OpenAIRE's progress onwards a scholarly commons - platform interoperability and open access transformation

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@openaire_eu

Agenda

OpenAIRE's perspective on scholarly commons

OpenAIRE Guidelines to support platform interoperability

Recommendations for Publishing Platform enhancements

Sustainable cooperative and non-apc publishing models

Cost Transparency in Open Access Publishing

Towards a Scholarly Commons

What is Scholarly Commons?

"…an agreement among researchers and other stakeholders in scholarly communication to make research <u>open</u> and <u>participatory</u> for <u>anyone, anywhere</u>.

…a set of <u>principles,</u> concrete guidance to <u>practice</u>, and actions towards <u>inclusivity</u> of diverse perspectives
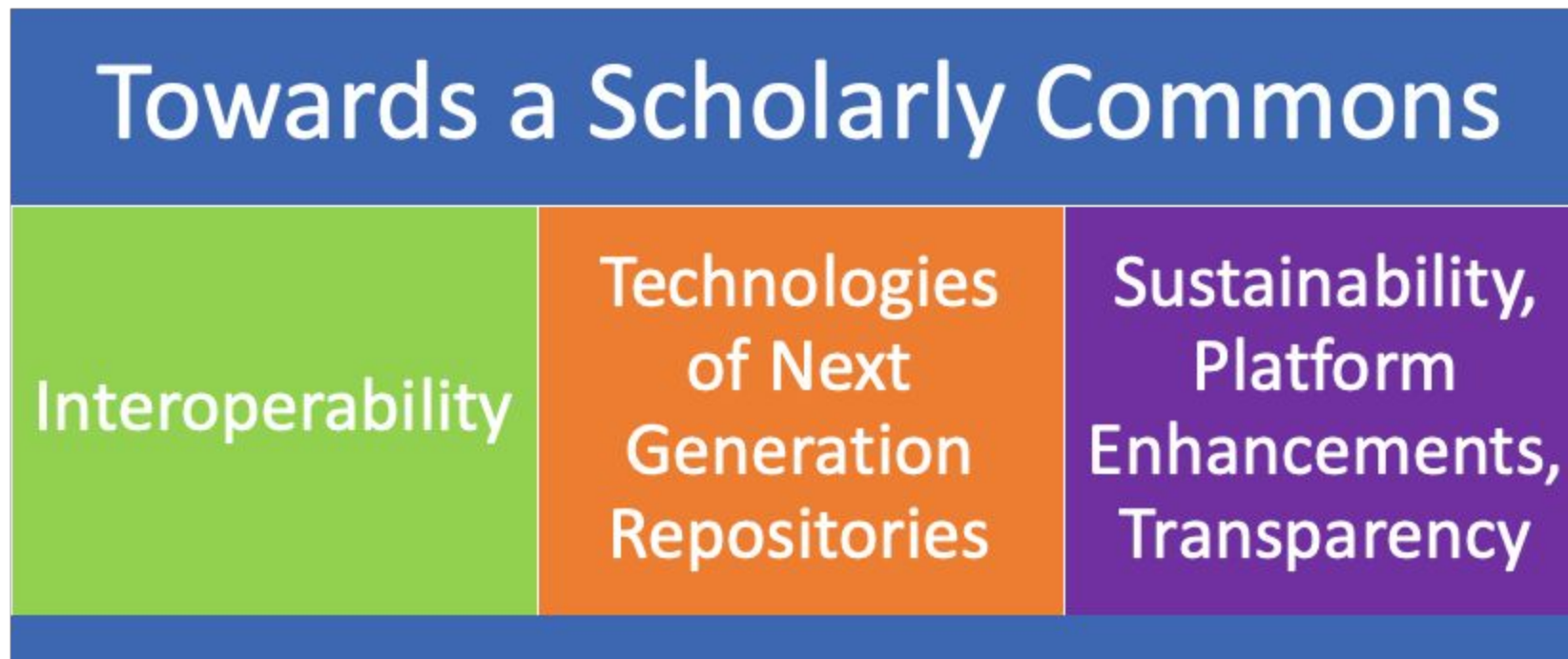
…scholarly commons is <u>owned by no one</u>, to be <u>realized, used and contributed to by all</u>"

(<u>https://www.force11.org/scholarly-commons</u>)

What is OpenAIRE doing towards a Scholarly Commons?

Among many other activities in OpenAIRE there is a dedicated workpackage in OpenAIRE Advance (2018-2021)

Towards a Scholarly Commons

Interoperability | Technologies of Next Generation Repositories | Sustainability, Platform Enhancements, Transparency

OpenAIRE Guidelines
(in a nutshell)

Research output & environment

RESEARCH LITERATURE

Thematic Repositories

Institutional Repositories

E-journals

RESEARCH SOFTWARE

Software Repositories

Catch-all Repositories

RESEARCH DATA

Data Repositories

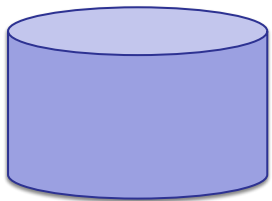Catch-all Repositories

Institutional & thematic repositories
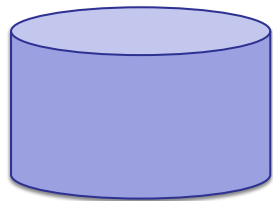
OTHER RESEARCH PRODUCTS

Catch-all Repositories

RESEARCH INFORMATION

Project, Funder, Organisation Units,... (CRIS)

https://guidelines.openaire.eu
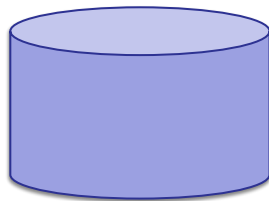
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Landscape of Repositories types to publish research output

Institutional/
publication
repositories

Journals/
publishers

Data
repositories

Software
repositories

Other Products
repositories
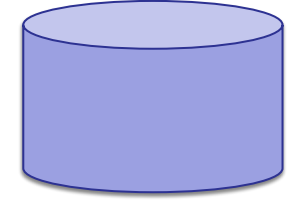
CRIS

Repository types and published research output

Literature
- Article
- Preprint
- Report
- …

Datasets
- Dataset
- Collection
- Clinical Trials
- …

Software
- Research Applications
- Research Frameworks
- …

Other Research Products
- Service
- Workflow
- Interactive Resource
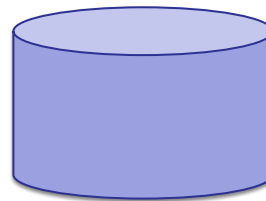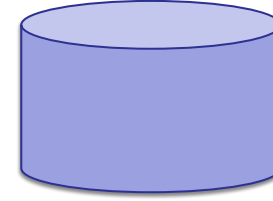- …

Projects
- Funder
- …

Institutional/ publication repositories

Journals/ publishers

Data repositories

Software repositories

Other Products repositories

CRIS

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Metadata Quality Characteristics

Timeliness	Metadata should reflect current state incl. recent changes
Completeness	All relevant statements are leveraged
Accuracy	Information is veritable, correct, non-contradictory; PIDs are valid and resolvable
Legibility	Metadata descriptions are comprehensible
Consolidation	No duplicates; contextualization, i.e. linking with other related records (citations, versions, …)
Wastelessness	No test records, no records out of scope, …
Format conformance	Compliance with format standards, utilization of vocabularies / thesauri

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OpenAIRE Guidelines Objectives

- **to harmonize metadata**

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- **to describe different kinds of research products by specific application profiles**
- **by re-using existing standards (Dublin Core, DataCite)**
- **by extending vocabularies when necessary**
  - e.g. for PID types

OpenAIRE Guidelines Objectives

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- **to support FAIR (Data) Principles**
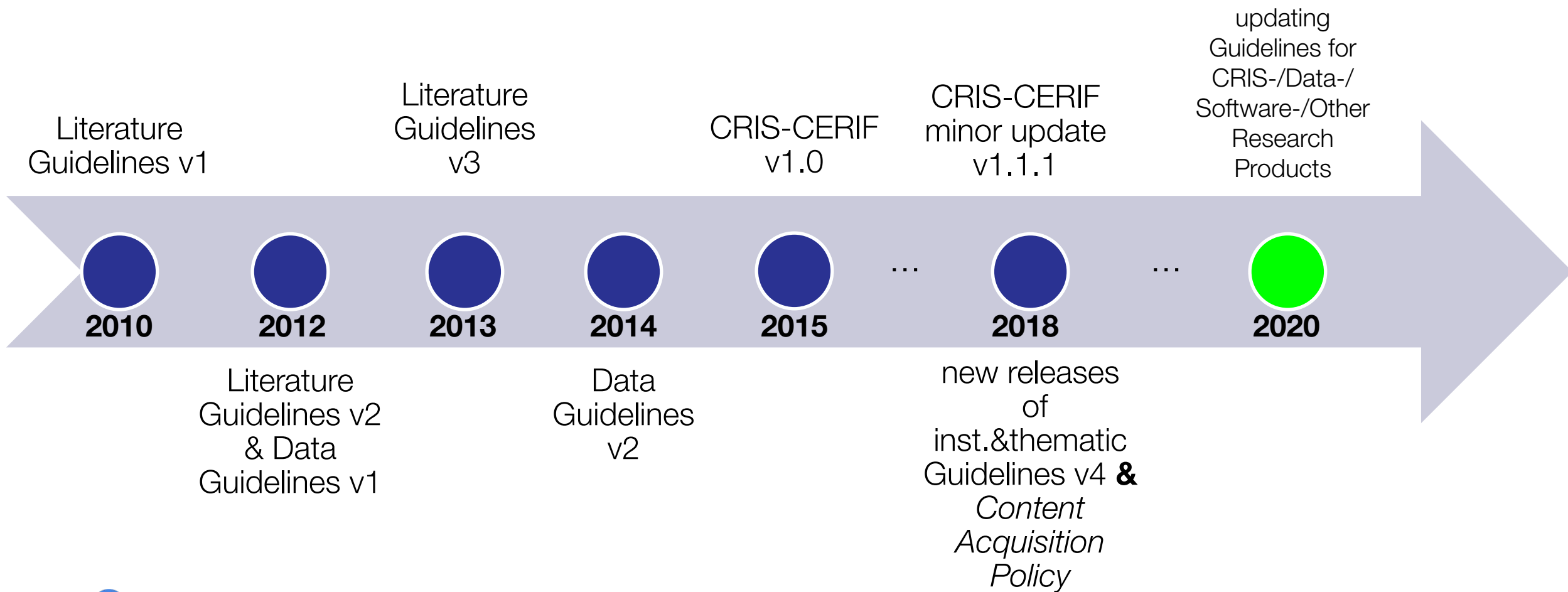- **to describe different kinds of research products by specific application profiles**
- **by re-using existing standards (Dublin Core, DataCite)**
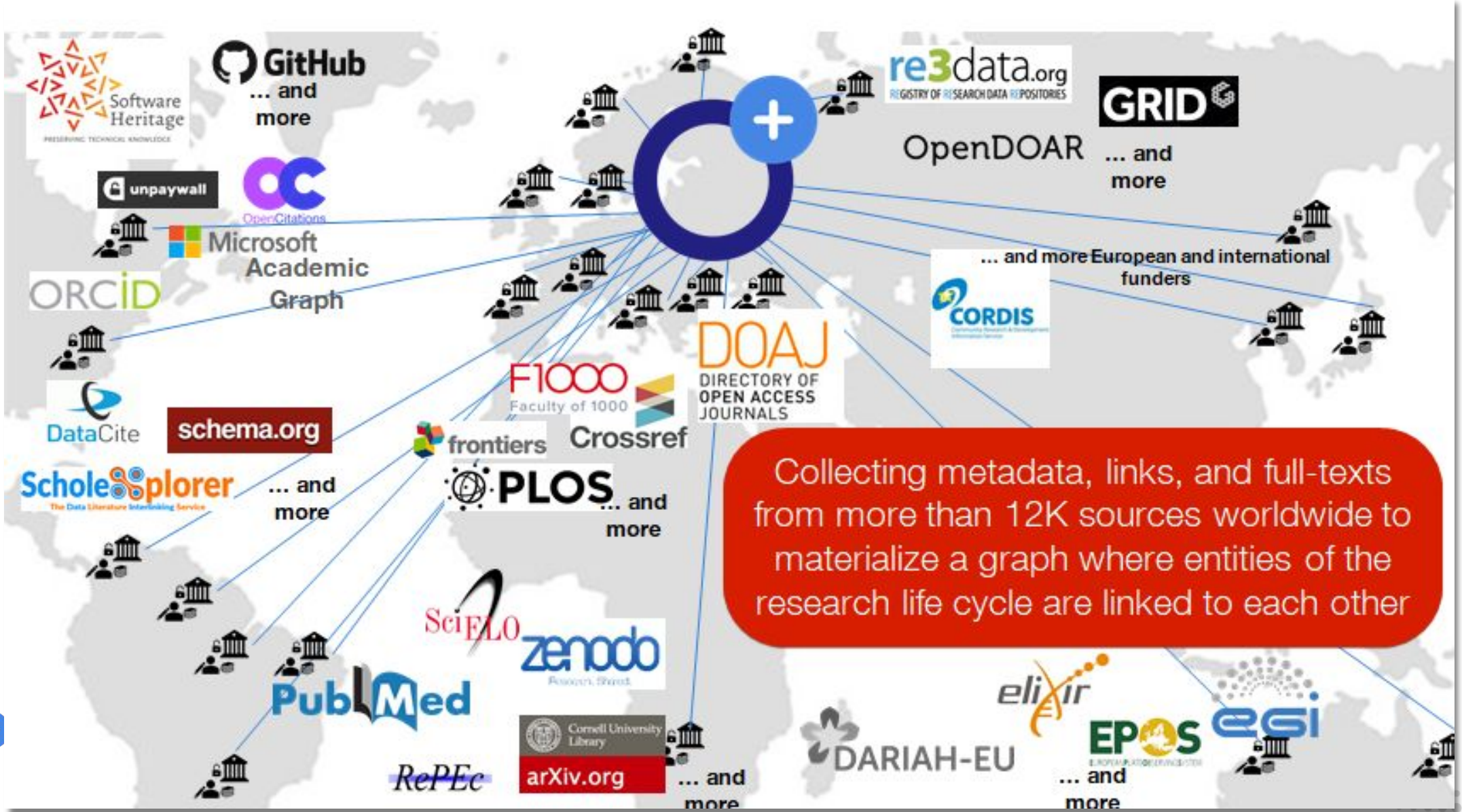- **by extending vocabularies when necessary**
  - e.g. for PID types
- **to facilitate value added services**
  - monitoring, reporting, usage metrics, broker (enrichment)

Evolution of the OpenAIRE-Guidelines - and further perspective

Literature
Guidelines v1

Literature
Guidelines
v3

CRIS-CERIF
v1.0

CRIS-CERIF
minor update
v1.1.1

updating
Guidelines for
CRIS-/Data-/
Software-/Other
Research
Products

2010

2012

2013

2014

2015

…

2018

…

2020

Literature
Guidelines v2
& Data
Guidelines v1

Data
Guidelines
v2

new releases
of
inst.&thematic
Guidelines v4 **&**
*Content
Acquisition
Policy*

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https://guidelines.openaire.eu

Guidelines are fundamental

invitation to comment

❖ for Data Archive Managers
https://docs.google.com/document/d/1M-y_DsTbMPHVq2pBRn7NSxyxV0tmce43sSuByMvkqlg/edit

❖ for Current Research Information Systems [CRIS]
https://docs.google.com/document/d/1BkkO3ysr5Pmsqt7kZ118ZxBv1wE9Md3TYvp9vtUUV-c/edit

❖ for Software Repository Managers, Other Research Products, Journals/JATS

❖ Overview of Repository Platform versions compliant with which version of Guidelines:
https://docs.google.com/spreadsheets/d/1_TQzbMf1jz-YEgatt76IMe-MBbt28g-1_N7j_GZyoPc/edit#gid=0

guidelines@openaire.eu , https://guidelines.openaire.eu/

# Publishing Platform Enhancements

Motivation

- **Interoperability is key across publishing platforms, repositories, and aggregators**
- **What are the current standards of institutional publishing platforms and scientific journals?**
- **What is the minimal set of common functionalities for publishing platforms for an integrated scholarly communication framework?**

Approach

- **Study conducted in 11/2018-01/2019**
- **Aimed to collect information on current operational and technical standards**
- **Answers from 21 institutional platforms covering > 1500 journals and from 17 stand-alone journals**

Metadata standards

Platform / Journal information

OpenAIRE services and integration

Interoperability

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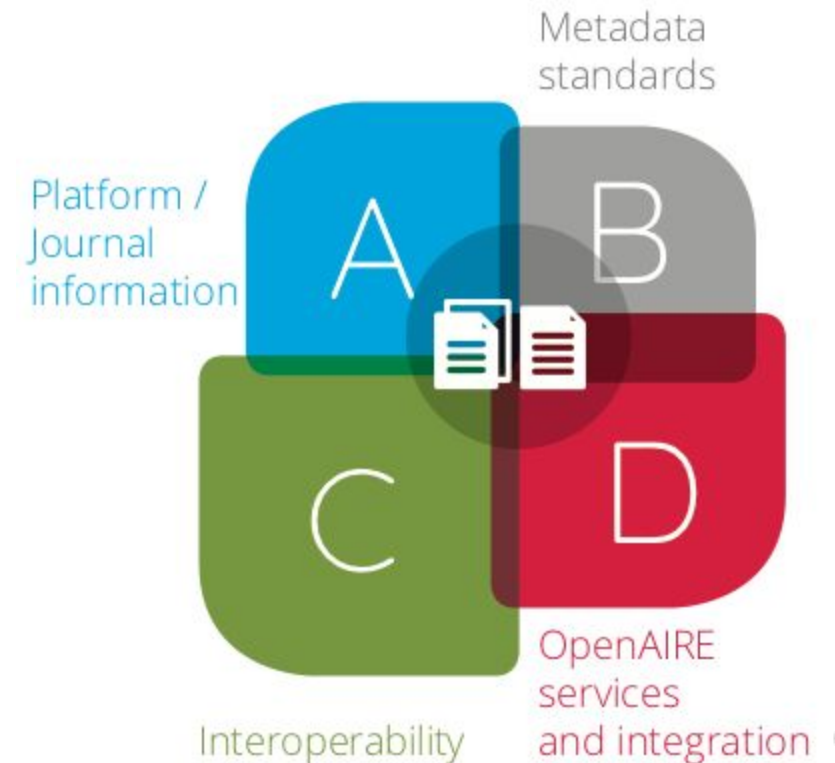
Main Findings

Platform / Journal operating aspects

- mainly institutional support in terms of staff and infrastr.
- alternative funding sources by communities and/or APCs
- mainly affiliation to public institution
- adoption of acknowledged quality standards
- registration in international indexes and directories
- additional services offered by publishing platforms

Main Findings

Interoperability and metadata standards

- platforms used: OJS, DSpace, Drupal, Wordpress, custom solutions
- use of standards like ORCID, DOI, JATS
- metadata on article level but varying degrees of detail
- OAI-PMH mostly supported
- not yet widely supported: content licensing, project/funding information in machine readable formats

Main Findings

Integration with and evaluation of OpenAIRE services

- **only a limited number of platforms / journals registered for content provision in OpenAIRE**
- **sometimes low level of awareness regarding OpenAIRE's services**
- **of interest:**
  - Harvesting and aggregation
  - Validation
  - Content discovery/visibility
  - Usage and access statistics
  - Linking with funding and project information
  - Deduplication

Recommendations and Results

Metadata quality standards, semantic interoperability

- use of knowledge representation languages and linked data representations
- PIDs and references for different entities
- machine-readable information for copyright and license

Interoperability at system level

- support of common APIs (OAI-PMH, OpenSearch, SRU, Signposting)
- use of open file formats (PDF/A, EPUB, XML, ODT)

Long-term preservation

- long-term commitment for resource resolving, content preservation, archiving policies
- remote copy of digital objects and metadata, automated backup processes

Deliverable D6.3 – Recommendations for improving aspects of institutional publishing platforms (2019), 10.5281/zenodo.3701388

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Sustainable cooperative non-apc publishing models

Motivation

How to sustain not for profit and non-APC based cooperative publishing models?

Goal: universal, unrestricted, immediate open access

Approach of the task team

- **Investigation of the publishing landscape and identification of best practice examples**
  - SWOT analysis based on input from the publishing and library community in 01/2019
  - Workshop on sustainable non-APC publishing models in 02/2019 at Bielefeld University, Germany

- **Come up with a set of recommendations to funders, policy makers and the publishing community**

- **liaise with other initiatives**
  - joint webinar in 05/2020 with AmeliCA, Canadian Research Knowledge Network/Coalition Publica, 10.5281/zenodo.3821955
  - virtual meeting with OA2020

WEBINAR

COOPERATIVE NON-APC PUBLISHING MODELS

MAY 11 AT 2:00 PM UTC

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One Goal – different Approaches

Goal: universal, unrestricted, immediate open access

"...Plan S...on <u>regulating commercial agreements</u> when APCs are involved vs. ...AmeliCA...on building...<u>infrastructure from and for academic institutions</u>."

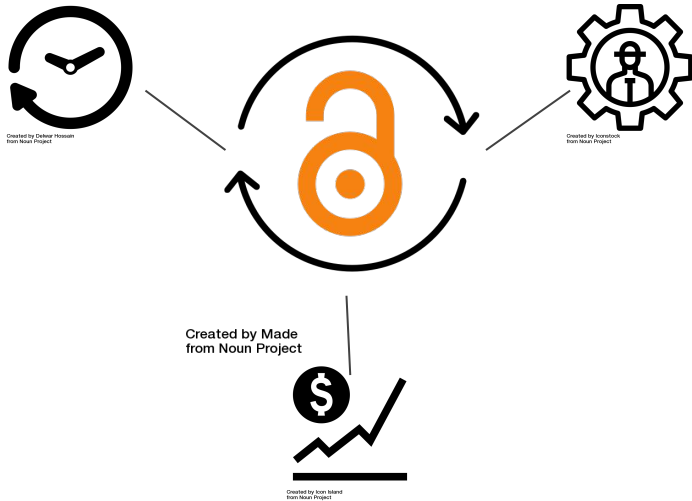"Why not taking back <u>control of scientific publication by academic institutions?</u>"

(Quelle: http://amelica.org/index.php/en/2019/02/10/amelica-vs-plan-s-same-target-two-different-strategies-to-achieve-open-access/)

Principles to achieve Open Access

Europe — Plan S — Making full and immediate Open Access a reality

Latin America and the Global South — AmeliCA — Open Knowledge for Latin America and the Global South — Social Sciences and Humanities

	Plan S (Europe)	#	AmeliCA (Latin America and the Global South)
	Authors retain copyright of their publication with no restrictions. All publications must be published under an open license, preferably the Creative Commons Attribution Licence CC BY. In all cases, the license applied should fulfil the requirements defined by the Berlin Declaration;	1	Scientific knowledge generated by public funds is a common good and access to it is a right.
	The Funders will ensure jointly the establishment of robust criteria and requirements for the services that compliant high quality Open Access journals and Open Access platforms must provide;	2	Open Access must be legally protected in order to avoid the appropriation of scientific knowledge for profit.
	In case such high quality Open Access journals or platforms do not yet exist, the Funders will, in a coordinated way, provide incentives to establish and support them when appropriate; support will also be provided for Open Access infrastructures where necessary;	3	Open Access has no future or meaning without an evolution of research evaluation systems.
	Where applicable, Open Access publication fees are covered by the Funders or universities, not by individual researchers; it is acknowledged that all scientists should be able to publish their work Open Access even if their institutions have limited means;	4	The consolidation of Open Access must consider the transition to digital scientific communication as an essential axis.
	When Open Access publication fees are applied, their funding is standardised and capped (across Europe);	5	The economical investment in Open Access must be coherent with its benefit to society just as commercial solutions are paid.
	The Funders will ask universities, research organisations, and libraries to align their policies and strategies, notably to ensure transparency;	6	The adverse economic scenarios facing Open Access will have to be overcome with work schemes based on collaboration and sustainability.
	The above principles shall apply to all types of scholarly publications, but it is understood that the timeline to achieve Open Access for monographs and books may be longer than 1 January 2020;	7	It is necessary to recognize the diversity of scientific journals and stop the pressures that seek to homogenize them. In the other hand, journals must support the strengthening of institutional repositories by means of the disappearance of policies of embargo.
	The importance of open archives and repositories for hosting research outputs is acknowledged because of their long-term archiving function and their potential for editorial innovation;	8	The social impact of science is the foundation of Open Access' existence.
	The 'hybrid' model of publishing is not compliant with the above principles;	9	It is necessary to respect the different dynamics of generation and circulation of knowledge by area, especially the dynamics of the social sciences and the humanities.
	The Funders will monitor compliance and sanction non-compliance.	10	Open Access must be permanently conceptualized and accordingly defined. The three "B" homogenize the conditions of the development of science and the conditions of the South are different from those of the North.

Becerril-García, A. (January 10, 2019). AmeliCA vs Plan S: Same target, two different strategies to achieve Open Access. [Message on a blog]. Ameli Blog. Retrieved from http://www.amelica.org/en/index.php/2019/01/10/amelica-vs-plan-s-mismo-objetivo-dos-estrategias-distintas-para-lograr-el-acceso-abierto/

What about sustainability?

Serviceprovider:

- **Revenues to cover the costs**
- **Implementation or adaption of requirements (policies) and up-to-date technical standards**

User expectations:

- **affordable and reliable services that fit or integrate in the research process**

All:

- **stable, scalable, reliable market for high-quality publications and their distribution**

From the Perspective of Authors

Limiting Factors

- Lack of perception due to lack of reputation of the publication initiative

- Misunderstanding regarding Open Access and quality assurance processes

- Business model not known or intransparent

Suggested Solutions

- Assessment through widely recognized initiatives like DOAJ, OA2020, SCOSS, …

- Information campaign, workshops, networking, knowledge transfer

- Transparency of funding and financing flows

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From the Perspective of non-APC Publishing Initiatives

Limiting Factors

- Lack of established branding
- Limited (financial) stability
- non-transparent business model
- lack of established market position

Suggested Solutions

- Cooperatively organized as Meta-Publisher / Joint Venture for smaller publishers
- „Subscribe to open" model
- Support by staff and infrastructure(s) provided by e.g. libraries
- Identification and highlighting of unique selling points
- expert guidance for SEO and indexing
- Communication of successful business models and organisation of knowledge transfer
- Sharing of resources and pooling of e.g. infrastructures and peer reviewers

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From the Perspective of Research Institutions

Limiting Factors

- Acquisition strategy that is mainly based on the subscription model
- central allocation of funds; limited availability of funds
- Research evaluation based on JIF
- Limited opportunities to support collaborative publishing initiatives

Suggested Solutions

- Assessment through widely recognized initiatives like DOAJ, OA2020, SCOSS, …
- Development of novel and alternative impact metrics for research evaluation
- Alternative field of activity for research libraries

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From the Perspective of Funders and Decision Makers

Limiting Factors

- Concerns regarding the quality of Open Access publication channels

- Short term vs. long term funding

- high effort required to evaluate publication initiatives due to variety and diversity of publication channels

- current methods and indicators used for research evaluation, e.g. JIF

- Evaluation and selection criteria to fund non-APC initiatives

Suggested Solutions

- Assessment through widely recognized initiatives like DOAJ, OA2020, SCOSS, …

- Development of novel and alternative impact metrics for research evaluation

- Publicly funded and operated scholarly communication infrastructures

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Summary and Results

- **Recognition and funding support of cooperative, non-APC based publication initiatives by research funding agencies**
- **Improvement of quality control and publication processes by help of trusted bodies**
- **Strengthening cooperation, partnership and community**
- **ToDo: best practice guidelines for collaborative and non-APC publishing**

Deliverable D6.2 – Best Practice Guide for Co-Operative Models of Publishing (2020), doi: 10.5281/zenodo.3701428

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Cost Transparency in Open Access Publishing
(with the benefits from OpenAIRE Research Graph)

Motivation

- several ways to financing Open Access publishing
- shifting costs to the side of authors/institutions/funders
  => Article / Book Processing Charges (A/BPC)
- transparent recording and reporting of publication fees are important indicators in the estimation of costs for OA publishing.

Initiatives

OPENAPC

| View: | Publisher | Journal | Institution | ℹ Data & Embed | | Filter: | Year: All ▾ | Hybrid Status: All ▾ | Country: All ▾ |

€17.022.518
UCL

€10.116.139
University of Oxford

€6.235.207
University of

€3.520.549
Cardiff University

https://monitor.jisc.ac.uk/uk/about/

Monitor UK

| About | Register | Search | Repo... |

Monitor UK > About Monitor UK

About Monitor UK

Monitor UK is a shared application aggregatin[g]
and funders to evaluate UK cost and complia[nce]
reports made available provide business intel[ligence]
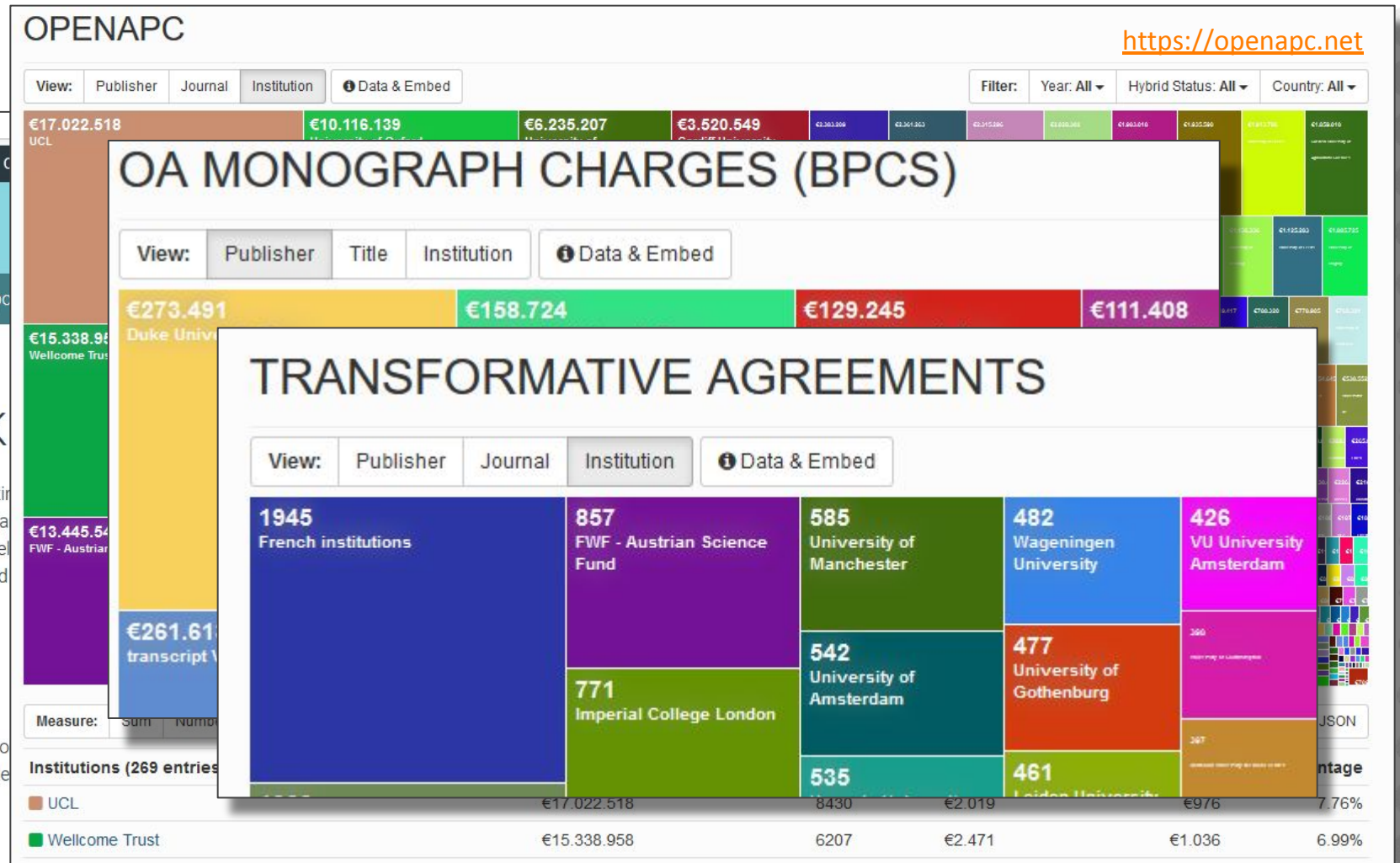diced by publisher and institution and filtered

Reports

Funder report

APC data is filtered by funder, allowing you to
well as APCs funded by different bodies. Filte[r]

Institution report

APC data is split by institution. Compare institutional spend or filter down to compare publisher cost among different institutions.

OA MONOGRAPH CHARGES (BPCS)

| View: | Publisher | Title | Institution | ℹ Data & Embed |

€273.491
Duke Univ[ersity]

€158.724

€129.245

€111.408

€15.338.95
Wellcome Trust

€13.445.54
FWF - Austrian

€261.61
transcript V

TRANSFORMATIVE AGREEMENTS

| View: | Publisher | Journal | Institution | ℹ Data & Embed |

1945
French institutions

857
FWF - Austrian Science Fund

585
University of Manchester

482
Wageningen University

426
VU University Amsterdam

542
University of Amsterdam

477
University of Gothenburg

771
Imperial College London

535

461
Leiden University

| Measure: | Sum | Num... |

Institutions (269 entries)

					ntage
■ UCL	€17.022.518	8430	€2.019	€976	7.76%
■ Wellcome Trust	€15.338.958	6207	€2.471	€1.036	6.99%

https://monitor.jisc.ac.uk/uk/about/

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APCs and OpenAIRE Research Graph

An open metadata research graph of interlinked scientific products, with access rights information, linked to funding information and research communities

Graph: model for the representation of information

OpenAIRE uses it to represent **objects** in the scholarly communication domain and the **relationships** that exist among them.

Edges of the graph are annotated with a label that specifies the **semantics** of the relationships between two objects, each represented as a node in the graph.
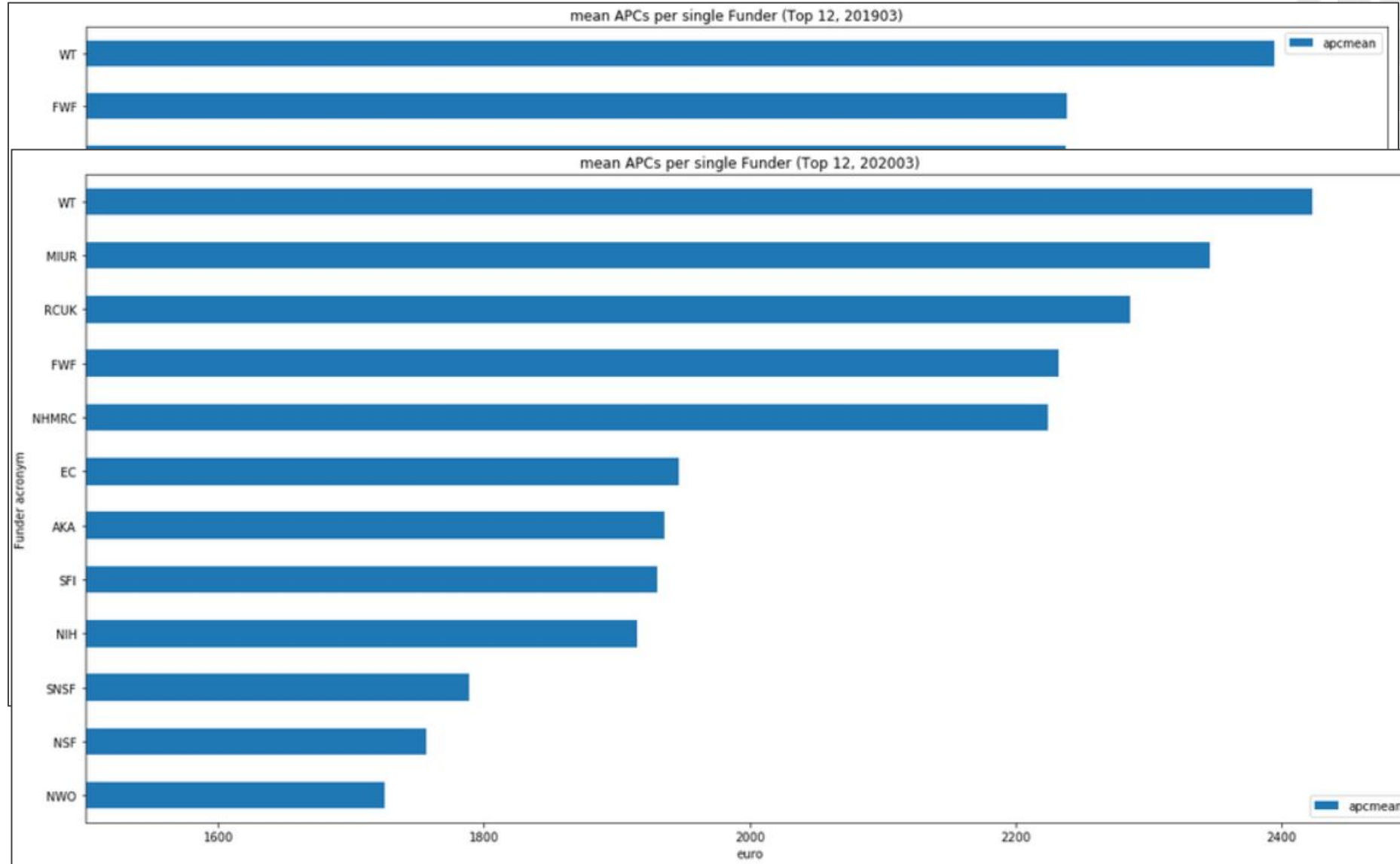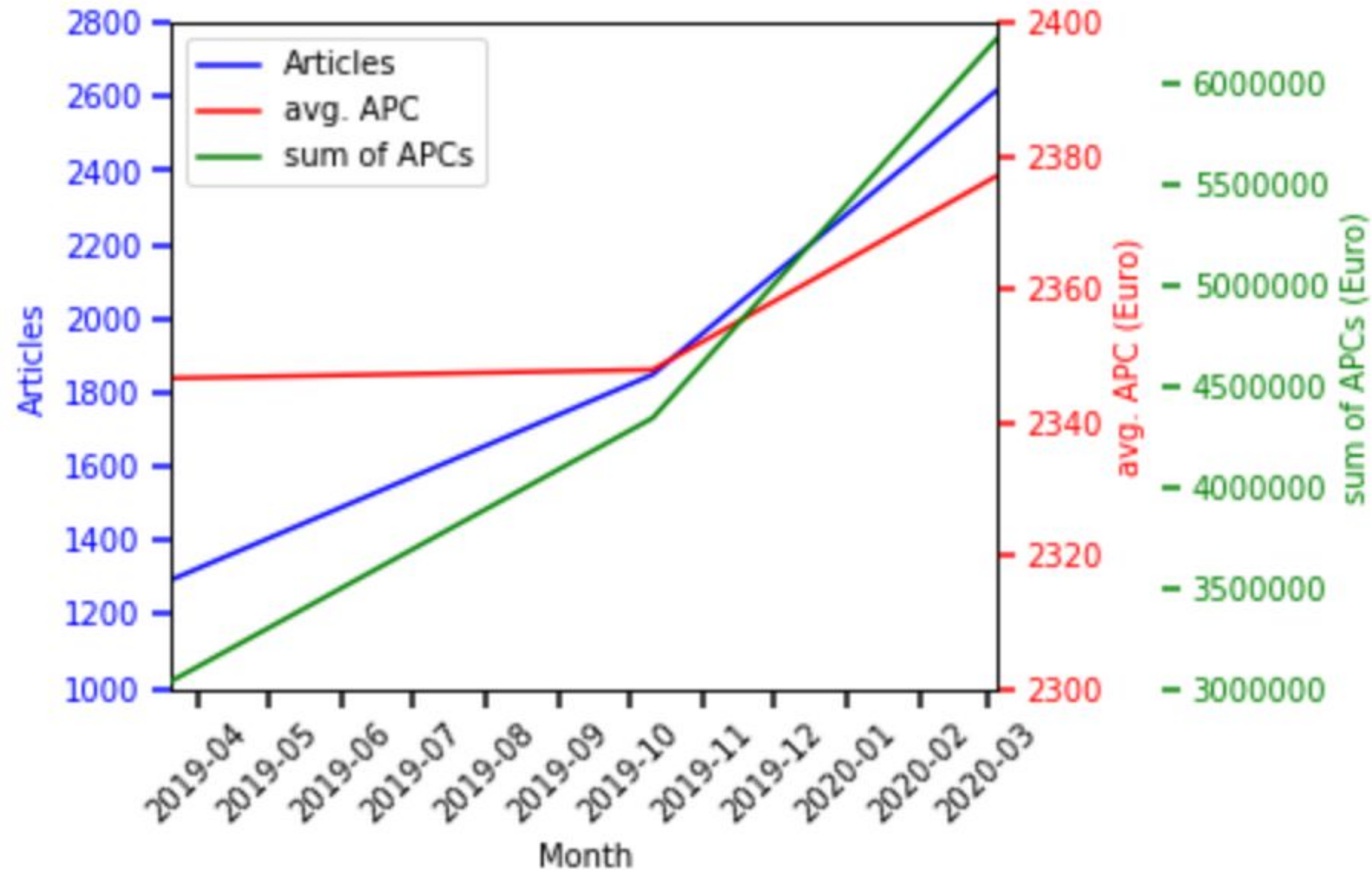
APCs and OpenAIRE Research Graph

- **coverage**

~91%

~98%
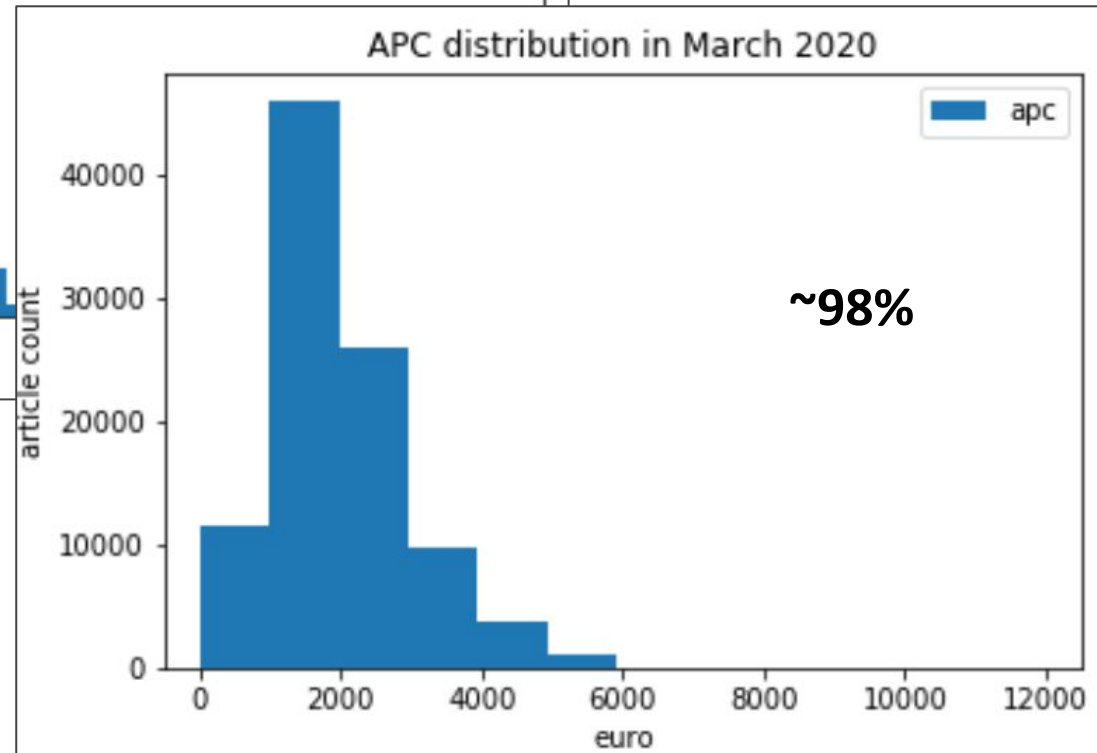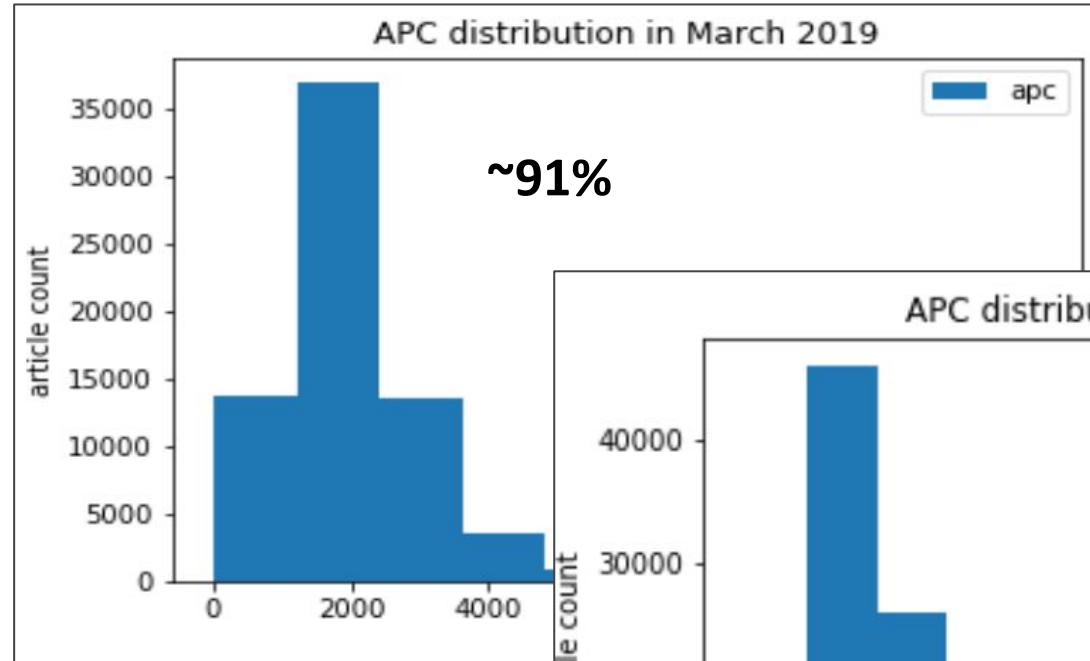
APCs and OpenAIRE Research Graph

- **average of APC that would be payed by a single funder.**

mean APCs per single Funder (Top 12, 201903)

mean APCs per single Funder (Top 12, 202003)

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APCs and OpenAIRE Research Graph

- ## Horizon 2020

Time for Questions and Discussion

Thank you!

Andreas Czerniak & Jochen Schirrwagen

Jens Aasheim, Iryna Kuchma, Emilie Hermans, Gwen Franck, André Vieira, Pedro Principe, Mike Mertens, Najla Rettberg, Tobias Steiner, Jadranka Stojanovski, Irakleitos Sougioultzoglou, Claudio Atzori, Alessia Bardi, Paolo Manghi, Aenne Löhden, Amelie Bäcker

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