

RISIS - An e-infrastructure for the STI-Policy research community

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What is RISIS?



- RISIS is the first pan-European research infrastructure to study research and innovation dynamics and policies
 - Radically improved information basis for empirical research in STI-studies and beyond
 - Focus on inter-linking of large-scale R&I datasets distributed across Europe, and their mobilisation for innovation and policy research
- The integration of these R&I datasets across highly relevant integrative dimensions offers new opportunities for monitoring at the micro-level of R&I activities, most importantly
 - Harmonized Geocoding of these datasets at organisational level
 - Harmonisation of organisation names for tracing organisations in different R&I activities and over time
 - Dynamic topical classifications of R&I activities via semantic technologies (e.g. assignment of R&I activities to societal challenges)

What RISIS offers



Accessible R&I Datasets, two Organisation Registers, ready-made R&I Indicators, and supporting Services and Methods

- \rightarrow can be mobilized to address research and policy issues, e.g.
- Investigating the complex relationships between R&D policy and R&D processes and outputs
- Exploring firms' innovation capabilities and their drivers
- Exploring geographical dynamics of knowledge production and innovation
- Identifying R&D actors in policy relevant fields, and investigate where they are located, and how they are they inter-connected?

RISIS Datasets



- Firm innovation capabilities (CIB, VICO and CHEETAH);
- R&D output oriented datasets (with publications CWTS publication database -, patents IFRIS Patstat and R&D projects EUPRO)
- Public research and higher education: RISIS-ETER (incl. OrgReg)
- Policy learning (with SIPER, repository of policy evaluations)

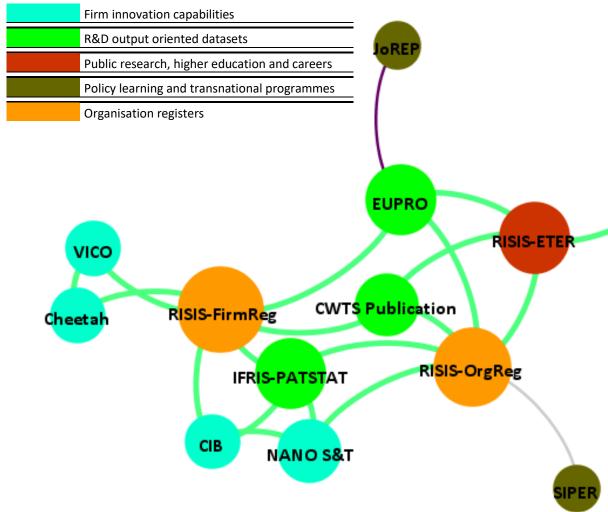
These datasets are continuously updated and advanced

Moreover, the RISIS includes **specialised smaller datatsets**, e.g. on research careers (MORE, PROFILE) or transnational programmes (JOREP), and

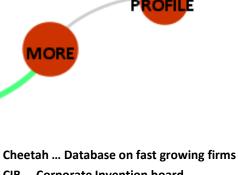
 Four new datasets in development on public research funding, nonacademic PhD careers and non-technological innovation (social innovation and trademarks)

Linked datasets





Notes: Dots represent datasets, lines inter-linking between datasets via key identifiers (e.g. organisation id). Size of dots corresponds to the number of links (i.e. direct links to other datasets)



Cheetah ... Database on fast growing firms

CIB ... Corporate Invention board

EUPRO ... Database on European R&D projects

CWTS Publication ... WoS based publication database

IFRIS-PATSTAT ... Patent datbase of IFRIS

JOREP ... Database on transnational programs

MORE ... European researcher mobility survey

Nano S&T ... Nanotech publications / patents

PROFILE ... German research careers

RISIS-ETER ... Register of HEIs

RISIS-FirmReg ... Register of European firms

RISIS-OrgReg ... Register of HEIs and PROs

SIPER ... Repository of policy evaluations

VICO ... Database on startups / venture capital

Access via the RISIS platform! RISIS



- Main principle: Raw data accessible against certain criteria, but relevant indicators fully public!
 - Raw data are open for researchers that pose a relevant research project in the RISIS platform (https://rcf.risis2.eu/datasets#)
 - We are moving from physical to distant access, though keeping the possibility for physical visits (re-imbursed!) to RISIS datasets
- A number of resources (Organisation Registers, RISIS-KNOWMAK) are already fully public
- From 2020, the RISIS platform will allow
 - Direct access to datasets in a user friendly dashboard
 - Dynamic inter-linking of datasets directly in the platform (user projects)
 - Services and analytical tools to investigate RISIS datasets

OrgReg



- the central tool for the harmonization of actors in the public research system
- Provides a consistent register of
 - public-sector research and higher education organizations,
 - including information on their demography, geographical location and linkages
- OrgReg Ids will be integrated in the main RISIS datasets to allow data integration
- Covers all European countries
- Is available on-line (via RISIS registration)

FirmReg



- In equvivalent to OrgReg, FirmReg is the central facility of RISIS providing tools for the harmonization of actors in the private sector
- Covering all firms with a sizeable innovation output
- Currently provides a consistent register of
 - Firms coming from three firm-based datasets in RISIS (CIB, VICO and CHEETAH)
 - including information on parent-subsidiaries linkages
- A new release is planned for 2020

A focus on ready-made indicators RISIS



Demand, in particular from policy, not only to provide access to raw data, also to ready-made indicators

- → RISIS has opened a way to produce indicators across three integrative dimensions across datasets
 - Geocoding of RISIS datasets at organisational level
 - Harmonisation of organisation names
 - Dynamic topical classifications via ontologies

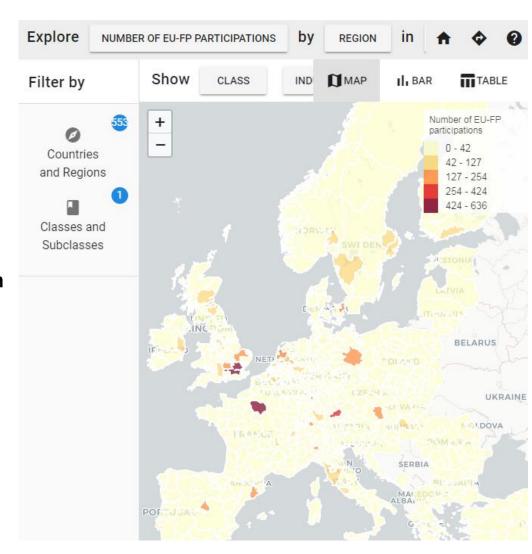
Integration of RISIS datasets offers new opportunities for monitoring and investigating research performing and innovating organisations

RISIS-KNOWMAK



shifting attention to knowledge production in the ERA

- Links RISIS source data with Key Enabling Technologies (KETs) and Societal Grand Challenges (SGCs) via ontologies
- Indicators on knowledge production in KETs and SGCs (and 130 subtopics), across geographical spaces (adapted NUTS regions)
- Analytical and visualisation possibilities as well as download funtions for further investigation (e.g. specialisation analysis)



Directions



- RISIS2 website: <u>risis2.eu</u>
- RISIS core facility (access to the datasets):
 rcf.risis2.eu/datasets
- Direct access to OrgReg and RISIS-ETER: <u>orgreg.joanneum.at</u>
- Direct access to RISIS-KNOWMAK: knowmak.eu



THANK YOU!

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