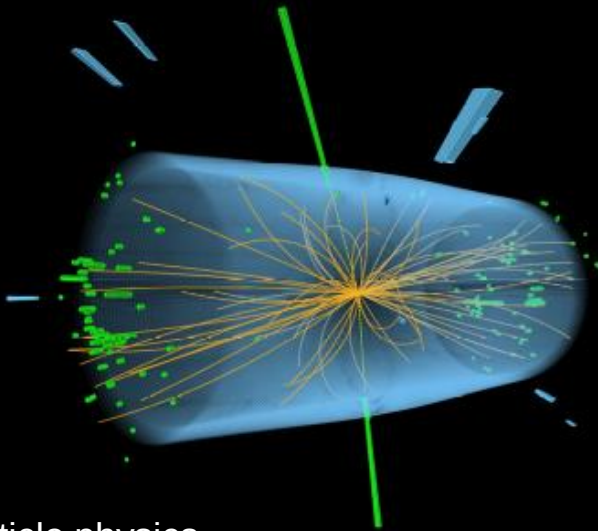


Particles, Universe, NuClei and Hadrons for the NFDI

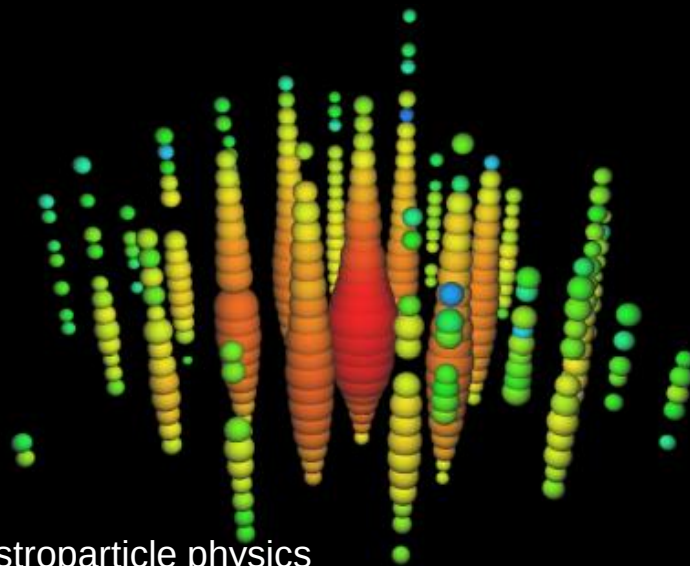
Thomas Schörner (DESY) for the PUNCH4NFDI Consortium

NFDI-Verwaltungskreis-Treffen 10. Mai 2023

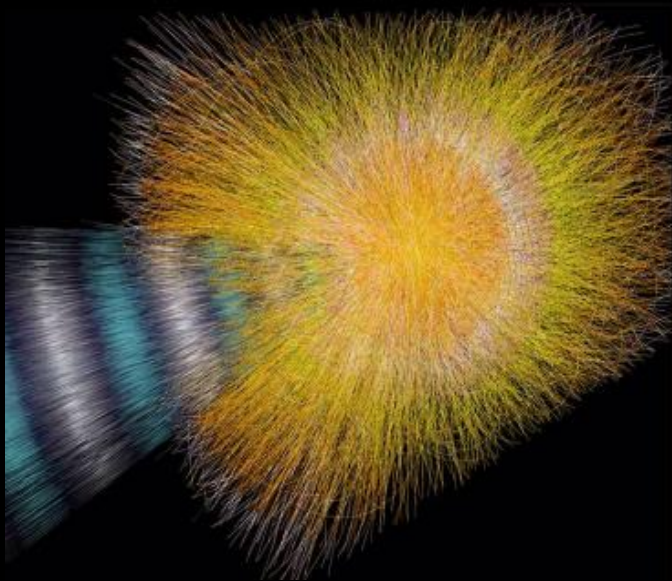
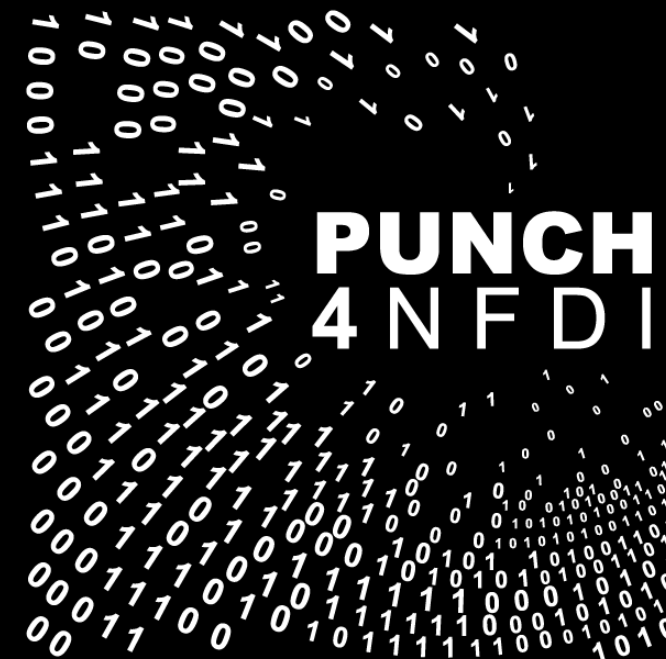




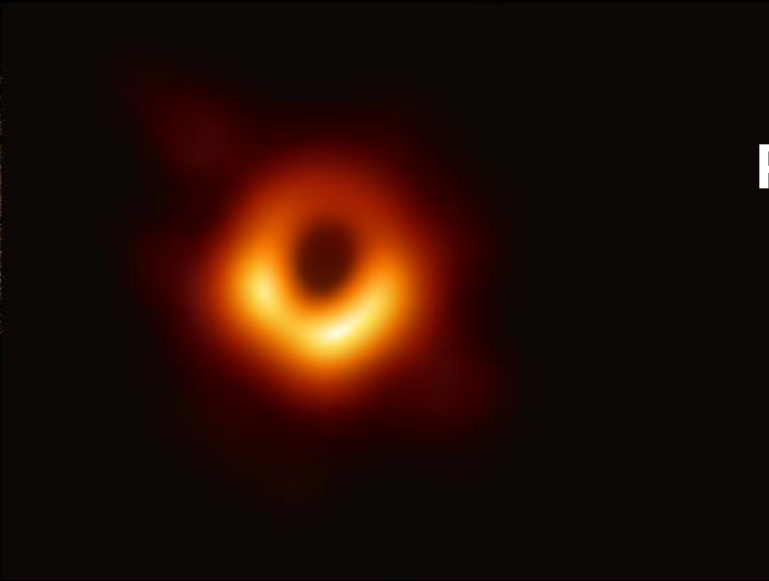
Particle physics



Astroparticle physics



Hadron & nuclear physics



Astronomy

Particles, Universe, NuClei and Hadrons for the NFDI

The prime goal of PUNCH4NFDI is the setup of a federated and "FAIR" science data platform, offering the infrastructures and interfaces necessary for the access to and use of data and computing resources of the involved communities and beyond.

Who We Are

Universities, Helmholtz, Max Planck, Leibniz

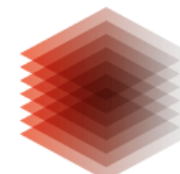


43 Partners
20 Co-applicants
23 Participants

Currently more than 100 people involved in PUNCH4NFDI

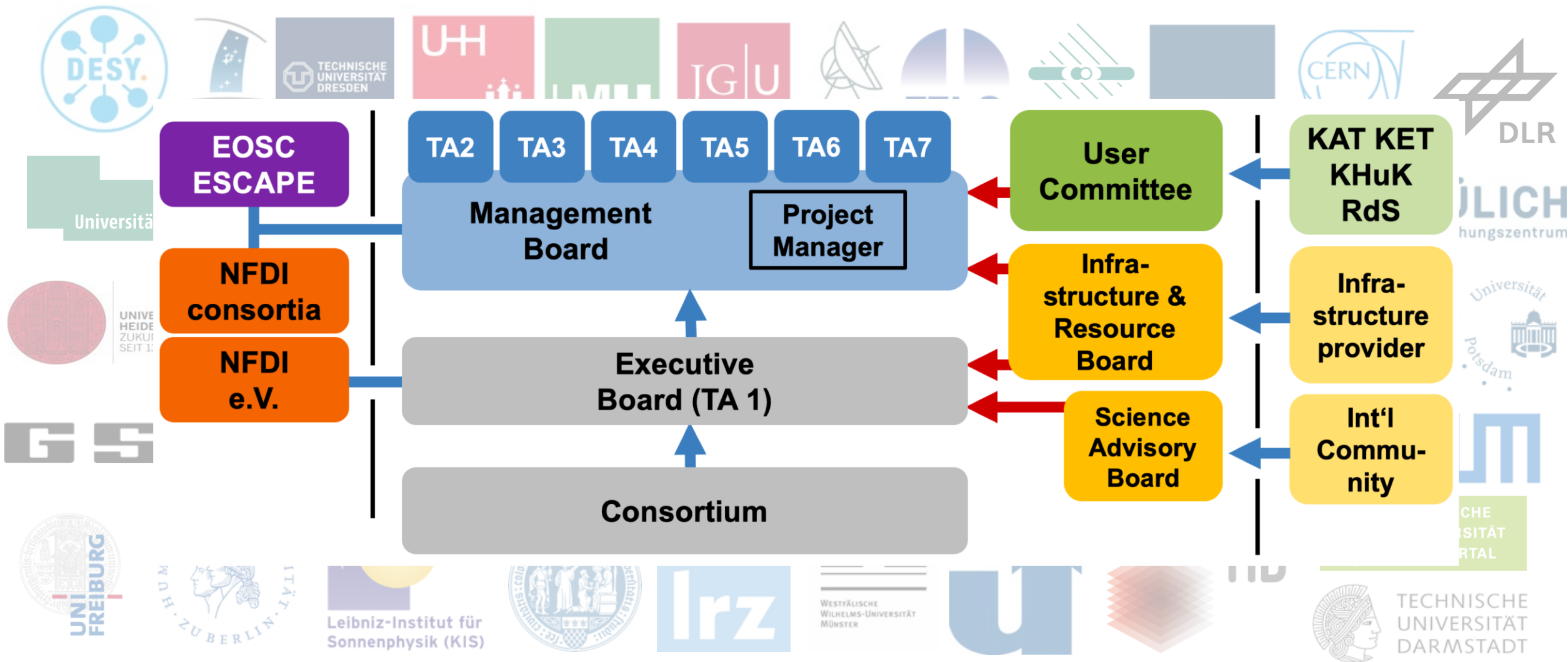
Representing close to 10000 scientists in Germany (KAT, KET, KHuK, RdS)

KAT, KET, KHuK and RdS representatives in our User Committee

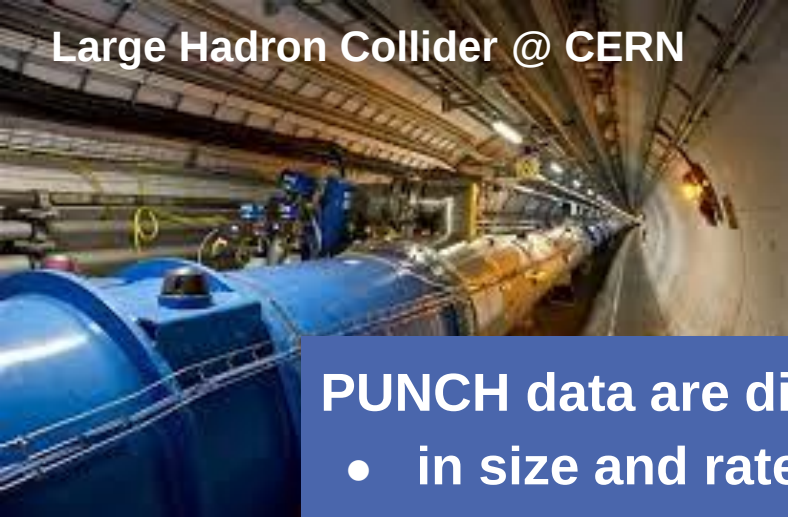


Our Partners

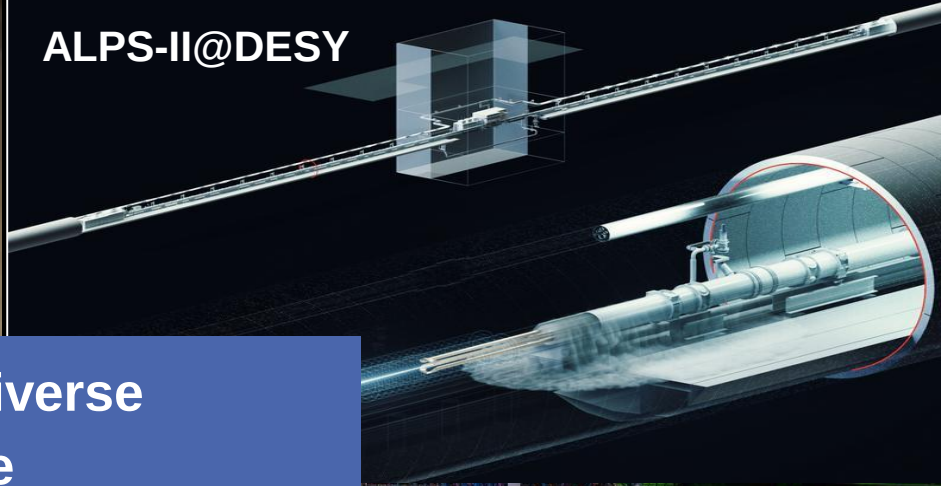
Universities, Helmholtz, Max Planck, Leibniz



Large Hadron Collider @ CERN



ALPS-II@DESY



IceCube (South Pole)



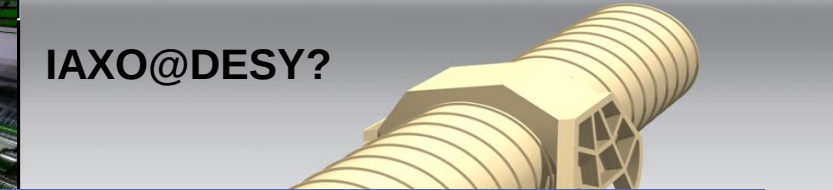
PUNCH data are diverse

- in size and rate
- in complexity and purpose
- in abstraction level

RNO-G Pathfinder



IAXO@DESY?

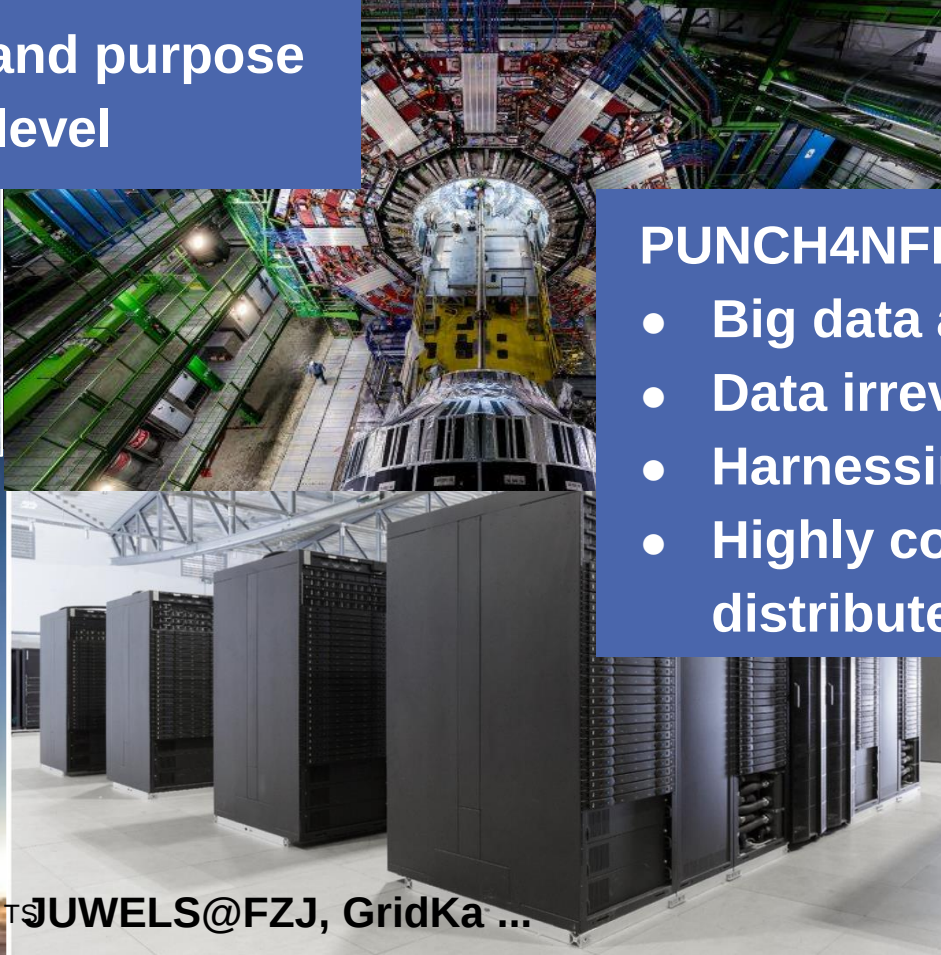


PUNCH4NFDI expertise

- Big data and open data
- Data irreversibility and reduction
- Harnessing heterogeneous resources
- Highly collaborative globally distributed data management



VLT (Paranal)



JUWELS@FZJ, GridKa ...



data generated by SKA2

Survey

Low

Mid

15.6ZB

Global Internet Traffic



420EB

FAIR@GSI
Online data
30 EB

FAIR@GSI
Physics
300 PB

searches on Google
98PB

uploads to facebook
180PB

business emails sent worldwide



3,000PB
(3EB)



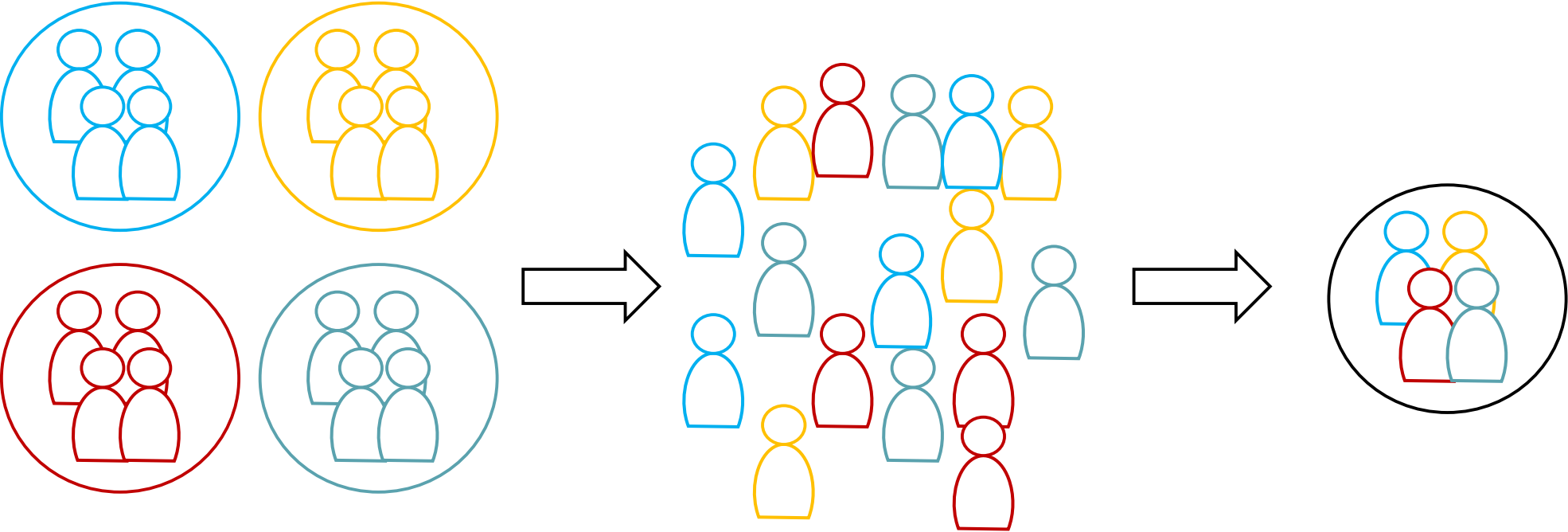
4EB
SKA1 mid
archive

HL-LHC

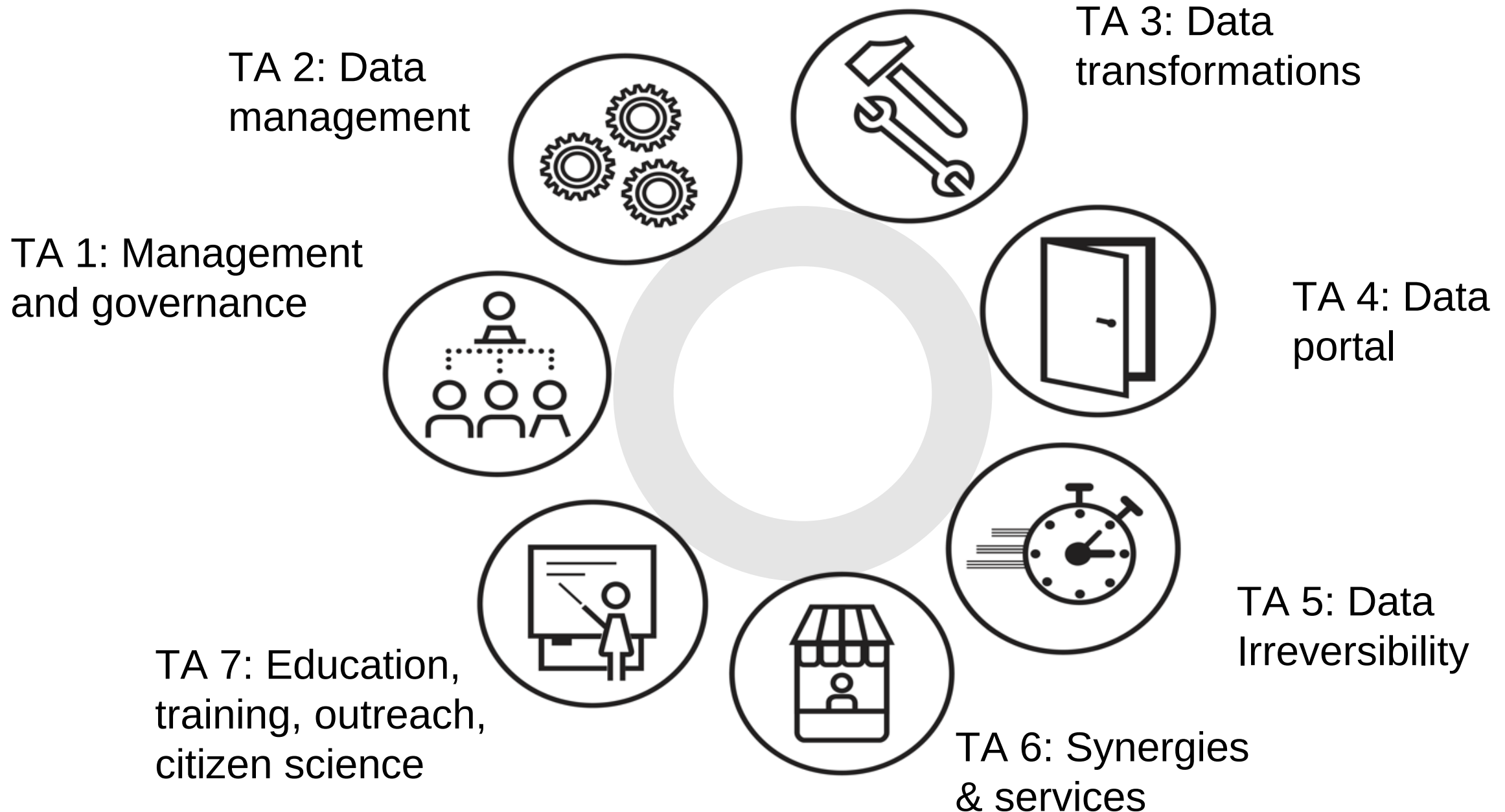
Challenges

- FAIRification: data & **workflows**
- “big data” and “open data”
- Irreversibility challenge and data loss
- heterogeneous data & infrastructures
- transfer of knowledge

Goal

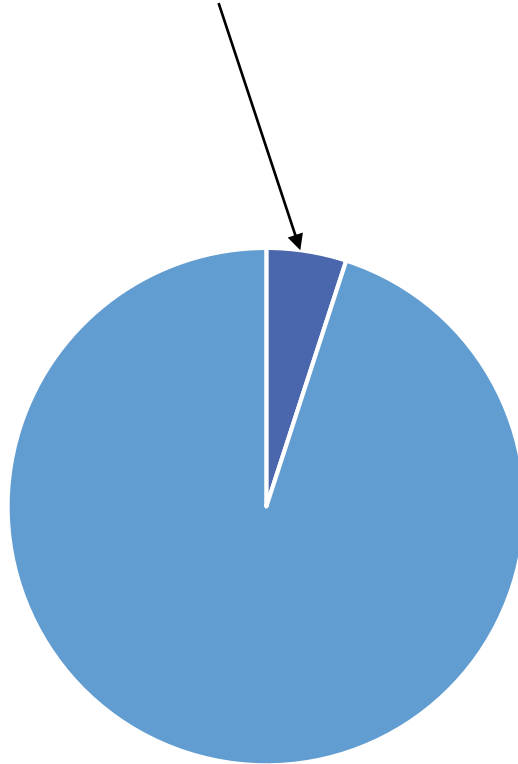


Task Areas

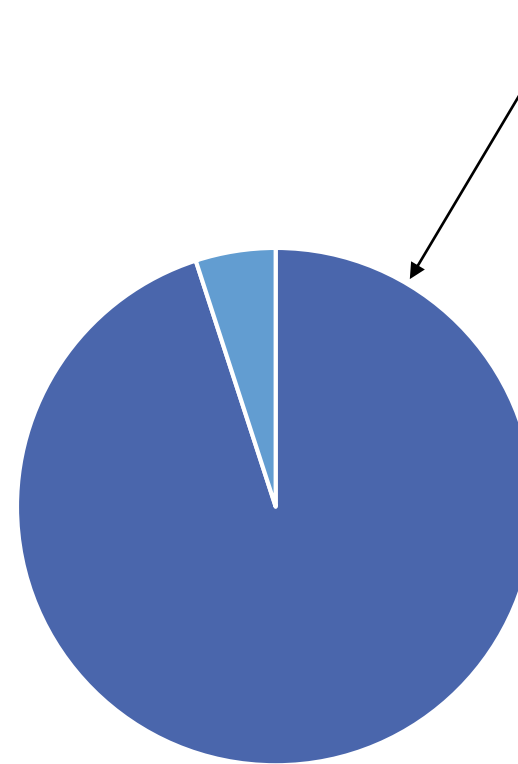


“Torten der Wahrheit”

Percentage of your total time you (and your boss) estimate you will be working on the project



Percentage of your total time you find yourself working on the project



Fact on PUNCH4NFDI

Home

PUNCH4NFDI

TA / MB and other working meetings	446 events	➡
Management and board meetings (EB, SAB, IRB, UC, CB ...) - partly protected	89 events	➡
Conferences, seminars, public events etc.	58 events	➡
Playground	1 event	🛡️ ➡

indico.desy.de

Public

Europe/Berlin

T. Schörner

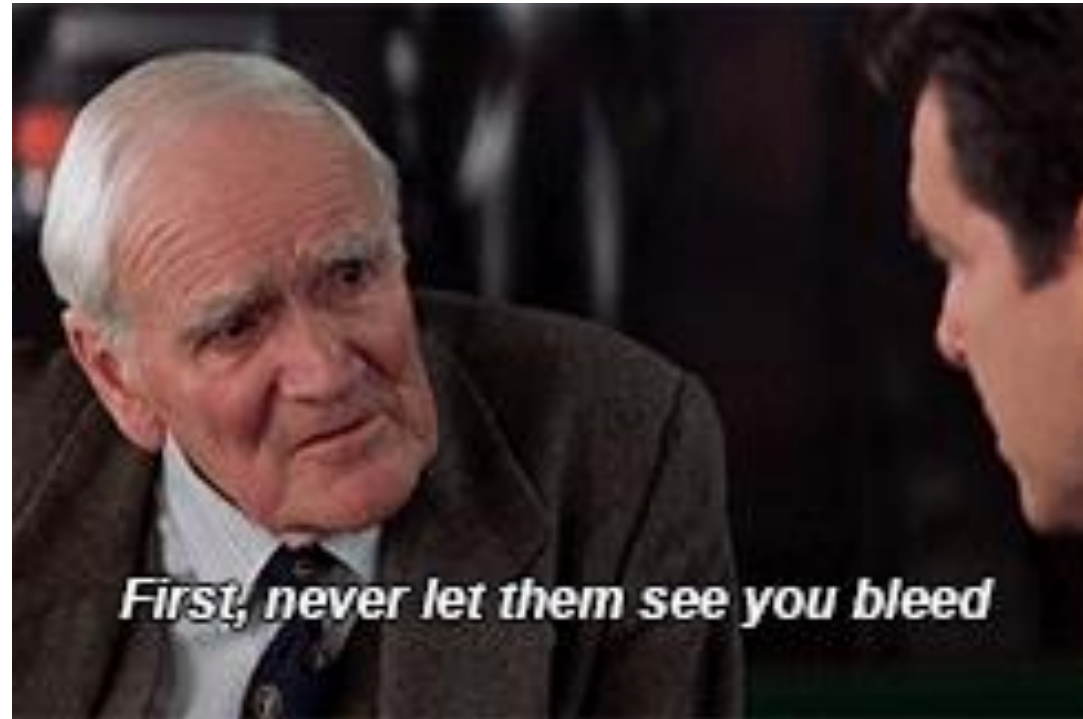
Create event

Navigate

Parent category

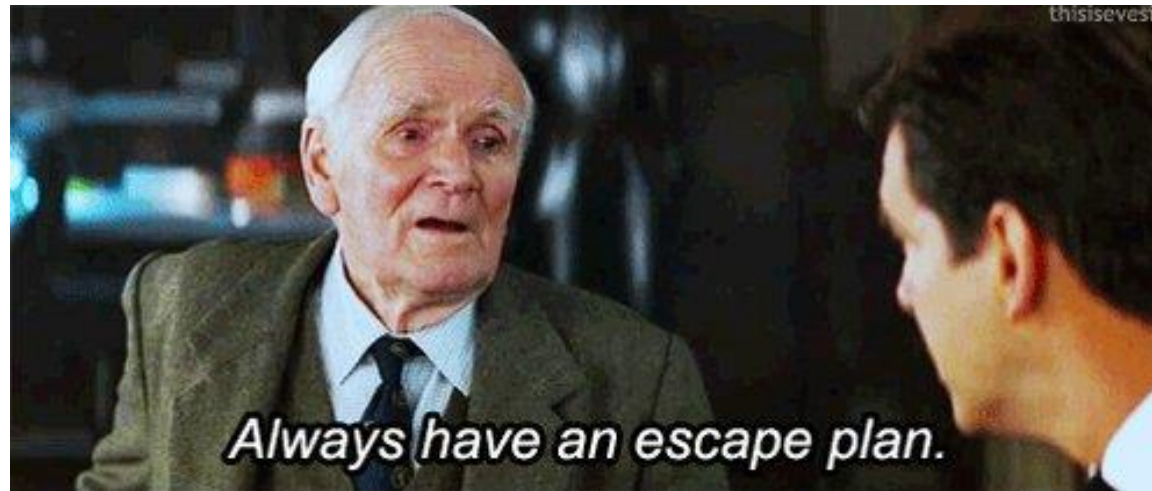
Managers

Do's and Don'ts (1)



... but just attend yet another of the – hopefully “in-person” and hopefully regular and hopefully well-tailored – meetings!

Do's and Don'ts (2)



... and don't wait too long until you prepare publication guidelines for your consortium, and a pipeline for publications!

Thank you!

The PUNCH4NFDI Consortium

Spokesperson:

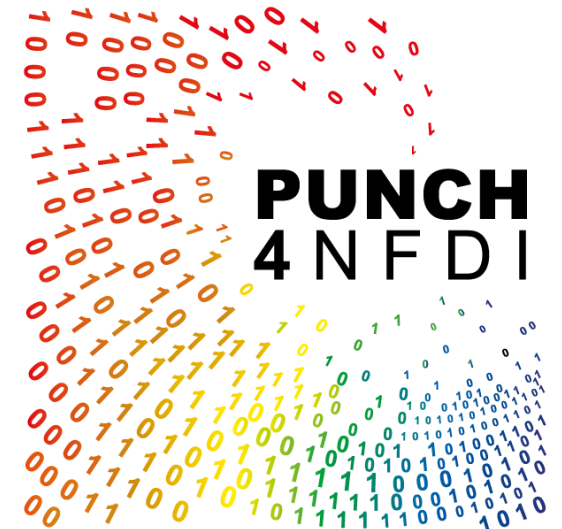
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Acknowledgements

