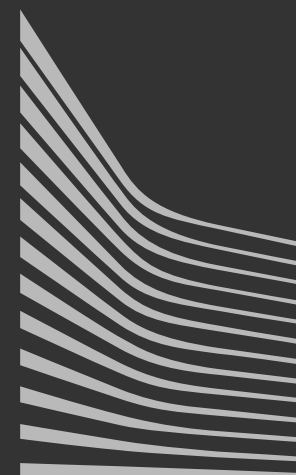


13 May 2014, Rome



Infrastructures for Open, Digital Science

Carl-Christian Buhr



http://bit.ly/eIf_ODS



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Carl-Christian Buhr

@ccbuhr

http://bit.ly/cc_buhr



(...but I am speaking in a personal capacity.)

The European Commission is...

...Policy Maker

Launches policy debates

Invites Member States to take action

Proposes EU legislation

...Funding Agency

e.g. Research & Innovation

Driving policies through funding

...Infrastructure Builder

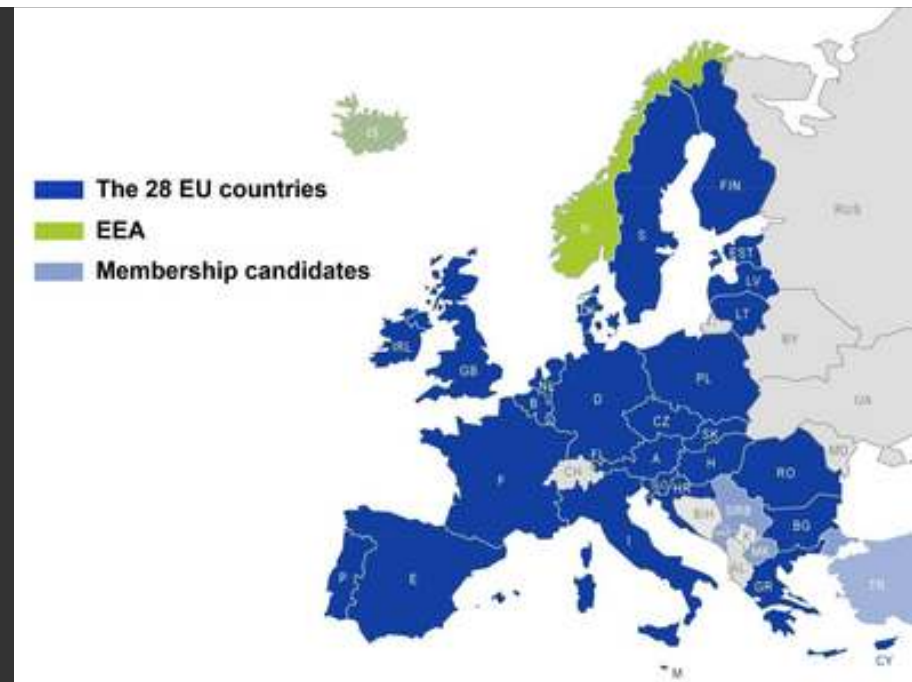
Funds research infrastructures

Funds related research

Supports networking activities

Partners

Parliament



Member States

Council





http://ec.europa.eu/commission_2010-2014/



Máire Geoghegan-Quinn

http://ec.europa.eu/commission_2010-2014/



Example: Innovation Union & Open Access

"[...] the Commission will propose a European Research Area framework and [...] **open access to *publications and data*** from publicly funded research".





[@NeelieKroesEU](#)

<http://bit.ly/NeelieKroesEU>

http://ec.europa.eu/commission_2010-2014/

Example: Digital Agenda & Open Access

“ [...] publicly funded
research should be widely
disseminated **through Open
Access publication of
scientific data and
papers** ”



Digital Agenda

1001100101011101110000100 ~~2010-2020~~

for Europe

<http://ec.europa.eu/digital-agenda>



DIGITAL AGENDA FOR EUROPE

A Europe 2020 Initiative

[Europe](#) > [Our Targets](#) > [Scoreboard](#) > [Progress by Target](#)

[Business & Funding](#)

[Science and Technology](#)

[Telecoms & the Internet](#)

[Creativity & media](#)

Pillar 5: Research and innovation

Europe continues to under-invest in ICT research and development, investing less than other industrialised economies.

Main Actions:

More ICT R&D&I, including infrastructures

More pooling of resources

Plus: Digital Science Policy

HORIZON 2020



3 pillars:

1. Excellence

2. Competitiveness

3. Societal Challenges

incl. Infrastructures for
ODS, High Performance
Computing

Health, Transport,
Energy, Food, Climate,
Innovation & Reflection
& Inclusion, Security

... H2020 agreed
& first calls published 12/2013

~ EUR 80bn
2014-2020

The Open Science Package



EUROPEAN COMMISSION

Brussels, 17.7.2012
COM(2012) 401 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

Towards better access to scientific information:
Boosting the benefits of public investments in research

Towards better access to scientific
information: boosting the benefits
of public investments in research,
COM(2012) 401

Commission, Recommendation on
access and preservation of
scientific information, C(2012)
4890 final

A Reinforced European Research Area
Partnership for Excellence and
Growth, COM(2012) 392

Amid Broad Discussions

Open Science for the 21st century

A declaration of ALL European Academies

presented at a special session

**with Mme Neelie Kroes, Vice-President of the European Commission,
and Commissioner in charge of the Digital Agenda**

on occasion of the ALLEA General Assembly held at

Accademia Nazionale dei Lincei, Rome, on 11-12 April 2012

<http://www.allea.org/Pages/ALL/33/144.bGFuZz1FTkc.html>

Amid Broad Discussions

Science as an open enterprise

June 2012

THE
ROYAL
SOCIETY

<http://royalsociety.org/policy/projects/science-public-enterprise/report/>

Wider Digital Policy Context

Data Protection Reform 2012-?

High Performance Computing Strategy 2012-?

Cloud Computing Strategy 2012-?

Telecom Single Market Package 2013-?

European Council on Big Data & Cloud 2013

Digital Single Market 2014/2015-?

ODS is work in Progress

Better Tools

Infrastructures (e.g. net, cloud, HPC)

Better Data

Open Access to Research Publications

Open Access to Research Data

Open Data/Public Sector Information

Better Uses

Altmetrics for evaluating research

All together

Citizen science

and more...!?

Riding the wave

How Europe can gain from the rising tide of scientific data

Final report of the High Level Expert Group on Scientific Data
A submission to the European Commission

October 2010

http://bit.ly/riding_the_wave

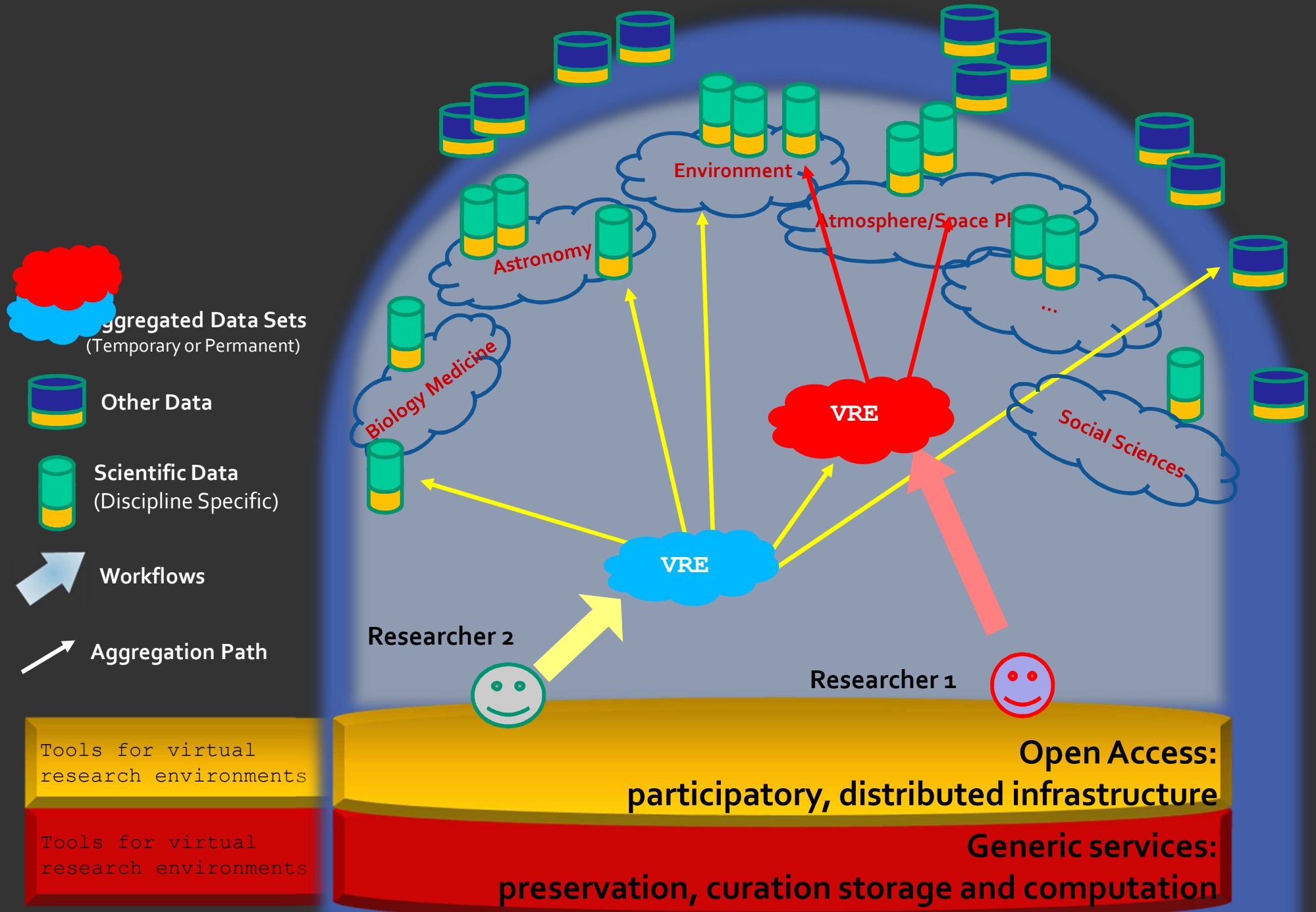
"the data themselves become the infrastructure".

Knowledge without Borders

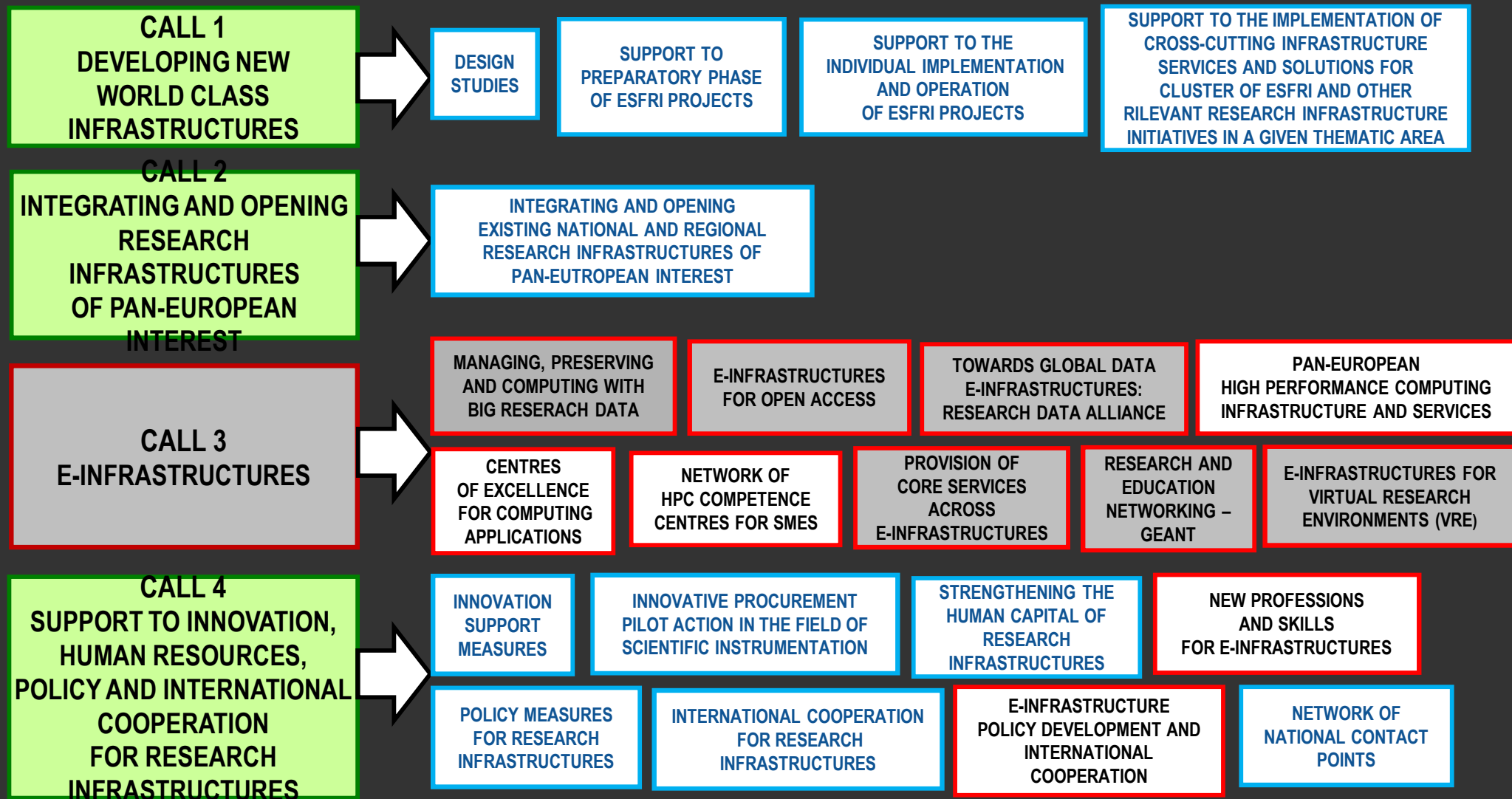
**GÉANT 2020 as the
European Communications Commons**

<http://bit.ly/geantEG>

Open, Digital Science in Action



Research Infrastructures Work Programme 2014/2015





**Open Access
to
Publications
& Data**

Goals

2014: OA policies in all MS

2016: 60% OA in Europe

2014–2020: H2020 100% OA

OA in Horizon 2020



Publications

OA Mandate

(Green/Gold, Embargo 6/12m)

&

OA to Data Pilot

Image Credits

Green: <https://www.flickr.com/photos/mindpaint/3059896100/>

Gold: https://www.flickr.com/photos/tao_zhyn/442965594/

Commission launches pilot to open up publicly funded research data

European Commission - IP/13/1257 16/12/2013

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DOC



PDF



EUROPEAN COMMISSION

PRESS RELEASE

Brussels, 16 December 2013

Commission launches pilot to open up publicly funded research data

Valuable information produced by researchers in many EU-funded projects will be shared freely as a result of a Pilot on Open Research Data in Horizon 2020. Researchers in projects participating in the pilot are asked to make the underlying data needed to validate the results presented in scientific publications and other scientific information available for use by other researchers, innovative industries and citizens. This will lead to better and more efficient science and improved transparency for citizens and society. It will also contribute to economic growth through open innovation. For 2014-2015, topic areas participating in the Open Research Data Pilot will receive funding of around €3 billion.

http://europa.eu/rapid/press-release_IP-13-1257_en.htm



Altmetrics & Co.

Measuring use & impact

For publications and data

More granular metrics

New Journals or no journals?

Evaluating Researchers

Measure more and better

Data publications, teaching etc. to count

New Models for Publishing

Baking OA in

Data publications



Citizen Science

Everybody influences research directions

Input to goal setting increases acceptance

Anchoring Science in Society: for the long term

Everybody collects data

We are sensors: Smartphone Science

We have many eyes: Crowdsience

We are a data source: Quantified Self

Everybody is a scientist

Commercial Big Data IS still science

Experiments as business models



Looking ahead

Infrastructures for ODS

Who will run data infrastructures?

Will there be a common approach in Europe?

Will <https://rd-alliance.org/> deliver?

Altmetrics & Co

Is research into tools & methods enough?

How to anchor a movement?

Will the ERA help?

Citizen Science?

Link to "Big Politics"?

To push or to accompany?

What do Stakeholders think?

Pointers



The EC and open access

http://ec.europa.eu/research/science-society/open_access

Communication & Recommendation on Scientific Information

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/790>

<http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1301&lang=1>

Relevant Speeches by Neelie Kroes

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/518>

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/716>

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/12/218>

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/12/258>

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/12/392>

Data Expert Group Report: "Riding the wave" http://bit.ly/riding_the_wave

GÉANT Expert Group: "Knowledge without Borders"

<http://bit.ly/geantEG>

Horizon 2020 proposal

http://ec.europa.eu/research/horizon2020/index_en.cfm

Budapest Open Access Initiative

<http://www.opensocietyfoundations.org/openaccess/read>

<http://www.soros.org/openaccess/boai-10-recommendations>

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http://bit.ly/eIf_ODS

Thank you!



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