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# ISC and Science Diplomacy

**Muscat Global Knowledge Dialogue**

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# Science diplomacy

A field of study and practice seeking to understand, promote and leverage the linkages between science and diplomacy at the national, regional and global level.

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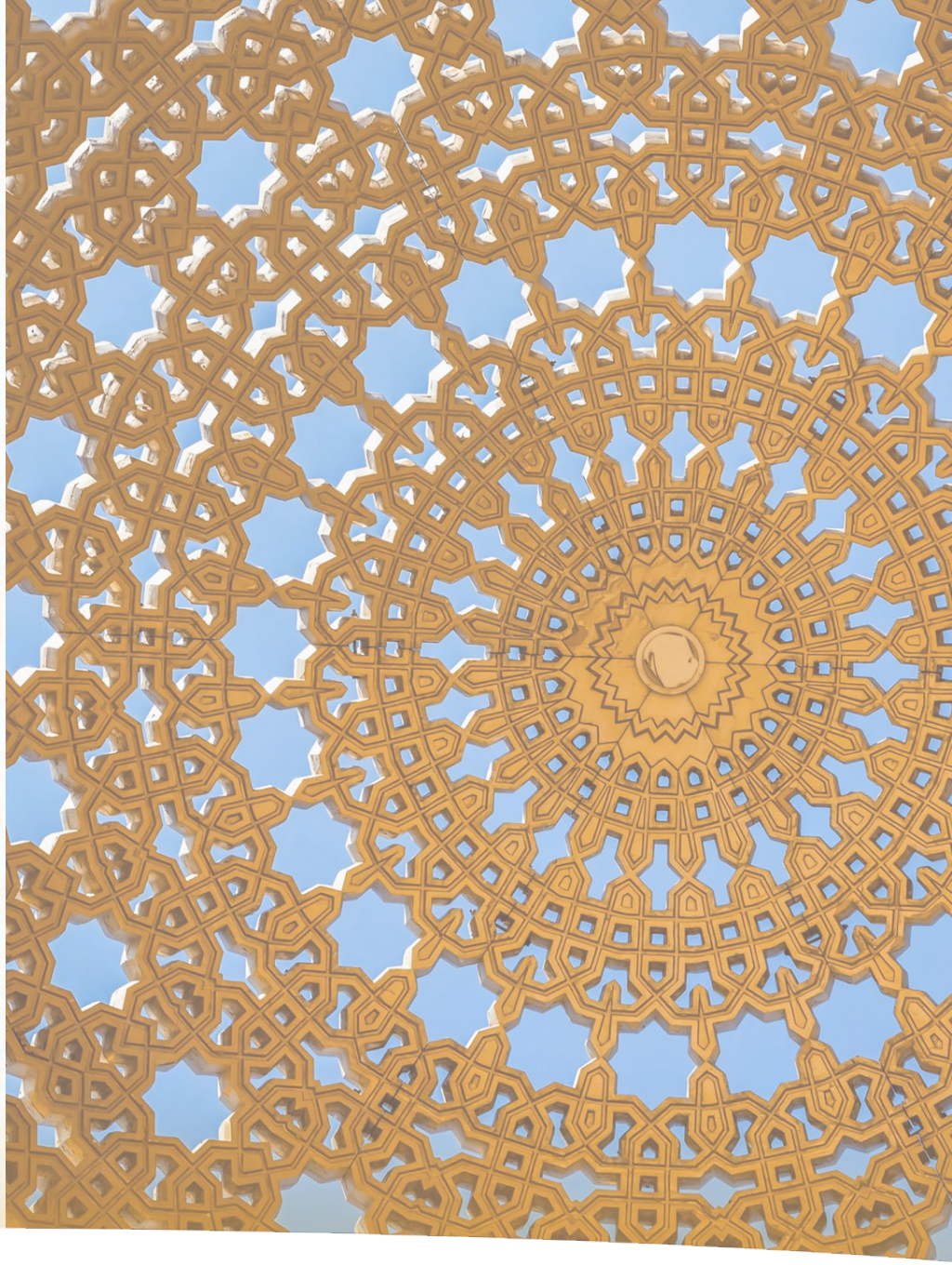


# Tripartite definition (AAAS-RS, 2010)

**Science in diplomacy:** "*informing foreign policy objectives with scientific advice*". Eg science advisors to Ministries of Foreign Affairs, or internationally, the Intergovernmental Panel on Climate Change

**Diplomacy for science:** "*facilitating international science cooperation*". Eg bilateral diplomatic summits to establish government-level agreements, or the diplomacy needed to establish large scale science infrastructure such as the Square Kilometre Array (SKA).

**Science for diplomacy:** "*using science to improve international relations between countries*". Eg, scientists and scientific organisations enabling the signing of treaties (e.g. the Antarctic treaty).

# Widely used…. and criticized

Tripartite definition:

- Useful highlighting diversity of actors (eg individual scientists, subnational, regional and international entities), but not their motivations
- Offers a positive frame, but this is not always the case with competitions rather than collaboration increasingly being a drive for science diplomatic efforts. Consider efforts to restrict collaborations with certain countries
- 3 dimensions can be so intertwined as to be indistinguishable (e.g., in IPCC, diplomacy for science go hand-in-hand with science for diplomacy
- Doesn't capture diplomacy in science' ie, "*the use of diplomatic skills and tools in advocating for global scientific knowledge*
- Western centric framework that doesn't account for global south and use of diplomacy to advance for developmental agenda

# Alternative science diplomacy taxonomy

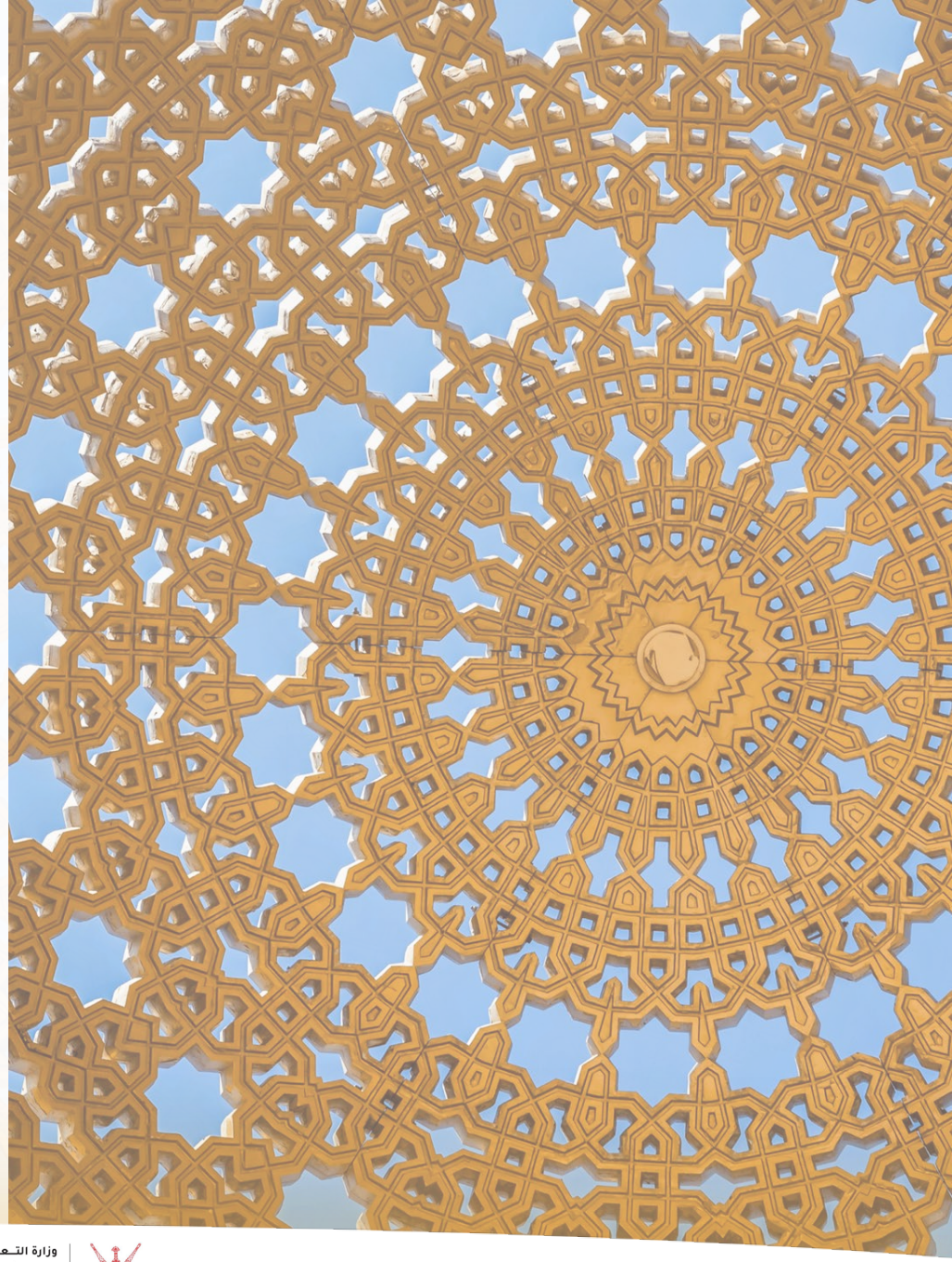
Focusing on the actions and objectives of states to:

- advance national needs
- address cross-border interests
- meet global needs and challenges

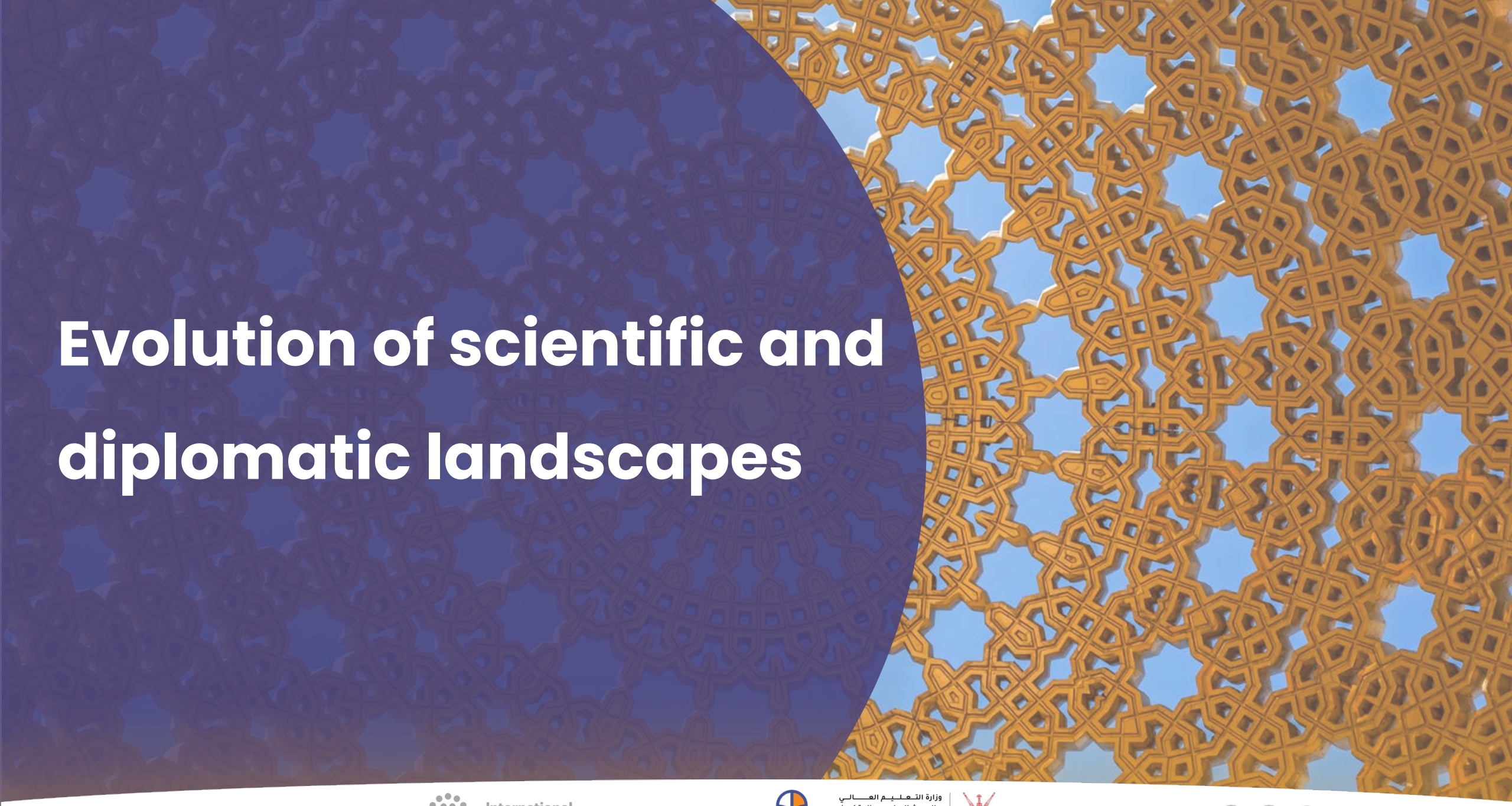
**What about non-state actors like Big Tech?**

# Have we entered “post-naïve” science diplomacy”?

*Olšáková & Robinson, 2022*



# Evolution of scientific and diplomatic landscapes



# Changed scientific conditions

- Rapid advancements in **disruptive or frontier technologies** (AI, quantum) which are changing scientific methodologies and accelerating breakthroughs
- Increasing costs and complexities of doing science = **financial challenges** leading to the need for large shared scientific infrastructure (or growing inequities)
- A **new scientific global order** with rising science power nations and a more active role of the private sector in basic and applied science**.**
- **Changed intensity in international scientific collaborations**: new collaborations with some whilst others have diminished.
- **Changed mobility of scientific workforce** leading to the growth of scientific diasporas, and restrictions due to migration policies
- **Open science** and open data initiatives promoting broader access to scientific information and collaboration
- Greater **transdisciplinary research** and **mission-oriented research** aimed at addressing complex global challenges

# Changed scientific norms and actors

- Emphasis on **equity and diversity** in the participation and the benefits derived from science, to make science more accessible, as well as the contribution of contemporary and indigenous knowledge.
- **Threats to academic freedom** due to digital surveillance, censorship of research, scholars in conflict zones, and political interference in research.
- **New data protection** practices, requiring frameworks to safeguard data while navigating the open data initiatives.
- **New regional and global science networks** are forming or expanding, and more global science policy interfaces are being developed (such as ISC merger, INGSA, FMSTAN,etc.

# Changes in geopolitics and diplomacy

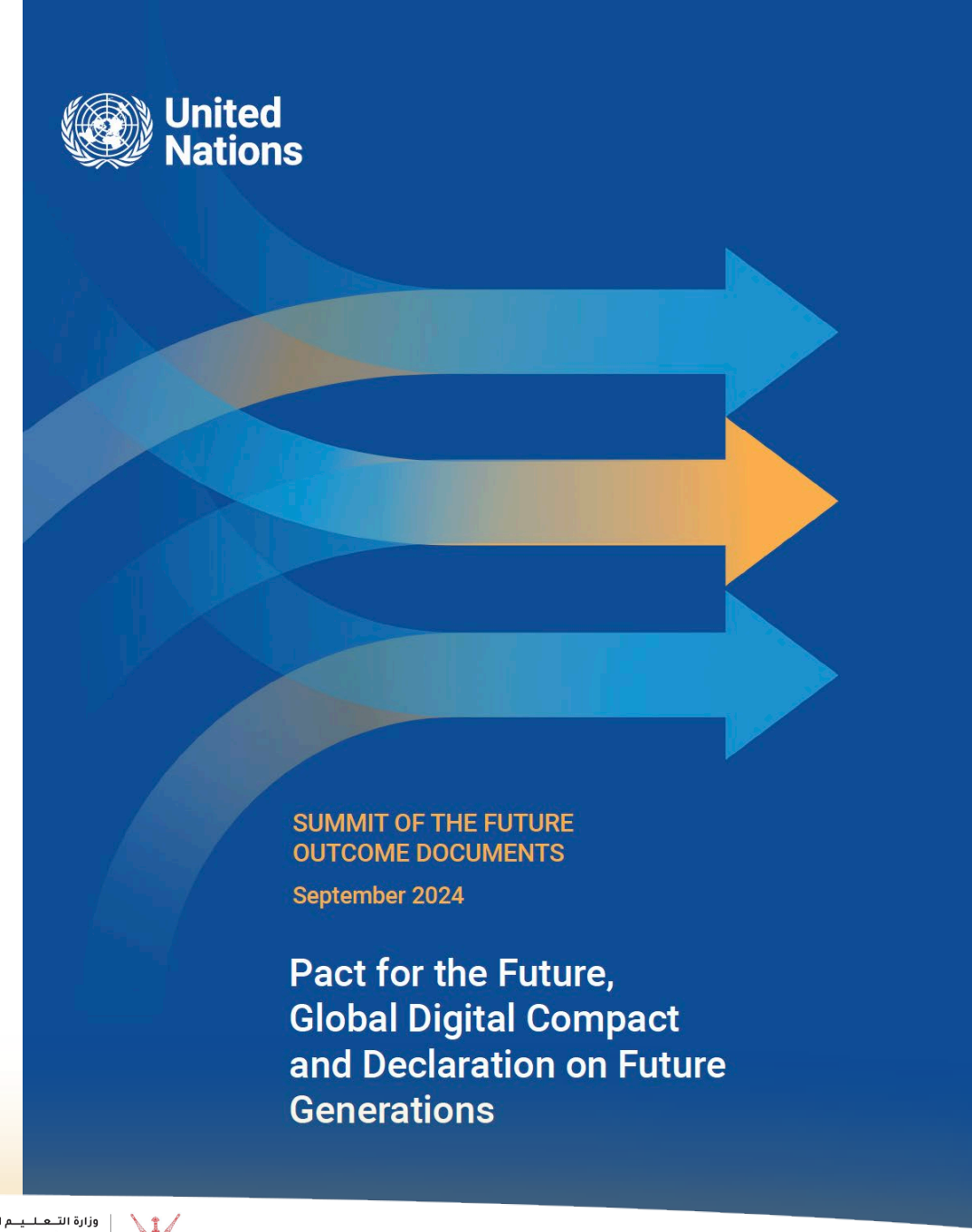
- **Emerging multipolar order** eg BRICS with changing political and economic influence and technology as a new form of underlying, disruptive power.
- Growing **populism and nationalism**
- Growing **mis- and dis-information**
- Numerous ongoing **conflicts** and greater **tension** within and between nations and repercussions on multilateralism.
- Science's role in **diplomacy and national security** are more prominent
- Greater emphasis of S&T as a driver of economic growth, **competitive advantage in innovation, and military dominance**

# Changes in diplomatic norms and actors

- Advances in **social media and big data** have transformed diplomatic practices and communication
- Growing **diversity of diplomatic voices**: more non-state and **subnational actors**, such as cities, regional governments, and **BigTech** and multinationals – each with capacity to engage in SD
- More **scientists are entering diplomatic roles**, and some ministries of foreign affairs are starting to appoint science advisers
- Roles and profiles of **science attachés and advisers in diplomacy** diversifying to reflect new global priorities, while some countries unable to invest in such capability
- **Scientific diasporas** is increasingly being acknowledged as key to fostering connections and economic development, for nations.

# Collaboration vs competition

- Overall, greater emphasis on S&T driving economic growth, competitive advantage in innovation, and military dominance
- Geopolitical tensions have brought to the fore issues such as foreign interference and research security
- The science diplomacy agenda is more competitive than collaborative, with national interests dominating at the cost of global interests **and against the pursuit of science itself as a global good.**
- Emergence of initiatives like the **2024 UN Pact for The Future** to foster global collaboration and address shared challenges and that reinforces the critical role of science in shaping a sustainable and interconnected future.

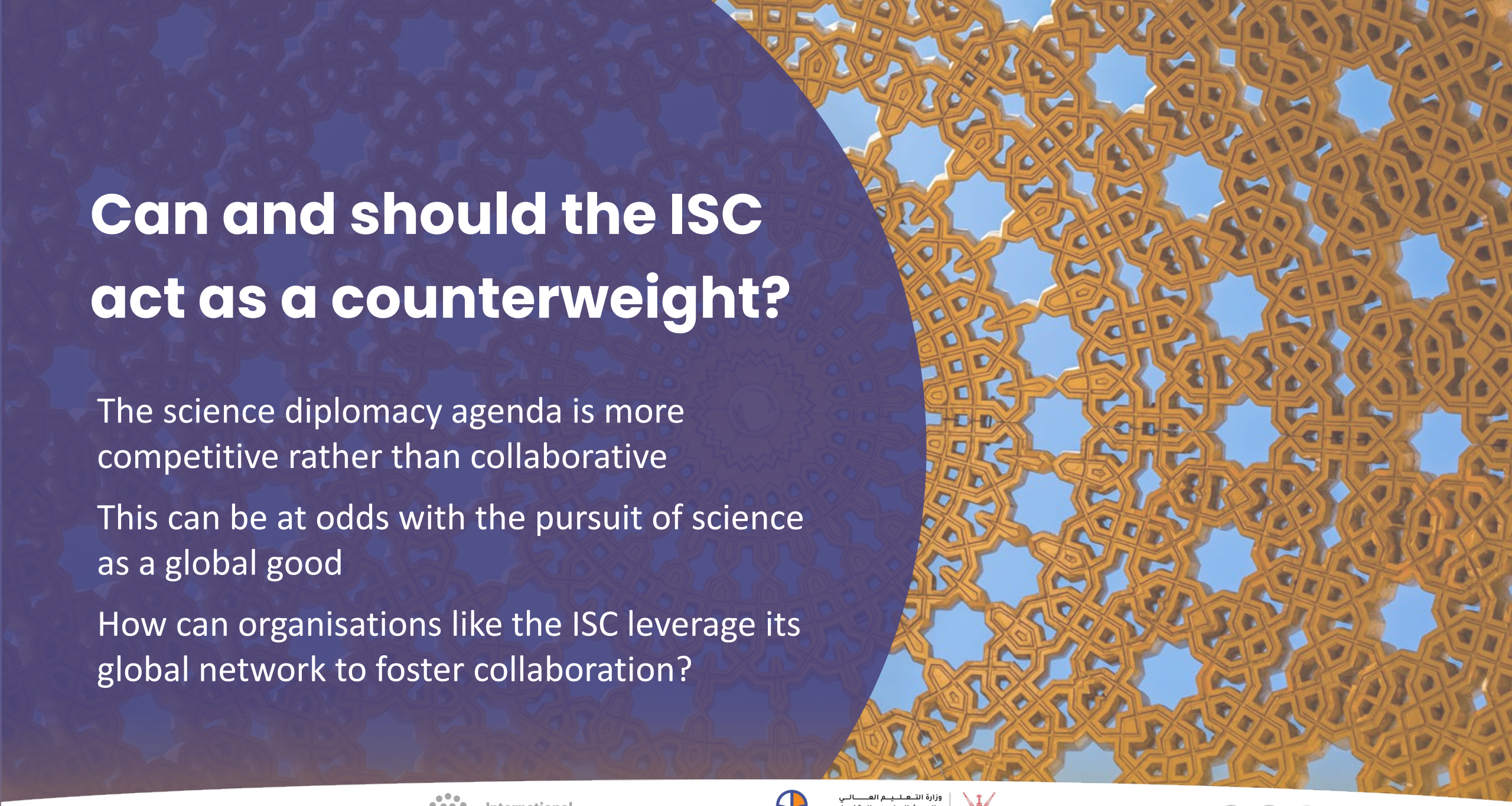


# Can and should the ISC act as a counterweight?

The science diplomacy agenda is more competitive rather than collaborative

This can be at odds with the pursuit of science as a global good

How can organisations like the ISC leverage its global network to foster collaboration?



# ISC engages in science diplomacy through:

1

## Promoting international collaboration, exchange and mobility

- International Geophysical year (1957-1958)
- International Polar Years (1957/58; 2007/08)
- International Biological Programme (1964-1974)
- International Geosphere-Biosphere Programme (1987-2015)
- Innovative Healthcare Delivery Programme (1990-2014)

2

## Enhancing the protection and good governance of global commons

- Antarctic Treaty and Scientific Committee on Antarctic Research (1958)
- Committee on Space Research (1958)

3

## Advocating for science to inform diplomatic negotiations and decision-making

- UNSG advisory board & UNGA Group of Friends (2023 onwards)
- Past and ongoing programs that assist UN technical agencies (UNEP foresight; input to negotiations on a new treaty on plastic pollution)
- International Decade of Sciences for Sustainable Development
- COVID-19 lessons with UNDRR and WHO

4

## Anticipating and building the scientific base on issues of global concerns that have global development and security implications

- Rio Earth Summit (1991 - 1992)
- Summit on Sustainable Development (2002)
- Rio+20 & Future Earth (2012)
- ISC-led conferences on the Ukraine crisis examining the response of the international scientific (2022 and 2023)
- GKD in Chile, including a Diplomatic forum (2024)

5

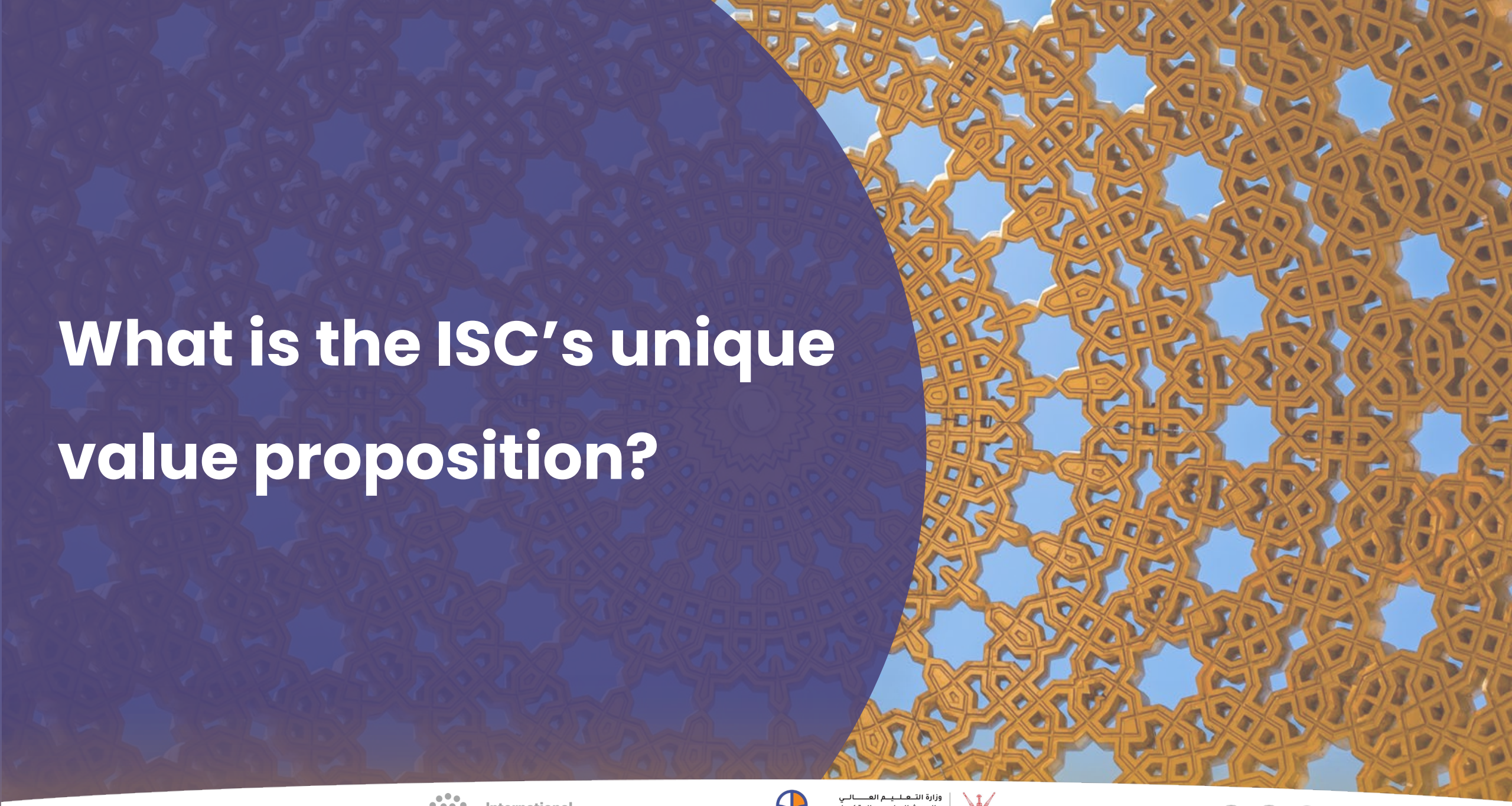
## Promoting academic freedom and the responsible conduct of science

- Monitoring of cases and advocacy by the Committee of Freedom and Responsibility in Science related to threats to scientific freedom (2019-2024)


# ISC members engagement in science diplomacy

- For example, the Pacific Academy of Sciences - regional science diplomacy.
- Contribute to global scientific collaborations and influence policy
- Fosters collaboration among Pacific nations, addressing regional challenges, and elevating local scientific voices within international forums.
- A globally leading example of how Indigenous and modern science methodologies and knowledge can be woven together to enhance our collective knowledge systems.
- An example of multidimensional science diplomacy.

# What is the ISC's unique value proposition?



The ISC’s strength lies in its ability to act as a non-partisan global platform, leveraging scientific expertise from its diverse membership, to facilitate international dialogue across different disciplines, sectors, geographical and geostrategic borders on global issues

# Four possible roles for the ISC in science diplomacy?

## 1. Fostering equitable dialogue on issues of global concern

The ISC can play a major role in promoting inclusive and equitable conversations on global issues to foster knowledge sharing, support shared understanding of the issues requiring global collective action and helping to reduce knowledge asymmetries that can hamper the ability of countries to participate in and influence global governance.

This is particularly acute around new and emerging issues (e.g. disruptive technologies and the rapid changes and new risks related to the global commons).

By leveraging its relationships with multilateral organizations, fostering relationships with the diplomatic community (foreign ministries, permanent missions), and drawing on the full breadth of expertise of its Members, the ISC can proactively foster open and inclusive dialogue on global issues.

## 2. Fostering international scientific collaboration and equity in science

The ISC can play a pivotal role in promoting openness, inclusivity and equity in science given unequal scientific capacities and opportunities between countries, and given that competing geostrategic interests or tensions translate into heightened concerns over research security, undermining international scientific collaboration and science as a global public good.

The ISC can advocate for equitable access to scientific collaboration and data sharing while working to minimize misuse or politicization of research in a way that prioritizes equity, transparency, and fairness.

The ISC can also facilitate international dialogue and support for at-risk, displaced and refugee scientists and for science systems, institutions and infrastructure in times of crisis (conflicts, natural, technological and other disasters and humanitarian emergencies).

It can facilitate the engagement of displaced scientists and scientific diasporas in international science enhancing the resilience of science systems.

## 3. Encouraging responsible governance of disruptive technologies and the protection of the global commons

The ISC can promote the ethical governance of emerging technologies, such as artificial intelligence, synthetic biology, and geoengineering. By leveraging its global reach and expertise, the ISC can facilitate multilateral dialogues to address gaps in governance and support the development of regulatory frameworks to ensure that developments in science and technology support equitable sustainable development and minimize risks of misuse or unintended negative consequences.

Additionally, the ISC plays a crucial role in safeguarding the global commons, such as the atmosphere, oceans and polar regions, by stimulating research and scientific cooperation and promoting peace, security, equitable access and responsible use.

By mobilizing the breadth and depth of its members' expertise, it can play a major role by anticipating and building the scientific base on issues of global concern.

## 4. Strengthening science-policy interfaces and providing science advice to inform decision-making

The ISC can serve as a trusted scientific advisor to multilateral organizations and coalition of actors by providing multidisciplinary scientific inputs into international discussions and negotiations ensuring that diverse perspectives are represented in developing shared understanding and shaping solutions to critical global issues.

The ISC also contributes to the creation and implementation of mechanisms of scientific advice given its experience in organizing scientific advice at the international level.

In this regard, the ISC can draw on its multiple partnerships with multilateral organizations and enhance the capacity of its members to navigate science-policy interfaces and engagement in science diplomacy.

حوار المعرفة العالمي مسقط

Muscat Global Knowledge Dialogue

International Science Council

وزارة التعليم العالي
و البحث العلمي والابتكار
Ministry of Higher Education
Research & Innovation

# Thank you!

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