



Flooding Without Drowning

Are Scientists Drowning in a Flood of Papers and Data?

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How Close to Open?, Amsterdam, 05.04.2016



Flooding Without Drowning

Are Scientists Drowning in a Flood of Papers and Data?

Overview

- Wiley & Wiley-VCH: Innovations since 1807 / 1921
- Open Science, OpenAccess
- Challenges
 - Infrastructure
 - Better Understanding
 - Working together

John Wiley & Sons: Innovative Publishing Since 1807

- **1807 John Wiley & Sons**, Manhattan
- **Unique global network**
 - 39 locations in more than 20 countries
 - ca. 5,200 colleagues around the world
- **Largest society publisher of the world**
 - serving ca. 950 societies
 - more than 40,000 institutions purchase our products every year
 - 15 Mio researchers & professionals working with our products
 - ca. 1,950 journals
 - more than 6 Mio journal articles published on Wiley Online Library
- **Revenue**
 - 1.8 bn USD (not only STMS)
 - 60% of revenue is digital



OPEN - not restricted to EUROPE



Wiley's Mission is ...

... to be a global information and education company

providing content and services to professionals, researchers, educators, students, lifelong learners, and consumers worldwide.

Wiley is dedicated to serving our customers' needs while generating attractive intellectual and financial rewards for all our stakeholders - authors, customers, societies, colleagues, and shareholders.

**We are a learning business
that helps people and organizations
to develop the skills and knowledge
they need to success.**

Wiley-VCH: Society Publishing

- **1921 Verlag Chemie**, founded in Berlin by chemical societies to make German science visible internationally
- **1948 – 1996** journals, books, data collections diversification and internationalisation
- **1996** Wiley-VCH
- **2007** Wiley & Wiley-VCH & Blackwell global first – local second
- **2015** ca. 127 Mio EUR revenues (2014: ca. 116 Mio EUR)
- USP:
 - Chemical Society Publishing
 - in-house editorial offices
 - innovating for ChemPubSoc Europe / ACES ...



DVMLG

DPhG



GESELLSCHAFT
DEUTSCHER CHEMIKER



WILEY-VCH

Amsterdam EuCheMS,
05.04.2016

WILEY

Wiley-VCH

- 526 employees
(thereof 27% part time)
- 27 different nationalities
- ca. 200 scientists
- 69 % women
(thereof 37% part time)
- average age: 44 years
- average time
with the company: 11 years

KNCV and
Wiley-VCH



WILEY-VCH

Amsterdam EuCheMS,
05.04.2016

WILEY

GDCh / ChemPubSoc Europe



SMART, ACTIVE AND INNOVATIVE
GDCh, Wiley-VCH and their journals



Chemistry that delivers... Partnerships across the world
Connect Share Enable
WILEY WILEY-VCH

GDCh 216297_Act.indd 2 2015-04-09 7:41 AM



Share Knowledge - Create Bonds

16 societies form a modern global publishing forum

15 countries foster local heritage to provide global visibility

70000 members preserve diversity through collaboration



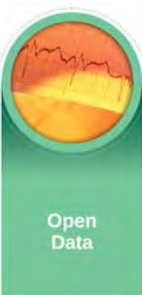
Fellows

Honorary Fellows: Christian Amatore · Francesco De Angelis · Wolfram Koch
Jean-Marie Lehn · Luis Oro · Heindirk tom Dieck
Jan-Erling Bäckvall · Jesús Jiménez-Barbero · Matthias Beller
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Giorgio Tarzia · Harry Thun · Igor Tkatchenko · Bert Weckhuysen
Helma Wennemers · Krzysztof Woźniak

Open Science Pillars @ Wiley / Wiley-VCH



Open
Access



Open
Data



Open
Standards



Open
Collaboration



Open
Recognition
& Reward

- Accessibility of publicly funded research (gold, green, platinum)
- Reproducibility and verification of research data and methods, reporting standards guaranteed
- Collaborative, interoperable and global dissemination of standards
- More inclusive and networked research practices
- Integration of researchers identification and evaluation tools

Open Access @ Wiley

1,380 hybrid journals with 5,400 open access papers published in the last 12M
no Double Dipping:
2015 subs prices adjusted for 217 journals

62 open access journals with 3,400 papers published in the last 12M

16 “flip” journals, flipped from subscription to OA model



For more information, visit wileyauthors.com/openaccess

Open Access @ Wiley-VCH



Online Open for all journals



No Double Dipping!



In 2010 *ChemistryOpen* started (first Open Access chemistry society, copublished with 16 European chemical societies)



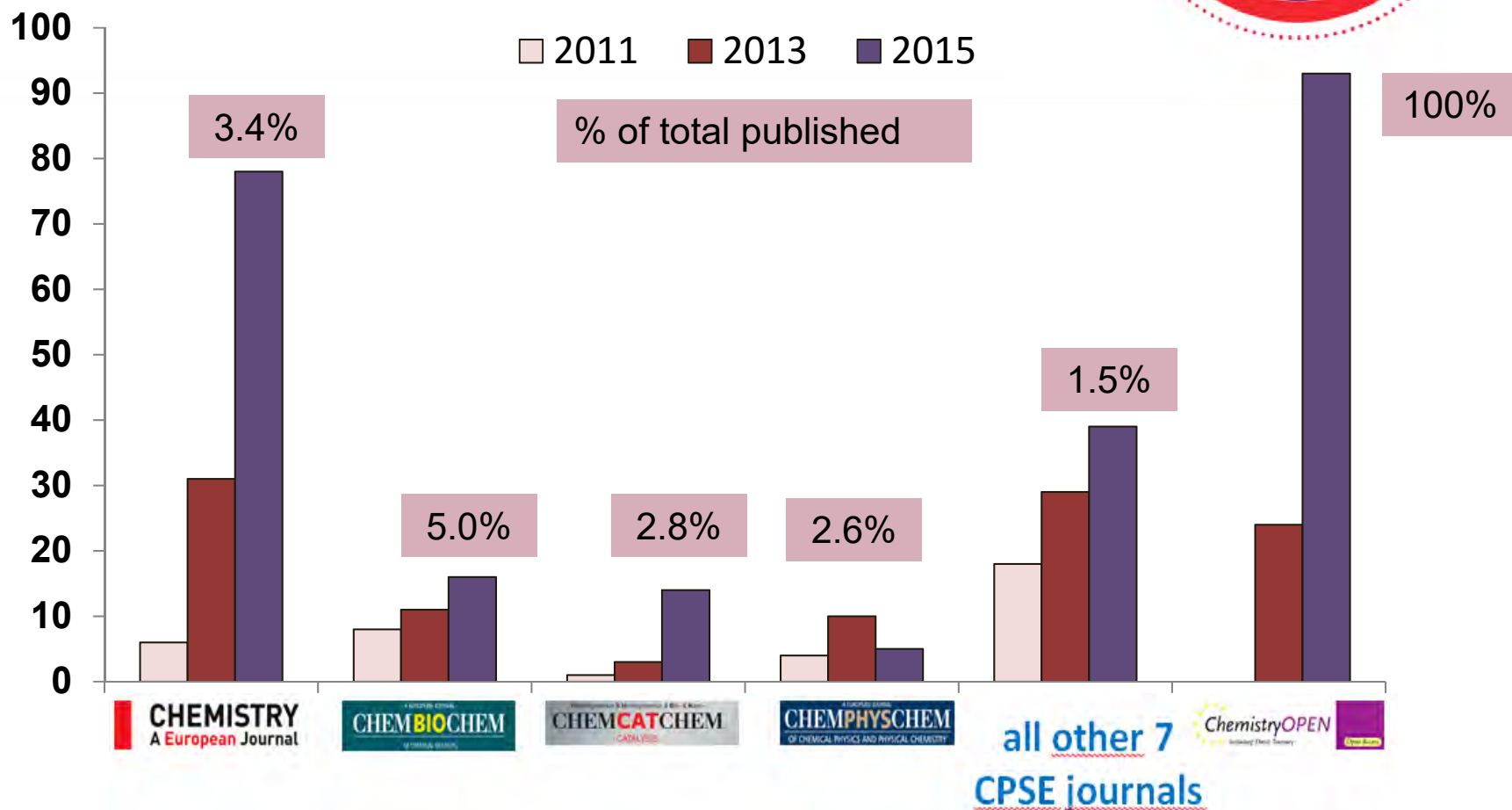
Since 1997 (!) supporting information of all journals to articles (freely available)



Compliant to agencies mandates (PUBMED ...)

Open Access @ Wiley-VCH

Online Open Articles: 2011, 2013 and 2015



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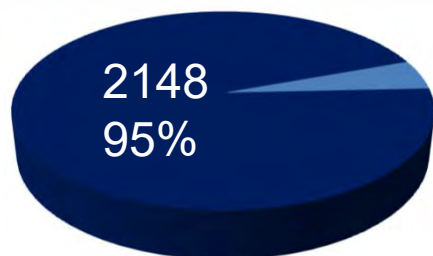
WILEY

Open Access @ Wiley-VCH

Angewandte Chemie Open Access



2014: 2257 Communications

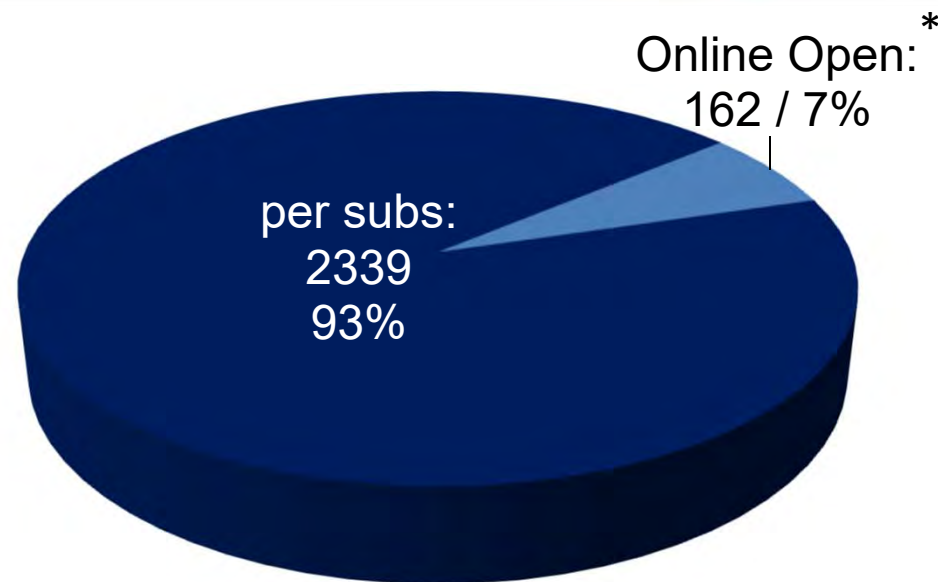


Online Open:
109 / 5%

* By origin:

UK	84	52%
Deutschland	20	12%
Japan	10	6%
Schweden	9	6%
USA	8	5%
Andere	31	29%

2015: 2501 Communications



effected by referee reward program

Constant Innovation in Support of Open Science



Social
Media

Training / Education

CHORUS

Funderdashboards

DOI
CrossReference

Research4You

Depositing Data
(Crystallography)

Altmetrics

PORTICO

Retrodigitalization

ORCID

Constant Innovation ...

Cooperations:
Peer / publons /
ReadCube / KUDOS /
FigShare

Developping Standards
(technical, ethical)

New storing functionalities

Free supporting data

Depositing Articles

Social Media

Access to Research (UK)

COUNTER

Portals
(like *ChemistryViews*)

CROSSFUND

Chemistry – A Unique Science



Molecules & Mechanisms
are
at the Heart of Our Future
driving
LOVE & HATE

- Chemistry is inside of medicine, cars, water, air ...
- **Despite:**
Open Access uptake in chemistry below average – Why?
 - historic close links between academic & industrial research
 - mostly too complex for broad public
 - great sharing culture: those interested always had access and shared

Challenges: Flooding without Drowning



More researchers & more research

- Continuous and accelerated global growth of funding and chemical research (government, private, industry)

- This leads to increased pressure to demonstrate the value of investment, the relevance of results:
 - growth of results available and to be digested (ca. 5% per year)
 - growth of data
 - growth of secondary information

Challenges: How to Cope with Flood of Data and Information



- Storage (lab & beyond) without drowning in repositories
- Pragmatic selection and support of standards
- Ethics, ownership, freedom of research, responsibility
- Legal aspects: Copyright, patent law, licenses
- Economic aspects: Who invests / pays for what?
Rebuild despite existing e-offerings?
- Statistical and computational science knowledge
- Research by computer
- Education & training for new skills
- Technological challenges: Development and organization of stable platforms / searches

Challenges: New Megatrend for Research?

How will the way change we do research?



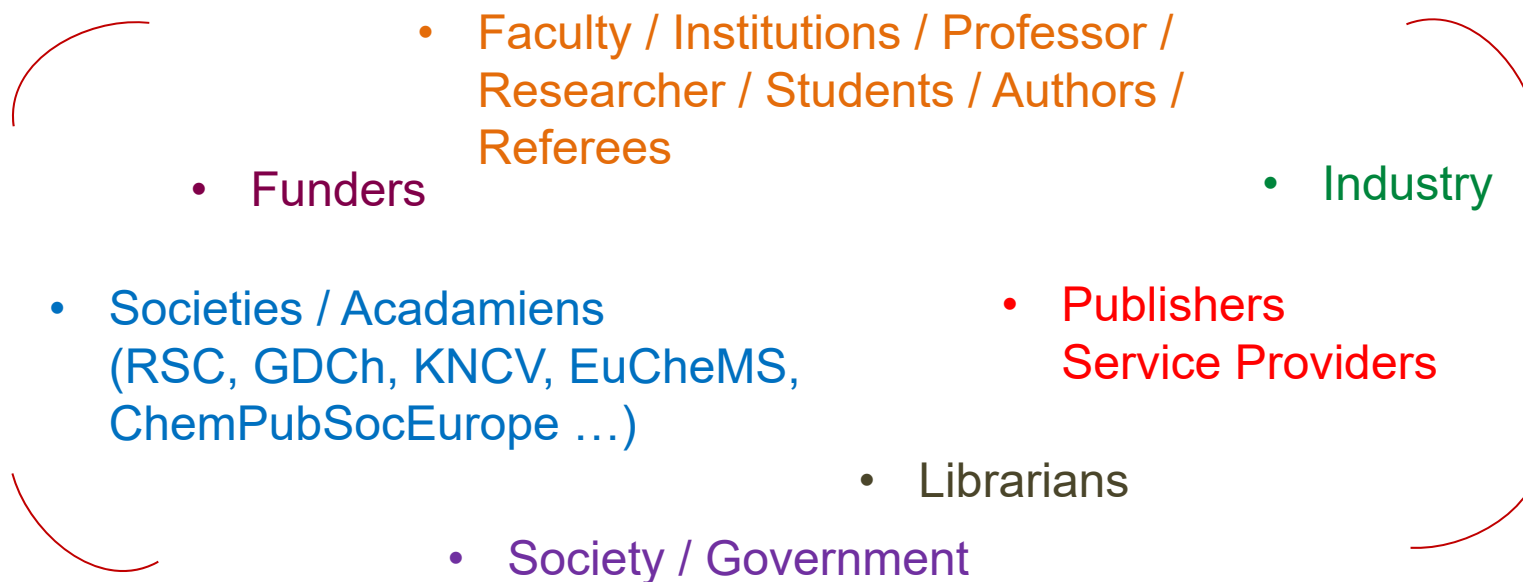
- Going from the **creative thinking** (“Heureka!”) to **pattern / research driven innovation**?
- Inventing artificial intelligent “Ueberresearch”?
- Inventing artificial serendipity?

What to Do?



- More surveys?
- More meetings in isolation?
- More shouting and declarations?
- More emotions and frustrations (budgets, cuts ...)?

Stakeholder conglomerate:



What to Do?

Being a chemist: Pragmatic approach to build a joint infrastructure and work towards common understanding



- **Why?** There are good examples, role models:
 - DOI
 - CrossRef
 - Ethical Guidelines for Publishing
 - COUNTER
 - Research4You
 - PORTICO
 - ORCID
 - CROSSFUND
 - CrossCheck
- **How?**
 - Meet, visit, talk, listen, write, communicate openly and in a structured / organized way ... f.e. in membership journals ...
 - With trust, compromise finding, confidence building.

There is plenty to do for all stakeholders.

Thank You!

