

ITGM10, Санкт-Петербург, 2017

# Международный проект **THOR**: использование постоянных идентификаторов в научной деятельности

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# Амбассадор международного проекта THOR



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Irina is an Associate Professor and a Research Fellow at ISST Labs, ITMO University, St.Petersburg. She is also a co-founder of [ODI St.Petersburg](#) and Chief Coordinator of [Open Knowledge Russia](#). Her main professional interests are focusing on Open Data, Open Science, Data Science, intelligent systems development and all around it. In 2013 she and Anna Sakoyan initiated [a joint project](#) on Data Driven Journalism in Russian. At the moment she is supporting the implementation of University Linked Open Data platform into ITMO University (<https://github.com/LODIFMO>).

# Что такое проект THOR?



<https://project-thor.eu/>

# Что такое проект THOR?

The screenshot shows the CORDIS website interface. At the top, there's a header with the European Commission logo, the word 'CORDIS', and a search bar. Below the header, a navigation menu includes 'European Commission', 'CORDIS', 'Projects & Results Service', and 'THOR – Technical and Human Infrastructure for Open Research'. The main content area features a large blue banner for 'HORIZON 2020' with the project title 'THOR'. Below the banner, project details are listed: 'Project ID: 654039', 'Funded under: H2020-EU.1.4.1.3. - Development, deployment and operation of ICT-based e-infrastructures'. A 'Project details' section provides information about total cost (EUR 3 458 250), EU contribution (EUR 3 456 250), coordination (United Kingdom), topics (EINFRA-7-2014 - Provision of core services across e-infrastructures), call for proposal (H2020-EINFRA-2014-2), funding scheme (RIA - Research and Innovation action), and download/print options. On the right side, there are social media sharing icons for Facebook, Twitter, Google+, LinkedIn, and Email.

[http://cordis.europa.eu/project/rcn/194927\\_en.html](http://cordis.europa.eu/project/rcn/194927_en.html)

# Партнеры THOR

- The British Library (BL)
- Australian National Data Service (ANDS)
- European Organisation for Nuclear Research (CERN)
- DataCite
- University of North Carolina at Chapel Hill (Dryad)
- European Molecular Biology Laboratory (EMBL)
- Elsevier Labs (ELS)
- ORCID EU
- Universität Bremen (UniHB), Germany (PANGAEA)
- Public Library of Science (PLoS)



# Цели и задачи проекта THOR

## THOR project summary



- Goals
  - Place PIDs at the fingertips of researchers
  - Integrate PIDs into services researchers already use
  - Ensure PIDs are embedded in research outputs
  - Making persistent identifier use for people and research artefacts the default
  - Establishing seamless integration between articles, data, and researchers across the research lifecycle
- Focus areas
  - Biological and Medical Sciences
  - Environmental and Earth Sciences
  - Physical Sciences
  - Social Sciences and Humanities
- Basic Info
  - Started June 2015 – 1 year ago
  - Funded under H2020
  - <http://project-thor.eu>

<https://www.slideshare.net/MaaikeDuine/thor-workshop-introduction>

# Целевая аудитория проекта THOR

- Интеграторы
- Лица, принимающие решения
- Издатели
- Исследователи
- Библиотекари
- Библиотеки и хранилища научных данных
- Научные организации

# Цели и задачи проекта THOR

- \* Обеспечение интероперабельности
- \* Интеграция сервисов через постоянные идентификаторы PID
- \* Нарашивание потенциала
- \* Достижение устойчивости

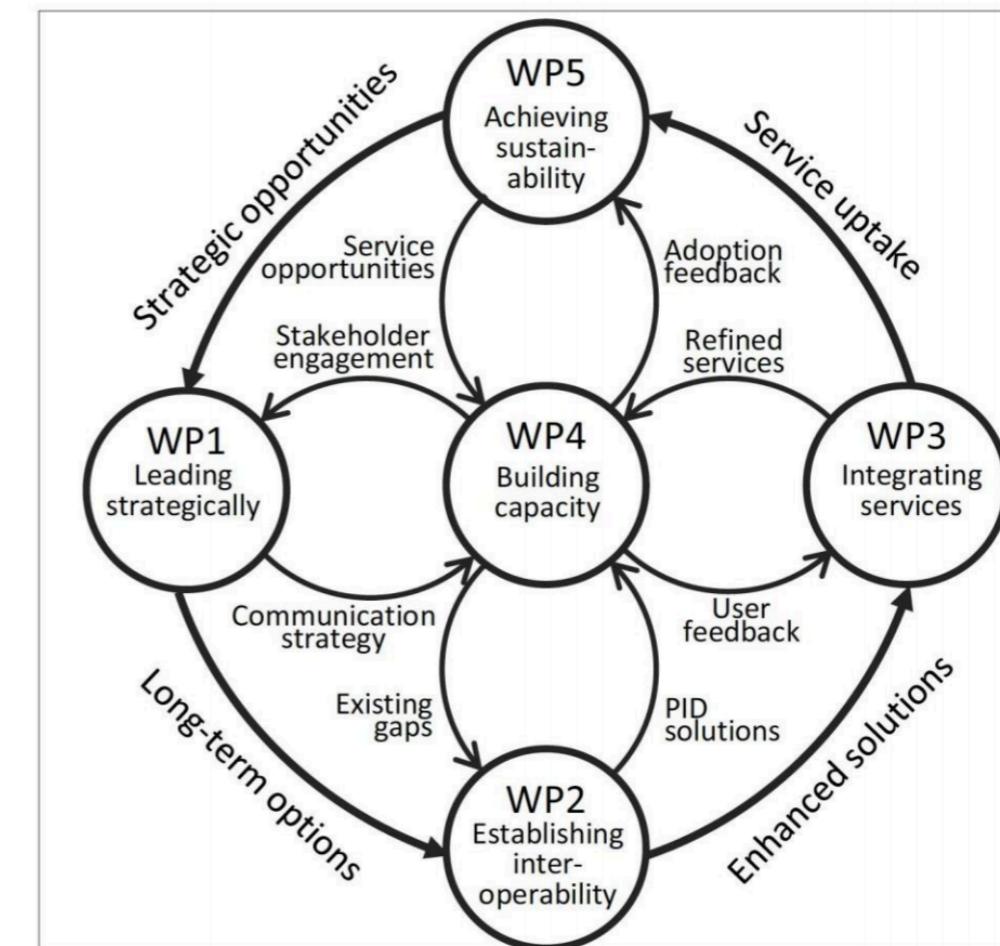


Figure 1: The flow of communication across the THOR work packages

THOR Communications Plan, DOI: 10.5281/zenodo.48228

# Что такое PID?

**Постоянный идентификатор (PID)** — это долговременная ссылка на ресурс.

Часто PID ассоциируется с набором метаданных, описывающих объект.

В современной научной среде широко распространены два типа PID:

- \* PID для людей (исследователей, авторов, участников конференций и т.д.);
- \* PID для объектов (публикаций, данных, программ и т.д.).

<https://project-thor.readme.io/docs/introduction-to-persistent-identifiers>

# Система ORCID



Система учета ORCID (Open Researcher and Contributor ID) предоставляет две основных возможности:

- 1.Реестр, в котором можно получить **уникальный идентификатор** и управлять записью результатов исследовательской работы.
- 2.Интерфейсы разработки (API), предназначенные для **обеспечения передачи данных** между различными системами учета и установления авторства научных работ в каждой из них.

В реестре ORCID хранится информация неконфиденциального характера: ФИО, адрес электронной почты, место работы и запись исследовательской деятельности.

<https://orcid.org/about/what-is-orcid>

# Статистика ORCID

<b>Действующие ORCID iD</b>	<b>3 266 580</b>
<b>ORCID iD, содержащие в записи по крайней мере одну работу</b>	<b>674 924</b>
<b>Работа</b> (публикации, массивы данных, патенты и другие результаты научной деятельности)♦	<b>19 908 513</b>
<b>Уникальные цифровые идентификаторы объектов (DOI)</b>	<b>8 551 702</b>
<b>Работа</b>	<b>1 254 280</b>
<b>Работа в уникальных организациях</b>	<b>380 611</b>
<b>Образование</b>	<b>1 529 973</b>
<b>Образование в уникальных организациях</b>	<b>248 149</b>
<b>Финансирование</b>	<b>272 723</b>
<b>Финансирование от уникальных организаций</b>	<b>81 180</b>

Статистика на дату: 07-04-2017



**654 организаций-членов ORCID  
16 консорциумов-членов ORCID**

**33 типов идентификаторов**

<https://orcid.org/statistics>

# Цифровой идентификатор объекта DOI



**DOI (Digital Object Identifier)** — цифровой идентификатор объекта. Имя DOI является идентификатором (а не местоположением) объекта в цифровых сетях. Он обеспечивает систему для постоянной и единственной идентификации и интероперабельного обмена управляемой информацией в цифровых сетях.

<https://project-thor.readme.io/docs/what-is-a-doi>

# Версионирование DOI

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Discover > DOI

## DOI change log

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● Discover      SHARE 

**Variable and question bank**

UK Data Service data catalogue record not found for this study number.

**QualiBank**

A new Digital Object Identifier (DOI) is assigned to the data collection each time there is a major change to data, documentation or metadata. The new DOI will resolve to an updated version of this page containing a log of changes to this data collection since the allocation of its first DOI. The DOI system supports resource discovery and simplifies citation for users of data collections. Data producers benefit directly through increased visibility of their work.

**10.5255/UKDA-SN-6903-5**

**Citation:**

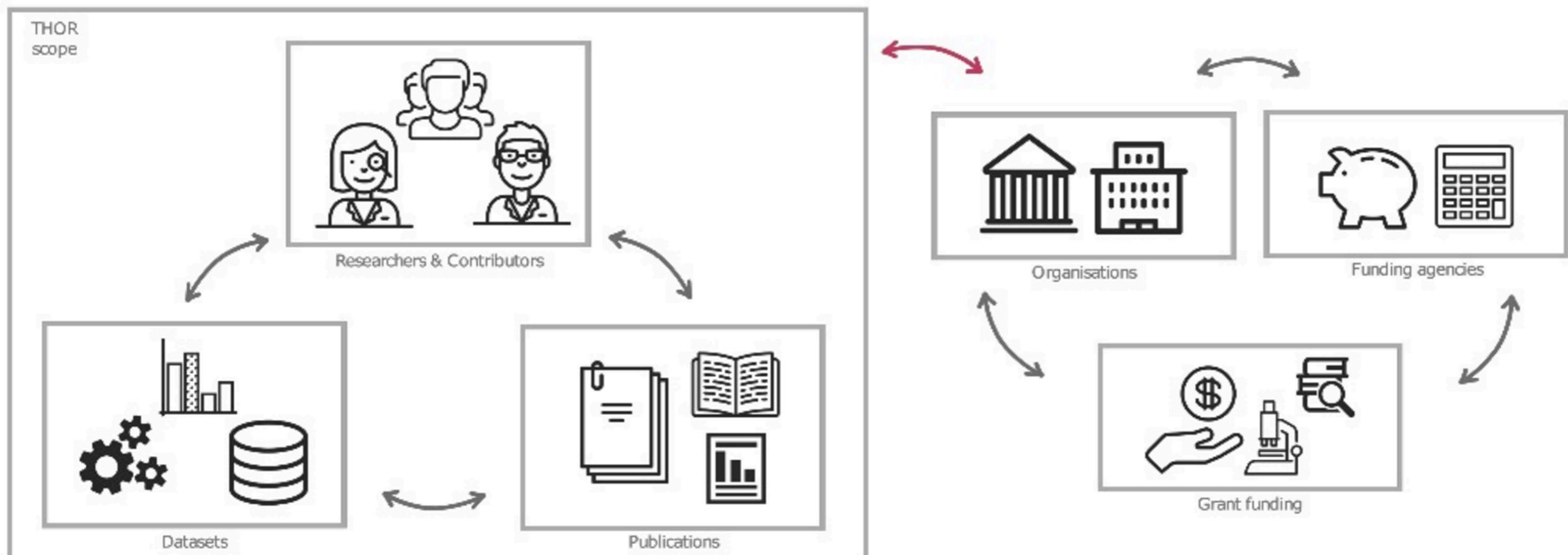
Office for National Statistics. Social Survey Division, Northern Ireland Statistics and Research Agency.  
Central Survey Unit. (2015). *Quarterly Labour Force Survey, January - March, 2011: Special Licence Access*. [data collection]. 5th Edition. UK Data Service. SN: 6903, <http://doi.org/10.5255/UKDA-SN-6903-5>

<https://discover.ukdataservice.ac.uk/doi/?sn=6903#>

# Как работать с PID?

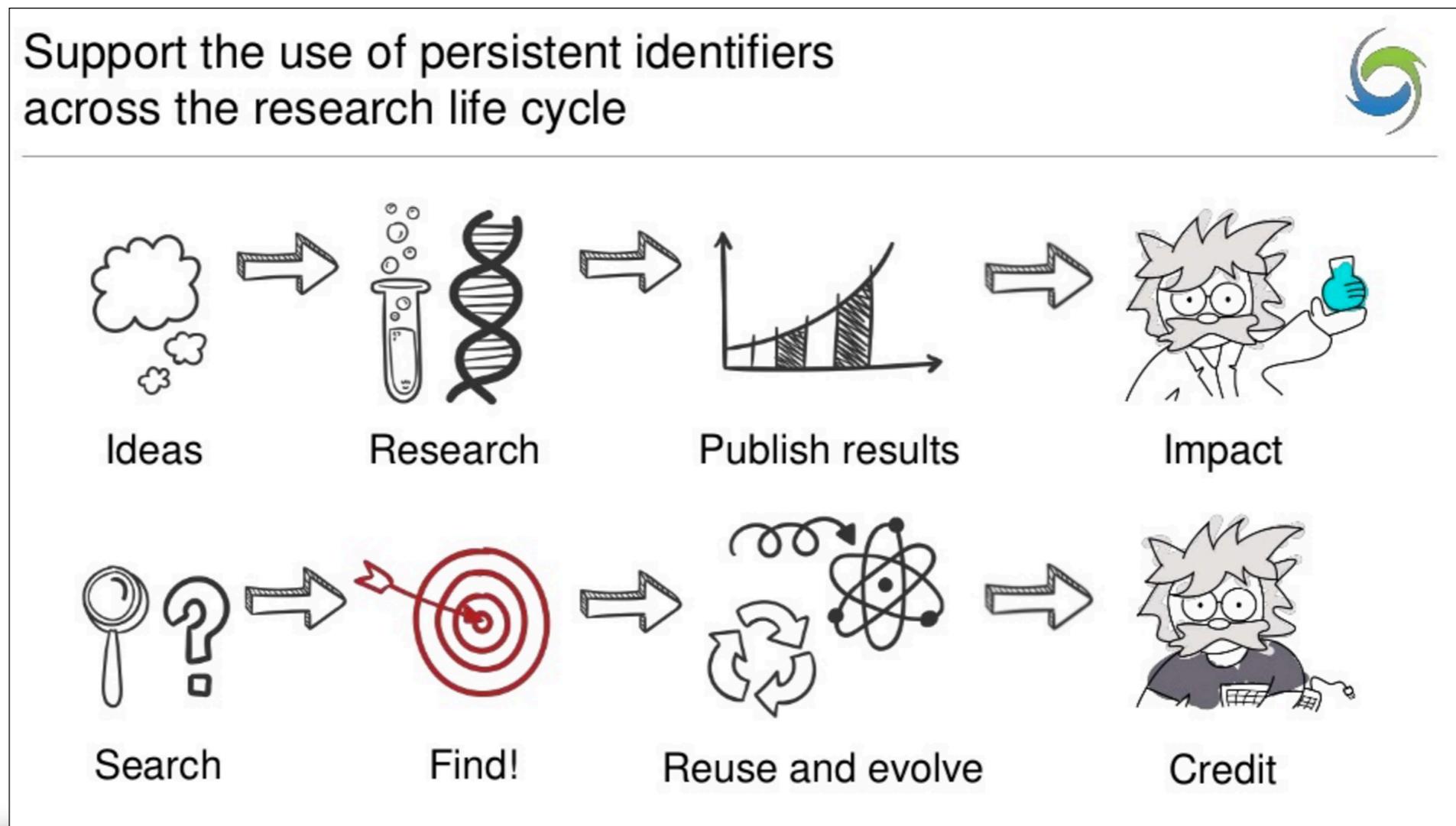
- \* Назначать PID своим данным
- \* Цитировать данные
- \* Использовать версионирование идентификаторов DOI
- \* Использовать идентификаторы для сбора информации о финансируемых проектах

# Бесшовная интеграция на протяжении всего жизненного цикла исследования



<https://www.slideshare.net/MaaikeDuine/thor-workshop-introduction>

# Поддержка использования PID на протяжении всего жизненного цикла исследования



<https://www.slideshare.net/MaaikeDuine/thor-workshop-introduction>

# Концептуальная модель связывания PID

## THOR: Conceptual Model of Persistent Identifier Linking

### Document Information

**Date:** 31/03/2016

**Authors:** Martin Fenner (DataCite), Tom Demeranville (ORCID EU), Rachael Kotarski (BL), Robin Dasler (CERN), Johanna McEntyre (EMBL-EBI), Guilherme de Mello (EMBL-EBI), Todd Vision (DRYAD), Angela Dappert (BL), Adam Farquhar (BL)

**Reviewer:** Markus Stocker (PANGAEA)

**Abstract:** In this report we describe the current state of the art for persistent identifier linking in scholarly e-Infrastructure, with a focus on persistent identifiers for contributors and data. We look at persistent identifier linking between datasets, for example different versions of the same data, as well as linking data with other resources, including articles, contributors, institutions, and funding information.

**DOI** 10.5281/zenodo.48705

This work was supported by the THOR Project. The THOR project is funded by the European Union under H2020-EINFRA-2014-2 (Grant Agreement number 654039). The following report is based on a deliverable submitted to the European Union on 1 March 2016.

Visit <http://project-thor.eu> for more information.

# План коммуникаций проекта THOR



**THOR**  
[HTTP://PROJECT-THOR.EU](http://PROJECT-THOR.EU)

## THOR Communications Plan

**Document Information**

**Date:** 24/03/2016

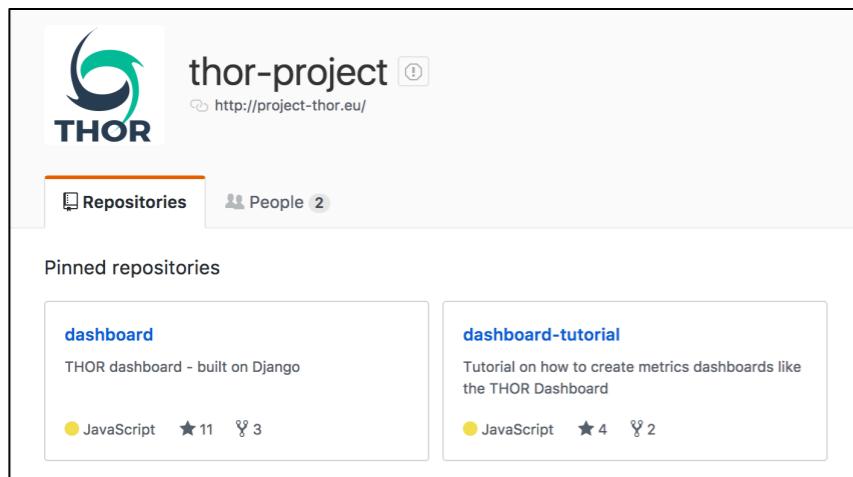
**Authors:** Josh Brown (ORCID)  
Tom Demeranville (ORCID)

**Reviewers:** Sunje Dallmeier-Tiessen (CERN)  
Laure Haak (ORCID)  
Laura Rueda (DataCite)

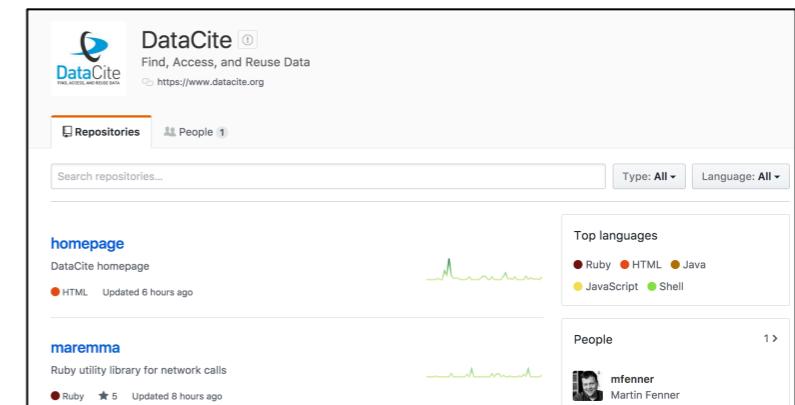
**Abstract:** This document defines the THOR project communications plan and strategy including stakeholder analysis, objectives, methods, and a timeline for delivering these. Externally, we will direct capacity-building resources to sections of the community, and bring feedback to bear on improving and refining those resources. Internally, information will flow between project partners, with the findings and lessons from each task being used to shape and populate our external communications and with feedback flowing in each direction. Our strategy will evolve over the lifetime of the project to meet newly discovered needs gained through this feedback. Through nuanced, targeted communication we will not only promote PID adoption, but will also gain insight into the requirements of our stakeholders and build the infrastructure they really need.

**DOI:** 10.5281/zenodo.48228

# Использование GitHub



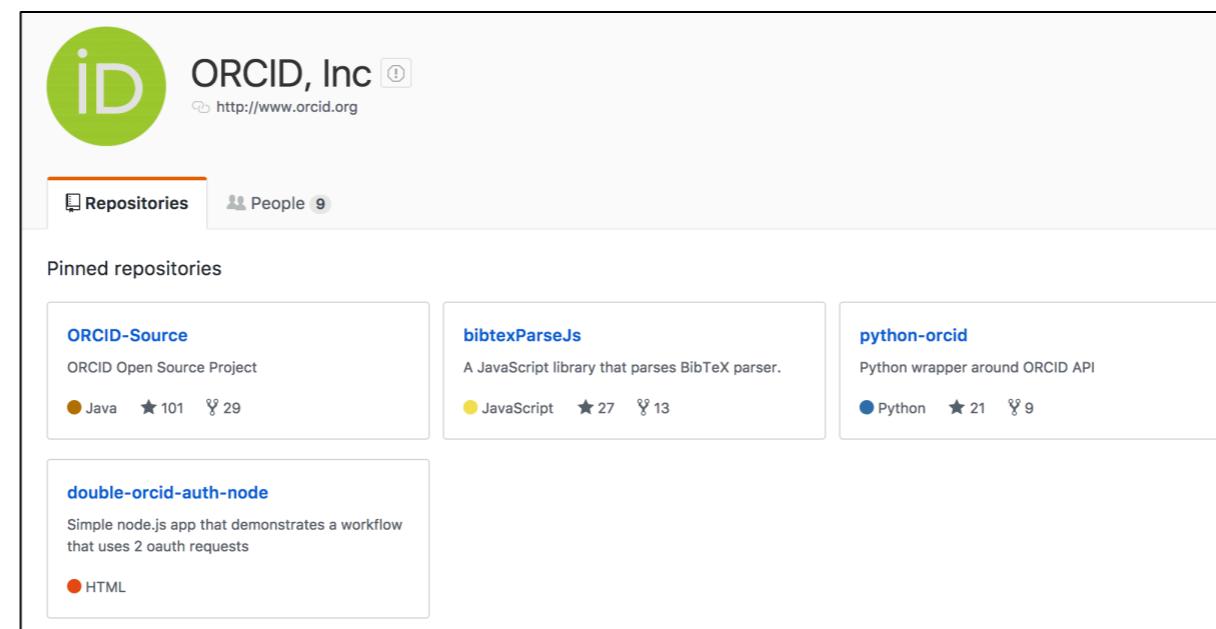
The screenshot shows the GitHub profile for the 'thor-project' repository. It features a logo for 'THOR' and a pinned repository section containing 'dashboard' and 'dashboard-tutorial'. The 'dashboard' repository is described as a THOR dashboard built on Django.



The screenshot shows the GitHub profile for the 'DataCite' organization. It includes a pinned repository for 'homepage' and another for 'maremma', which is described as a Ruby utility library for network calls.

<https://github.com/thor-project>

<https://github.com/datacite>



The screenshot shows the GitHub profile for the 'ORCID, Inc.' organization. It includes a pinned repository for 'ORCID-Source' and others like 'bibtexParseJs' and 'python-orcid'.

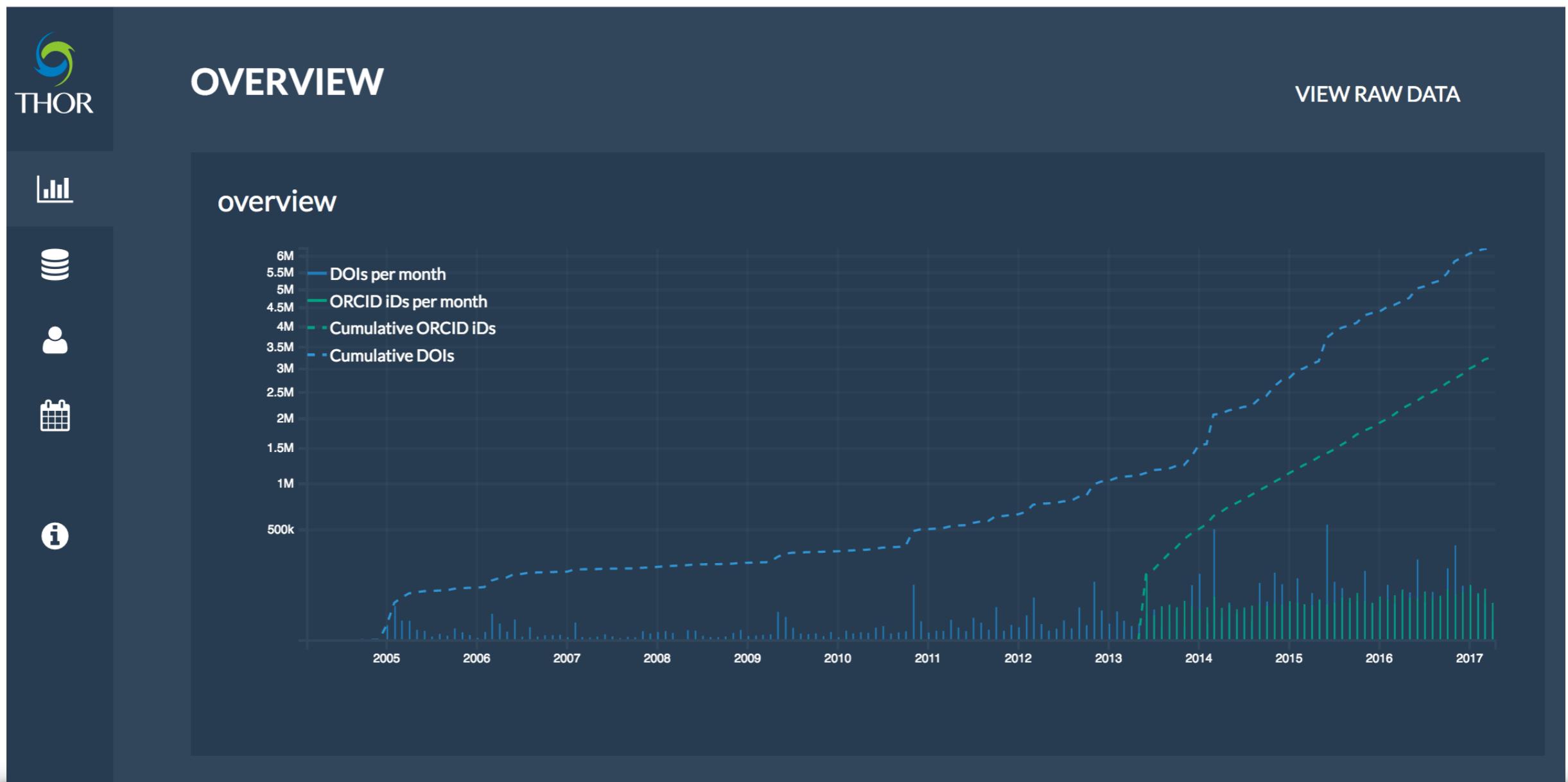
<https://github.com/ORCID>

# Статистика DataCITE

Allocator	DOI Registrations				Metadata			
	Total	This Year	Last 30 Days	Last 7 Days	Searchable	Hidden	Missing	Ratio
DELFT - TU Delft Library	56 489	2 089	490	81	56 175	39	306	99%
CRUI - CRUI2011	58 737	2 903	640	106	55 521	89	3 127	94%
ZBMED - German National Library of Medicine	59 049	1 184	301	50	58 501	436	117	99%
OSTI - Office of Scientific and Technical Information (OSTI), US Department of Energy	71 213	344	209	179	69 768	1 445	14	99%
NRCT - National Research Council of Thailand	93 055	8 796	2 791	690	92 688	367	0	100%
ANDS - Australian National Data Service	181 191	12 297	1 589	107	179 616	669	906	99%
CISTI - National Research Council Canada	264 514	24 747	1 173	89	260 201	4 295	18	99%
DK - Technical Information Center of Denmark	281 678	33 864	12 181	2 056	281 608	69	1	99%
CERN - CERN - European Organization for Nuclear Research	438 469	71 352	6 893	1 187	431 561	6 908	0	100%
ESTDOI - Tartu University	490 895	702	182	25	490 892	3	0	100%
RG - ResearchGate	541 601	37 549	11 474	2 775	459 375	82 226	0	100%
GESIS - GESIS - Leibniz Institute for the Social Sciences	552 428	32 976	5 748	1 315	551 996	432	0	100%
FIGSHARE - figshare	565 830	38 583	11 284	2 775	564 911	919	0	100%
BL - The British Library	995 521	27 599	5 976	1 146	979 665	15 832	122	99%
TIB - German National Library of Science and Technology	1 169 040	21 689	6 781	1 540	767 502	374 501	27 171	97%
ETHZ - ETH Zurich	1 445 890	10 183	0	0	1 445 886	1	3	99%
CDL - California Digital Library	2 372 979	94 672	13 945	4 720	999 109	1 373 870	5	99%
Totals	9 704 022	434 656	86 055	19 583	7 809 507	1 862 987	31 815	

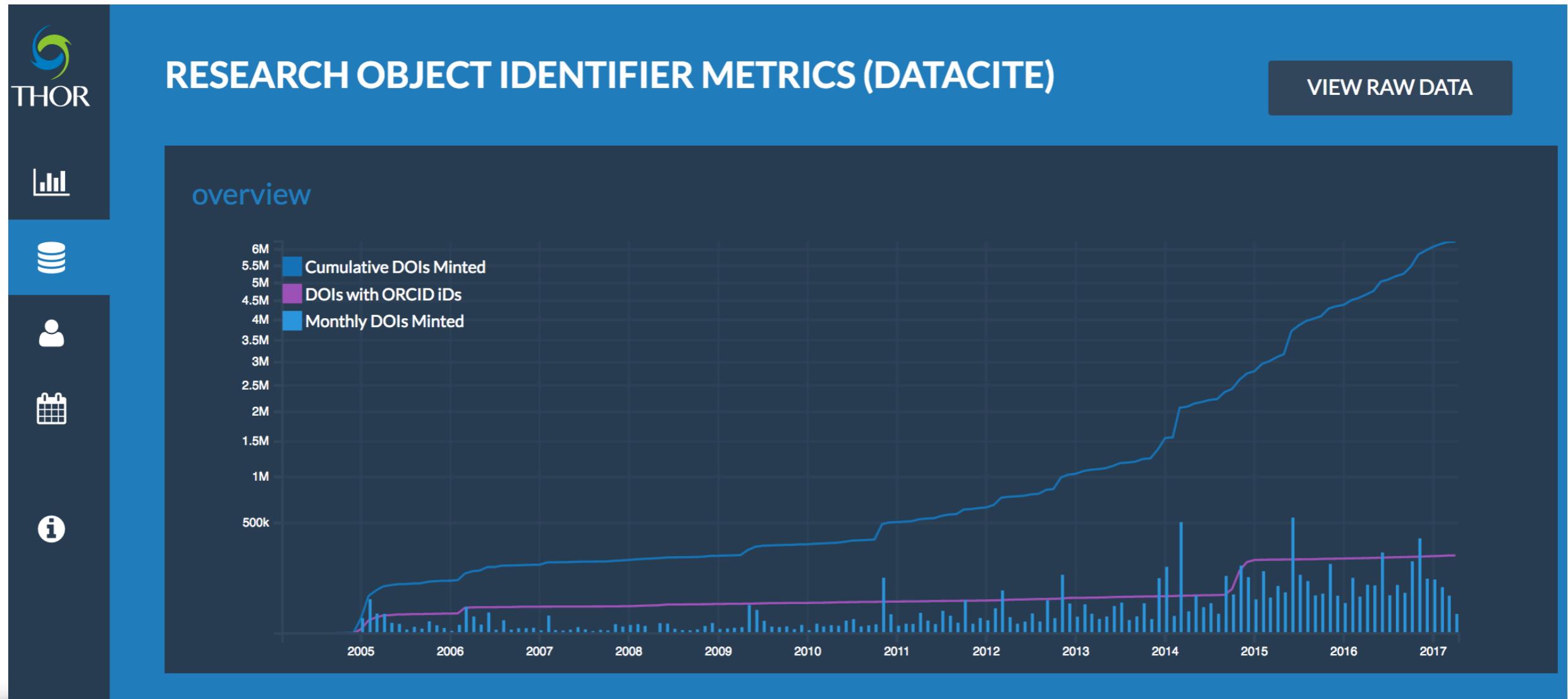
<https://stats.datacite.org/>

# Статистика проекта THOR



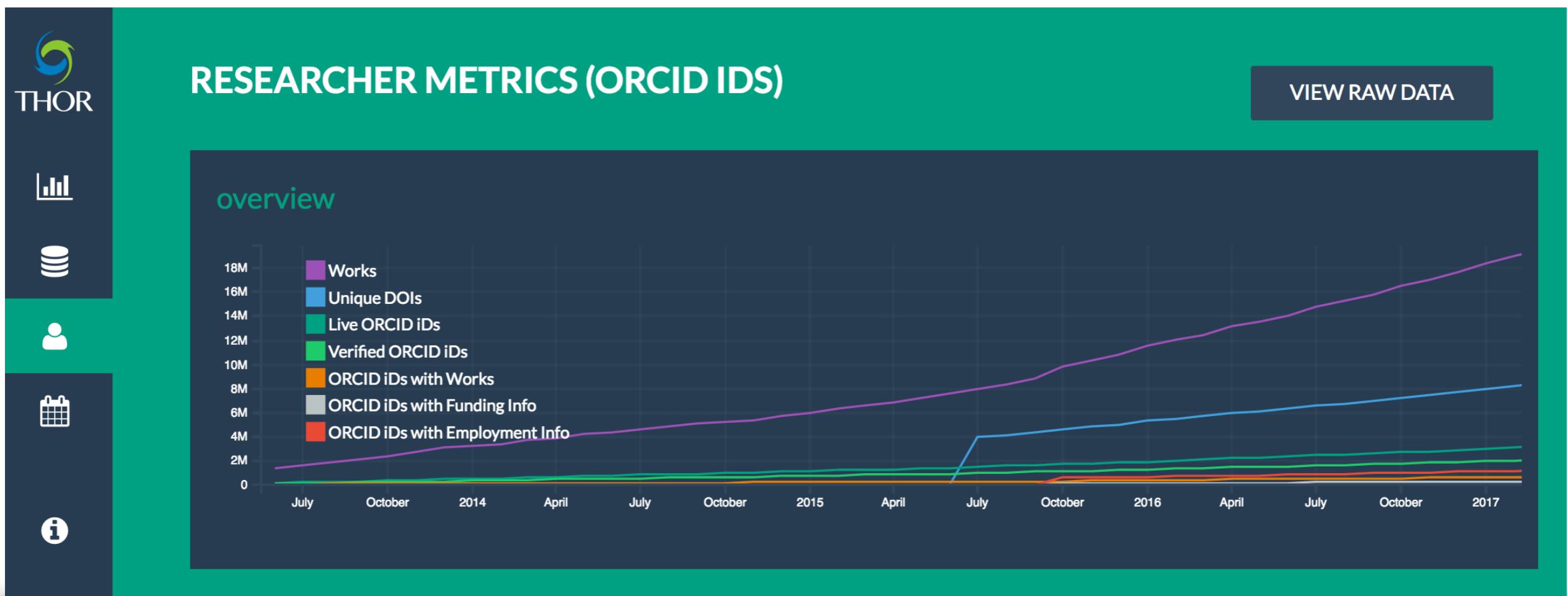
<http://dashboard.project-thor.eu/dashboard/>

# Статистика проекта THOR



<http://dashboard.project-thor.eu/dashboard/>

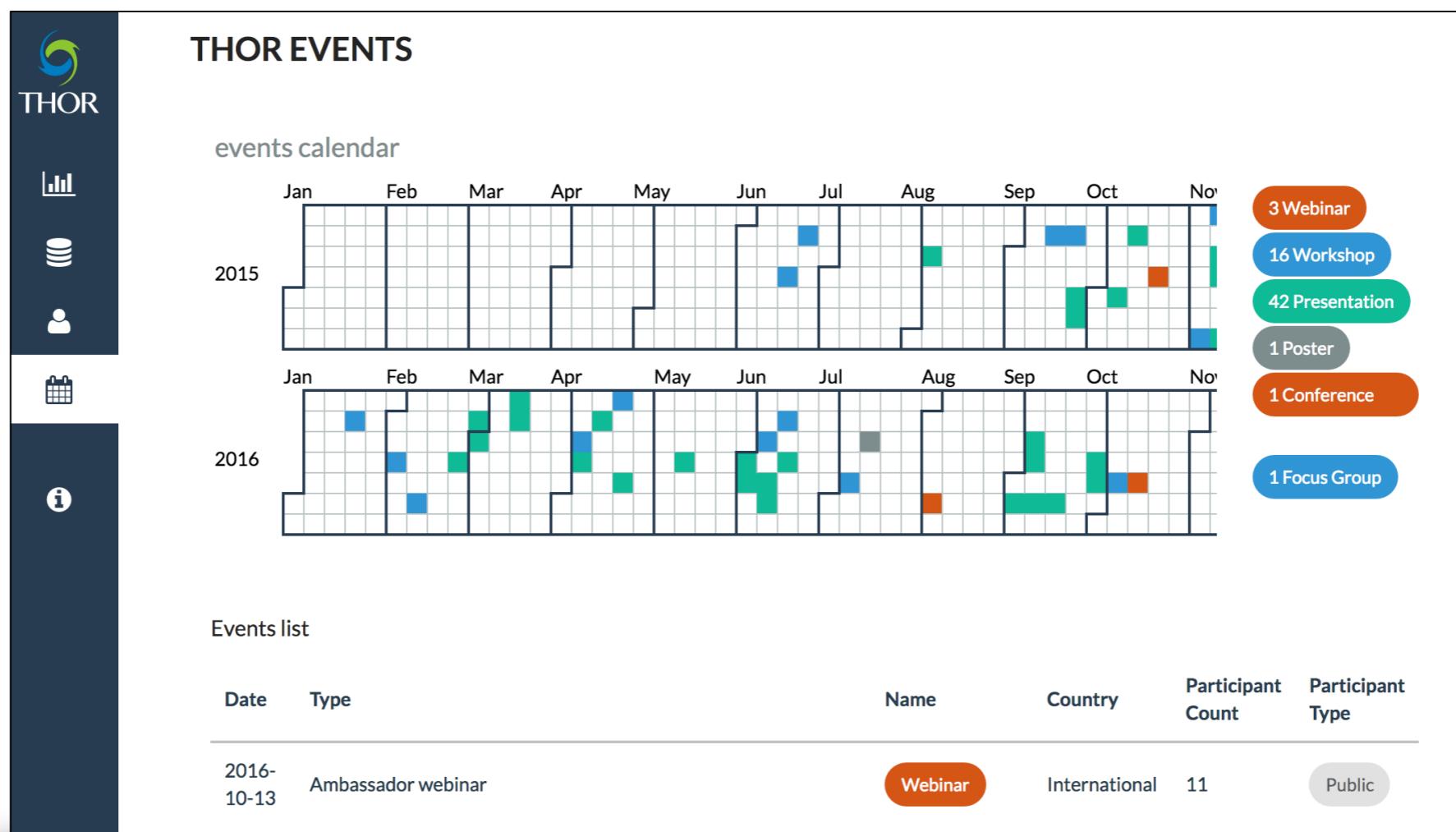
# Статистика проекта THOR



<http://dashboard.project-thor.eu/dashboard/>

# Как внедрять?

- Проведение обучающих семинаров и мастер-классов



<http://dashboard.project-thor.eu/dashboard/event/>

# Спасибо за внимание!

<http://about.me/Irina.Radchenko>

<http://iRadche.ru>

<http://DataDrivenJournalism.ru>



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 <http://iRadche.livejournal.com/>

 <https://www.facebook.com/iRadche>

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