



Kernkomponenten und ETL-Prozesse

in einem MIRACUM DIZ

Prof. Dr. Hans-Ulrich Prokosch

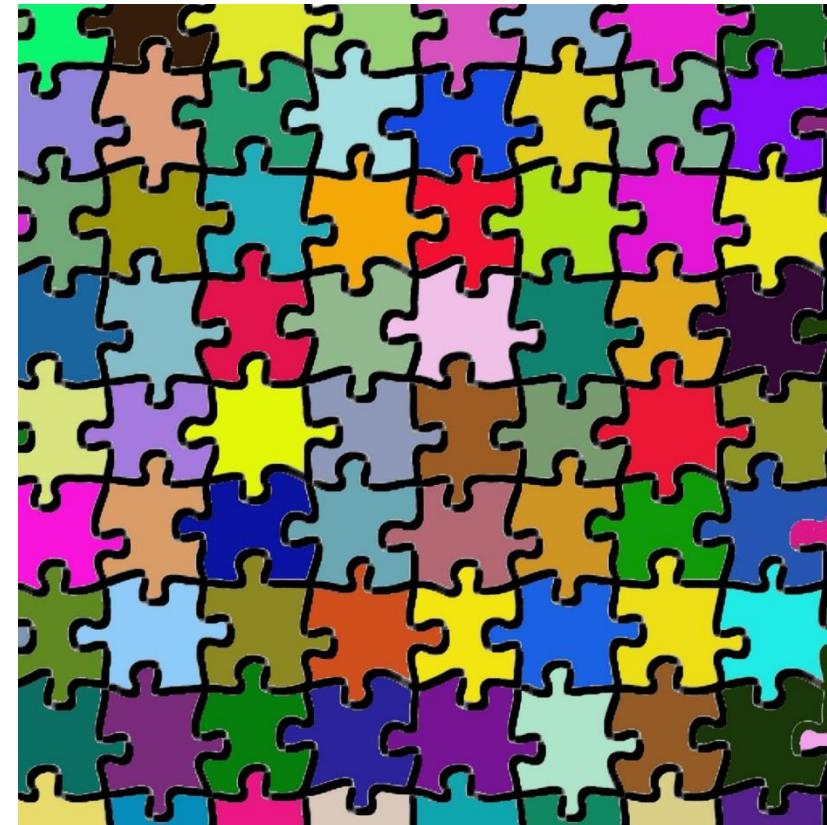
Lehrstuhl für Medizinische Informatik der FAU Erlangen-Nürnberg,
CIO Universitätsklinikum Erlangen
MIRACUM Koordinator

MIRACOLIX – unsere Toolbox

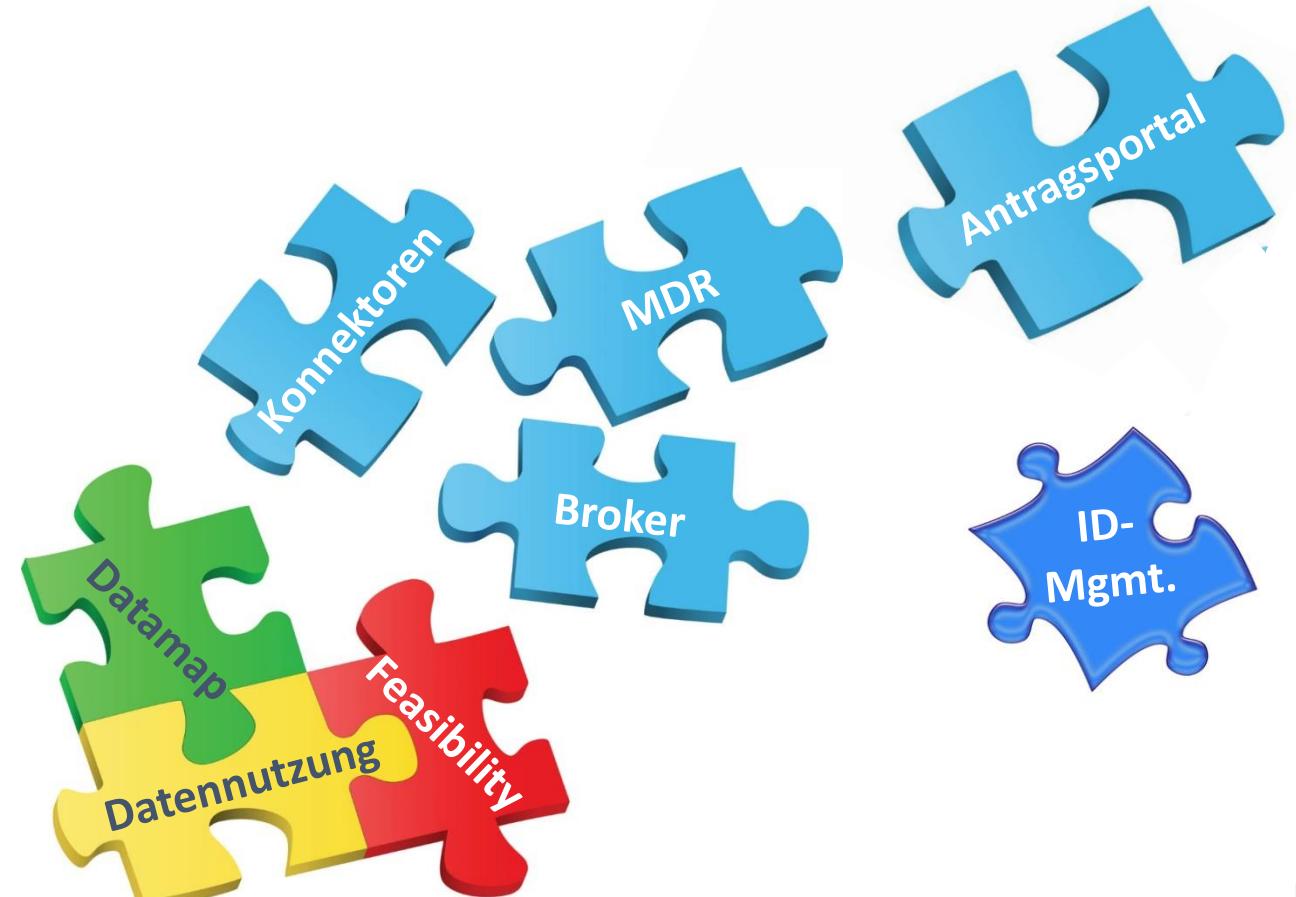
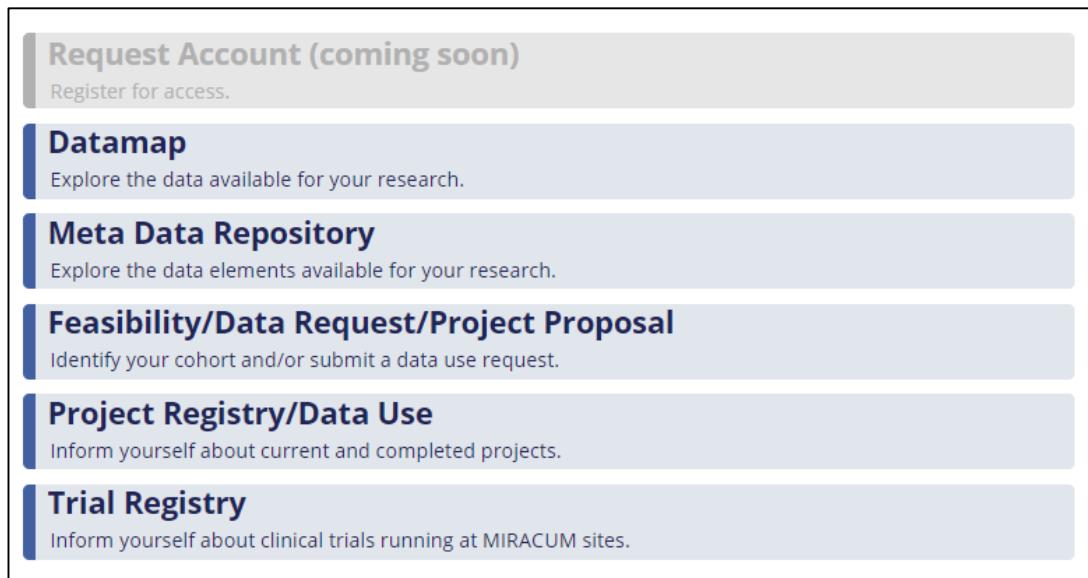


und viele mehr

In einem DIZ müssen alle Tools
gut ineinander passen



Erste Schritte zum MIRACUM Forschungsportal



Und welche Tools verbergen sich dahinter?

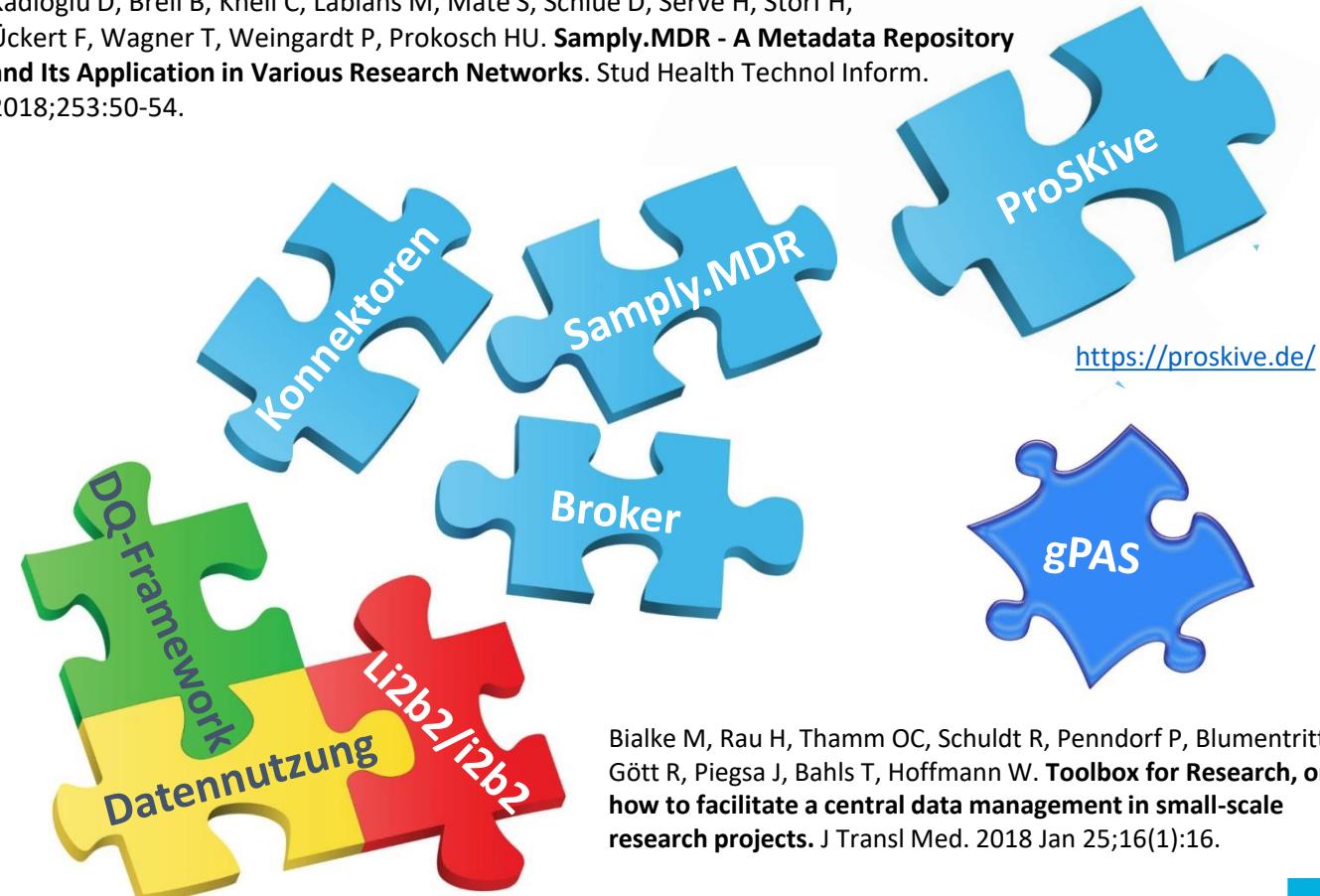


Kapsner LA, Kampf MO, Seuchter SA, Kamdje-Wabo G, Gradinger T, Ganslandt T, Mate S, Gruendner J, Kraska D, Prokosch HU. **Moving Towards an EHR Data Quality Framework: The MIRACUM Approach.** Stud Health Technol Inform. 2019 Sep 3;267:247-253.

Majeed RW, Xu T, Stöhr MR, Röhrig R. **Li2b2-Façade: Simulation of i2b2 Data Warehouse Server and Client for Interaction with Other Systems.** Stud Health Technol Inform. 2017;245:1275.

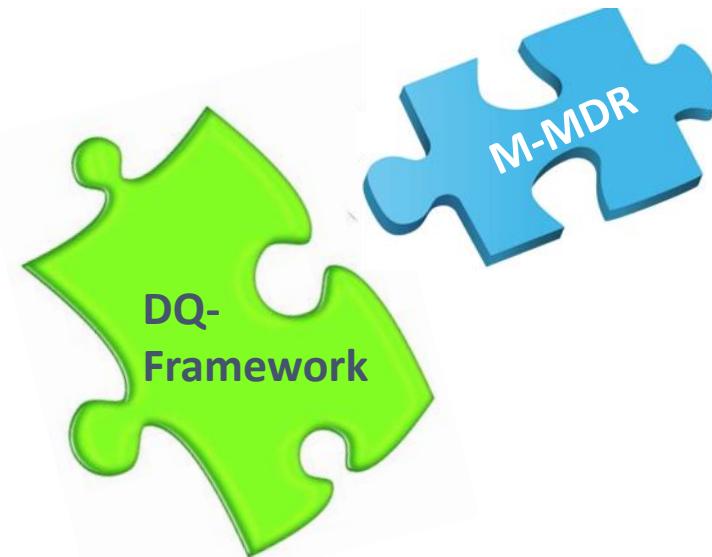
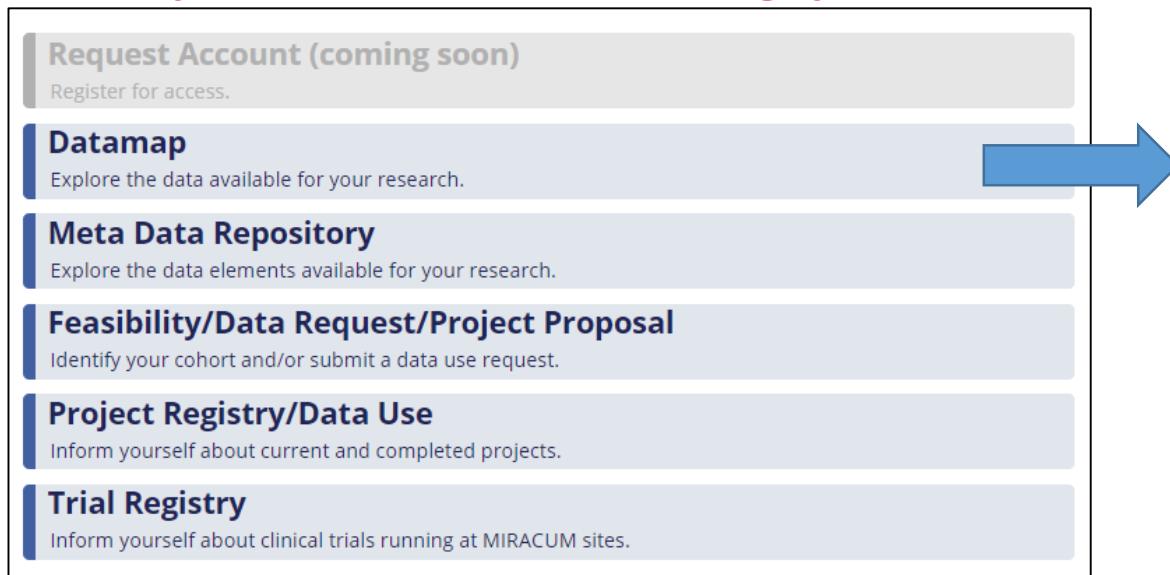
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Kadioglu D, Breil B, Knell C, Lablans M, Mate S, Schlue D, Serve H, Storf H, Ückert F, Wagner T, Weingardt P, Prokosch HU. **Simply.MDR - A Metadata Repository and Its Application in Various Research Networks.** Stud Health Technol Inform. 2018;253:50-54.



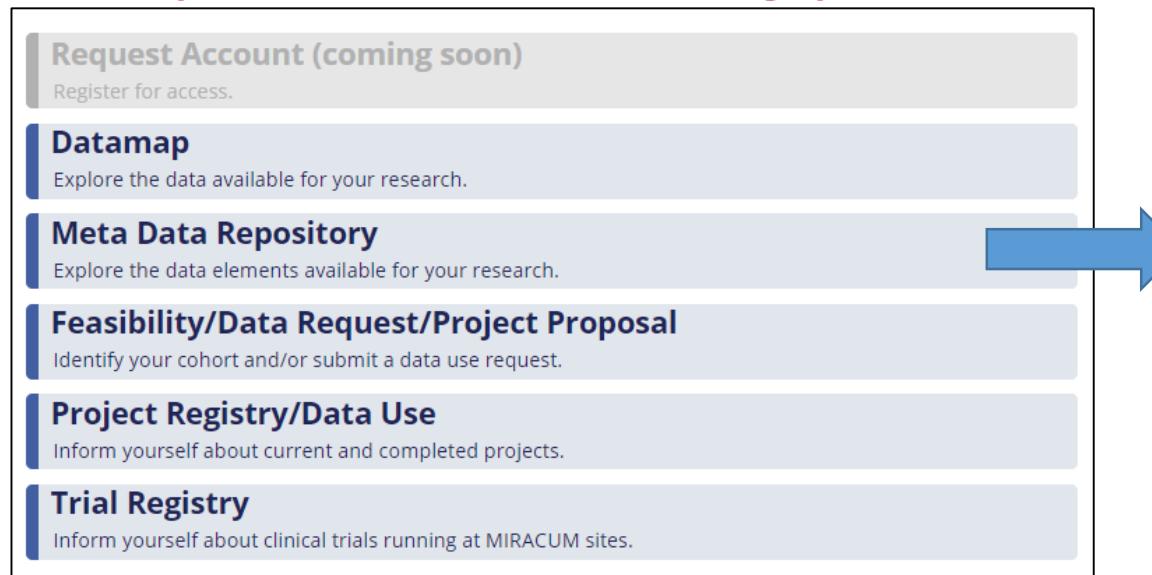
Bialke M, Rau H, Thamm OC, Schuldt R, Penndorf P, Blumentritt A, Gött R, Piegsa J, Bahls T, Hoffmann W. **Toolbox for Research, or how to facilitate a central data management in small-scale research projects.** J Transl Med. 2018 Jan 25;16(1):16.

Welche Tools verbergen sich hinter den Menüpunkten des Forschungsportals ?



Kapsner LA, Kampf MO, Seuchter SA, Kamdje-Wabo G, Gradinger T, Ganslandt T, Mate S, Gruendner J, Kraska D, Prokosch HU. **Moving Towards an EHR Data Quality Framework: The MIRACUM Approach.** Stud Health Technol Inform. 2019 Sep 3;267:247-253.

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A screenshot of the MIRACOLIX toolbox menu. The menu items are:

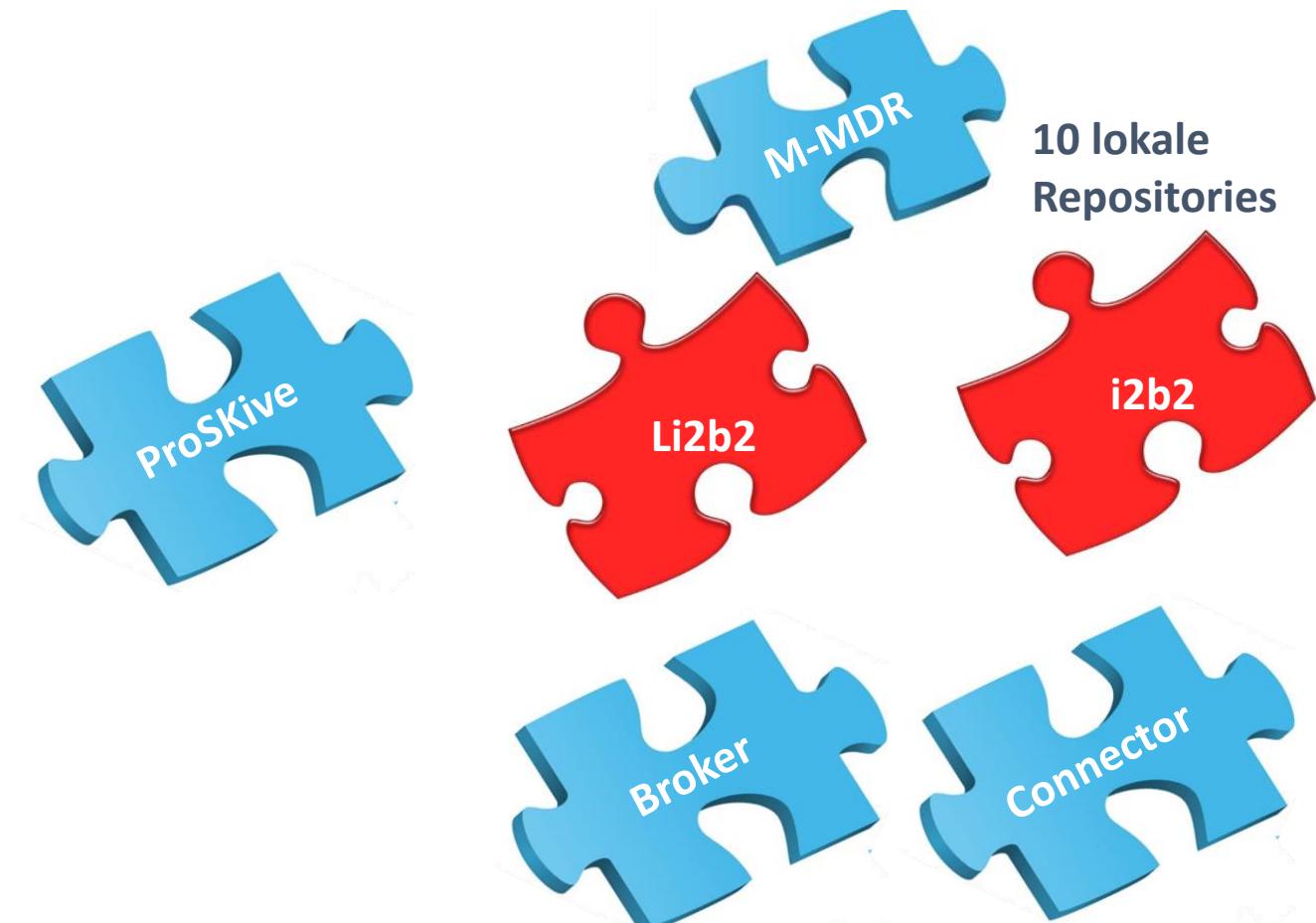
- Request Account (coming soon)
Register for access.
- Datamap
Explore the data available for your research.
- Meta Data Repository
Explore the data elements available for your research.
- Feasibility/Data Request/Project Proposal
Identify your cohort and/or submit a data use request.
- Project Registry/Data Use
Inform yourself about current and completed projects.
- Trial Registry
Inform yourself about clinical trials running at MIRACUM sites.

A blue arrow points from the "Meta Data Repository" item to a blue puzzle piece icon labeled "M-MDR".



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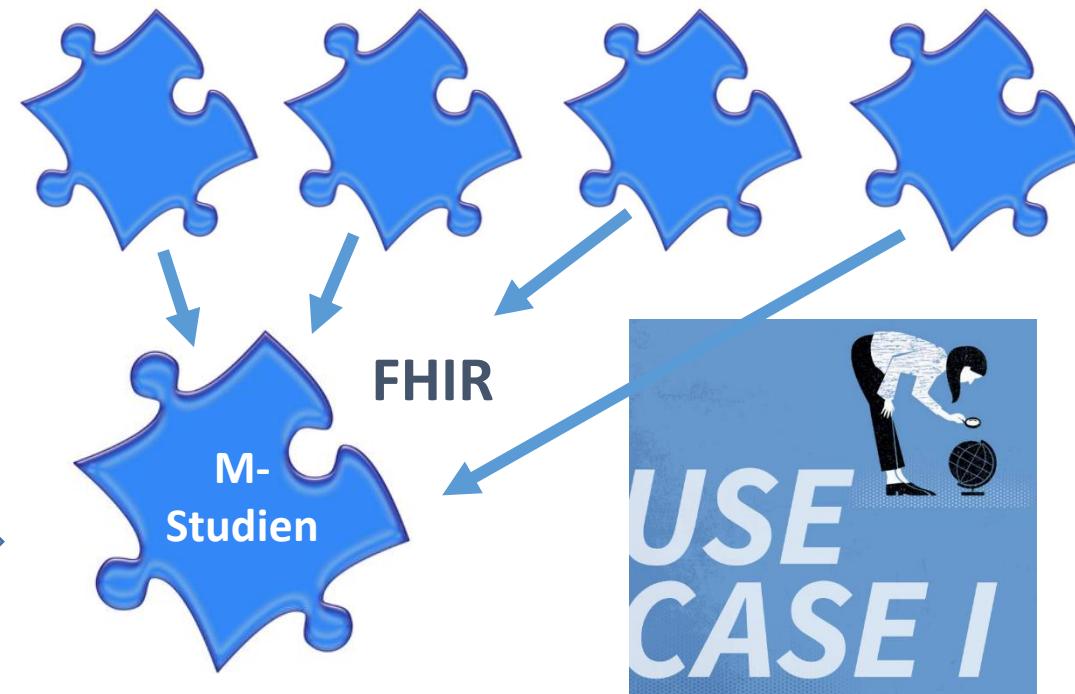
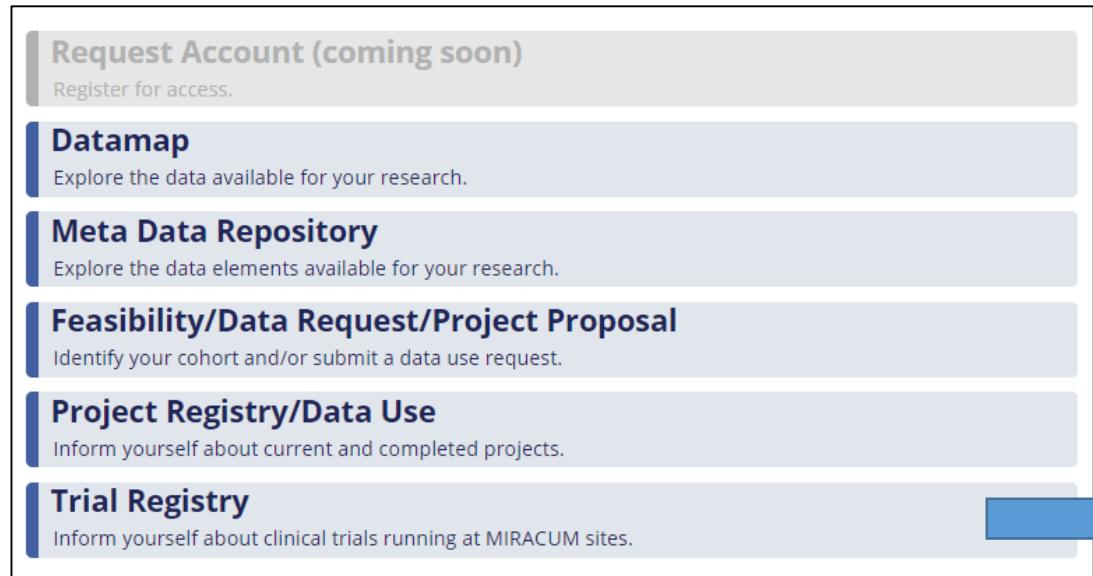
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<https://proskive.de/>

Welche Tools verbergen sich hinter den Menüpunkten des Forschungsportals ?



Gulden C, Kirchner M, Schüttler C, Hinderer M, Kampf M, Prokosch HU, Toddenroth D. Extractive summarization of clinical trial descriptions.

Int J Med Inform. 2019 Sep;129:114-121.

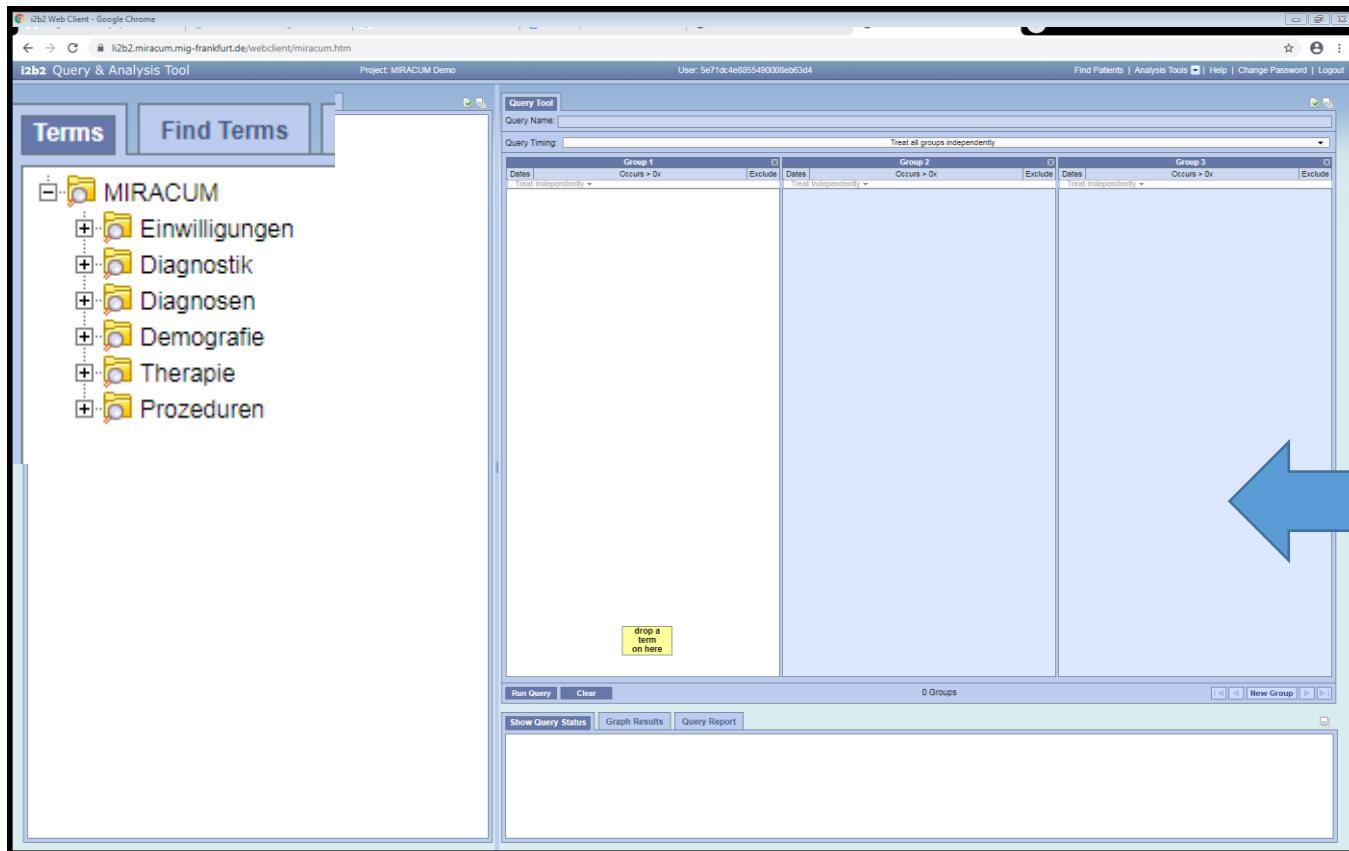
Gulden C, Landerer I, Nassirian A, Altun FB, Andrae J. Extraction and Prevalence of Structured Data Elements in Free-Text Clinical Trial Eligibility Criteria.

Stud Health Technol Inform. 2019;258:226-230. PubMed PMID: 30942751.

Sommer M, Kirchner M, Gulden C, Egloffstein S, Lux MP, Beckmann MW, Mackensen A, Prokosch HU. Design and Implementation of a Single Source Multipurpose Hospital-Wide Clinical Trial Registry. Stud Health Technol Inform. 2019;258:164-168.

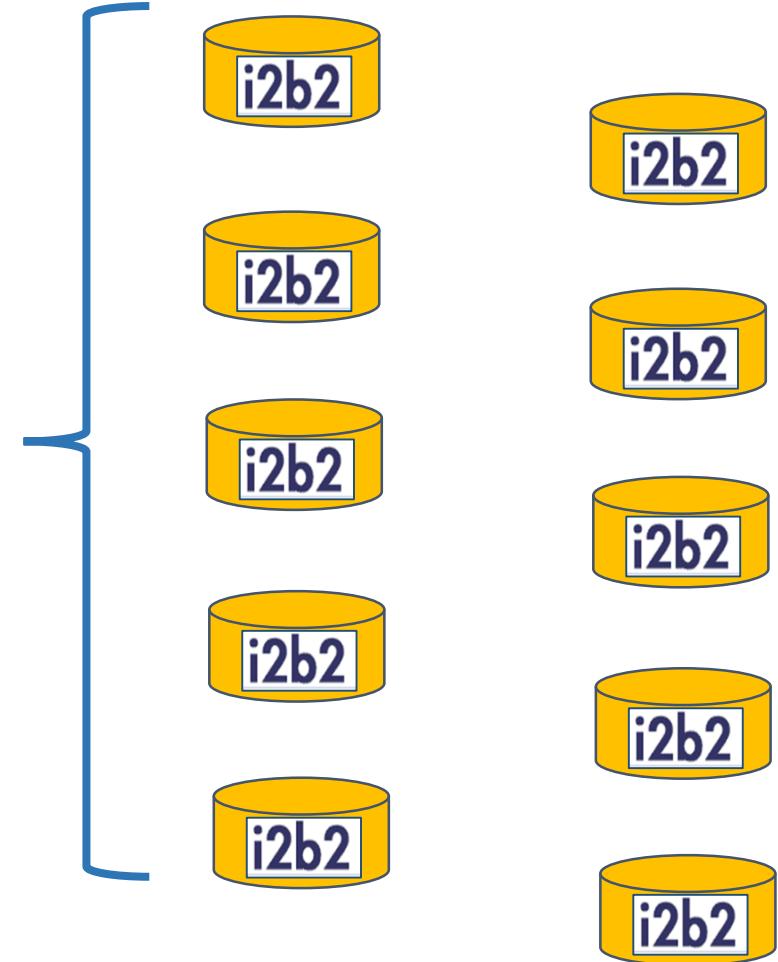
Verteilte Feasibilityabfragen

vereinfachte Darstellung



Zentrale Li2b2 Suchoberfläche

Standort i2b2 Repositories

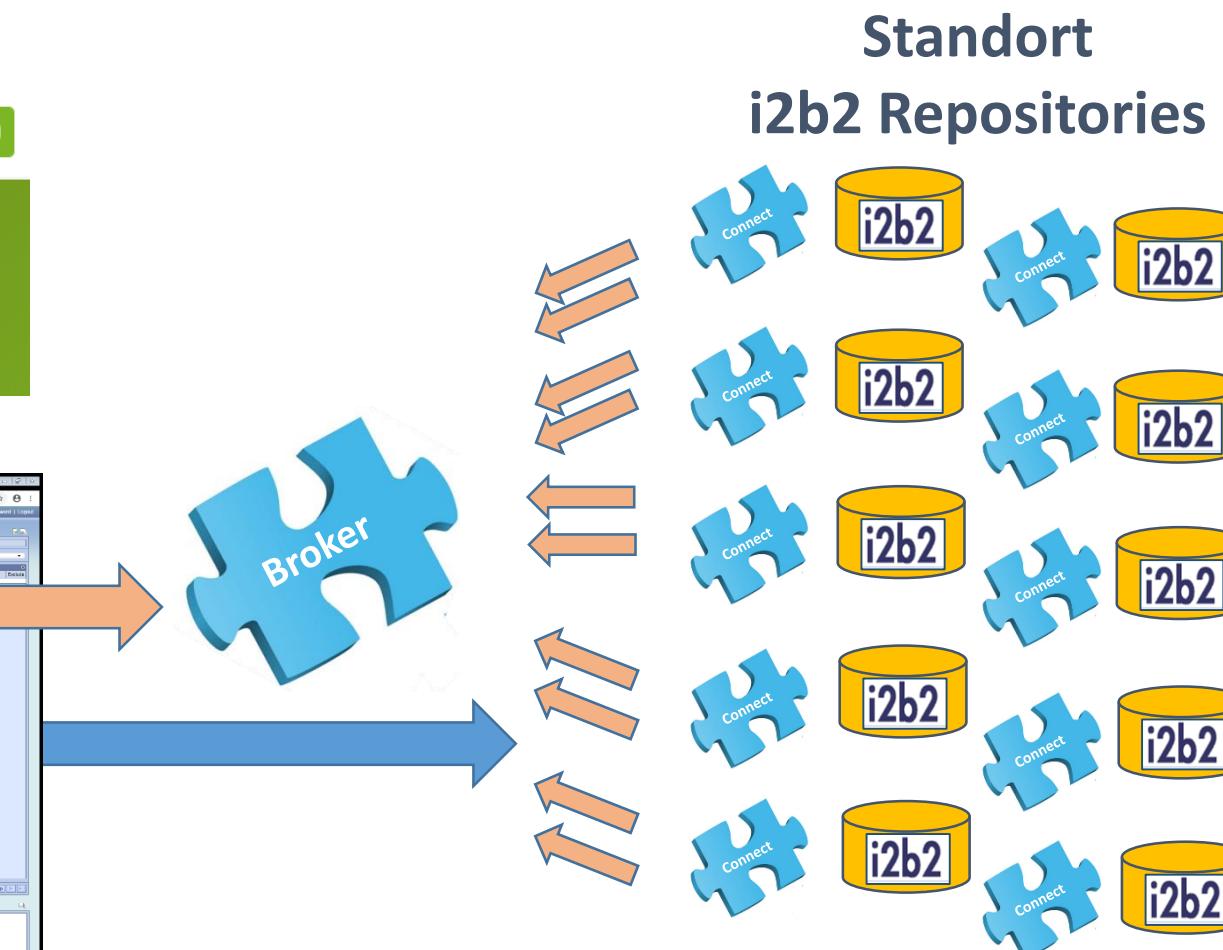


Feasibility-Abfragen und Datennutzung beantragen

reale Implementierung



Zentrale Li2b2 Suchoberfläche

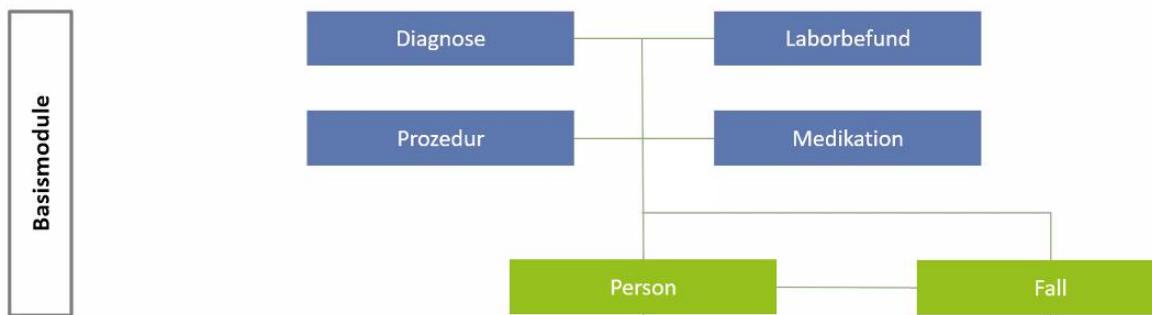


Befüllung der lokalen Standort Repositories mit den Basismodulen des MII Kerndatensatzes

Terms Find Terms

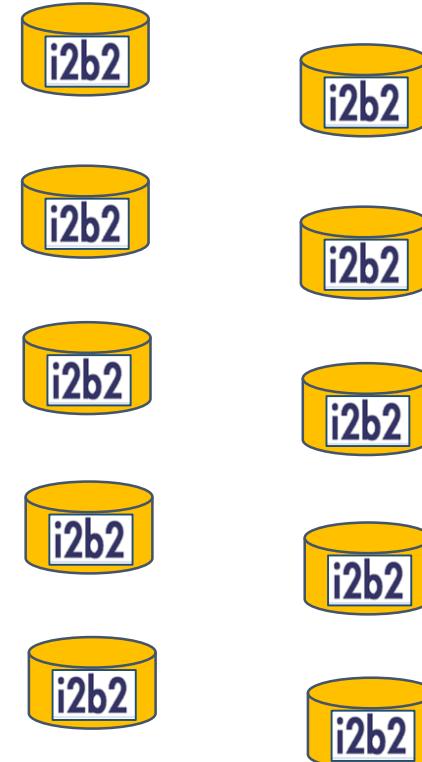
- MIRACUM
 - Einwilligungen
 - Diagnostik
 - Diagnosen
 - Demografie
 - Therapie
 - Prozeduren

Modularer Kerndatensatz

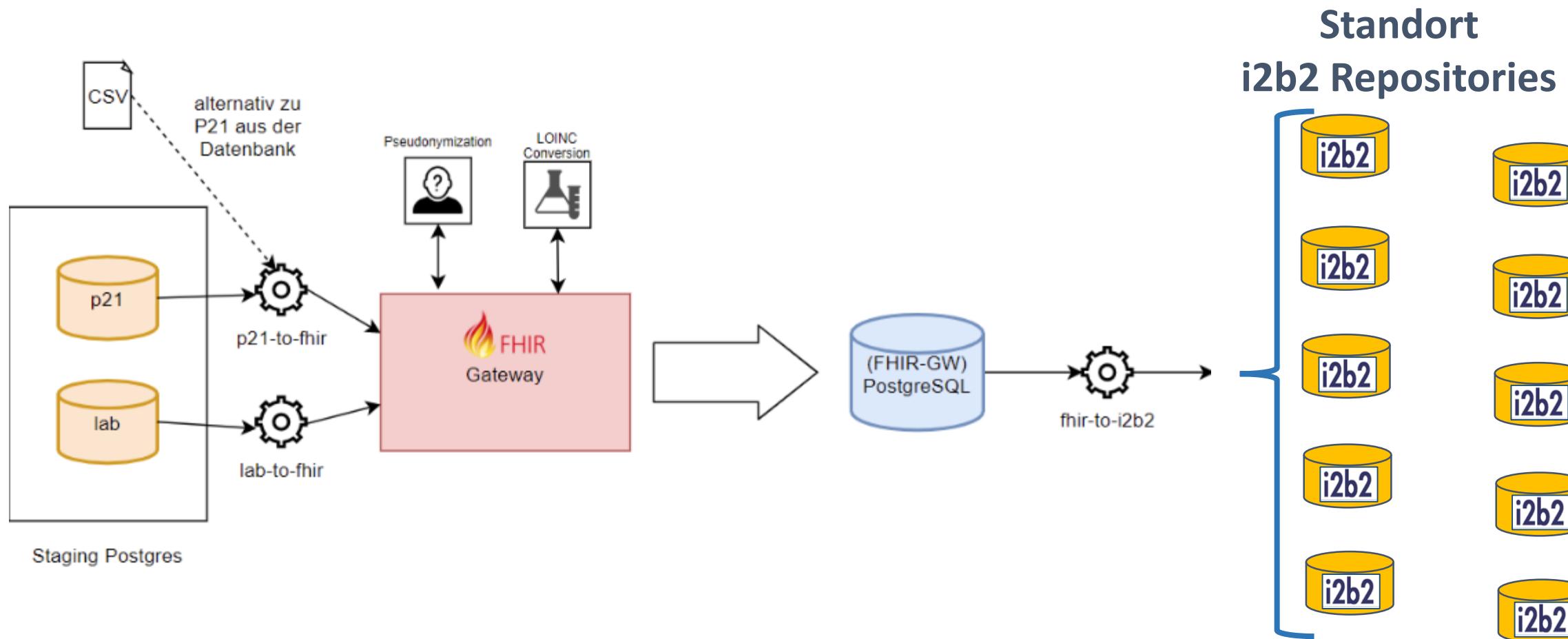


Work in Progress im Rahmen der MII

Standort
i2b2 Repositories



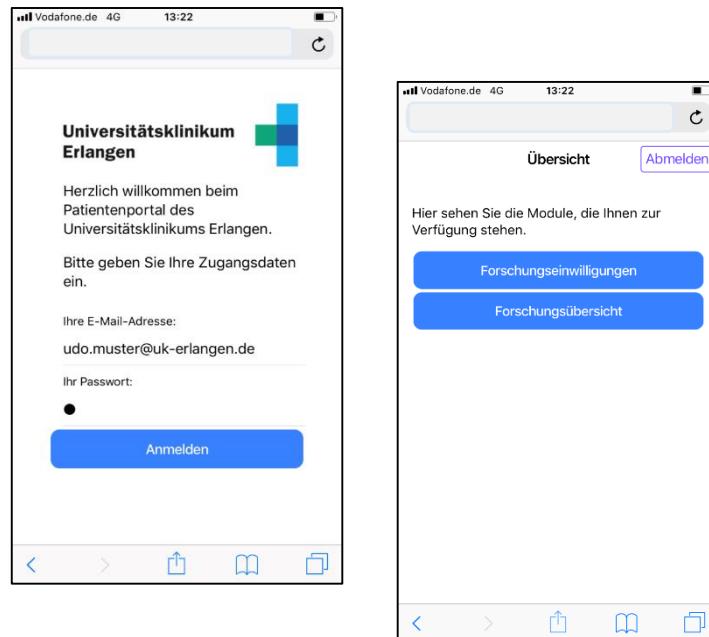
Befüllung der lokalen Standort Repositories innerhalb von MIRACUM über ein FHIR Gateway



MIRACOLIX – unsere Toolbox für ein Forschungs- und viele Patientenportale



Prototyp Patientenportal



Öfelein M, Reichold M, Maier C, Prokosch HU.

Designing a Framework of Components to Support Patient Engagement in Research.
Stud Health Technol Inform. 2019 Sep 3;267:20-27.

Prokosch HU, Schüttler C, Schraudt M, Öfelein M, Maier C.
Digital Patient Communication: Improving the Hospital-Patient Relationship.
Stud Health Technol Inform. 2019;259:3-9. PubMed PMID: 30923263.

Erste Schritte zum MIRACUM Forschungsportal



Das MIRACUM Forschungsportal

Ein 26 Monats Puzzle, an dem sich alle Standorte beteiligten



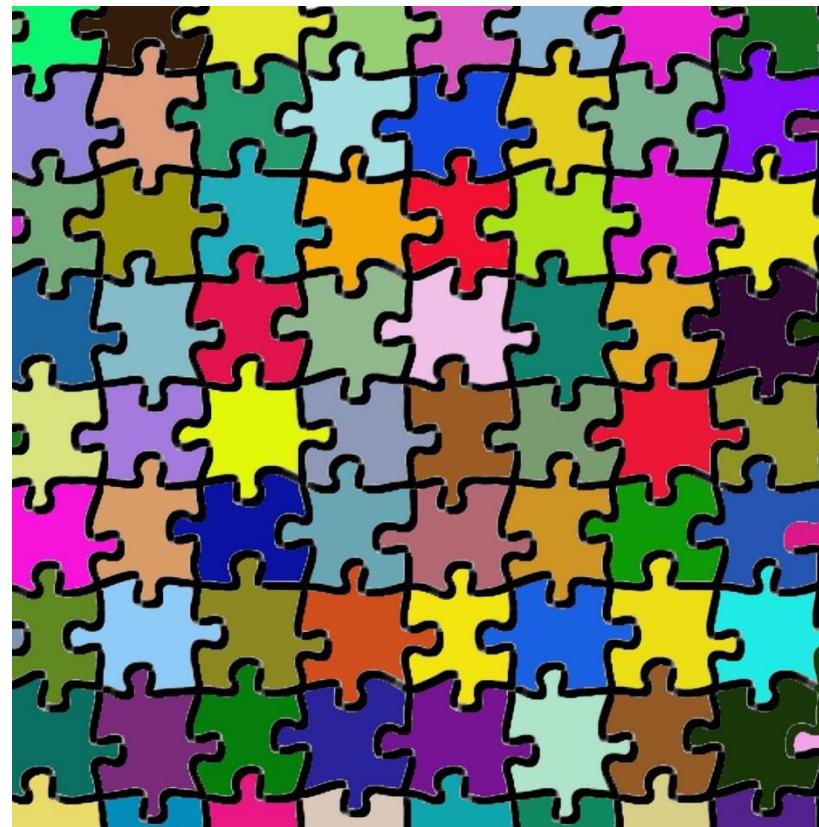
und viele mehr

MIRACOLIX Kompetenzzentren



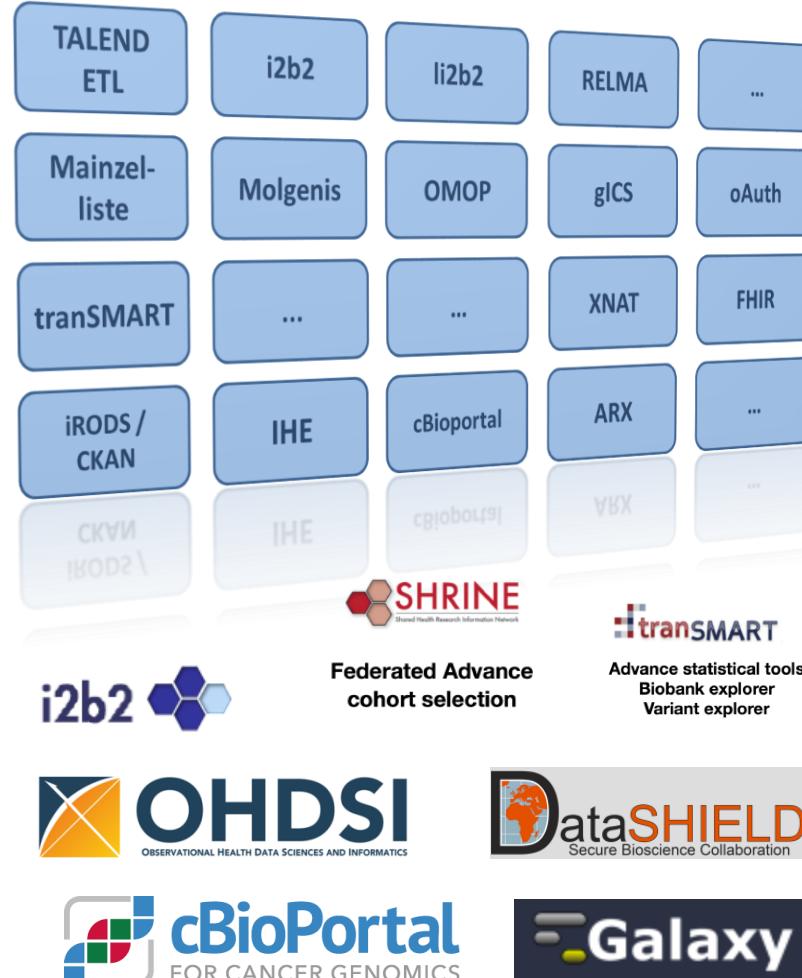
Das MIRACUM Forschungsportal

Ein 26 Monats Puzzle, welches noch kein finales und vollständiges Bild ergibt

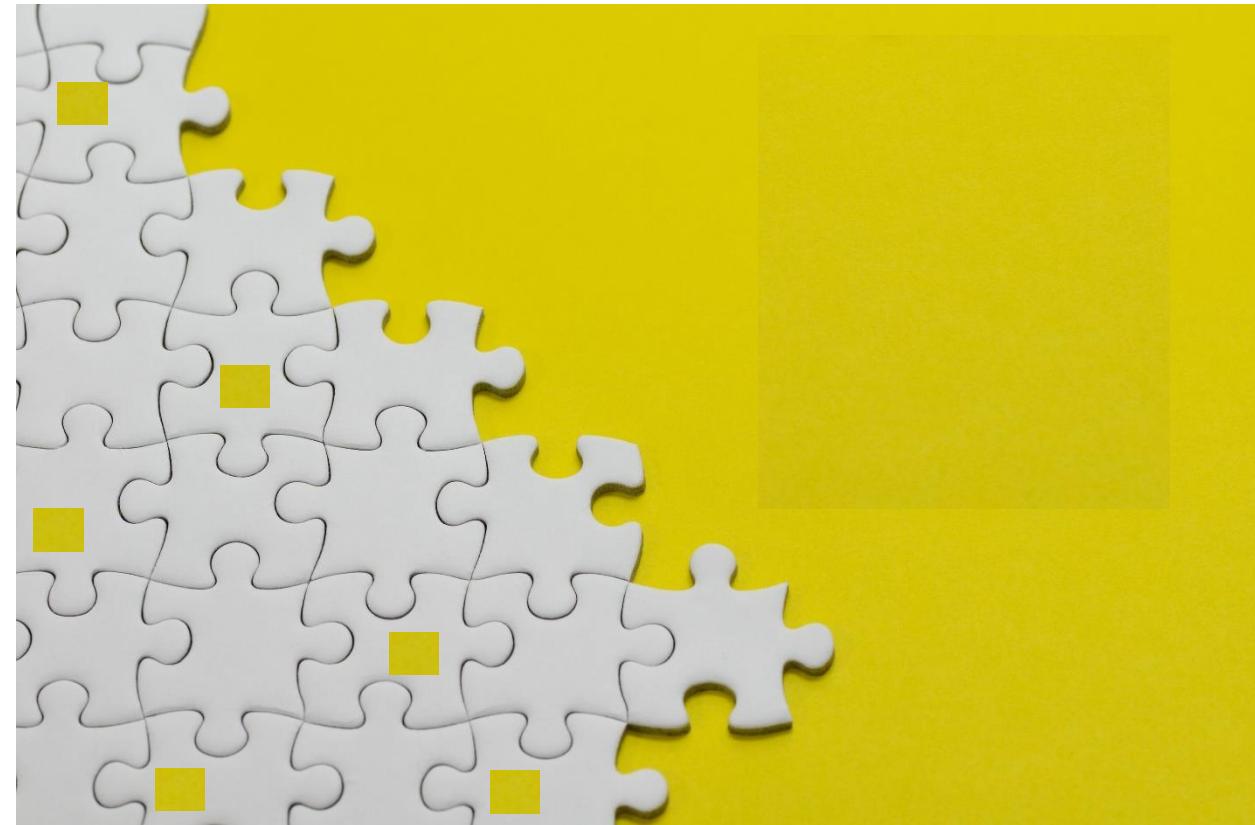


Das MIRACUM Forschungsportal

Ein 26 Monats Puzzle, welches uns auf einen guten Weg gebracht hat



selbst wenn unsere einzelnen Puzzlesteine
noch weiter reifen sollen ...



Das MIRACUM Forschungsportal wird weiter wachsen und reifen, Monat für Monat . . .



Das MIRACUM Forschungsportal wird weiter wachsen und reifen und wir werden die Lücken schließen

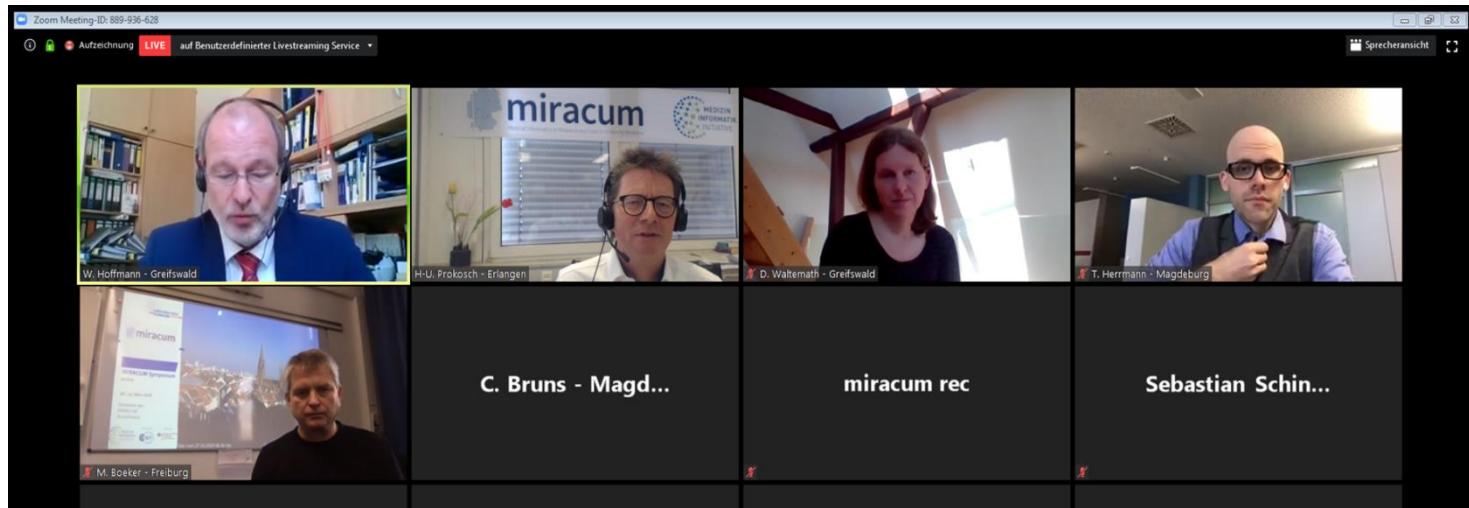
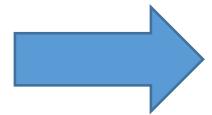


Vielen Dank an das Erlanger MIRACUM Team



... und das ganze MIRACUM Team
an allen Partnerstandorten





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