

# From Counting to Culture - The Helmholtz Open Science Policy

Wolfgang zu Castell

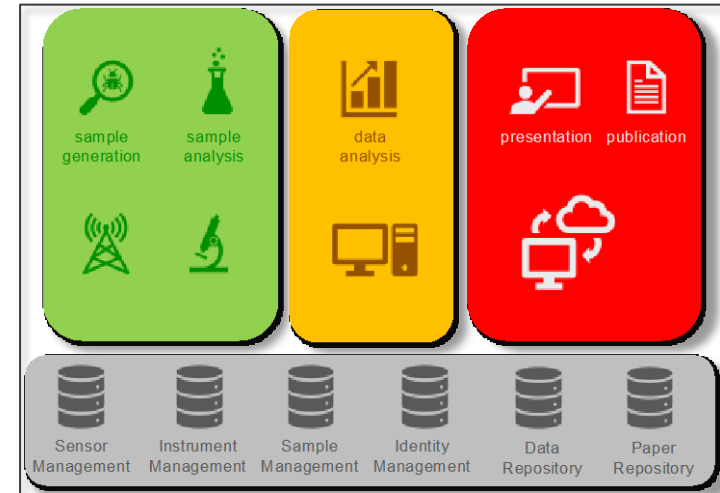
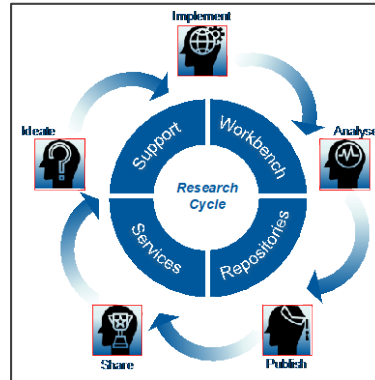
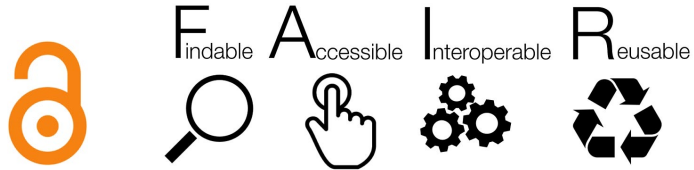
Open Science Working Group, Helmholtz Association  
and

Department Geoinformation, Helmholtz Centre Potsdam GFZ

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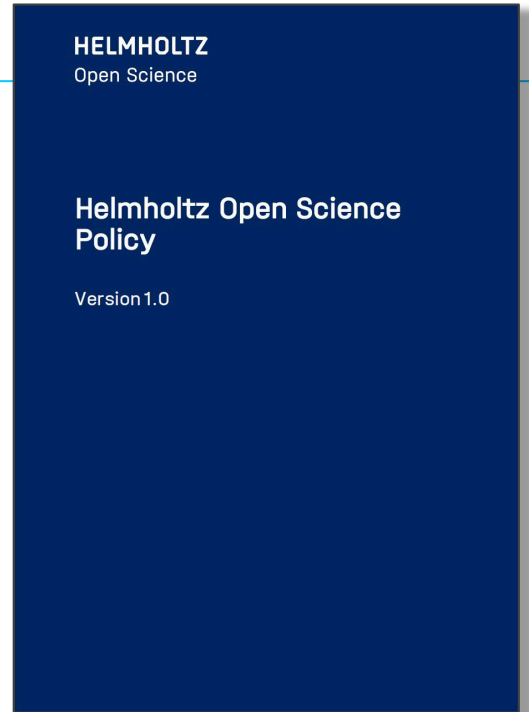
# Open Science ...

- is **not** Open Access
- is **not** FAIR
- is **fundamental** to the scientific method
- is fostering **digitalization**
- is also aimed at **non-scientific stakeholders**



# The Helmholtz Open Science Policy ...

- builds on the classical pillars
  - Open Access Publications
  - Open Research Data
  - Open Research Software
- indicates further pillars such as
  - Open Education
  - Open Hardware
  - Open Services
  - ...
- „*Openness by design*“ as guiding principle for building a **Digital Research Ecosystem**

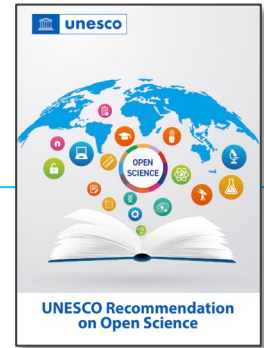


# The Helmholtz approach ...

- is a ,three-step' building on the **UNESCO Recommendations** on Open Science



- define and adopt a clear position (*strategic positioning*)
  - develop processes to determine where we are and how we are making progress (*monitoring*)
  - provide guidance on how to implement Open Science in daily academic life (*implementation*)
- provides the basis for policies being adopted by all of the 18 centers of the Helmholtz Association
  - It is obvious that this is an **ongoing development** and therefore the policy **must be a living document!** (in particular in its implementation part)



# Open Science as a cultural transformation ...

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- both the FAIR principles as well as Open Science are concerned with **all the artifacts** being produced while moving through the research cycle
- nevertheless, the principles remain attributes being assigned to (digital) objects
- Open Science comprises a **cultural attitude of performing science**
- an open science culture also addresses objectives to
  - serve exchange of knowledge between science and society
  - foster research through active collaboration and a culture of sharing
  - allow for an immediate engagement with science at all steps of the scientific process
- a call to open science is a call for a **cultural change**

 **be aware of the cultural dimension!**

# Open Science under threat ...

- During the pandemic science has demonstrated that **early sharing of information, data, models etc. can significantly speed-up** the time from research to social use.
- The pandemic also showed that **we must adhere to the basic principles of the scientific method**. There is also a need to work towards a better understanding in society on how scientific progress is driven by hypotheses and discussion.
- On top of that, the geopolitical situation is also increasingly affecting the orientation of national scientific strategies.
- Open Science as an attitude offers the opportunity **to deal constructively with such natural areas of tension**.
- So rather than reacting short-sightedly, fostering the transformation towards open science allows to stick to the scientific method within boundary conditions being given by the embedding social systems.
- Science is used to dealing with restrictions posed by society (e.g. stem cell research, GDPR).
- Dealing with such boundary conditions **in a transparent way** will serve the overall creation of knowledge, while

# And what next?

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- Open Science is a **cultural change** ... process! ... so we need to manage a change-
- Open Science addresses the **Digital Research Ecosystem** ... integrate! ... so we need to further
- Open Science is a **global endeavor** ... ... so we need to coalize and join forces!

**Summarizing, let's move on together!**

# Thank you for your attention!

[Wolfgang zu Castell](#)

 [wolfgang.castell@gfz-potsdam.de](mailto:wolfgang.castell@gfz-potsdam.de)

 <https://orcid.org/0000-0003-2820-6564>



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