Open Access and Libraries: the SCOAP³ Project & its Benefits for Scientific Communication

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scoap3.org

High-Energy Physics (or Particle Physics)

Job description for 20'000-30'000 scientists:
"What is the world made of?" & "What holds it together?"

HEP aims to understand how our Universe works:
— discover the constituents of matter and energy
— understand their interactions
— unveil the ultimate texture of space and time

Experimental HEP
builds the largest scientific instruments ever to reach energy densities close to the Big Bang
(Half of the community, 20% of literature)

Theoretical HEP
predicts and interprets the observed phenomena
(Half of the community, 80% of literature)

Everything is Open Access, but it is not enough... We need peer review!

A strong request from the scientists

"We strongly encourage the usage of electronic publishing methods for our publications and support the principles of Open Access Publishing, which includes granting free access of our publications to all. Furthermore, we encourage all our members to publish papers in easily accessible journals, following the principles of the Open Access Paradigm."

4 experimental groups
7000 scientists
from 54 countries

ATLAS; approved on 23rd February 2007
CMS;   approved on 2nd March 2007
ALICE;   approved on 9th March 2007
LHCb;   approved on 12th March 2007

HEP and Open Access

After preprints, arXiv and the web,
high-quality Open Access journals
are the natural evolution of
HEP scholarly communication

Going beyond current experiments

The SCOAP³ model

Sponsoring **C**onsortium for **O**pen **A**ccess **P**ublishing
in **P**article **P**hysics

scoap3.org

http://scoap3.org/files/Scoap3ExecutiveSummary.pdf
http://scoap3.org/files/Scoap3WPReport.pdf

The SCOAP³ Model

A consortium sponsors HEP publications and makes them Open Access by **re-directing** subscription money.

Today: (funding bodies through) libraries purchase journal subscriptions to (indirectly) support the peer-review service and to allow their users to read articles.

Tomorrow: funding bodies and libraries contribute to the SCOAP³ consortium, which pays centrally for the organization of the peer-review service, through a call for tender. Articles are free to read for everyone.
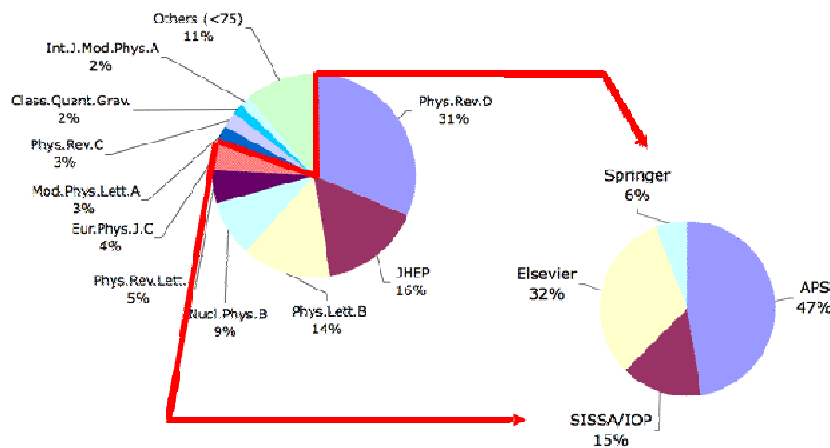
5000-7000 HEP articles/year
80% of articles published
in 6 leading journals
by 4 publishers

SCOAP³ is not limited to any set of journals but open to all high-quality HEP journals!

Novelties of the SCOAP³ model

- A sustainable alternative to the subscription model meeting the expectations of researchers, funding agencies, libraries and publishers.

- Link, through its call for tender, price and quality. Correlate through its contracts volume and price. This is not the case in the subscription model.

- Eliminate author-pays fees, in competition with research funds which appear as a barrier for Open Access in HEP. There is no such competition in the SCOAP³ model based on re-direction of subscriptions.

- Experiment for journal-administered peer-review services against a unique background of complete self-archiving of research articles.

SCOAP³ financing

SCOAP³ to be funded through a "fair-share" model based on the fraction of HEP articles per country: the more a country uses the system the larger its share. Figures are very stable over time.

The model is viable only if every country is on board!

Success through consensus and unanimity, not majority.

Not a weakness: a strength!

Make a 10% allowance for countries without a scientific or library infrastructure who at the beginning might not contribute to the scheme.

Krause *et al.* CERN-OPEN-2007-014

United States 24.3%
Germany 9.1%
Japan 7.1%
Italy 6.9%
United Kingdom 6.6%
China 5.6%
France 3.8%
Russia 3.4%
Spain 3.1%
Canada 2.8%
Brazil 2.7%
India 2.7%
CERN 2.1%
Korea 1.8%
Switzerland 1.3%
Poland 1.3%
Israel 1.0%
Iran 0.9%
Netherlands 0.9%
Portugal 0.9%
Taiwan 0.8%
Mexico 0.8%
Sweden 0.8%
Other Countries 9.5%

Cern Scientific Information Service

Allowing only SCOAP³ partners to publish Open Access would replicate the subscription scheme and not solve the problems.
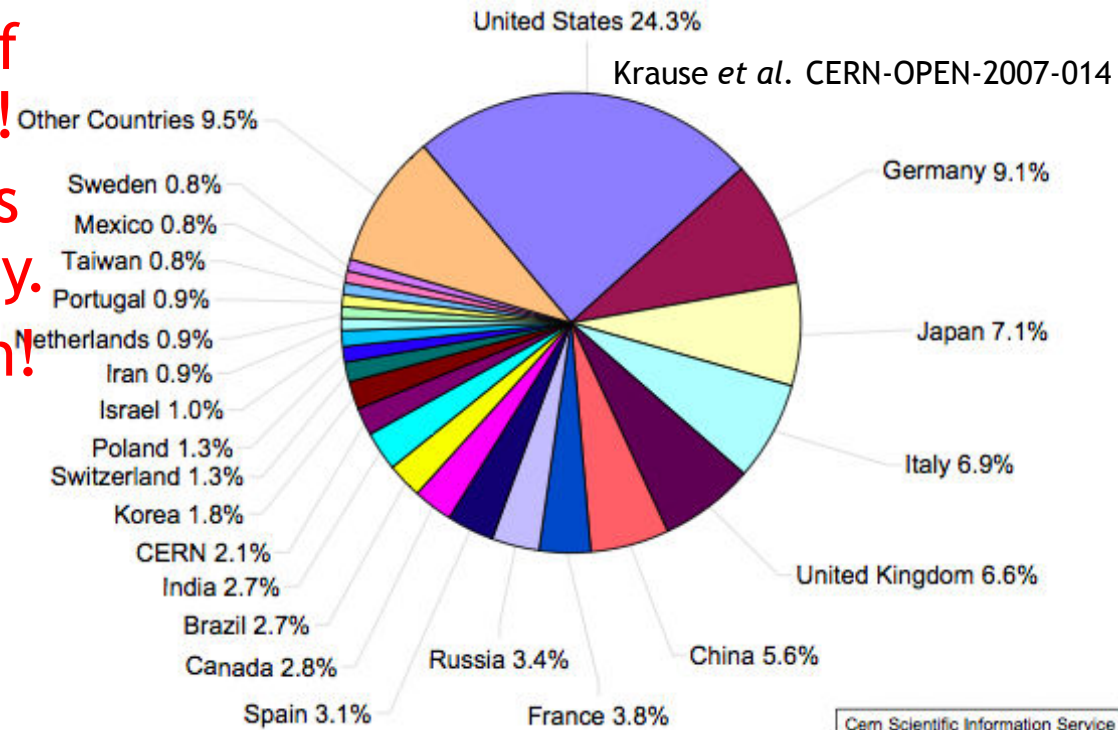
SCOAP³ funding mechanisms

- Funding partners identify country-by-country schemes to re-direct journal subscriptions to SCOAP³

- Countries pledge their contribution to SCOAP³
  - Countries with centralised structures for licensing join through their national consortium
  - Countries where subscriptions are paid by HEP funding agencies join through these agencies
  - In the decentralised U.S. scenario single institutional and consortial partners join SCOAP³ directly

- Pledges conditional to contractual conditions with publishers in line with the SCOAP³ objectives (unbundling, Open Access, author rights…)

- Broad worldwide consensus, signified by the pledges, indispensable before the next phase can commence

Status of the SCOAP³ fund-raising

62% of funds have been or are about to be pledged, commitment to re-direct subscriptions to HEP journals mostly by library consortia acting on behalf of whole countries

Work in progress 37.4%

Pledged 62.6%
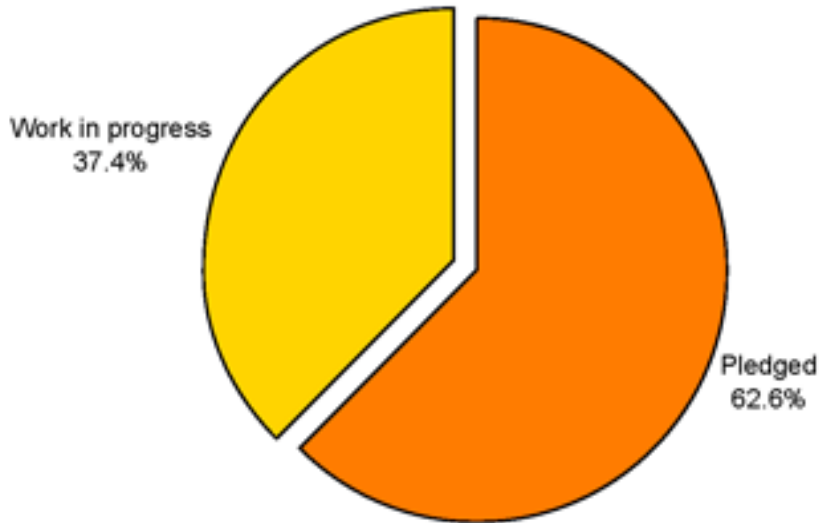
Status 19/05/2009

Austria	Italy
Belgium	Netherlands
Canada	Norway
CERN	Romania
Denmark	Slovakia
France	Spain
Germany	Sweden
Greece	Switzerland
Hungary	JISC (UK)

Australia	Israel, Turkey

>100 US partners

-consortia(NERL,CDL,GWLA,OhioLink…)
-laboratories
-individual libraries

Discussions and negotiations in progress with all countries not yet in the list, in Europe, Asia and the Americas.

Status of the SCOAP³ fund-raising

**69.1 % of funds have been or are about to be pledged,
commitment to re-direct subscriptions to HEP journals
mostly by library consortia acting on behalf of whole countries**

Work in progress
30.9%

Pledged
69.1%

Status 13/04/2010

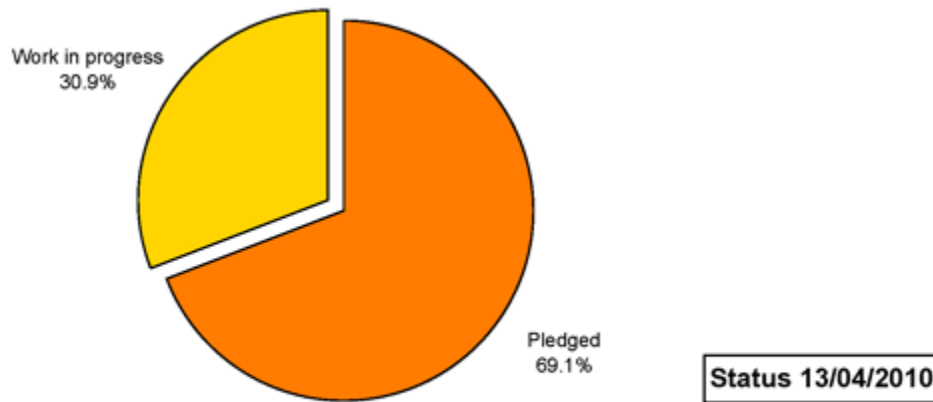| Austria	Italy
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SCOAP³ timeline

- **Funding partners identify country-by-country schemes to re-direct journal subscriptions to SCOAP³ and pledge their contribution to SCOAP³**
- Once a sizeable fraction of budget is pledged, reflecting the worldwide character of HEP and SCOAP³:
  - SCOAP³ will be formally established, with international governance
  - SCOAP³ can issue a tender to publishers
- Publishers answer the tender
- SCOAP³ international governing board adjudicates contracts, taking into account journal quality and prices
- Contracts with publisher are signed and funds are transferred to SCOAP³ which then pays publishers.
- Aim to 3-year tendering cycle, with funding commitments in sliding windows

scoap3.org

Additional resources:

Report of the SCOAP3 Working Party
http://scoap3.org/files/Scoap3WPReport.pdf

R. Heuer *et al. Innovation in Scholarly Communication:
Vision and Projects from High-Energy Physics*
http://arxiv.org/abs/0805.2739

R. Aymar, *Scholarly communication in High-Energy Physics*
http://cdsweb.cern.ch/record/1115073

A. Gentil-Beccot *et al. Information Resources in High-Energy Physics:
Surveying the Present Landscape and Charting the Future Course*
http://arxiv.org/abs/0804.2701