



Kernkomponenten und ETL-Prozesse

in einem MIRACUM DIZ

Prof. Dr. Hans-Ulrich Prokosch

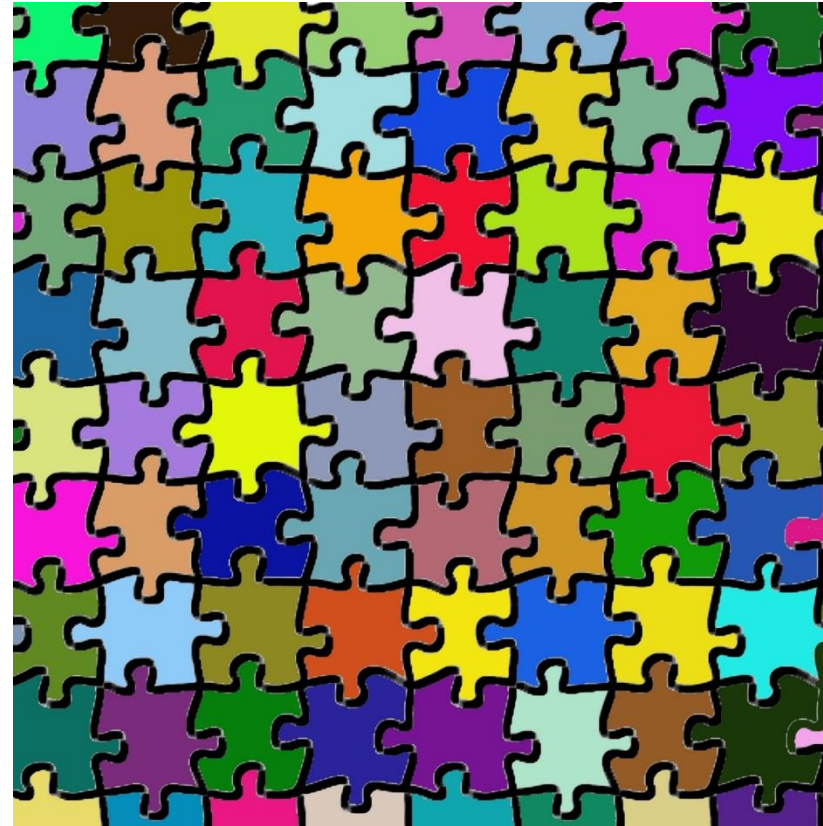
Lehrstuhl für Medizinische Informatik der FAU Erlangen-Nürnberg,
CIO Universitätsklinikum Erlangen
MIRACUM Koordinator

MIRACUM Online Symposium, 27.03.2020

MIRACOLIX – unsere Toolbox



In einem DIZ müssen alle Tools
gut ineinander passen



Erste Schritte zum MIRACUM Forschungsportal

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

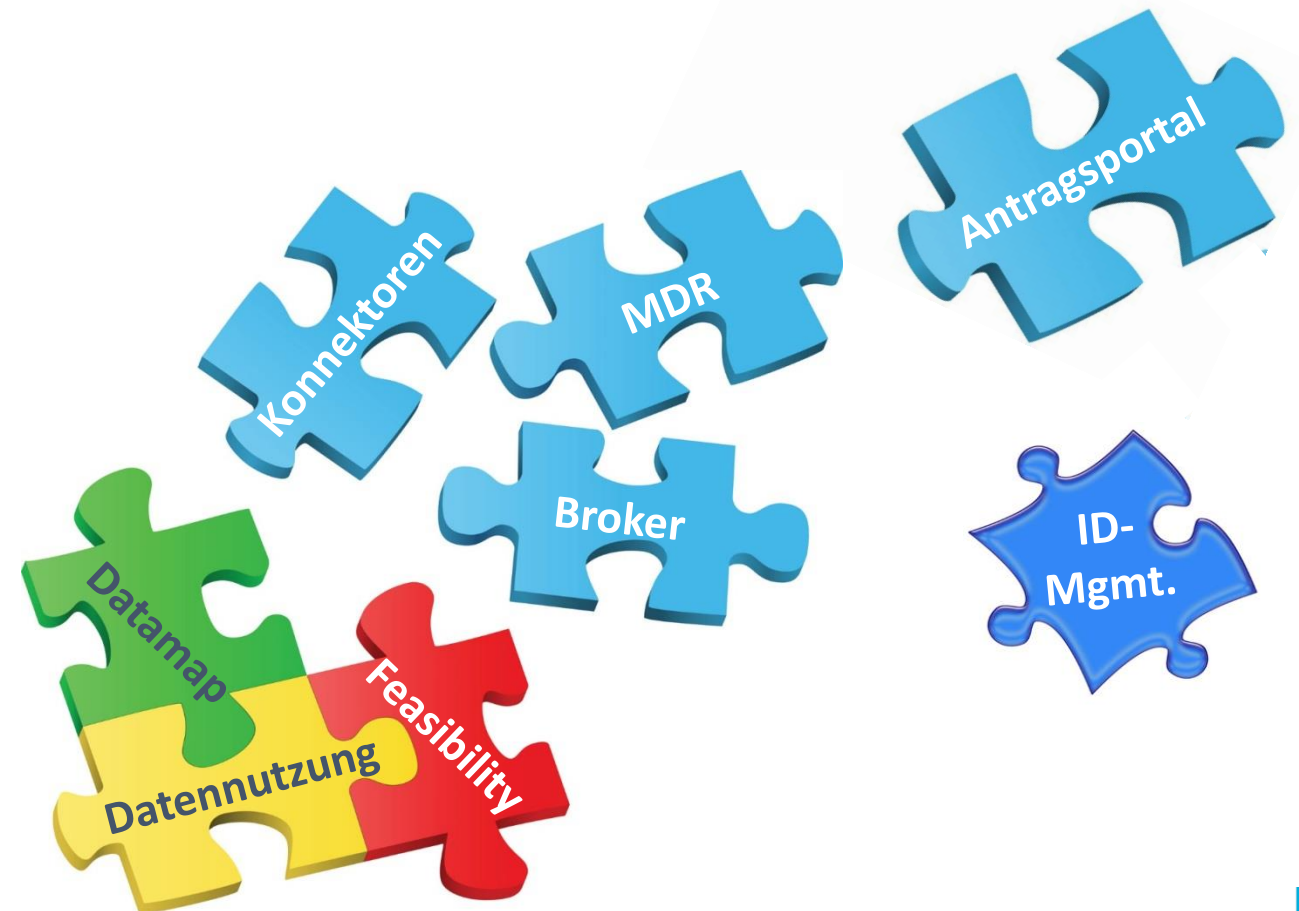
Identify your cohort and/or submit a data use request.

Project Registry/Data Use

Inform yourself about current and completed projects.

Trial Registry

Inform yourself about clinical trials running at MIRACUM sites.



Und welche Tools verbergen sich dahinter?

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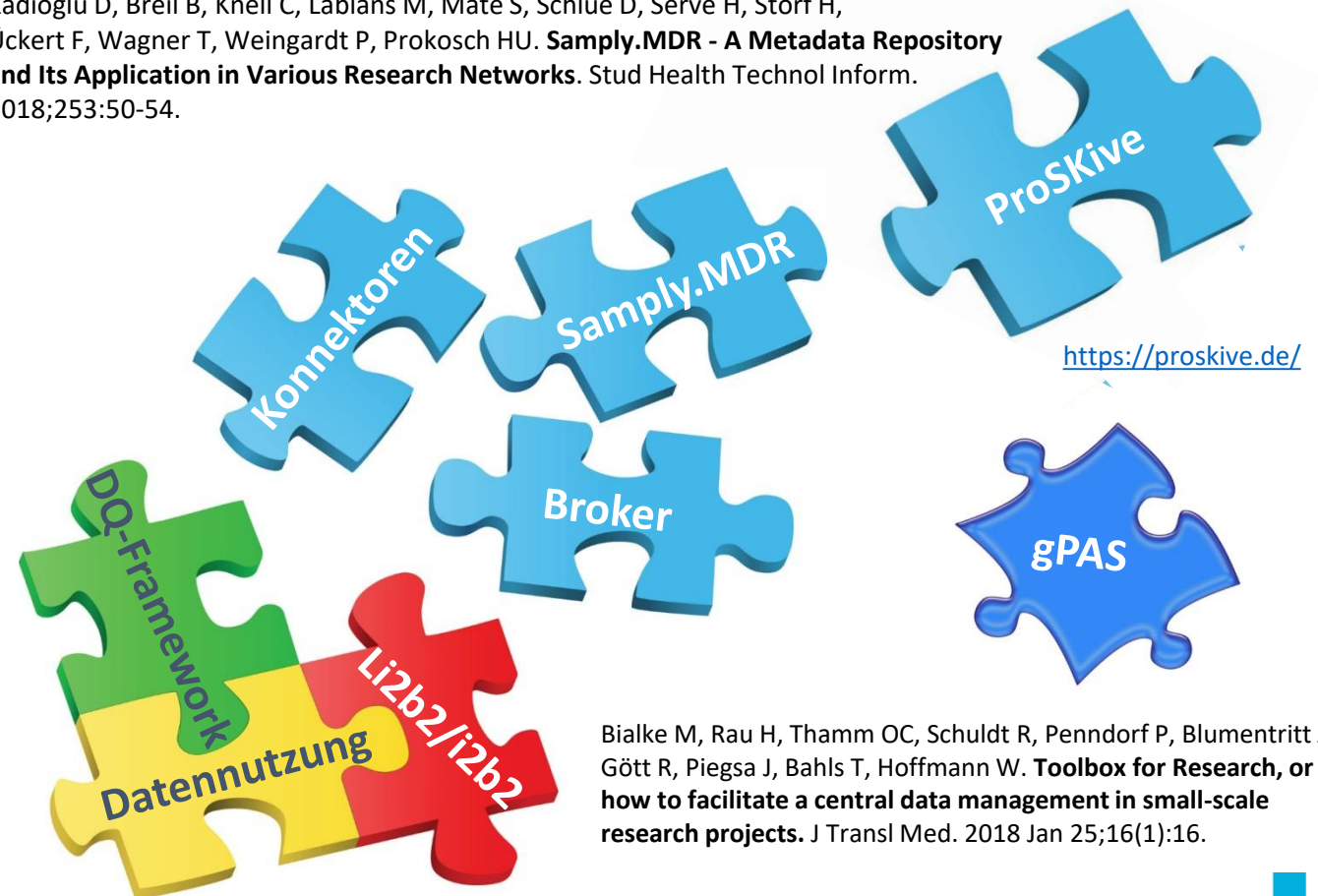
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Kapsner LA, Kampf MO, Seuchter SA, Kamdje-Wabo G, Gradinger T, Ganslandt T, Mate S, Gruendner J, Kraska D, Prokosch HU. **Moving Towards an EHR Data Quality Framework: The MIRACUM Approach.** Stud Health Technol Inform. 2019 Sep 3;267:247-253.

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.

Erste Schritte zum MIRACUM Forschungsportal

Kadioglu D, Breil B, Knell C, Lablans M, Mate S, Schlue D, Serve H, Storf H, Ückert F, Wagner T, Weingardt P, Prokosch HU. **Samplly.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 ?

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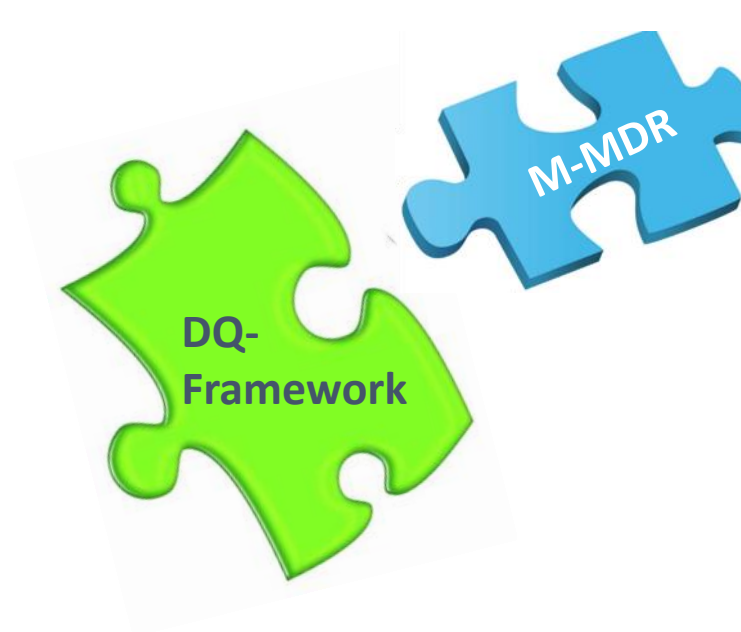

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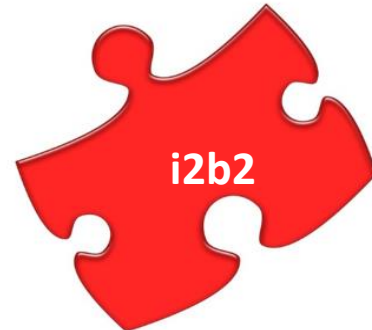
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10 lokale
Repositories



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<https://proskive.de/>

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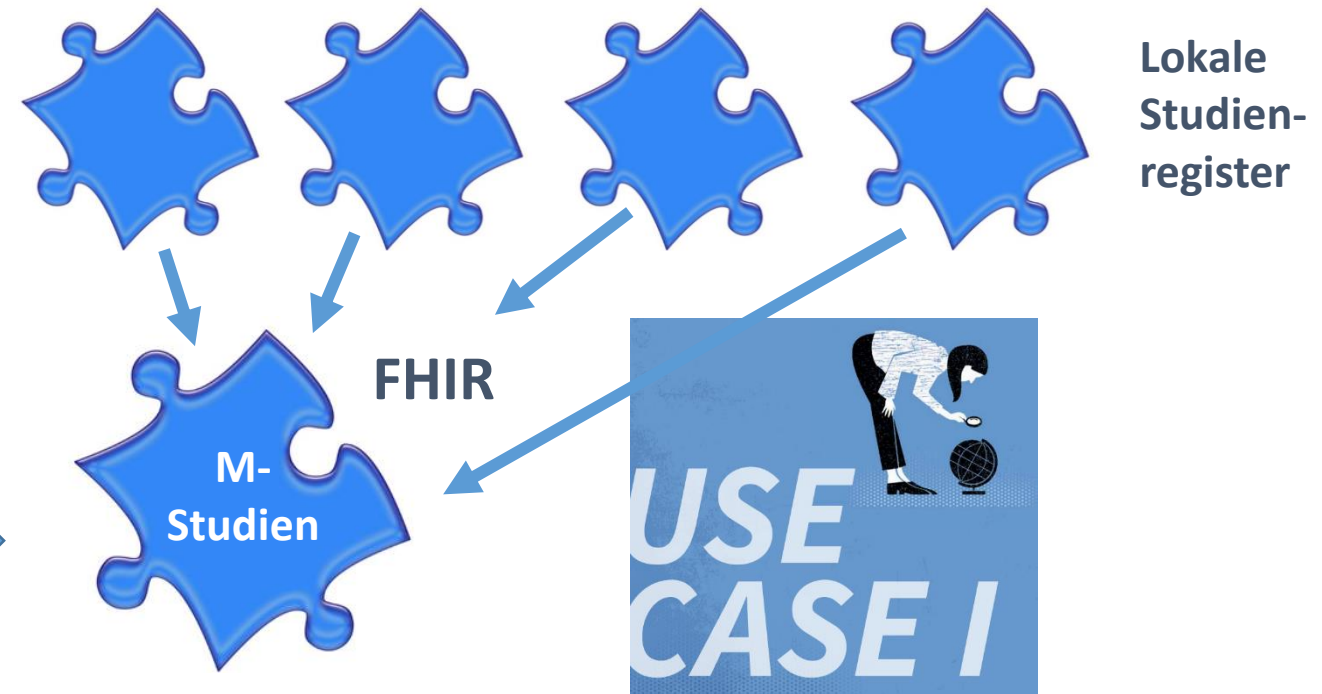
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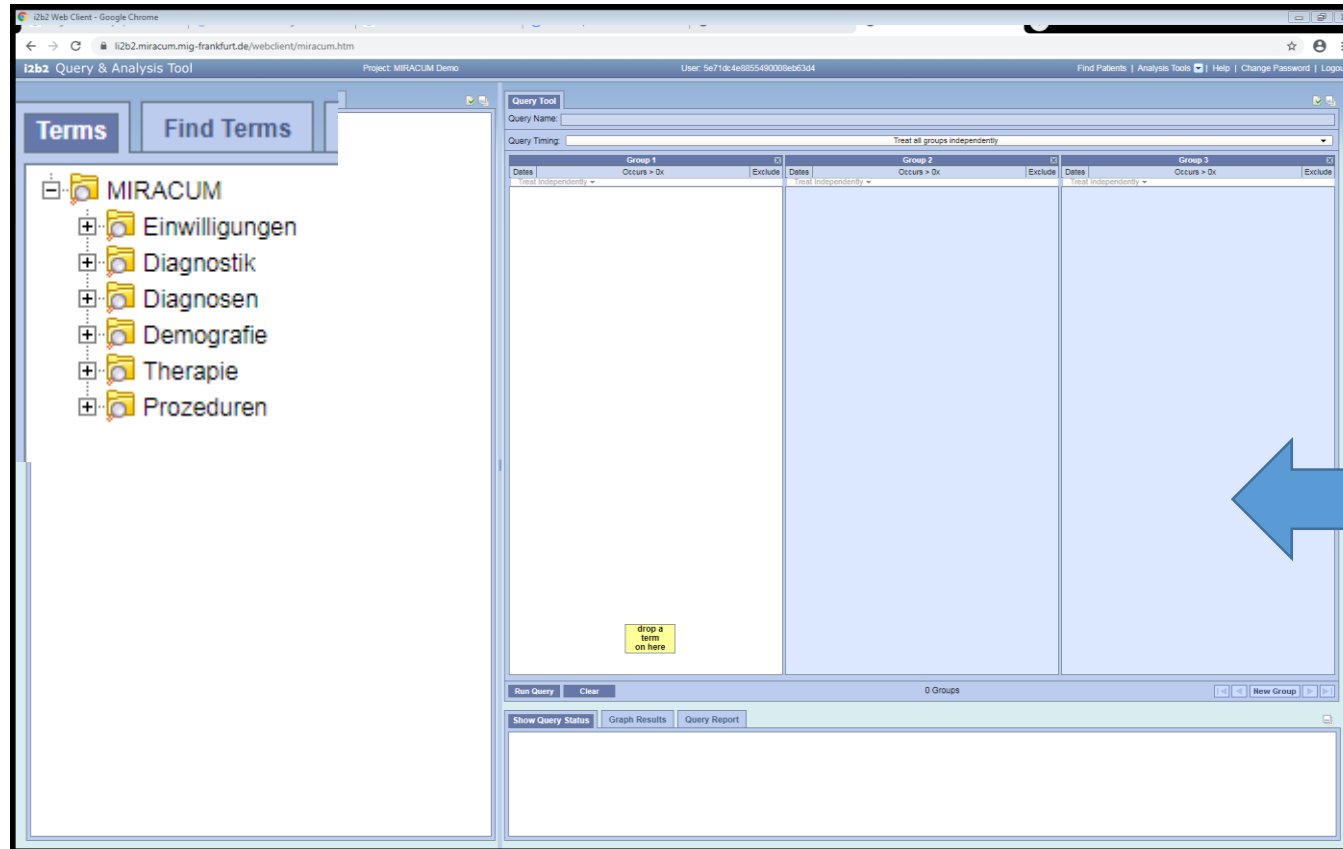
Gulden C, Kirchner M, Schüttler C, Hinderer M, Kampf M, Prokosch HU, Toddenroth D.
Extractive summarization of clinical trial descriptions.
Int J Med Inform. 2019 Sep;129:114-121.

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.

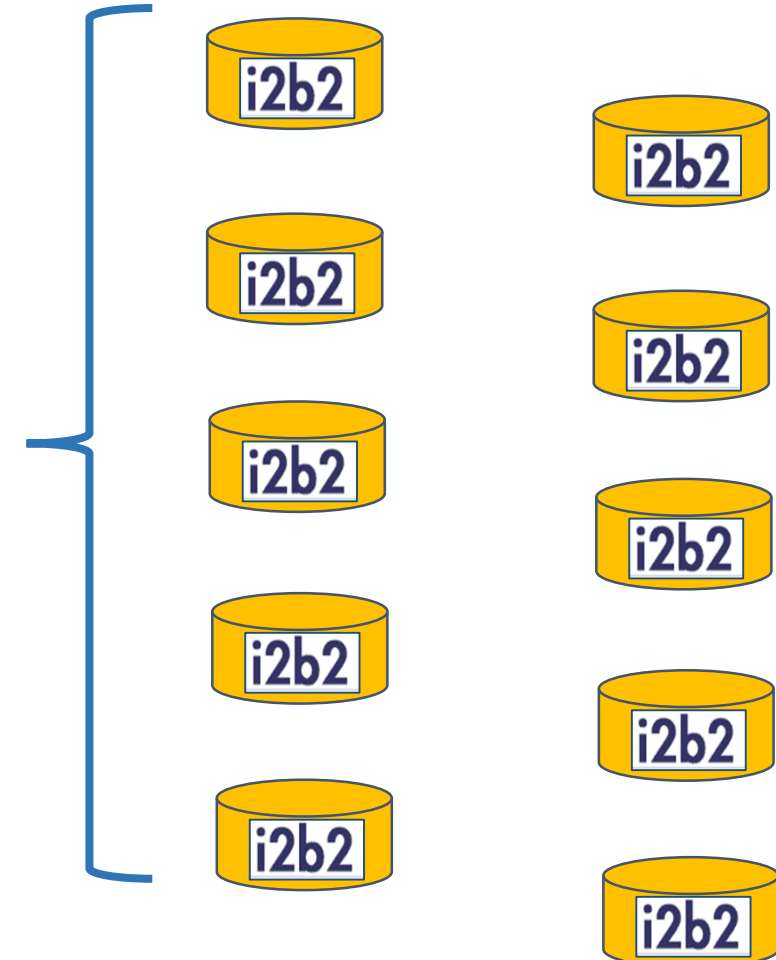
Verteilte Feasibilityabfragen

vereinfachte Darstellung



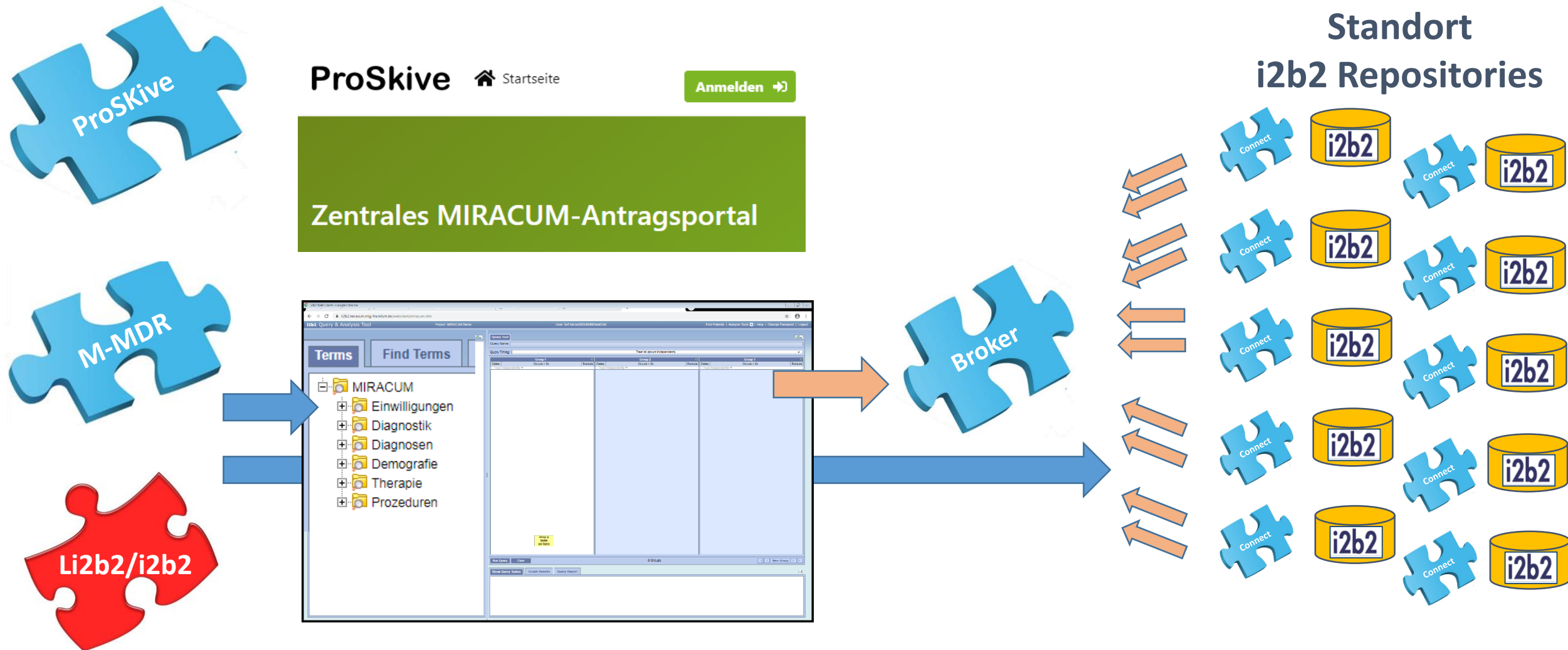
Zentrale Li2b2 Suchoberfläche

Standort i2b2 Repositories



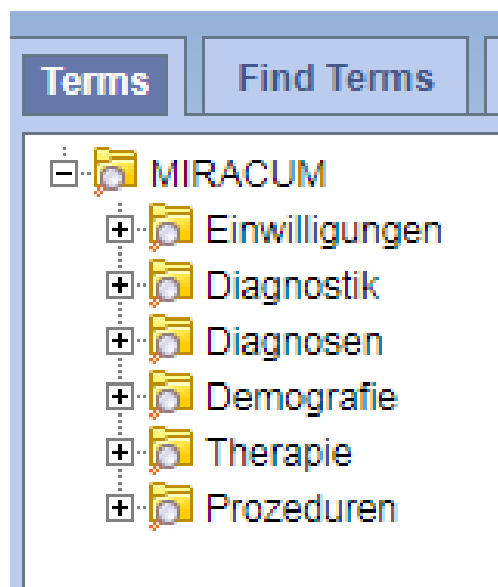
Feasibility-Abfragen und Datennutzung beantragen

reale Implementierung

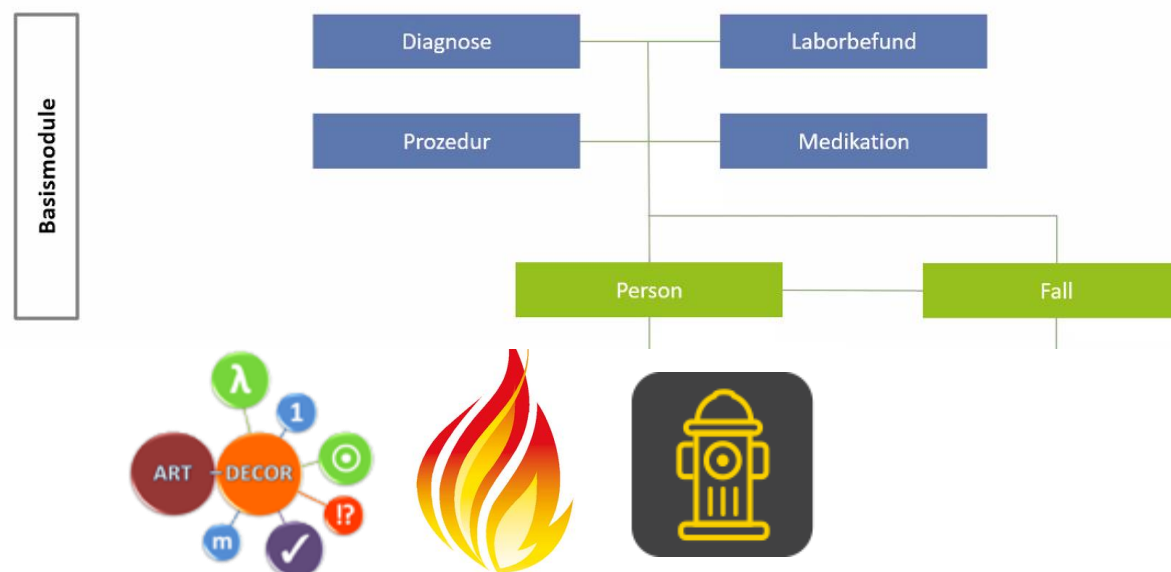


Zentrale Li2b2 Suchoberfläche

Befüllung der lokalen Standort Repositories mit den Basismodulen des MII Kerndatensatzes



Modularer Kerndatensatz

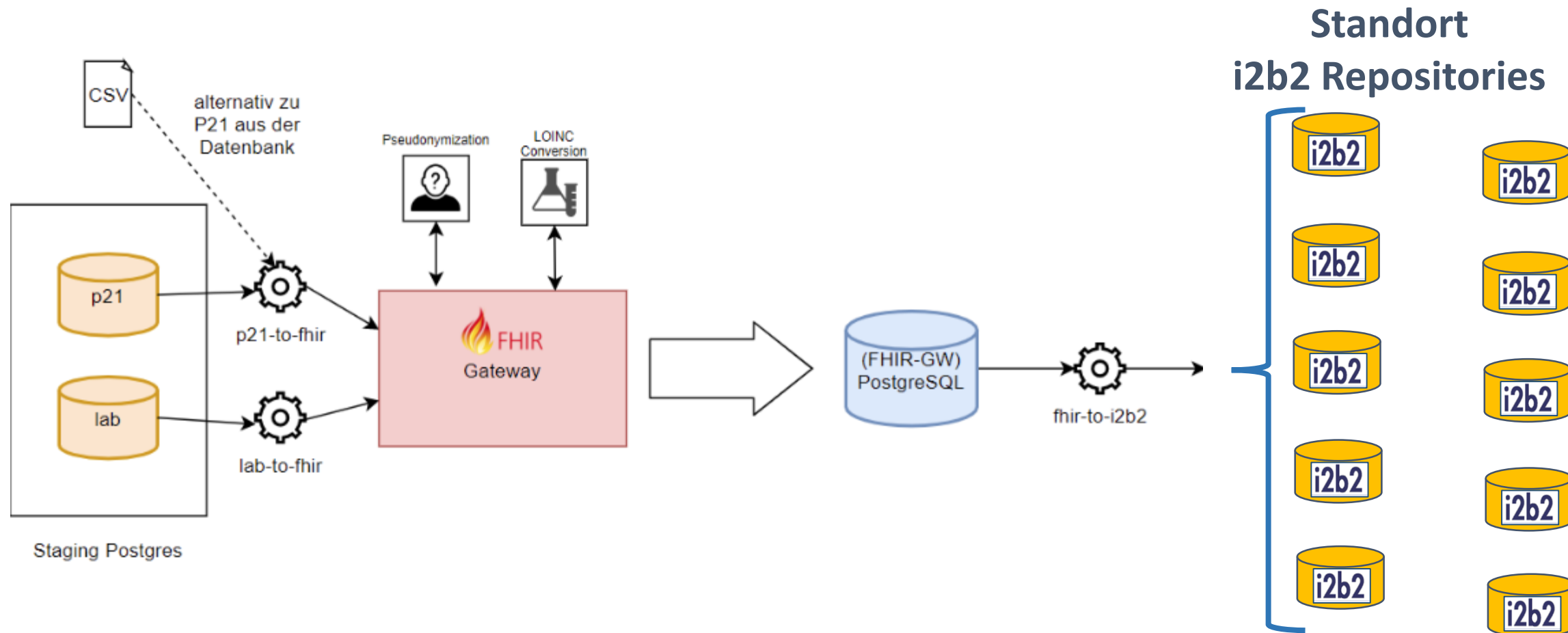


Work in Progress im Rahmen der MII

Standort i2b2 Repositories

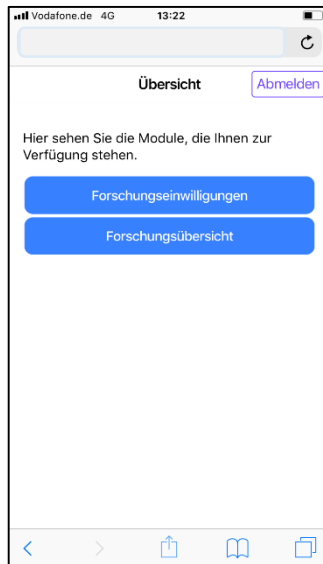
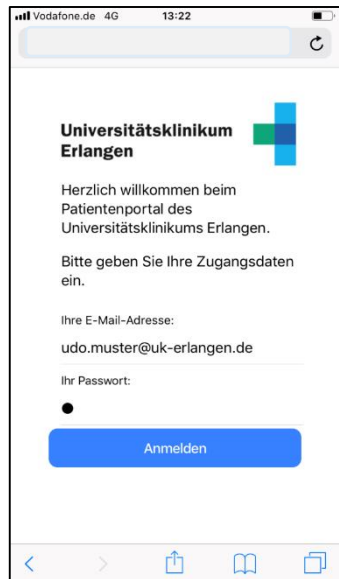


Befüllung der lokalen Standort Repositories innerhalb von MIRACUM über ein FHIR Gateway



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

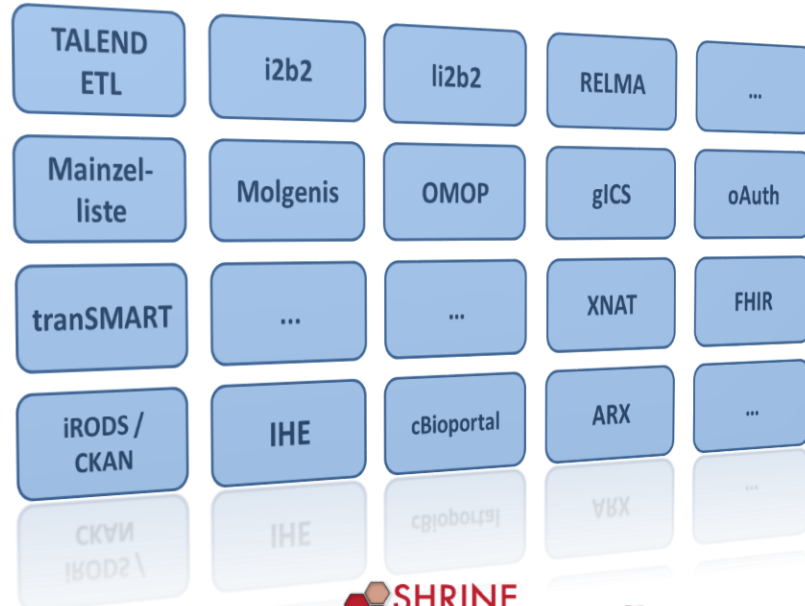


MIRACOLIX Kompetenzzentren



Das MIRACUM Forschungsportal

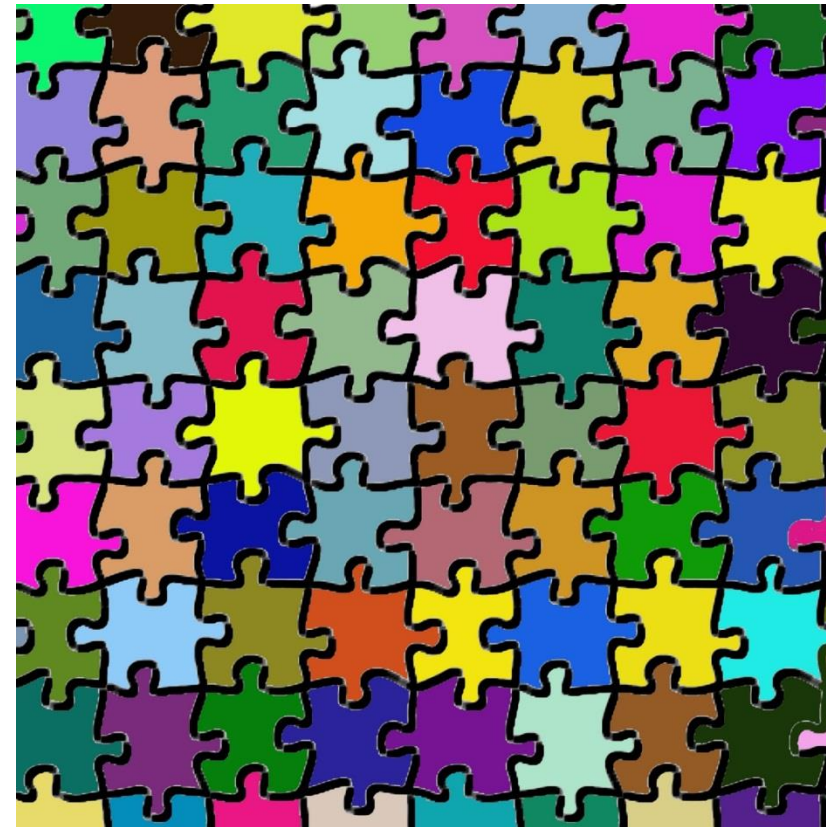
Ein 26 Monats Puzzle, welches noch kein finales und vollständiges Bild ergibt



Federated Advance
cohort selection



Advance statistical tools
Biobank explorer
Variant explorer

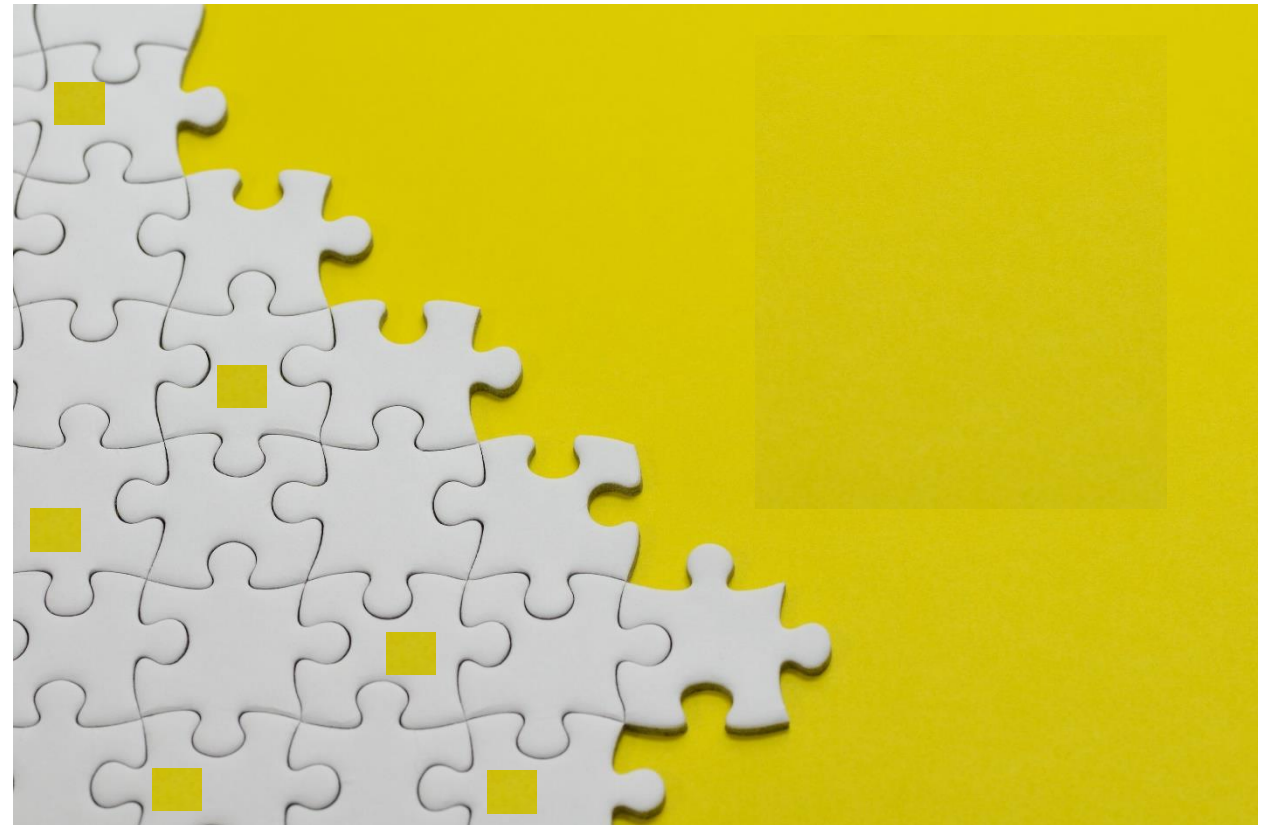


Das MIRACUM Forschungsportal

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



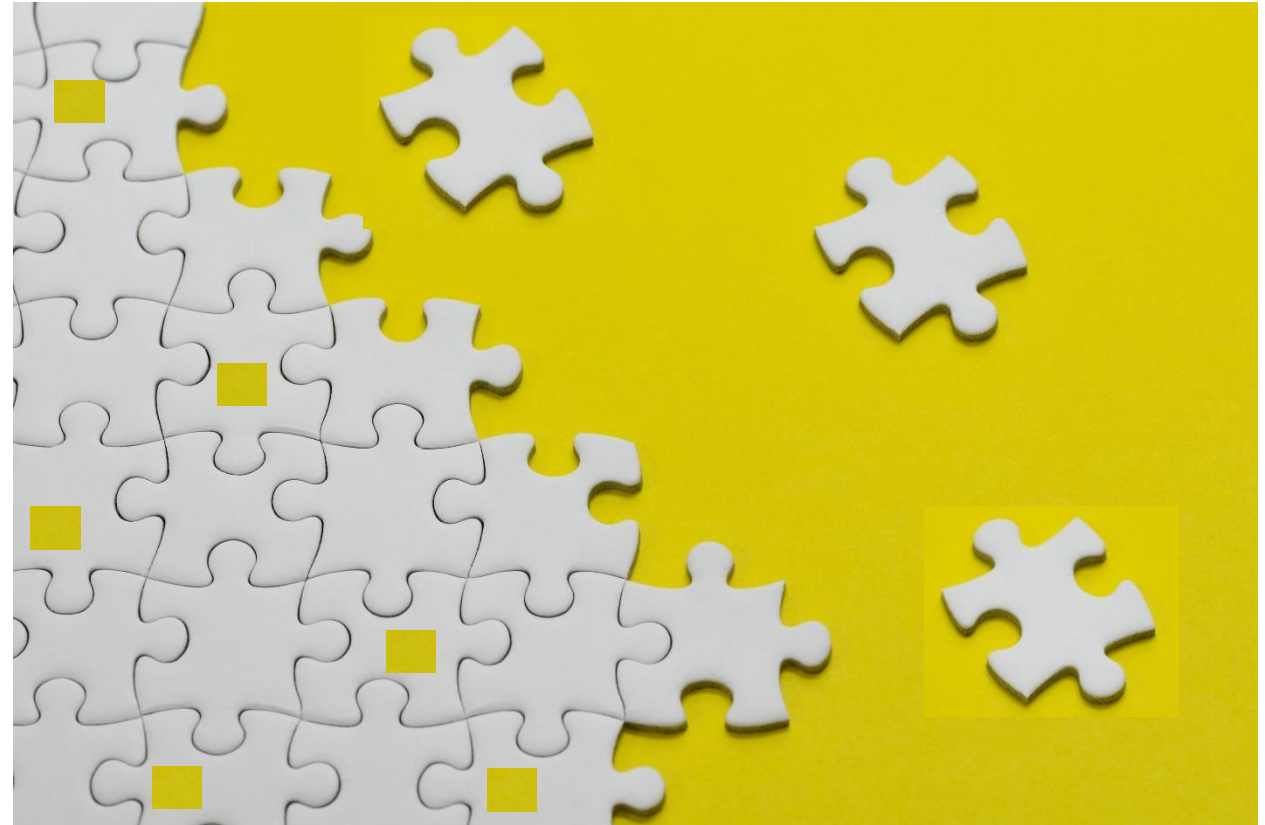
selbst wenn unsere einzelnen Puzzlesteine
noch weiter reifen sollen . . .



und viele mehr



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

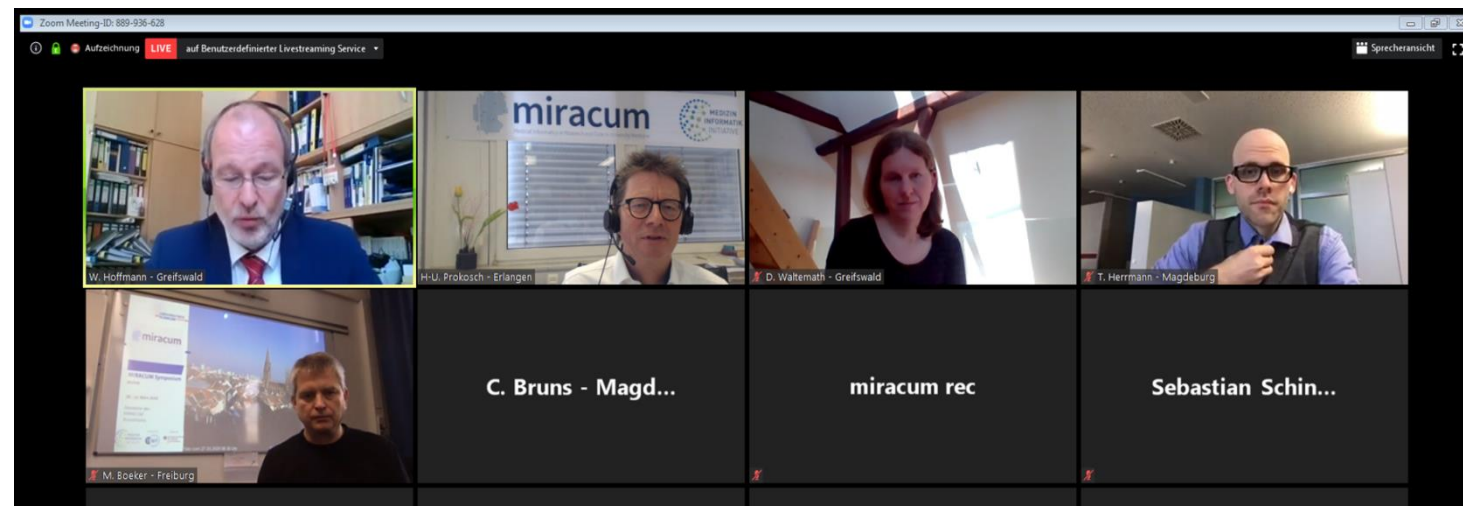


Vielen Dank an das Erlanger MIRACUM Team



. . . und das ganze MIRACUM Team
an allen Partnerstandorten





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