

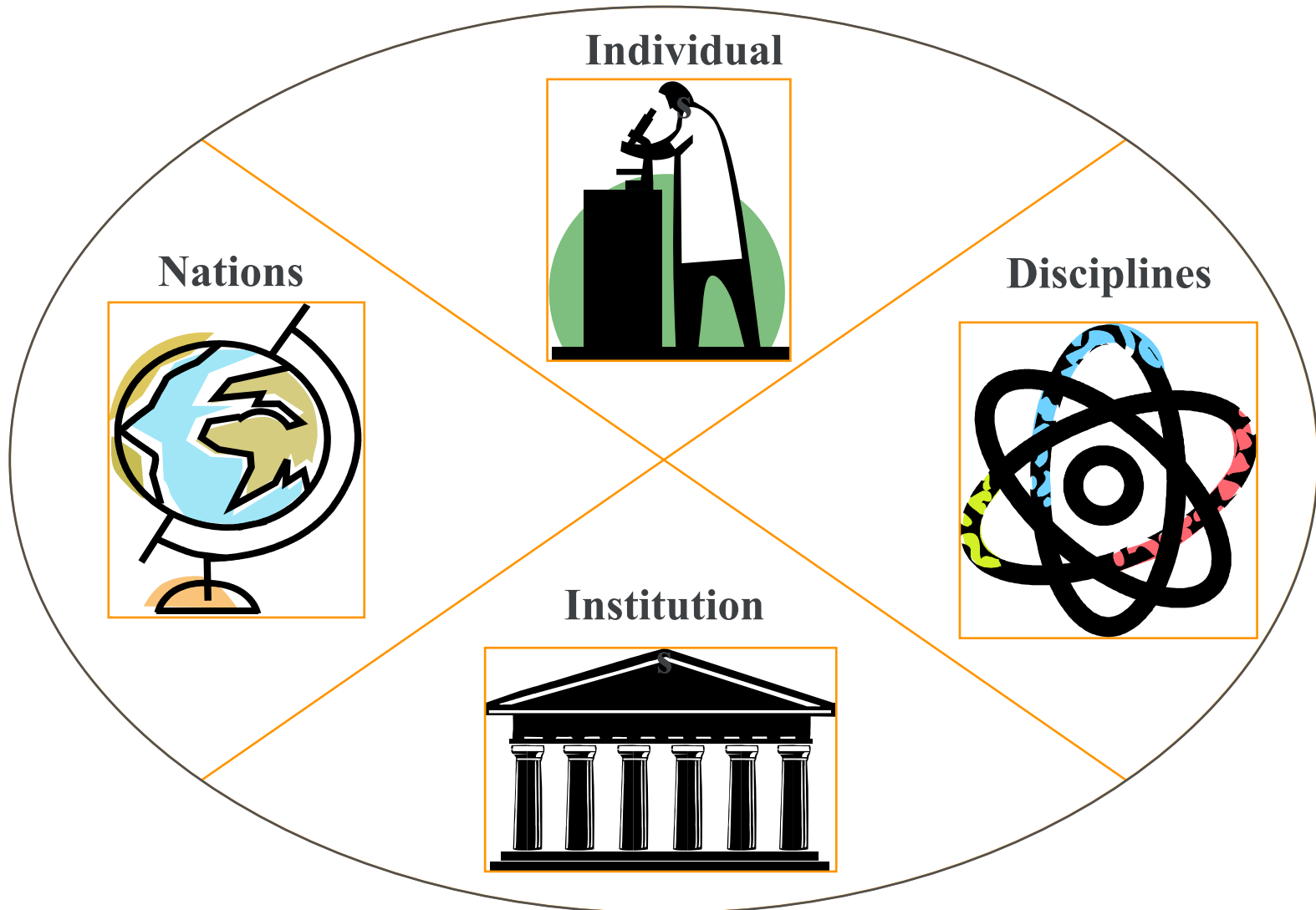
Driving innovation in the right direction: critical role of analytical and information systems in innovation management

Endre Beky, Regional Director for EU and Russian Federation

Information Conference, Timisoara, Romania

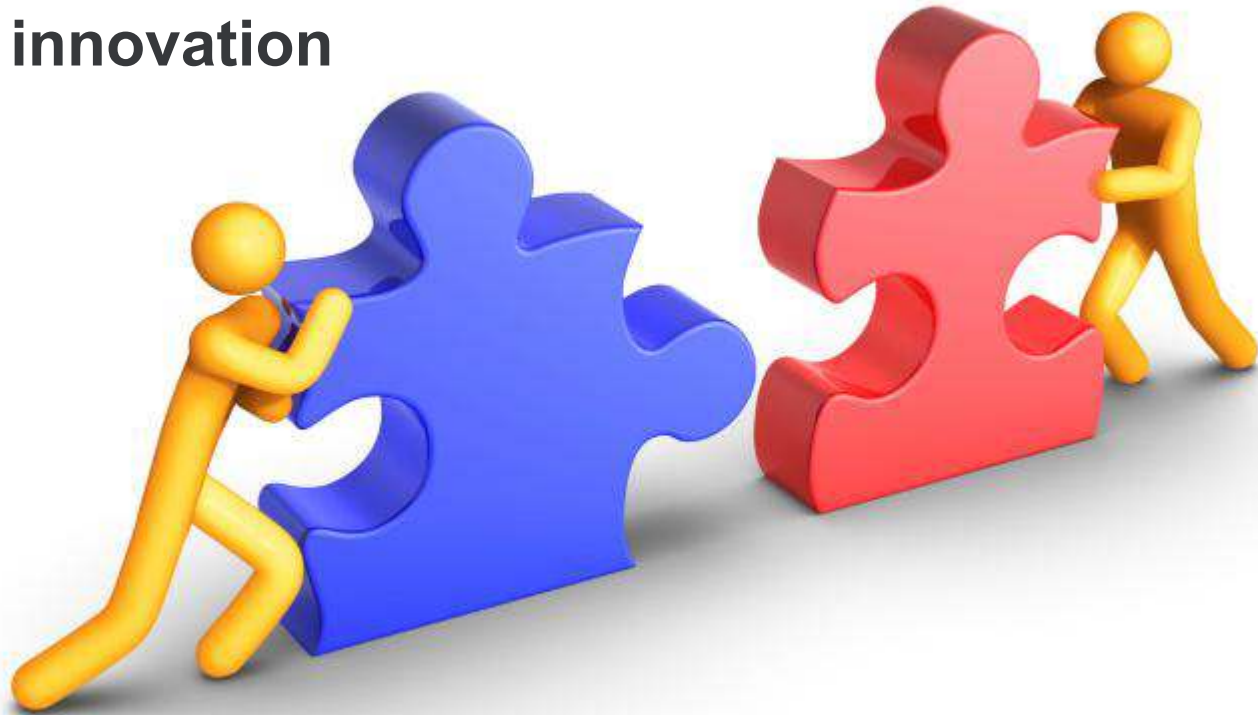
October 29th, 2015

Dissolving boundaries in research

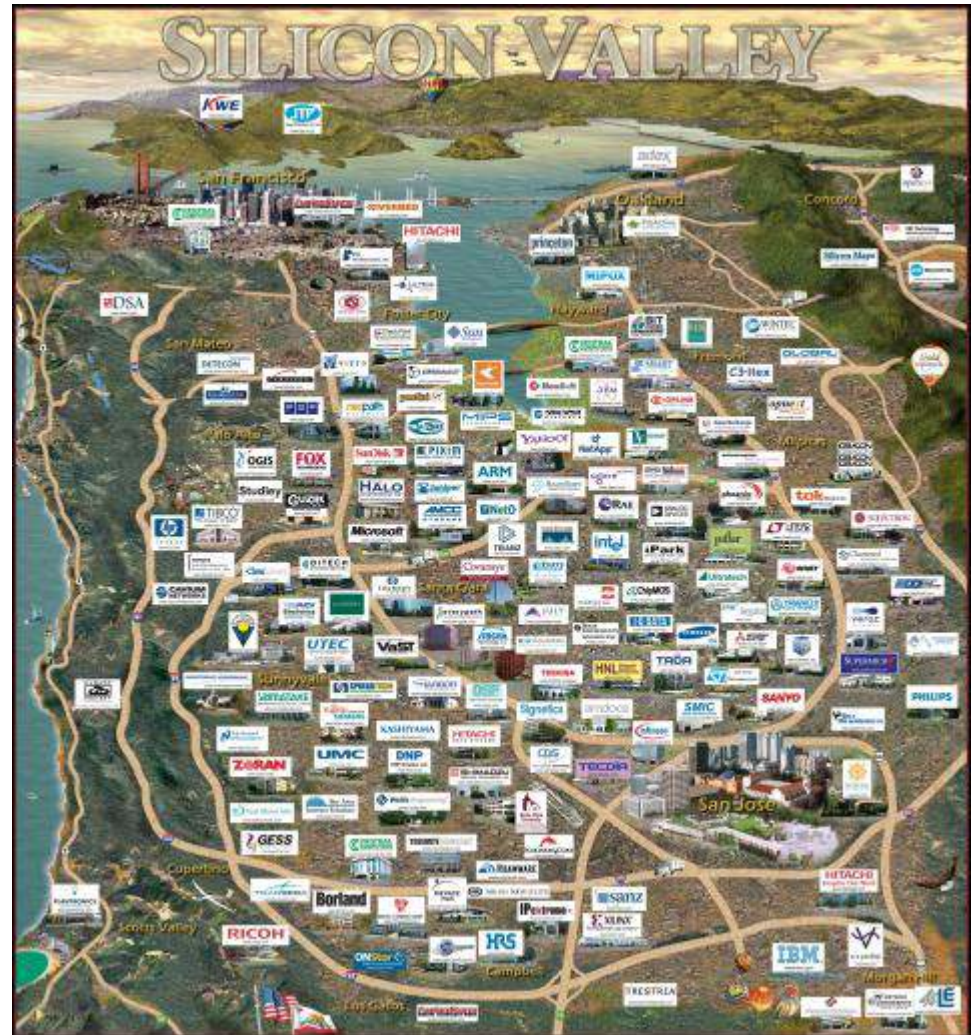


Outcomes of cross-sector collaboration

1. **Business success**
2. **Social good**
3. **Civic innovation**



Outcome #1: Business success



From article to enterprise



Reprint of: The anatomy of a large-scale hypertextual web search engine

Sergey Brin, Lawrence Page

Computer Science Department, Stanford University, Stanford, CA 94305, USA

ARTICLE INFO

Article history:
Available online 23 October 2012

Keywords:
World Wide Web
Search engines
Information retrieval
Pagerank
Google

ABSTRACT

In this paper, we present Google, a prototype of a large-scale search engine which makes heavy use of the structure present in hypertext. Google is designed to crawl and index the Web efficiently and produce much more satisfying search results than existing systems. The prototype with a full text and hyperlink database of at least 24 million pages is available at <http://google.stanford.edu>

To engineer a search engine is a challenging task. Search engines index tens to hundreds of millions of web pages involving a comparable number of distinct terms. They answer tens of millions of queries every day. Despite the importance of large-scale search engines on the web, very little academic research has been done on them. Furthermore, due to rapid advance in technology and web proliferation, creating a web search engine today is very different from 3 years ago. This paper provides an in-depth description of our large-scale web search engine - the first such detailed public description we know of to date.

Apart from the problems of scaling traditional search techniques to data of this magnitude, there are new technical challenges involved with using the additional information present in hypertext to produce better search results. This paper addresses this question of how to build a practical large-scale system which can exploit the additional information present in hypertext. Also we look at the problem of how to effectively deal with uncontrolled hypertext collections, where anyone can publish anything they want.

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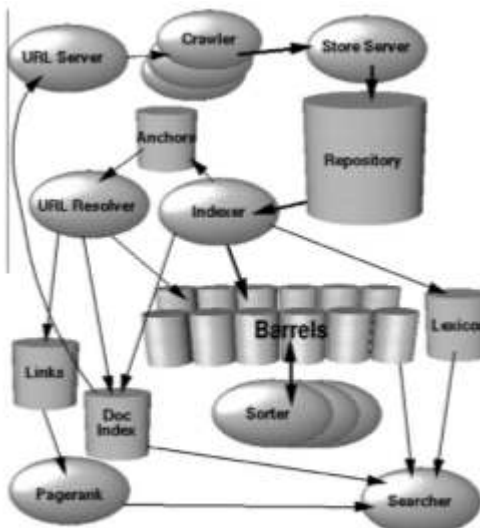
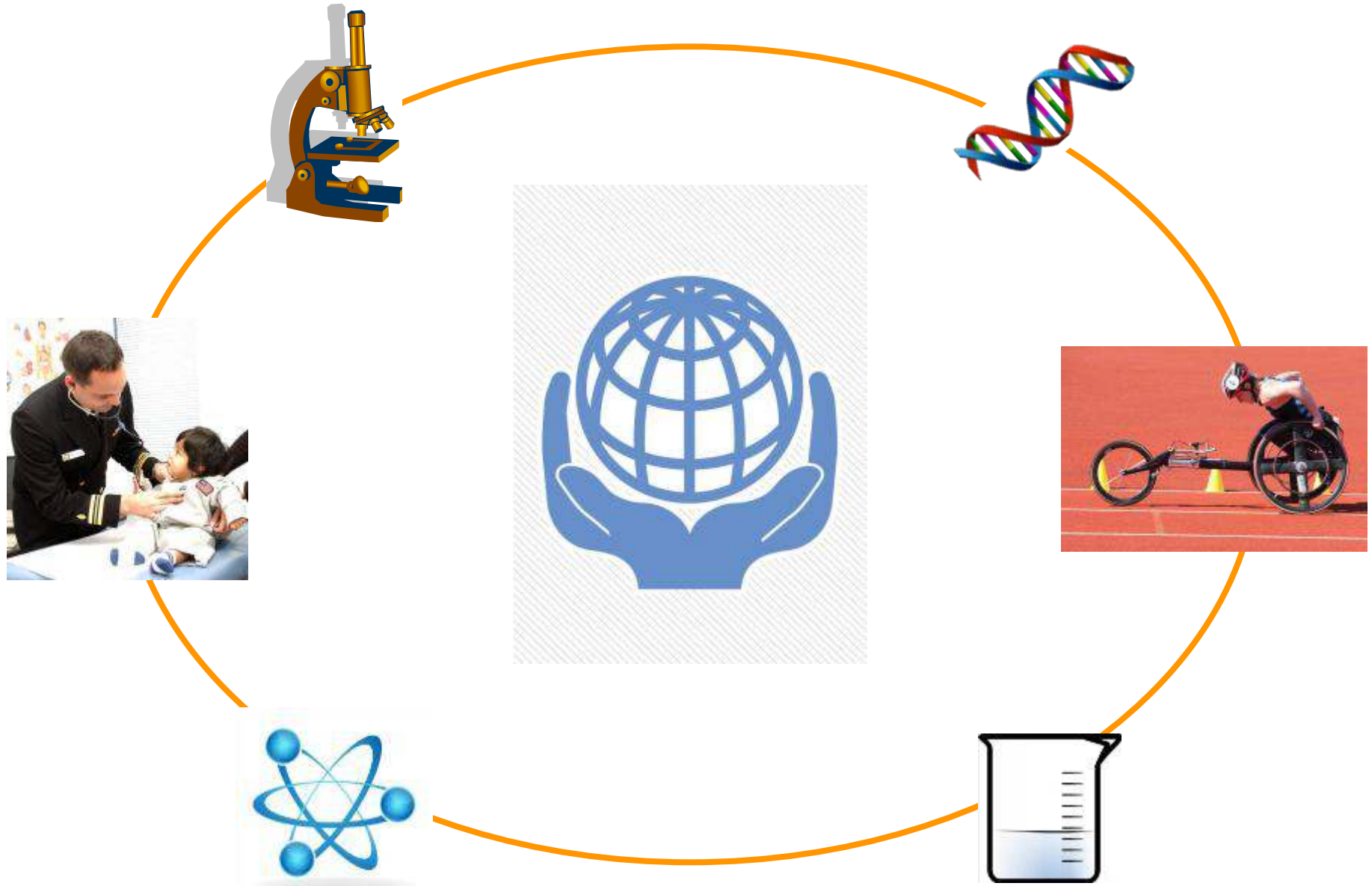


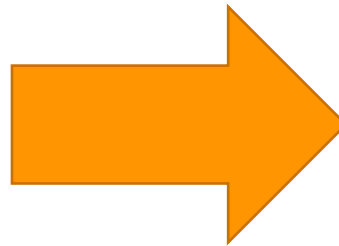
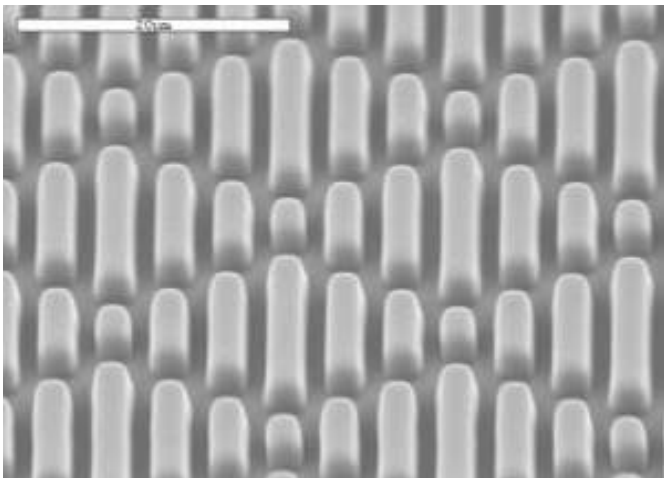
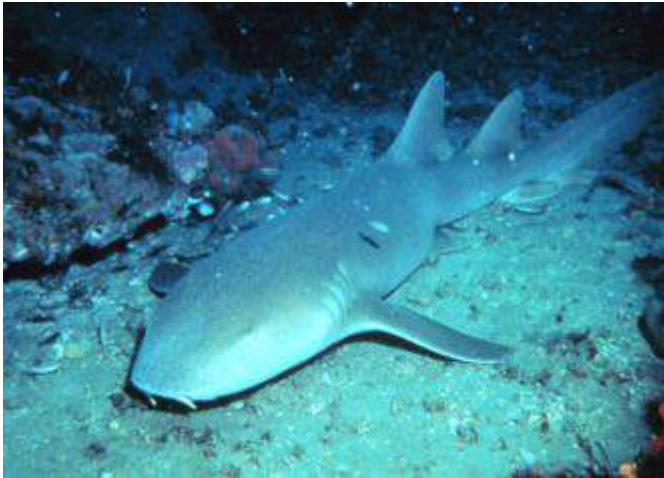
Fig. 1. High level Google architecture.

Fig. 2. Sample results from Google.

Outcome #2: Social good



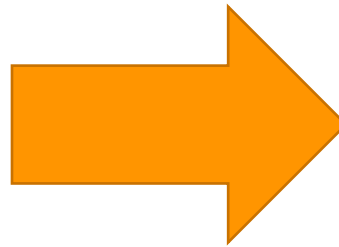
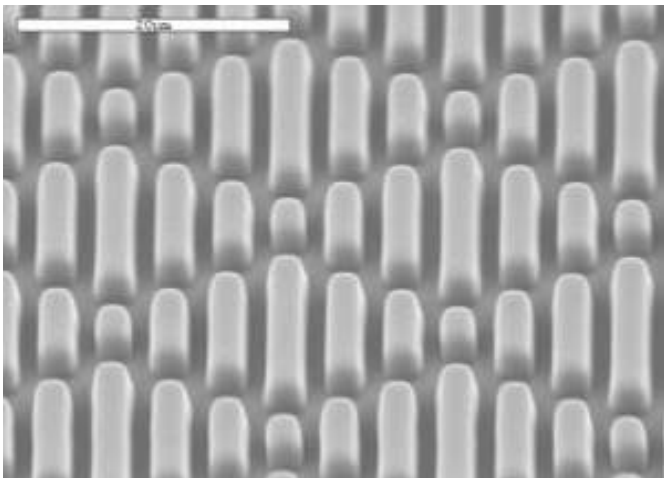
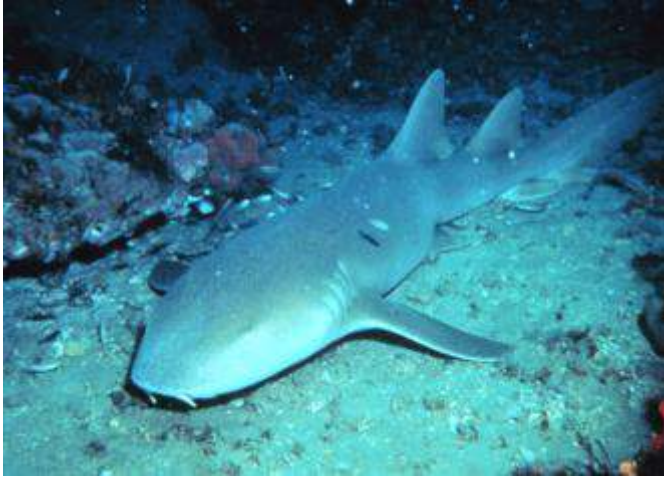
Sharklet Technologies




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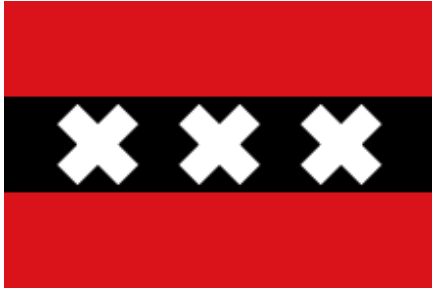
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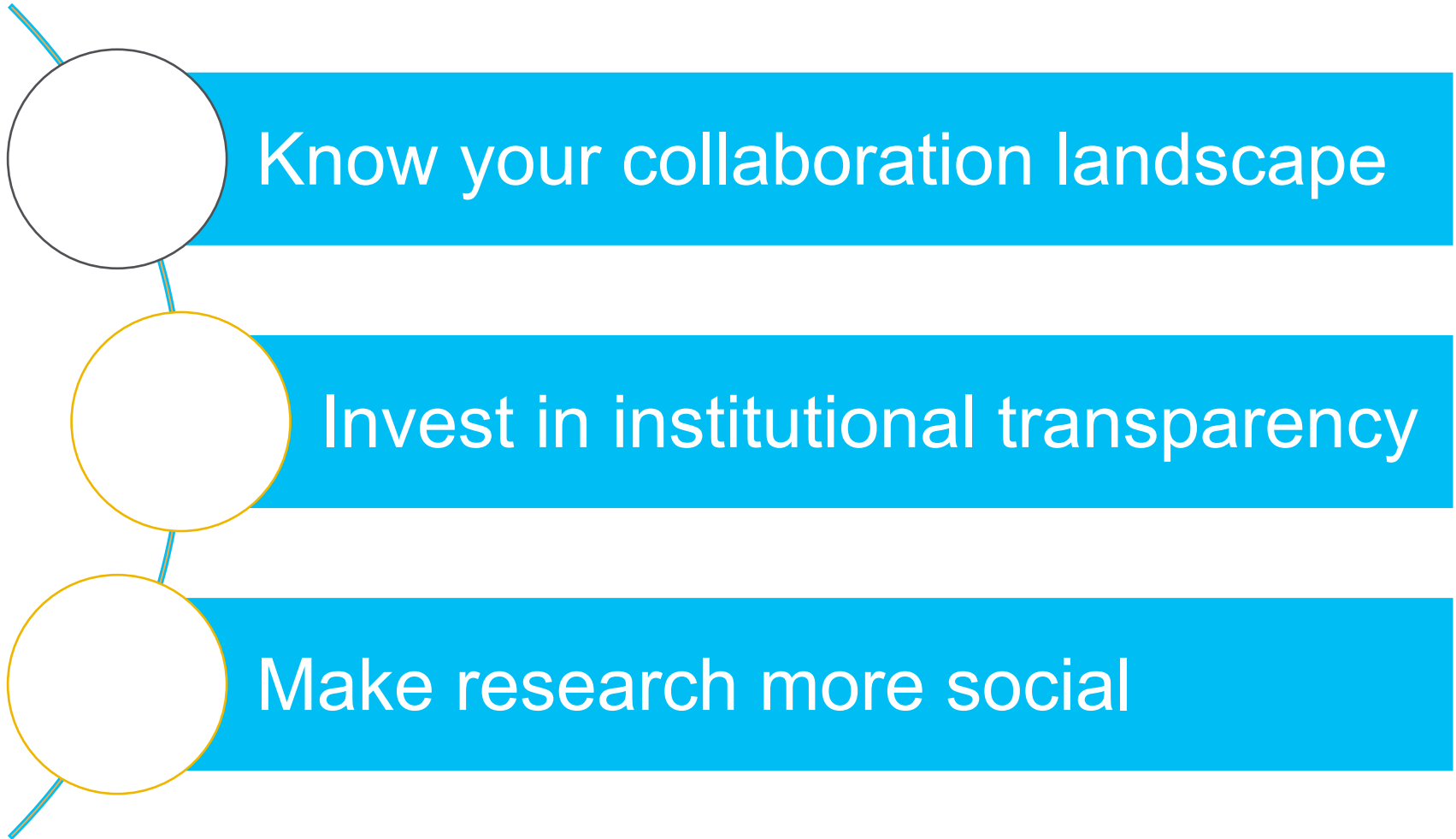


Outcome #3: Civic innovation

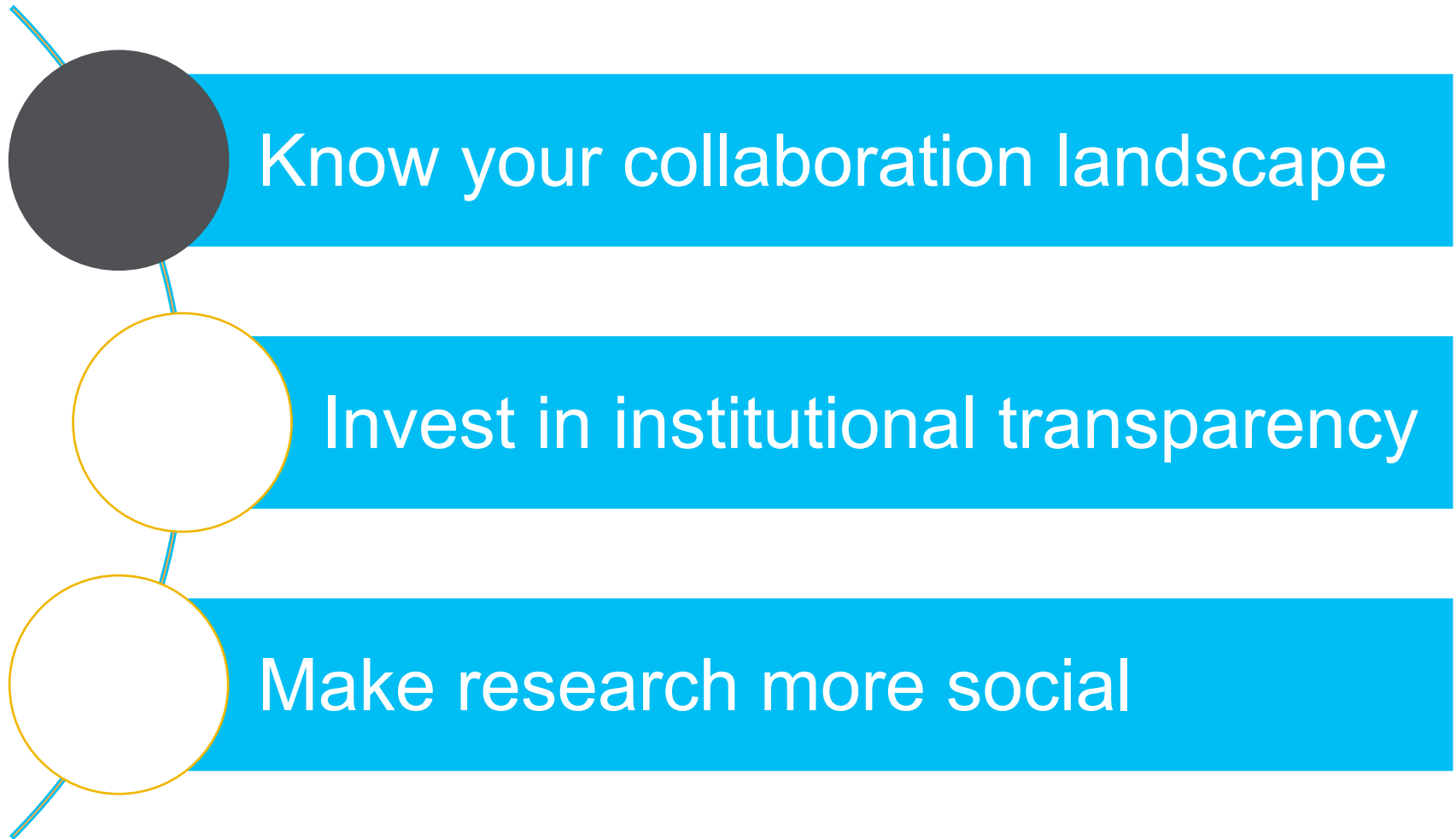


***Mapping Research and Innovation:
Understanding Amsterdam's
Competitive Advantage; a
collaborative report from Elsevier,
UIN, and the City of Amsterdam***

Strategies for collaboration

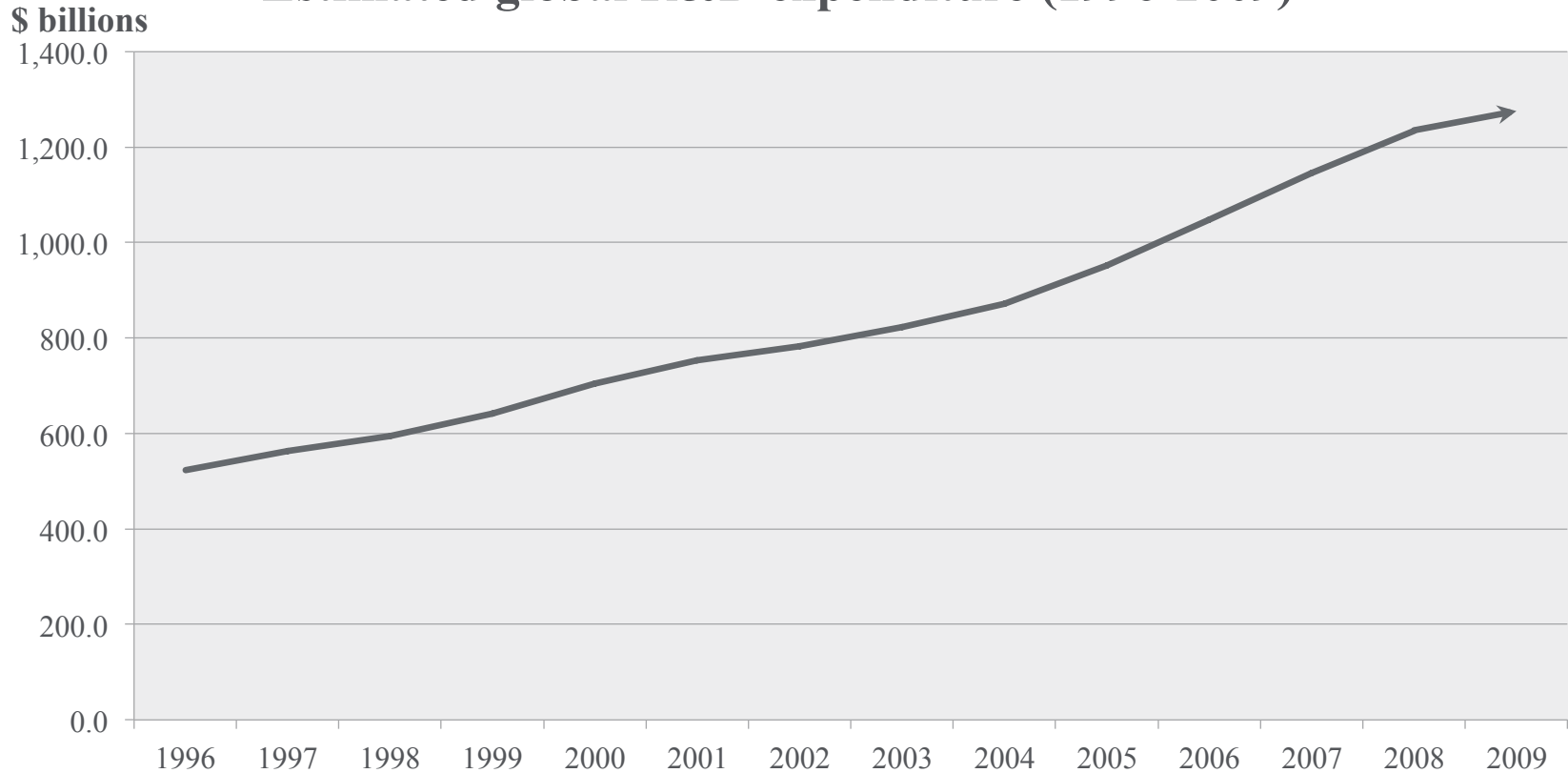


Strategies for collaboration



Global growth in R&D spending

Estimated global R&D expenditure (1996-2009)



**2014: \$1.6 trillion in Global R&D
spending**

Global big spenders

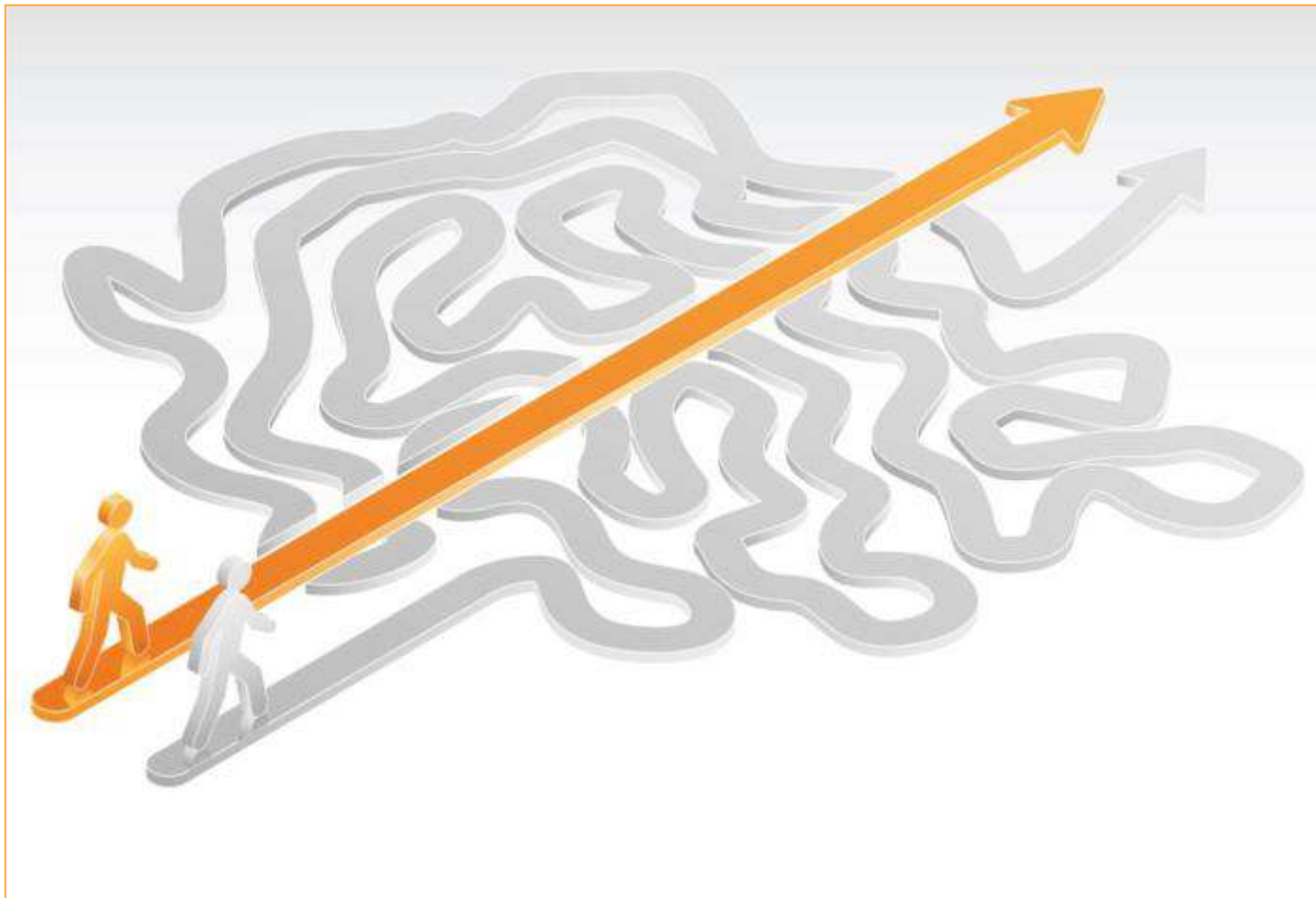


Building your collaboration roadmap

Established Relationships



New Relationships



SciVal

Data from 220 nations and 4,600 research institutions worldwide



Overview

Snapshots of any selected entity



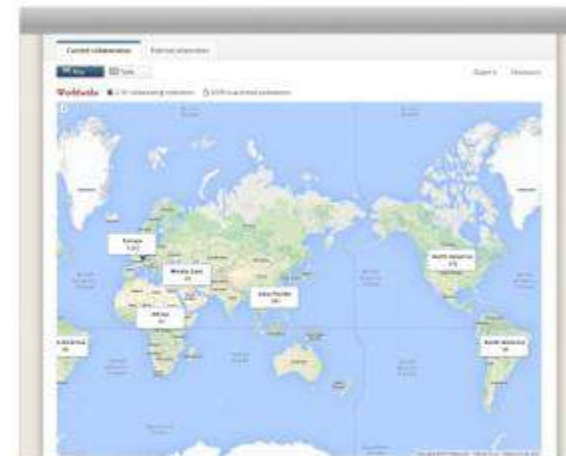
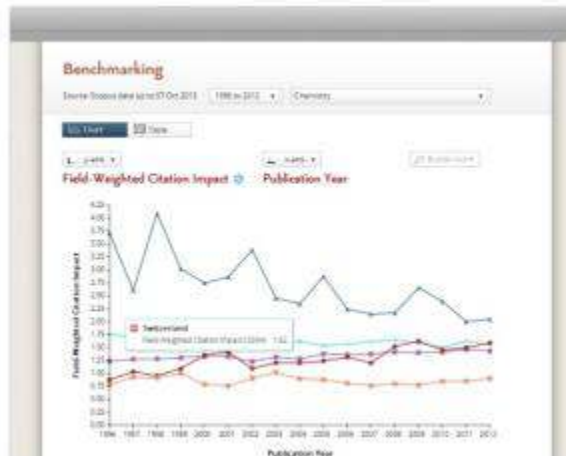
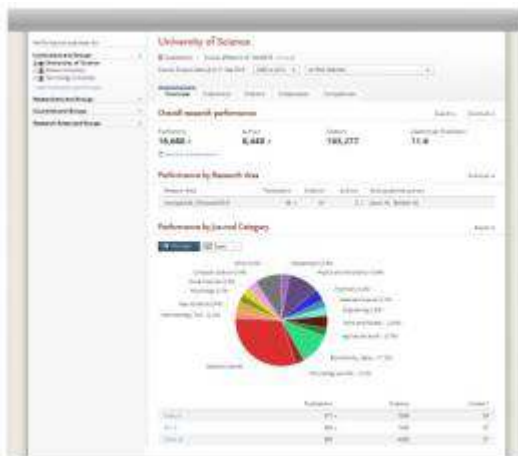
Benchmark

Create and compare groups of entities



Collaboration

Identify and analyze collaboration partners

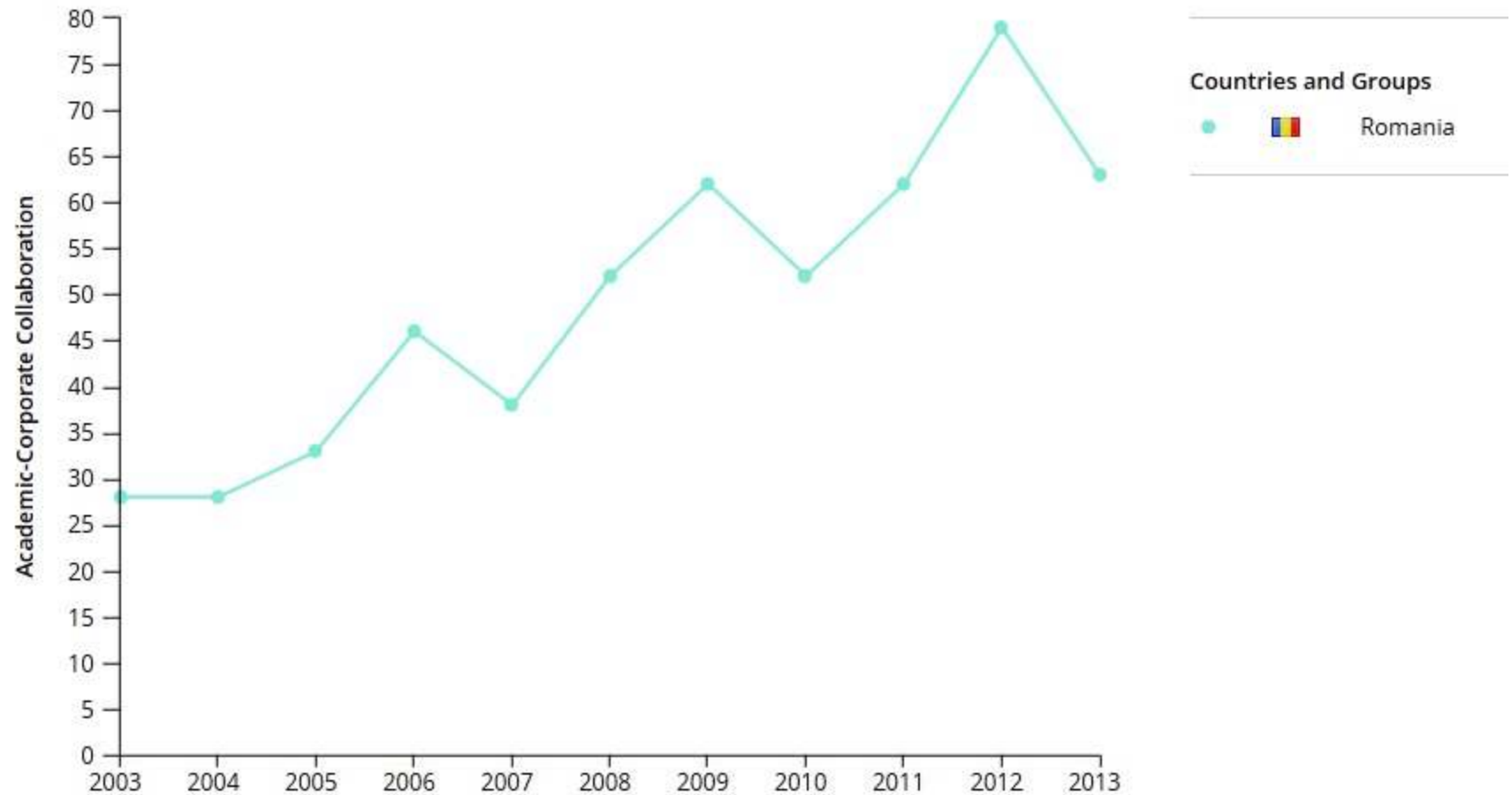


Academic – Corporate collaboration

Academic-Corporate

Publication Year

Collaboration 



Academic – Corporate collaboration – Babes-Bolyai University

Institutions collaborating with Babes-Bolyai University

Worldwide ▾

Corporate ▾

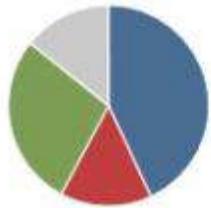
← Filter for more (regional) detail or filter by field at the top of the page

14 collaborating Institutions 36 co-authored publications



Difference in citation behavior - UBB

Publications at Babes-Bolyai University, by amount of international, national and institutional collaboration



Metric		Publications	Citations	Citations per Publication	Field-Weighted Citation Impact
International collaboration	43.1%	2,216	15,647	7.1	1.48
Only national collaboration	14.8%	758	2,087	2.8	0.63
Only institutional collaboration	27.9%	1,432	3,821	2.7	0.65
Single authorship (no collaboration)	14.3%	734	1,191	1.6	0.63

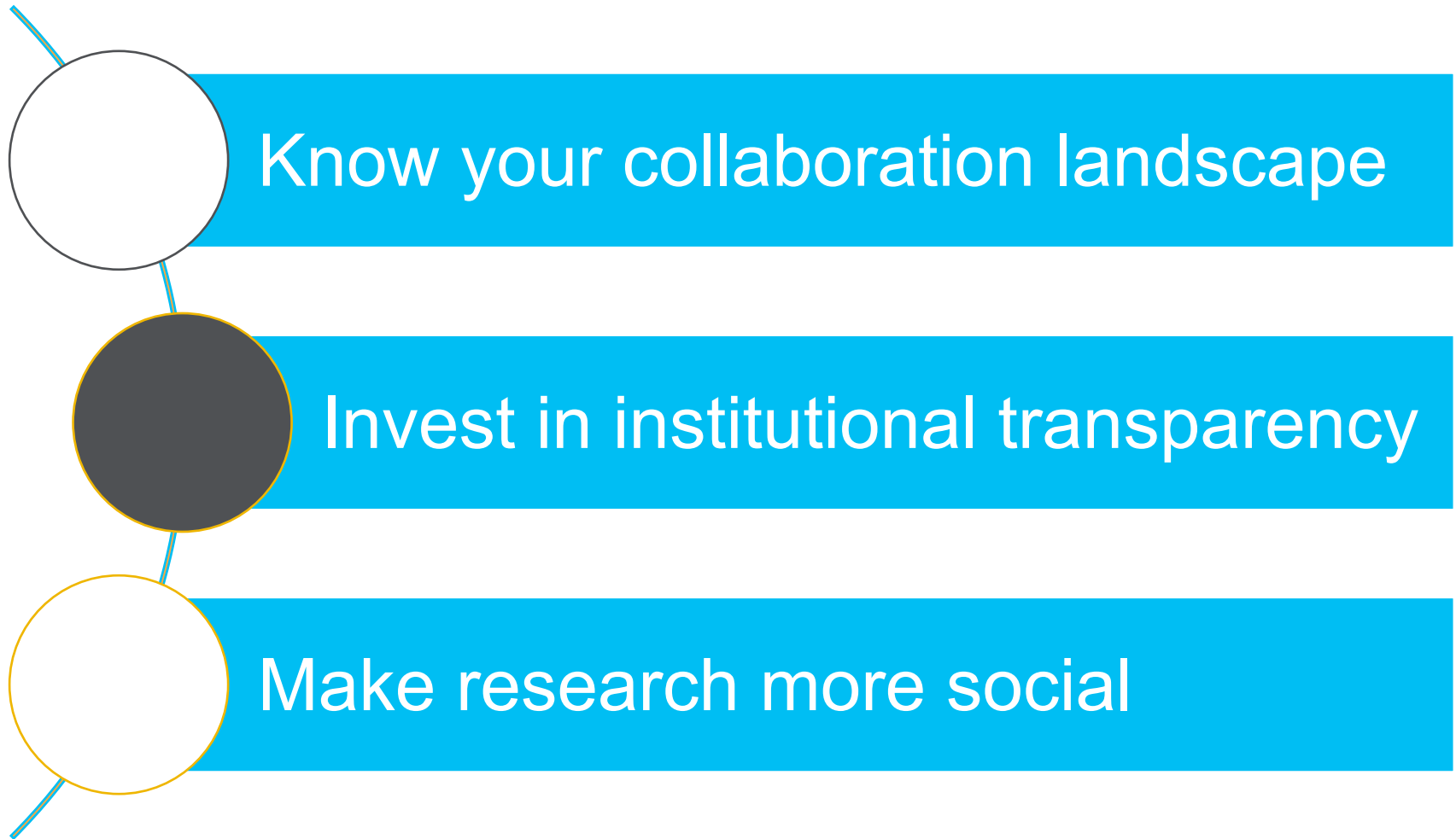
Academic-Corporate Collaboration

Publications at Babes-Bolyai University with both academic and corporate author affiliations



Metric		Publications	Citations	Citations per Publication
Academic-corporate collaboration	0.7%	36	1,679	46.6
No academic-corporate collaboration	99.3%	5,104	21,067	4.1

Strategies for collaboration

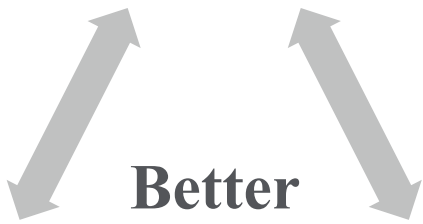


Transparency improves workflows

Internal benefits

External benefits

Researcher



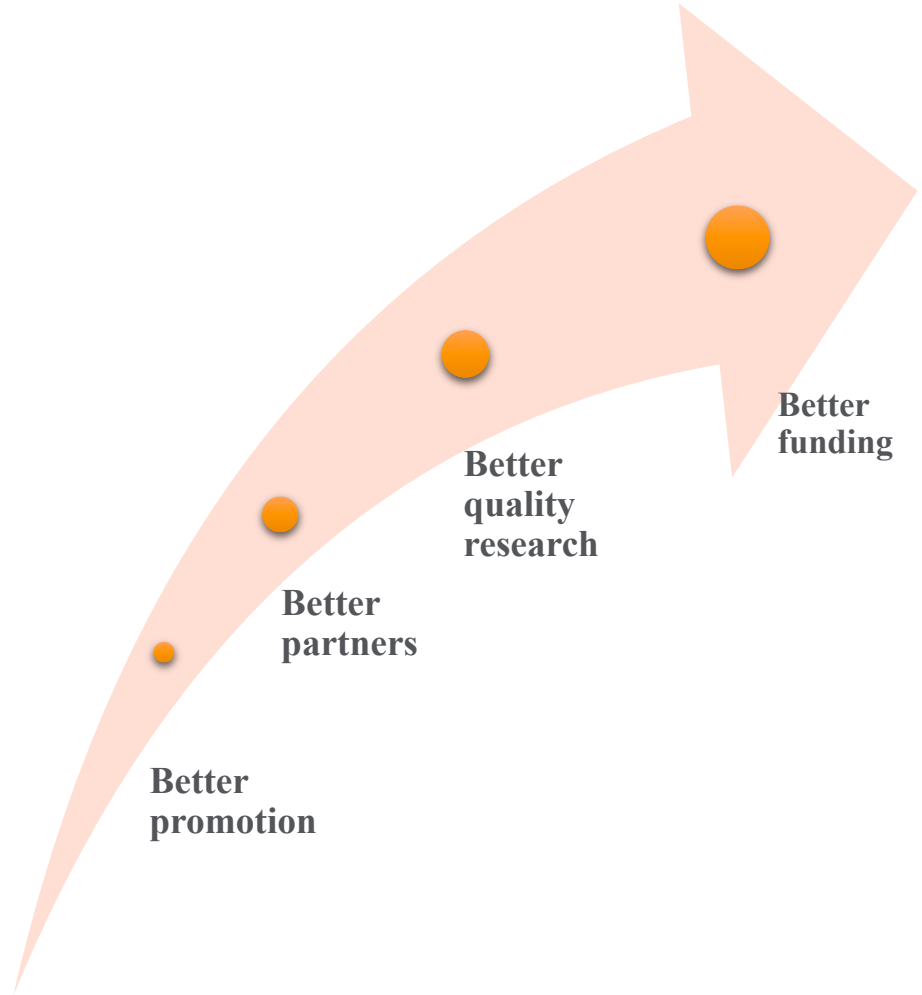
Better Information



Administrator



Department Head



Better promotion

Better partners

Better quality research

Better funding



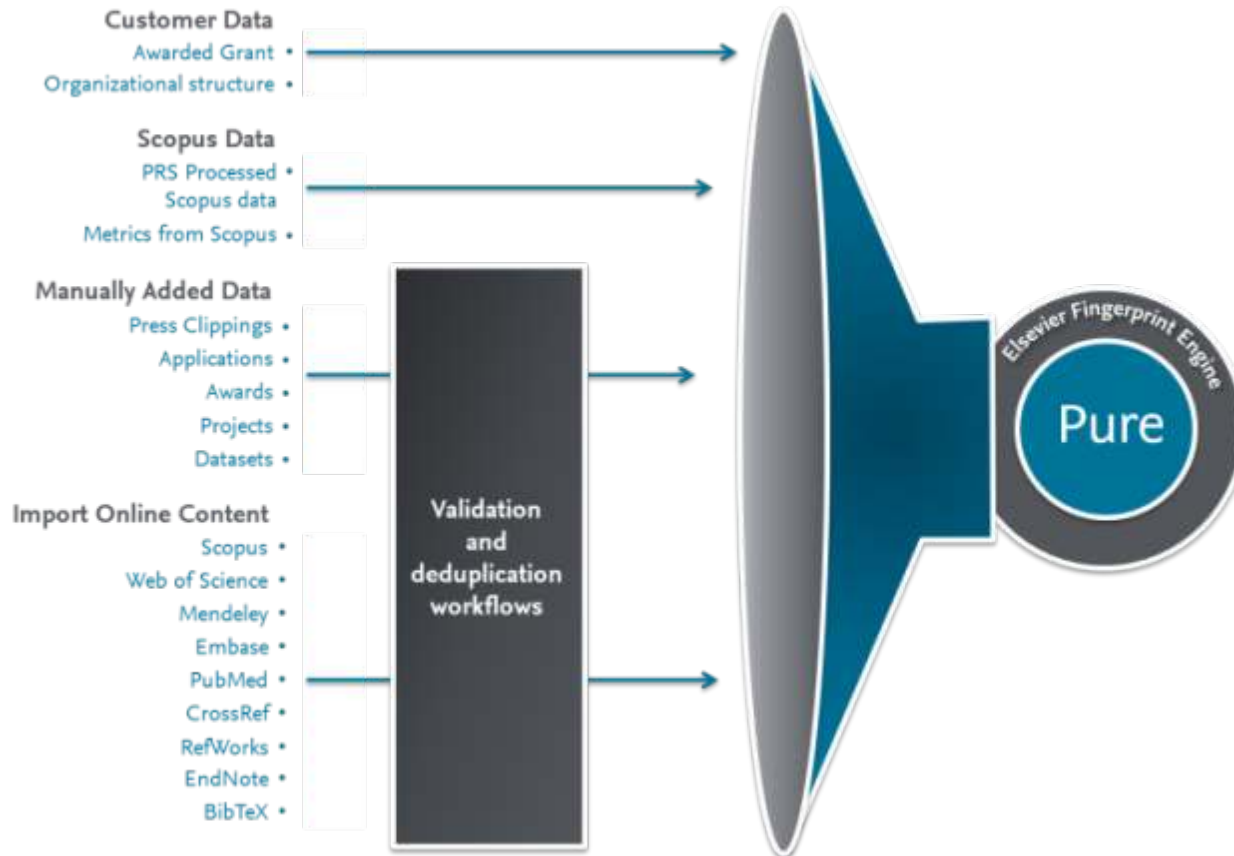
Attract ever more competitive funding grants



Report and promote research success and expertise



Identify the right research collaboration partners



Content relations visualization



Researcher profile

Chris Robertson
 M.Sc.,CS, PhD
 Department of Statistics & Modelling Science, 10/08/10 - present
 my portal profile
 Edit profile...

My research My profile

Personal profile

Full name: Christopher J. Robertson
 Civil status: Married
 Private Address: 135 The Queen's Laws, Kensington, London SW7 2AZ, Great Britain
 Born: December 2nd, 1966
 Private Phone: +44 2078484440
 Private e-mail: cr1966@gmail.com

Previous employer

Aston University
 Aston Triangle
 Birmingham
 B4 7ET, United Kingdom
 VAT no. GB 849 7419 73
 01/09/03 -> 10/08/10

Other work

Member of DBCS, Danish Board of Christian Science

Consultancy

2002-2010 consultant for Ministry of Defense

My CVs

Watch videos about the CV module

Create new CV in Pure

How to maintain a CV in

My CV for STTC applications
 Curriculum Vitae - Private CV

My CV
 Curriculum Vitae - Private CV

My MRC CV
 Curriculum Vitae - Private CV

My CV 2
 Curriculum Vitae - Private CV

Widgets

Pure UK Universities

UK University (+ underlying organisations) | Change

STAFF: 9 Today All time | STUDENTS: 1 Today All time | APPLICATIONS / FUNDING: 1 Today All time | PROJECTS: 1 Today All time

Top 10 activity types

Activity Type	Percentage
Prize (winning metals and...)	36%
Election to learned society	9%
Honorary degree	9%
National/International honour	9%
Participation in conference	9%
Key-note speaker and plenary	9%
Contribution to the work of...	9%
Editorial board member	9%

Top 10 most cited research

Publication

Synthesis of H₂LEU- α LEU-D4 F solid-state reactions at room temperature

On the effect of electric and magnetic fields on spectral lines

Clinical observations associated with women cases in the ESCRS site of postoperative endophthalmitis, surgery

On the theory of the decrease of velocity of moving electrified particles on passing through matter

On the effect of electric and magnetic fields on spectral lines 2

Association of self-reported alcohol use and hospitalization for an alcohol-related cause in Scotland: a record-linkage study of 23,183 individuals

Social group size affects Mycobacterium bovis infection in European badgers (Meles meles)

Development of an advanced on-line position-specific stable carbon isotope system and application to methyl tert-butyl ether

On the Quantum theory of radiation and the structure of the atom

Sentinel-lymph-node resection compared with

Reports

Student Issues

Ref	Type	Page	Publication date	Issue
REP 1418 (Staff REP2014)	Report	44	10/08/10	Report
REP 19 (ESC REP2014)	Report	11	10/08/10	Report
REP 2 (ICRUS REP2014)	Report	18	10/08/10	Report

Units of assessment

Equipment/Facilities

Events

External organisations

External person

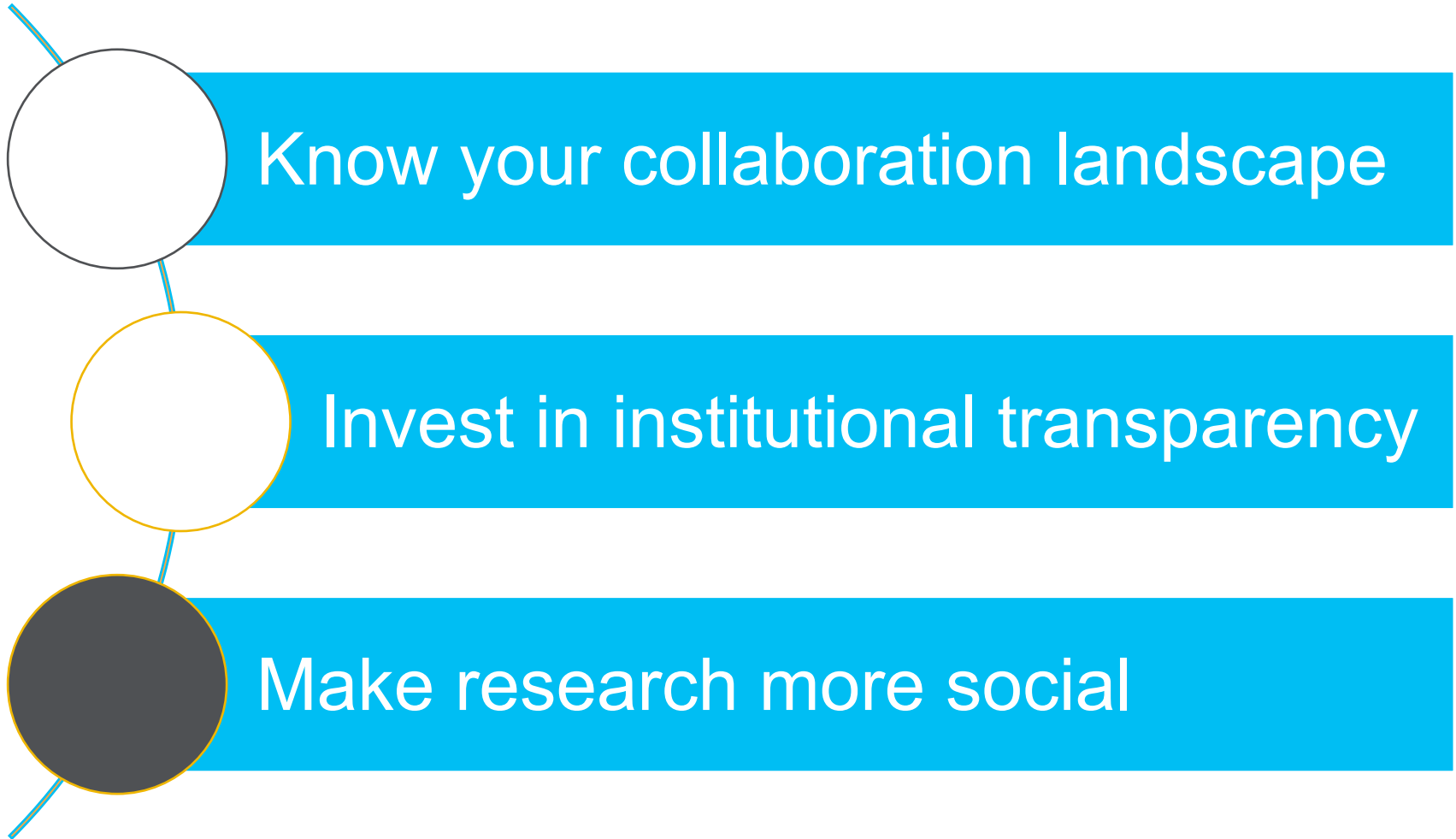
Journals

Chart (analysis)

Raw data spreadsheet

Year	Value
2009	10
2010	15
2011	20
2012	18
2013	22
2014	25
2015	20
2016	28
2017	30
2018	25
2019	32
2020	35

Strategies for Collaboration



Social media and social networks



Search People, Research Interests and Universities



Mendeley



Mendeley Data Mining, owned by See Wah Cheng

Overview Documents (1) Members

What's on your mind?

Network/share with peers

Mendeley Data Mining
Rosario Garcia de Zufiga Cano
28th September - comment - like

Mendeley Data Mining
Colm McMullan and Benjamin ALee have joined Mendeley Data Mining
24th September - comment - like

Robert Knight added a document to this group
Benchmarking Cloud Serving Systems with YCSB
18th September - like

Sebastian Arco If you like this paper, you should also check out "Benchmarking Tape Systems Performance" by Johnson / Miller (1998)
less than 1 minute ago - delete

Mendeley Data Mining
Ian Mulvany has joined Mendeley Data Mining
8th September - comment

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Post-Conflict ICTs

Overview Papers Members

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MDev (World Bank) directed research project on the role of information and communication technologies in post-conflict environments. For more information see [ambio.org/en/Project_133.html](#)

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Duncan J Watts's coauthors

Duncan J Watts's alternate spellings

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Start collaborating!



Thank you!



ELSEVIER