

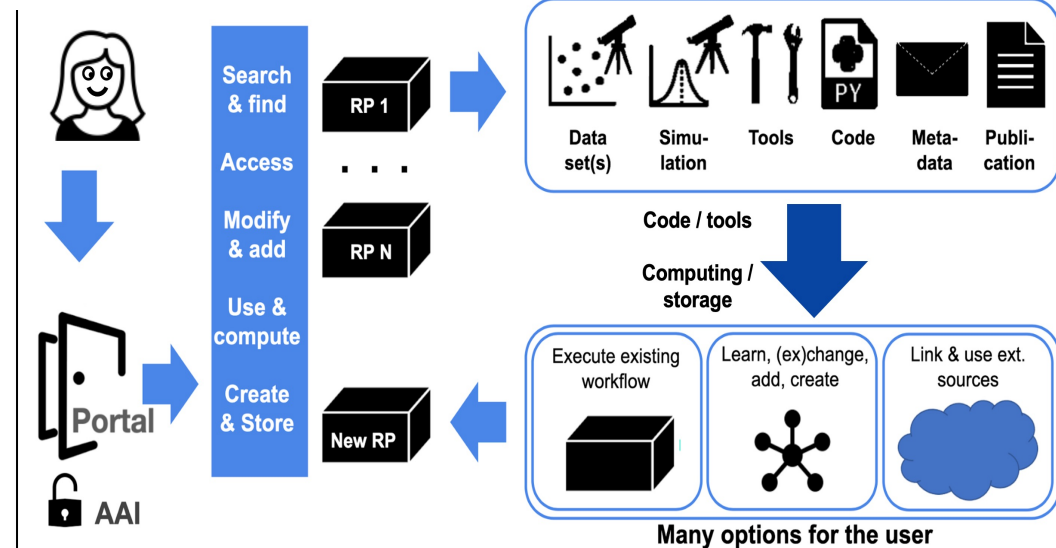
# PUNCH4NFDI\*

## A consortium for the NFDI

The NFDI: “Nationale Forschungsdaten-Infrastruktur” – national research data infrastructure. **Goal:** sustain-able, FAIR & internationally embedded data management. 30 consortia from all fields of science funded for (initially) 5+5 years with < 5 MEUR / year.



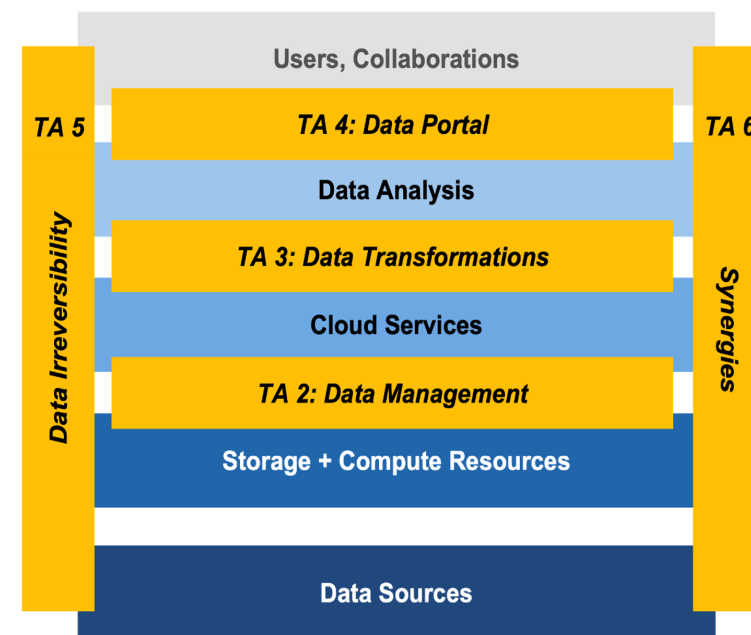
SDP can revolutionise the way we deal with data and do science.



**Our offer:** i) layered data management model, scalable for easy FAIRification of data; ii) science data platform SDP as biotope for digital research products; iii) services to develop community-specific approaches for the benefit of the entire NFDI. Close interaction with other consortia (DAPHNE FAIRmat, MaRDI), ErUM-Data etc.

**PUNCH4NFDI:** particle, astroparticle, astronomy, hadron & nuclear physics in the NFDI. Specific strengths: **big data, open data, use of heterogeneous resources**; based on e.g. WLCG & open astro experience.

The layer model partly realised e.g. at the LHC can serve as model for other data-intensive sciences (key words cloud, data lake, heterogeneous & opportunistic resources)





**NFDI:** National research data infrastructure, supported by GWK – up to 30 bottom-up discipline-specific consortia for 5+5 years; so far 19 consortia established with massive Helmholtz contribution

- Goal: Enable sustainable data management according to FAIR principles, embedded in European landscape (note that at least in physics - probably beyond – all endeavours embedded in often global structures)

### At DESY:

- DAPHNE4NFDI – Data for Photon and Neutron Science: Spokesperson Anton Barty (FS)
- PUNCH4NFDI – Particles, Universum, Nuclei & Hadrons: Spokesperson Thomas Schörner (FH)



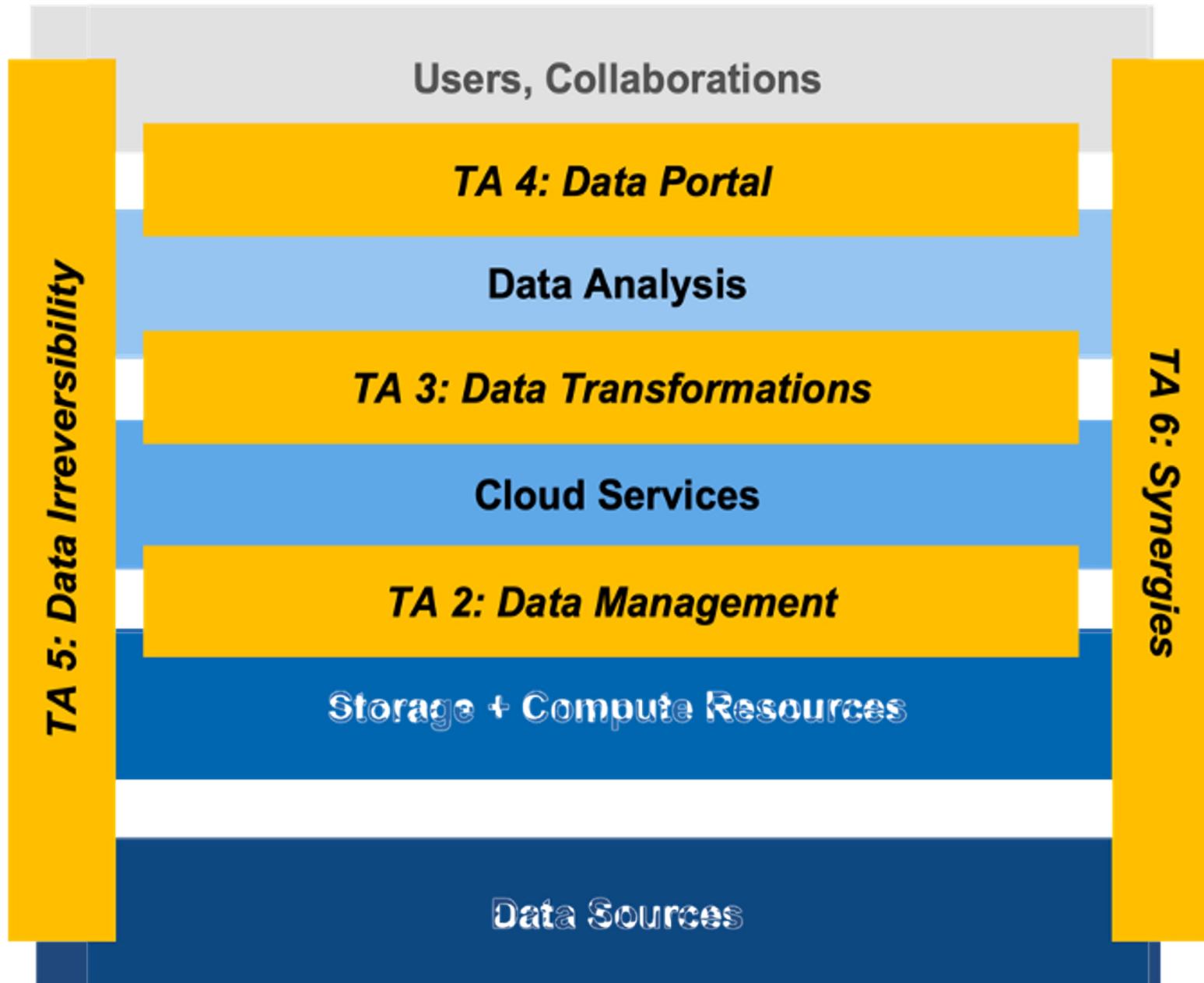
All consortia currently putting together proposal for new base services consortium for the entire science system



### Central topics and specific Helmholtz / DESY / FS / FH expertise and challenges:

- PUNCH4NFDI: “big data”; “open data” e.g. in astronomy; use of heterogeneous resources for literally thousands of users (canonical examples LHC today, HL-LHC or SKA tomorrow); data irreversibility, ...
- DAPHNE4NFDI: managing diverse user communities; going from “siloeed” or “copartmentalised” computing model to one that scales with data volumes & number of users; ...
- Helmholtz / DESY assets: large computing centres; experience in managing large collaborations; tools and structures – e.g. HIFIS, Helmholtz-AAI, HMC, etc.

**NFDI as D representative in EOSC;** numerous connections to European initiatives. High potential for German impact because of streamlined NFDI efforts carried by “entire science system”.



# Task Areas

TA 2: Data  
management

TA 3: Data  
transformations

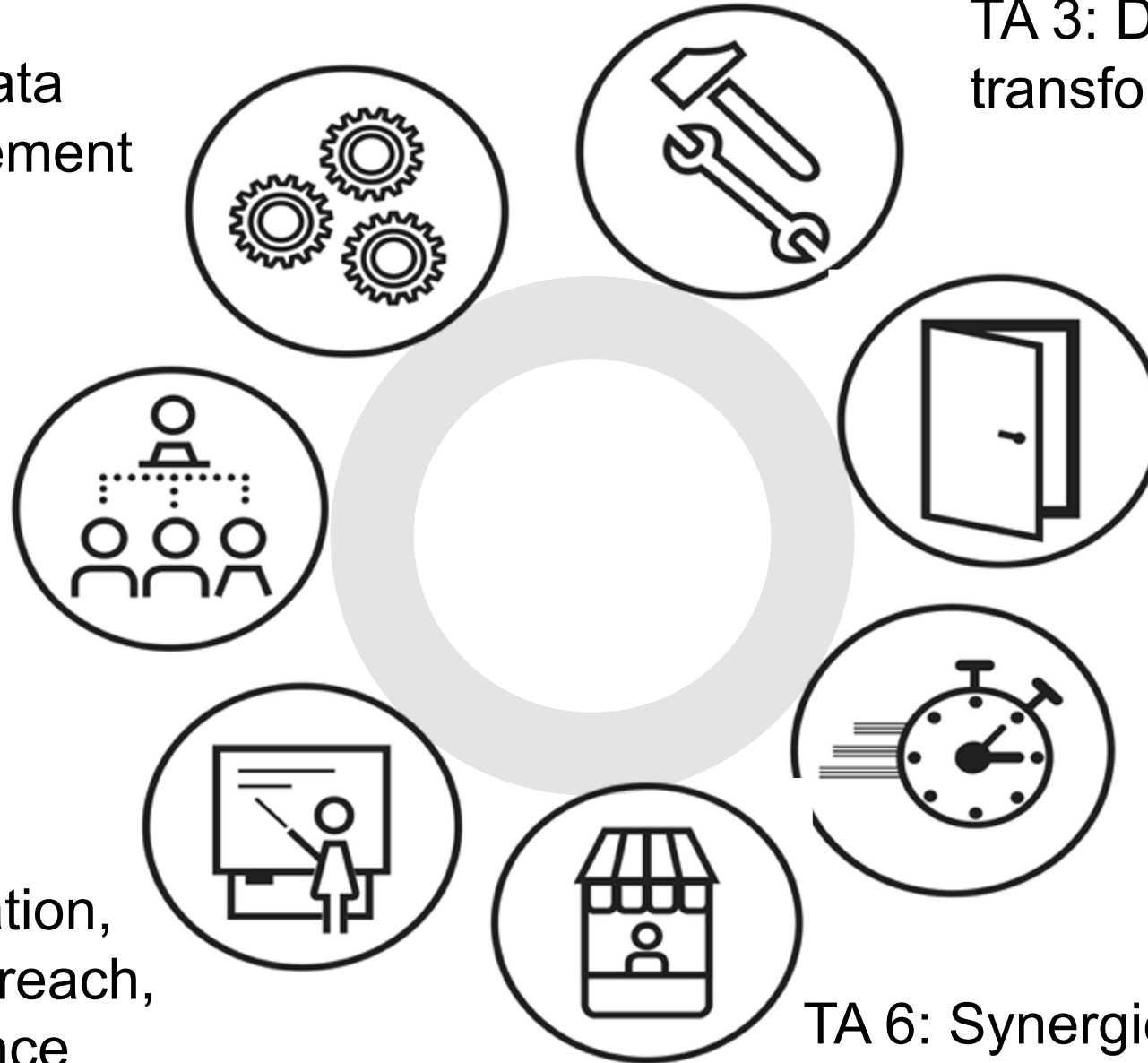
TA 1: Management  
and governance

TA 4: Data  
portal

TA 5: Data  
Irreversibility

TA 7: Education,  
training, outreach,  
citizen science

TA 6: Synergies  
& services



# Actions / Deliverables PUNCH4NFDI TA 7 in 2022

Teilnahme am DPG-Workshop zu universitären Curricula im Datenmanagement in der Physik (Bad Honnef 20.-22. April)

- D-TA7-WP2-1 (30 Sep 2022): Market survey of available teaching concepts and material. Institutes: TU Dortmund
- D-TA7-WP2-2 (30 Sep 2022): Development of standardized curriculum. Institutes: TU Dortmund, Universität Frankfurt (Participant), AlfA – Universität Bonn, Hochschule Darmstadt (Participant), Universität Bielefeld, Universität Göttingen
- D-TA7-WP4-1 (30 Sep 2022): Map out potential research applications in citizen science. Institutes: AlfA – Universität Bonn, MPIfR Bonn



# Twitter & Social Media

## Working on our outreach

Looking for interested (younger) colleagues to take over esp. our Twitter account. Any volunteers?

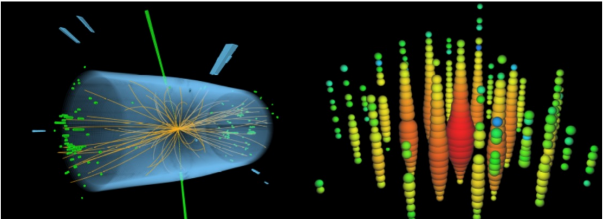
## Particles, Universe, NuClei and Hadrons for the NFDI

A consortium in the NFDI.

[Home](#)[Consortium & NFDI](#)[News & Events](#)[Services](#)[Use cases](#)[Internal](#)

The National Research Data Infrastructure (in original German: Nationale Forschungs-Daten Infrastruktur [NFDI](#)) has the objective to systematically index, edit, interconnect and make available the valuable stock of data from science and research.

PUNCH4NFDI is the NFDI consortium of particle, astro-, astroparticle, hadron and nuclear physics, representing about 9.000 scientists with a Ph.D. in Germany, from universities, the Max Planck society, the Leibniz Association, and the Helmholtz Association. PUNCH physics addresses the fundamental constituents of matter and their interactions, as well as their role for the development of the largest structures in the universe - stars and galaxies. The achievements of PUNCH science range from the discovery of the Higgs boson (top left) over the installation of a 1 cubic kilometre particle detector for neutrino detection in the antarctic ice (top right) to the detection of the quark-gluon plasma in heavy-ion collisions (bottom left) and the first picture ever of the black hole at the heart of the Milky Way (bottom right).



### Contact

... for PUNCH4NFDI users: [support@punch4nfdi.de](mailto:support@punch4nfdi.de)  
... for other interests: [info@punch4nfdi.de](mailto:info@punch4nfdi.de)

### Mailing List

Registration to the mailing list [punch4nfdi-general](#) and to the PUNCH4NFDI newsletter: Send an e-mail to [sympa\\_at\\_desy.de](mailto:sympa_at_desy.de) with subject **subscribe** [punch4nfdi-general](#) name surname and empty body

### Latest news

**PUNCH High-Level Milestones**  
PUNCH High-Level Milestones have been defined:  
[PDF, 42KB](#)

**PUNCH-Lunch: an online jour fixe around PUNCH4NFDI topics biweekly Thursdays 12:30-13:30**



PUNCH4NFDI

167 Tweets

Particles, Universe, NuClei and Hadrons for the NFDI



Edit profile

PUNCH4NFDI

@Punch4NFDI

Particles, Universe, NuClei and Hadrons for the NFDI

[punch4nfdi.de](#) Joined October 2020

86 Following 216 Followers

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Tweets & replies

Media

Likes



PUNCH4NFDI @Punch4NFDI · Apr 8

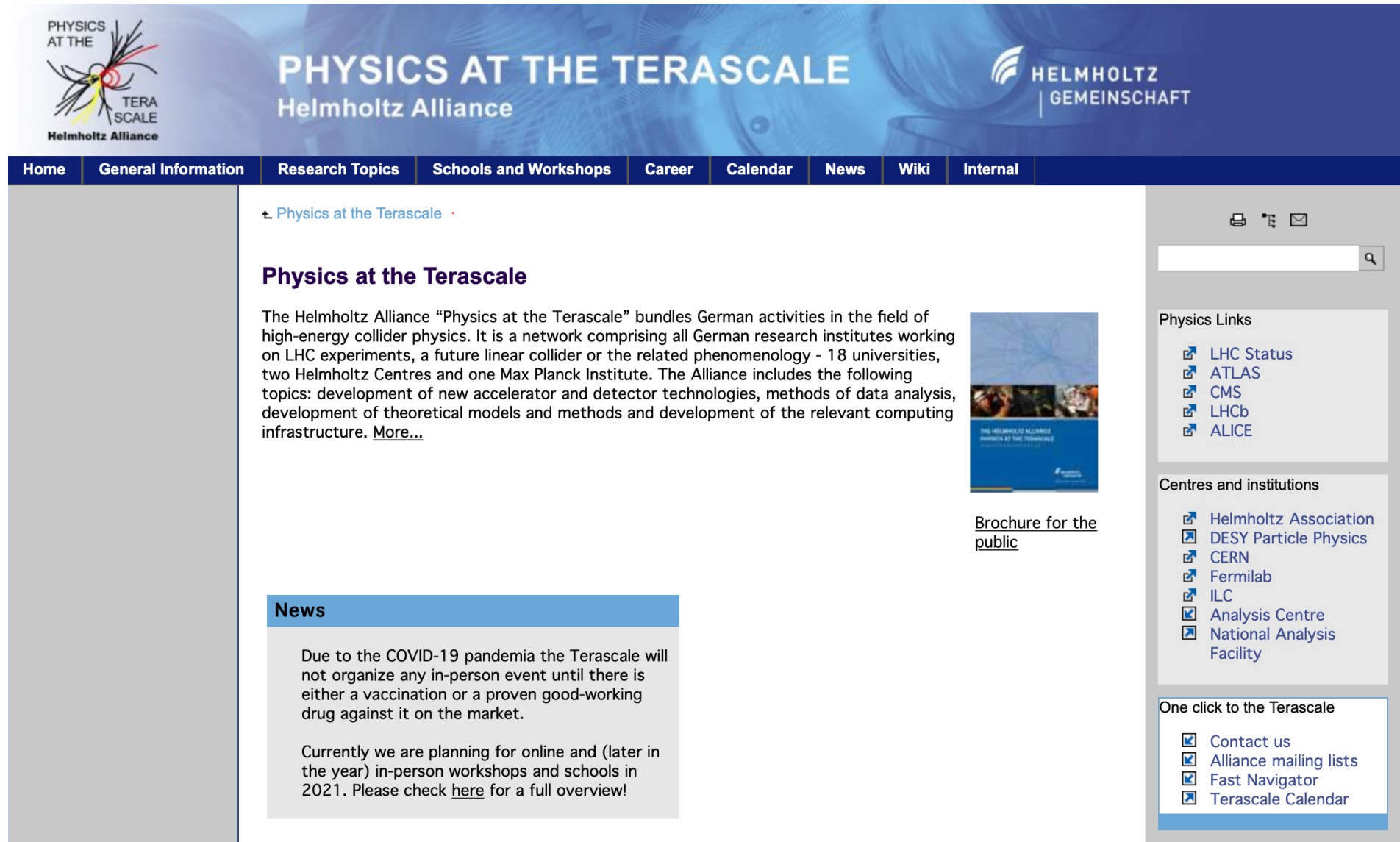
@PUNCH4NFDI-Sprecher @ThomasSchorner wurde als einer der Co-Sprecher für die Task Area "Service Negotiation & Development Process Coordination" der #base4nfdi-Initiative bestätigt! Wir wünschen viel Spaß mit der neuen Aufgabe! #NFDIrocks



# Helmholtz Alliance “Physics at the Terascale”

... since 2007

<https://www.terascale.de>



The screenshot shows the homepage of the "Physics at the Terascale" website. The header features the logo "PHYSICS AT THE TERA SCALE Helmholtz Alliance" on the left and the "HELMHOLTZ GEMEINSCHAFT" logo on the right. A navigation bar contains links: Home, General Information, Research Topics, Schools and Workshops, Career, Calendar, News, Wiki, and Internal. The main content area has a breadcrumb trail "Physics at the Terascale" and a heading "Physics at the Terascale". Below this is a paragraph describing the alliance's mission and a link to "More...". To the right is a "Brochure for the public" with a thumbnail image. A "News" section at the bottom left contains two updates: one about COVID-19 restrictions and another about planning for 2021 workshops. The right sidebar includes a search bar, "Physics Links" (LHC Status, ATLAS, CMS, LHCb, ALICE), "Centres and institutions" (Helmholtz Association, DESY Particle Physics, CERN, Fermilab, ILC, Analysis Centre, National Analysis Facility), and "One click to the Terascale" (Contact us, Alliance mailing lists, Fast Navigator, Terascale Calendar).

**PHYSICS AT THE TERA SCALE**  
Helmholtz Alliance

HELMHOLTZ  
GEMEINSCHAFT

Home General Information Research Topics Schools and Workshops Career Calendar News Wiki Internal

Physics at the Terascale

### Physics at the Terascale

The Helmholtz Alliance “Physics at the Terascale” bundles German activities in the field of high-energy collider physics. It is a network comprising all German research institutes working on LHC experiments, a future linear collider or the related phenomenology - 18 universities, two Helmholtz Centres and one Max Planck Institute. The Alliance includes the following topics: development of new accelerator and detector technologies, methods of data analysis, development of theoretical models and methods and development of the relevant computing infrastructure. [More...](#)

[Brochure for the public](#)

#### News

Due to the COVID-19 pandemia the Terascale will not organize any in-person event until there is either a vaccination or a proven good-working drug against it on the market.

Currently we are planning for online and (later in the year) in-person workshops and schools in 2021. Please check [here](#) for a full overview!

Physics Links

- [LHC Status](#)
- [ATLAS](#)
- [CMS](#)
- [LHCb](#)
- [ALICE](#)

Centres and institutions


- [Helmholtz Association](#)
- [DESY Particle Physics](#)
- [CERN](#)
- [Fermilab](#)
- [ILC](#)
- [Analysis Centre](#)
- [National Analysis Facility](#)

One click to the Terascale

- [Contact us](#)
- [Alliance mailing lists](#)
- [Fast Navigator](#)
- [Terascale Calendar](#)


# Helmholtz Alliance “Physics at the Terascale”

Programme 2022 (still developing)



## PHYSICS AT THE TERASCALE

Helmholtz Alliance



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General Information

Research Topics

Schools and Workshops

Career

Calendar

News

Wiki

Internal

Schools and Work...

All events

LHC-D Workshops

Physics at the Terascale

Schools and Workshops


### Schools / Workshops

One of the Alliance activities is to organise a series of schools and workshops.

#### Workshops and schools in 2022

From	To	Title	Where	Link
21 Feb	25 Feb	14th Terascale Detector Workshop	ONLINE	<a href="#">INDICO page</a>
28 Mar	30 Mar	2nd Pan-European Advanced Statistics School	ONLINE	<a href="#">INDICO page</a>
5 Sep	9 Sep	Introduction to the Terascale	DESY Hamburg	
19 Sep	24 Sep	3rd Terascale Machine Learning School	Hybrid	
29 Nov	30 Nov	Terascale Annual Meeting	Hybrid	<a href="#">INDICO page</a>

Download TERASCALE-Posters



One click to the Terascale