaluation criterion for gender content in R&I by the GEECCO project (H2020):

*“(translated from original version in Czech) With the support of the project @ GEECCO_H2020 we are **introducing a new evaluation criterion focused on gender in the content of research and innovation to increase the attention to the diversity among users of results and their applicability.**” – Czech Republic*

In the same line, the GENDERATION consortium recognised the importance of the commitment that has been reaffirmed and strengthened by the EC towards GE in its Framework Programmes. On the one hand, the consideration of gender as a cross-cutting issue in all fields of knowledge; on the other, the recently established criteria for Horizon Europe that requires every legal entity applying for funds to have a GEP in place. Overall, acknowledgments emphasised how the positioning of the EC and its policies influence the system at multiple levels and in a complementary manner.



In the case of **EU-14** countries, we can find celebratory tweets for countries implementing robust public policies in gender and science (especially in Spain and the Netherlands). Likewise, research centres celebrate the increase of **funding for female researchers** and its implication in balancing representation of women and men in institutions. In addition to that, the investment of **resources on GE research** is also a strategy that a Spanish stakeholder highlighted among their achievements:

*“To speed up change for #GenderEquality in research, every year **we call three research grants on gender equality worth 70,000€.**” – Spain*

Good practices that remark the commitment of national public authorities to continue **fostering knowledge and alliances for GE** in R&I, combined with **internal strategies to keep abreast of change**, were also celebrated:

“To speed up change for gender equality in research we at Unibasq keep on interacting with external entities to be updated. In addition, we do internal meetings to boost transversal actions within the entire workforce.” – Spain

It is worth highlighting the importance of capacity building within not only HEI and RPOs but also to RFOs and national authorities, as well as the understanding that capacity building is not a monolithic category, but comprises, *inter alia*, a series of varied elements such as networking, training, and alliances. At different levels, all those were represented throughout the contributions to the campaign.

In the following figure, a display includes all the codes that relate to the acknowledgement category. It is important to note that the sizes of different codes are related to the number of times that each area has been coded throughout the concerned tweets.



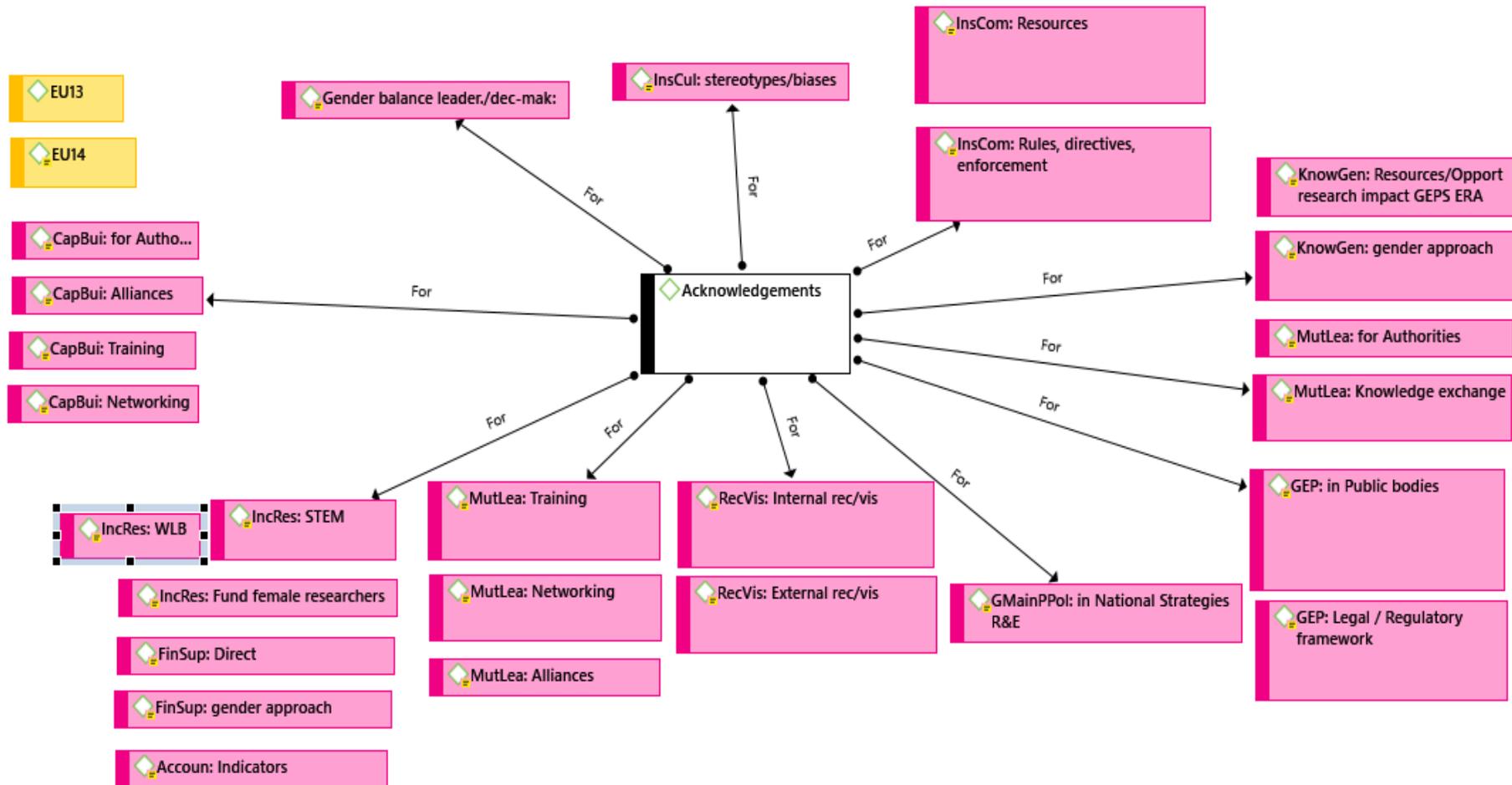


Figure 29: Acknowledgement content



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7. Conclusions

While considerable progress has been made towards a more gender-just European R&I in recent years, gaps such as the underrepresentation of women in leadership and decision-making positions, the lack or scarce gender mainstreaming in national strategies, and the insufficient distribution of adequate resources for the implementation and evaluation of GE policies remain in place in most EU Member States. The increasing standards imposed by the EC in relation GE in the ERA and its Framework Programmes bring to light the need to tackle challenges that have long been kept at the borders and require national states and institutions to firm a comprehensive commitment to GE.

The three most frequent areas of recommendation were: institutional commitment to provide resources for GE actions; institutional commitment to establish and enforce rules and directives that contribute to the advance of GE; and gender mainstreaming in national public policies for R&I. Among those, the representation of EU-14, EU-14 and AC is quite similar, meaning that stakeholders from all geographical settings prioritised these as priority areas for promoting change towards GE in the next period. In other topics, in turn, differences were more apparent. For instance, EU-13 stakeholders were considerably underrepresented in demands related to combating gender biases and stereotypes, as well as to promoting an equal and inclusive leadership. Moreover, in recommendations for financial support for GE initiatives, there was a significant disparity between the priorities signalled by the different geographical areas. While there appears to be a demand from EU-14 stakeholders for GE funding to be invested in a wide range of GE initiatives, EU-13 focused primarily on the funding need for the creation and implementation of institutional GEPs.

Overall, the analysis has showcased two general categories of actions where changes and progress are required. On the one hand, a series of demands relates to the creation of structural and organisational bases that create an enabling environment for GE initiatives to succeed. On the other hand, participants highlight a number of changes that are more connected to women's representation in the R&I sphere.

Structural and organisational basis

Institutional commitment to establish and reinforce rules and directives, as well as gender mainstreaming in national public policies for R&I, are among the three most prevalent mentions. In this respect, while EU-13 stakeholders put a greater emphasis on the importance of regulatory frameworks as a way to speed up GE implementation, EU-14 contributions put more stress on the review of existing policies for mainstreaming gender.

Stakeholders have mentioned not only the need for institutions in general to have GEPs in place, but also highlighted that all public bodies should implement those, both as a means to directly commit to GE standards and a way to raise awareness, promote knowledge on the topic and engage actors from different institutional and political contexts in the same cause.



Gender mainstreaming in public policies appears as a first step for nation states to adopt GEPs and other GE initiatives in the search for a more sustainable progress. In this context, the ERAC SWG GRI has stressed on previous occasions the importance of maintaining “a synchronised policy co-evolution process afforded by the ERA Roadmap across the national and EU levels”, following the ERA Roadmap priority 4 as a catalyst for policy in many EU countries.²¹

Institutional commitment to provide resources for GE actions was also among the top three mentioned recommendations. This topic has had a stronger presence in the case of the EU-14. Stakeholders have considered multiple spheres where resources play an important role, from promoting women researchers to considering conditioning funding provision to gender sensitive approach, passing by providing resources for the correct implementation of GEPs.

Funding is a key piece in promoting GE, and as such, it is highlighted in the position paper on the future of GE in the European Research Area 2020-2030 by ERAC SWG GRI.²² The high prevalence of mentions to resources confirms this fact. In total, the analysis has coded four funding related codes: the consideration of a gender approach in funding decisions (11 mentions), direct financial support for GE initiatives (14 mentions), indirect financial support for GE initiatives (8 mentions), and resources to fund female researchers (9 mentions). Such a strong presence of recommendations relating to the need for financial support reflects the already known fact that change cannot be disconnected from funding. In this respect, the EC has already linked funding not only to the direct financial support for GE research and female researchers, but also to a number of initiatives that are powerful drivers of change in the R&I sector. Those include funding for the introduction of systems of quotas, the promotion of actions to tackle institutional culture, and the adequate monitoring of impact of the implemented measures.²³

Likewise, the ERAC SWG GRI has also highlighted the need to hold national authorities accountable.²⁴ Several actors across the board have made explicit during the campaign the importance of establishing indicators or mechanisms to certify progress in GE. In this context, the relevance of institutional accountability towards GE is not limited to the success of their own practices, but can be a means through which to raise awareness and contribute to the increase of institutions that are gender-just advocates.

To end with, it would be relevant to recall the stress made in strategies to create a more gender-equal knowledge. This would be achieved through stronger capacities in researchers,

²¹ Standing Working Group on Gender in Research and Innovation. 2020. Position paper on the future gender equality priority in the European Research Area 2020-2030. ERAC. Available at <https://bit.ly/3cL0uGG>

²² *ibid.*

²³ European Commission (2018) Guidance to Facilitate the Implementation of Targets to Promote Gender Equality in Research and Innovation. Luxembourg: Publications Office of the European Union. Available at: <https://bit.ly/3wzqFHW>

²⁴ Standing Working Group on Gender in Research and Innovation. 2020. Position paper on the future gender equality priority in the European Research Area 2020-2030. ERAC. Available at <https://bit.ly/3cL0uGG>



funding systems that privilege and prioritise gender-equal perspectives and increasing knowledge around how change for GE happens in practice and is sustained in the long term.

Increase of women's representation and participation in the R&I sphere

Based on the recommendations made throughout the campaign, it is clear for different stakeholders that structural change is not the only factor that could unchain progress on GE in the R&I field. There is a need for a series of changes that balance and facilitate women's participation and put in value their contribution to the sector.

Visibility would be a double-sided factor. On the one hand, related to providing visibility to women's participation in R&I, there is a recognition of actions, such as awards, that provide visibility to the quality of research made by women. On the other hand, there is an explicit recognition of the structural barriers that women face and the need to fight them to avoid the loss of talent and knowledge. In this category, we could include all the necessary work to perform on biases and stereotypes. Given the importance that both areas are transversal to all other type of measures, it may be worth considering combined approaches.

Aligned with the aforementioned factor, recommendations around the equal representation of women in leadership and decision-making have been strongly advised. It is a matter that affects women's participation at all levels, including young women and students. Stakeholders have also reminded the need to balance participation in decision-making and evaluations committees. In this case, it has been proved that women's participation creates a mirroring effect, confirming both that those spaces can be populated by women, and promoting the creation and strengthening of networks to knowledge exchange and share of experiences on how to navigate the system.

Finally, work-life balance policies and measures have been identified by stakeholders as extremely relevant to improve the working conditions of women in the research sphere. It is relevant that this point has been highlighted because it has traditionally been a barrier for women's equal participation and even exist from the R&I sphere. Although many countries count on legal frameworks that regulate on work-life balance issues, the application of those seem to be far from comprehensive, disproportionately affecting women. In the specific case of the campaign, it may be relevant to notice that EU-13 stakeholders drew a greater attention to the topic.

All the recommendations above are reinforced by measures that support capacity building and mutual learning activities, alliances between different stakeholders and networking. Those must be transversal to all other actions as a means to articulate work towards the achievement of the ERA objectives and the Horizon Europe new standards for GE.



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