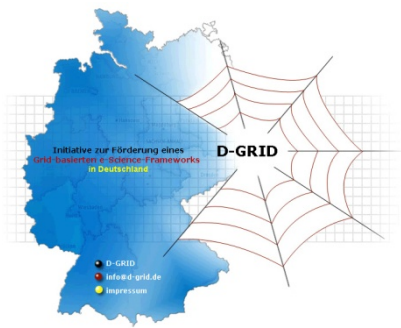# iRODS as Future Data Grid Backend for TextGrid ?

Modular platform for collaborative textual editing
Creating a community grid for the humanities

http://www.textgrid.de

GEFÖRDERT VOM

Bundesministerium
für Bildung
und Forschung

TextGrid – the Project

- First Grid community project in the Arts and Humanities in Germany

- Collaborative project of eight academic and commercial partners

- Involves Arts and Humanities scholars, IT professionals and information specialists

- Part of the German D-Grid initiative

- Funded by the German Ministry of Education and Research (BMBF) with € 1.74 Mio plus an additional investment of € 600,000 for grid storage
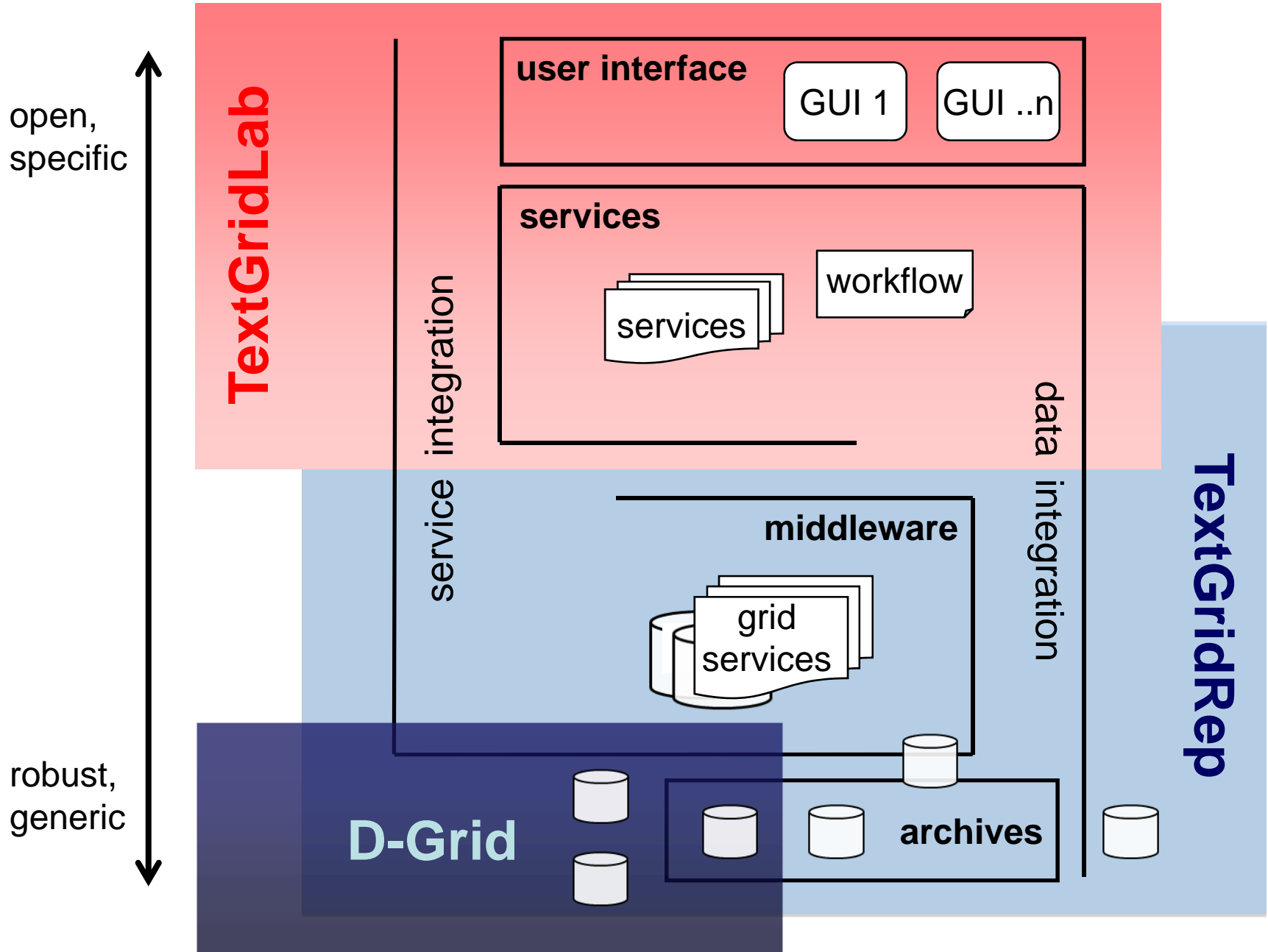
Goals

- Establish a ***virtual research infrastructure*** for the Arts and Humanities
- Provide a ***Service Grid*** (i.e. a virtual research environment for collaborative work with distributed resources)
- Build up a ***Data Grid*** (a virtual archive for long-term data preservation)
- Interconnect Arts and Humanities scholars, IT professionals and information specialists

→ **Contribute to the preservation and the keeping alive of our Cultural Heritage**
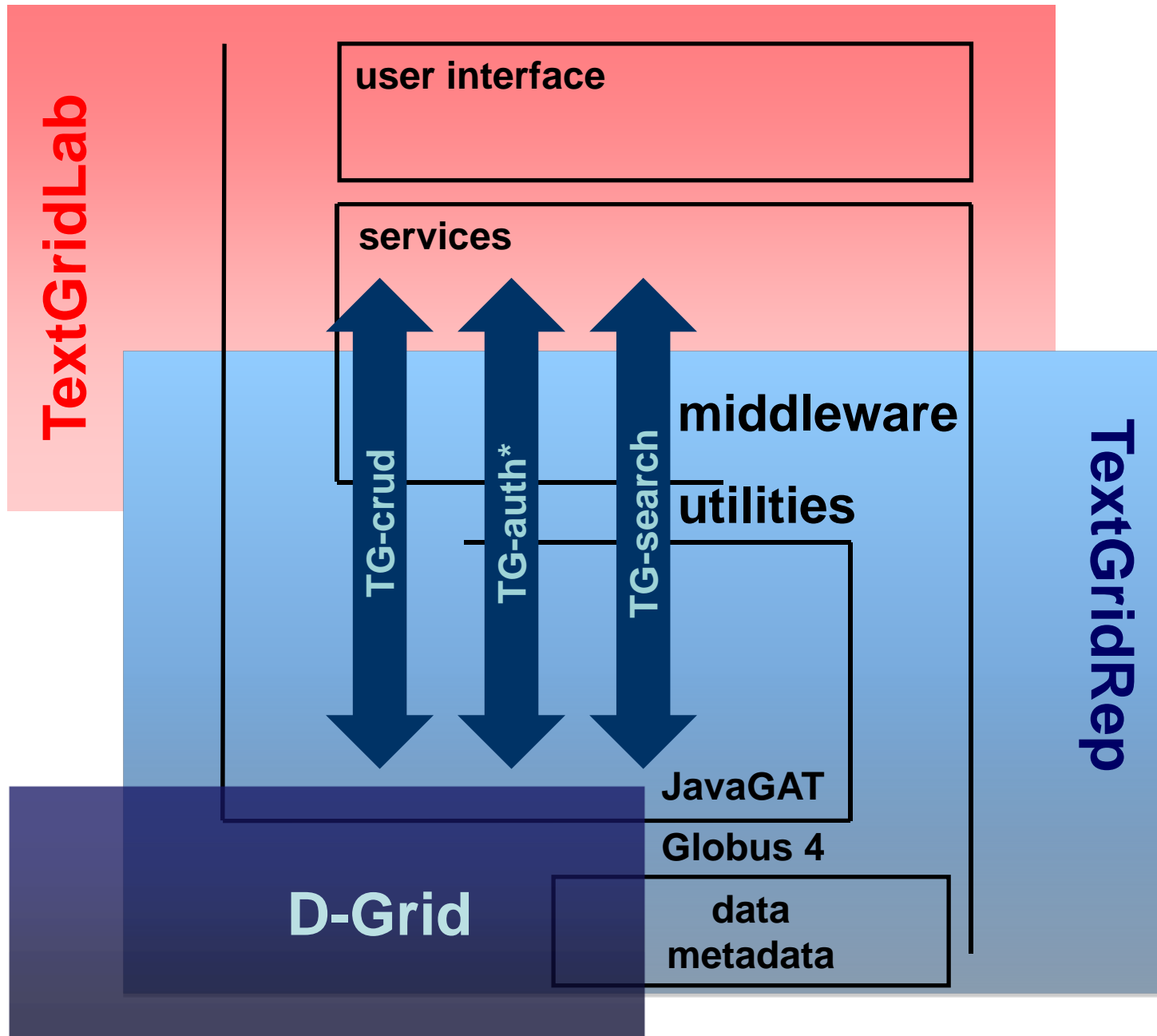
Prospects

- Foster new, cooperative forms of e-Research in the Arts and Humanities

- Be integral part of a national e-Humanities initiative

- Develop generic Grid services that can be used by other Grid communities

- Collaborate with international e-Humanities and e-Research initiatives (DARIAH, eAQUA, CLARIN, DRIVER, Interedition, SHAMAN etc.)
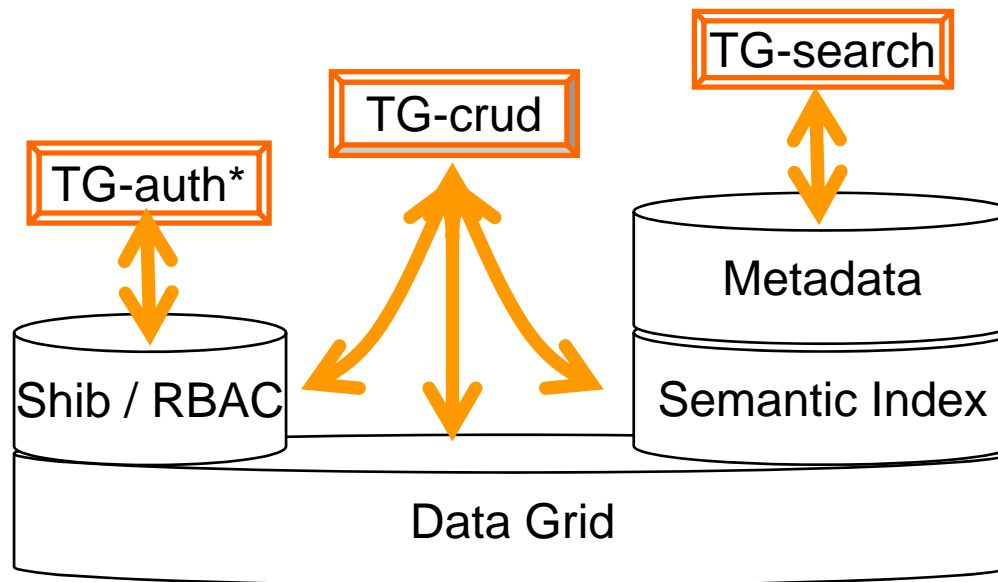
The Architecture – horizontal layers
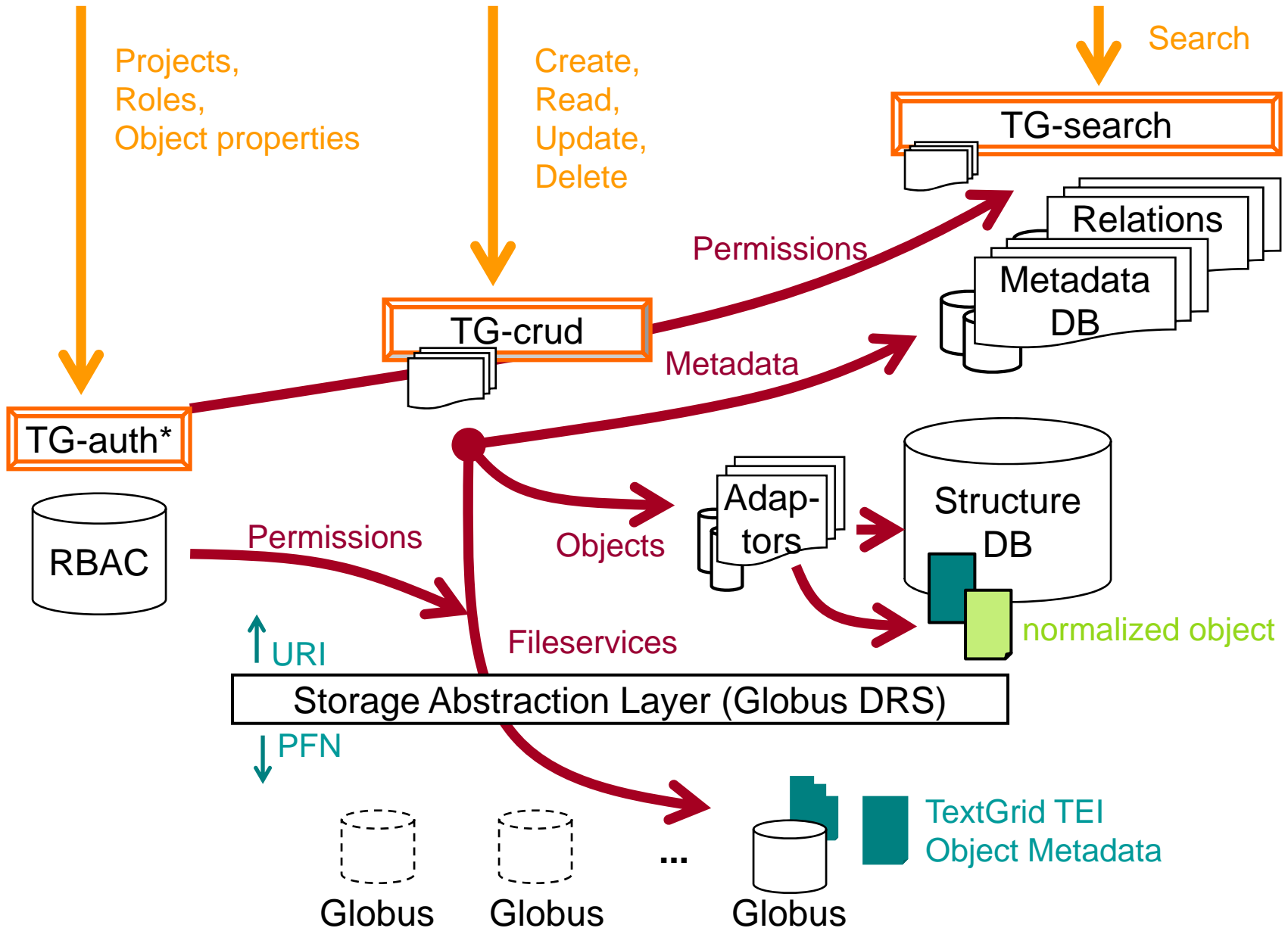
open,
specific

robust,
generic

TextGridLab

TextGridRep

D-Grid

user interface

GUI 1

GUI ..n

services

workflow

services

service integration

data integration

middleware

grid
services

archives

Connecting the layers: The TG-utilities

TextGridLab

TextGridRep

user interface

services

TG-crud TG-auth* TG-search

middleware

utilities

JavaGAT

Globus 4

D-Grid

data
metadata

The TextGrid Utilities – Slightly Simplified

The TextGrid Utilities – Some More Details

Projects,
Roles,
Object properties

Create,
Read,
Update,
Delete

Search

TG-search

TG-crud

Permissions

Relations

Metadata
DB

Metadata

TG-auth*

RBAC

Permissions

Objects

Adap-
tors

Structure
DB

normalized object

URI

Fileservices

PFN

Storage Abstraction Layer (Globus DRS)

TextGrid TEI
Object Metadata

Globus   Globus   ...   Globus

Too much logic in the middleware?

The Idea …
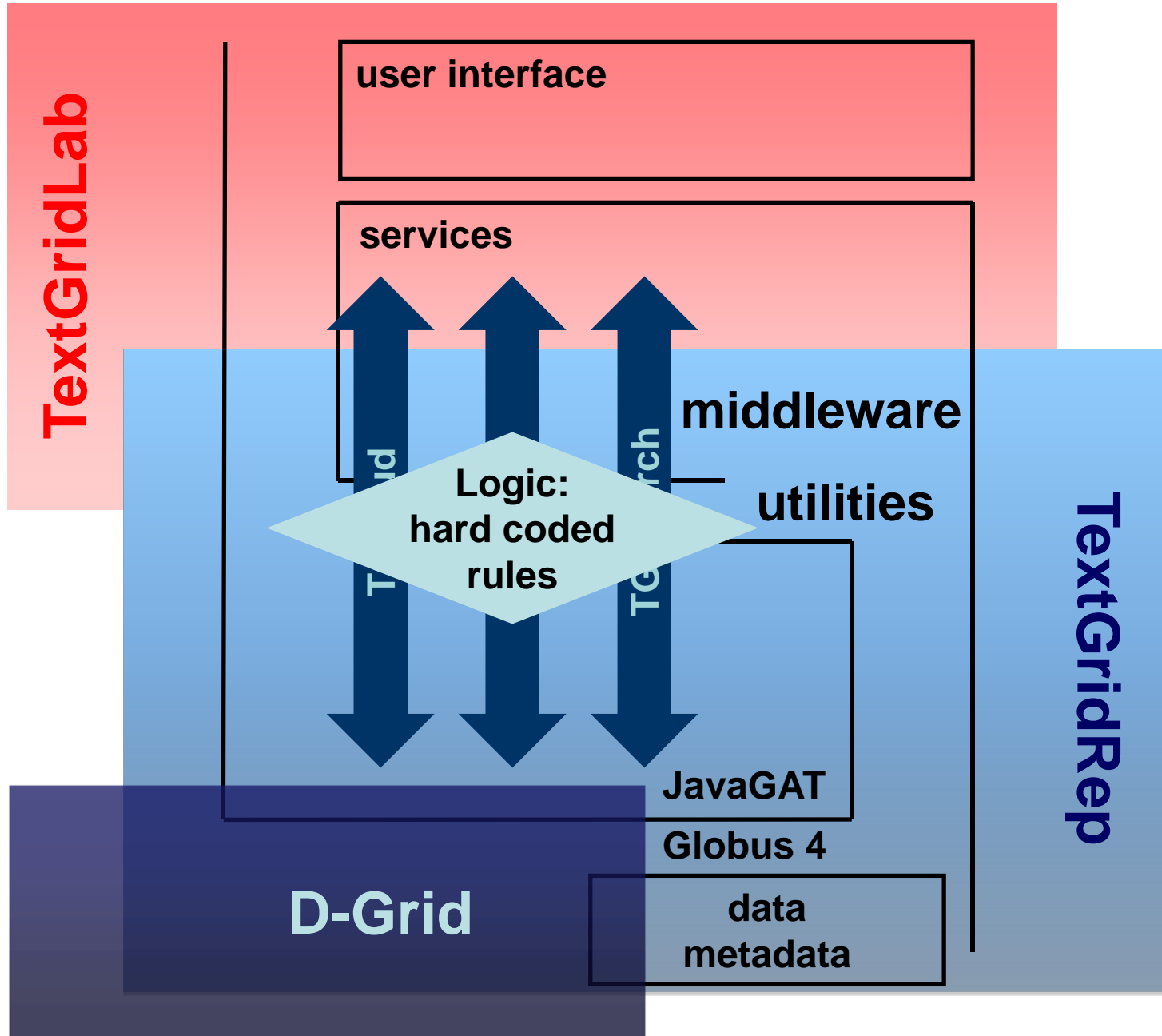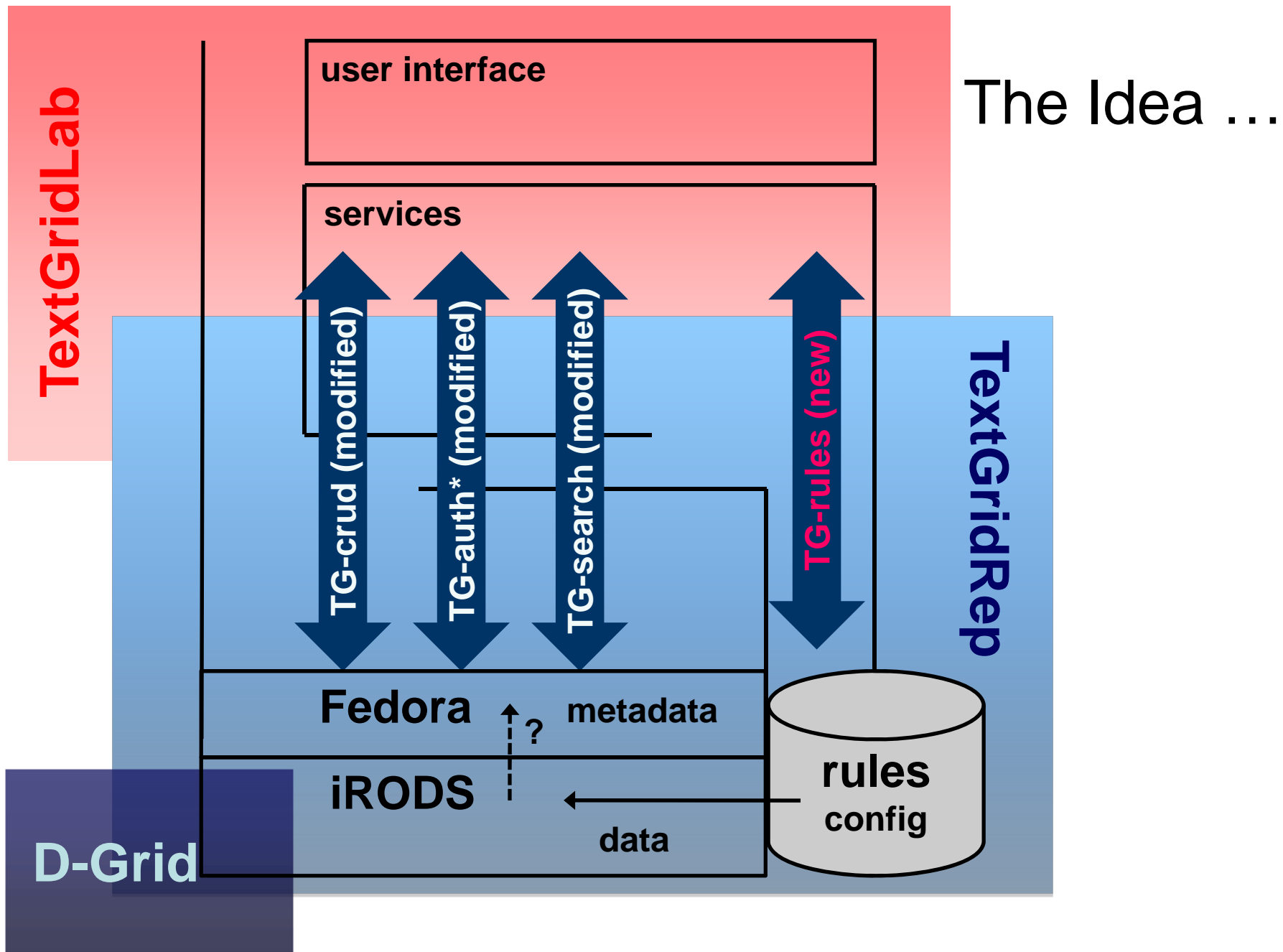
- Good idea?
- Other solutions?
- ...