The Adoption of Open Science in The Middle East

Open Science Community in Saudi Arabia
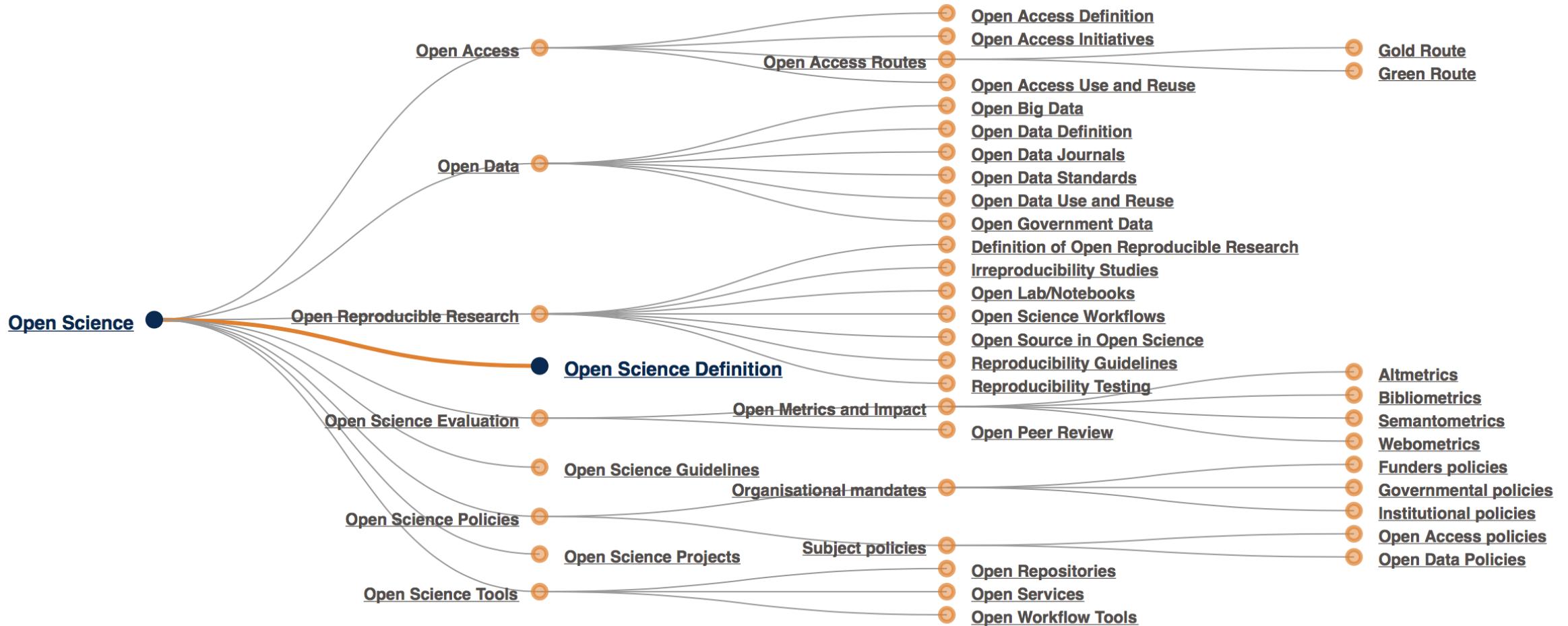
Batool Almarzouq

What is Open Science?
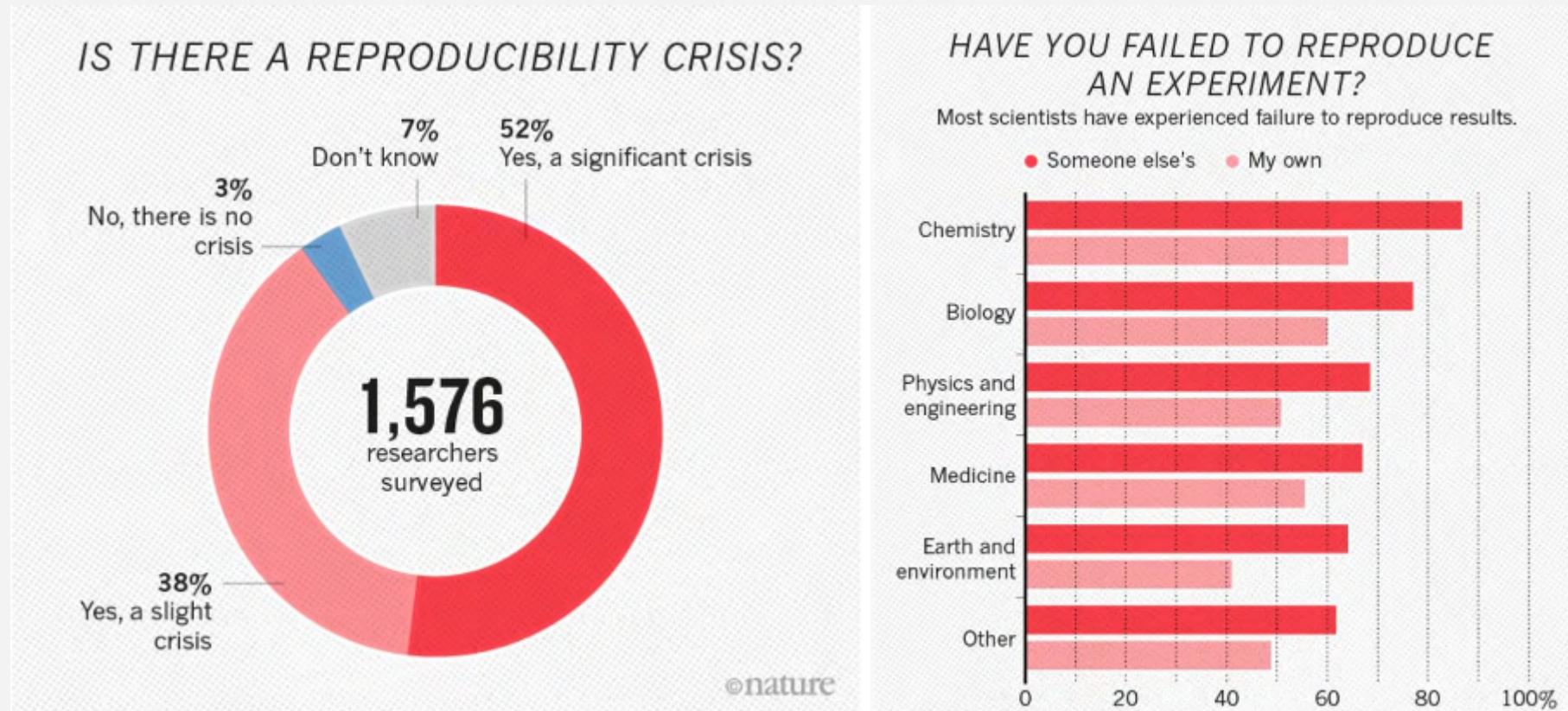
In a nutshell, Open Science describes an on-going movement in the way research is performed, researchers collaborate, knowledge is shared, and science is organised. It affects the whole research cycle and its stakeholders, enhances science by facilitating more transparency, openness, networking and collaboration.

— OpenAIRE

Open Science

- **Open Access**
  - Open Access Definition
  - Open Access Initiatives
  - **Open Access Routes**
    - Gold Route
    - Green Route
  - Open Access Use and Reuse
- **Open Data**
  - Open Big Data
  - Open Data Definition
  - Open Data Journals
  - Open Data Standards
  - Open Data Use and Reuse
  - Open Government Data
- **Open Reproducible Research**
  - Definition of Open Reproducible Research
  - Irreproducibility Studies
  - Open Lab/Notebooks
  - Open Science Workflows
  - Open Source in Open Science
  - Reproducibility Guidelines
  - Reproducibility Testing
- **Open Science Definition**
- **Open Science Evaluation**
  - **Open Metrics and Impact**
    - Altmetrics
    - Bibliometrics
    - Semantometrics
    - Webometrics
  - Open Peer Review
- **Open Science Guidelines**
- **Open Science Policies**
  - **Organisational mandates**
    - Funders policies
    - Governmental policies
    - Institutional policies
    - Open Access policies
    - Open Data Policies
  - **Subject policies**
- **Open Science Projects**
- **Open Science Tools**
  - Open Repositories
  - Open Services
  - Open Workflow Tools

Open Science aims to fix the "Reproducibility Crisis" in Science

After the panadamic, 193 countries gathered in Paris for the 40th session of the UNESCO's General Conference, and decided to embark a new global normative instrument on Open Science. It's referred to as the "UNESCO Recommendation on Open Science".

This process is expected to lead to the adoption of the recommendation by UNESCO Member States in 2021.

Therefore, there is an increasing number of Open Science Communities in Europe

A huge network of Open Science Communities is in the Netherlands, Sweden, Germany, UK and many other countries ...

BUT Open Science movement is not yet adopted in the Middle East

In 2021, We started an Open Science Community in Saudi Arabia
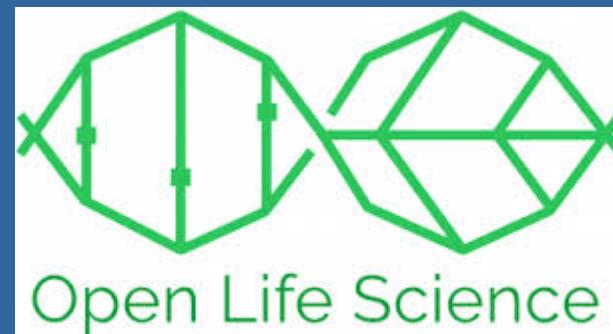
We are in the process of re-designing Open Science for Saudi Arabia to potentially be adopted by the other countries in the Middle East

The Open Science Community in Saudi Arabia is supported by [Open Life Science Programme](#)

Led by Batool Almarzouq, Anelda Van der Walt and Paula Moraga
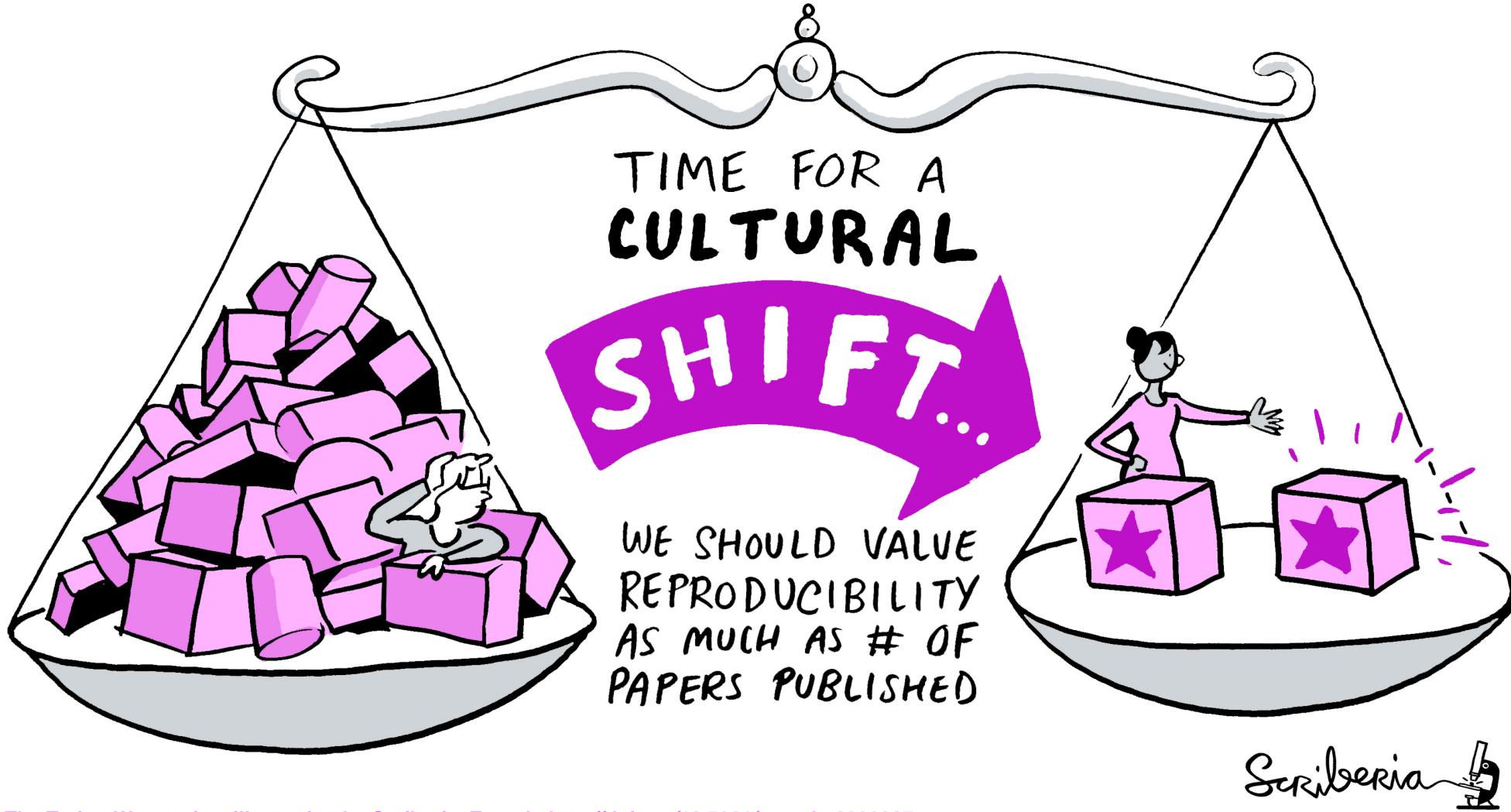
Our Vision statement

We want to create a space in Saudi Arabia where newcomers and seasoned peers can connect, inspire each other, and provide input on policies and infrastructures. Working together to make Open Science the norme. So, we are calling out to researchers and colleagues in Saudi Arabia

— The Open Science community in Saudi Arabia

"The vision is largely inspired by the the vision of the International Network of Open Science Communities (INOSC)"

TIME FOR A CULTURAL SHIFT...

WE SHOULD VALUE REPRODUCIBILITY AS MUCH AS # OF PAPERS PUBLISHED

Examples of our activities in Feb 2020

- A workshop in Women in Data Science (WiDS2021) in Saudi Arabia, under the title "Collaborating on Open Data Science Projects"

- A talk titled "An Open Science Approach to Machine Learning in Biomedical Research" in the Saudi Data Community.

Are you a researcher from the Middle East?

Or anywhere in the globe!

Are you an advocate for Open Science?

Or just want to learn more!

Come and join me for informal Chat on every last Friday each month at 2:00pm UTC

Zoom link: https://liverpool-ac-uk.zoom.us/j/91493007481?pwd=UHlJc2swTnBqdU0rT0tjN3c0aC9SUT09, Passcode: @YEAR2021

Further References:

- [Redesign open science for Asia, Africa and Latin America](#)

- [UNESCO Takes the Lead in Developing a New Global Standard-setting Instrument on Open Science](#)

- [The Turing Way: A guide to reproducible and collaborative data science](#)

- [EC policies and mandates on Open Access to publications and research data, FAIR data](#)

Thank you so much for reaching the end!

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The source code for these the slides is [available on GitHub](#)