



REUTERS/[Stoyan Nenov](#)

Big answers from big data: Thomson Reuters research analytics

Nordic Workshop on Bibliometrics and Research Policy
Ann Beynon

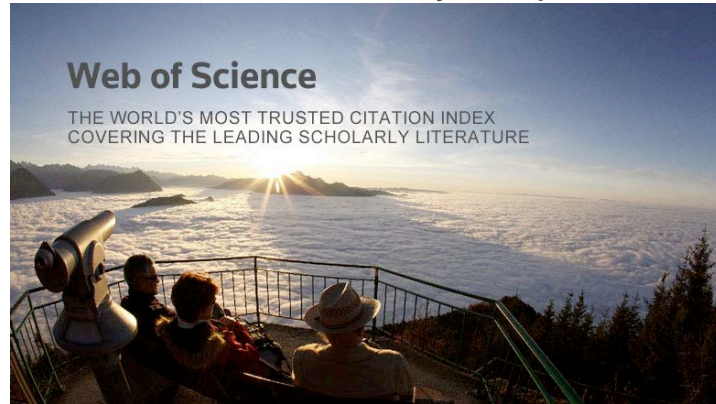
September 2014



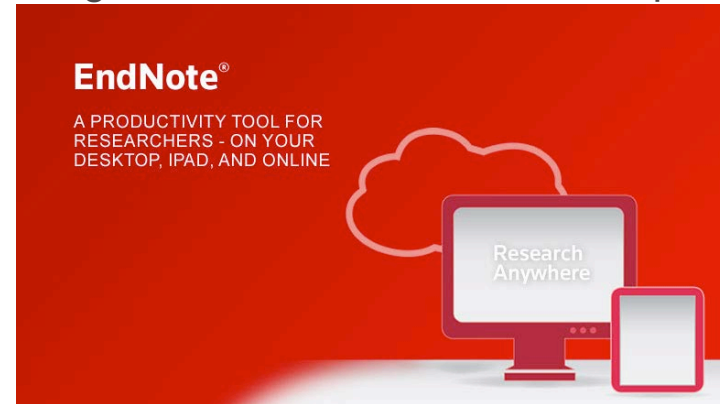
THOMSON REUTERS

Thomson Reuters: Solutions Portfolio to Seamlessly Support Research

Discover Scholarly Output



Organize References & Write Papers



Benchmark & Analyze Performance



Manage & Report on Scholarly Activity

Thomson Reuters Research Management

SUPPORTING THE ENTIRE RESEARCH LIFECYCLE



InCites

Benchmark research productivity and impact with quantitative metrics based on the Web of Science.

Converis

A complete research information management system with flexible workflows to support faculty activity tracking and other reporting requirements.

Research Data and Services

Professional services from subject-matter experts to help you answer even the most unique research challenges.

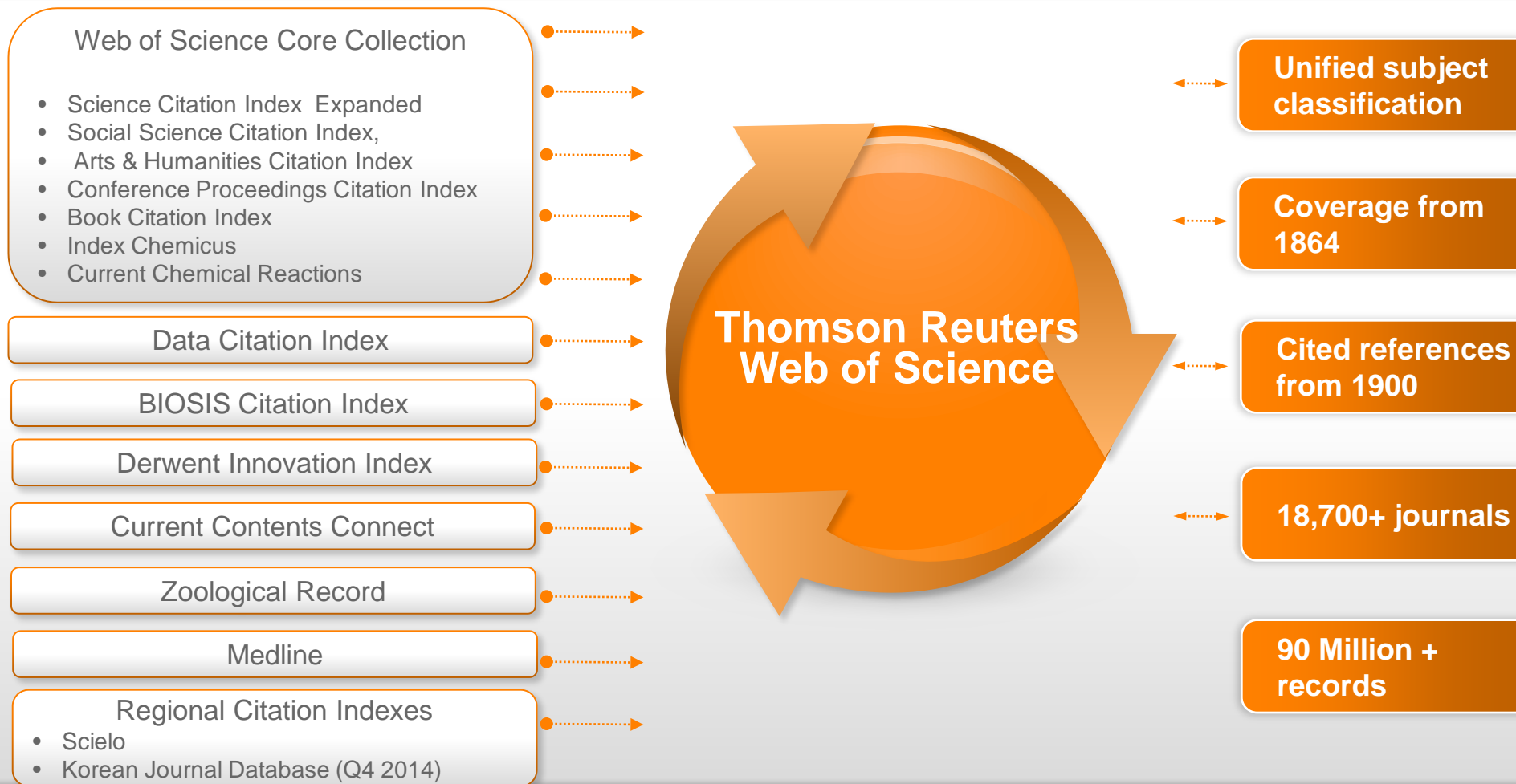
CAPABILITIES:

- Scholarly Metrics & Benchmarking
- Impact Evaluation & Innovation
- Leading-Edge & Emerging Research

DELIVERY CHANNELS:

- Custom data delivery
- Customized metrics and analytics
- Expert analysis and reports

The Web of Science: A Unified Platform For Scientific Discovery



Web of Science Core Collection: The foundation for analytics

Web of Science Core Collection

- Science Citation Index Expanded
- Social Science Citation Index,
- Arts & Humanities Citation Index
- Conference Proceedings Citation Index
- Book Citation Index

- 12,500+ Journals, 12000+ annual conferences, 50,000+ books
- 57M+ records; 800M+ cited references, back to 1900

Web of Science Core Collection: The foundation for analytics

- 7,000+ Subscribing Organizations in 100 countries rely and trust the quality and depth of content in the Web of Science Core Collection.
- 12,500+ Journals, 12000+ annual conferences, 50,000+ Books
- 57M+ records; 800M+ cited references, back to 1900
- Multidisciplinary
- Independent and neutral selection of content
- Consistent, cover-to-cover indexing with the highest quality

Government & Funding Agencies

NIH, NSF, THE, etc.



**CWTS
Leiden
Rankings**

- Over 100 years of research fully indexed and searchable
- Funding acknowledgments are fully indexed
- Collaboration with Google Scholar – bi-directional linking with Google Scholar and Web of Science

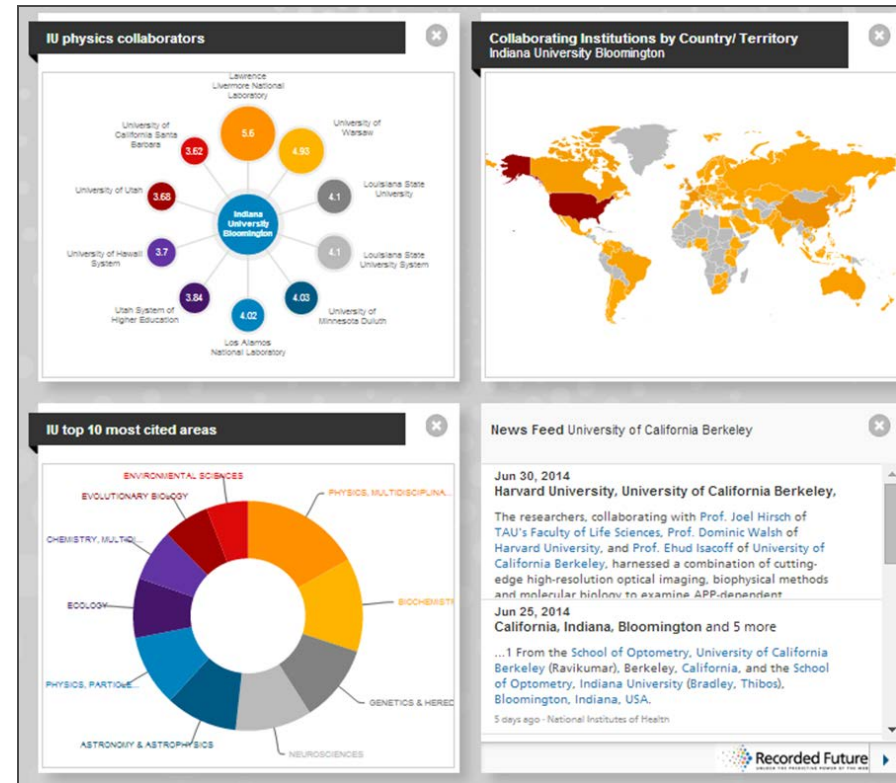


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INCITES

InCites: One platform for analytics

- InCites includes:
 - *Journal Citation Reports*-comprehensive journal analysis
 - *Essential Science Indicators*-top cited research from around the world
 - *Benchmarking and Analytics*-flexible benchmarking of institutions and authors, plus collaboration analysis



InCites Benchmarking and Analytics

- Based on *Web of Science Core Collection*- the most trusted source of citation metrics
 - Science Citation Index Expanded
 - Social Science Citation Index
 - Arts & Humanities Citation Index
 - Conference Proceedings Citation Index
 - Book Citation Index
 - 12,500+ high impact scholarly journals
 - Thousands of conferences and books
 - Cover to cover, multidisciplinary content

- 2004 to present
 - All document types (articles, reviews, editorials, book chapters, etc.)
- Data and benchmarks are updated bimonthly
- Over 4,500 unified institutions
- Subject area schemes:
 - Web of Science
 - Essential Science Indicators
 - Eight regional schemes

InCites supports quantitative evaluation of research performance

- Measure institutional and researcher productivity and impact to make evidence-based decisions
- Allocate funding strategically according to changes in research focus
- Deliver evidence of productivity and impact for reporting purposes
- Bibliometric analysis of:
 - Authors
 - Institutions
 - Countries/regions
 - Research areas
 - Journals/conferences/books

InCites Essential Science Indicators

- Based on *Web of Science Core Collection*- the most trusted source of citation metrics
 - Science Citation Index Expanded
 - Social Science Citation Index
- 10 year plus bimonthly update rolling period (Current edition: January 1, 2004-April 30, 2014)
- Document types=articles, notes, reviews
- Data and benchmarks are updated bimonthly
- 22 broad research areas

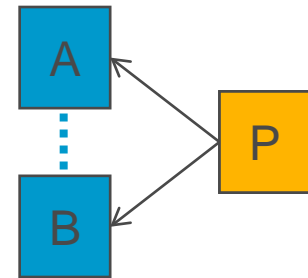
InCites Essential Science Indicators

- 4 types of *Citation Rankings*:
 - Top 1% of Authors and Institutions
 - Top 50% of Journals and Countries/Territories
- Highly Cited Papers: Top 1% of cited papers per discipline
- Hot Papers: Papers from the last two years that were cited the most (top 0.1%) in the last 2 months
- Baselines: Helps put citation statistics into context
- Research Fronts: Creates clusters of highly cited articles, useful for identifying ground breaking discoveries

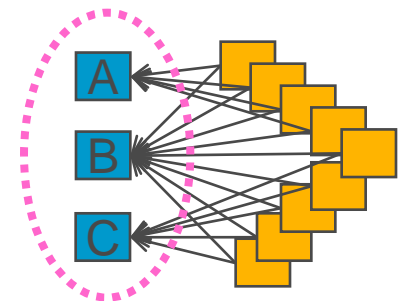
Research Fronts

Co-citation analysis counts the number of times that a given pair of documents (or authors or journals) are co-cited by third parties. The more papers co-cite the pair, the stronger the relationship. This relationship is *dynamic* (new papers may be published which cite our pair) *and forward looking*.

1. When paper A and B are “co-cited” by paper P, A and B are likely to have topical relatedness.



2. When co-citation is frequent, it forms a group of papers that are topically associated to one another.



Research Fronts: delivery options

- Explore research fronts in InCites Essential Science Indicators
- Use a custom analysis where our experts:
 - Quantify your contribution to research fronts
 - Identify related areas to these clusters

- Analysis quantifying contribution of organizational output by examining the top 25 Research Fronts where organizational output is highest
 - Membership of organizational publications in Research Fronts and Expanded Research Fronts
 - Mean similarity between organizational papers and Research Fronts core papers, by Research Front

RF Description	Core Research Fronts Paper		Expanded Research Fronts			
	RF Paper	Institutional Paper	ERF Paper	Institutional Paper	Contribution from Inst	Mean Similarity
KNEE OSTEOARTHRITIS MRI	50	0	484	12	2.5%	0.24
VITRO ANTIOXIDANT ACTIVITY	50	0	2467	49	2.0%	0.12
CRYSTALLINE IMINE-LINKED 3-D POROUS	50	0	345	10	2.9%	0.09
C-H CENTER DOT CENTER	49	0	465	23	4.9%	0.07
INVERSE SPIN HALL HALL EFFECT	50	0	354	14	4.0%	0.05



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INCITES DEMONSTRATION



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RESEARCH DATA AND SERVICES

Custom research data and services

- We offer:
 - Web of Science raw data in its entirety or subsets (XML)
 - Custom datasets including metrics, matching, and data cleansing
 - Written reports and consultation

Custom projects: examples



wellcome trust



Alzheimer's
Research UK
Defeating Dementia



Australian Government
Australian Research Council

IOP Institute of Physics



EPSRC
Engineering and Physical Sciences
Research Council



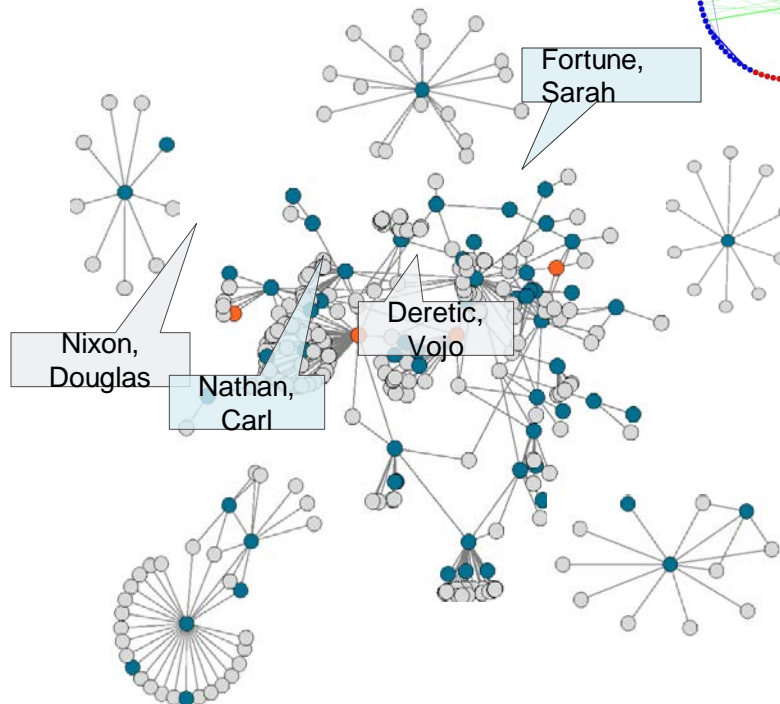
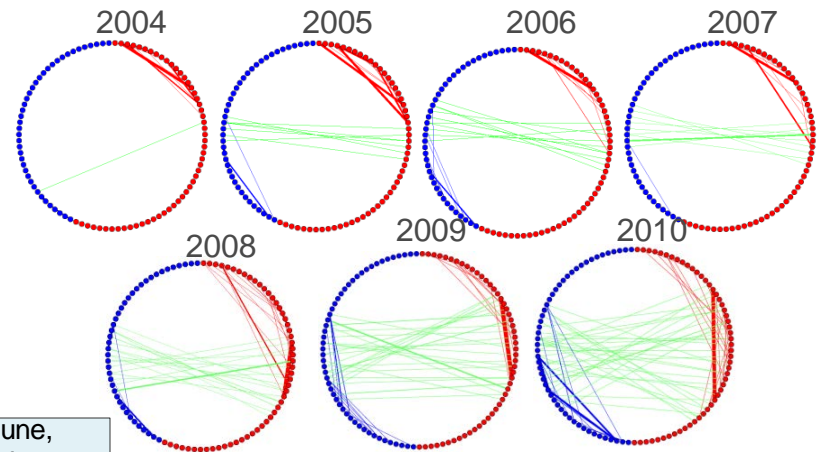
Imperial College
London



Custom projects: examples



Find the full pre-publication draft on the IACC website at:
<http://iacc.hhs.gov/publications-analysis/july2012/index.shtml>



Educational materials

- Download free InCites Indicators Handbook

<http://researchanalytics.thomsonreuters.com/m/pdfs/indicators-handbook.pdf>

- InCites videos

http://wokinfo.com/training_support/training/incites/





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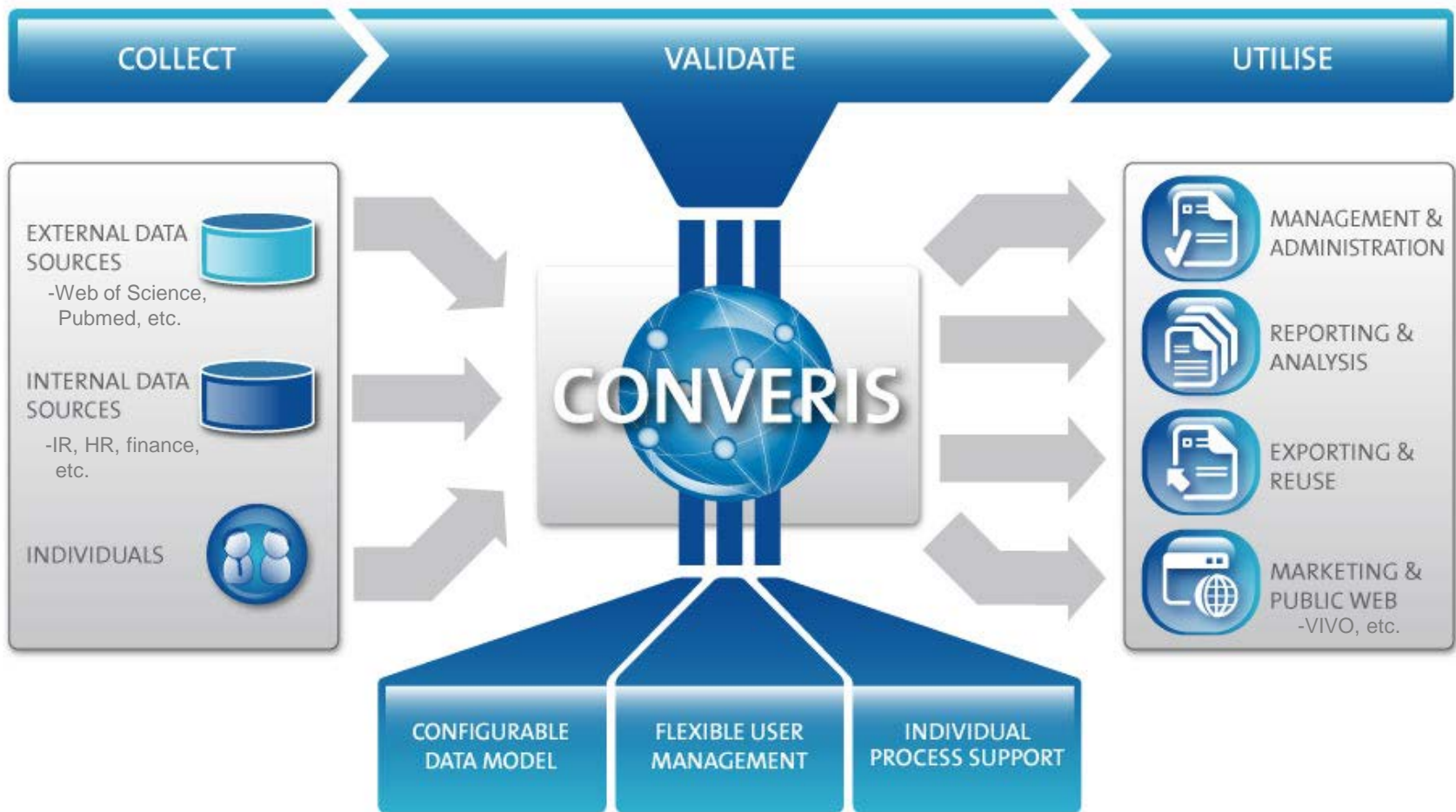
CONVERIS

Ease the administrative burden on researchers

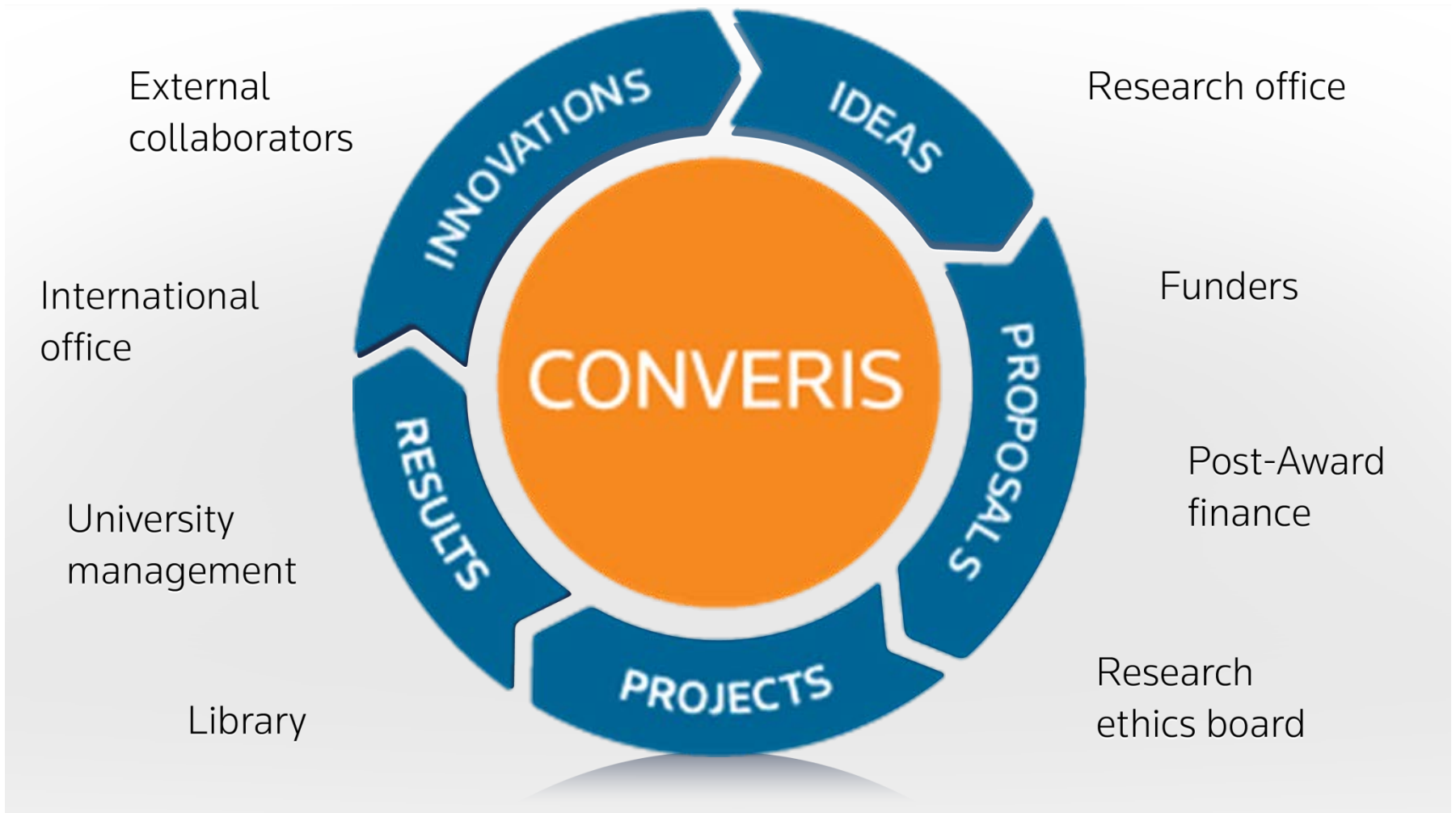
CONVERIS is a research information and activity reporting system that:

- enables you to centralize all researcher activities in one place (publications, grants, teaching, service)
- syncs with your existing data sources: “collect data once, use it many times”
- creates CVs for researchers in standard or custom templates
- can be highly customized to support evaluation workflows at your institution
- offers a public portal to showcase your accomplishments to the world
- includes ad hoc reporting on all data in the system

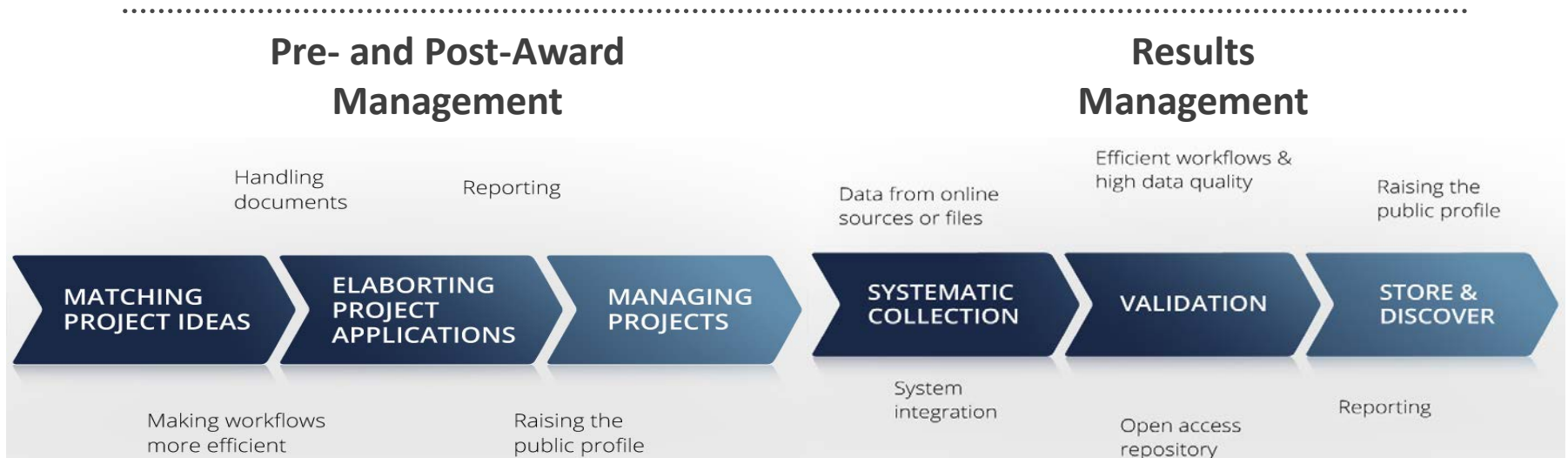
CONVERIS integrates with internal and external systems



CONVERIS : Supporting the Full Research Workflow



CONVERIS Can Manage The Entire Research Life Cycle



Graduate Student Management

CONNECTORS

Currently, CONVERIS offers connectors to around 50 different systems. A brief overview of the most common ones:

- Login servers (e.g. Shibboleth, Kerberos, CAS, often with Single Sign On (SSO))
- HR systems (Resource Link, SAP-HR, PeopleSoft)
- Finance systems (e.g. SAP, PeopleSoft, Agresso, Oracle, Raindance, MACH)
- Student record systems (e.g. SITS, Ladok, AIS)
- Institutional repositories (e.g. DSpace, EPrints, Fedora)
- Content Management Systems (through CONVERIS web services in order to integrate existing information from CONVERIS into existing web pages)
- External publication databases (e.g. WoS, Scopus, PubMed, DNB)
- VIVO- We produce format that can be ingested into VIVO. Producing VIVO-specific format is on the roadmap (date TBD).

Standard activities built into CONVERIS

Publication type	Type of activity	Type of Teaching Activity	Type of award
Annotation	Award	Advising	Clinical trial
Anthology	Editorship	Continuing Education	Fellowship
▶ Book related publication types	Education	Extension	Internally funded project
Commentary	Lecture	Graduate	Knowledge Transfer Partnership (KTP)
▶ Conference related publication types	Practical course	Mentoring	▼ Research projects
▼ Journal related publication types	Professional membership	Professional	Charity funded
Journal article	Professional qualification	Undergraduate	Contract research
Journal article abstract	Public engagement		▼ EC-funded projects
Journal article review	Seminar		FP7
Letter	Speech	Type of Service	Marie Curie
Letter to editor	Teaching	Clinical Service	▼ Standard projects
Manual	Other merits	Clinical Trials	DFG
Newsclipping		Consultant Services	RCUK
Other	Type of Creative Work	Editor/Reviewer	Studentship
Report	Artwork	Professional Societies	Travel/Conference support
Short communication	Audiovisual Work	Strategic Initiatives	
▶ Thesis	Equation/Figure	Student Group Advising	
	Musical Work/Performance	University Committee Service	
	Software/Online Multimedia		
	Other Creative Work		

You can also add your own activity types to the data model.

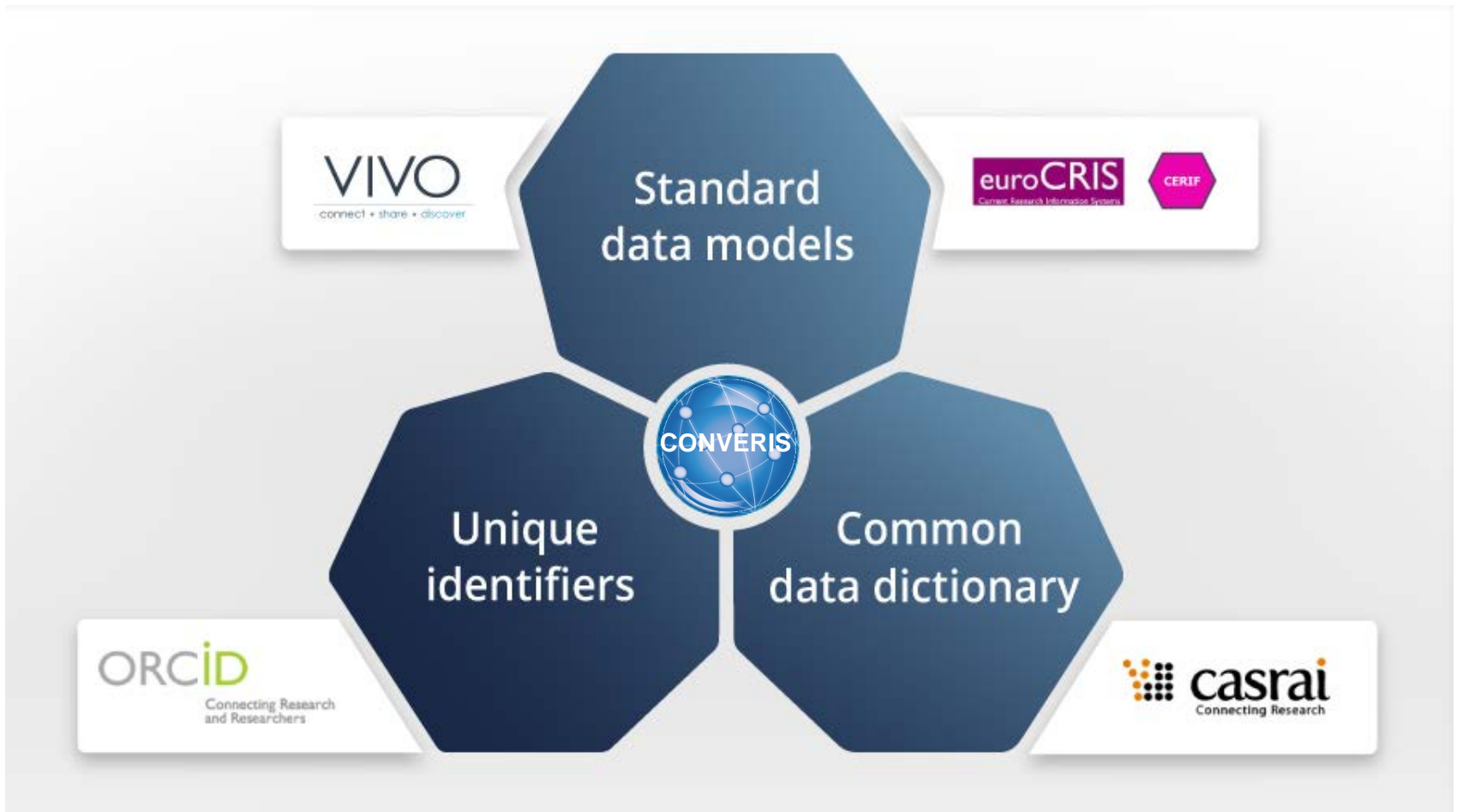
Ease administrative burden on researchers

A system is only as good as the data in it

Populating publications into **CONVERIS** is simple:

- Thomson Reuters can pre-populate journal article metadata from Web of Science Core Collection into your researchers' profiles
- Web of Science Core Collection, as well as other sources such as PubMed, can be searched through CONVERIS to further manage publication lists
- “Search profiles” alert researchers when there are new publications to add to their profiles, making maintenance easy
- Web of Science Core Collection also adds “times cited” counts to profiles to track research impact

Engagement in Industry Standardizations



Researchers can easily generate a CV in various formats, including your institution's

The screenshot displays the CONVERIS Research Management System interface. At the top, a navigation bar includes 'Research Portal', 'Help', 'My Settings', and 'Logout', with the user identified as 'Researcher: Vollmayr, Brooke'. The main header features the 'CONVERIS Research Management System' logo. Below this is a search bar and a user profile for 'Dr. Brooke Vollmayr'. The profile includes contact information: Email: b.vollm..., Mobile: +49..., Phone: +49..., URL: http://w..., ORCID ID: d0..., Researcher..., and ISNI: d000 00... The profile also lists 'Work Experience' (Assistant, Department...) and 'Research Interest' (Cognitive, Affective, and Behavioral Neuroscience, Eu...). A modal window is open, showing 'Output template' options: CANADIAN COMMON CV, CASRAI CV, CONVERIS CV, EU CV, and NIH Biographical Sketch (SciENcv) - Beta. The 'Content' section has checkboxes for CV Activities, Projects (Principal investigator), Projects (Co-Investigators), and Publications. There are input fields for 'Start date' and 'End date', each with a calendar icon. The 'Format' section offers 'Acrobat / PDF' and 'Microsoft Word / Doc'. A 'Generate CV' button is at the bottom right of the modal.

Faculty can export their profile data into various CV templates

Facilitate your annual review and accreditation reporting

Converis is highly configurable. Build in your institution's annual report templates and use standard accreditation templates.

Customize the workflow for your local needs.

Evaluation, Matrix, and Signature Form for Faculty and (Teaching) Unclassified Professionals for Calendar Year

- 3705 -

<i>Pietje Puk Emeritus Professor Faculty of Law</i>	Name Rank Department Type of Appointment	Years in Current Status EFT Months Hire Date
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I. Faculty/ Unclassified Professional Evaluation Committee: Attach an evaluative statement.
Based on performance record, reappointment is: _____ Recommended _____ Not Recommended
(Vote Count) (Vote count)

Signed: _____ Date _____
Committee Chair

II. Department Chair: Attach an evaluative statement with specific reference to performance and check appropriate spaces below.

Employment Status	<i>n/a</i>	Recommendation	<i>n/a</i>
-------------------	------------	----------------	------------

Intellectual Exploration (Research/Creative Work)	<i>n/a</i>
Enhance Learning (Teaching)	<i>n/a</i>
Support (Service)	<i>n/a</i>
Retention	<i>n/a</i>
Recruitment	<i>n/a</i>
Overall	<i>n/a</i>

III. Accountability Planning Matrix

Indicate the percentage of your time you spend on the matrix category for each of the four audiences. The total percentage of your time should equal 100%. There is no need to place a percentage in every

Showcase your expertise to the world

CONVERIS Research Portal

- Portal can be used out of the box or customized for your organization
- You decide which information is publicly visible

<http://su.avedas.com/>



Startpage > Natural Sciences > Chemistry > Analytical Chemistry

- Humanities
- Law
- Natural Sciences**
 - Biology
 - Chemistry**
 - Analytical Chemistry**
 - Biochemistry and Biophysics
 - Materials and Environmental Chemistry
 - Neurochemistry
 - Organic Chemistry
 - Earth and Environmental Sciences
 - Mathematics and Physics
 - Stockholm Resilience Centre
- Social Sciences

Analytical Chemistry

Contracts (5) Researchers (22) Organisation

Sort alphabetically ▾

Bergh, Caroline, PhD student
Department of Analytical Chemistry



Bergvall, Christoffer, Dr
Department of Analytical Chemistry



Colmsjö, Anders, Prof
Department of Analytical Chemistry

Sweden ScienceNet CONTACT | ABOUT | HELP

LOGIN

Startpage

Sweden ScienceNet is an initiative to improve the management of information on Swedish research activities and results. [Read more.](#)

Data shown in the system is currently not up to date. This is due to that The Swedish Research Council is currently working with upgrading the system and improving the data quality in the database. New data will be imported as soon as possible.

The system currently shows data on research projects supported by Vetenskapsrådet, FAS, Formas, VINNOVA, the Swedish Foundation for Strategic Research, Riksbankens Jubileumsfond, Ragnar Söderbergs stiftelse and Institutet för arbetsmarknads- och utbildningspolitisk utvärdering (IFAU). It will later be extended to show data also from other research funding organisations.

The data is categorized in accordance with the Swedish standard for classification of research topics.

To start to search or to register interest in contracts.

<http://www.sciencenet.se/converis/publicweb/area/17257>

ADVANCED SEARCH >>

Top keywords

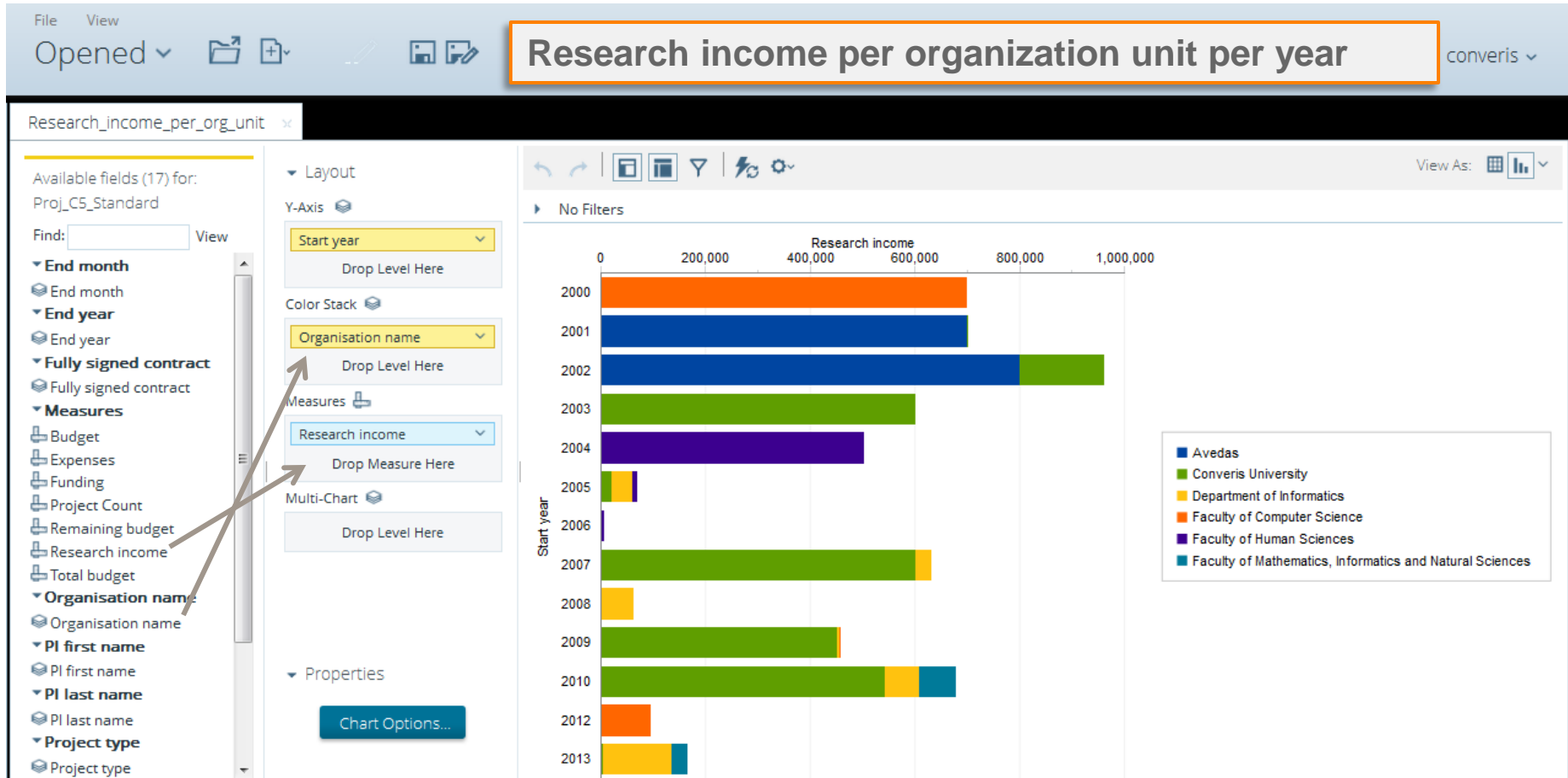
Actors Agricultural Blood Brain Built Cancer
Chronic City **Clinical** Discussed Disorders
Economic Education Empirical Gender
Healthy Historical History Inflammation
Inflammatory Institute Intervention Interviews
Land Landscape Literature Market Mice
Patients People Perspective Place
Policy Political **Public** Qualitative Sector

Top organisations

Acreo AB Chalmers tekniska högskola CHALMERS
TEKNISKA HÖGSKOLA AKTIEBOLAG **Göteborgs universitet** Karlstads universitet
Karolinska institutet Kungliga
Tekniska högskolan Linköpings
universitet Luleå tekniska universitet
Lunds universitet SP Sveriges
Tekniska Forskningsinstitut AB Statens väg- och

Analytics to help support research decisions




Drag-and-drop reports are easy to create, modify, and format




Analytics to help support research decisions

Create your own dashboard of reports

File View

Opened ▾   

AVEDAS  converis ▾
Research Information Systems

Dashboard-example × Interactive Report × Analyzer Report ×

New Dashboard

Publications per author

< > 1 / 15

Publications per author


Last name: Abendstern

Title	Publication type	Publication year
ARES 2010 - International Conference on Availability, Reliability, and Security	Conference proceeding	2010

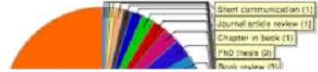
Last name: Baker

Publication Overview

Page: 3 of 15 — Automatic Zoom


AVEDAS  Publication Overview Report 03.02.2014

Publications by Type



Joint publications per country

▸ No Filters Actions ▾

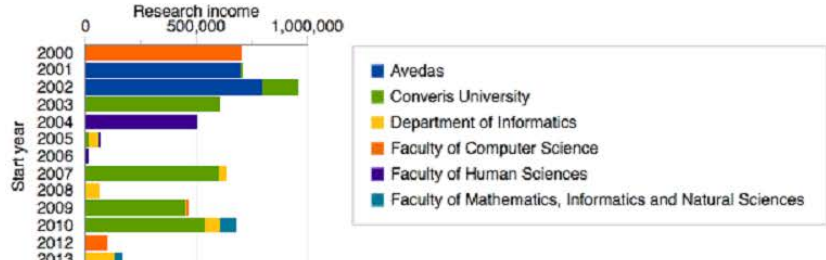


Research income per org unit

▸ No Filters Actions ▾

Research income 0 500,000 1,000,000

Start year



- Avedas
- Converis University
- Department of Informatics
- Faculty of Computer Science
- Faculty of Human Sciences
- Faculty of Mathematics, Informatics and Natural Sciences

Educational materials

- Download free Converis whitepaper

<http://ip-science.interest.thomsonreuters.com/SSR-RA-ConverisLandingPage>

- Converis videos

<http://converis5.com/>



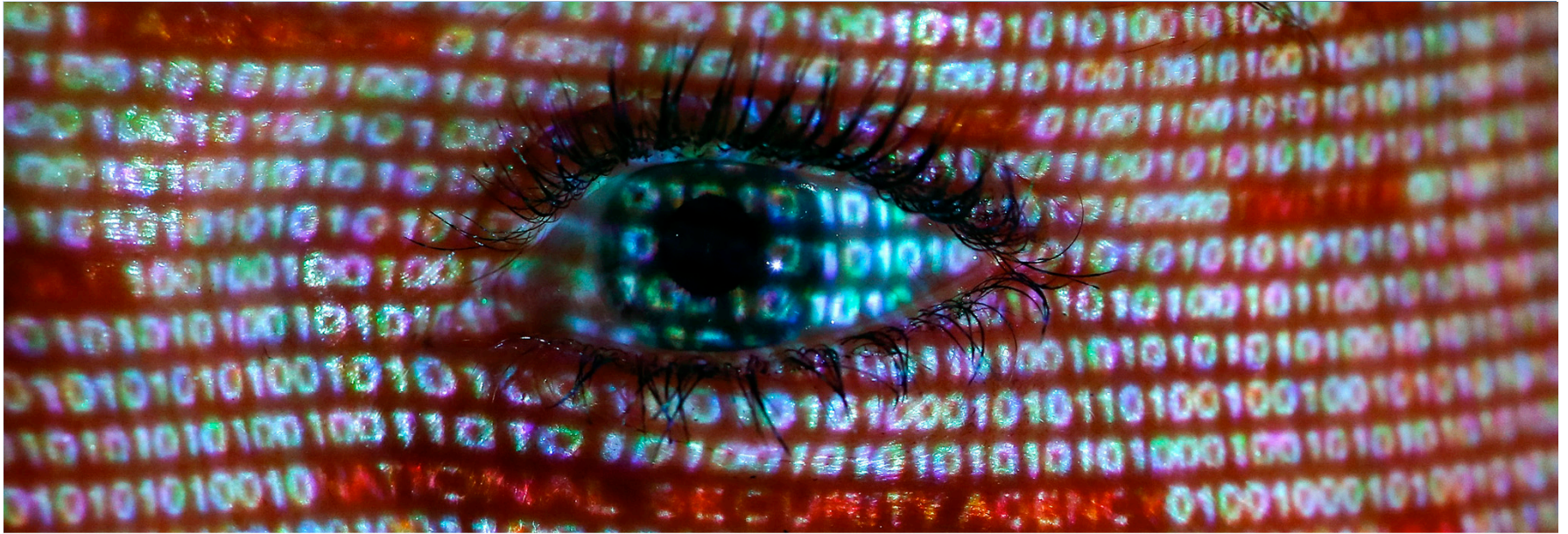
THOMSON REUTERS



PROJECTS IN PROGRESS

Projects in progress

- Web of Science:
 - Korean Journal Database-free to current customers
 - Search and export Pubmed IDs in Web of Science Core Collection
 - Usage metrics in Web of Science and exploration of other altmetrics
 - Next generation author disambiguation algorithm
- InCites:
 - Author profiling- for analytics and Web of Science disambiguation
 - Additional data types: patents, demographic data, third-party data, etc.
 - Developers area



REUTERS/Pawel Kopczynski

Thank you

ann.beynon@thomsonreuters.com



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