



GENDER GAP IN SCIENCE

A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure It, How to Reduce It?

Database of Good Practices

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Outline

- Aims
- Creating the database
- Database structure
- What is “good practice”?
- Some examples
- Next steps and further challenges

Aims

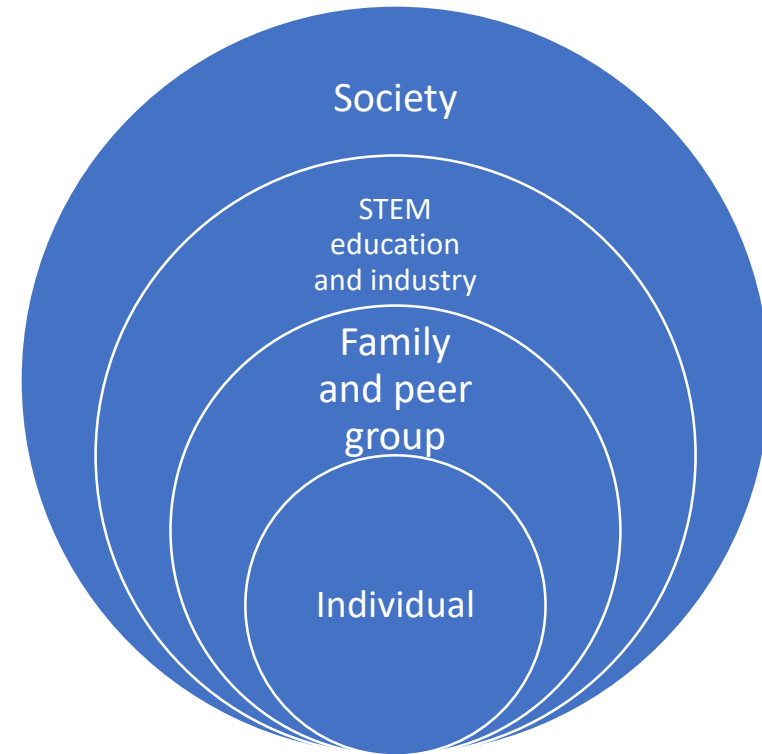
- To gather and make available information and resources on effective practices for enhancing the participation of girls and women in science at all levels.
- To gather and generate evidence about effectiveness of the collected practices.
- To disseminate selected practices worldwide, focusing on contexts where participation of girls and women is particularly low.

Creating a Database

- Sourcing database initiatives:
 - Review other databases to look at structure and size
 - Use targeted web searches, networks and direct contacts
- Finding/developing a “good practice” framework
- Mapping the framework onto the database initiatives
- Sharing, amending, refining the database
- Final version will be hosted on the International Mathematical Union website

Database structure

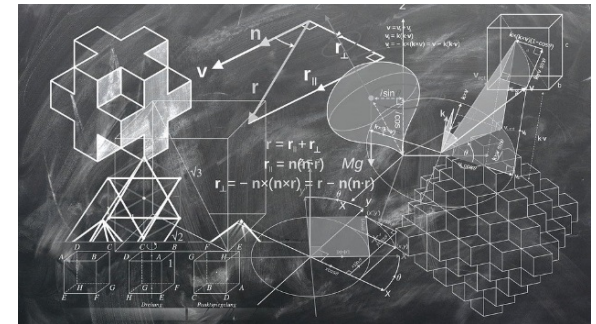
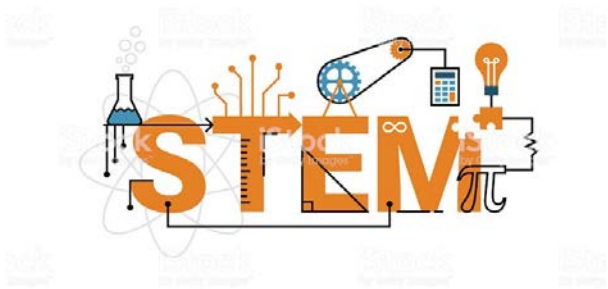
- Name, organiser, web link of initiative
- Funding source and year of origin
- Type of initiative: e.g., mentoring, role models, workshops, camps & clubs, resources for parents and teachers, scholarships and awards, policy initiatives
- Level of influence



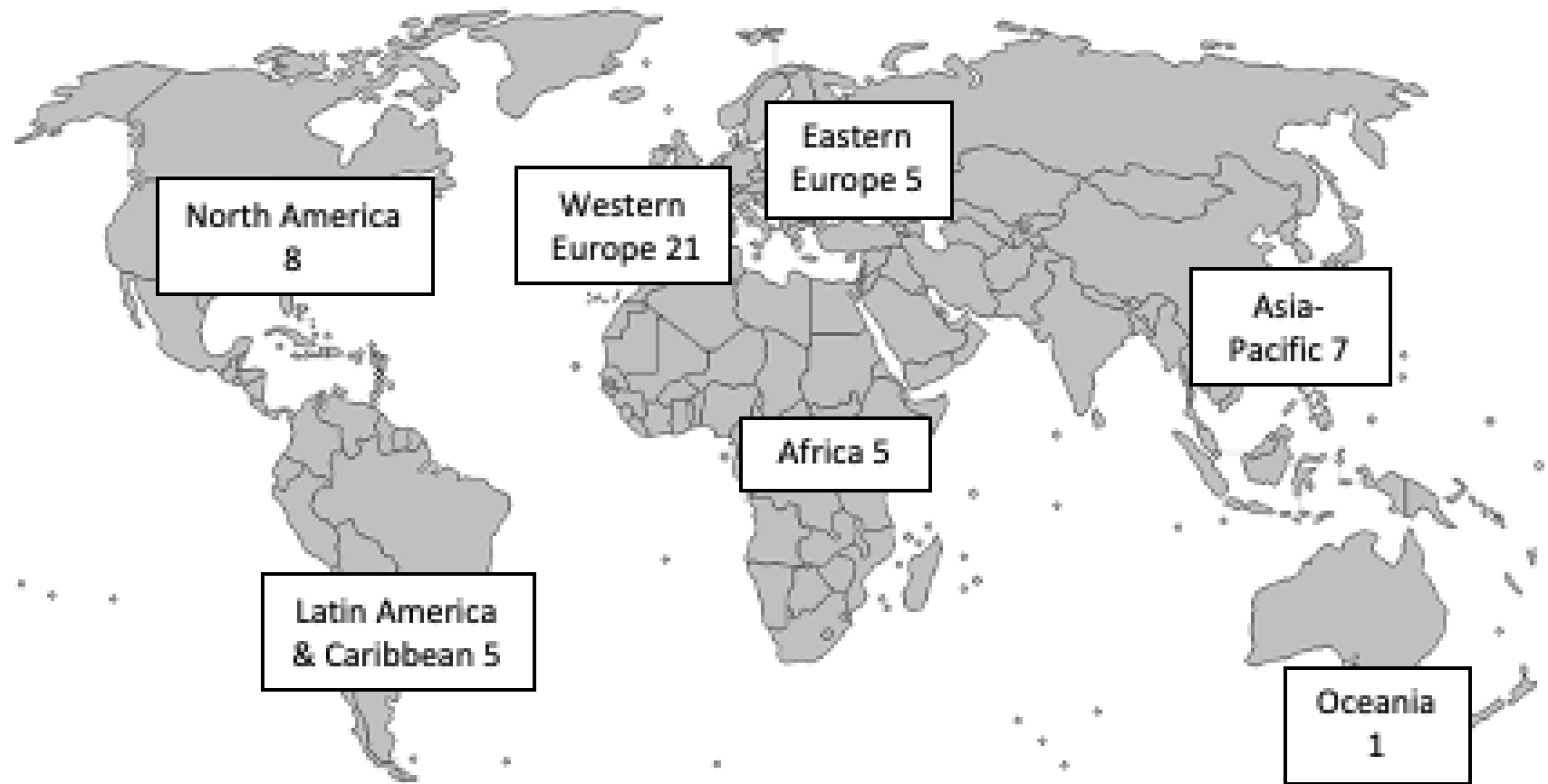
Database structure



- Region and country
- Discipline
- Target audience
- Dimension(s) of “good practice”
- Evidence of impact
- Contact details

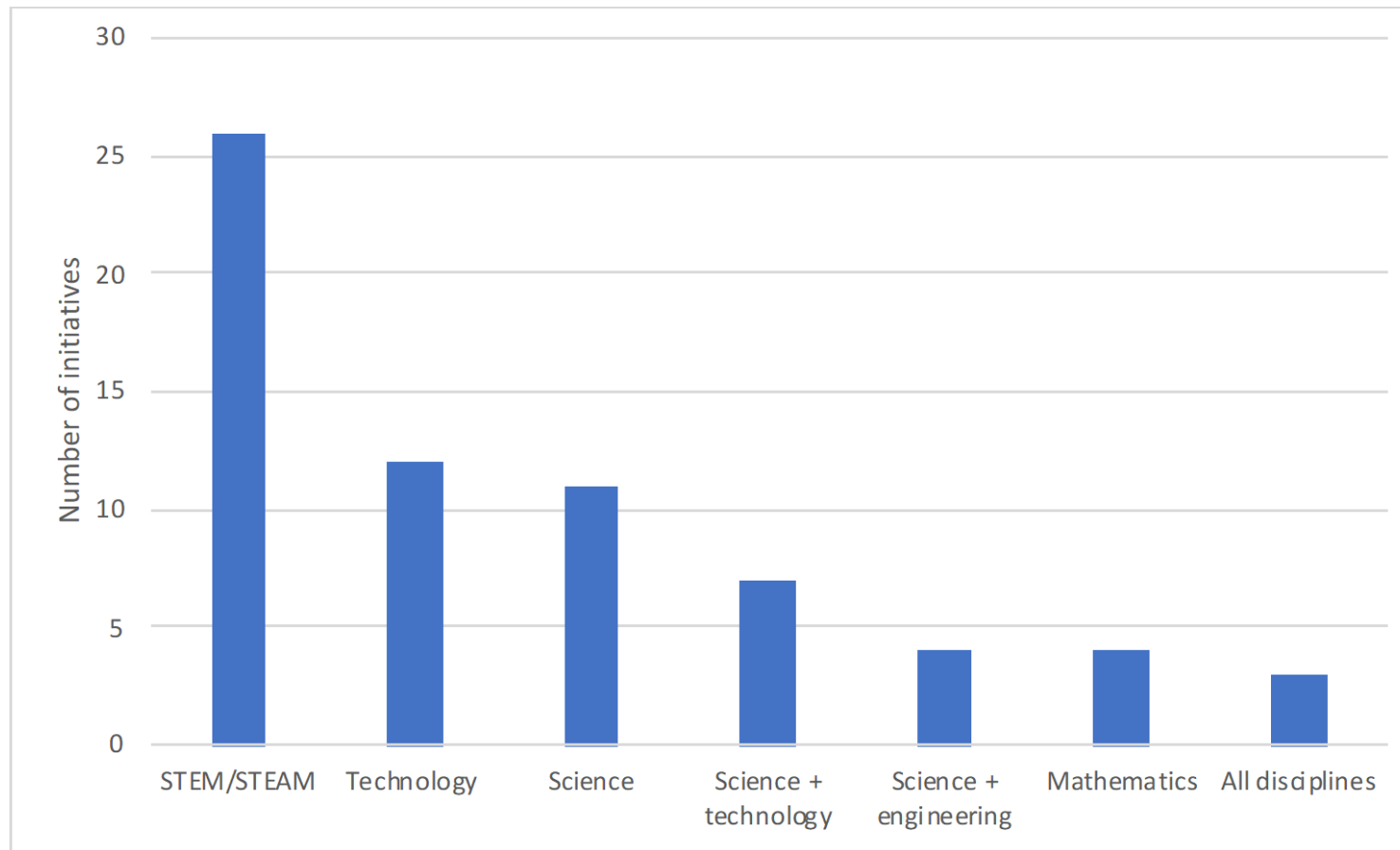


Regions and countries

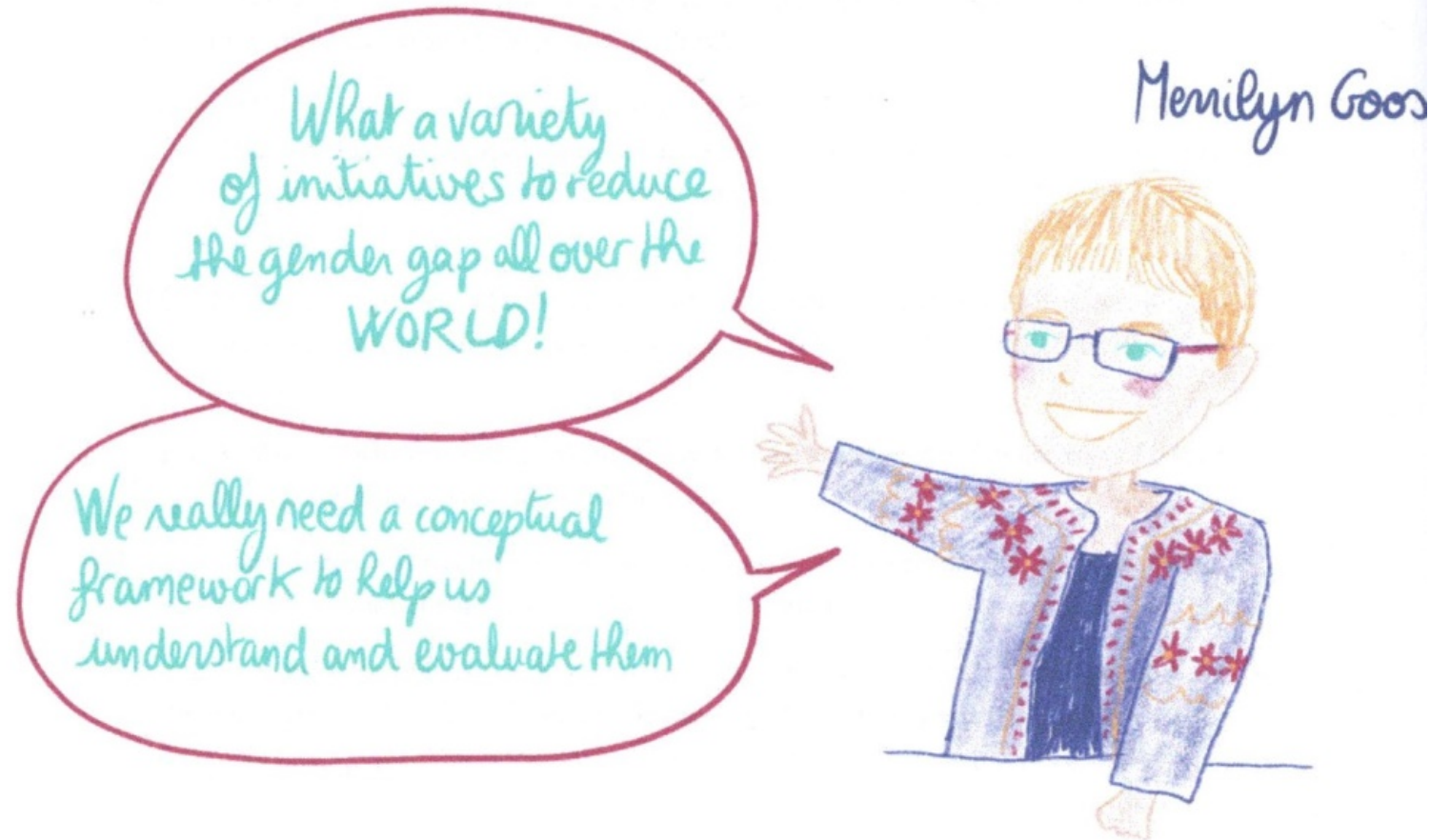


Plus: Americas 1; Europe 1; global 3; scientific bodies 10

Disciplines



What is “good practice”?



Dimensions of “good practice”





1. Promote positive attitudes towards women in STEM in society



2. Engage
females in STEM
at primary and
secondary
education



3. Attract and retain
women in STEM
higher education



4. Promote
gender equality
in career
progression



5. Promote
gender equality
in research
practice



6. Promote
gender equality
in gender-
related policy-
making



7. Promote gender
equality in science
and technology-
based
entrepreneurship
and innovation

Distribution of “good practice” dimensions

Most commonly observed strategies (>10 entries in the database)

2. Engage females in STEM at primary and secondary education by:

- promoting **vocations** to girls and young women in (30 entries)
- promoting **mentoring** of young girls by higher education or STEM professionals (11 entries)

3. Attract and retain women in STEM higher education by promoting **access** (12 entries)

Examples of good practice: Million Women Mentors

Million Women Mentors (MWM), an initiative of STEMconnector, is a national and global movement to spark the interest and confidence in women and girls to pursue STEM careers and leadership opportunities through the power of mentoring. (2.1, 2.6; North America)

Million Women Mentors was founded on the premise that by working together, we achieve more than when we go at it independently. Through our network, **Million Women Mentors has celebrated over 1 million mentor relationships** and is well on our way to the next million.

PROPELLING MWM's MOMENTUM



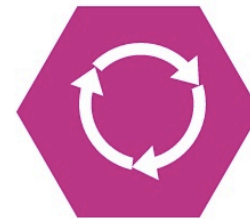
Broad Influence

Over 460 million media reach annually, 96% daily media mentions



Scalability

Over 50 corporate sponsors with 80 chapters in more than 40 states and eight countries



Sustainability

Over 2.3 million commitments and growing

Examples of good practice: Girls in Science Project



The “Girls in Science” project aims to encourage girls to look at careers in science and technology, and to encourage women who have already chosen these careers to persist and become a viable part of Brazil's scientific and technological development. This objective is monitored through the training of students and undergraduates to encourage them to share their love science and technology by doing astronomy, physics and robotics in public schools. (2.1, Brazil)

Examples of good practice: [Girl Project Ada](#)

The Girl project Ada is a Norwegian University of Science and Technology (NTNU) project that aims to promote the education of more female engineers and master's graduates. Ada works towards this goal by using marketing, so that more women apply for the programmes, and by contributing to help students who start one of our programmes to complete their studies. (3.1, Norway)



Next steps and further challenges

Next steps

- Refinement of the database to improve functionality and ease of navigation
- Create option to submit new initiatives to expand the database

Further challenges

- Maintaining and updating the database
- Very few database initiatives provided evidence of impact: yet this is important for project managers, potential participants, stakeholders, policy makers, and funders.

Initiatives providing evidence of impact

- Institute of Physics Project Juno
<http://www.iop.org/about/diversity/initiatives/juno/index.html>
- WiSci Girls' STEAM Camps
<https://www.girlup.org/wisci/> - sthash.M3Os02F3.dpbs