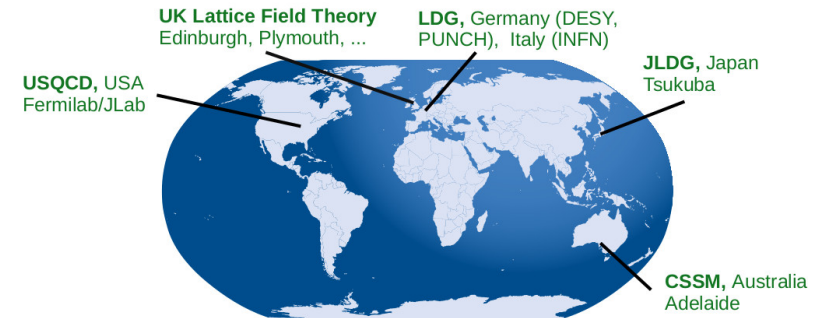# International Lattice Data Grid (ILDG)

Organization:

- federation of autonomous "Regional Grids"

- forming a single Virtual Organization (VO)

- 2 Working Groups (metadata and middleware) + Board

Basic Concepts:

- ILDG defines standardized metadata schema, file-format, API   `[hpc.desy.de/ildg]`

- Regional grids (with specific policies, technologies, resources, . . .)
  provide catalogue services + storage

  E.g. LDG makes to a large extent also use of WLCG technology and services
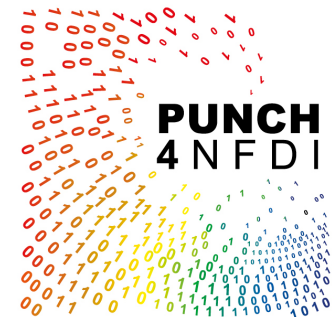
Towards ILDG 2.0

Situation around 2020

✘ Usability of ILDG services had severely degraded

✘ ILDG had started 10 years before formulation of FAIR principles

Aims for ILDG 2.0

➜ Become fully FAIR-compliant

➜ Re-activate and organize regional grids

➜ Modernize concepts and basic gearbox

Critically relied on PUNCH4NFDI funding for a professional SW developer

LDG Resources and Services

❒ Storage Elements

site	type / interf	legacy	tolerated[*]	comment
INFN-CNAF	disk / StoRM	2 TB	0.1 PB	
DESY HH	tape / dCache	0 TB	1 PB	
DESY ZN	tape / dCache	70 TB	1 PB	(2026)
Jülich	tape / dCache	200 TB	1 PB	(per year)

[*] no formal agreement at any site

❒ Metadata and File Catalogue
(operational concept at DESY ZN)

❒ Webpage (LDG and ILDG-wide)

- `Services.xml` — URL of all services
- "Simple listings" — read-only access to all catalogues
- VO Policy