



Impact of Science

5-7 June 2019, Berlin

**Raum E0.42, 13:45-15:00**

## **KPI's**

*Paul Wouters (Chair)*

*Vilius Stančiauskas*

*Wolfgang Rohe*

## KPI's

# Paul Wouters (Chair)

*Dean of Social Sciences & former Director  
of CWTS, Leiden university, The Netherlands*

# KPIs on Impact for Institutes and Policies

Paul Wouters

AESIS 2019, 5-7 June 2019, Allianz Forum, Berlin



# Scope of the session

- *How can impact be measured?*
- *How can measurement of the academic system make societal impact possible?*

# U-Multirank 2019

5.6.2019  
dev.umultirank.org

**Applied Knowledge Partnerships Ranking**

		Research			Knowledge Transfer			Regional Engagement
		Art related output	Strategic research partnerships	Professional publications	Co-publications with industrial partners	Income from continuous professional development	Graduate companies	Income from regional sources
Zhytomyr State Technological University	UA	●	●	●	×	●	●	●
Hochschule Aalen	DE	—	●	●	●	—	●	●
Abdullah Gül Üniversitesi	TR	●	●	●	●	●	●	●
Universidade Aberta	PT	●	●	—	●	●	●	●
Adam Mickiewicz University Poznań	PL	●	●	●	●	●	●	●
University of the Aegean	GR	●	●	—	●	●	—	●
University of Agder	NO	●	●	●	●	●	●	●
Aix-Marseille Université	FR	●	●	●	●	●	—	●
1 December 1918 University of Alba-Iulia	RO	—	●	●	●	●	—	●
Universidade do Algarve	PT	●	●	●	●	●	●	●
Almaty University of Power Engineering and Telecommunication	KZ	●	●	●	×	●	●	●
Altai State University	RU	●	●	—	●	●	●	●
Alytaus kolegija	LT	●	●	●	×	●	●	—
Alzahra	IR	●	●	●	●	—	●	●

# A new conceptual approach

Hicks, Daniel J., Carl Stahmer, and MacKenzie Smith. 2018. "Impacting Capabilities: A Conceptual Framework for the Social Value of Research." *Frontiers in Research Metrics and Analytics* 3 (August). <https://doi.org/10/gf3fnp>.

- Life
- Bodily health
- Bodily integrity
- Senses, imagination and thought
- Emotions
- Practical reason
- Affiliations
- Other species
- Control over one's environment
- Play

**biodiversity:** biodiversity drought richness taxa ecosystem grazing  
indicator soil recovery redundancy

**biofuels:** cyanobacteria electricity biofuel corn greenhouse aldehyde  
digestion ethanol mitigation feedstock production lca

**climate change:** a recurrence change emergent rise wetland salinity  
diversification climate sea

**conservation:** home merge prey conservation foraging habitat cipc marsh  
predation dispersal nest pesticide reintroduction predator waterfowl  
success

**education:** learning nih picture functioning n= progress ds language  
sentence vocabulary fluency iat intelligence matching reading  
comprehension psychological speech validity

**epidemiology:** challenge disease infection vaccine virus cat fip  
surveillance explanation fold antibody outbreak defense vaccination

**hydrology:** groundwater cover erosion slope snow valley basal runoff  
sediment m.

**land use:** china sustainability condition scarcity water export period  
planning land management agriculture

**lung health:** muh airway ozone smoke lung tobacco exposure smoking

**metabolic disease:** fat glucose morbidity homeostasis metabolic prostate  
cholesterol diet plasma insulin

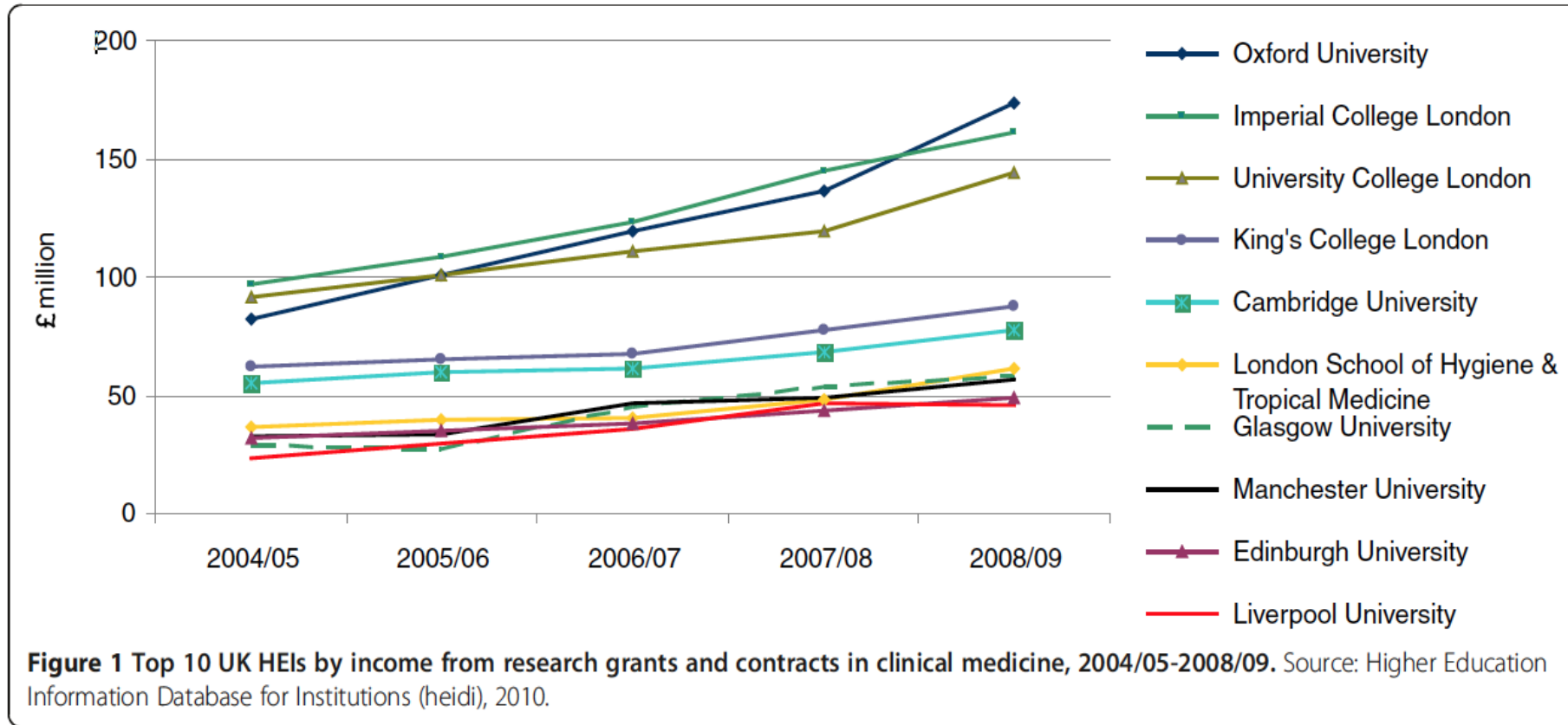
**nutrition:** intake vitamin dairy diabetes milk vegetable breast promotion  
nutrition status weight food requirement

**policy:** panel crisis income article paper debate research government  
policy practice household investment justice welfare communication  
discussion credit future

# HEFCE 2010 impact indicators

- Delivering highly skilled people;
- Creating new businesses, improving the performance of existing businesses, or commercialising new products or processes;
- Attracting R&D investment from global business;
- Better informed public policy-making or improved public services;
- Improved patient care or health outcomes;
- Progress towards sustainable development, including environmental sustainability;
- Cultural enrichment, including improved public engagement with science and research;
- Improved social welfare, social cohesion or national security;
- Other quality of life benefits.





# Measuring impact in clinical medicine

“Overall, the evidence from our study supports the claim that assessing impact is feasible, but that current methodologies will need to be significantly improved before using measurable impact indicators as a basis on which to change the long-term behaviour of universities.”

Ovseiko, Pavel V, Alis Oancea, and Alastair M Buchan. 2018. “Assessing Research Impact in Academic Clinical Medicine: A Study Using Research Excellence Framework Pilot Impact Indicators.”  
<https://doi.org/10.1186/1472-6963-12-478>

Indicator Box A: Education and human capital development (with a regional orientation)	
Inputs	'Results' indicators and 'Impact' indicators
<ul style="list-style-type: none"> <li>• Grants and scholarships for students from local/regional private sector</li> <li>• Credit bearing courses established through a direct request or with the involvement from non-academic local/regional organisations;</li> <li>• Tailor-made academic programs in partnership with businesses</li> <li>• Participation non-academic agents in curricula design</li> <li>• Joint PhD Programmes and industry sponsorship of post graduate education</li> <li>• Entrepreneurship teaching and learning; skills development</li> <li>• Inter-sectorial mobility of teaching staff</li> <li>• Labour outcomes and student satisfaction post-graduation</li> <li>• Regional student retention</li> <li>• Life-long learning and non-academic education</li> <li>• Graduate tracking of salaried employment</li> </ul>	<ul style="list-style-type: none"> <li>• Entrepreneurship education: number of students enrolled in entrepreneurship courses as % of total students and/or the number of students attending internship</li> <li>• Number of faculty members taking a temporary position in a non-academic organisations;</li> <li>• Number of employees from non-academic organisations taking temporary teaching and/or research positions at university</li> <li>• Labour outcomes and postgraduate labour surveys that measure satisfaction with knowledge gained at university</li> <li>• Student internships in the local region: out of the students who did an internship, the percentage where the internship was with a company or organisation located in the region</li> <li>• BA theses with local/regional organisations: degree theses of bachelor graduates done in cooperation with organisations (industry, public, non-profit organisations) in the region</li> <li>• MA theses with local/regional organisations: degree theses of master graduates done in cooperation with organisations (industry, public, non-profit organisations) in the region</li> <li>• % academics teaching in courses required by local/regional firms; or income received from non-credit bearing teaching and associated activities for local/regional clients</li> <li>• Graduate employment: percentage of graduates working in the region after graduation</li> <li>• Wages of university graduates (3-5 years after graduation)</li> </ul>

Jonkers, Koen, Robert Tijssen, Athina Karvounaraki, and Xabier Goenaga. 2018. "A Regional Innovation Impact Assessment Framework for Universities," 44

# 'Impact pathways' approach (based on Actor Network Theory)

- Approach to map impact defined broadly
- Based on non-linear concept of innovation
- Standardized case studies compared across fields
- Focused on collective learning and support for system changes
- Innovation interactions take place in heterogeneous networks of actors
- Science is “applied” in translation processes: science is not immediately useful
- Mapping impact means mapping these interaction processes rather than isolated impact results

# Comparing UK and Norway (Wróblewska 2019)

- It is crucial for each national science system to organically develop its own solutions that respect local sensitivities and traditions as regards extra-academic engagement and academic culture in general.
- The strengths of the British system include the development of a coherent and now well-established case study genre, the rules for which are clear to both academics and panellists, and in the strong provision of support in the framework of an ‘impact infrastructure’.
- The strengths of the Norwegian approach, lay in its ‘openness’. Because of the relatively short notice given before the exercise and the comparatively scarce guidance and training provided, the exercise resulted in a collection of documents that come across as an authentic, honest and reflexive overview of the impact of Norwegian research.

Wróblewska, Marta Natalia. 2019. “Impact Evaluation in Norway and in the UK: A Comparative Study, Based on REF 2014 and Humeval 2015-2017.” ENRESSH. <https://doi.org/10.3990/4.2666-0776.2019.01>

# Measuring is changing

- What counts as excellence is shaped by how we measure and define “excellence”
- What counts as impact is shaped by how we measure and define “impact”
- *Qualities* and *interactions* are the foundation for “excellence” and “impact” so we should understand those more fundamental processes first
- We need different indicators at different levels in the scientific system to inform wise management that strikes the right balance between trust and control
- Context crucial for interpretation and standardization

# The Metric Tide

Report of the Independent Review  
of the Role of Metrics in  
Assessment and Management



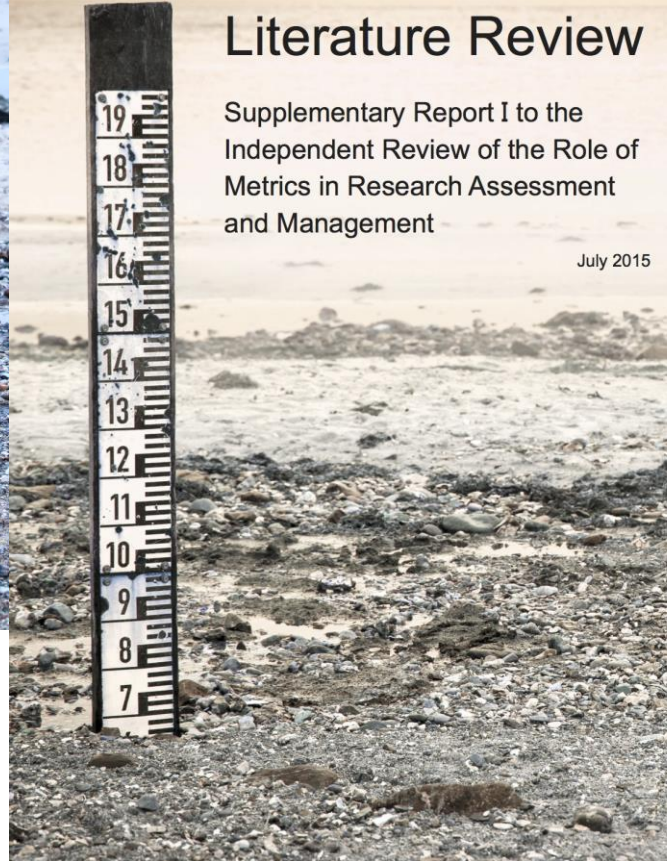
<http://www.hefce.ac.uk/rsrch/metrics/>

## The Metric Tide

### Literature Review

Supplementary Report I to the  
Independent Review of the Role of  
Metrics in Research Assessment  
and Management

July 2015

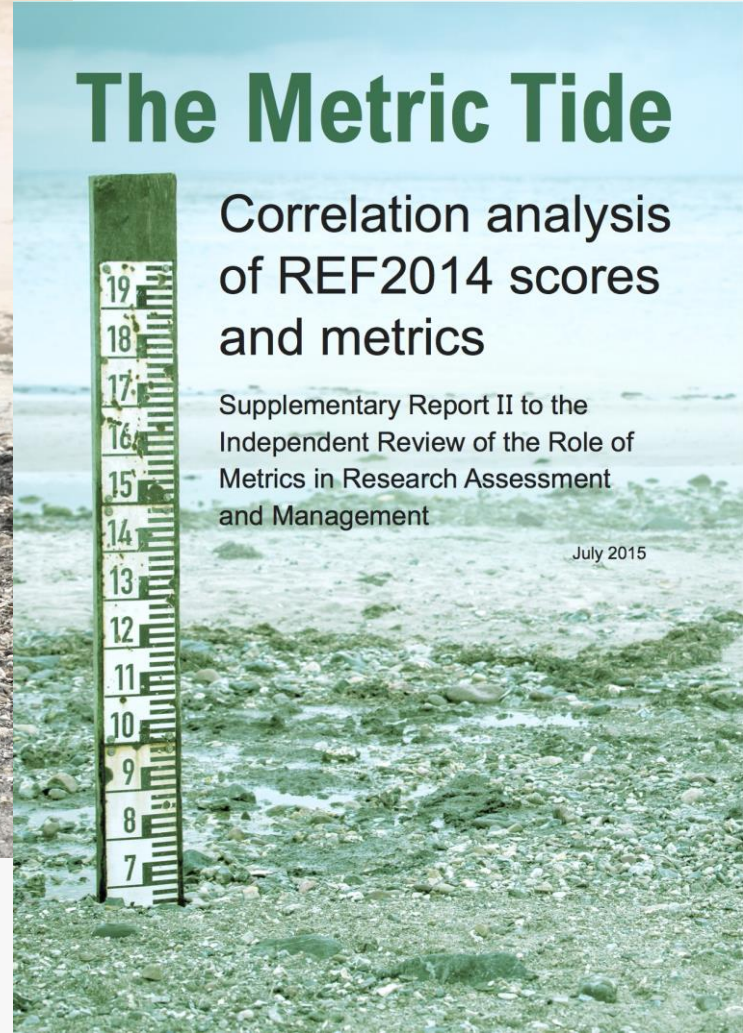


## The Metric Tide

### Correlation analysis of REF2014 scores and metrics

Supplementary Report II to the  
Independent Review of the Role of  
Metrics in Research Assessment  
and Management

July 2015



# Responsible metrics

Responsible metrics can be understood in terms of:

- **Robustness:** basing metrics on the best possible data in terms of accuracy and scope;
- **Humility:** recognizing that quantitative evaluation should support – but not supplant – qualitative, expert assessment;
- **Transparency:** keeping data collection and analytical processes open and transparent, so that those being evaluated can test and verify the results;
- **Diversity:** accounting for variation by field, using a variety of indicators to reflect and support a plurality of research & researcher career paths;
- **Reflexivity:** recognizing the potential & systemic effects of indicators and updating them in response.





Across the research community, the description, production and consumption of 'metrics' remains contested and open to misunderstandings.



# COMMENT

**SUSTAINABILITY** Data needed to drive UN development goals **p.432**



**CONSERVATION** Economics and environmental catastrophe **p.434**

**GEOLOGY** Questions raised over proposed Anthropocene dates **p.436**

**HISTORY** Music inspired Newton to add more colours to the rainbow **p.438**



## The Leiden Manifesto for research metrics

Use these ten principles to guide research evaluation, urge **Diana Hicks, Paul Wouters** and colleagues.

Data are increasingly used to govern science. Research evaluations that were once bespoke and performed by peers are now routine and reliant on metrics'. The problem is that evaluation is now led by the data rather than by judgement. Metrics have proliferated: usually well intentioned, not always well informed, often ill applied. We risk damaging the system with the very tools designed to improve it, as evaluation is increasingly implemented by organizations without knowledge of, or

advice on, good practice and interpretation. Before 2000, there was the Science Citation Index on CD-ROM from the Institute for Scientific Information (ISI), used by experts for specialist analyses. In 2002, Thomson Reuters launched an integrated web platform, making the Web of Science database widely accessible. Competing citation indices were created: Elsevier's Scopus (released in 2004) and Google Scholar (beta version released in 2004). Web-based tools to easily compare institutional research productivity and impact

were introduced, such as InCites (using the Web of Science) and SciVal (using Scopus), as well as software to analyse individual citation profiles using Google Scholar (Publish or Perish, released in 2007). In 2005, Jorge Hirsch, a physicist at the University of California, San Diego, proposed the *h*-index, popularizing citation counting for individual researchers. Interest in the journal impact factor grew steadily after 1995 (see 'Impact factor obsession'). Lately, metrics related to social usage ▶

ILLUSTRATION BY DAVID WOODS

# The Leiden Manifesto

- Quantitative evaluation should support expert assessment.
- Measure performance in accordance with the research mission.
- Protect excellence in locally relevant research
- Keep data collection and analytical processes open, transparent and simple.
- Allow for data verification
- Account for variation by field in publication and citation practices
- Data should be interpreted taking into account the difficulty of credit assignment in the case of multi-authored publications.
- Base assessment of individual researchers on *qualitative* judgment.
- False precision should be avoided (eg. the JIF).
- Systemic effects of the assessment and the indicators should be taken into account and indicators should be updated regularly

Diana Hicks (Georgia Tech), Paul Wouters (CWTS), Ismael Rafols (SPRU/Ingenio), Sarah de Rijcke and Ludo Waltman (CWTS)

# Should formative evaluations be made more important?

- Goals of evaluation:
  - Monitor
  - Learn
  - Allocate resources
- "Assessing the value of research in the arts and humanities calls for a research methodology capable of providing a fine-grained understanding of the variety of, often diffuse, ways in which arts and humanities research can generate value. The methods that we need to do this are better suited to fulfil the improvement goal of evaluation, and require a 'formative' approach to evaluation supporting the social engagement of academic researchers."

# Recommendations AESIS 2017

- Develop new evaluative methodologies to both *enable* and *make visible* societal impact of scholarship and research as well as interactions between researchers and society
- Re-orient academic assessment systems towards incentives for interaction with society; end assessments that basically promote academic arrogance and insularity
- Combine quantitative with qualitative evidence of impact and always put the evidence in context (keep in mind: *Measuring is Changing* and *Context Counts*)



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Vilius Stančiauskas

*Data4Impact & Director, Research and Policy Advice,  
PPMI, Lithuania*

AESIS



# Big data approaches for tracking & evaluating R&I performance

Berlin, 6 June 2019







# What is big data?

Definition of Big Data:

*"Big Data is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation."*

Key properties of Big Data:

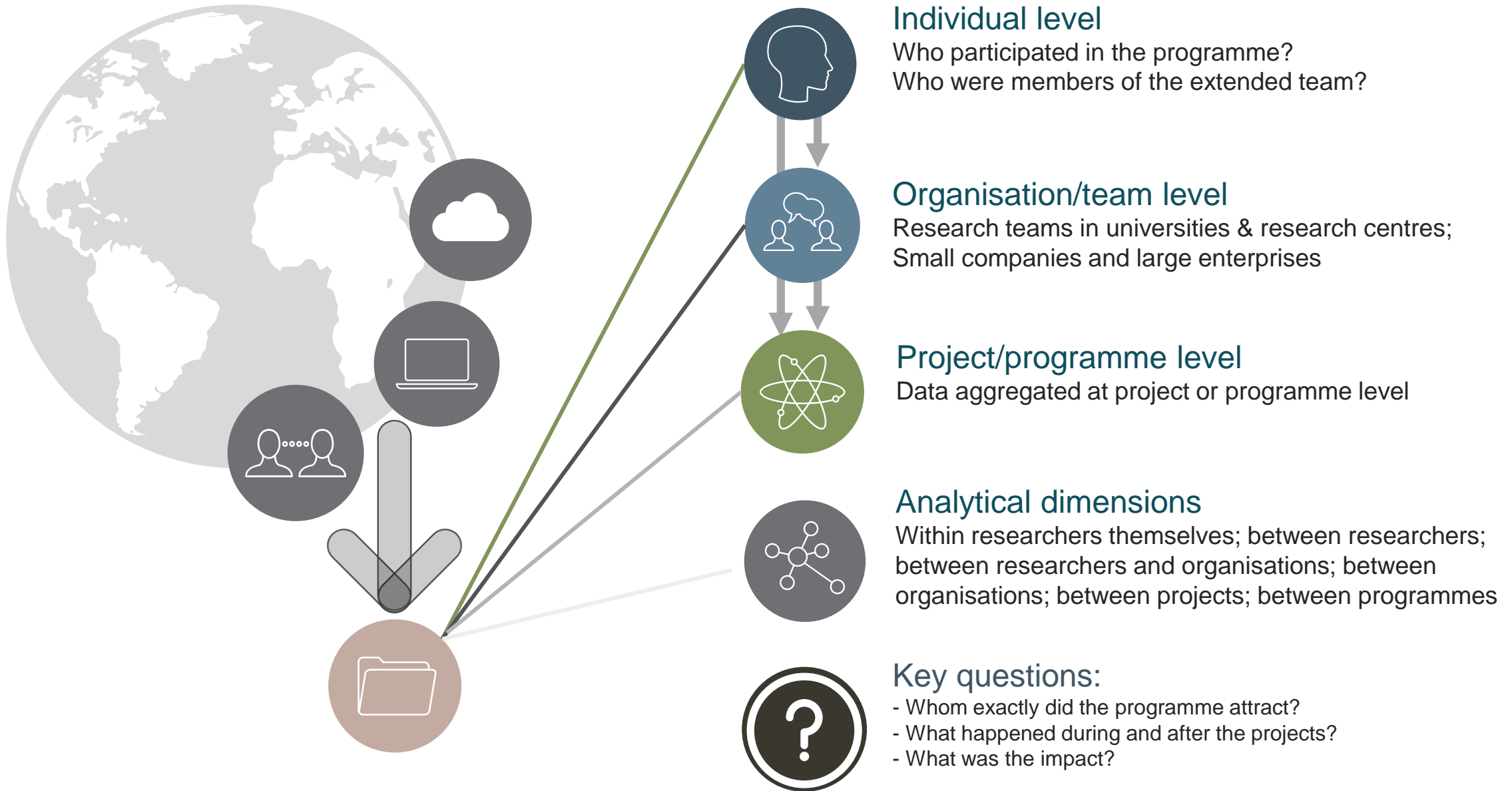
- **Volume**, i.e. no sampling is generally applied
- **Variety**, i.e. structured and unstructured data from various sources, in different formats
- **Velocity**, i.e. real-time/rapid data
- **Veracity**, i.e. variations in data quality, cleaning, processing, etc.

**Non-intrusiveness** -> Big Data is a byproduct of digital interaction and communication

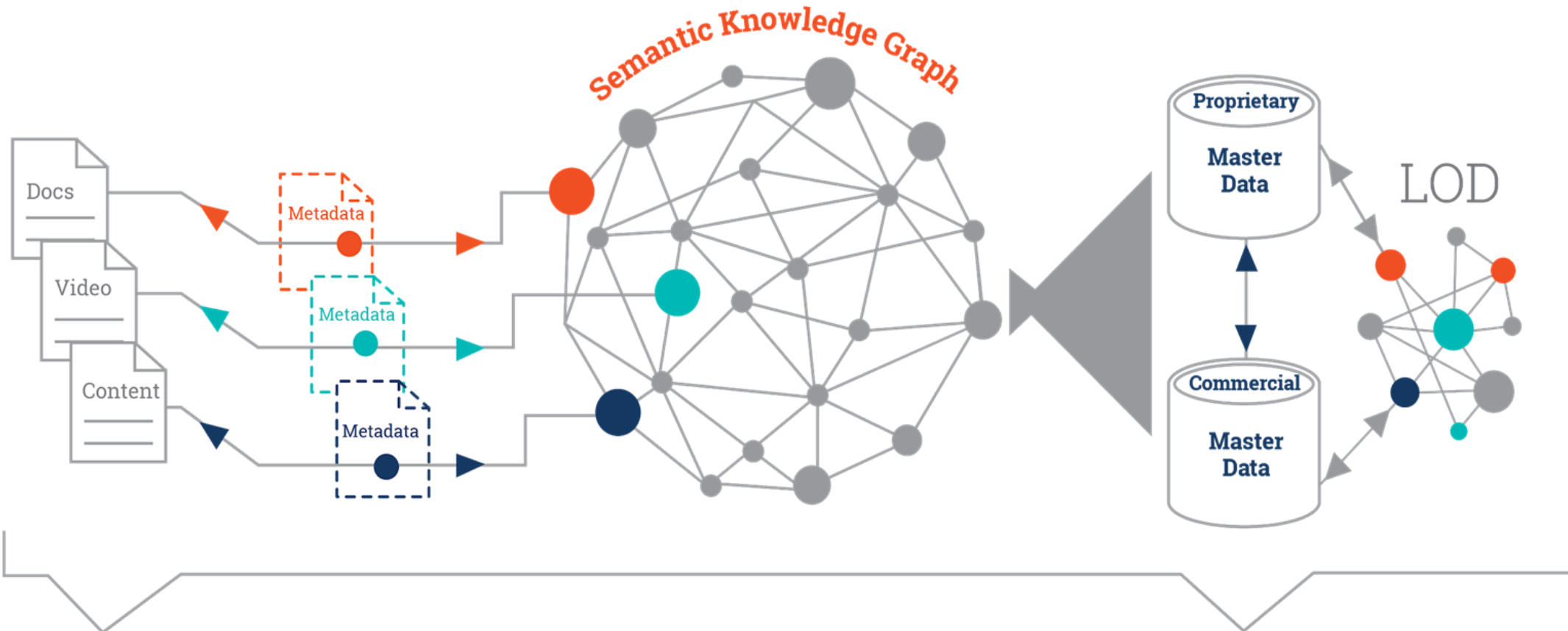
**Key objective: make Big Data small!**



# Where? Start with an **individual**



# How? Build a **Knowledge Graph**, Integrate Data



# Why/what? Answer questions that matter to funders without ever asking a beneficiary, or asking less

1

## Outputs, products and interventions

- Outputs, products and interventions
- Collaborations
- Scientific publications
- Intellectual Property Rights
- Scientific prizes

2

## Outcome-level indicators

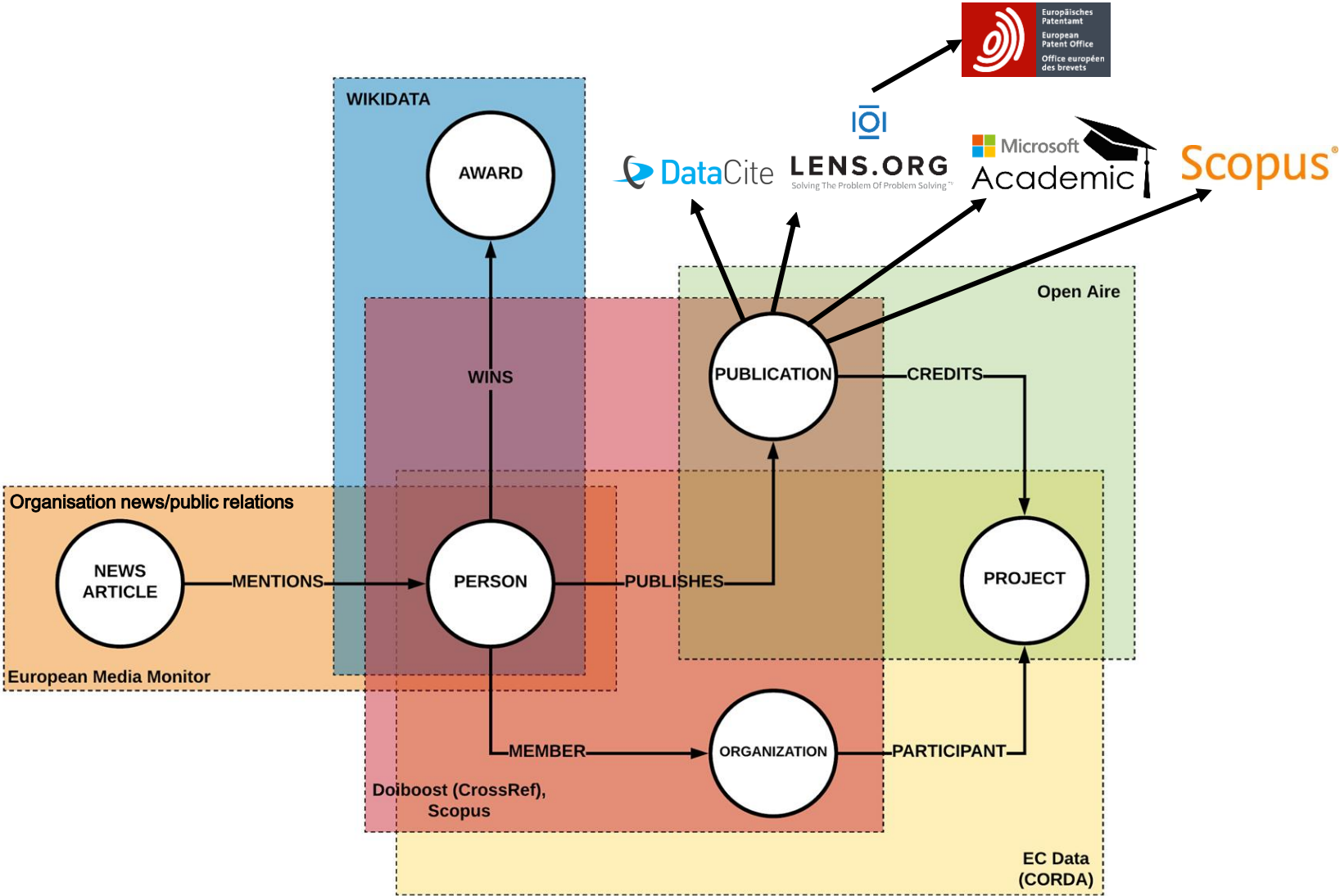
- Innovations
- Dissemination activities
- Further funding/  
investment
- Next destinations
- Effects on the company/  
private sector
- New companies/  
organizations created

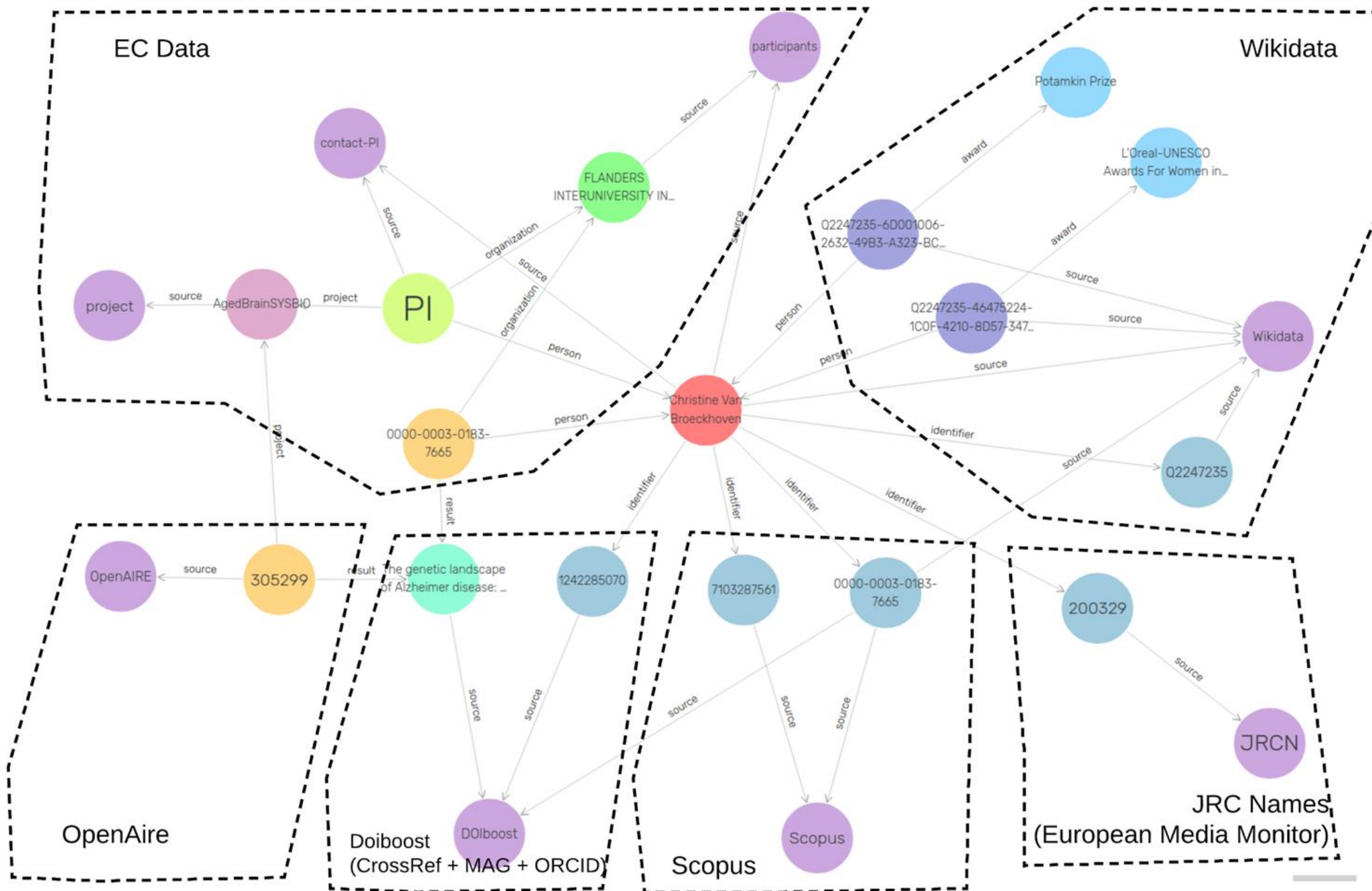
3

## Impact level indicators

- Impact on health and welfare/ Health and environmental impacts
- Impacts on creativity, culture & society/ Social, economic, capability and cultural impact
- Influence on policy making/ political impact

# Tracking individual researchers





# Leading scientists call for plastic-free aisles in supermarkets



[dailymail.co.uk](https://www.dailymail.co.uk) · 2 years ago

Leading [scientists](#) are [calling](#) for [plastic-free aisles](#) in [supermarkets](#), as fears grow that toxic [chemicals](#) leaching into [food](#) could cause [cancer](#) and [fertility problems](#).

In a letter to today's The Mail on Sunday, ten top [food-security](#) specialists and doctors – [including](#) [Professor Sir David Baulcombe, of Cambridge University](#), and Dr [Audrey de Nazelle, of Imperial College London](#) – warn that [chemicals](#) found in packaging are potentially dangerous if consumed every day.

They say disposable [plastic](#) wrappers not only leave [traces](#) of toxic phthalate [chemicals](#) on the surface of [foods](#) but contaminate the environment when thrown away.

And there is also growing evidence that, when consumed, the [chemicals](#) could cause catastrophic changes to [human](#) cells.

Other mentions:



David Baulcombe

University of Cambridge



Audrey de Nazelle



Imperial College London

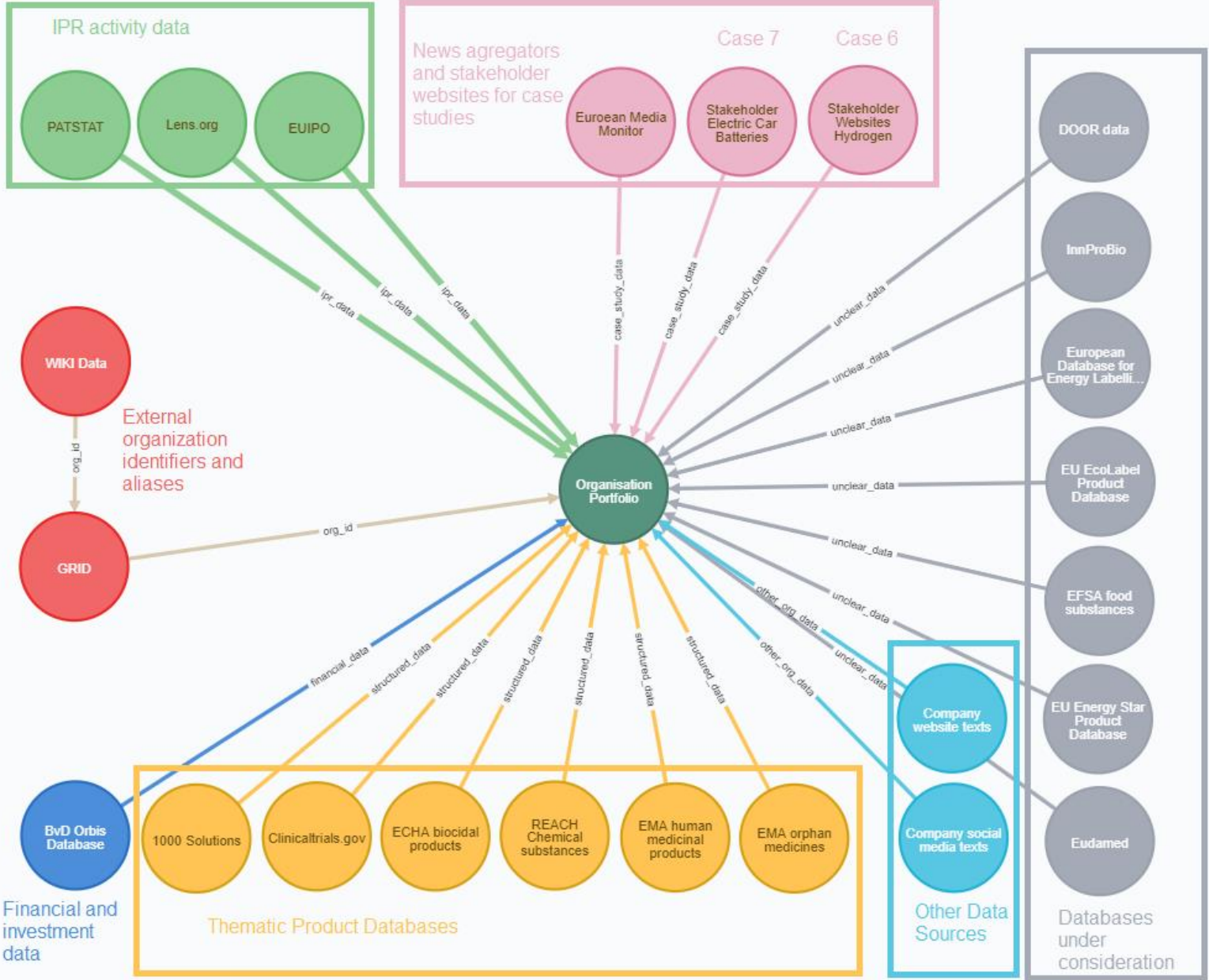
## Precision vs recall bias



## Annotation types

- Keyphrase 17
- RelationPersonRole 3
- Event 2
- Organization 2
- Person 2
- Species 1

# Tracking organisations



# Tracking organisations

## Reoxcare, new HistoCell product, obtains the CE mark for its placement on the market



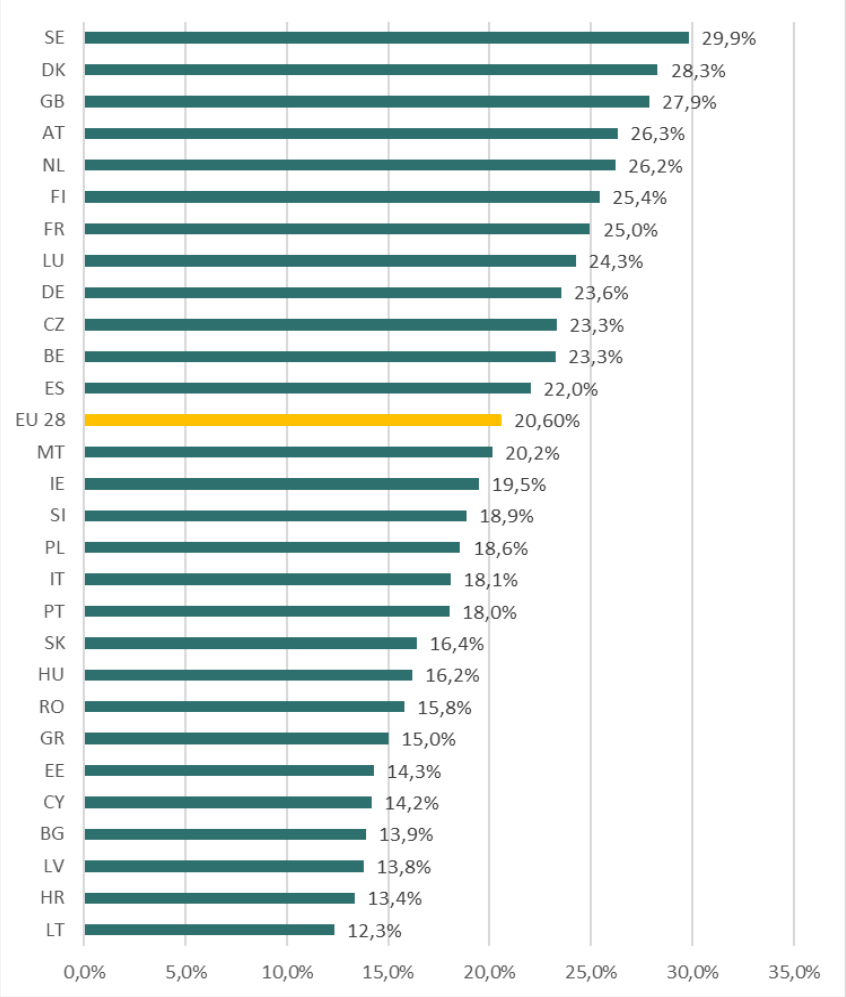
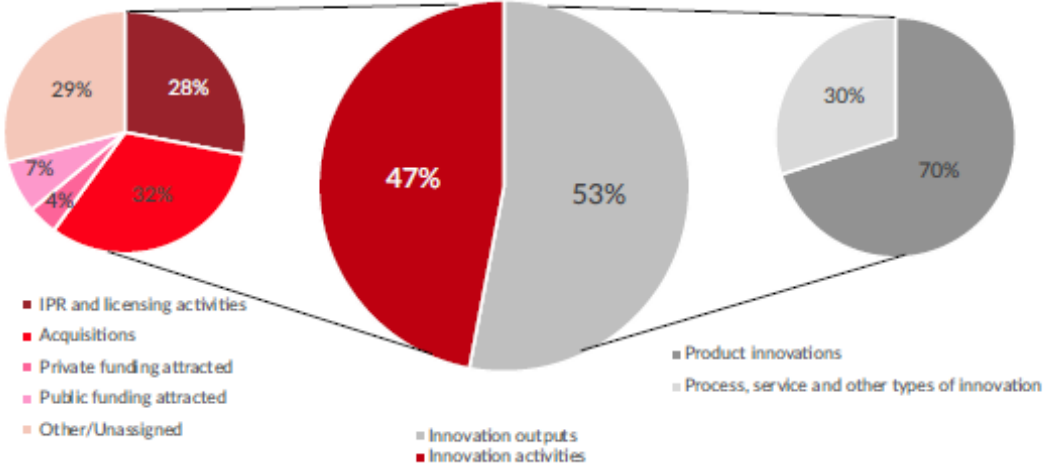
The Basque biopharmaceutical moves forward for placing on the market Reoxcare®, an innovative antioxidant dressing for wound healing, with potential sales of 200 million Euros.

With the approval of the Spanish notified body 0318, and the certification by the Spanish Medicines and Health Products Agency (AEMPS), Reoxcare® is now ready for marketing in Spain, Europe and countries that accept the CE marking, as Hong Kong, Macao or Chile. This procedure will also facilitate obtaining registration in many other countries like those in the Middle East and North Africa, Latin America and some countries in East Asia.

Chronic wounds are a serious health and economic problem worldwide. It is estimated that there are about 175 million new cases each year, including pressure, vascular or diabetic foot ulcers. 28 million people suffer from chronic wounds annually and the estimated market this year for the treatment of these injuries is more than 5.000 million Euros.

On the occasion of two major industry conferences, in Spain (XI National Symposium and IX Iberoamerican Congress on chronic and pressure ulcers) and Europe (26th Conference of the European Wound Management Association), HistoCell has presented Reoxcare® to the international community.

Reoxcare® is a natural dressing, unique within the range of products used so far for the treatment of chronic wounds. With more than 30 preclinical and clinical studies conducted, Reoxcare® has demonstrated unique antioxidant properties and the ability to induce the natural healing process in highly inflammatory environments, main cause of chronification of wounds with vascular origin, pressure or diabetic foot ulcers.





# Tracking projects



# Example: Alkindi



Treatment of Adrenal Insufficiency in neonates- Development of a Hydrocortisone Preparation for the treatment of Adrenal Insufficiency in neonates and infants

Fact Sheet | **Result in Brief** | Reporting | Results

## Objective

The aim of TAIN is to develop a neonatal formulation of hydrocortisone, a drug included in the EMA priority list that needs specific evaluation in the age range 0 – 2 years (neonates & infants). Hydrocortisone is an essential glucocorticoid hormone used as replacement therapy for the treatment of congenital and acquired adrenal insufficiency as well playing an important therapeutic role in oncology in infants, specifically brain tumours and leukaemia's. TAIN involves European leaders in neonatology, paediatric pharmacology, methodology and SMEs that will establish links with ethical bodies and regulatory authorities. The programme will perform in silico experiments and evaluate formulations for neonates. The phase 3 clinical trial comparing the neonatal hydrocortisone versus current (unlicensed) therapy will be optimized using age-appropriate state-of-the-art methods adapted to neonates (including in silico experiments and pharmacokinetics) to validate the components of a Paediatric Investigation Plan. It will be performed by neonatologists trained in paediatric pharmacology and clinical research in line with guidelines on Good Clinical Practice. All the ethical issues will be considered, including pain and distress, blood sampling (number and volume) and informed consent. Parent information sheets and consent form will be submitted to patient and parents' associations for approval. TAIN will include short term safety studies and Phase 3 clinical studies in neonates and infants. Results will be reported in order to allow a PUMA application to be submitted and to improve neonatal and infant care. Therefore, TAIN will validate the appropriate use of hydrocortisone in neonates and infants which will be of direct benefit to children, their families and health professionals. TAIN will strengthen paediatric drug evaluation across Europe and build up a network of units with experience in clinical research that will be used for additional drug evaluation in neonates.

### Project information

TAIN

Grant agreement ID: 281654

Status  
Closed project

Start date: 1 December 2011 | End date: 30 November 2016

Funded under:  
FP7-HEALTH

Overall budget:  
€ 5 512 693,60








EU contribution  
€ 4 197 147,20



Coordinated by:  
THE UNIVERSITY OF SHEFFIELD  
United Kingdom

### Participants (7)

Sort alphabetically | Sort by EU Contribution | Expand all

	CERTARA UK LIMITED United Kingdom	EU Contribution € 164 077,20
	CHARITE - UNIVERSITAETSMEDIZIN BERLIN Germany	EU Contribution € 769 696,80
	ADD ADVANCED DRUG DELIVERY TECHNOLOGIES AG Switzerland	EU Contribution € 180 000
	GLATT GMBH Germany	EU Contribution € 426 320
	DIURNAL LIMITED United Kingdom	EU Contribution € 1 659 845,20
	Genetic Alliance United Kingdom	EU Contribution € 75 614,40
	THE UNIVERSITY OF BIRMINGHAM United Kingdom	EU Contribution € 178 936,80



What is Alkindi and what is it used for?

Alkindi is a medicine for children (from birth to up to 18 years of age) whose adrenal glands cannot make enough of a hormone called cortisol.

# Example: Alkindi

[HOME](#) / [NON-HEALTHCARE PROFESSIONALS](#) / [MEDIA](#) / [NEWS](#) / [FDA GRANTS ORPHAN DRUG DESIGNATION TO DIURNAL FOR INFACORT®](#)

🕒 POSTED ON TUESDAY, 19/MAY/2015    👤 POSTED BY MICHELLE

Cardiff, UK - Diurnal Limited (“Diurnal” or “the Company”) today announced that it has been granted Orphan Drug Designation by the US Food and Drug Administration (FDA) for Infacort®, an oral hydrocortisone formulation for the treatment of paediatric Adrenal Insufficiency (“AI”). The designation provides seven years of market exclusivity in the US after market authorisation and follows the recent Orphan Drug Designation granted by the FDA for Chronocort®, Diurnal’s complementary product for adult Congenital Adrenal Hyperplasia, a related condition.

AI is a condition characterised by deficiency in cortisol, an essential hormone for regulating metabolism and the response to stress. Currently, there are no licensed hydrocortisone preparations in the US to treat young children with AI, with doctors relying on unlicensed preparations compounded from adult tablets. This can result in poor control of the disease, leading to precocious puberty, virilisation and infertility.

Infacort® is a preparation of hydrocortisone specifically designed for use in children suffering from AI. It is an immediate-release, oral formulation of hydrocortisone with the potential to significantly improve the lives of children living with AI. Infacort was recently entered into a pivotal Phase 3 study in Europe which is expected to read out in 2016.

**Martin Whitaker, CEO of Diurnal, said:**

“Obtaining orphan drug designation from the FDA for Infacort® is an important regulatory milestone for Diurnal and I am very proud of the team in achieving this goal. This second Orphan Drug Designation in the US is an important milestone as Diurnal executes on its goal of becoming the global leader in the development of therapies for diseases of the adrenal gland.”

The Infacort® programme is funded by the European Commission under an EU Framework 7 grant (HEALTH-FP7; Project No: 281654) TAIN “Treatment of Adrenal Insufficiency in Neonates and Infants”. For further information see: [www.tain-project.org](http://www.tain-project.org)

**Please direct all enquiries to:**



# Big data: summary & insights

Big data = established indicators + below

## Granularity of data, new dimensions of metadata in EU FPs:

- Around 300-350k researchers identified
- Over 23k organisations tracked
- Bottom-up structuring of data based on research topics and societal challenges/missions, no reliance on programmatic structure

## More, better quality data:

- 2.5 times more publications; expected substantial increase in patents; trademarks matched to EUIPO
- Researchers and organisations linked to multiple databases, new metadata and data obtained
- Time series data: tracking performance before, during and after the funding

## New data and indicators:

- Innovation performance of companies
- New indicators and line of thinking on scientific impact: timeliness of research, funding exclusivity
- New estimates on economic impact: e.g. leverage effect, economic performance of knowledge
- Storytelling: systemic collection of proxy data on societal impact, scientific prizes & awards



# Summary & insights

Big data offers **unique coverage of data sources**, with an aim to link them through specific entities

Data4Impact and TRR projects are first/one of the first to **track data to medium- and long-term economic and societal impacts**, i.e. link previous project activities to events that happened recently

Big data can cover **advanced stages of the R&I lifecycle**, i.e. basic research -> translational & applied research -> innovation & uptake on the market

**New indicators and line of thinking** investigated on scientific impact

- The funder and society perspective: funding timely and relevant research? Do the 'right thing' by funding rare topics?
- If a funder enters an area where few others invest, does this imply stronger impact?
- How does this interact with the researcher/organization perspective?



Thank you for your attention!

Data4Impact Consortium

Visit our website:

[www.data4impact.eu](http://www.data4impact.eu)

Follow us on Twitter and SlideShare:

[@Data4Impact](https://twitter.com/Data4Impact)

Data4Impact has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 770531.





Impact of Science

5-7 June 2019, Berlin

KPI's

Wolfgang Rohe

*Executive Director, Stiftung Mercator, Germany*

AESIS

# IMPACT EVALUATION KEY PERFORMANCE INDICATORS

DR. WOLFGANG ROHE  
STIFTUNG MERCATOR

STIFTUNG  
**MERCATOR**



- Private Foundation: Essen, Berlin, Istanbul and Beijing
- Focused on Climate Change, Integration, Europe, Cultural Education
- Civil society actor with socio-political objectives and interests
- Influence complex structural and institutional relationships
- Generate impact mainly by scientific policy advice
- Remain a science-funding organisation

# CONSEQUENCES FOR OUR FUNDING STRATEGY

- Interaction of science and society in a broad sense
- No attribution, no causalities
- Policy advice: „Opening up, instead of closing down!“ (Andrew Sterling)
- Operating between research excellence and policy impact
- Policy and research strategy
- Underlying theory of change

# SELECTED PROJECTS



Mercator Research  
Institute on Global  
Common and Climate  
Change

Develops and discusses solutions that address the governance of global commons with the aim of enhancing sustainable environment

Sachverständigenrat deutscher Stiftungen  
für Integration und Migration



SVR - The Expert Council  
of German Foundations

Contributes research-based policy advice and actively shapes the public debate on integration and migration in Germany and beyond

Agora  
Verkehrswende



Agora Verkehrswende

Provides a platform for key players in the transport system and presents scientific information on scenarios and methods

Agora  
Energiewende



Agora Energiewende

Acts as an intermediary between decision-makers, stakeholders, scientists, and the media by combining research, dialogue, and outreach



merics  
Mercator Institute  
for China Studies

Merics - Mercator  
Institute for China  
Studies

Makes findings from research on China available to the general public and provides information to decision-makers in politics, commerce and other areas of society

# KEY PERFORMANCE INDICATORS

- Case studies on successful interaction with the policy side
- Invitations to contribute to international assessment processes (UNI, IPCC, EU, IPSP)
- Invited presentations and meetings (ministries, authorities, agencies, public meetings)
- Media contributions
- Frontrunner in its topic area, setting the agenda
- Shaping public and policy debate
- Balanced approach: keeping all stakeholders on board

# IMPACT ASSESSMENT AND THE SCIENCE SYSTEM: A HISTORICAL PERSPECTIVE

- Autonomy of science: a formula of success for 200 years
- Privileged “pure science” and “advancement of knowledge”
- “The more autonomy, the more benefit for society” ?
- Growing accountability
- Quantitative quality parameters: a misleading answer to accountability
- Societal impact as a possible corrective

# IMPACT ASSESSMENT AND THE SCIENCE SYSTEM II: CONCLUSIONS AND RECOMMENDATIONS

- Don't repeat the mistake of quantifying quality
- Don't separate quality and impact
- Don't tie objectives to methodologies
- Understand societal impact as a type of quality
- Reaching milestones is not a proof of impact

Stiftung Mercator GmbH

Huysenallee 40

45128 Essen

Tel. +49 201 24522-0


Fax +49 201 24522-44

[info@stiftung-mercator.de](mailto:info@stiftung-mercator.de)

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