

Elsevier Research Intelligence

Introducing Pure hosted edition

A ready-to-use, centralized research networking and expertise discovery system

Peter Porosz
Customer consultant
p.porosz@elsevier.com

Belgrade 23rd January 2015.



3 Key goals of researchers and their institutions

The volume of research and the related information is constantly increasing. Researchers and their institutions need to:



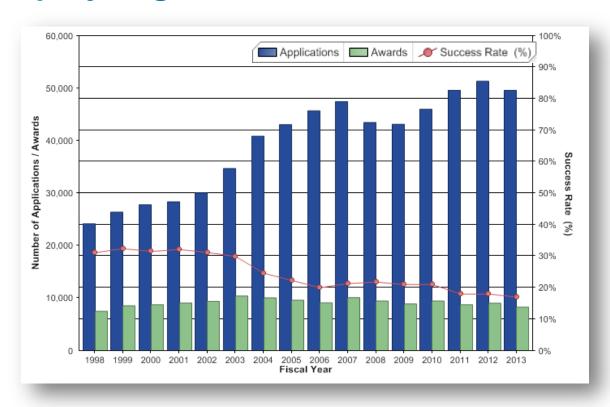
Attract ever more competitive funding grants





Research project grant success rates are declining





- In the US, the overall success rate for competing research project grants (RPGs) has declined from 21% in 2010 to 16.8% in 2013
- In the UK, ERC Advanced grants success declined from 13.8% in 2010 to 12.3% in 2013
- In Australia, the NHMRC grant success declined from 23.6% in 2010 to 17.9% in 2013

3 Key goals of researchers and their institutions

The volume of research and the related information is constantly increasing. Researchers and their institutions need to:



Attract ever more competitive funding grants



Identify the right research collaboration partners to remain competitive for both funding grants and when producing high impact research



Add the collaboration slide in for the

customer you're visiting

[insert customer name] collaboration overview



Publication citations increase with international and academiccorporate collaboration

Collaboration 🕸

Publication output of the University of Oxford, by amount of international,

national, and institutional co-authorship

53.3% International collaboration

25,891 publications (53.3%) were co-authored with Institutions in other countries

Citations per Publication: 15.6

15.4% National collaboration

7,462 publications (15.4%) were co-authored with other Institutions in the United Kingdom, but not with Institutions in other countries

Citations per Publication: 9.5

17.1% Institutional collaboration

8,285 publications (17.1%) were co-authored with others at the University of Oxford, but not with other Institutions

Citations per Publication: 9.2

14.2% Single authorship

6,903 publications (14.2%) were not co-authored but had a single author

Citations per Publication: 3.3

Academic-Corporate Collaboration



Academic-corporate collaboration

1,507 publications (3.1%) had one or more authors with both academic and corporate affiliation Citations per Publication: 27.3

96.9% No academic-corporate collaboration

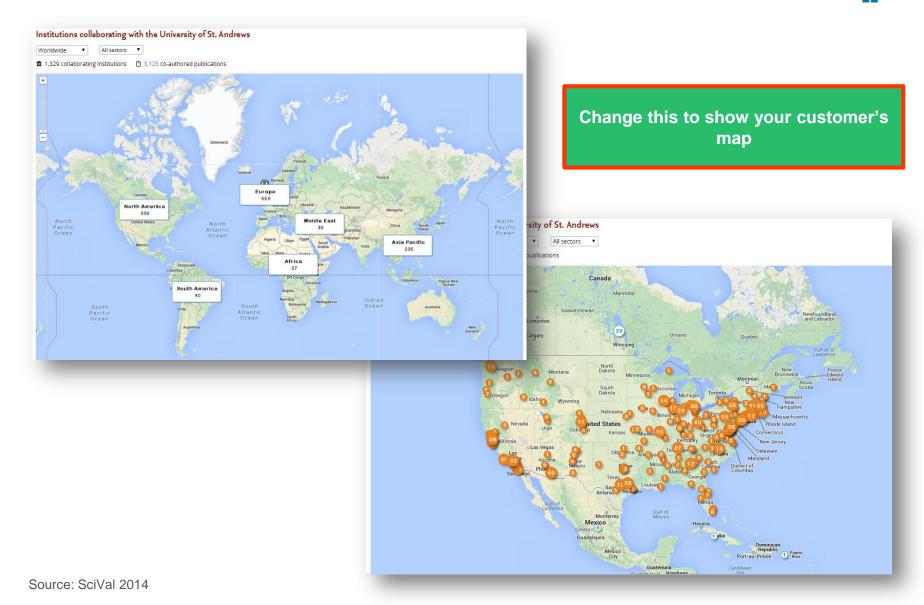
47,034 publications (96.9%) did not have authors with both academic and corporate affiliation

Citations per Publication: 11.3

Source: SciVal 2014

[insert customer name] global collaboration network





3 Key goals of researchers and their institutions

The volume of research and the related information is constantly increasing. Researchers and their institutions need to:



Attract ever more competitive funding grants



Identify the right research collaboration partners to remain competitive for both funding grants and when producing high impact research



Report and promote research success and expertise

Organizations need to report and promote research success and expertise





Internal and external assessment exercises require comprehensive, trusted, validated data about your researchers, necessary for strategic, evidence based decisions



Creating, populating and maintaining such a centrally managed system can be costly and time consuming when done in-house

Our solution: Pure, part of the Elsevier Research Intelligence portfolio

What we offer

CORE

SciVa (External View)

Analytical Services

Customized analysis, reports and services.

Pure (Internal View)

Comprehensive research information management system to enable evidence-based decisions, promote collaboration, simplify administration and optimize impact.

Modules:

- Administration

- Portal

Assessment

- Analytical Report Services
- Data Integration Services
- Reviewer Finder
- · Custom Solution for Funders
- Author Profile Refinement Services

COMPLEMENTARY TOOLS AND RESOURCES

Scopus

Mendeley

What we support

ENABLE RESEARCH



Develop Strategy



Identify/Recruit





Establish **Partnerships**



Manage **Facilities**

CONDUCT RESEARCH



Search, Discovery, Read. Review

Collaborate.

Network

Experiment

Analyze. Synthesize



Researchers



Secure Funding





SHARE RESEARCH



Manage Data



Publish. Disseminate



Commercialize



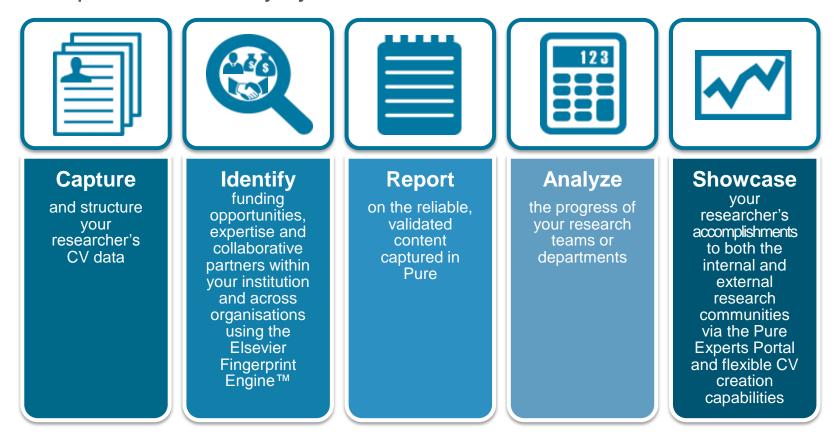
Promote

Who we support

- Research Institutions
- Funders
- Policy makers
 - Provosts
 - Vice Chancellors Research
 - Research Administrators/ Development Professionals
 - Researchers
 - · Research Managers
 - Department Heads
 - Librarians
 - Students
 - Communications Professionals
 - Technology Transfer Officers
 - Grant Managers
 - Legislators
 - Economic Development Officers

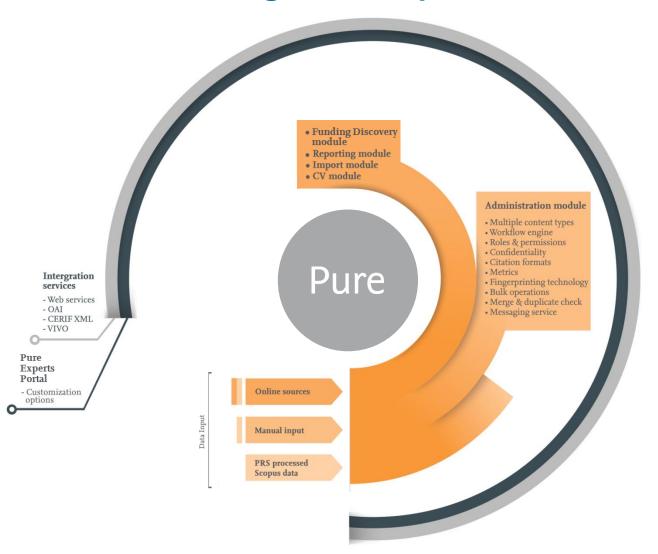
Introducing Pure

Pure provides a hosted, ready-to-use, centralized research networking and expertise discovery system that can:



All whilst ensuring a minimal administrative burden to both research and faculty staff

Flexible configuration options - Pure hosted edition



	Hosted
Product Components	
Experts Portal	Yes
Portal customization	Optional
Integration Services	Yes
Administration	Yes
Reporting	Optional
Import	Optional
CV	Optional
Funding Discovery	Optional
Data input options	
PRS	Optional
Manual input	Yes
Online Sources	Optional

What is done where

Pure modules

Internal access only (login)

- Create, read, update and delete tasks
- Import content
- Create reports and dashboards and distribute them
- View and analyze collaboration networks
- Set targets and monitor progress
- CV management and creation
- Funding discovery and monitor
- Workflow management
- User roles and permissions
- Merge and deduplication
- Confidentiality

Pure Experts Portal

Internal and external access

- Researcher and departmental showcasing
- Identify researchers with specific subject expertise
- View person and institution collaboration networks
- Search for expertise across multiple institutions

Capture













Capture

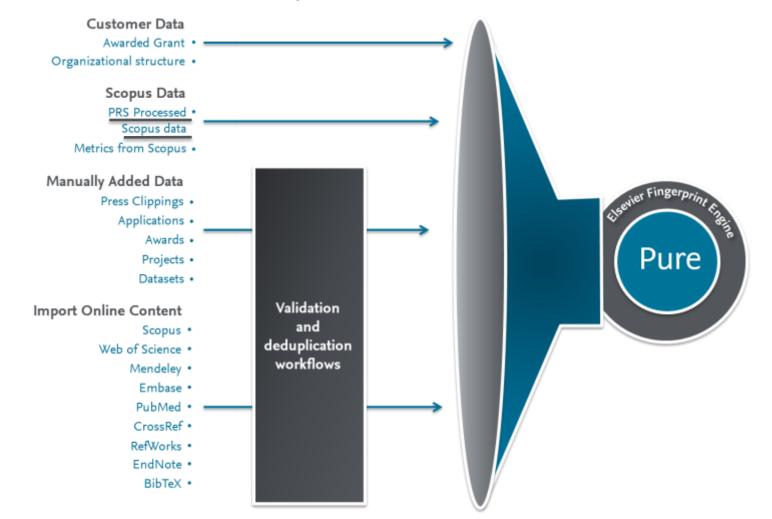
and structure your researcher's CV data



Data <u>captured</u> from multiple channels



Pre-populated with deep publications from Elsevier's Scopus, all with minimal implementation and maintenance requirements from the customer



Profile Refinement Service (PRS)

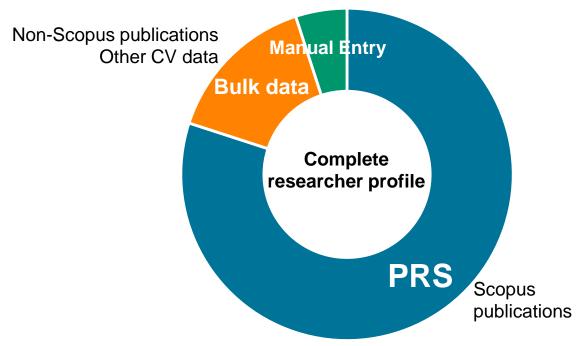


What is PRS?

- A unique offering from Elsevier
- Pre-populated researcher profiles with publications from Scopus
- · A team manually assigns articles to a researcher's profile
- New publications are added automatically

Why PRS?

- Scopus has rich metadata for better reporting and network visualizations
- Trust the profiles are accurate and complete
- PRS is fed back to Scopus.com
- · Your Pure system contains current, comprehensive publication information in it from launch



About Scopus®





- The largest abstract and citation database of research information
- 20,912 active titles from more than 5,000 international publishers including coverage of:
 - Life Sciences
 - Health Sciences
 - Physical Sciences
 - Social Sciences
 - Arts and Humanities
- Independent journal metrics:
 - **SNIP**: The Source-Normalized Impact per Paper
 - **SJR**: The SCImago Journal Rank
- Content expansion:
 - Cited Reference expansion of pre-1996 references
 - Books expansion of 75,000 books





Optional slide



Profile Refinement Service

Detailed process to ensure author profiles are reliable

Maximize precision



High level of recall

Automatic Phase

Algorithm creates profiles and takes into consideration many factors including:

- Author name segments
- Co-authors' names
- Author email address
- Affiliations (dept, org, city)
- Journals (ISSN)
- **Fingerprints**

Manual Phase

Profiles Team verifies the results of the algorithm through a series of tasks.

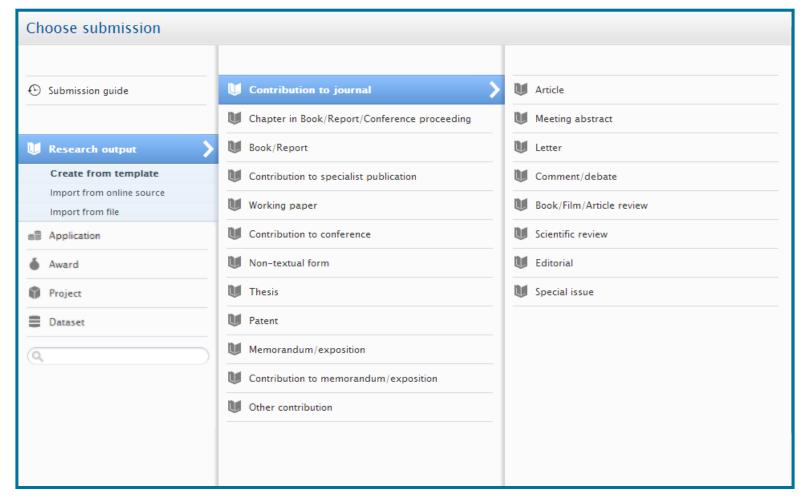
Example: Profiles Team completes a biodata search for every profile by:

- Matching publications to the author's CV
- Searching for past affiliations
- Identifying name changes

Add additional outputs to demonstrate the full range of your research outcomes



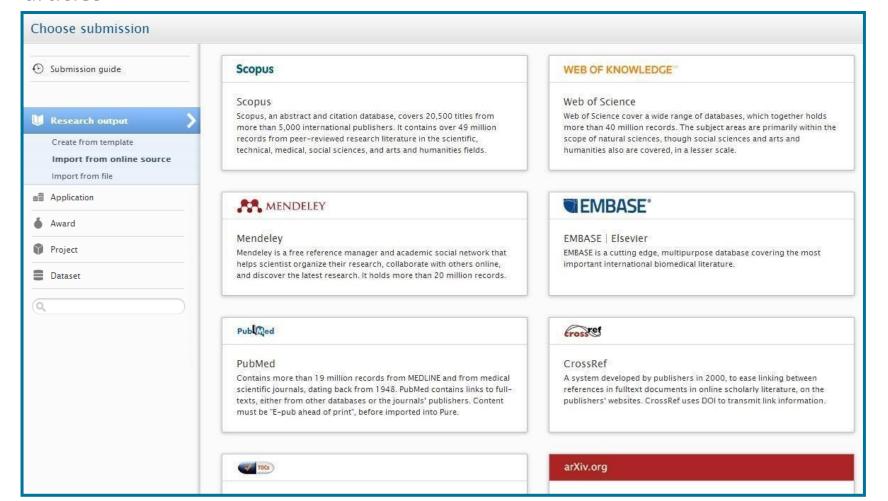
Enter data for articles, books and book chapters, conference presentations, patents and more



Capture articles from a variety of sources and import the data into profiles



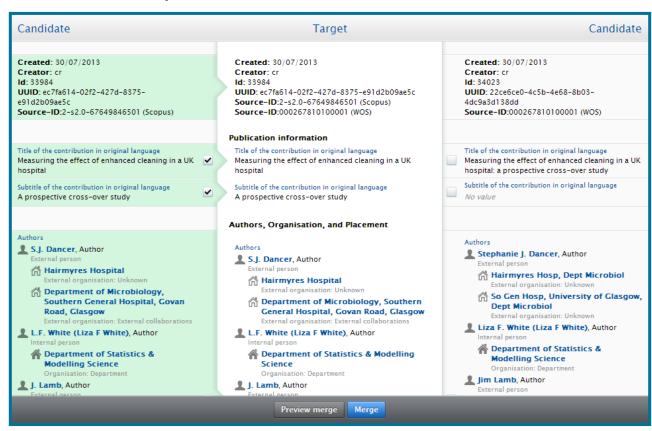
Pure's publication workflow makes it simple for researchers to find their articles



Prevent and correct duplicate records



- Prevent duplication records from entering Pure via automatic duplication check upon publication entry
- Create a 'super record' where multiple entries occur, with Pure's easy-to-use de-duplication interface



Identify















funding opportunities, expertise and collaborative partners within your institution and across organisations using the Elsevier Fingerprint Engine™

Identify – core technology



- Identifying the correct researcher to collaborate with in today's multidisciplinary global environment can be difficult
- Powered by the Elsevier Fingerprint Engine™, Pure uses semantic technology and field-of-research specific vocabularies to help researchers easily identify their peers' expertise – down to the most precise terms

2) Identify Concepts

How the Elsevier Fingerprint Engine works

1) Mine Text





3) Create Document **Fingerprint**



Identify expertise through multiple searching options



Concept search

Similar Expert search

"Copy and Paste text" search

Research units search

Research outputs search

Co-author Network visualization

Institutional Network visualization





Identify expertise across institutions



Share your institution's data with others

- Search across the Experts Community and DIRECT2Experts which includes 60+ global institutions
- Your researchers can search and be searched across all available Experts portals, plus many other existing research networking tools including U Pittsburgh's Digital Vita, Harvard Catalyst Profiles, U Florida's VIVO, U Iowa's Loki, Stanford CAP, and others

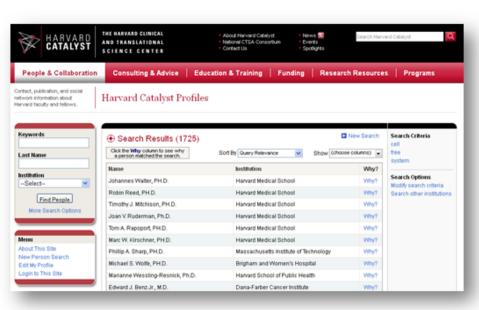












Supporting economic development

- Group and state portals provide a convenient way for businesses to connect to the local expert resources they need to promote innovative research and help to grow the economy
- The expert profiles can assist people in industry, community groups and university personnel in efforts to find information and potential collaborators for research and problem-solving.



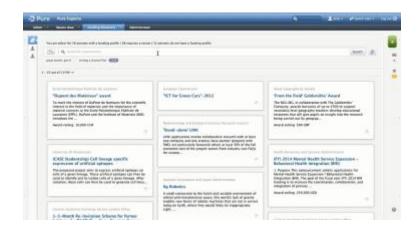


Targeted funding opportunity discovery



Increase your researcher's awareness of available funding opportunities and decrease the time spent managing the process

- Targeted funding opportunities are matched to your researcher's personal Fingerprints
- Administrators can track, monitor and manage the funding discovery process through customized reporting and dashboards



- Search and browse through 20,000+ active global funding opportunities -Fingerprinted and categorized based on eligibility
- Email notifications alert researchers to potential matches when they're outside Pure

Report















Report

on the reliable, validated content captured in Pure

Report



Generate and distribute validated internal intelligence to accelerate promotion and tenure evaluations, departmental and institutional assessments, and other vital requirements

- **Pre-defined and advanced report** creation capabilities on all Pure content
- **Schedule** reports to automatically run and be sent to a predefined distribution list
- **Apply targets** to departments for predetermined research performance indicators such as Snowball Metrics via Pure's research intelligence capabilities, then track and monitor them through dashboards



Analyze















Analyze

the progress of your research teams or departments

Analyze – View progress at-a-glance of key milestones through Pure's powerful dashboards



Define performance objectives for any research team or department – including Snowball Metrics – then track their progress

Monitor:

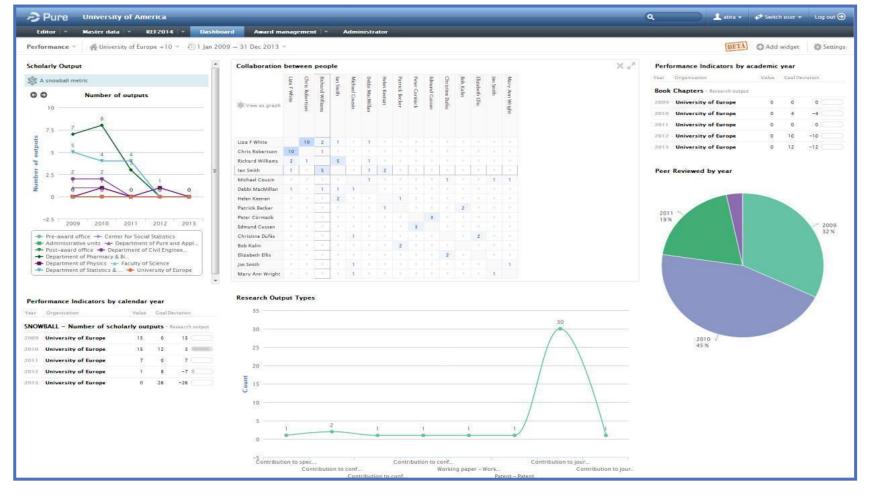
- Publication trends (total, publications per FTE etc)
- Citation trends (total, citations per FTE etc)
- Collaboration patterns
- Top journal titles / researchers / hindicies
- Drill down to person- or projectlevel detail, and click to generate instant progress reports for managers, department heads, or other Pure users



Customizable dashboards provide administrators with an overview of strategically important metrics



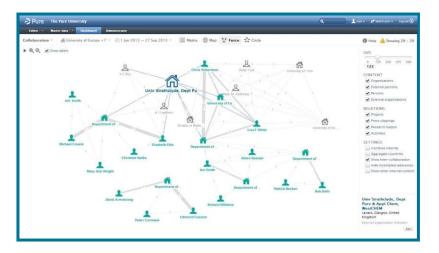
- Dashboards can be personalized, shared and used for monitoring and reporting
- User controls ensure that only data relevant to the user are visible

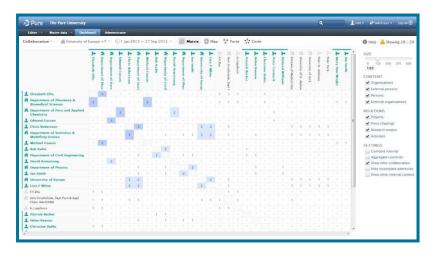


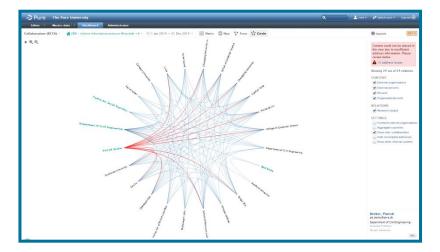
Analyze collaboration networks

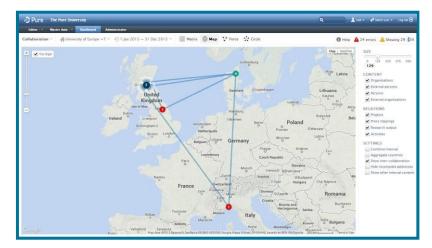


Pure visualizes the relationships between each researcher and their collaborators, including co-authors of applications or publications as well as partners on projects









Analyze















Showcase

your researcher's accomplishments to both the internal and external research communities via the Pure **Experts Portal** and flexible CV creation capabilities

Showcase



Pure does this in a number of ways:

- via the Experts Portal,
- CV creation,
- exporting the data into other systems, and
- integrating with your researcher's ORCID IDs



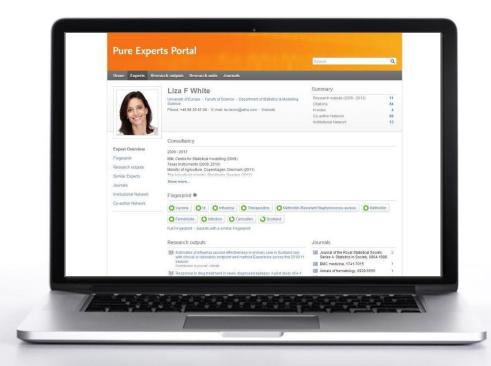
Promote your researchers - Pure Experts Portal



Exhibit your organization externally, promote researchers and their accomplishments, and facilitate collaboration via the Pure Experts **Portal**

"Pure's portal is vital to our researchers" visibility to the external research community. What's more our researchers do not need to spend time maintaining it - they only need to use Pure in their normal research activities and any newly added content is automatically included in their online profile."

Brian Kirkegaard Lunn, Development Consultant, Aalborg University Library, Denmark

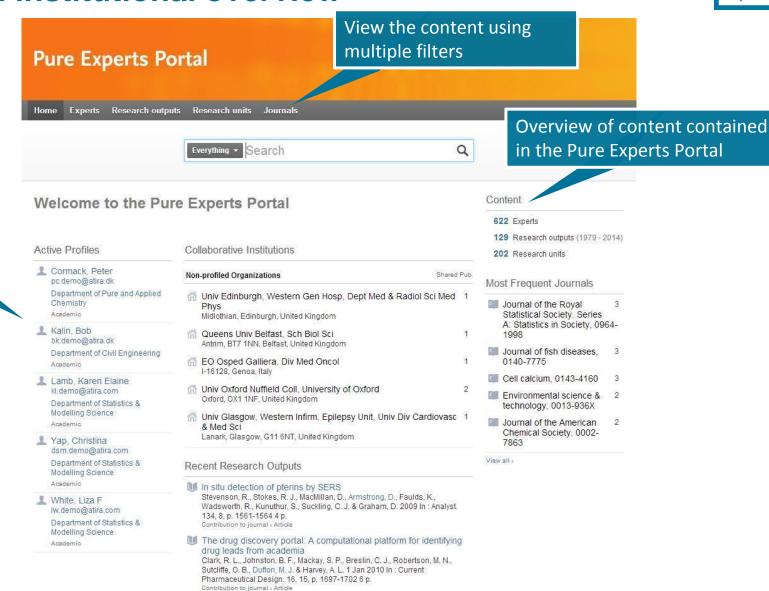


Most active

profiles

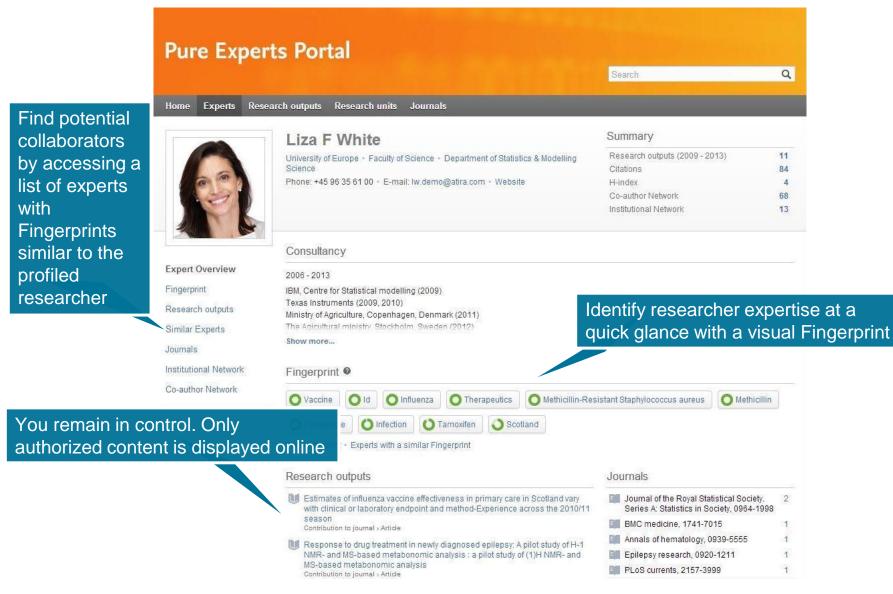
Get an institutional overview





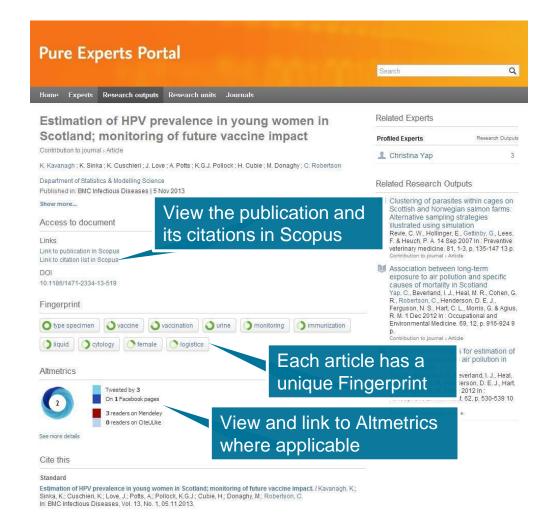
Profiles reveal insightful connections





View the details of each publication, including **Altmetrics**

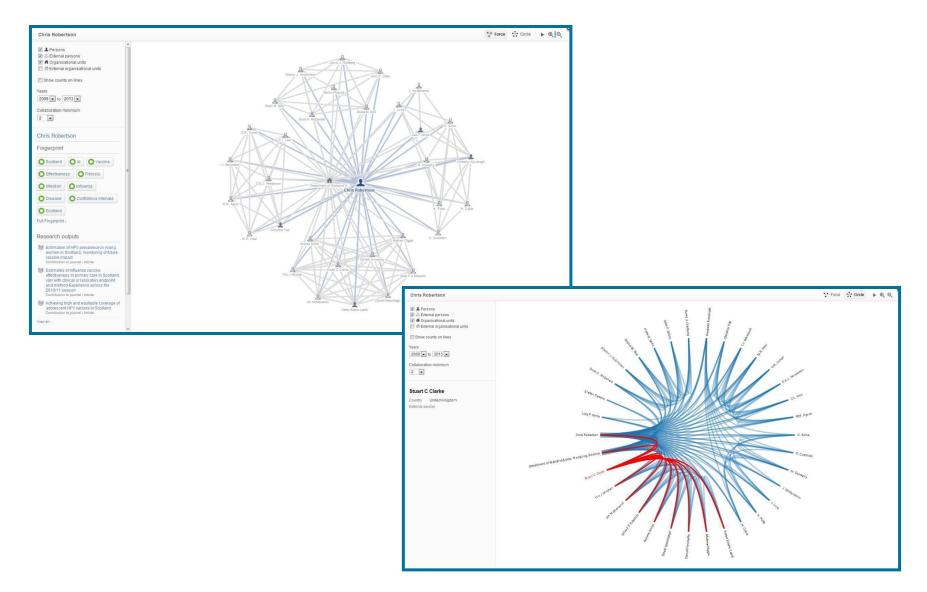






View a researcher or department's collaboration network

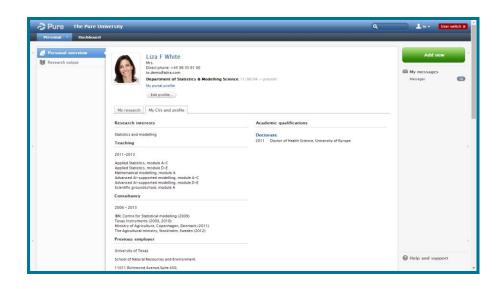




Generate CV & Biosketches at the click of a button



- Generate customized CVs and NIH Biosketches at the click of a button, then export them as a Word or PDF file or publish them online.
- Your researchers exercise total control they determine which profile data to include and personalize their content through customized headlines and free text sections.
- **CV maintenance is effortless** Pure updates sections automatically as relevant content is added





Harvesting and data standards



Pure is compatible with many different data standards

It can be used to keep research stakeholders updated, avoid duplicate administration, free up more research time and join networking standards





Data in Pure can be harvested via OAI to be used to populate other network initiatives such as VIVO and a range of document repositories such as Dspace, FEDORA and EPrints







Create, manage and report on your researcher's **ORCIDs**



- Link your ORCID license to Pure and automatically create and verify ORCIDs within Pure
- Monitor your researcher's use of ORCIDs within Pure and create reports of the content linked to them



Pure benefits personnel throughout the institution

VPs/VCs of Research

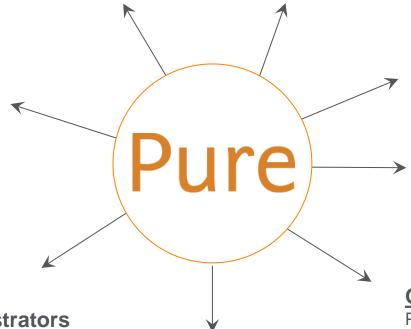
Reports, stats, and KPIs for evidence-based research administration

Rectors, Deans and **Department Heads**

Reports for promotion and tenure decisions, departmental reviews

Researchers & Pls

Automatic CVs and NIH Biosketch, internal & public profiles, ORCID creation and management, track and promote research activity, populate repository, identify potential collaborators. researcher's expertise & new articles to read



The Library

Quality-assured publication base, Open Access exhibition, de-duplication, ORCID monitoring etc.

Tech Transfer Office

Exhibit and track international collaboration

Research Administrators

Reports, bid overview, performance and application monitoring, track projects, oversee collaboration networks

Communications/ **Press Office**

Exhibit press clippings, track and promote press coverage, locate experts to comment on news items

Other Stakeholders

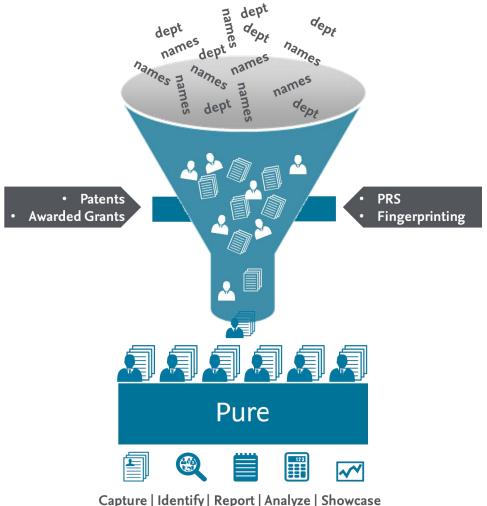
Private sector businesses Government agencies Media outlets The general public

Implementation, getting started....

It's simple:

- give a list of your researchers and departments
- choose the modules you want

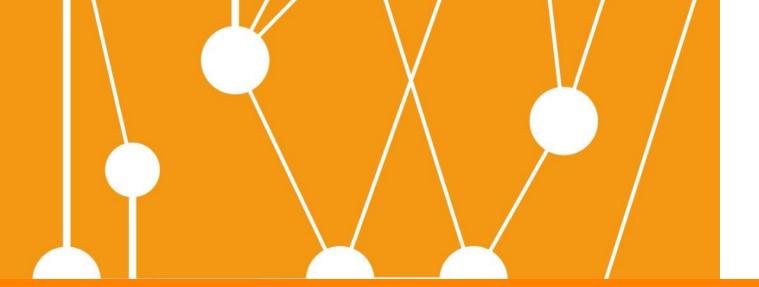
....and we'll do the rest





Elsevier Research Intelligence

Thank you!





Appendix

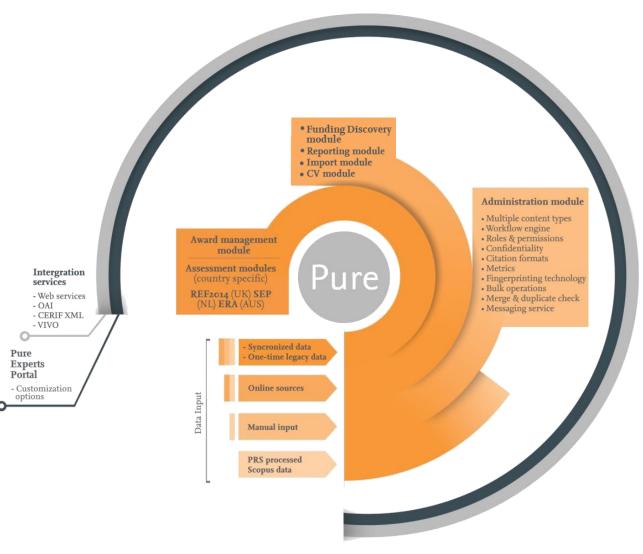




Internal table idea that can be used to give sales an idea if certain needs are met in Hosted and integrated versions of Pure

	Hosted	Integrated
Product Components		
PRS	Optional	Optional
Experts Portal	Yes	Yes
Validation workflows	Yes	Yes
Synchronize institutional data	No	Yes
National Assessment Exercise support	Partial	Specific modules
Awarded grant info	OAI import	Direct feed
Legacy data integration	No	Yes
Funding Discovery	Optional	Optional
Institutional Repository support	OAI import	Direct feed
Support the research grant life cycle	Partial	Yes
Importing online data	Optional	Optional
Identify expertise	Yes	Yes
Fingerprinting	Yes	Yes
Online Sources	Optional	Optional
Manage CV data	Yes	Yes

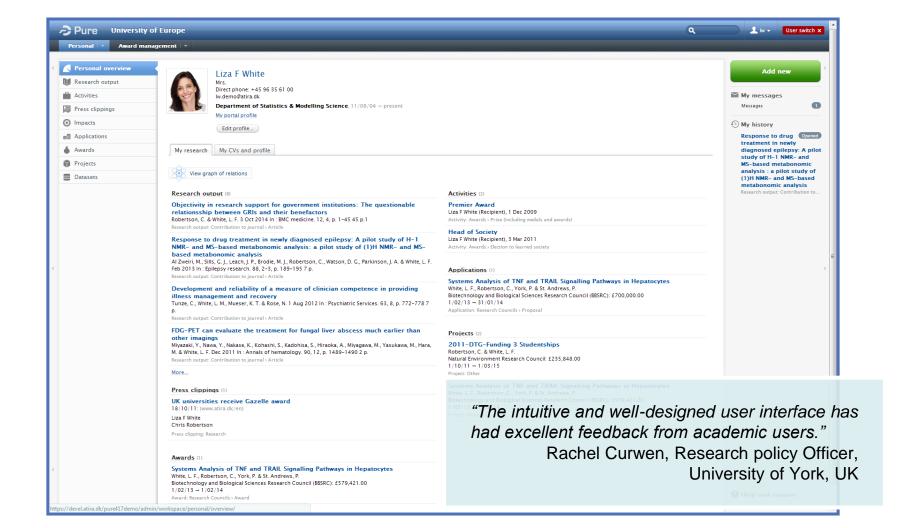
Flexible configuration options – **Pure Integrated**



	Hosted	Integrated
Product Components		
Experts Portal	Yes	Yes
Portal customization	Optional	Optional
Integration Services	Yes	Yes
Administration	Yes	Yes
Reporting	Optional	Optional
Import	Optional	Optional
CV	Optional	Optional
Funding Discovery	Optional	Optional
Award Management		Optional
Assessment Data input options		Optional
PRS	Optional	Optional
Manual input	Yes	Yes
Online Sources	Optional	Optional
Synchronized data		Yes
One-time Legacy Data		Yes

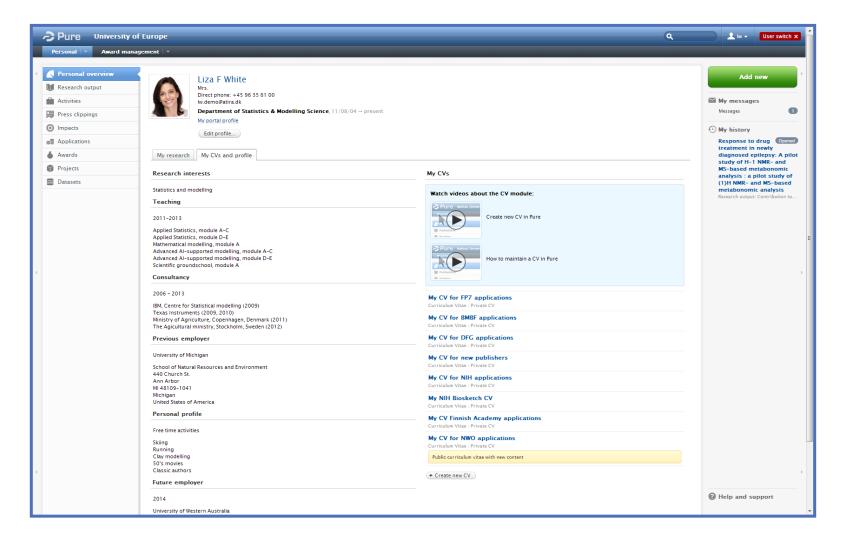
Rich profiles promote researchers' activities and accomplishments across the institution

Profiles contain applications, awards, projects, outputs, bibliometrics, impacts, CV data and more



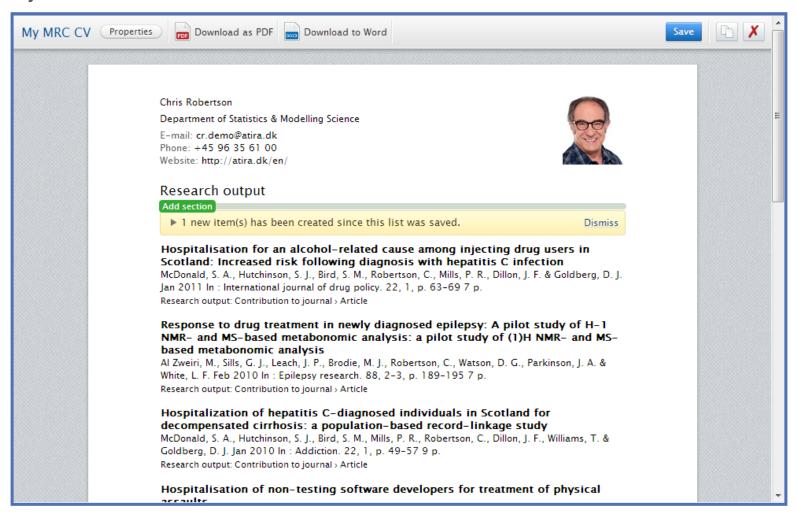
Display CV data in Pure and create different versions of your CV

CVs remain updated and in sync with all available information



Generate a formatted CV with a push of a button for download or printing

Design CVs to fit the opportunity, saving you valuable time you can use for your research



Pure's data model allows for unparalleled flexibility and ease of use in creating reports

Access controls ensure users can only view and report on the content relevant to them



Reporting engine with a drag-and-drop interface enables users to build tailored reports

Schedule reports to be generated automatically and export reports in multiple formats



Module descriptions

Administration

Perform essential create, read, update and delete tasks with research metadata and associated documents such as publications and images. Related capabilities range from controlling user access to administering workflows. The module also makes it possible to add content such as press clippings, bibliometrics, and your database of student theses.

Award Management

Enable research administrators, and research development professionals to track, monitor, and manage the entire research grant life cycle—from current funding opportunities, applications, and success rates to awards and related projects.

CV

Easily create custom CVs and NIH Biosketches to showcase a researcher's profile, publications, projects, grant successes, bibliometrics, and more. CVs support rule-driven automatic updates whenever new content is added, and can be published directly to your organization's website or printed as Microsoft Word or Adobe PDF files.

Funding Discovery Module

Increase your researcher's awareness of available relevant funding opportunities and decrease the time spent managing the internal funding discovery workflow process with Pure's Funding Discovery module. Your researchers receive targeted funding opportunities matched to their personal Fingerprints via alerts both in and outside of Pure. Your administrators can efficiently track, monitor and manage your researcher's progress through the funding discovery process using dashboards, reports and more.

Module descriptions

Reporting

Puts advanced report creation capabilities for all Pure content at your fingertips through Pure's highly flexible Reporting module. The module's research intelligence capabilities also help you realize strategically important goals. Apply targets to predetermined research performance indicators such as Snowball Metrics for your departments, then track and share performance updates via at-a-glance reporting dashboards.

Import

Let Pure benefit from the rich publication and citation data captured in your subscribed online databases, such as Scopus and Web of Science, via Pure's convenient Import module. Safeguard that new content is added through Pure's comprehensive automated search functionality and effortlessly import additional publication information directly from RefWorks, EndNote, BibTex and other reference manager systems. Pure's author-matching algorithm ensures that the new content is correctly linked to the corresponding internal and external researchers in Pure for complete and accurate publication lists.

Assessments

Pure's Assessments module lets you take advantage of its rich data repository to consolidate and submit full returns for the UK's Research Excellence Framework (REF2014) and Denmark's Bibliometric Research Indicator (BFI). In development are similar submission capabilities for the Netherlands' Standard Evaluation Protocol (SEP) and for Australia's Excellence in Research for Australia (ERA) initiative.



The Elsevier Fingerprint Engine™





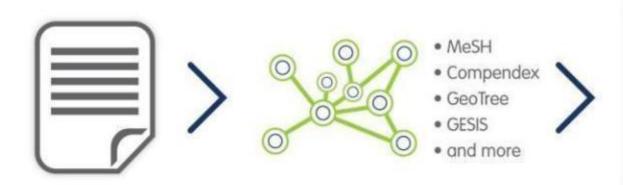
Fingerprint within the Pure Experts Portal





How does the Elsevier Fingerprint Engine work?

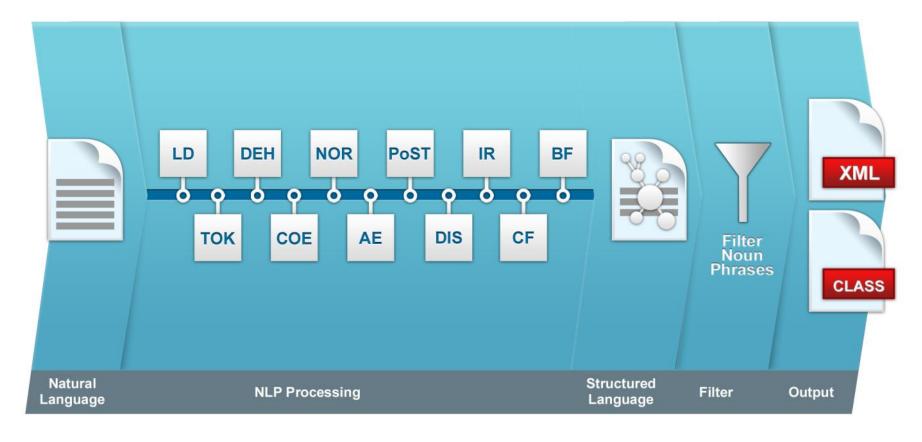
1) Mine Text 2) Identify Concepts



3) Create Document **Fingerprint**



Natural Language Processing modules we apply to interpret text



Workflow: Concept Look-Up

Profile Refinement Service

Detailed process to ensure author profiles are reliable

Maximize precision



High level of recall



Automatic Phase

Algorithm creates profiles and takes into consideration many factors including:

- Author name segments
- Co-authors' names
- Author email address
- Affiliations (dept, org, city)
- Journals (ISSN)
- Fingerprints



Manual Phase

Profiles Team verifies the results of the algorithm through a series of tasks

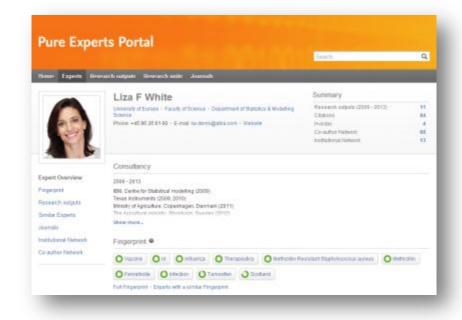
Example: Profiles Team completes a biodata search for every profile by:

- Matching publications to the author's CV
- Searching for past affiliations
- Identifying name changes

Creating a researcher's Fingerprint



Generate a researcher's unique Fingerprint by aggregating the Fingerprints of each of their publication abstracts

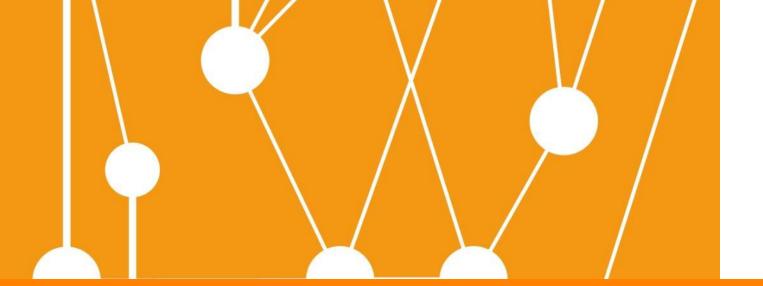


Fingerprints can be aggregated at various levels

Aggregating researchers' Fingerprints across organizational units allows for the institution to know what individuals know and what

groups know... Department Aggregated **Fingerprints** Disorders Alzheimer Disease Senile Plaques Dementia, Vascular Individual Fingerprints Chemicals and Drugs Memantine Neurotransmitters Alzheimer Vaccines Research Group

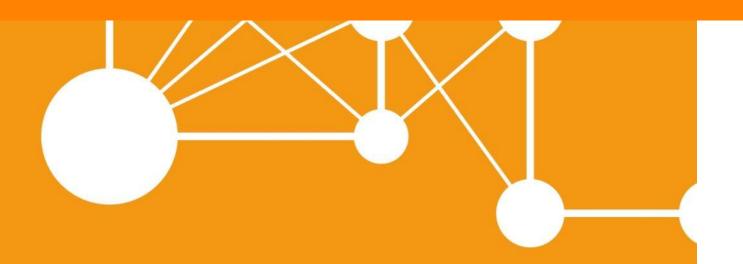
- What new publications and grants have been produced?
- What trends have emerged over time?
- Who is working together?
- With what other organizations (internal and external) are we collaborating?
- What do we know?





Implementing the Pure Experts Portal





Process for Elsevier to tailor an institution's profiles

Institution provides Elsevier with a list of researchers' names and departments

> Institution completes a configuration checklist

> > Elsevier manually reviews profiles and launches the Pure Experts Portal

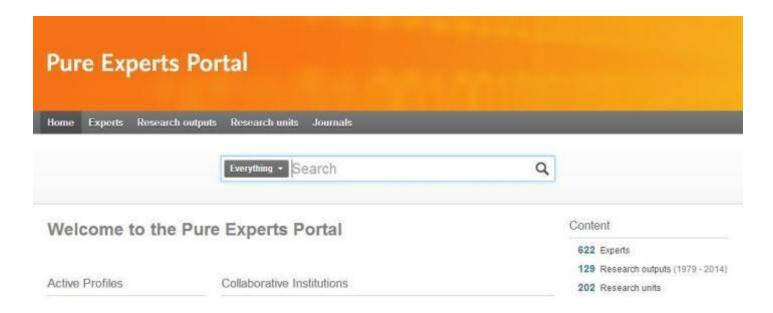


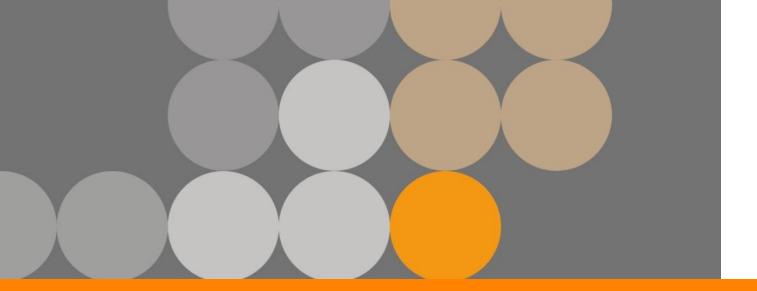
Weekly automated update

Quarterly manual review

Branding of your Pure Experts Portal

- Elsevier will brand the banner of your Pure Experts Portal application to meet your needs
- Institution provides the color scheme, their logo, the preferred application name and any imagery that they would like included in the background of the banner
- Elsevier will then design a header showing the look and feel of the interface for the institution to review and approve





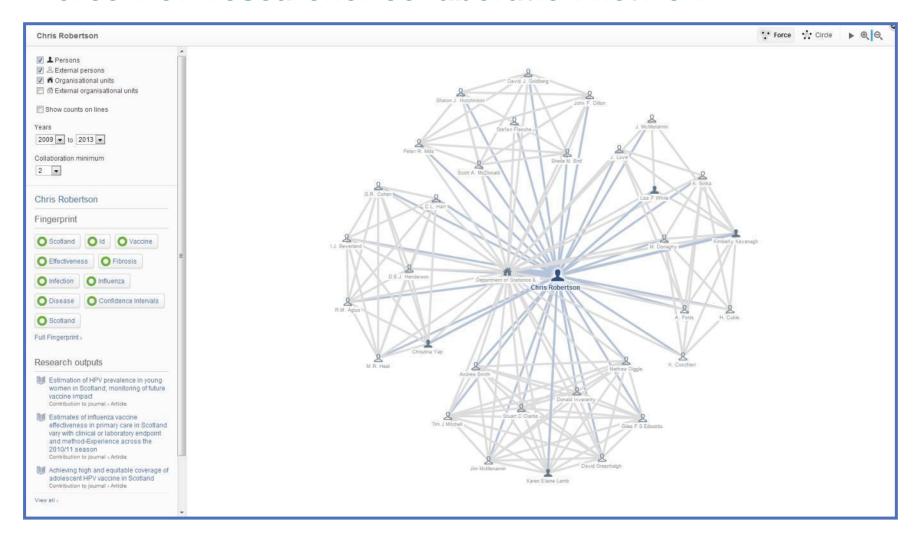


Miscellaneous

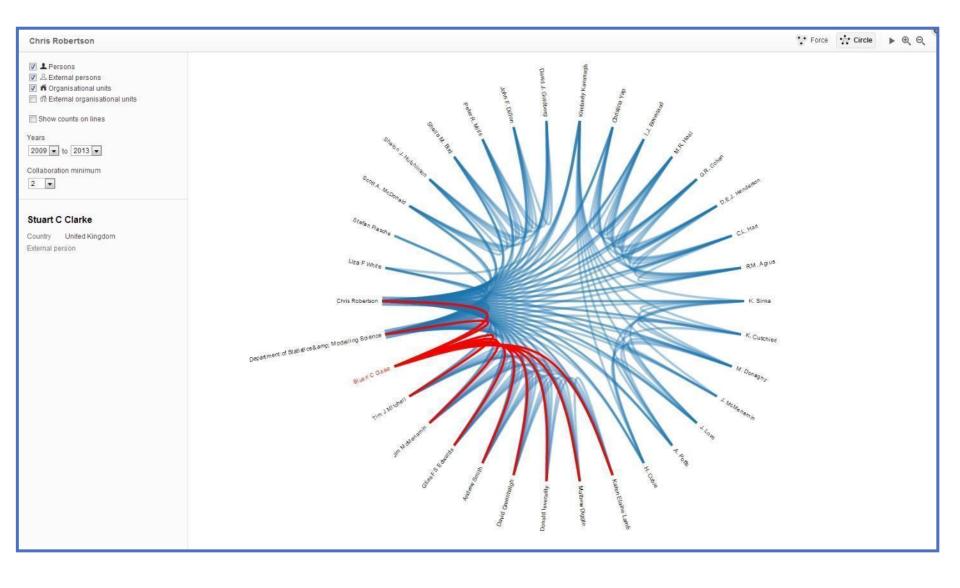




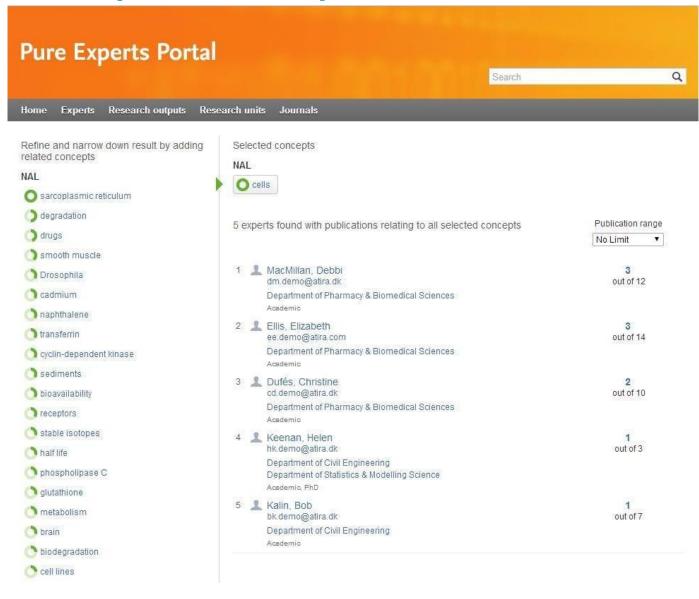
Force view researcher collaboration network



Circle view researcher collaboration network



Search for specific concepts



Copy and Paste text

