

RRI across the GLOBE: Global convergence and global mutual learning

INSIGHTS FROM AN INTERVIEW STUDY AND TWO SURVEY STUDIES

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- Introduction to three empirical studies
- RRI global convergence
- RRI engagement across the globe
- RRI and global mutual learning
- Summary of contributions
- Limitations and future directions
- Take-home messages

INTRODUCTION TO 3 EMPIRICAL STUDIES

- **A global interview study:** analyzed 110 interviewees from five UNESCO regions
 - 58.2% males; 17 countries; bottom-up approach
- **A small global survey study** with more than 700 participants from five UNESCO regions
- **A big global survey study** with more than 2700 participants from five UNESCO regions
 - 15 languages, 126 countries, Mean_age = 44.22, 50.2% males, 55.7% with doctoral degrees or equivalent

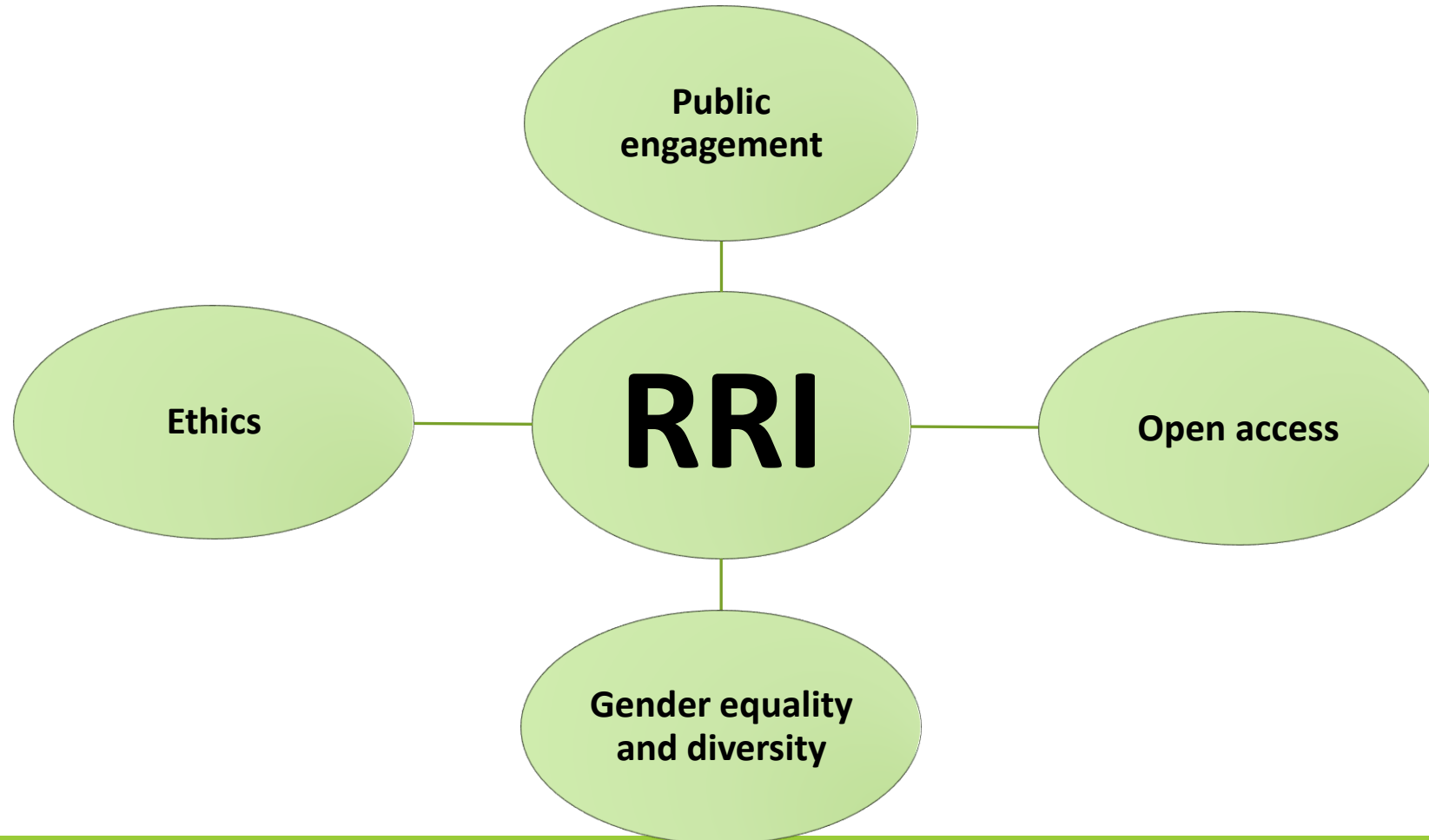
RRI GLOBAL CONVERGENCE

- **The mostly mentioned RRI topics by interviewees**
 - The mostly mentioned RRI keys
 - Motives and benefits for RRI engagement
 - Enablers for RRI engagement
 - Challenges regarding RRI engagement
- **The mostly mentioned associations with RRI by survey participants**

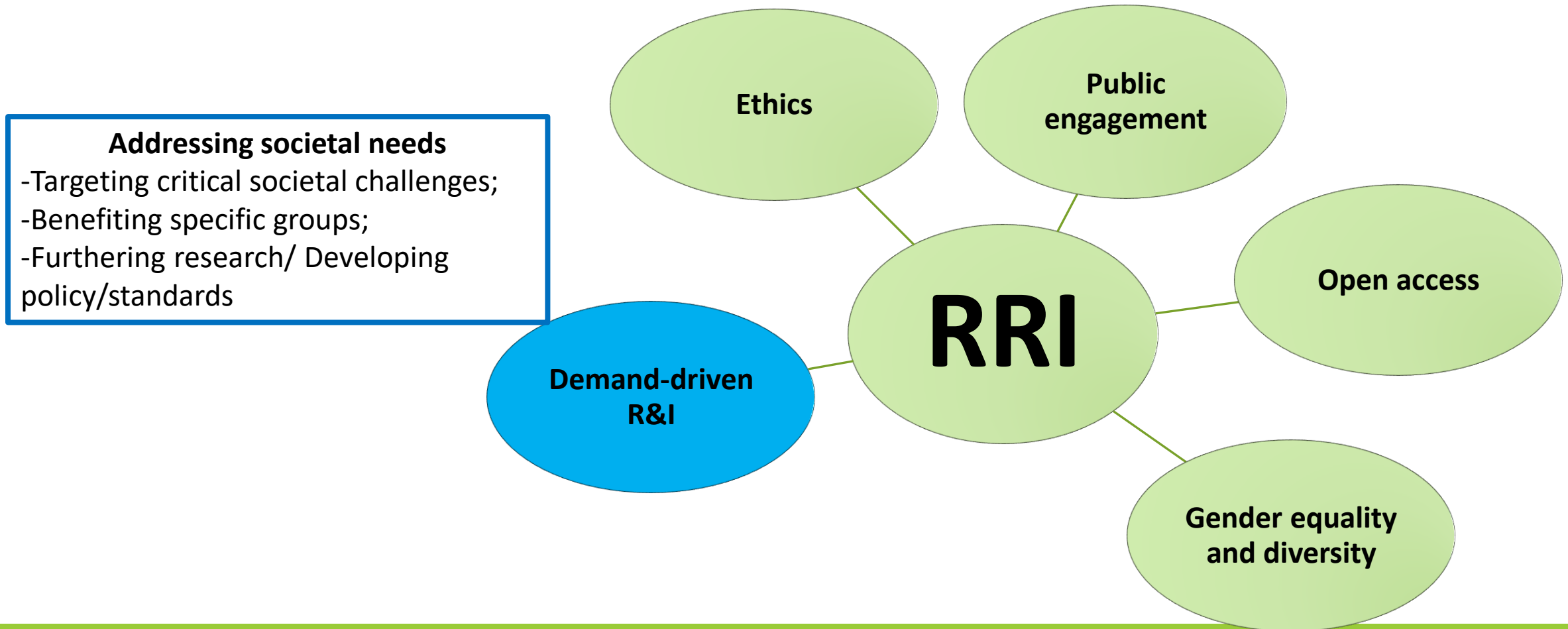
The mostly mentioned RRI topics by interviewees (TOP 10)

	Europe and North America	Africa	Asia	Latin America and the Caribbean	Arab World
Types of stakeholders for engagement	√	√	√	√	√
Ethics	√	√	√	√	√
Lack or uncertainty of RRI related policy	√	√	√	√	√
Diversity and inclusion	√	√	√	√	√
Open access	√	√	√	√	√
Demand-driven research & Innovation	√	√	√	√	√
RRI related motives & benefits	√	√	√	√	√
Enablers	√	√	√	√	√
Information based tools	√		√		√
Collaboration	√		√	√	√
Anticipation		√		√	
RRI related organizational norms & practices		√			

The mostly mentioned RRI keys



The mostly mentioned RRI keys



Motives and benefits for RRI engagement

Regarding RRI related motives and benefits, it covered public engagement, open access and diversity and inclusion.

- 65.45% of interviewees mentioned it for public engagement.
- 66.36% of them mentioned it for open access.
- 24.55% of interviewees mentioned this code for diversity and inclusion.

Enablers for RRI engagement

• Six Enablers

- **Participation in upstream R&I (27.27%);**
- **Importance of politics (25.45%);**
- **Accounting for geographical scale (24.55%).**
- **Importance of feedback by evaluation (18.18%);**
- **Contextualising technology and innovation (13.63%);**
- **R&I capacity building (12.73%).**

Collaboration as an enabler

- 58.18% of the interviewees mentioned **building support networks and strategic alliances;**
- 40.91% of interviewees mentioned **integration of different domains and stakeholders;**
- 14.55% of them mentioned actor mappings;
- 9.09% of them mentioned RRI frameworks for new cross-disciplinary research.

Challenges regarding RRI engagement

Lack or uncertainty of RRI related policy

- Half of interviewees mentioned it for **public engagement**.
- This percentage was **54.55%** for **open access**;
- **50.91%** for diversity and inclusion;
- **40.91%** for ethics;
- **31.82%** for meeting societal needs;
- **27.27%** for anticipation.

RRI related risk & disadvantages

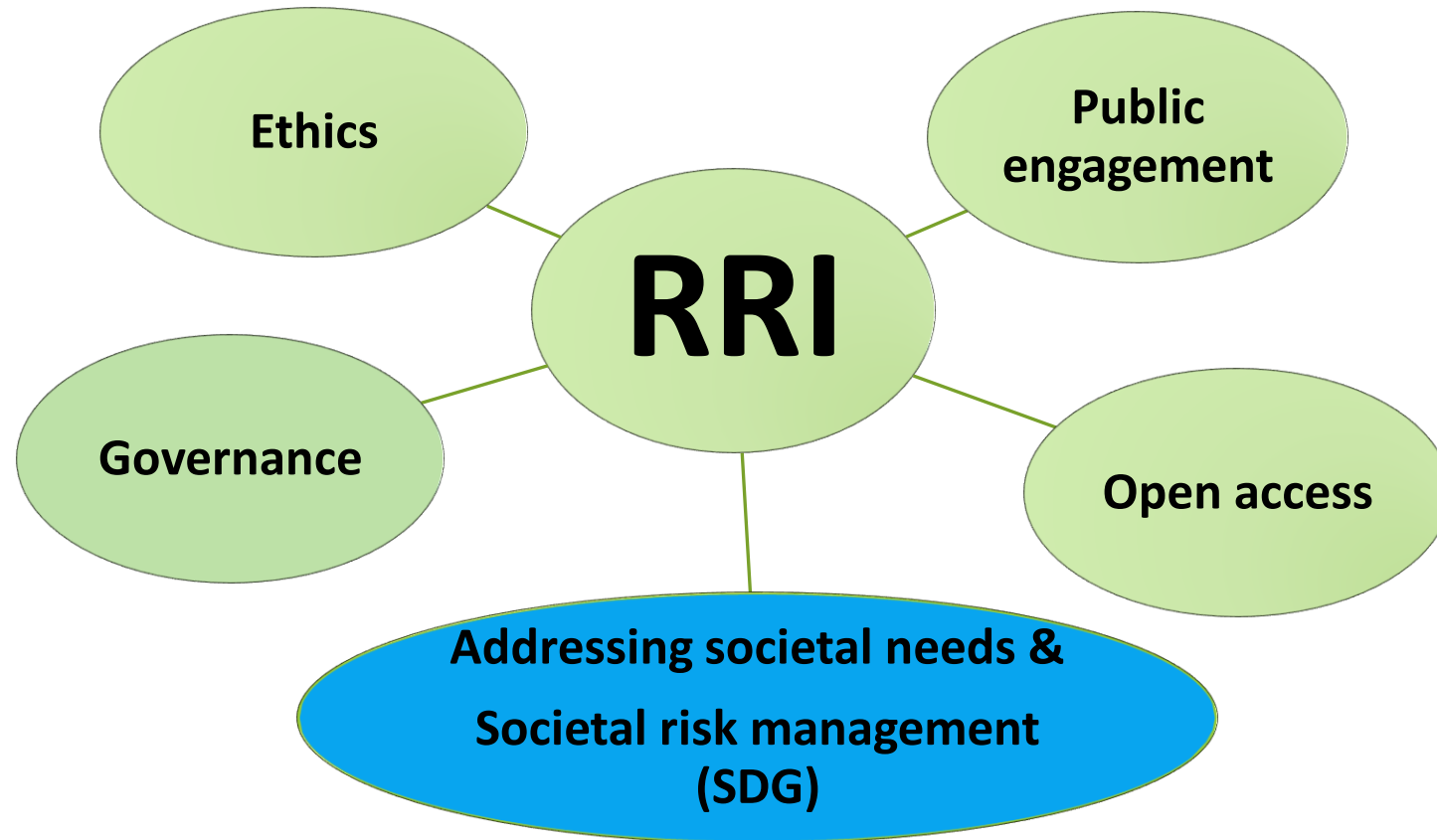
- **11.82%** of interviewees mentioned it for public engagement;
- **7.27%** of them mentioned it for diversity and inclusion.
- However, this percentage for open access was **60%**.

The top three constraints: Financial constraints and considerations (45.45%), time frames and time constraints (24.55%), and lack of (perceived) interest of general public (14.55%).

The mostly mentioned associations with RRI (TOP 10)

		RRI Key	Europe and North America	Africa	Asia	Latin America and the Caribbean	Arab World
1	Aligning research and innovation with societal benefits	Public engagement	√	√	√	√	√
2	Do no harm to people/society/participants	Ethics	√	√	√	√	√
3	Protecting the environment, preventing negative impacts of research and innovation on the environment	SDG (ASN & SRM) / Governance	√	√	√	√	√
4	Ensuring ethical procedures and approvals are completed in R&I work	Ethics	√	√	√	√	√
5	Ethical self-assessment: Conducting informal analyses or reviews to fulfil ethical duties of care	Ethics	√	√	√	√	√
6	Ensuring norms/practices evincing research integrity and high professional standards	Ethics	√	√	√		√
7	Integrating / anticipating public perspectives in research and innovation	Public engagement	√	√	√	√	√
8	Open and honest science	Open science	√	√	√	√	√
9	Engaging / communicating with non-academic stakeholders or publics about research and innovation activities	Public engagement	√	√	√	√	√
10	Following formal/official research guidelines and regulations	Governance			√		√

The mostly mentioned associations with RRI



RRI ENGAGEMENT ACROSS THE GLOBE

(According to data from RRING WP3 survey study)

Ethics

Public engagement

Open access & Open and transparent methods and process

Gender equality and diversity

Governance

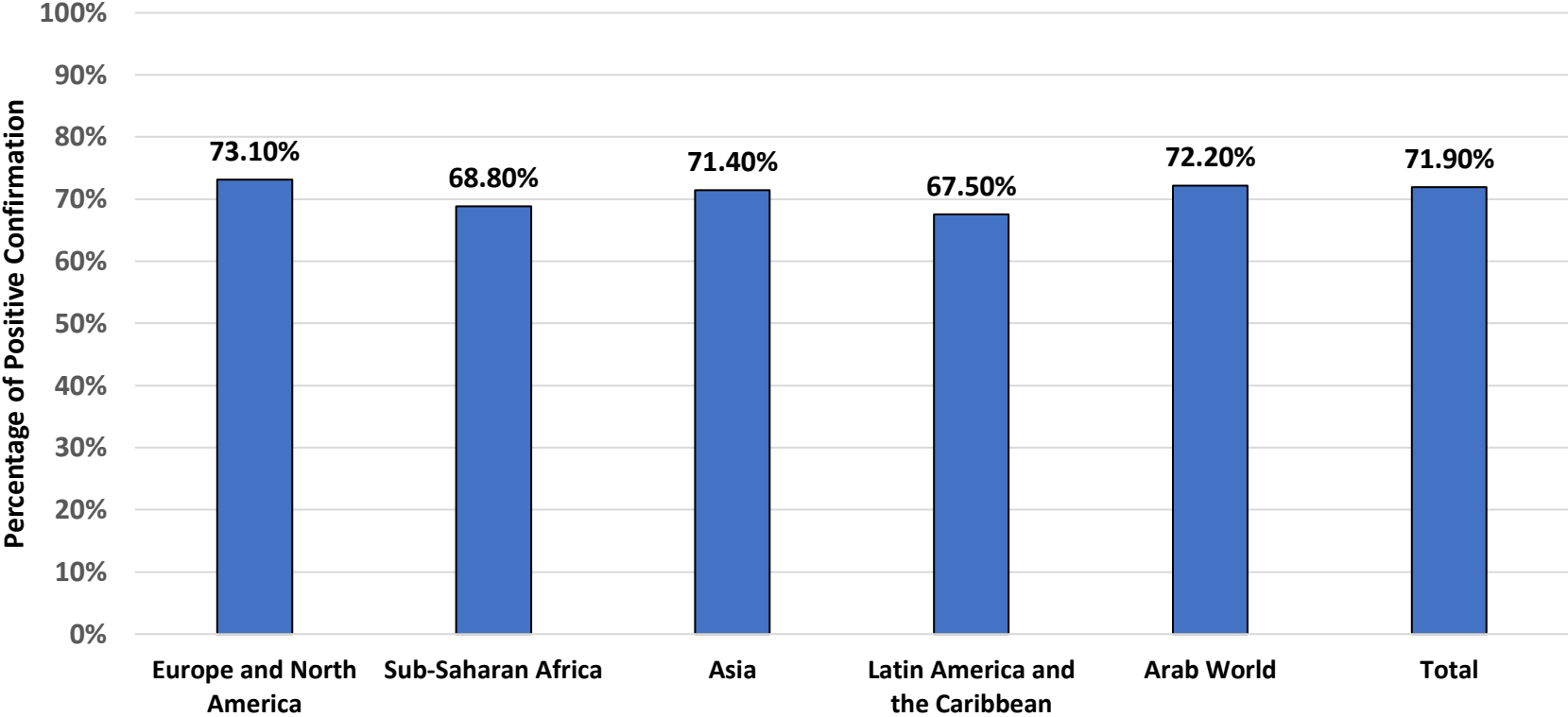
PLUS

Addressing societal needs

Societal risk management

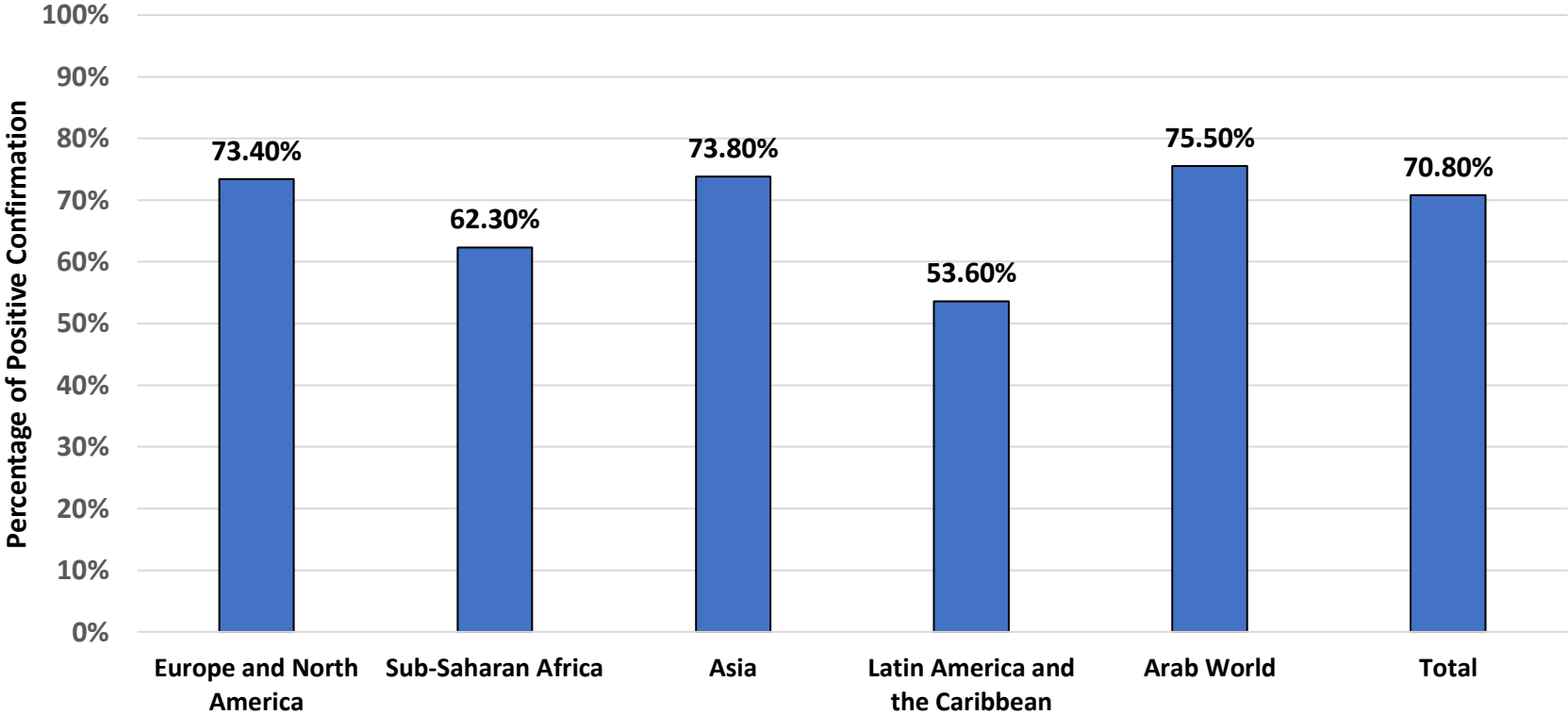
ETHICS

Taking Steps for Promoting Ethics



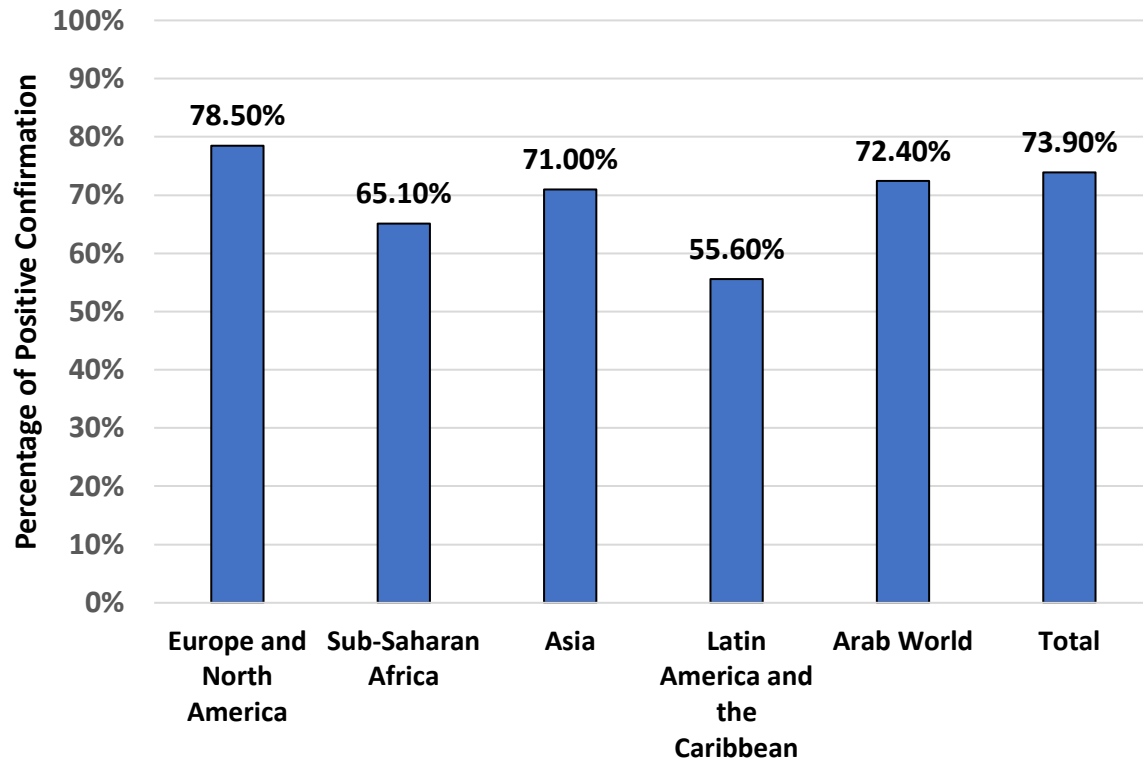
PUBLIC ENGAGEMENT

Taking Steps for Promoting Divers Perspectives

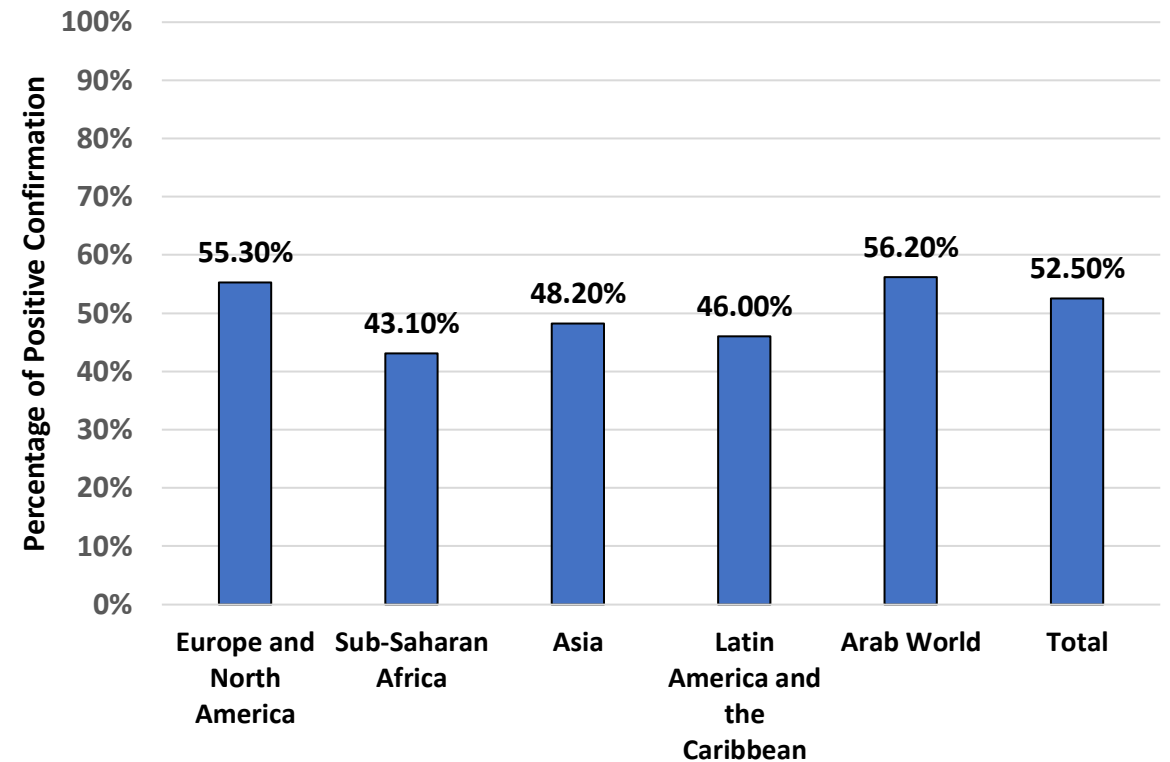


OPEN ACCESS

Taking Steps for Promoting Publicly Accessible Results

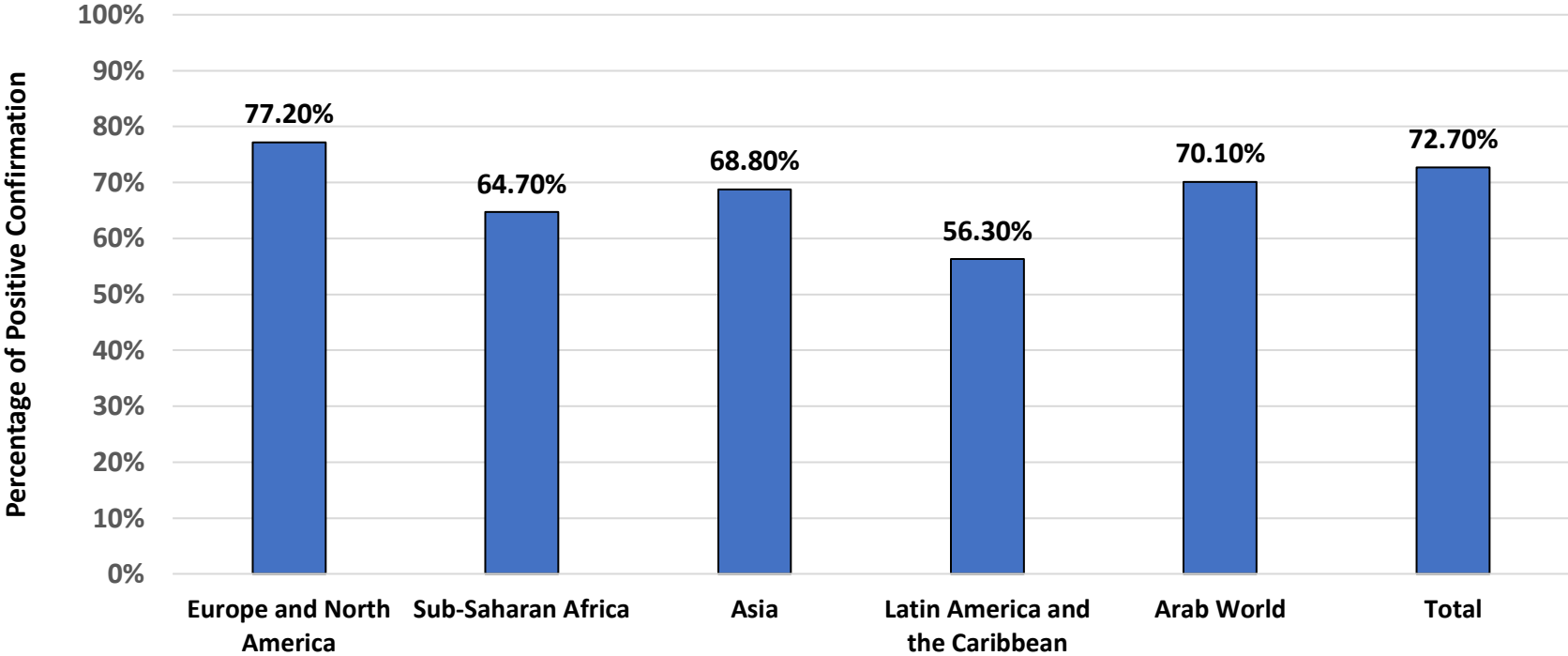


Taking Steps for Promoting Publicly Accessible Data



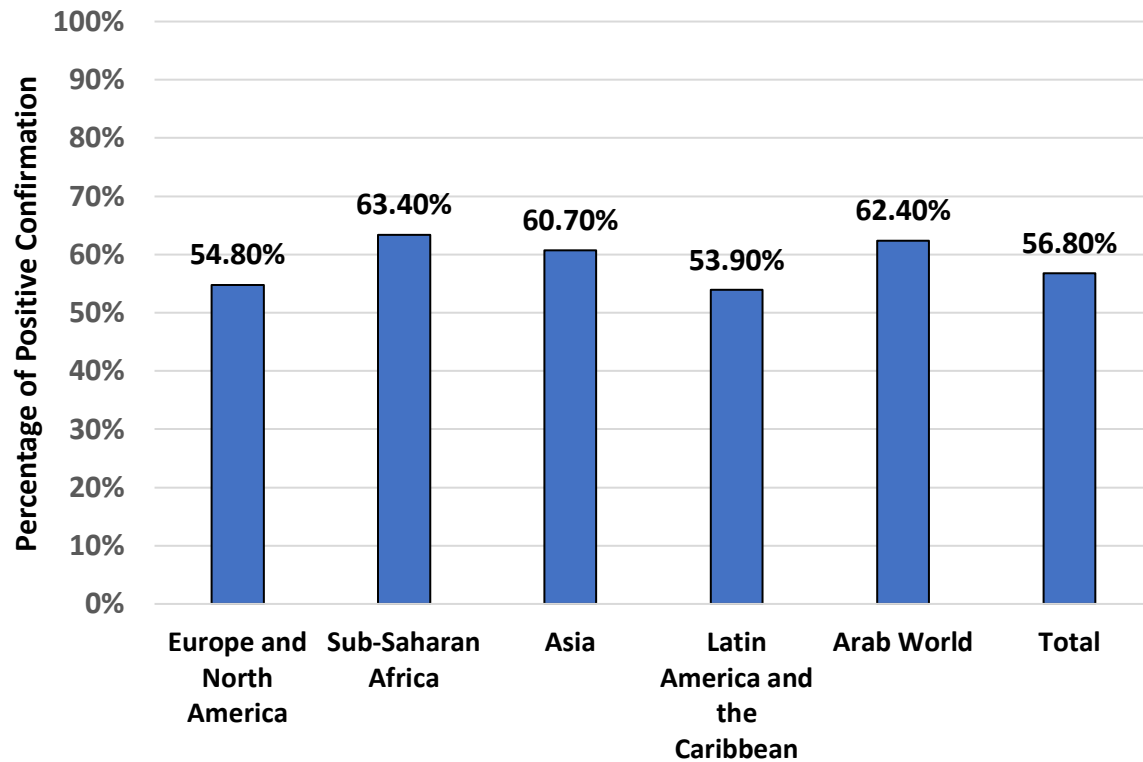
OPEN & TRANSPARENT METHODS/PROCESS

Taking Steps for Promoting Open and transparent methods/processes

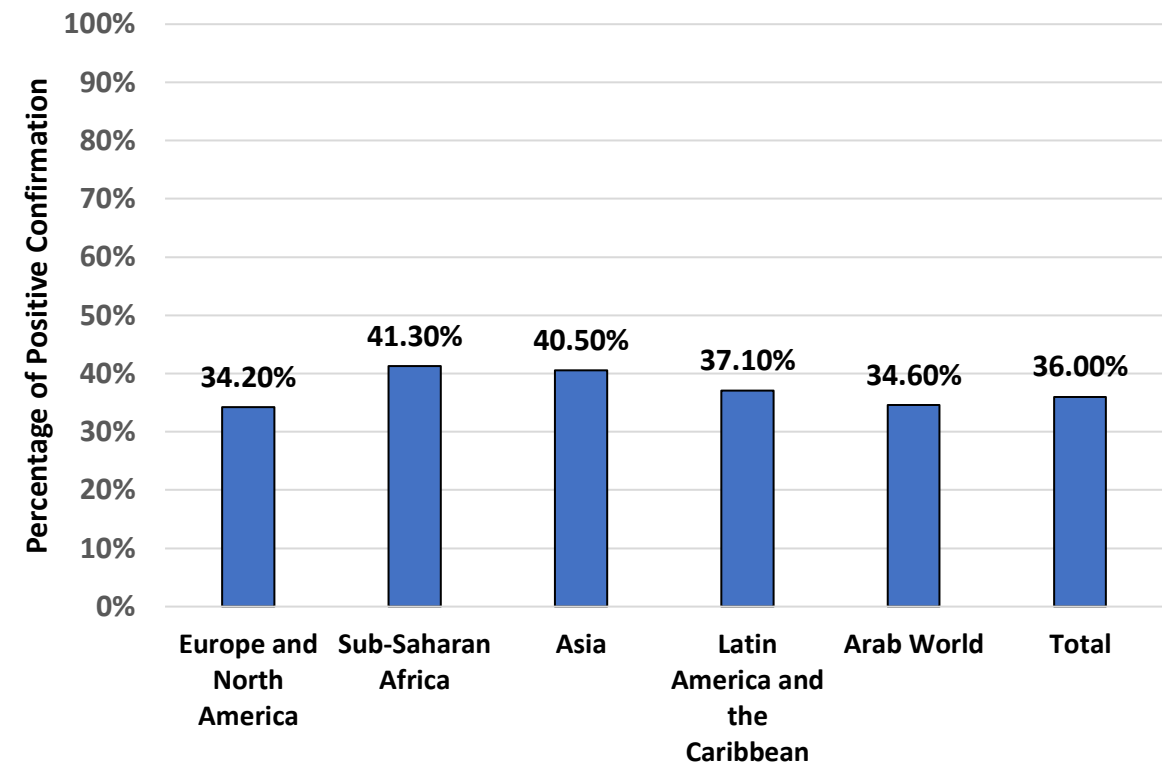


GENDER EQUALITY AND DIVERSITY

Taking Steps for Promoting Gender Equality

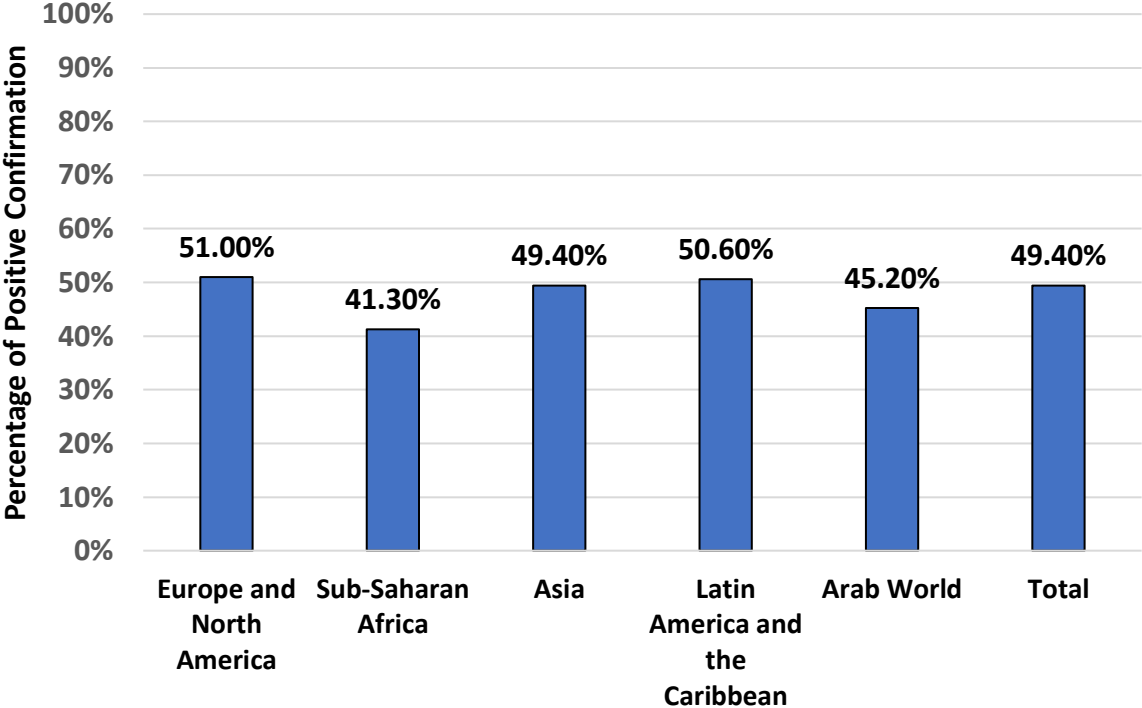


Taking Steps for Promoting Inclusion of Ethnic Minorities

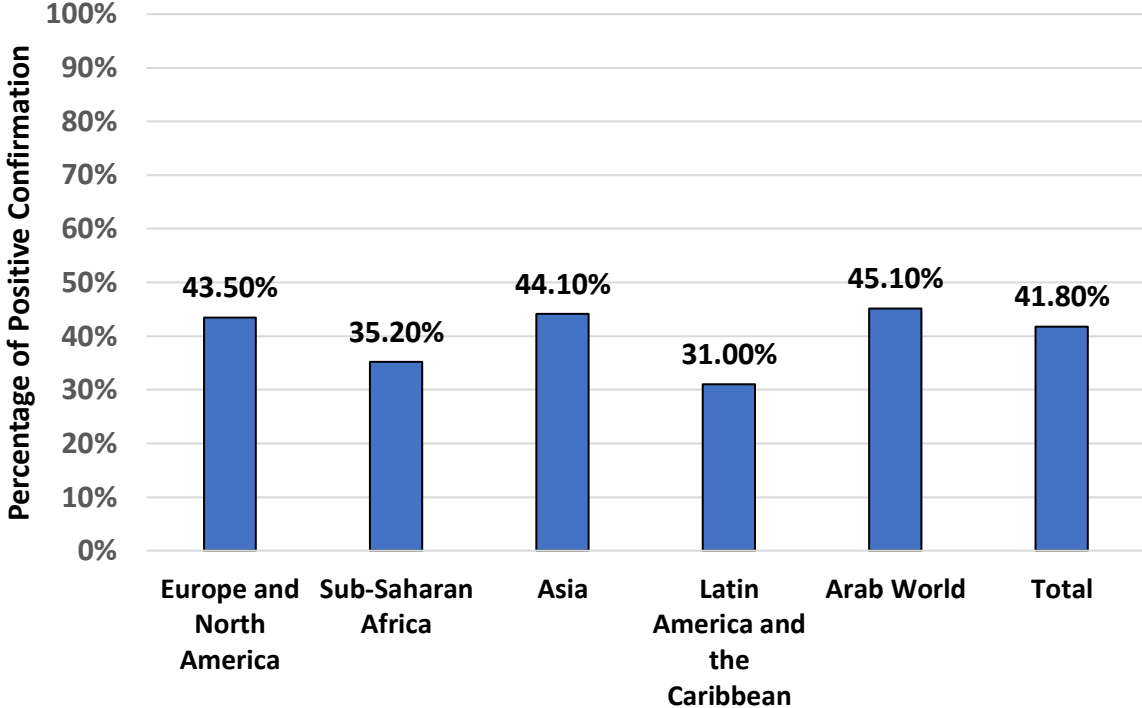


GOVERNANCE

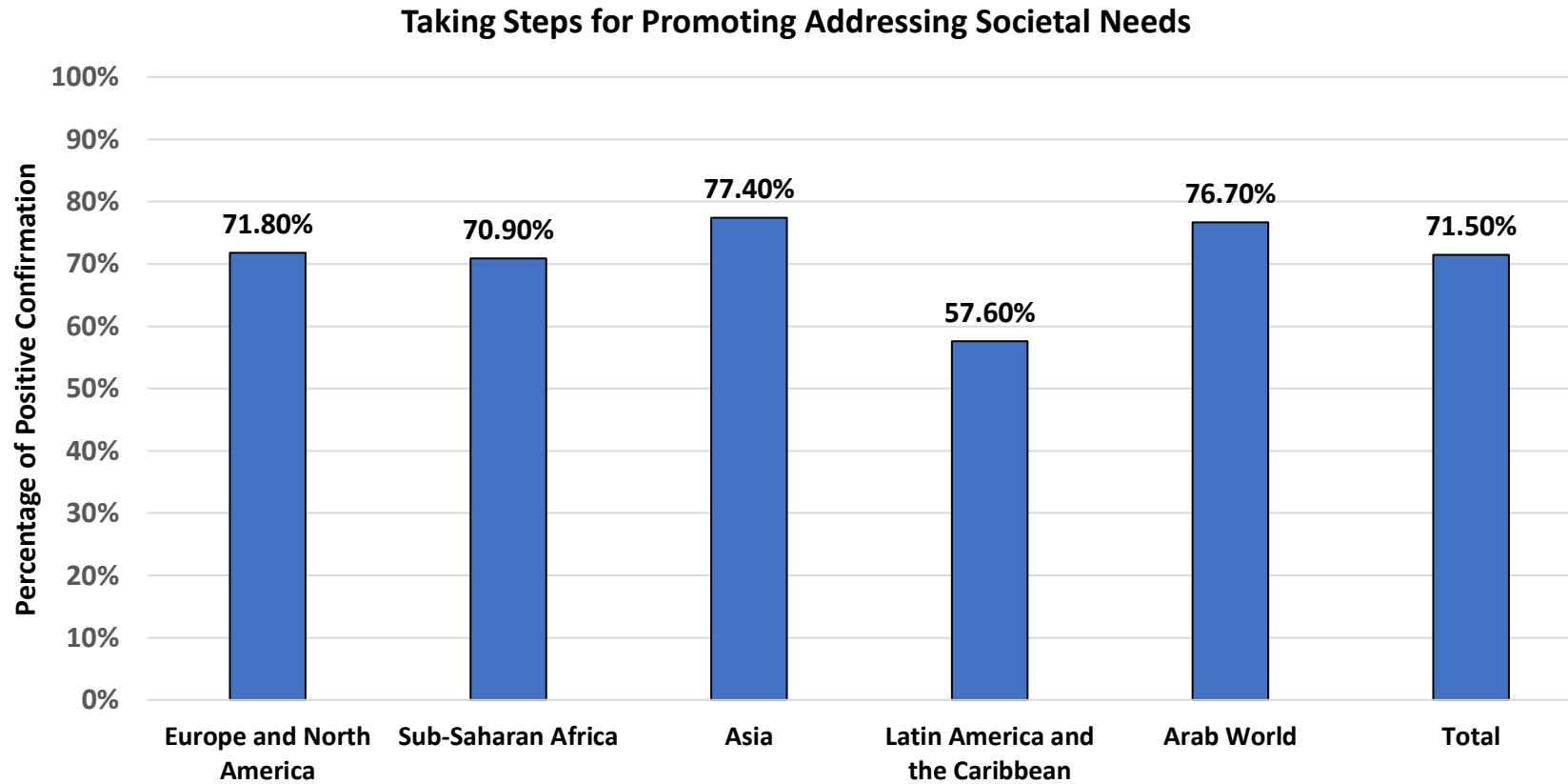
Taking Steps for Promoting Government Policies and Regulations



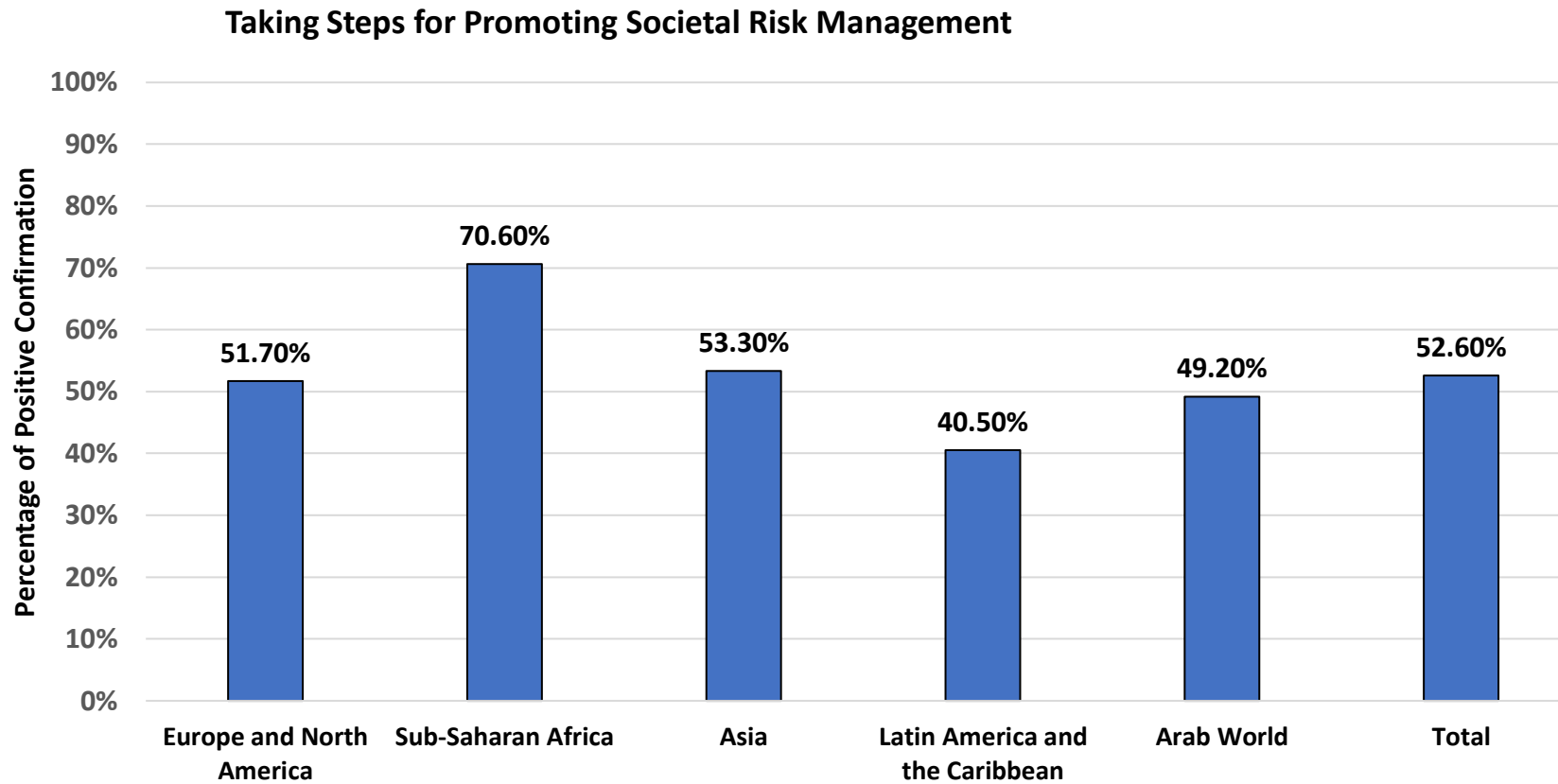
Taking Steps for Promoting Institutional or Organizational Policies and Regulations



ADDRESS SOCIETAL NEEDS



SOCIETAL RISK MANAGEMENT



RRI AND GLOBAL MUTUAL LEARNING

Findings based on a comprehensive ranking analyses with all the three data sources

EUROPE AND NORTH AMERICA

Strengths: Promoting public engagement, such as using information-based tool, and about promoting open sciences, governance, ethics.

Improvements in need: Efforts in promoting gender equality and diversity.

SUB-SAHARAN AFRICA

Strengths: Africa is making noticeable effort in promoting gender equality and diversity, promoting societal risk management, addressing societal needs.

Improvements in need: Governance, public engagement, and open science; Motivations for RRI engagement, using enablers and collaborations for RRI engagement.

ASIA

Strengths: promoting societal risk management, addressing societal needs, Inclusion of ethnic minorities, public engagement.

Improvements in need: Open science; Constraints for RRI engagement, conflicts and tensions in R& I expectations.

LATIN AMERICA AND THE CARIBBEAN

Strengths: Strong motivation for RRI engagement; Engaging multiple types of stakeholders; Active in using enablers and collaboration for RRI engagement.

Improvements in need: Promoting societal risk management, addressing societal needs, public engagement, such as using information-based tool, open sciences, ethics, gender equality and governance at organizational or institutional level; Constraints, conflicts and tensions in R& I expectations.

ARAB WORLD

Strengths: Promoting addressing societal needs and open science; Low reported constraints, conflicts and tensions in R& I expectations.

Improvements in need: Promoting ethics, public engagement and inclusion of ethnic minority; motivations for RRI engagement, using enablers and collaborations for RRI engagement.

SUMMARY OF CONTRIBUTIONS

- Significant efforts in capturing RRI engagement development across the globe;
- Contributing to improving global mutual learning in RRI engagement;
- Contributing valuable insights for the development of RRI measurement.

LIMITATIONS AND FUTURE DIRECTIONS

- ❑ Exploratory nature;
- ❑ Sampling bias: threat to external validity.

- ❑ A common RRI framework for a shared world could be formulated at the basis of RRI keys;
- ❑ A new valid and reliable RRI measurement tool could be developed;
- ❑ Replication studies are in need for furthering policies.

TAKE-HOME MESSAGES

- ❑ RRI KEYs provide a good basis for a common RRI framework for a shared world, on which a new framework could be built;
- ❑ It is worthwhile to learn from each other regarding promoting RRI in different UNESCO regions;
- ❑ Replication efforts for the findings reported here are in need.