Karlsruhe Institute of Technology

Collaborative Research Project “Episteme in Motion”

Rainer Stotzka, Danah Tonne

Institute for Data Processing and Electronics

CRC „Episteme in Motion“

Sonderforschungsbereich 980
EPISTEME IN BEWEGUNG

Transfer of Knowledge from the Ancient World to the Early Modern Period

2. Funding period

2016 – 2020

http://www.sfb-episteme.de

KIT Karlsruher Institut für Technologie
TECHNISCHE UNIVERSITÄT DARMSTADT
HUMBOLDT-UNIVERSITÄT ZU BERLIN
Max-Planck-Institut für Wissenschaftsgeschichte
Freie Universität Berlin

CRC „Episteme in Motion“

Episteme = knowledge

Knowledge is not stable, but dynamic

→ Knowledge (documents) itself

→ Elements within the documents

Dynamics:

- Temporal
- Spatial
- Other relationships

Conceptual groups:

- Knowledge oiconomies
  Wissensoikonomien
- Transfer and negation
- Media and materials

CRC „Episteme in Motion“

Episteme = knowledge

Knowledge is not stable, but dynamic

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→ Elements within the documents

Dynamics:

- Temporal
- Spatial
- Other relationships

The Transfer of **Medical** Episteme in the ‘Encyclopaedic’ Compilations of Late Antiquity

The Knowledge of **Art**. Epistemic and Aesthetic *Evidentia* in the Renaissance

Spielteufel, **Ship of Fools**, *Danse Macabre*: Figurations of Hazardous Knowledge in the Middle Ages and the Early Modern Period

The **Marvellous** as a Configuration of Knowledge in Medieval Literature

Premodern **Cosmological** Formations of Knowledge

Chemistry and **Alchemy**

Guest-Project „ Moving Manuscripts“

Andrea Rapp, **Philipp** Hegel, Technische Universität Darmstadt
Fachbereich Gesellschafts- und Geschichtswissenschaften
Institut für Sprach- und Literaturwissenschaft

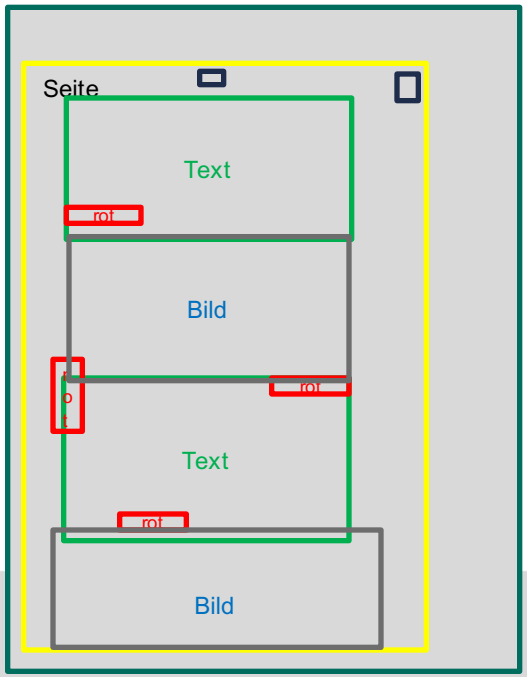
Danah Tonne, **Swati** Chandna, **Rainer** Stotzka,
Karlsruher Institut für Technologie
Institut für Prozessdatenverarbeitung und Elektronik

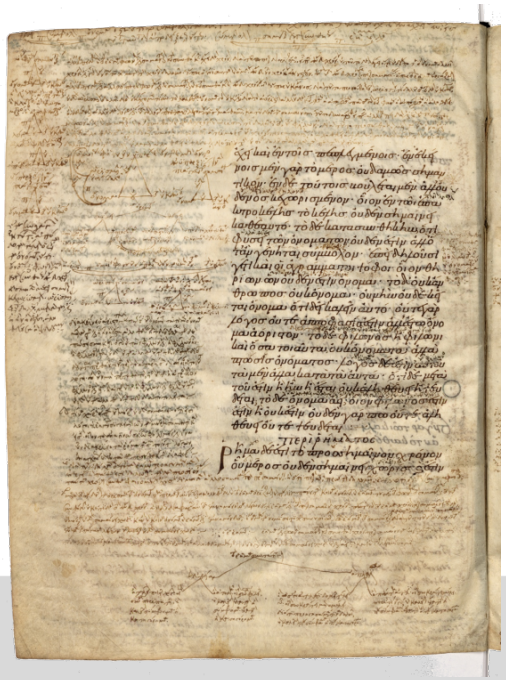
Guest -Project „ Moving Manuscripts“

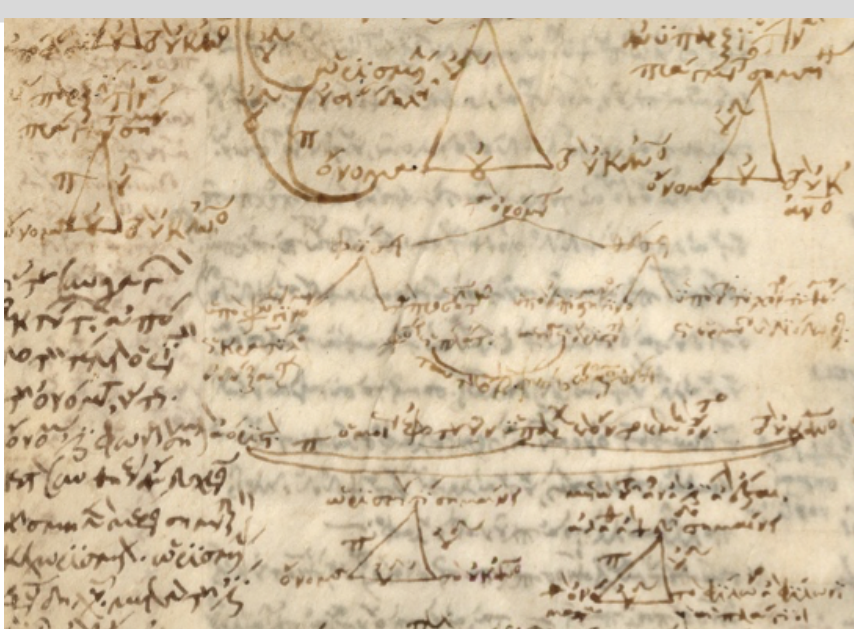
Objectives

- Development of methods and software for
  - Automatic feature analysis,
  - Documentation,
  - Visual analysis

  of layout features of manuscript and book pages







νοις μὲν γὰρ τὸ μέρος οὐδαμῶς σημαν
τικόν· ἐν δὲ τούτοις κούλεται μὲν ἀλλ' οὐ
δενὸς κεχωρισμένον· οἷον ἐν τῷ ἐπα
κτρο κέλης τὸ κέλης οὐδὲν σημαίνει
καθὲ αὐτό· τὸ δὲ κατασυνθήκην, ὅτι
φύσει τῶν ὀνομάτων οὐδὲν ἐστιν ἀλλ' ὃ
τἂν γένηται συμκόλον· ἐπεὶ δηλοῦσι
γέτι καὶ οἱ ἀγράμματοι τόφοι· οἷον θη
ρίων ὧν οὐδὲν ἐστιν ὄνομα· τὸ δ' οὐκ ἄν
θρωπος οὐκ ὄνομα· οὐ μὴν οὐδὲ κεῖ
ται ὄνομα ὅτι δεῖ καλεῖν αὐτό· οὔτε γὰρ
λόγος οὔτε ἀποφασίς ἐστιν ἀλλ' ἔστω ὄνο
μα ἀόριστον· τὸ δὲ φίλωνος ἢ φίλωνι
καὶ ὅσα τοιαῦτα, οὐκ ὀνόματα ἀλλὰ
πτώσεις ὀνόματος· λόγος δὲ ἐστιν αὐτοῦ
τὰ μὲν ἄλλα κατὰ τὰ αὐτά· ὅτι δὲ μετὰ
τοῦ ἐστιν ἢ ἦν ἢ ἔσται οὐκ ἀληθεύει ἢ τεύ
δεται, τὸ δὲ ὄνομα ἀεί, οἷον φίλωνος ἐστιν
ἐστιν ἢ οὐκ ἐστιν οὐδὲν γὰρ πω οὔτε ἀλη
θεύει οὔτε τεύδεται:

Περὶ ῥήματος

Ῥῆμα δέ ἐστι τὸ προσημαίνον χρόνον
οὗ μέρος οὐδὲν σημαίνει χωρίς ἐστιν

INF-Project „Travelling Books“

Gyburg Uhlmann, **Michael** Krewet, Freie Universität Berlin
Fachbereich Philosophie und Geisteswissenschaften
Institut für Griechische und Lateinische Philologie

Albert Geukes, Freie Universität Berlin
Center für Digitale Systeme (CeDiS)

Danah Tonne, **Rainer** Stotzka, Karlsruher Institut für Technologie
Institut für Prozessdatenverarbeitung und Elektronik

INF-Project „Travelling Books“

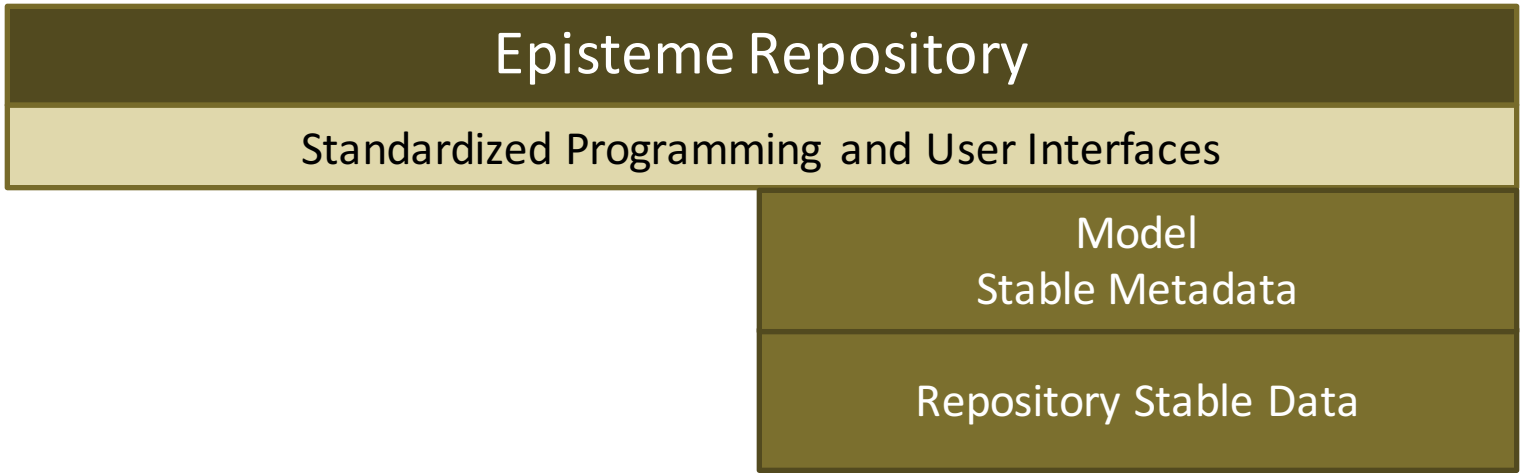
Objectives

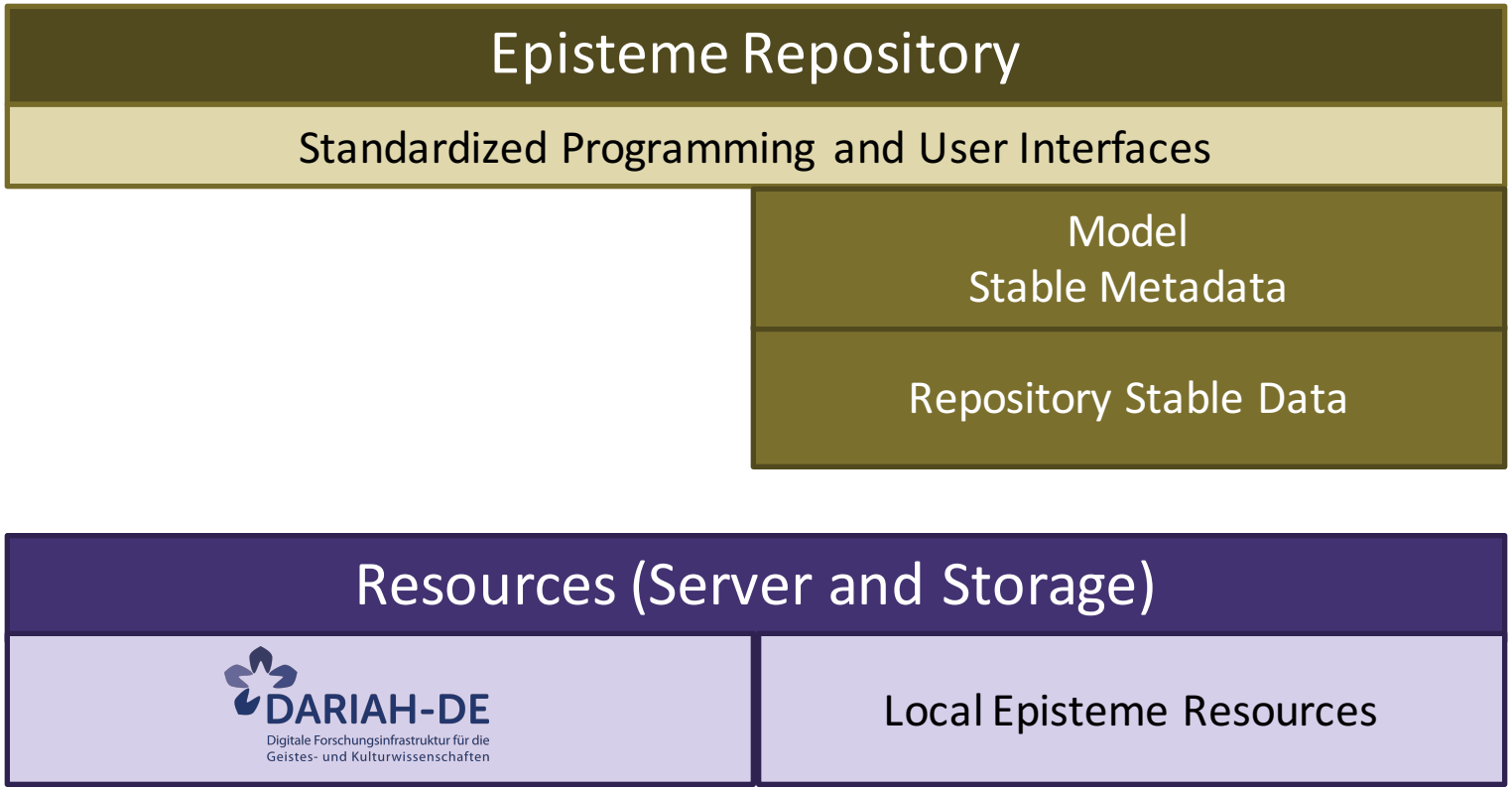
- Analysis of old traditional „data“, e.g. text and image corpora, as dynamically interlinked elements
- Design of a data repository including „stable“ and „dynamic“ metadata
- Development of tools for analysis and visualization of interlinked objects
- Sustainability

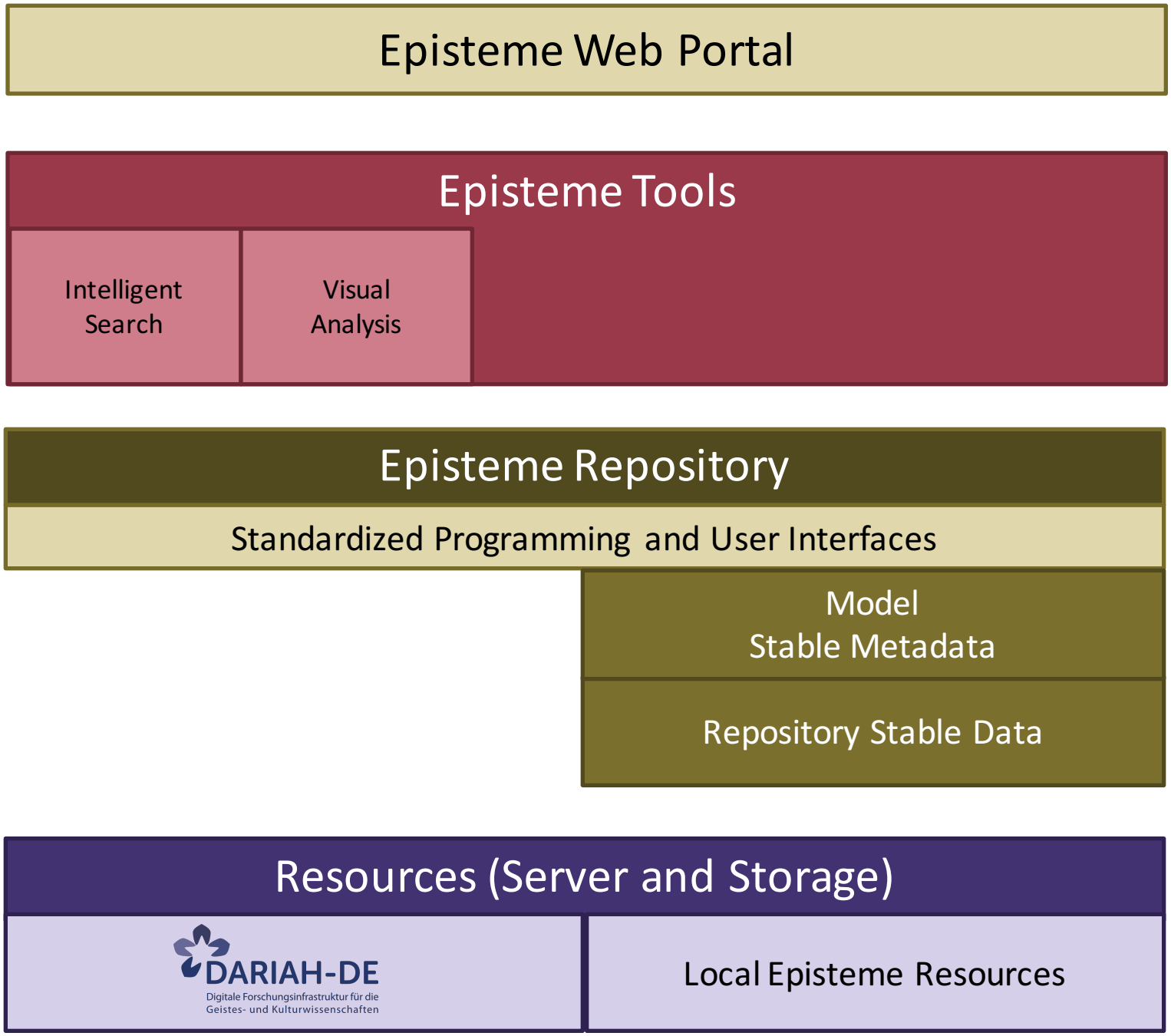
→ **Service project**:
  - Episteme data repository
  - Data tools

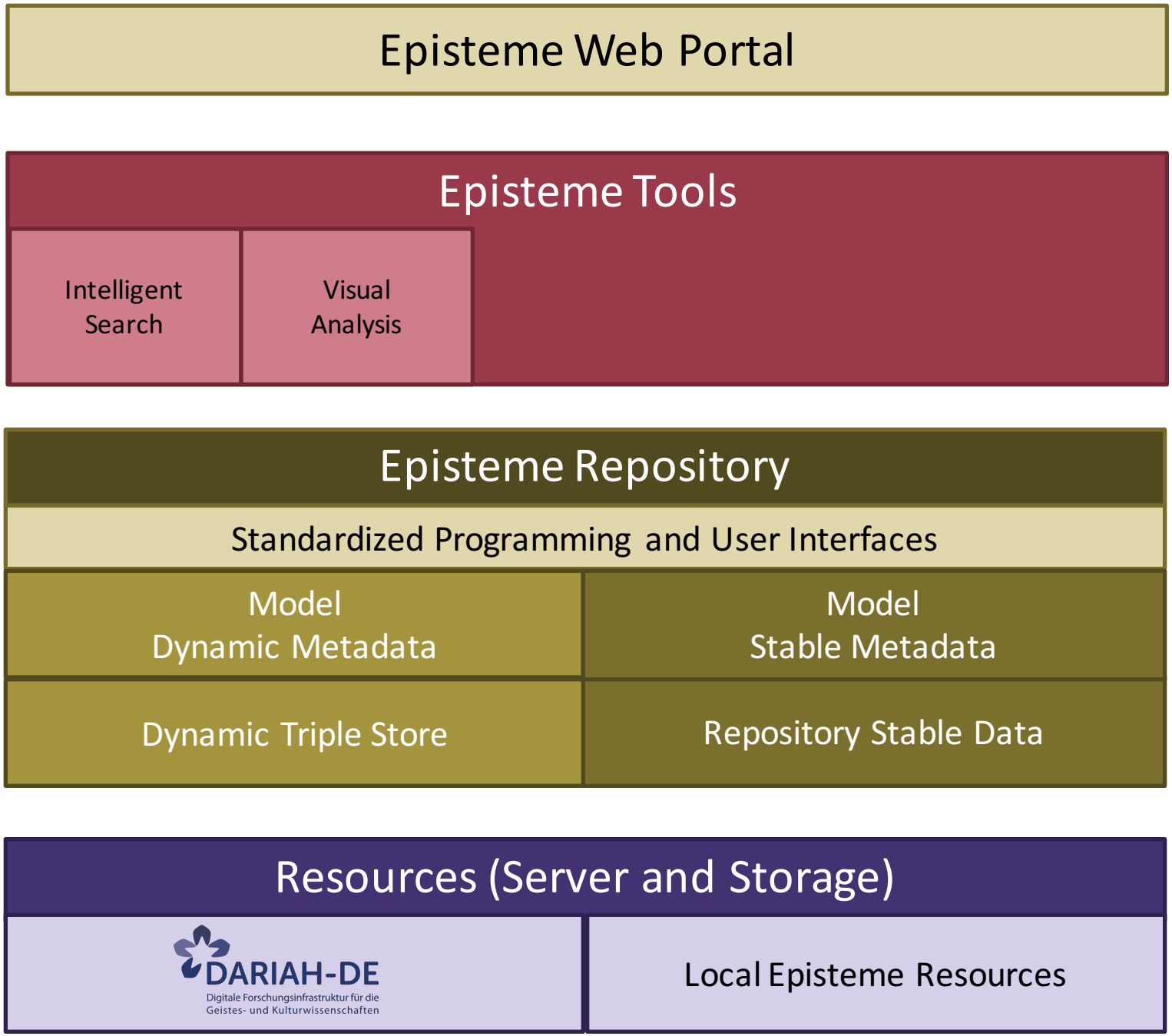
→ **Research project**:
  - Humanities data analysis
  - Dynamic metadata

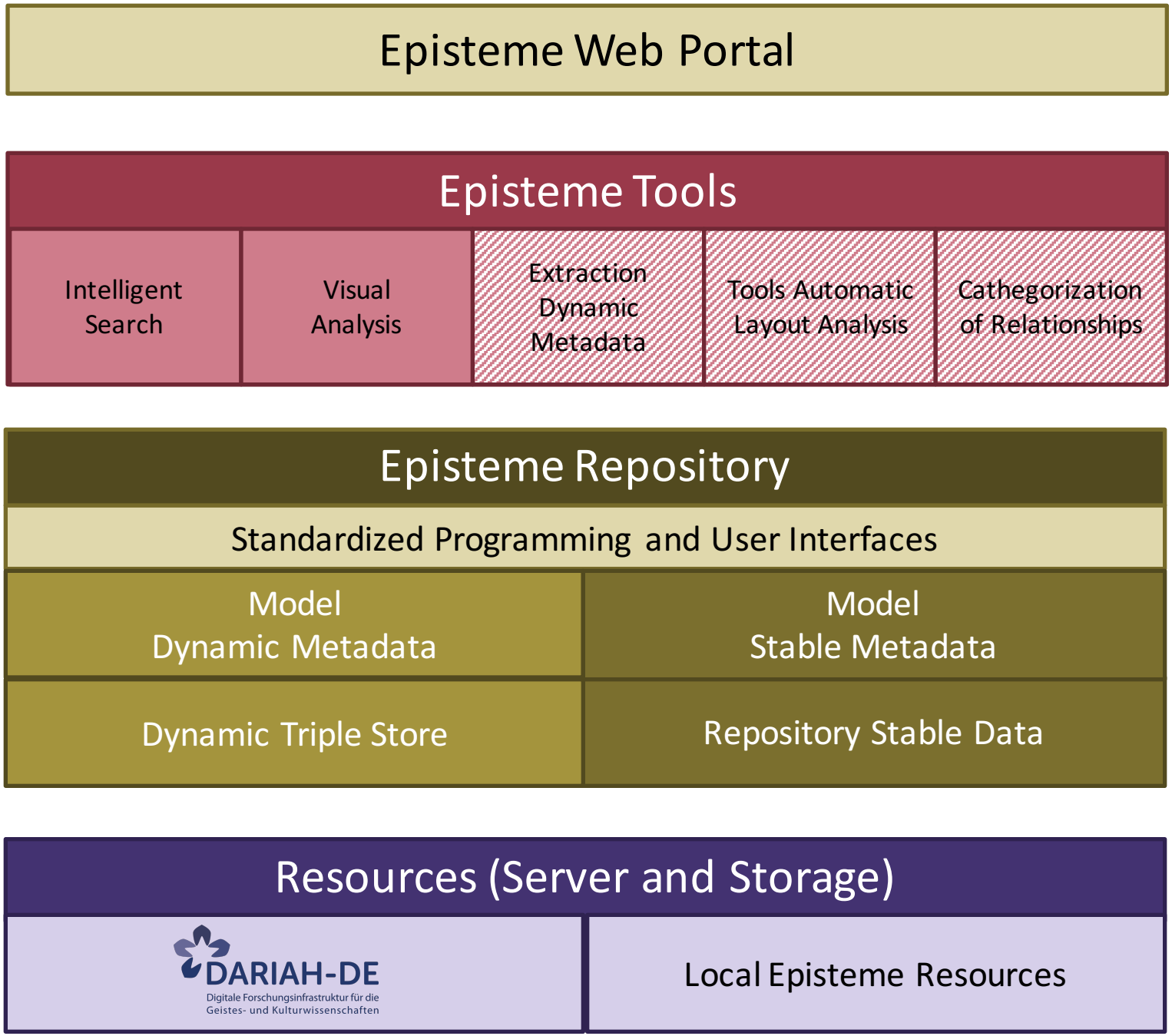
→ **Sustainability**:
  - 1 additional position
  - Cooperation DARIAH


Episteme Repository
Standardized Programming and User Interfaces
Model
Stable Metadata
Repository Stable Data


Episteme Repository
Standardized Programming and User Interfaces
Model
Stable Metadata
Repository Stable Data
Resources (Server and Storage)
DARIAH-DE
Digitale Forschungsinfrastruktur für die
Geistes- und Kulturwissenschaften
Local Episteme Resources


Episteme Web Portal
Episteme Tools
Intelligent Search
Visual Analysis
Episteme Repository
Standardized Programming and User Interfaces
Model
Stable Metadata
Repository Stable Data
Resources (Server and Storage)
DARIAH-DE
Digitale Forschungsinfrastruktur für die Geistes- und Kulturwissenschaften
Local Episteme Resources


Episteme Web Portal
Episteme Tools
Intelligent Search
Visual Analysis
Episteme Repository
Standardized Programming and User Interfaces
Model Dynamic Metadata
Model Stable Metadata
Dynamic Triple Store
Repository Stable Data
Resources (Server and Storage)
DARIAH-DE
Digitale Forschungsinfrastruktur für die Geistes- und Kulturwissenschaften
Local Episteme Resources


Episteme Web Portal
Episteme Tools
Intelligent Search
Visual Analysis
Extraction Dynamic Metadata
Tools Automatic Layout Analysis
Cathegorization of Relationships
Episteme Repository
Standardized Programming and User Interfaces
Model Dynamic Metadata
Model Stable Metadata
Dynamic Triple Store
Repository Stable Data
Resources (Server and Storage)
DARIAH-DE
Digitale Forschungsinfrastruktur für die Geistes- und Kulturwissenschaften
Local Episteme Resources

Repository Pilot Projects

De Interpretatione - Aristoteles

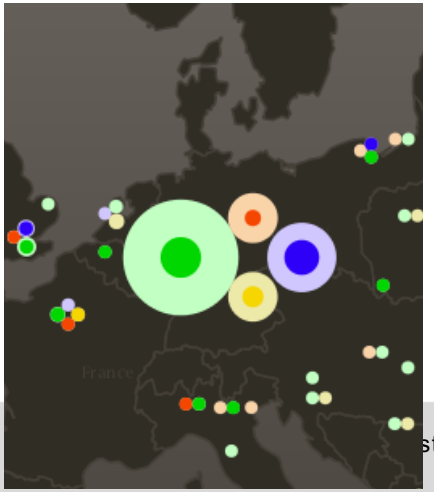
- Scans of Aristoteles texts
- Re-use and enhancement of eCodicology image analysis tools

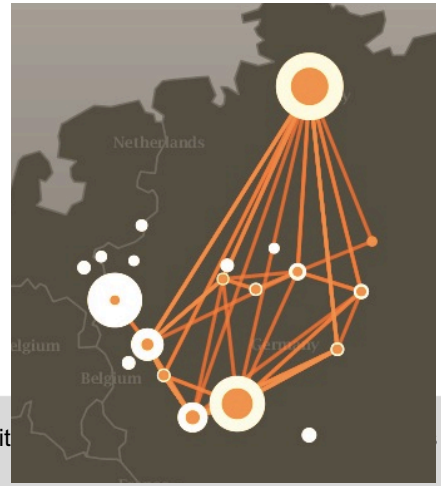
Egyptian Witnesses

- Transliterations of pyramid texts
- Study of possibilities of tools for automatic text analysis

Siut I:

[223] *ir rmč.t nb.t sḫ3(.w) nb rḫ-(i)ḫ.t nb nčś nb tw3 nb*
224 *irį.t(i)=śn šṭ-ḫrw m is pn*
ḥčį.t(i)=śn sḫ3(.w)=f nśś.t(i)=śn n ḫn.tiw=f
ḫr=[ś]n n čnṭ nį Čḥwtỉ śpṭ wn im(.i) nčr.w
iw=śn n ʿč.t n.t sr3.w(?)[826] 225 *ḥm.w bit im(.i)w ḥw.wt wr.wt*





Conclusions

- Outstanding review
- Highly visible → DFG LIS

- Results for LSDMA:
  - Repository interoperability
  - Dynamic metadata
  - Seamless integration of analysis tools based on interoperable interfaces
    → **scientific exploitation of repository contents**