Scholarly communication in the context of Open Science : the need for infrastructures

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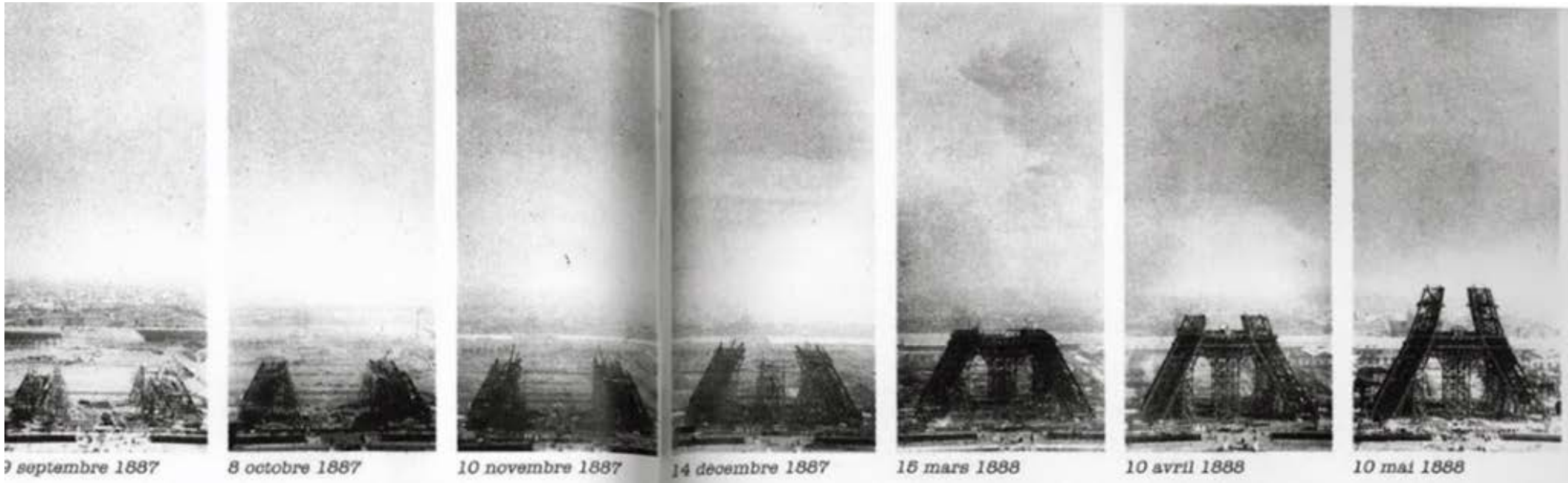
Ecole des Hautes Etudes en Sciences Sociales

OpenEdition / OPERAS

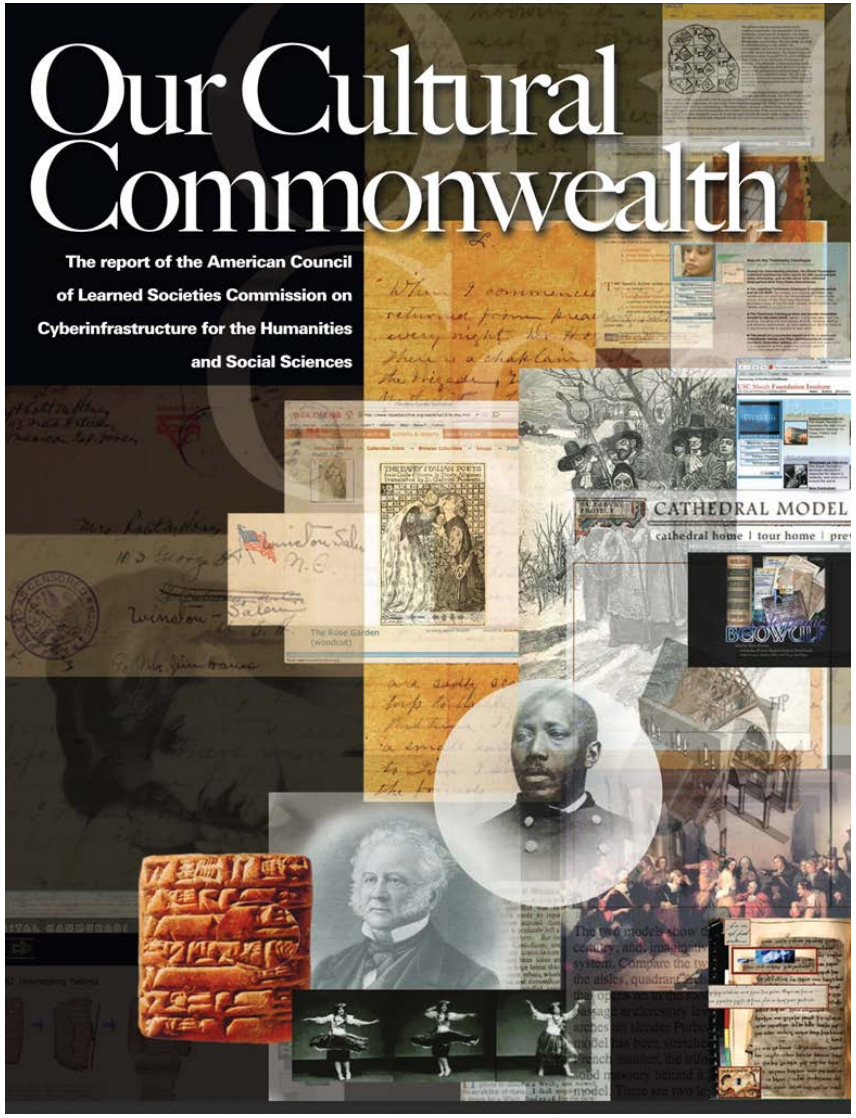
2nd Meeting of the Expert Group on Scholarly Publishing and Scholarly Communication 26/03/2018

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No731031

(Introduction): starting points...



Origin



Executive Summary

The emergence of the Internet has transformed the practice of the humanities and social sciences—more slowly than some may have hoped, but more profoundly than others may have expected. Digital cultural heritage resources are a fundamental dataset for the humanities: these resources, combined with computer networks and software tools, now shape the way that scholars discover and make sense of the human record, while also shaping the way their findings are communicated to students, colleagues, and the general public. Even greater transformations are on the horizon, as digitized cultural heritage comes into its own. But we will not see anything approaching complete digitization of the record of human culture, removal of legal and technical barriers to access, or revolutionary change in the academic reward system unless the individuals, institutions, enterprises, organizations, and agencies who are this generation's stewards of that record make it their business to ensure that these things happen.

The organized use of networks and computation for the practice of science and engineering was the subject of a 2003 report to the National Science Foundation (NSF), *Revolutionizing Science and Engineering through Cyberinfrastructure*.[1] In both the NSF report and this one, the term *cyberinfrastructure* is meant to denote the layer of information, expertise, standards, policies, tools, and services that are *shared broadly across communities of inquiry but developed for specific scholarly purposes:* cyberinfrastructure is something more specific than the network itself, but it is something more general than a tool or a resource developed for a particular project, a range of projects, or, even more broadly, for a particular discipline. So, for example, digital history collections and the collaborative environments in which to explore and analyze them from multiple disciplinary perspectives might be considered cyberinfrastructure, whereas fiber-optic cables and storage area networks or basic communication protocols would fall below the line for cyberinfrastructure.

Putting down roots

Knowledge Exchange

Putting down roots
Securing the future of open access policies

Workshop 10 November 2015
Report dated January 2016

DFG Jisc CSC DEff SURF

» **Support and dissemination services** assist authors and institutions in implementing OA and complying with OA policies. The most widely used are the SHERPA services, which are consistently relied on to support OA repository workflows.

» **OA repository services** encompass a wide range of repository and related services that are crucial to the implementation of open access archiving. The critical dependency in this case is not on one or two individual services, but on the success of efforts to improve interoperability across the OA repositories landscape.

We also considered a range of **OA publishing services** and **OA monitoring services**. At the present time, policies are not highly dependent on these services but they seem likely to grow in importance in the future.

The implementation of OA policies relies on the development of a fully-functioning OA infrastructure

1.3. Priorities for action

The fundamental challenge for the implementation of OA policies is the need to develop a fully functioning OA infrastructure from the current disparate collection of services. This study has taken the form of a broad survey of the current OA policy and service landscape, and further work is needed to translate our findings into specific, costed recommendations. Nevertheless, the broad direction of travel is clear if OA policies are to be successfully implemented. Four priorities for action have therefore been identified:

1. **Adopt sound governance structures** with greater representation from funders and policy makers, promoting the wider use of crucial identifiers and standards.
2. **Ensure the financial sustainability of critical services,** particularly the DOAJ and SHERPA services.
3. **Create an integrated infrastructure for OA repositories** based on central 'nodes', interoperability across the broader landscape, and increased engagement with the European Commission's OpenAIRE project and the work of the Confederation of Open Access Repositories (COAR).
4. **Invest strategically in OA services in order to create a coherent OA infrastructure** that is efficient, integrated and representative of all stakeholders.

OA monographs landscape

Knowledge Exchange

Summary: A landscape study on open access (OA) and monographs

Policies, funding and publishing in eight European countries

Publication date March 2018

had significant institutional funds that were capable of supporting OA monographs. Monograph publishing models in Austria, Germany and the Nordic countries already rely on subsidies, and existing funders could consider making open access a condition of such payments in future (FWF in Austria has already done this).

Infrastructures for open access vary across countries. Some have taken steps towards legislation that encourages open access – Germany, for example, has included provisions for OA within federal copyright legislation, while France has enacted a Law for a Digital Republic which strongly encourages OA. The Netherlands has negotiated national deals with publishers to cover OA for all Dutch academics. Some countries have also made financial investments in publishing infrastructure to support OA: the most significant example is perhaps OpenEdition[7] in France, a digital platform and 'freemium' business model to support digital and OA publishing, but the OAPEN platform in the Netherlands and the Finnish model of statefunded presses are also important.

Publishers and institutions also play an important role in providing the infrastructure for OA. Across all countries, most universities have a well established network of institutional repositories for academics pursuing the self-archiving route. Some, notably in Germany, also

Finally, there are some important **disrupters** stimulating new conversations about open access for monographs. In the UK, new university and academic-led presses are experimenting, not just with new business models but with new publishing formats, and modes of marketing, sales and distribution. In Germany, Language Science Press, a born-OA publisher, also offers open review and a comments option post-publication for monographs. Institutions from most countries in the study are signed up to Knowledge Unlatched, using crowd-sourced library funding to pay publication costs of OA monographs. These initiatives shift the conversation about what is possible.

Monograph publishing

Established monograph publishing practices affect the way that open access monographs are seen and the practical steps that must be taken to achieve them.

Funding models vary: in countries like Austria, Finland, Denmark, Norway and, to an extent, Germany, where many monographs are funded via subsidies, open access business models can repurpose the funds already associated with an individual book in order to make it OA. In very commercial environments like the UK and the Netherlands, where publishing costs are recovered primarily via sales, business models may require a more significant change. Although publishers

Open Access in Humanities and Social Sciences : a milky way

OPERAS-D Project

Design for Open access Publications in European Research Areas for Social Sciences and Humanities

De 2017-01-01 **à** 2018-06-30, projet en cours

Détails concernant le projet

Coût total: EUR 408 586,25	**Sujet(s):** INFRASUPP-03-2016 - Support to policies and international cooperation for e-infrastructures
Contribution de l'UE: EUR 408 586,25	**Appel à propositions:** H2020-INFRASUPP-2016-1 See other projects for this call
Coordonné à/au(x)/en: France	**Régime de financement:** CSA - Coordination and support action

Objectif

OPERAS-D (Design) project will support the 5 main partners ("core group") of the OPERAS network in the development of a European e-infrastructure for open access publications in the Social Sciences and Humanities (SSH). The project will address long-term requirements for the development of the e-infrastructure and community building, as well as seek to expand other interested parties within and beyond Europe, and in diverse fields of the SSH. To achieve this goal, the key o...

Coordinateur

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS — France
RUE MICHEL ANGE 3
75794 PARIS
France
Contribution de l'UE: EUR 100 932,50

Activity type: Research Organisations
Contact the organisation

Participants

Expand all

ETHNIKO IDRYMA EREVNON	Greece
STICHTING OAPEN*OPEN ACCESS PUBLISHING IN EUROPEAN NETWORKS	Netherlands
MAX WEBER STIFTUNG DEUTSCHE GEISTESWISSENSCHAFTLICHE INSTITUTE IM AUSLAND	Germany
KNOWLEDGE UNLATCHED CIC	United Kingdom

OPERAS landscape study

Design for Open access Publications in European research Areas for Social Sciences and Humanities

Project Number: GA 731031

OPERAS-D

WP 2: **Developing network and e-infrastructure strategy**

Landscape Study on Open Access Publishing

The project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement 731031.

In examining all emerging trends in journal and monograph publishing, the report outlines key challenges and potential issues to be addressed by future initiatives. Recently introduced and experimental models (such as scholar-led publishing bodies, and new university presses) share common orientations towards increased participation of researchers in the publishing process and overcome certain deficiencies of the commercial publishing model.

Notwithstanding the importance of such initiatives, as the Report concludes, fragmentation (both in terms of the size and nature of publishers and of their business models) is a key characteristic in the academic publishing landscape. In this context, the main challenge in adopting effective open access publishing practices is to identify and assess current needs and limitations that permeate the academic publishing landscape, in operational as well as communicational terms.

The landscape study confirms that successful research relies primarily on unrestricted access to high quality scientific output and cross-disciplinary, international collaboration. Shared and remotely accessed digital infrastructures constitute an important feature towards the realisation of the European Research Area, and OPERAS aspires to be actively engaged in the implementation of a new mode of science that overcomes fragmentation and enables unrestricted access to high quality scientific output.

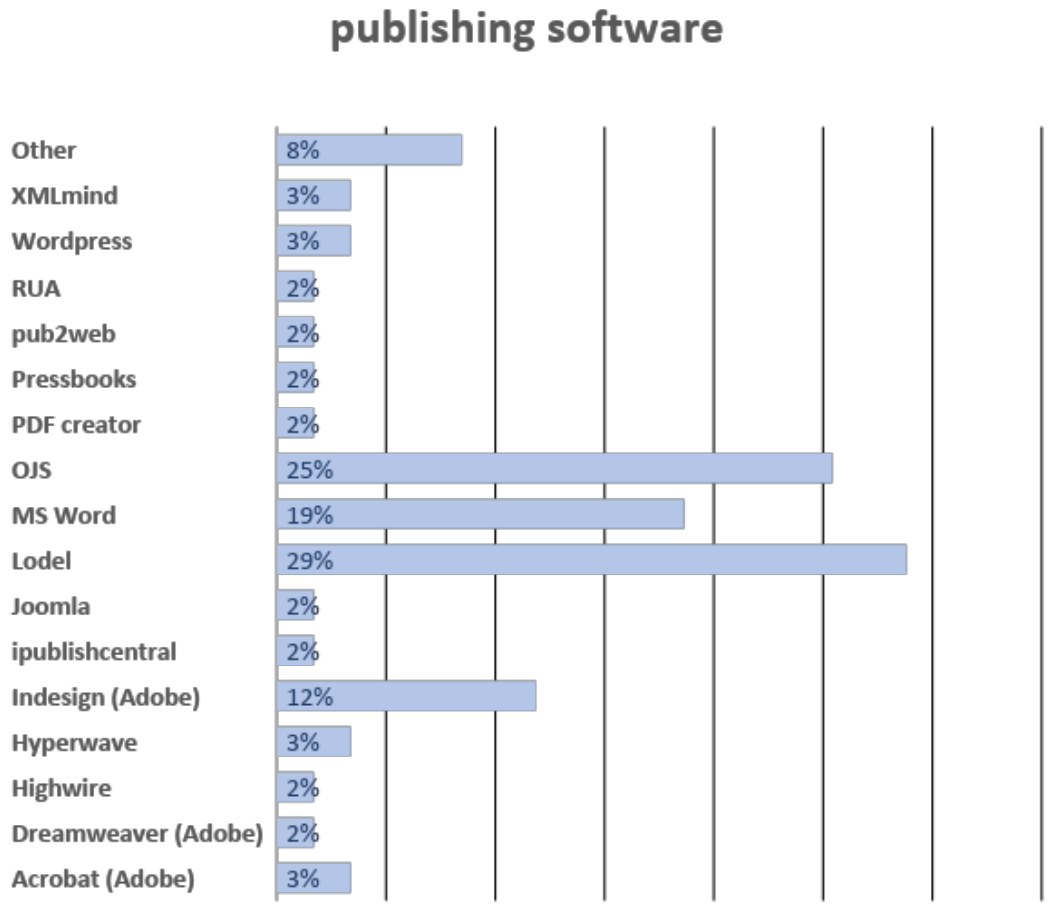
Survey on publishers

OPERAS
open access in the european research area through scholarly communication

OPERAS
Design Study

July 2017

	spring survey	autumn survey	total
Started surveys	79	38	117
Completed surveys	42	17	59



OPERAS partners technical mapping

PARTNER	Huma-Num (Isidore)	EKT	IBL PAN	MWS	Open Edition	OAPEN	OAPEN (DOAB)	Ubiquity Press	UCL press	Univ. Coimbra	University of Turin	Univ. Zadar
DB Size (GB)	1024GB	35GB	Open Edition [60GB]	100GB	60GB	60GB	200MB	270 GB	OAPEN [60GB]	419GB	8GB	78GB
Storage Size (TB)	400TB	50TB	Open Edition [40TB]	1,5TB	40TB	5,5TB	0,7TB	5TB	OAPEN [5,5TB]	25TB	2TB	1,25TB
DBMS	**MySQL,** MongoDB, AFS, Handle.net, Virtuoso, Exist, BaseX	**MySQL**	OpenEdition [**MySQL**]	Zope Object database	**MySQL**	**MySQL,** Oracle	MariaDB	**MySQL**, PostgreSQL	OAPEN [**MySQL**]	**MySQL**, PostgreSQL	**MySQL**	**MySQL**

OPERAS partners technical mapping

PARTNER	OPENEDITION	Huma-Num (Isidore)	EKT	Ubiquity Press	MWS	Unito	OAPEN	OAPEN (DOAB)	Univ. Coimbra	Univ. Zadar	IBL PAN	UCL press
CPU cores	724	192	72	31	12	12	4	4	6	4	OpenEdition	OAPEN
Servers (nb)	21	8	6	10	1	1	4	4	4	6	OpenEdition	OAPEN
RAM (GB)	3000	1000	1100	115	24	32	32	32	28	8	OpenEdition	OAPEN
Provider	CC IN2P3	CC IN2P3	EKT	Amazon	BSB	Cineca	UvA	SemperTool	Univ. Coimbra	SRCE	OpenEdition	OAPEN

Visibility of OA monographs

Knowledge Unlatched RESEARCH

The Visibility of Open Access Monographs in a European Context

A report prepared by Knowledge Unlatched Research

30 January 2018

Cameron Neylon,[1,2] Lucy Montgomery,[1,2] Alkim Ozaygen,[1,2] Neil Saunders[2] and Frances Pinter[1,2]

1. Centre for Culture and Technology, Curtin University, Kent St, Bentley, Western Australia
2. Knowledge Unlatched Research, United Kingdom

This project received funding from European Union's Horizon 2020 research and innovation programme under grant agreement 731031.

institutions]. This means that we clearly need to understand what the usage data is telling us before we have any use for it.

A number of respondents expressed a desire for a "dashboard" or other visualisations that could bring multiple data sources together. The consequent need for data integration and standardisation to achieve this was mentioned in one or two responses but awareness of the challenges of comparison across sources appeared to be limited. There was some evidence of a conflation of visualisation with data integration.

Respondents are small organisations with limited capacity. There is a desire for coordination and shared services, infrastructures, standards. A common thread in the responses was that the publishers and platforms who are engaged in Open Access scholarly book publishing are relatively small. This is both a challenge and an opportunity. They have limited capacity to develop internal processes and systems are looking for shared services and platforms to assist in developing usage data capabilities.

> *It would be of great help if we could have a main service from where we could manage all the information related to statistical usage data.*
>
> *[To engage more effective with usage data we would like a]...consortium agreement with Google on how to gather and access usage data.*
>
> *We would like to see a usage aggregation service that consolidates usage data from different hosting partners into one standardised report in an automated way. In turn, this should translate into a usage dashboard that can be embedded into platforms and allows customers to use different filters to analyse usage by publisher, region, etc.*
>
> *[one of our biggest challenges is...optimizing workflow, how to do more work with small resources.*

What emerges overall is a picture in which platforms and publishers are implementing tools and approaches locally and using what they are provided with to some degree. There is generally a good technical awareness of the tools being deployed, but less apparent awareness of data curation and quality assurance issues.

Many of the challenges arise from issues of data integration and standardisation. Small, and even medium-sized, players have limited capacity to engage with detailed standards or technical development. Equally there are limitations on what capacity a small organisation can provide to investigate

KU Research findings

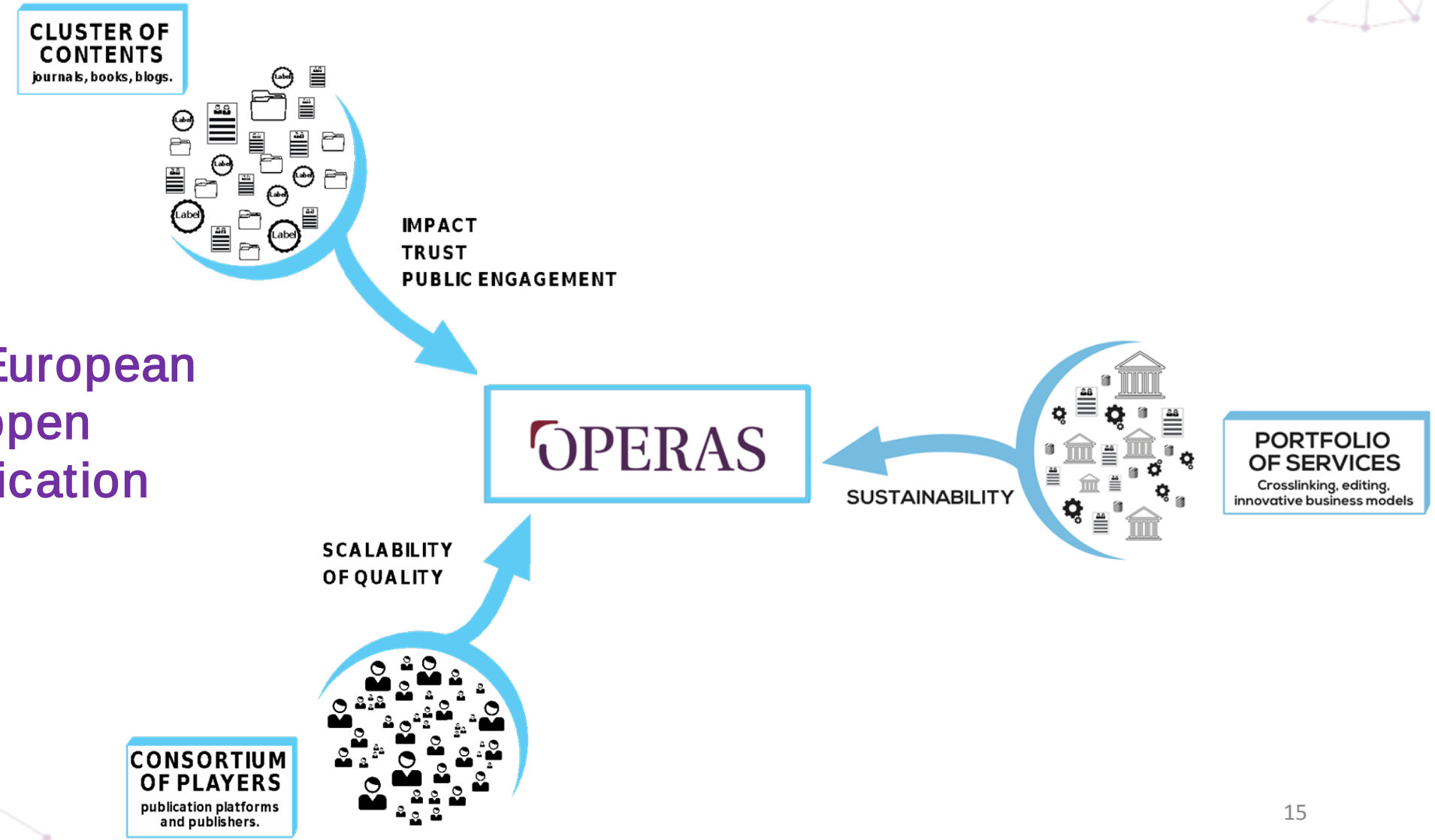
- ***The metadata held and managed by OPERAS partners is inconsistent and variable in quality***
- ***The visibility of OPERAS partner books in catalogues varies by publisher.***
- ***Evidence can be obtained that books relevant to specific regions gain interest and attention in that region***
- ***The variable quality of book metadata creates challenges in analysing visibility consistently***
- ***The variable quality of book metadata creates challenges for downstream data aggregation and analysis providers***

OPERAS proposition:
a distributed infrastructure for open scholarly communication

OPERAS MAIN MISSION

To provide a pan-European infrastructure for open scholarly communication

Integration of the long tail into Open Science

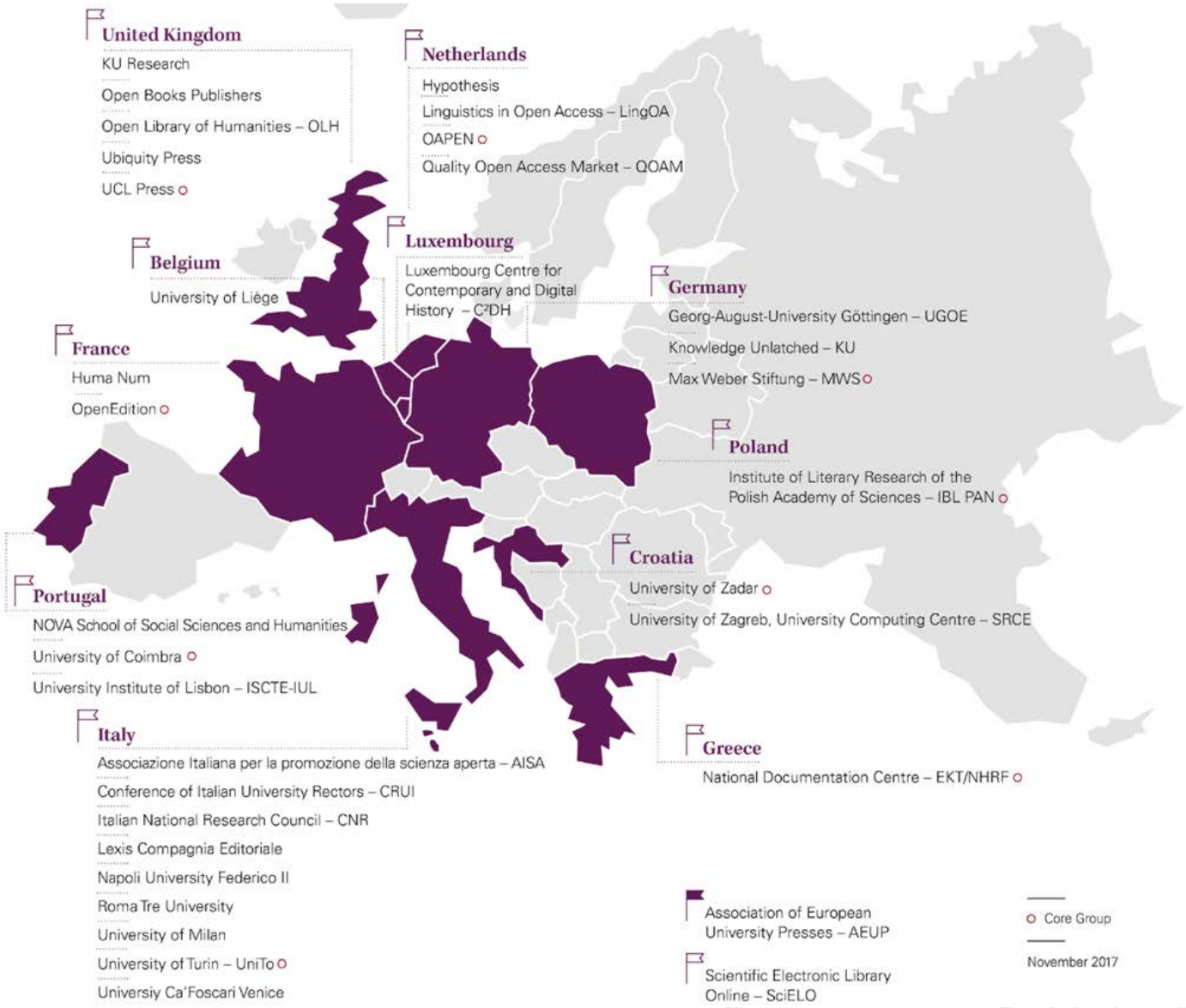


OPERAS PARTNERS

OPERAS is led by OpenEdition (France)

Consortium

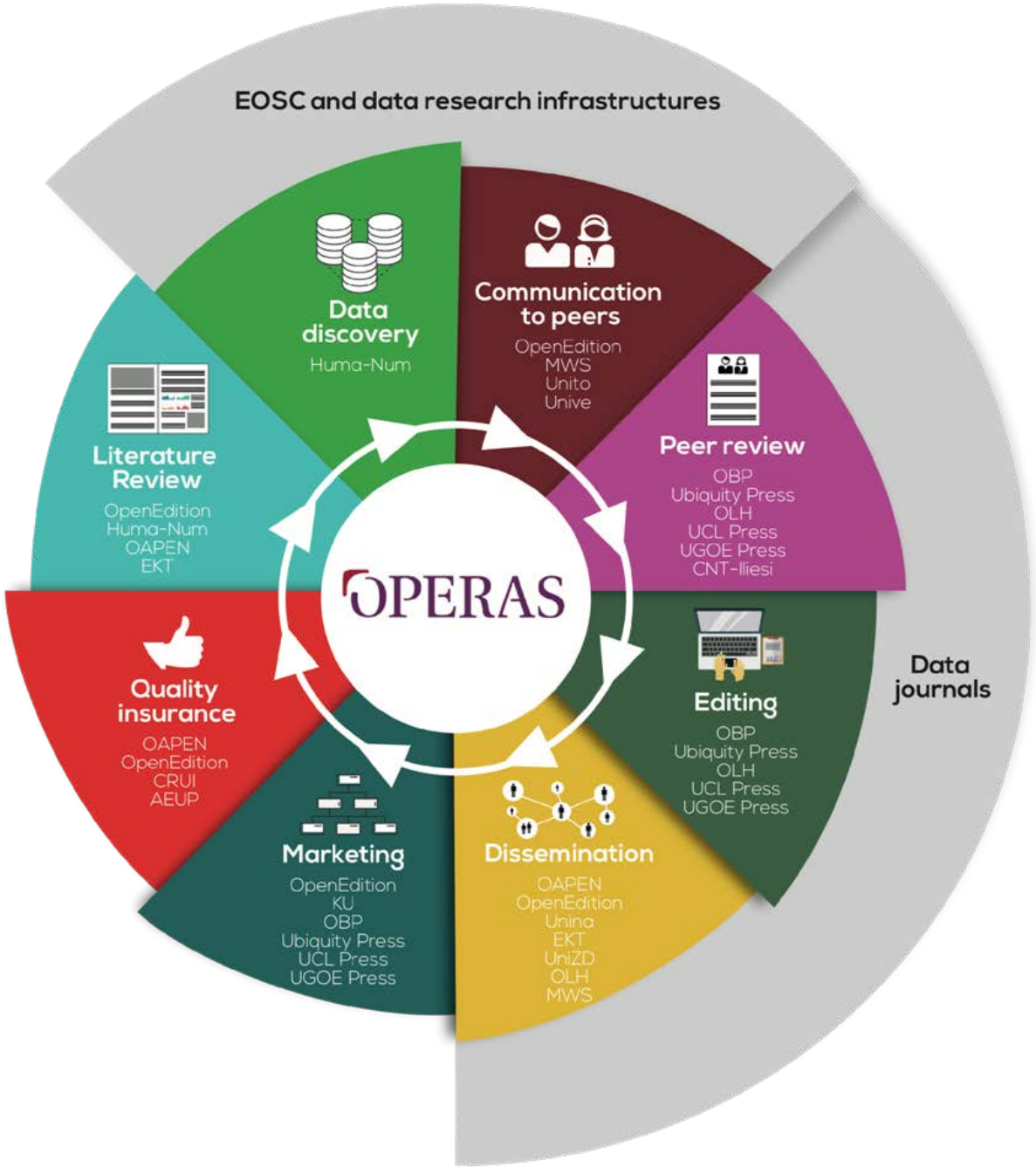
- **35** Partners
- **11** Countries
- **9** Core group Members
- **2 H2020** Projects



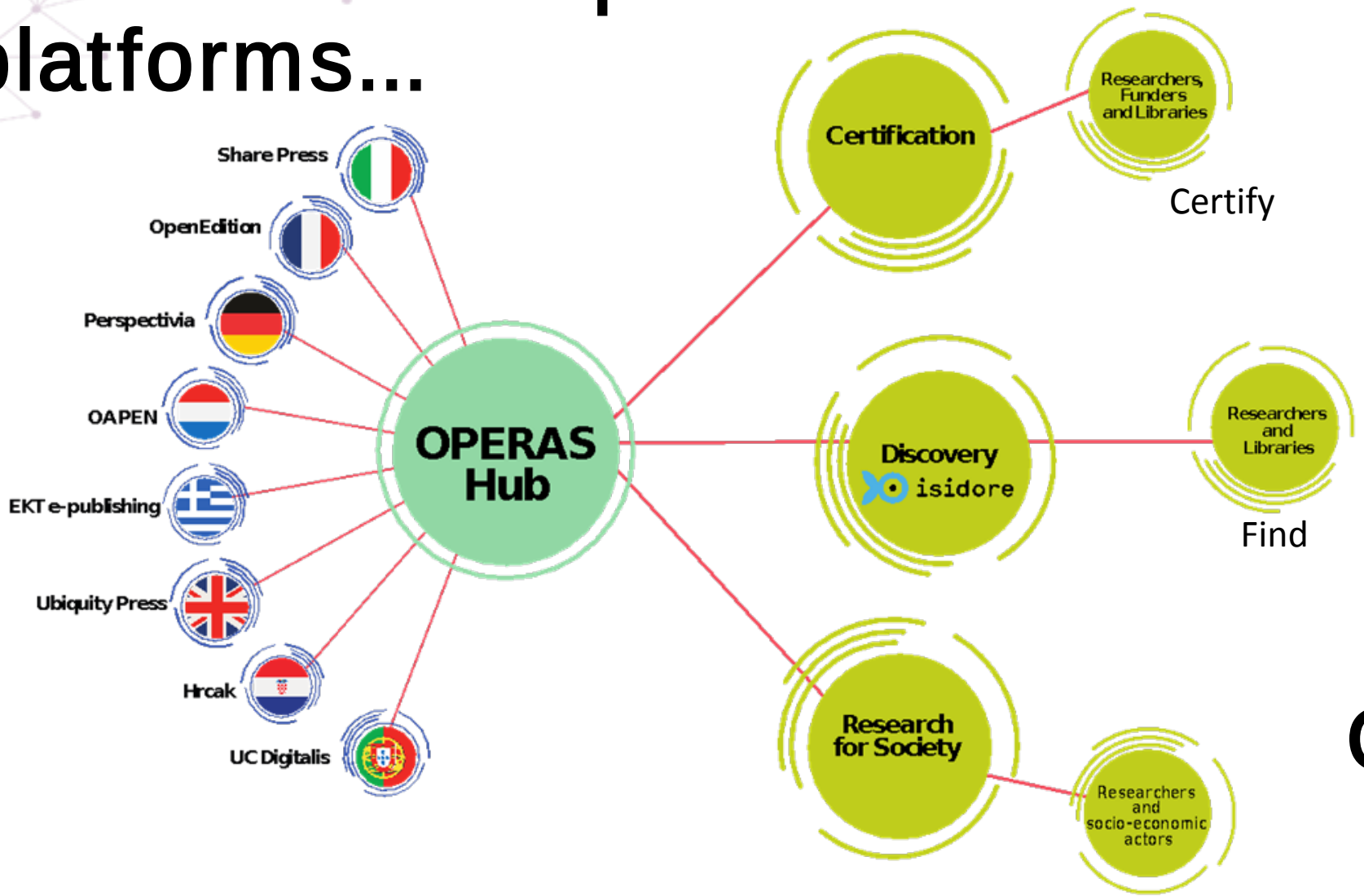
OPERAS-D

HIRMEOS
High Integration of Research Monographs in the European Open Science infrastructure

OPERAS members serve the researcher's needs **all along the research cycle**

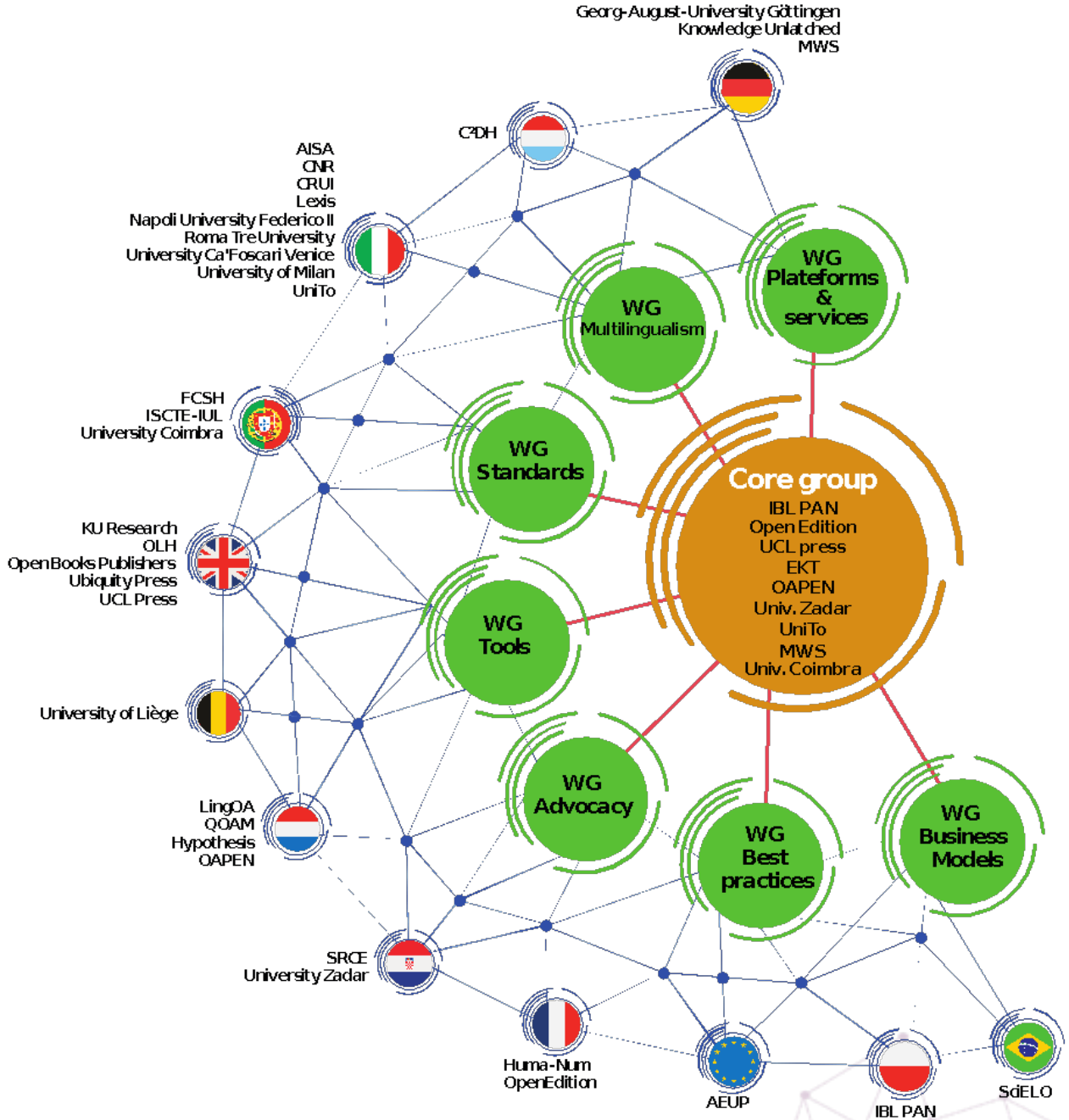


A federation of publication platforms...



... to deliver Open Science services...

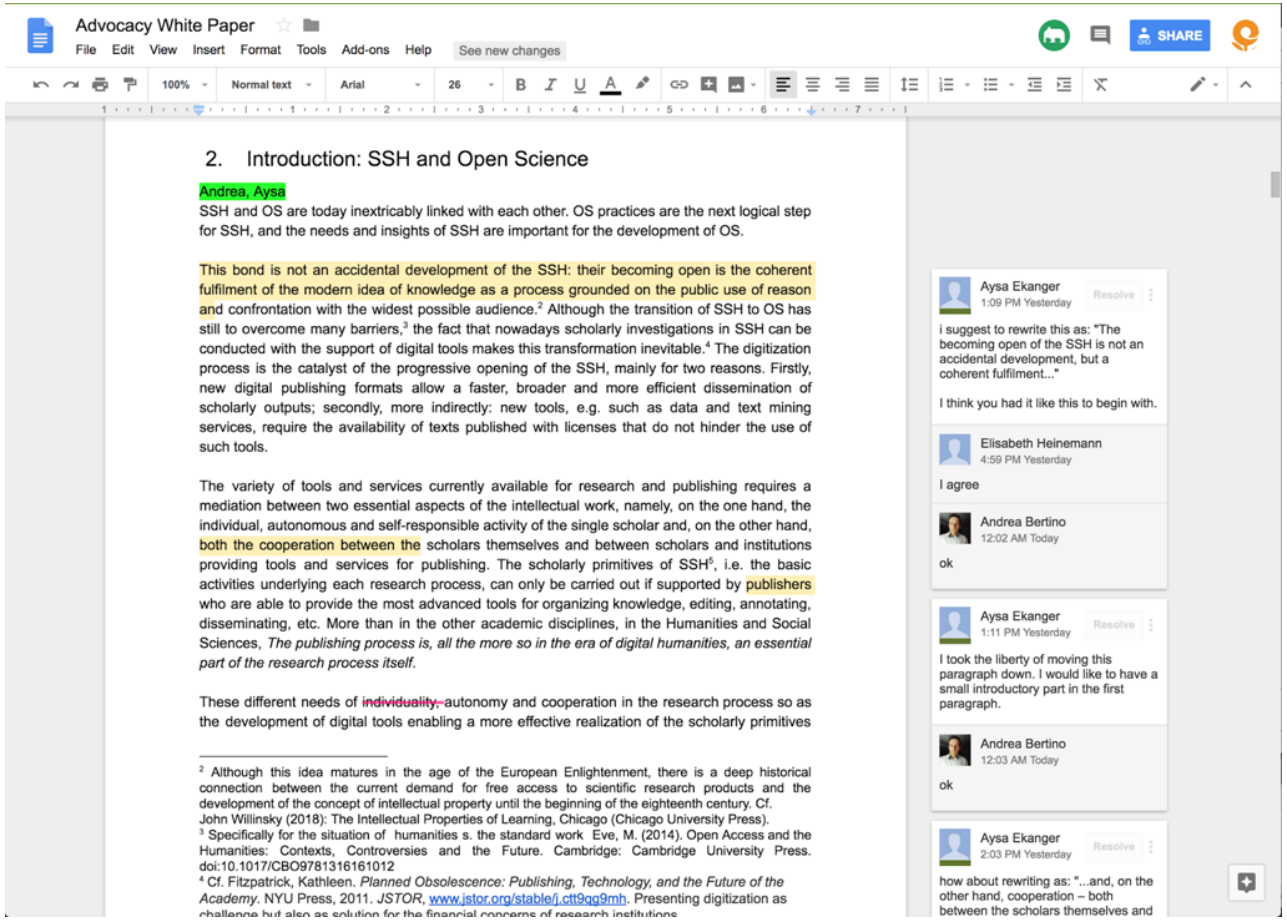
Coordinated by the Core Group



OPERAS Working Groups

1. **Advocacy**: MWS (contact point), AISA, UGOE, IBL PAN, KU Research, OpenEdition, University of Turin, The Arctic University of Norway
2. **Publishing Tools**: OpenEdition (contact point), Hypothesis, IBL PAN, C²DH, Roma Tre University, Stockholm University Press, Ubiquity Press, University of Turin, University of Milan
3. **Standards**: EKT (contact point), OAPEN, OpenEdition, University of Milan
4. **Business Models**: UCL Press (contact point), AEUP, IBL PAN, KU, KU Research, Lexis, OLH, UC Digitalis
5. **Best Practices**: OAPEN (contact point), AEUP, Hypothesis, LingOA, OpenEdition, OLH, QOAM, Lexis, Stockholm University Press, Ubiquity Press, University of Milan, University of Zadar
6. **Multilingualism**: UC Digitalis (contact point), UGOE, Huma-Num, EKT, ISCTE-IUL
7. **Platforms and Services**: OAPEN (contact point),OpenEdition (contact point), Huma-Num, LingOA, Open Books Publishers, QOAM, University of Zadar

Operas white papers and conference



Advocacy White Paper

File Edit View Insert Format Tools Add-ons Help See new changes

SHARE

2. Introduction: SSH and Open Science

Andrea, Aysa

SSH and OS are today inextricably linked with each other. OS practices are the next logical step for SSH, and the needs and insights of SSH are important for the development of OS.

This bond is not an accidental development of the SSH: their becoming open is the coherent fulfilment of the modern idea of knowledge as a process grounded on the public use of reason and confrontation with the widest possible audience.[2] Although the transition of SSH to OS has still to overcome many barriers,[3] the fact that nowadays scholarly investigations in SSH can be conducted with the support of digital tools makes this transformation inevitable.[4] The digitization process is the catalyst of the progressive opening of the SSH, mainly for two reasons. Firstly, new digital publishing formats allow a faster, broader and more efficient dissemination of scholarly outputs; secondly, more indirectly: new tools, e.g. such as data and text mining services, require the availability of texts published with licenses that do not hinder the use of such tools.

The variety of tools and services currently available for research and publishing requires a mediation between two essential aspects of the intellectual work, namely, on the one hand, the individual, autonomous and self-responsible activity of the single scholar and, on the other hand, both the cooperation between the scholars themselves and between scholars and institutions providing tools and services for publishing. The scholarly primitives of SSH[5], i.e. the basic activities underlying each research process, can only be carried out if supported by publishers who are able to provide the most advanced tools for organizing knowledge, editing, annotating, disseminating, etc. More than in the other academic disciplines, in the Humanities and Social Sciences, *The publishing process is, all the more so in the era of digital humanities, an essential part of the research process itself.*

These different needs of ~~individuality,~~ autonomy and cooperation in the research process so as the development of digital tools enabling a more effective realization of the scholarly primitives

[2] Although this idea matures in the age of the European Enlightenment, there is a deep historical connection between the current demand for free access to scientific research products and the development of the concept of intellectual property until the beginning of the eighteenth century. Cf. John Willinsky (2018): The Intellectual Properties of Learning, Chicago (Chicago University Press).
[3] Specifically for the situation of humanities s. the standard work Eve, M. (2014). Open Access and the Humanities: Contexts, Controversies and the Future. Cambridge: Cambridge University Press. doi:10.1017/CBO9781316161012
[4] Cf. Fitzpatrick, Kathleen. *Planned Obsolescence: Publishing, Technology, and the Future of the Academy*. NYU Press, 2011. *JSTOR*, www.jstor.org/stable/j.ctt9qg9mh. Presenting digitization as

Aysa Ekanger 1:09 PM Yesterday Resolve
i suggest to rewrite this as: "The becoming open of the SSH is not an accidental development, but a coherent fulfilment..."
I think you had it like this to begin with.

Elisabeth Heinemann 4:59 PM Yesterday
I agree

Andrea Bertino 12:02 AM Today
ok

Aysa Ekanger 1:11 PM Yesterday Resolve
I took the liberty of moving this paragraph down. I would like to have a small introductory part in the first paragraph.

Andrea Bertino 12:03 AM Today
ok

Aysa Ekanger 2:03 PM Yesterday Resolve
how about rewriting as: "...and, on the other hand, cooperation – both between the scholars themselves and

CONFERENCE

31 May - 1 June 2018 ATHENS

Open Scholarly Communication in Europe: Addressing the Coordination Challenge

National Hellenic Research Foundation
48 Vas. Konstantinou Av., GR-11635, Athens

May 31st 2018

09.00-9.30 Registration

9.30-10.00 Welcome
Evi Sachini, Director of National Documentation Centre, EKT
Pierre Mounier, Coordinator of OPERAS, Deputy Director of OpenEdition

10.00-10.30 Keynote: Open Science in Europe
Jean Claude Burgelman, Head of Unit, Open Data Policies and Science Cloud, European Commission

10.30-11.00 Designing an Infrastructure for Open Scholarly Communication: Operas-D Findings
Pierre Mounier, Coordinator of OPERAS, Deputy Director of OpenEdition

11.00-11.30 Coffee Break

11.30-13.00 Scholarly E-Infrastructures Across Europe. Models of Coordination
MODERATOR: **Matthew Dovey**, Head of e-Infrastructure Strategy, Jisc
Coordination through the market:
Eelco Ferwerda (OAPEN), **Graham Stone** (Jisc)
Coordination through government: **Pierre Mounier** (OpenEdition),
Michael Kaiser (MWS), **Maciej Maryl** (IBL PAN), **Marina Angelaki** (EKT),
Coordination through community: **Elena Giglia** (University of Turin),
Delfim Leao (Coimbra University), **Jadranka Stojanovski** (University of Zadar)

13.00-14.00 Lunch

14.00-15.30 Poster Session: What is at stake?
Presentation of OPERAS working groups' White Papers

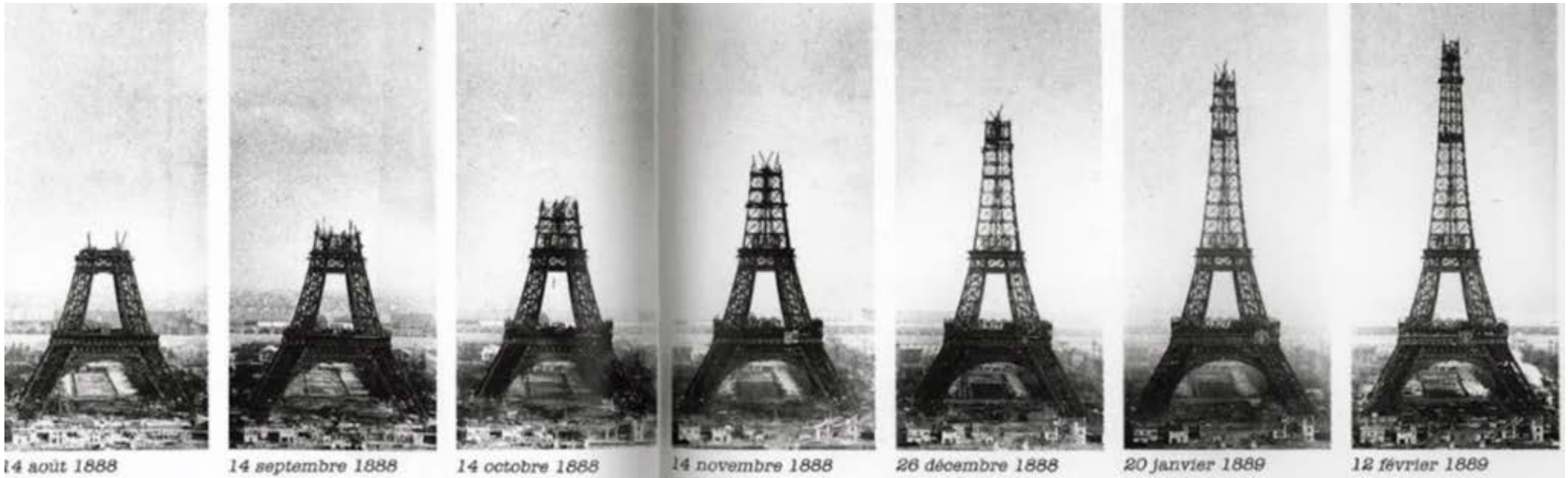
15.30-16.00 Coffee Break

HIRMEOS: a proof of concept for OPERAS collaboration

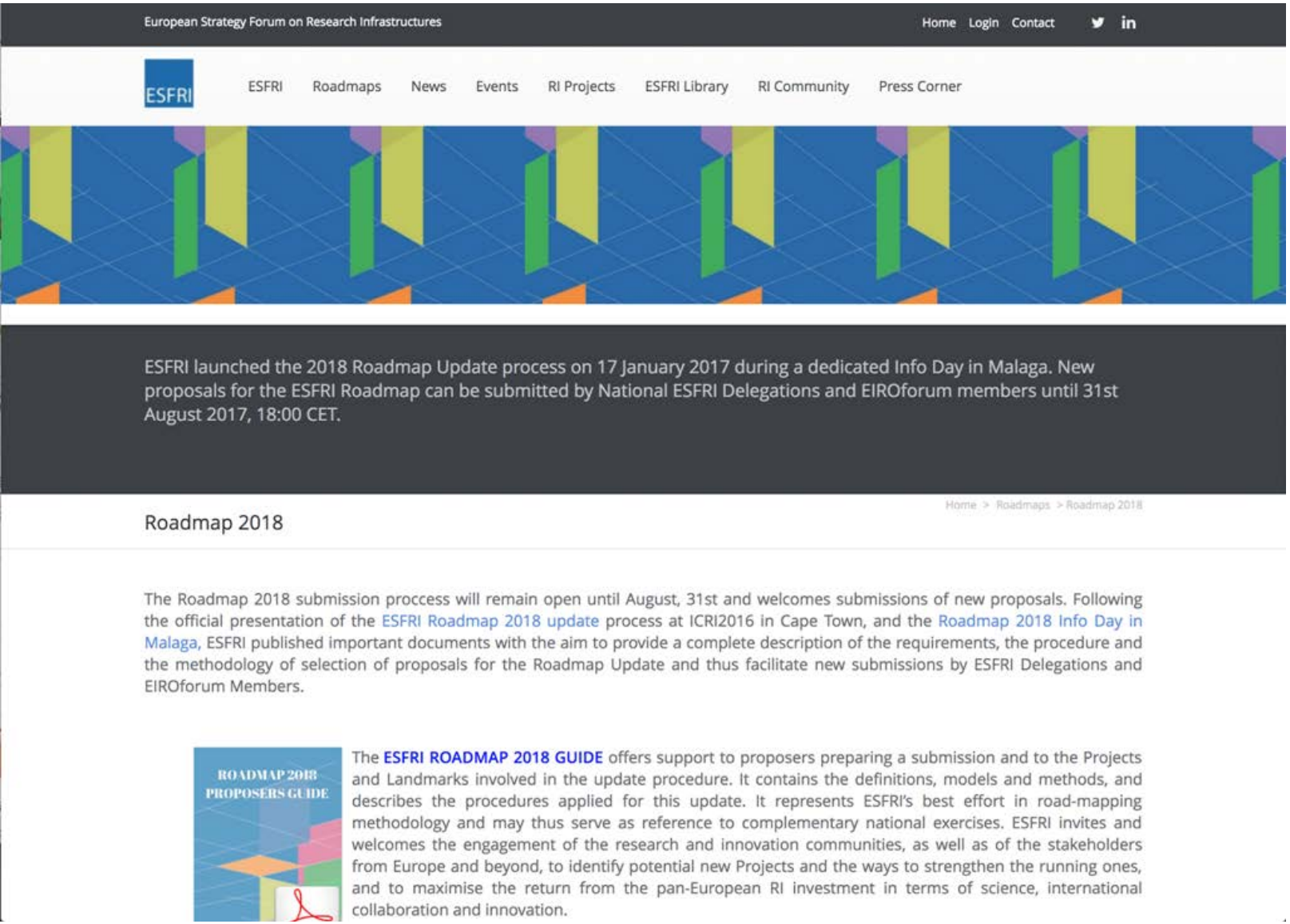
HIRMEOS in a nutshell

http://www.hirmeos.eu/animation-video/

(Conclusion): to be continued...



On the road to ESFRI...



OPERAS

open access in the european research area through scholarly communication

THANK YOU