



# From Margins to Mainstream: Advancing Gender Equality for Young Researchers through Policy, Regulatory Science, and Funding Gateways

Theo Zacharis Greek Scientists Society



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## Agenda

1. Introduction – Setting the Frame
2. Current State: Marginalisation with Evidence
3. Empowering YRIs: A Multi-Role, Multi-Sector Vision
4. Enabling Mechanisms
  - A. Regulatory Science
  - B. Funding Gateways
  - C. Institutional Tools
5. Policy Landscape & Reform Needs
6. Conclusion & Call to Action



## 1. Introduction – Setting the Frame

Bringing more women to the **decision-making centres**; empowering them institutionally and strategically through both structural reforms and pull-effect mechanisms.



## 1. Introduction – Setting the Frame

Our focus today is clear: to bring more women—and young researchers more broadly—into the centres of decision-making.

Not only through institutional mandates, but also by creating an environment where opportunities actively pull them in. This means **reforming structures**, opening **leadership pathways**, and equipping them with the **tools, networks, and visibility** to claim these spaces.





## 1. Introduction – Setting the Frame

Throughout the talk, we emphasise both:

- **Institutional Empowerment** (push): gender equality plans, policy reforms, quotas, transparent evaluation
- **Strategic Pull Mechanisms**: role modelling, dedicated funding access points, open innovation tools, fast-tracking YRIs into leadership and advisory roles



### Why “From Margins to Mainstream”?

#### Repositioning Young Researchers in European Science & Policy

- Gender and career precarity persist: Women and YRIs are overrepresented in temporary positions, underrepresented in leadership, funding, and innovation roles.
- The margins are visible:
  - <30% of full professors in Europe are women
  - Women are just 32% of corresponding authors on scientific publications across Europe
  - Women make up just 22% of ICT PhD graduates
- This is not just about representation—it's about **influence**
- Decision-making, agenda-setting, and innovation leadership remain male-dominated.

*Goal of the talk:* To explore how YRIs, especially women, can move from being peripheral actors to central figures in science, policy, and innovation.

*"We don't just want inclusion. We want leadership, visibility, and systemic change."*





### Where the Margins Are – By Field & Country

#### Understanding Inequality Across Domains and Geographies

##### By Scientific Domain:

- Only 22% of ICT PhD graduates in the EU are women
- In engineering & technology, women make up just 27% of PhDs
- In high-impact research fields (e.g. physics), women are under 15% of top authors

##### By Country:

- Female researcher share:
  - >45% in Romania, Lithuania, Bulgaria, and Portugal
  - <35% in Germany, the Netherlands, and Luxembourg
- Leadership roles remain disproportionately male in nearly all countries

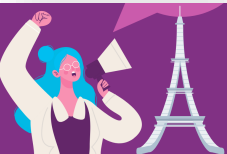
##### In Innovation & Commercialisation:

- Just 9% of patent applications in the EU include a female inventor
- Women are underrepresented in spin-offs, startup boards, and licensing deals

(Female researcher share by country):

Country	% Female Researchers
Romania	50.50%
Lithuania	52.30%
Bulgaria	51.00%
Portugal	45.20%
Germany	33.10%
Netherlands	26.40%
Luxembourg	24.60%

(Source: She Figures 2021, Chapter 3, Figure 3.1 –  
"Proportion of female researchers by country and sector")



### Where the Margins Are – By Field & Country

Understanding Inequality Across Domains and Geographies

#### Public & Political Roles:

- Only 33% of national research ministries across EU-27 are headed by women
- Women make up less than 30% of top decision-makers in national science councils and advisory bodies
- In EU-funded research governance (e.g. Horizon Europe committees), women's presence drops with influence level

#### Institutional Leadership:

- Just 30% of university rectors and department heads are women in Europe
- Women rarely lead large-scale science diplomacy roles or public funding agencies

#### Impact:

- Limited presence in policy design = gender-blind frameworks
- Lack of role models limits pull-effect for younger generations



### Precarity & Underrepresentation of YRIs

#### Trapped at the Base: YRIs Face Structural Precarity and Limited Visibility

- YRIs—**especially women**—hold a disproportionate share of fixed-term, part-time, or grant-funded positions
- Career progression is often slow or blocked, especially in STEM fields
- Women are underrepresented as Principal Investigators (PIs) in major EU-funded projects
- Fewer than 30% of female researchers transition to senior academic posts (Grade A)
- Women's research careers are shorter and less visible: only ~20% remain active in publishing 10 years after first publication, compared to ~35% of men. (Source: Elsevier Gender Report 2020)
- Women are significantly underrepresented as last (senior) authors, editorial board members, and panel experts—especially in STEM journals and EU advisory groups.
- Participation in innovation roles (startups, patents, tech transfer) remains minimal
- Lack of mentorship, institutional support, and access to decision-making channels limits influence



## From Diagnosis to Action

Objective: Dismantling Structural Barriers and Empowering YRIs

- Move from documenting inequality to enabling agency
- Identify institutional, systemic, and cultural factors that hold women and YRIs at the margins
- Present practical mechanisms to improve access, visibility, and leadership opportunities
- Highlight EU tools already in place (GEPs, Horizon Europe gender criteria, COST inclusiveness measures)
- Introduce regulatory science and funding intelligence as entry points to policy influence and career advancement
- and
- Emphasise the dual approach:
  - ✓ Structural push (reforms, mandates, quotas)
  - ✓ Strategic pull (tools, networks, mentoring, visibility)



## Structural Barriers Facing YRIs

### Persistent Inequalities: Barriers in the Research Ecosystem

- Precarious contracts: majority of YRIs work on short-term, project-based positions with limited security
- Career progression depends heavily on informal networks and institutional support—both often gender-biased
- Fragmented access to funding:
  - Complex landscape across EU, national, and philanthropic sources
  - Many YRIs unaware of eligibility, deadlines, or thematic fit
- Innovation and commercialisation roles are rarely accessible to early-career researchers—especially women
- Lack of representation in evaluation panels, advisory boards, and proposal coordination





## Rebuilding the System – My Intervention

**Regulatory Science + Policy Reform + Funding Intelligence = Structural Inclusion**

- Regulatory science brings YRIs into the design of standards, ethics, and evidence-informed policy (e.g. SAM/SAPEA)
- Policy reform through mandatory Gender Equality Plans, quotas at least in mid-level leadership positions, and gender-sensitive evaluation criteria
- Funding intelligence via the CORDIS (or the GSS EU Funding Gateway):
  - Increase awareness of open calls
  - Tag gender-relevant schemes
  - Facilitate early engagement in COST and Horizon consortia
- These mechanisms form a pull-and-place system: drawing YRIs in, and placing them in visible, strategic roles

*The goal:* a more inclusive, equitable, and transparent research ecosystem—where YRIs contribute, lead, and shape the agenda





## Empowering YRIs – A Multi-Role, Multi-Sector Vision

From Researchers to Leaders: Expanding the Role of YRIs Beyond Academia

- YRIs should be recognised not just as researchers, but as future policymakers, innovators, and even science diplomats
- Empowerment means opening career pathways across academia, policy, industry, and civil society
  - Academia: from postdoc to PI, COST Action leader, department head, rector
  - Policy: from science advisor to minister, evaluator, Horizon board member
  - Industry: from R&D scientist to founder, innovation lead, IP/licensing expert
  - Civil society: from citizen science lead to NGO policy coordinator, UN STI Forum representative
- Recognition of these diverse roles must be matched by access, training, and inclusion in decision-making



### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

#### **Regulatory Science** – What is Regulatory Science?

- Regulatory Science is the application of scientific knowledge and tools to develop **standards, guidelines, and regulatory frameworks** for ensuring product safety, efficacy, and environmental sustainability. It bridges the gap between **scientific innovation** and **policy implementation**. Connects cutting-edge scientific advancements with real world policy and regulatory needs.
- *Regulatory science in the context of VOICES, is the application of scientific knowledge to support the development of fair, evidence-based policies, standards, and public decisions. It connects researchers—especially Young Researchers and Innovators (YRIs)—with institutions that shape how science is used in society. It offers a pathway to influence laws, funding rules, ethical frameworks, and innovation governance through transparent and inclusive scientific advice.*



## 4. Enabling Mechanisms – Regulatory Science

### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

#### Regulatory Science

- Bodies like SAM and SAPEA invite YRIs to contribute to evidence reviews and policy advice
- Offers visibility, non-academic career credibility, and influence on standards
- Encourages gender-responsive regulation by involving diverse voices early

**Scientific Advice Mechanism (SAM)** <https://scientificadvice.eu>

SAM is the European Commission's structure for high-level scientific advice. It includes the Group of Chief Scientific Advisors and works closely with SAPEA to deliver evidence-informed opinions for EU policymaking.



**European Academies (SAPEA)** *Science Advice for Policy by European Academies*

SAPEA gathers expertise from over 100 academies across Europe to produce interdisciplinary evidence reviews feeding into SAM reports. It regularly involves early-career researchers and experts from COST Actions and Horizon Europe projects.

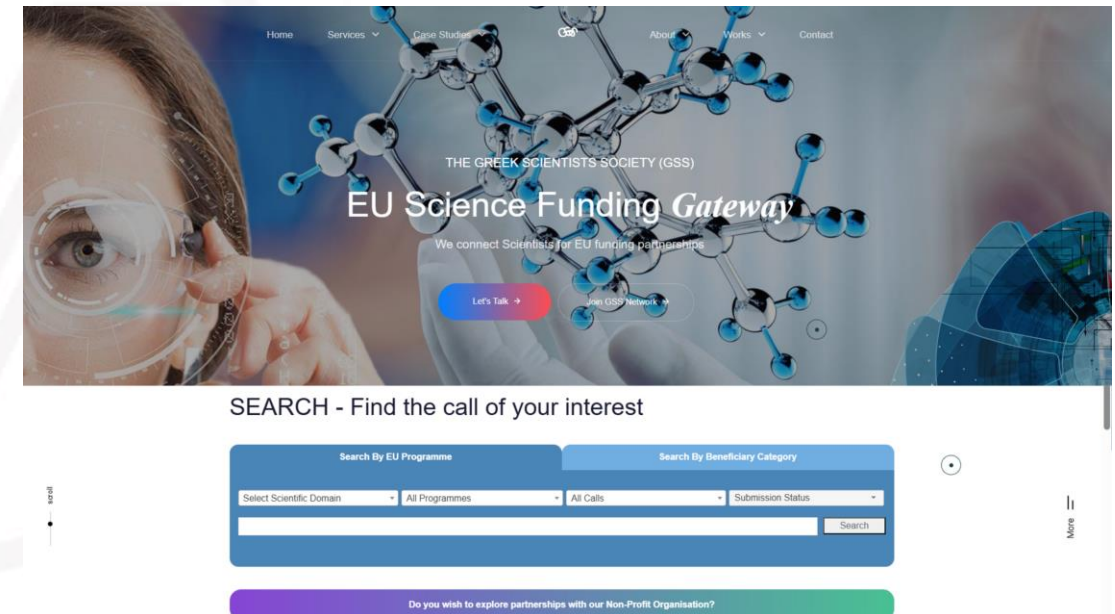


### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

#### Funding Gateways

- Horizon Europe: Gender Equality Plans (GEPs) now required for eligibility
- Gender dimension must be integrated into project design and evaluation
- Tools like the GSS EU Funding Gateway help YRIs track calls, find partners, and identify gender-sensitive opportunities



### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

#### Institutional Tools & Models

- Mentorship schemes, proposal clinics, and career development services for YRIs
  - ✓ Mentorship programmes connect YRIs—especially women—with senior researchers and science-policy professionals.
  - ✓ Proposal clinics offer targeted support in preparing competitive applications (e.g. COST VMs, Horizon RIA, ERC Starting Grants).
  - ✓ Career development services help build transferable skills (e.g. leadership, negotiation, regulatory engagement) that are often missing in traditional academic training.
  - ✓ These initiatives increase confidence, visibility, and application success—especially for underrepresented researchers.





### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

#### Institutional Tools & Models

- Mentorship schemes, proposal clinics, and career development services for YRIs
  - Gender-balanced leadership in consortia and proposal coordination
- ✓ Many EU calls now encourage or require gender balance in project leadership and evaluation panels.
  - ✓ Yet women are still underrepresented as coordinators—only ~22% in Horizon 2020.
  - ✓ Stronger policies are needed to ensure female YRIs are supported and nominated as WP leads or co-PIs.
  - ✓ Institutional efforts should include quota-based incentives and leadership training pathways.





### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

#### Institutional Tools & Models

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  - Gender-balanced leadership in consortia and proposal coordination
  - Transparency through dashboards tracking gender in awards, evaluation, and leadership
- 
- ✓ Institutions and funders should publish disaggregated data on gender across all levels: applicants, reviewers, coordinators, funded projects.
  - ✓ Dashboards allow continuous monitoring of representation gaps and success rates.
  - ✓ These can feed into GEP reviews, help address systemic bias, and promote accountability.



### Enabling Mechanisms for YRI Empowerment

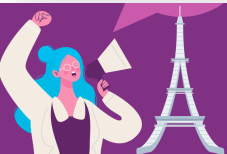
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#### Athena SWAN Charter (UK-based, now global):

- ✓ A gender equality accreditation framework initially for higher education institutions in STEM.
- ✓ Recognises and rewards institutions that commit to advancing women's careers.
- ✓ Includes Bronze, Silver, and Gold awards based on internal audits, action plans, and progress.
- ✓ Institutions applying for certain research grants in the UK are often required to hold at least a Bronze award.
- ✓ It is now influencing practices in Ireland, Australia, Canada, and considered a blueprint for EU-level institutional reform.



### Enabling Mechanisms for YRI Empowerment

What Works: Practical Mechanisms to Shift YRIs from Margins to Mainstream

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#### COST inclusiveness targets:

- ✓ COST Actions must ensure balanced representation by gender, geography, and career stage.
- ✓ YRIs are often targeted through ITC grants, STSMs, and WG leadership opportunities.

#### Institutional Gender Equality Plans (GEPs):

- ✓ Mandatory under Horizon Europe since 2022.
- ✓ Must cover data collection, recruitment, career progression, work-life balance, and integration of gender into research content.



### Policy Landscape & Reform Needs

#### What Exists

- **EU Gender Equality Strategy 2020–2025:** sets the framework for inclusive R&I policy
- **She Figures Index 2024:** monitors gender indicators in research careers, decision-making, and content
- **Horizon Europe gender eligibility rules**
  - Gender Equality Plans (GEPs) mandatory for eligibility
  - Gender dimension required in research proposals
- **COST inclusiveness measures:** promote gender balance in WGs, leadership, and activities



### Policy Landscape & Reform Needs

What's missing:

- Gender-balanced leadership mandates
- Career tracking linked to commercialisation
- Structural support for spin-offs
- Data transparency & intersectional GEP assessment
- No dedicated support for YRI-led commercialisation or spin-offs
- GEPs lack enforcement mechanisms and outcome tracking
- Advisory roles (e.g. Horizon boards, national councils) remain largely inaccessible to YRIs
- Bias persists in evaluation panels and post-award leadership appointments
- Few tools for intersectional analysis (e.g. gender × mobility × discipline)
- Lack of open dashboards tracking funding success by gender, field, and role



### Call to Action

- **We must shift YRIs from supporting roles to shaping systems**
- **Support must go beyond academia—into policy, industry, civil society**
- **Strategic levers: regulatory science, funding access, institutional culture change**
- Stakeholder-Specific Recommendations
- Turning Insight into Action: What Each Actor Can Do

#### **Funding Agencies (e.g. EC, National RFOs)**

Enforce evaluator bias training and gender-balanced panels

Mandate gender-balanced leadership in funded consortia

Track and publish disaggregated funding data by gender, role, and domain





### Call to Action

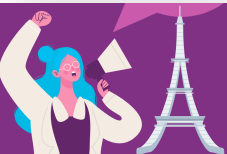
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#### **COST Actions & Scientific Networks**

Nominate YRIs—especially women—for leadership and advisory roles

Apply gender metrics in WG participation and training activities

Support YRIs' visibility in stakeholder engagement and dissemination



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#### Ministries & Policymakers

Tie institutional funding to performance on She Figures Index  
Fund intersectional studies and pilot gender-responsive reforms  
Appoint YRIs to national advisory and ethics committees



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#### YRIs Themselves

Use tools like the GSS EU Funding Gateway to engage early and strategically  
Seek visibility through SAPEA/SAM, COST, and science-policy training  
Build cross-sector alliances to push beyond academia



### Recap

- We must move beyond documenting inequality to enabling agency—recognising YRIs, especially women, as future leaders across science, policy, and innovation
- Structural barriers persist: precarious careers, lack of funding access, low representation in advisory and decision-making roles
- Our responsibility is to identify and remove institutional, systemic, and cultural blocks—especially where they compound gender and early-career disadvantage

#### **Strategic Pull Mechanisms we must strengthen:**

- Role modelling: visible examples of women and YRIs in policy, leadership, and entrepreneurship
- Dedicated funding access points: simplified, gender-sensitive platforms
- Open innovation tools: incubators, citizen science models, and community-led research
- Fast-tracking YRIs into advisory roles, COST leadership, and regulatory science platforms (e.g. SAPEA/SAM)

#### **Why Regulatory Science matters:**

- It connects science with public policy
- Gives YRIs the chance to shape standards, ethics, and frameworks
- Integrates evidence with policymaking—making room for diverse and early-career voices
- Promotes fairness, safety, and accountability in how science is applied across society





Theo Zacharis

Executive Director of Kinesis Innovation Center



Innovation & Strategy Advisor at bioGLOT Ventures



Founder of the Greek Scientists Society



THANK YOU