

Added value for CRIS systems using visualizations



- Friedrich-Alexander-Universität Erlangen-Nürnberg
- Founded 1743



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- 5 faculties,
- 39,857 students (#12 in Germany),
- 85 bachelor's degree programs,
- 101 master's degree programs,
- 92 state examination programs



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- 3,667 scientific staff,
- 2,478 research supporting staff



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- 684 professors,
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- 300,35 Mio Euro Third party funding
- #1 innovator (THE, UNSDG #9)

FAU's Research Information System

- CRIS is the central application that holds information about all research outcomes and ongoing research.
- Researchers of all level have access, decentral organization accounts, specific roles for data analysis.
- Software: Converis (Clarivate Analytics) plus a lot of own enhancements and extensions.

 Friedrich-Alexander-Universität
Erlangen-Nürnberg

FAU.de Deutsch Login

Home

Publications

Research Data

Research Grants

Equipment

Inventions & Patents

Awards

Additional Research Activities

Faculties & Institutions

Research Areas

Welcome to CRIS - the Current Research Information System of Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)

Search CRIS:

Publications, People, etc...  Search

Our research in numbers:

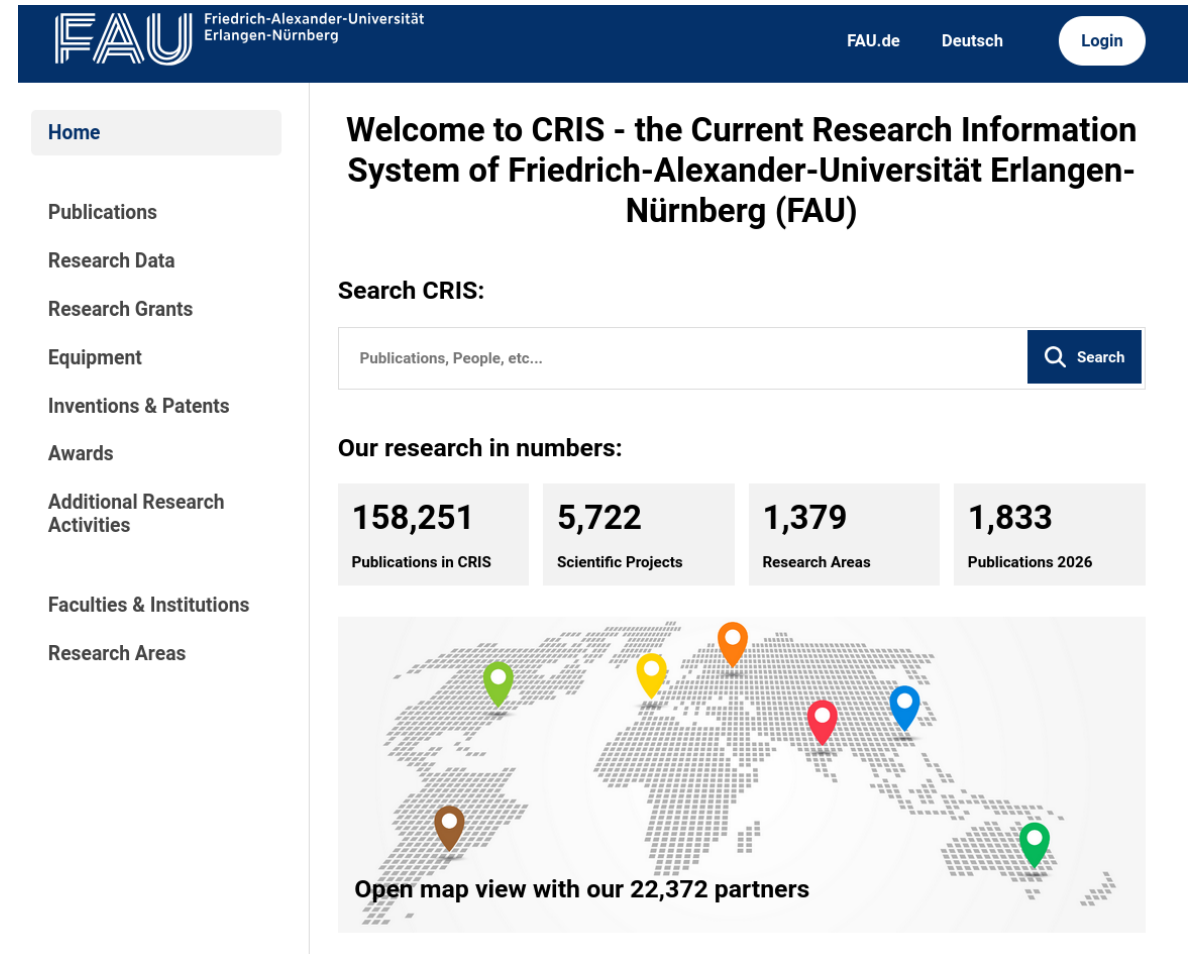
158,251 Publications in CRIS	5,722 Scientific Projects	1,379 Research Areas	1,833 Publications 2026
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Open map view with our 22,372 partners

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- Researchers of all level have access, decentral organization accounts, specific roles for data analysis.
- Software: Converis (Clarivate Analytics) plus a lot of own enhancements and extensions.
- Fun facts:
 - Oldest publication from 1959.
 - Project with longest duration: 2007-2099
 - 7 people with more than 1,000 publications (#1 authored 1,647)
 - Largest author list: 5,289 (Covid-19 study)



The screenshot shows the FAU CRIS homepage. The header includes the FAU logo, the text 'Friedrich-Alexander-Universität Erlangen-Nürnberg', and links for 'FAU.de', 'Deutsch', and a 'Login' button. A left sidebar contains a menu with 'Home' (highlighted), 'Publications', 'Research Data', 'Research Grants', 'Equipment', 'Inventions & Patents', 'Awards', 'Additional Research Activities', 'Faculties & Institutions', and 'Research Areas'. The main content area features a welcome message, a search bar with the placeholder 'Publications, People, etc...' and a 'Search' button, and a section titled 'Our research in numbers:' with four statistics: 158,251 Publications in CRIS, 5,722 Scientific Projects, 1,379 Research Areas, and 1,833 Publications 2026. Below this is a world map with location pins and the text 'Open map view with our 22,372 partners'.

FAU Friedrich-Alexander-Universität Erlangen-Nürnberg

FAU.de Deutsch Login

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Open map view with our 22,372 partners

Organizational home

- Started as project in 2012 inside president's staff
 - 2 persons, 3 subsequent teams preparing rollout
- From 2021 as „Lab“ inside FAU's Competence Center for Research Data and Information (FAU CDI)
- Currently 3 people responsible for CRIS (adds up to 1,5 FTE)
- Supported by 3 student assistants



Organizational home

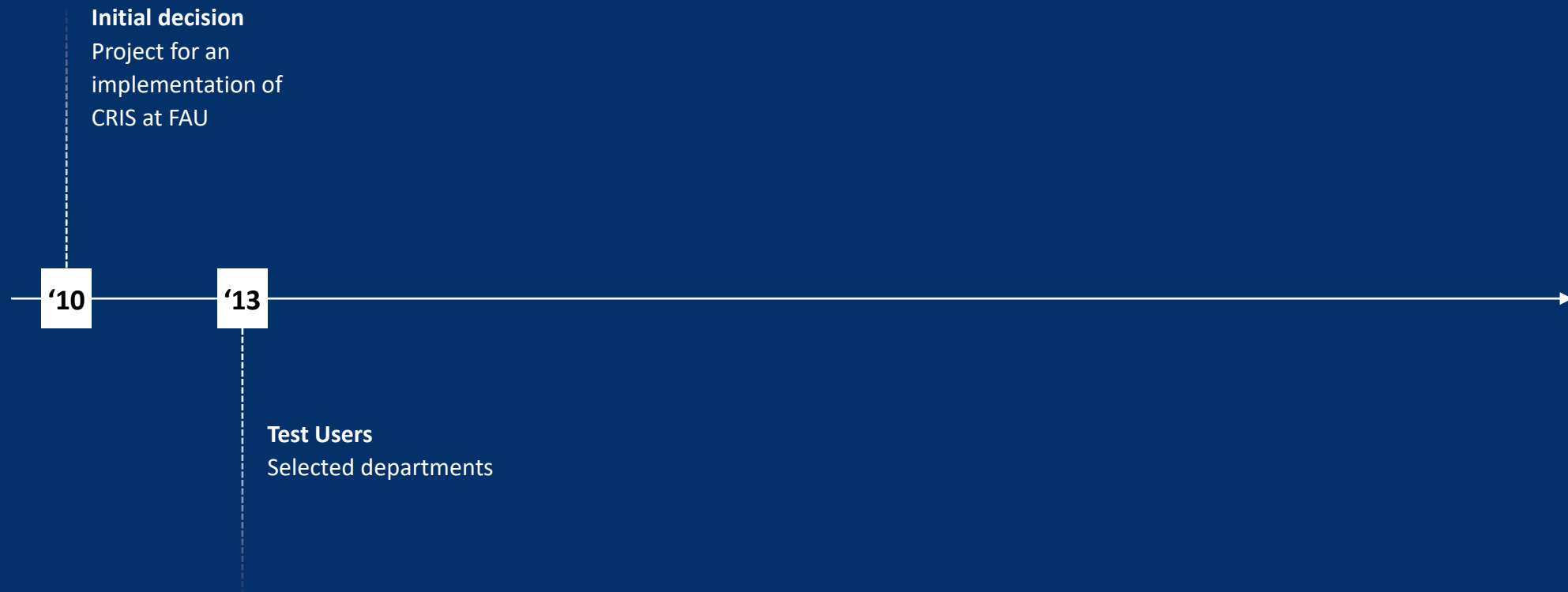
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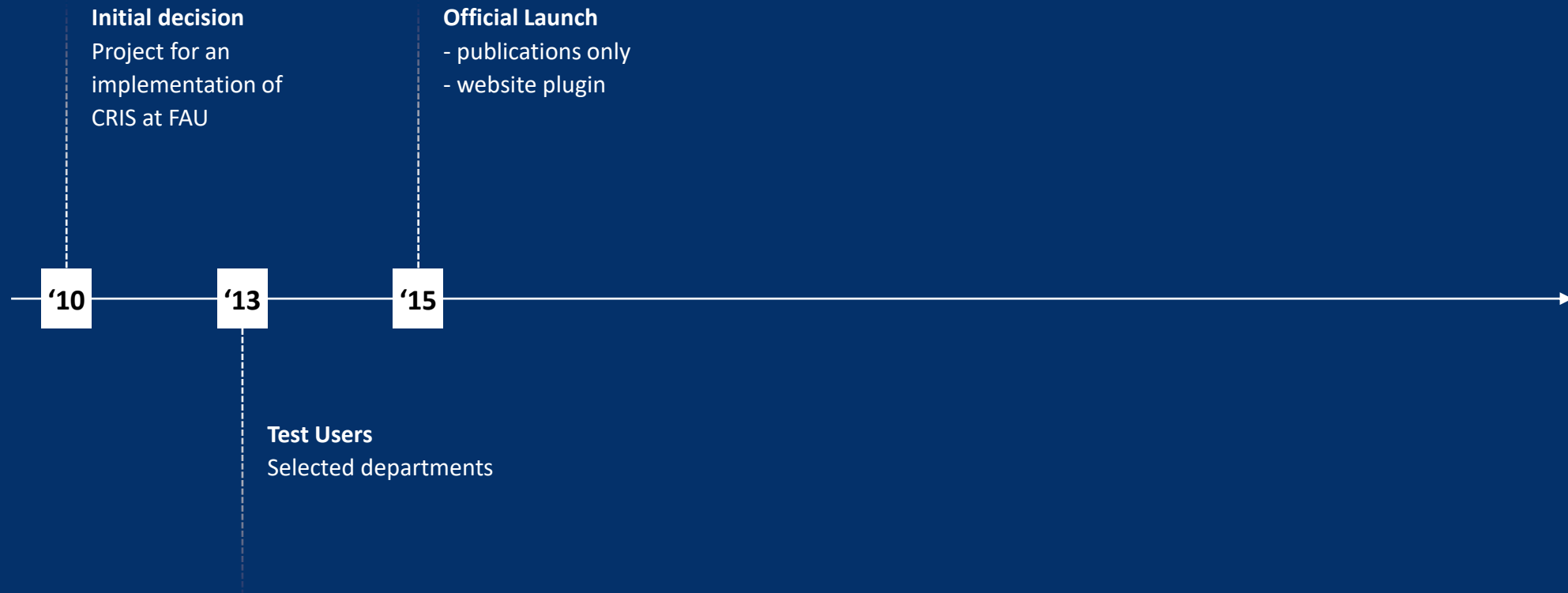


Duties of the CRIS team

- Configuration, maintenance, enhancements of the whole CRIS system.
- Regular trainings & consulting for researchers and administrative staff.
- Data quality assurance.
- Data analysis & presentation (internal / external).







Focus on data reuse

- Plugin for website (chair, department, personal pages),
- Public central portal,
- Equal treatment of all career levels.

Upgraded software

- Converis 4 -> 5

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Upgraded software

- Converis 4 -> 5

Reduced data areas and professional support

- Publications only,
- CRIS Blog,
- Regular trainings for CRIS users (all levels),
- Hands-On workshops for plugin usage.

- Home
- Publications
- Research Grants
- Inventions & Patents
- Awards
- Additional Research Activities
- Faculties & Institutions
- Research Areas

Lehrstuhl für Sportwissenschaft mit dem Schwerpunkt Bewegung und Gesundheit

Friedrich-Alexander-Universität Erlangen-Nürnberg

Philosophische Fakultät und Fachbereich Theologie

Department Sportwissenschaft und Sport

Overview

Publications (745)

Research Grants (59)

Research Fields (3)

Filters (inactive)

Internet-based exercise and physical activity promotion for persons with multiple sclerosis: a randomized controlled trial (2025)

Hartung V, Tallner A, Flachenecker P, Mäurer M, Streber R, Wanner P, Rashid A, et al.

Journal article

Physical activity and motivational readiness for physical activity behavior change in adults with non-communicable diseases in Germany: a trend analysis of two cross-sectional health surveys from the German GEDA study 2014/2015 and 2019/2020 (2025)

Wenz B, Graf J, Sudeck G, Geidl W, Manz K, Jordan S, Teti A, Gabrys L

Journal article

Physical activity promotion in physical therapy, exercise therapy and other movement-based therapies: a scoping review and content analysis of intervention studies and theoretical works (2025)

Matting L, Pfeifer K, Sudeck G, Jung A, Langhirt F, Geidl W

Journal article, Review article

Perceptions and beliefs of physical therapists regarding the mechanisms of manual therapy (2025)

Carvalho GF, Adamczyk WM, Ludes CS, Scharbach R, Jung A, Karstens S, Luedtke K, Szikszay TM

nt / Divisions / Physical Activity and Health /

ons

- ment
- d Committees

ivity and Health

ws

projects

d research projects

ons

ions of the division

Sport

ivity and Public

2025

Budzisz, A., Jung, A., Luedtke, K., Carvalho, G.F., Szikszay, T.M., Bqbel, P.,... Adamczyk, W.M. (2025). The Fremantle Awareness Questionnaire: Cross-cultural adaptation, validity and reliability of the Polish version. *Musculoskeletal Practice*, 77. <https://doi.org/10.1016/j.msksp.2025.103291>

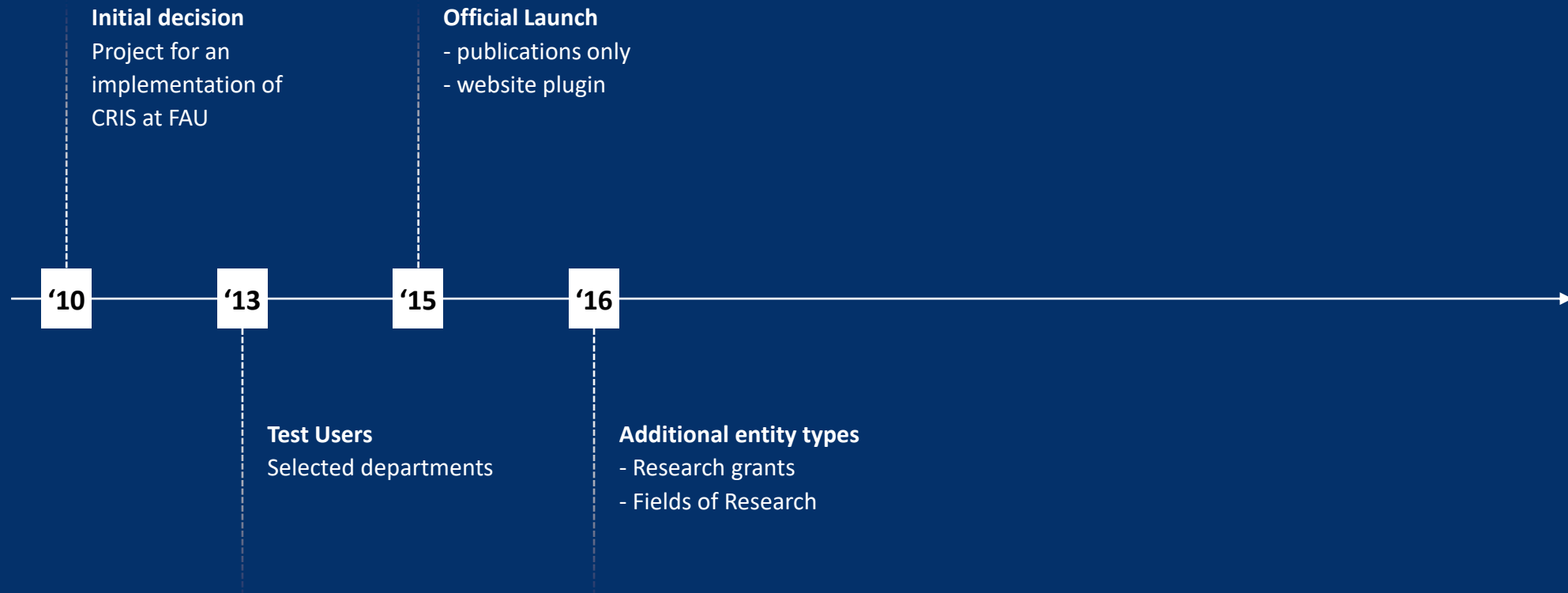
Carvalho, G.F., Adamczyk, W.M., Ludes, C.S., Scharbach, R., Jung, A., Karstens, S.,... Szikszay, T.M. (2025). Percept of physical therapists regarding the mechanisms of manual therapy. *Revista Brasileira De Fisioterapia*, 29(6). <https://doi.org/10.1016/j.bjpt.2025.101231>

Grüne, E., Carl, J., Geidl, W., Popp, J., Fiedler, D.V., Boss, N.,... Pfeifer, K. (2025). Modifying exercise and physical th rehabilitation to promote a physically active lifestyle: Protocol for a multicenter controlled hybrid type 2 effectiveness implementation study in three German rehabilitation centers. *BMC Sports Science, Medicine and Rehabilitation*, 17. <https://doi.org/10.1186/s13102-025-01179-2>

Hartung, V., Tallner, A., Flachenecker, P., Mäurer, M., Streber, R., Wanner, P.,... Pfeifer, K. (2025). Internet-based ex physical activity promotion for persons with multiple sclerosis: a randomized controlled trial. *BMC Sports Science, Rehabilitation*, 17(1). <https://doi.org/10.1186/s13102-025-01146-x>

Enter once...

... re-use multiple times.



Chair of Applied Physics (LAP)

Friedrich-Alexander-Universität Erlangen-Nürnberg

Naturwissenschaftliche Fakultät

Department Physik

Institut für Physik der Kondensierten Materie

Overview

Publications
(269)

Research Grants
(18)

Research Fields
(5)

Filters (inactive)

Molecular Materials: Electronic Properties

Field of Research

Molecular Materials: Light/Matter Interface

Field of Research

Research Data Management

Field of Research

Silicon carbide and Epitaxial Graphene: Electronic Properties

Field of Research

Silicon Carbide and Epitaxial Graphene: Light/Matter Interfaces

Field of Research

Structured data entered in CRIS...

Friedrich-Alexander-Universität
Chair of Applied Physics

Institution ▾ Research (Weber) ▲

Silicon carbide and Epitaxial
Graphene: Electronic Properties

Silicon Carbide and Epitaxial
Graphene: Light/Matter Interfaces

Molecular Materials: Electronic
Properties

Molecular Materials: Light/Matter
Interface

Research Data Management

Publications (Weber, Krieger,
Malzer)

Portal Research (Weber)

... website is updated automatically.

General meta data lifecycle in CRIS

Initial information

Automated imports from various sources

- Staff data,
- Organization structure,
- Research grants,
- Research infrastructure,
- Publications.

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Quality checks & data enrichment

By the researchers:

- Relations between data entities,
- Keywords,
- Additional information.

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Quality checks & data enrichment

By the researchers:

- Relations between data entities,
- Keywords,
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By the CRIS team

- Relations to structured data,
- Author list,
- External collaborators,
- Countries,
- ...

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Data reuse / Outreach

Websites

- Chairs / Departments,
- University as whole,
- CRCs, RTGs, etc.

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Reports and statistics (press, government, FAU-internal, ...)

- Keyword-based analytics,
- Regional / (inter-)national cooperations.

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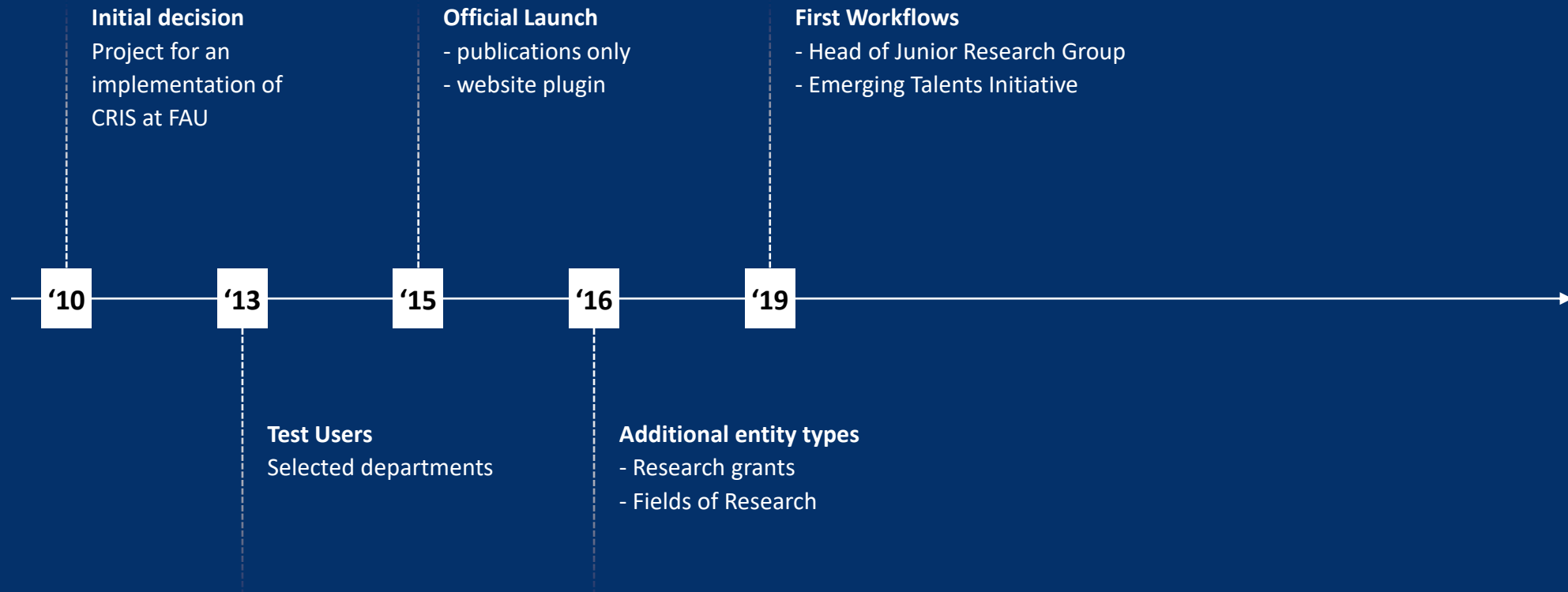
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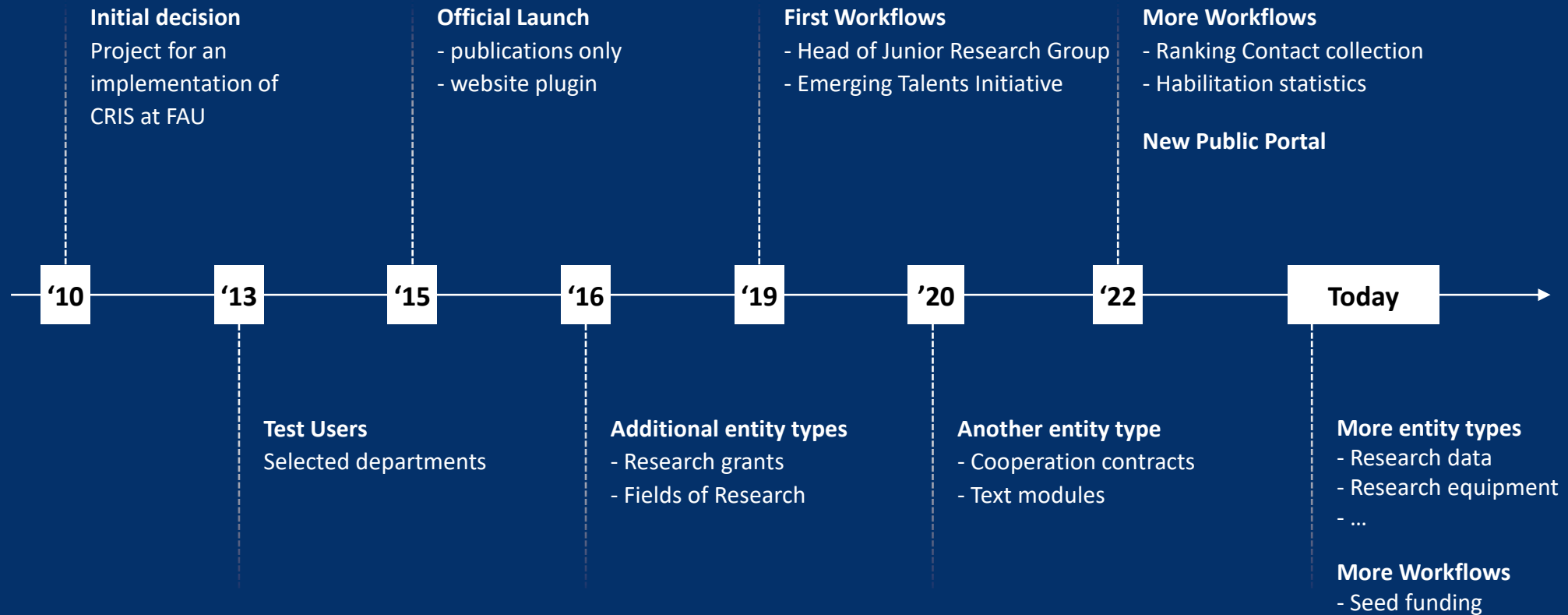
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FAU-internal applications.





More reuse

If it's not in CRIS, it doesn't exist.



Report options

Available for central administration and local CRIS admins

- Keyword-based.
- Cooperation analysis.

Research equipment

Base data from central administration (depreciation management)

- Enriched by scientists and research supporting staff,
- Look-up possible throughout FAU and by the public.

Research Data

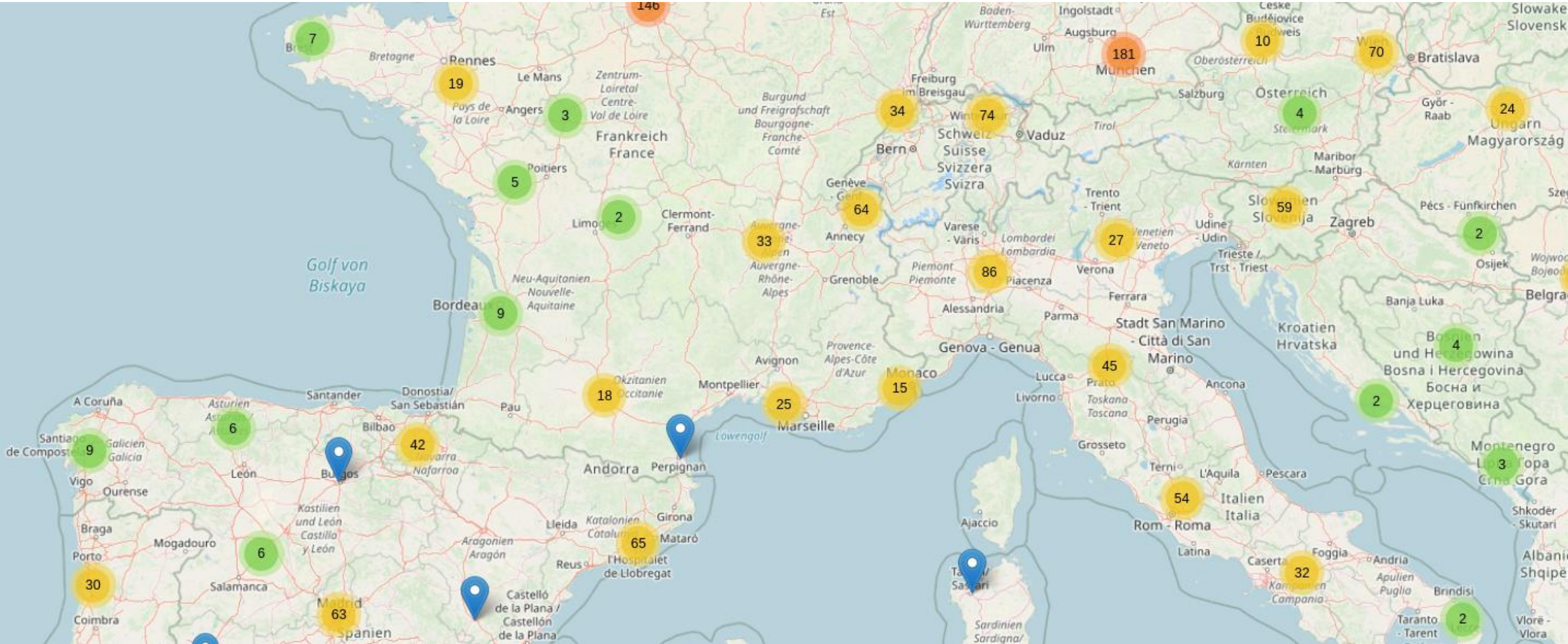
- Meta data for publications and datasets are quite similar.
- Datasets allow a real time look on what's ongoing at the university.
- Datasets fit in the research information context.

Maps

- Explore FAU's research on a map: cris.fau.de

FAU's research map

Data from the whole university



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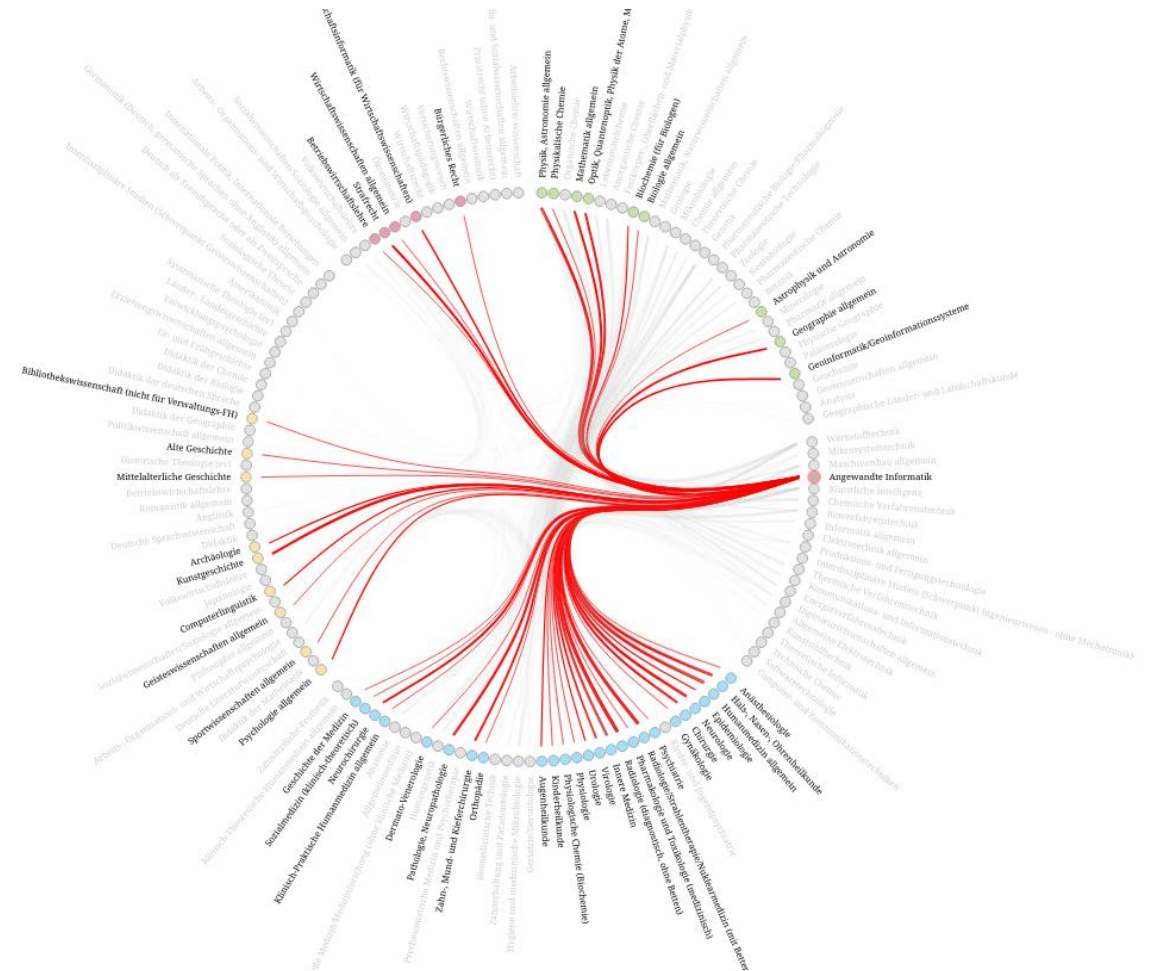
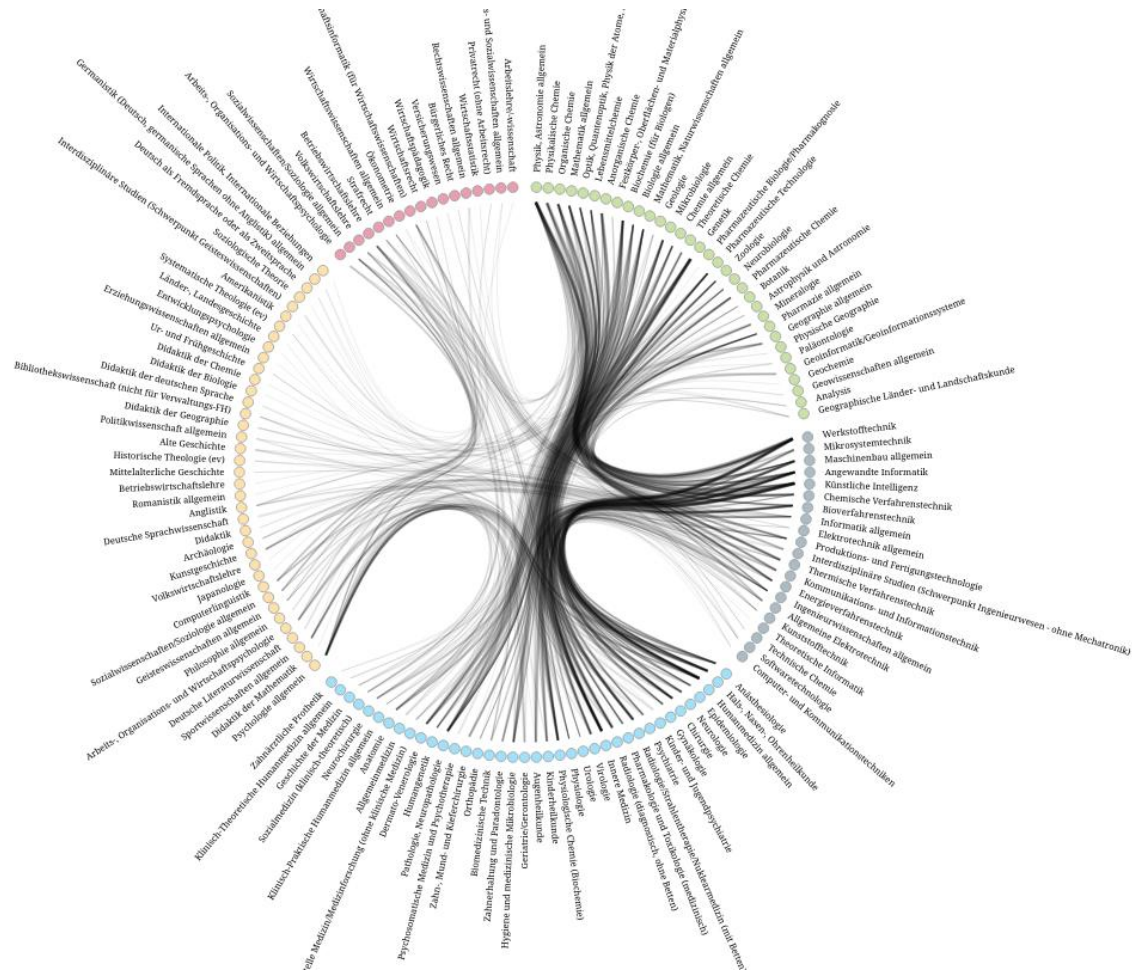
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Network visualization

- Detailed and tailored network illustrations.

Network visualization



Organization specific visualisations



I want that too!

- People maintaining research information entities request reports and structural information increasingly.
- Visualisations are being used in research grant proposals.
- Outreach activities get more attention.



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Solution

- Implement self-service visualization option into the CRIS itself.



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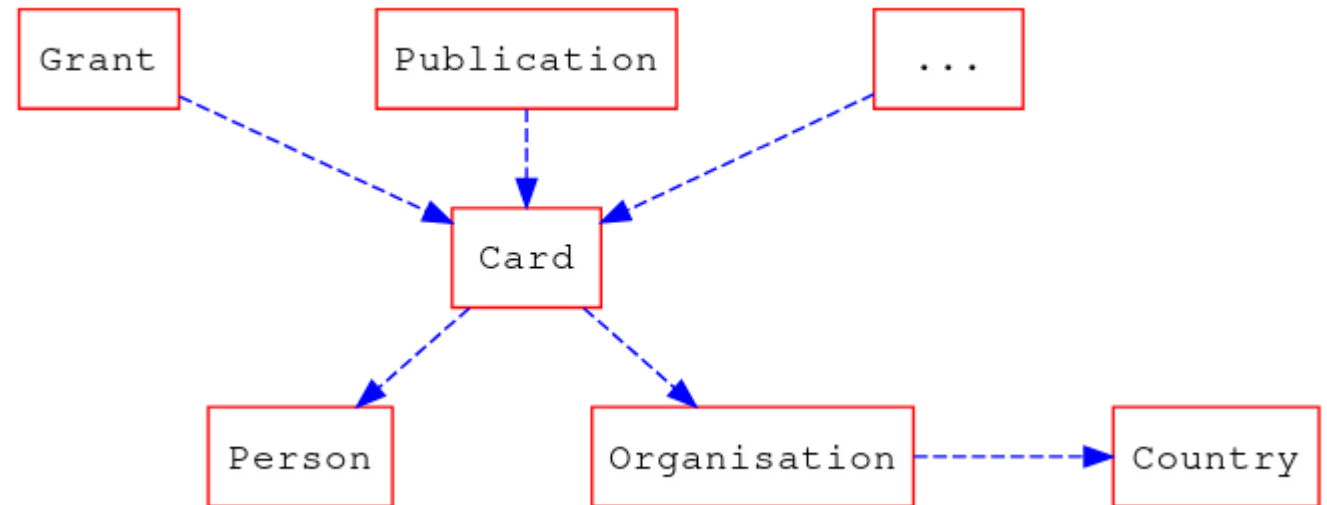
Visualization types

- Organization's cooperating institutions = map,
- Person based workgroup collaborations = network & map.

Some words about FAU CRIS' data model and sources

Card centred data model

- Nearly everything is related to a card

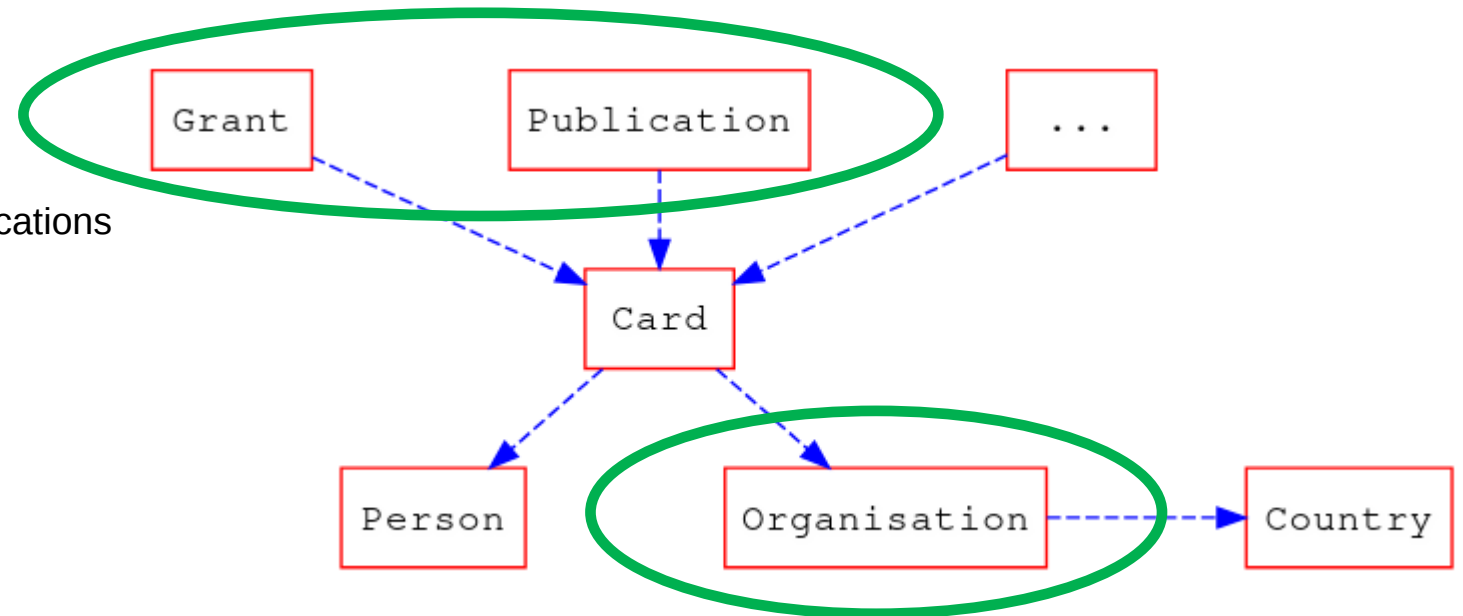


Card centred data model

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Map

- Connections between organizations based on publications and research grants



Card centred data model

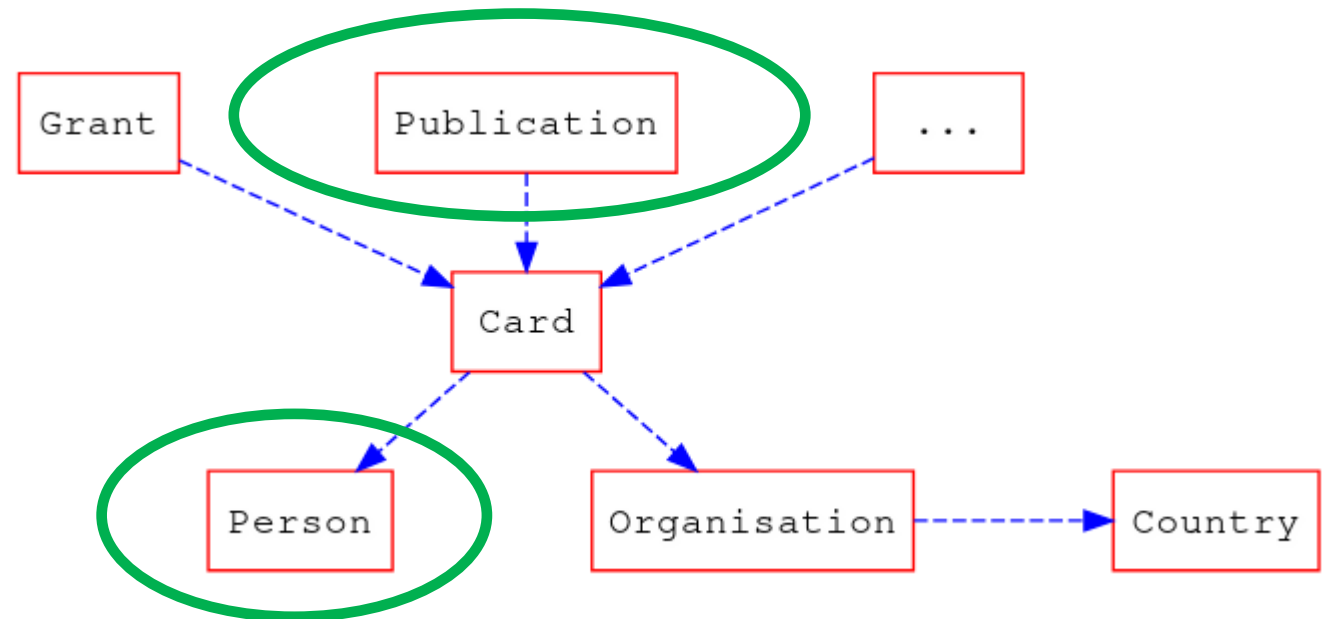
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Map

- Connections between organizations based on publications and research grants

Network

- Connections between persons based on publications



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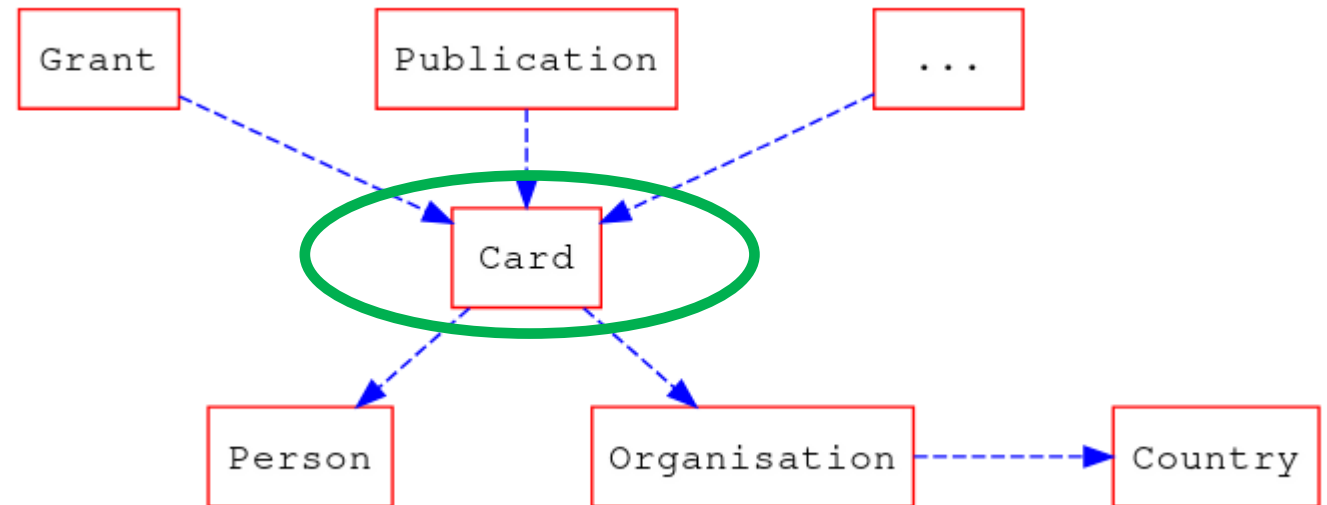
- Connections between organizations based on publications and research grants

Network

- Connections between persons based on publications

FAU's approach

- Motivate the people / implement automated imports to include all authors using cards.
- Creates data set needed for both types of visualizations.



Internal sources

- User input for publications and grants
- HR data
- FAU's organizational structure
- Financial dept for grants' data

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- HR data
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External sources

- Scopus for publications
- ROR for organizations
- Wikidata for coordinates

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Challenges

- Duplicates
- Missing PIDs
- Incomplete data
- Unstructured / inaccessible data

User's perspective: maps

Add new Visualization

Select the desired type.

Visualization	Information about the selected type
Geographic map	Geographic map
Cooperation Network	

Cancel

- Log into CRIS
- Select a visualization type (everyone is allowed to do that)

Geographic map: FAU CDI's partners

Visible in research portal Create/Update ... Admin Info

key_information *

Type of Visualization
Geographic map

Name of the visualization *
FAU CDI's partners

Language
German

Initial zoom level *
Regional Map

Link to logo image

Choose working group

Choose FAU organization

Internal organisational unit	
FAU Competence Center Research Data and Information (FAU CDI)	

Settings for content

Start *
2010

End

Latitude of origin

Longitude of origin

Further settings

Multiple settings

- Choose between working group and organization - for maps only
- Configure start / end year
 - publication year
 - project's active phase
- Additional for maps
 - Initial zoom level
 - Initial center coordinates

Maps III

Display options



- Full screen option
- Embedded version

FAU Friedrich-Alexander-Universität

Start / Visualisation Map

Map

CRIS Current Research Information System

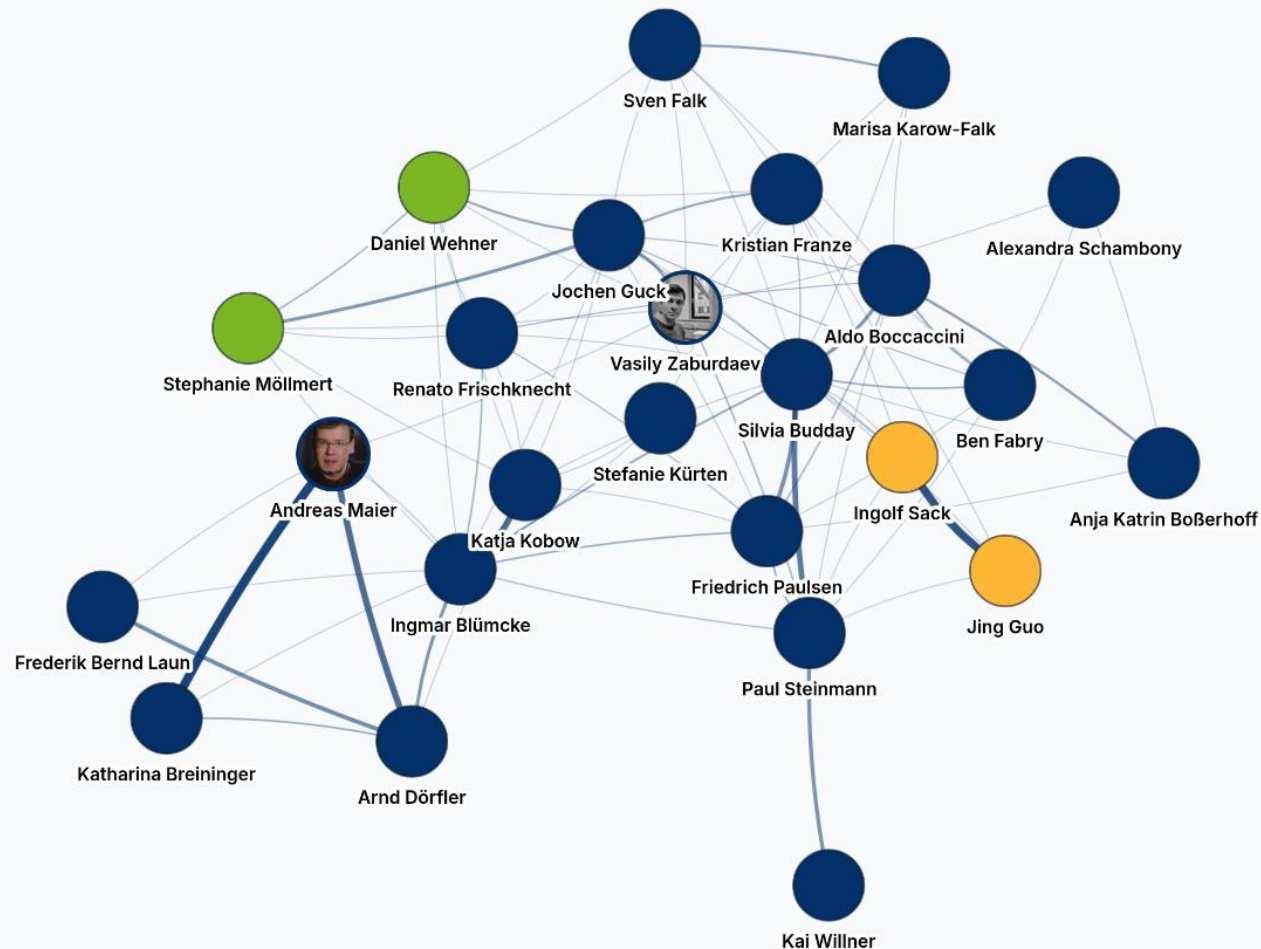
FAU

Contact and Directions

Friedrich-Alexander-Universität
Erlangen-Nürnberg
Freyeslebenstraße 1
91058 Erlangen



User's perspective: networks



- Full screen option
- Embedded version
- Layout can be saved for later
- Export option as PNG / SVG for reports, proposals



Does it pay off?

FAU's research training groups

Group	Website using CRIS	Proposal using CRIS	CRIS updates
2339/2	no	no	poor
2423/2	yes	yes	perfect
2475/2	yes	no	good
2495/2	yes	no	good
2504/2	no	no	poor
2599/2	no	no	poor
2680/1	no	no	poor
2726/1	no	yes	good
2740/1	no	yes	good
2806/1	yes	yes	perfect
2839/1	yes	yes	perfect
2861/1	no	no	poor
2950/1	no	no	poor



Added value for CRIS systems using visualizations

