Elsevier - Value in Content

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Journals Publishing Director Eastern Europe Elsevier

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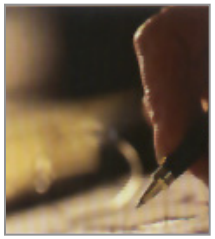
Agenda

- Quick historic introduction of Elsevier
- STM publishing – an overview
- Publishing cycle and key Investments
- How Investments & Innovations result in meeting the key Needs of our Customers:

1. Quality
2. Preservation
3. Efficiency
4. Value & Costs
5. Access

- Developing Content - Role of a Publisher

Elsevier has a long history of scientific publishing



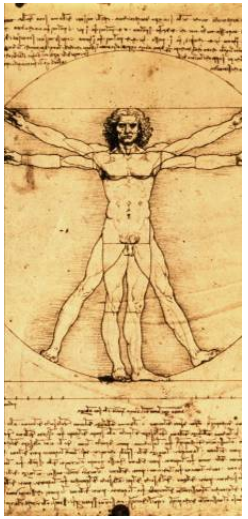
- The Publishing House of Elzevir was first established in 1580 by Lowys (Louis) Elzevir at the University of Leiden, Holland

- Keeping to the tradition of publishing established by Lowys Elzevir, Jacobus George Robbers established the modern Elsevier Company in 1880

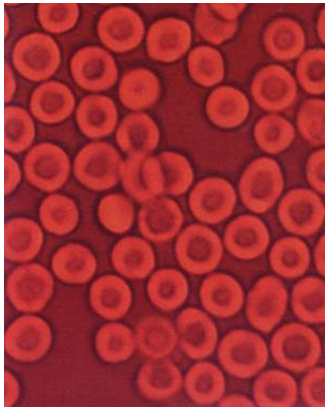
- Among those authors who published with Elsevier are Galileo, Erasmus, Descartes, Alexander Fleming, Julius Verne

In 1638 Elzevir published Galileo Galilei's greatest work

- Galileo published his "*Discorsi e dimostrazioni matematiche, intorno a due nuoue scienze*" - his last work – with Elzevir despite being banned by the Inquisition and is recognized as the first important work of modern physics



- The publication of "*Gray's Anatomy"* in 1858 was a landmark for the study of the human anatomy and in many ways for the whole of medicine



- The publication of the book, edited by Sir Alexander Fleming, about a revolutionary new antibiotic, "*Penicillin: Its Practical Application*" in 1946

About Elsevier

- Elsevier publishes over 2500 journals covering 25% of the STM authors market.
- Through **ScienceDirect** 10 million scientists and researchers have desktop access to a service offering over 11 million journal articles.
- In 2004, Elsevier launched its new abstract & indexing database, **Scopus**, which covers 17,000 journals from all key STM publishers.

To do this we:

- Maintain sales in 180+ countries.
- Employ over **7,000** people in 62 offices in 26 countries of whom 1000 are based in The Netherlands.

Elsevier Mission Statement

Elsevier is committed to making genuine contributions to the science and health communities by providing:

World-Class Information

Elsevier publishes trusted, leading-edge Scientific, Technical and Medical (STM) information – pushing the frontiers and fuelling a continuous cycle of exploration, discovery and application.

Global Dissemination

Elsevier disseminates and preserves STM literature to meet the information needs of the world's present and future scientists and clinicians – linking thinkers with ideas.

Innovative Tools

Elsevier develops electronic tools that demonstrably improve the productivity and outcomes of those we serve – we are dedicated to helping them make a difference.

Working Together

Elsevier works in partnership with the communities we serve to advance scholarship and improve lives. This interrelationship is expressed in our company's Latin motto, Non Solus, "not alone".

STM publishing – a highly efficient and innovative sector

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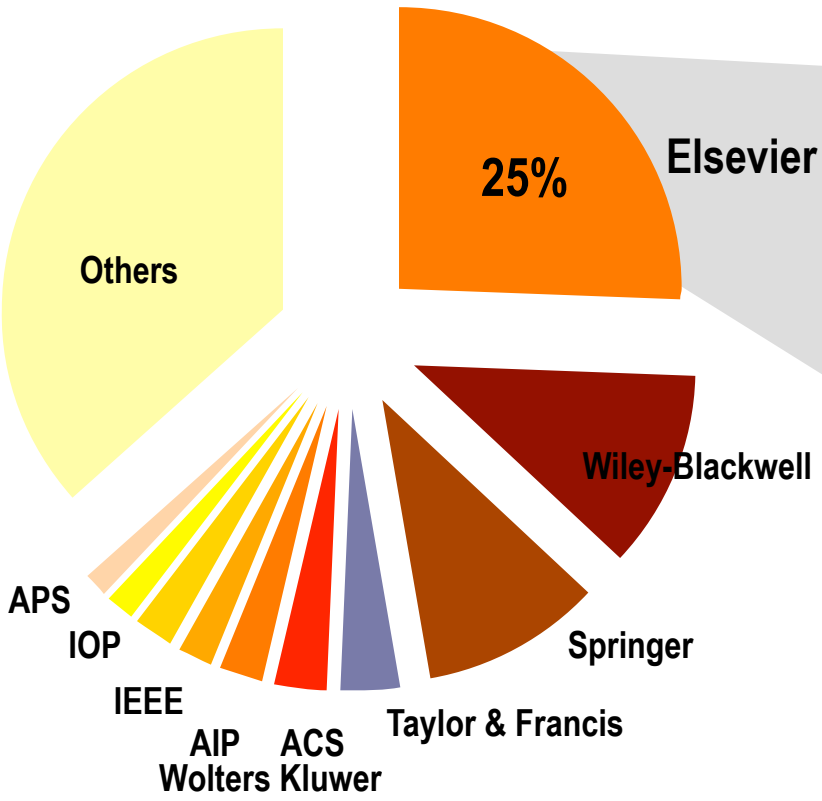
- Global STM market is worth more than $ 20 billion (Outsell)
- STM industry employs (directly) 100,000 globally; 1/3 in the EU
- Over 2,000 publishers publish 1.4 m articles p.a. in 23,000 journals
- Researcher numbers, and articles, increase 3-4% p.a. globally
- Major investment in digitalization: >95% of articles now online
- Average cost of publishing about $ 3,500 per article
- Cost of access per article falling to less than 1-2 Euro

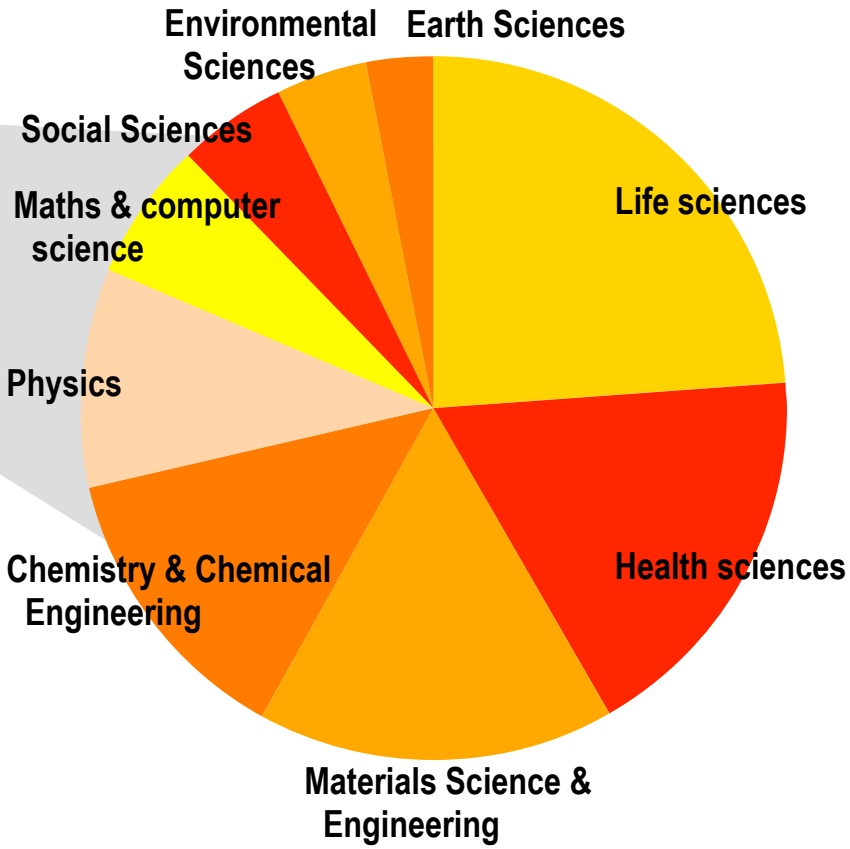
Article Share

Share of Journal Articles Published



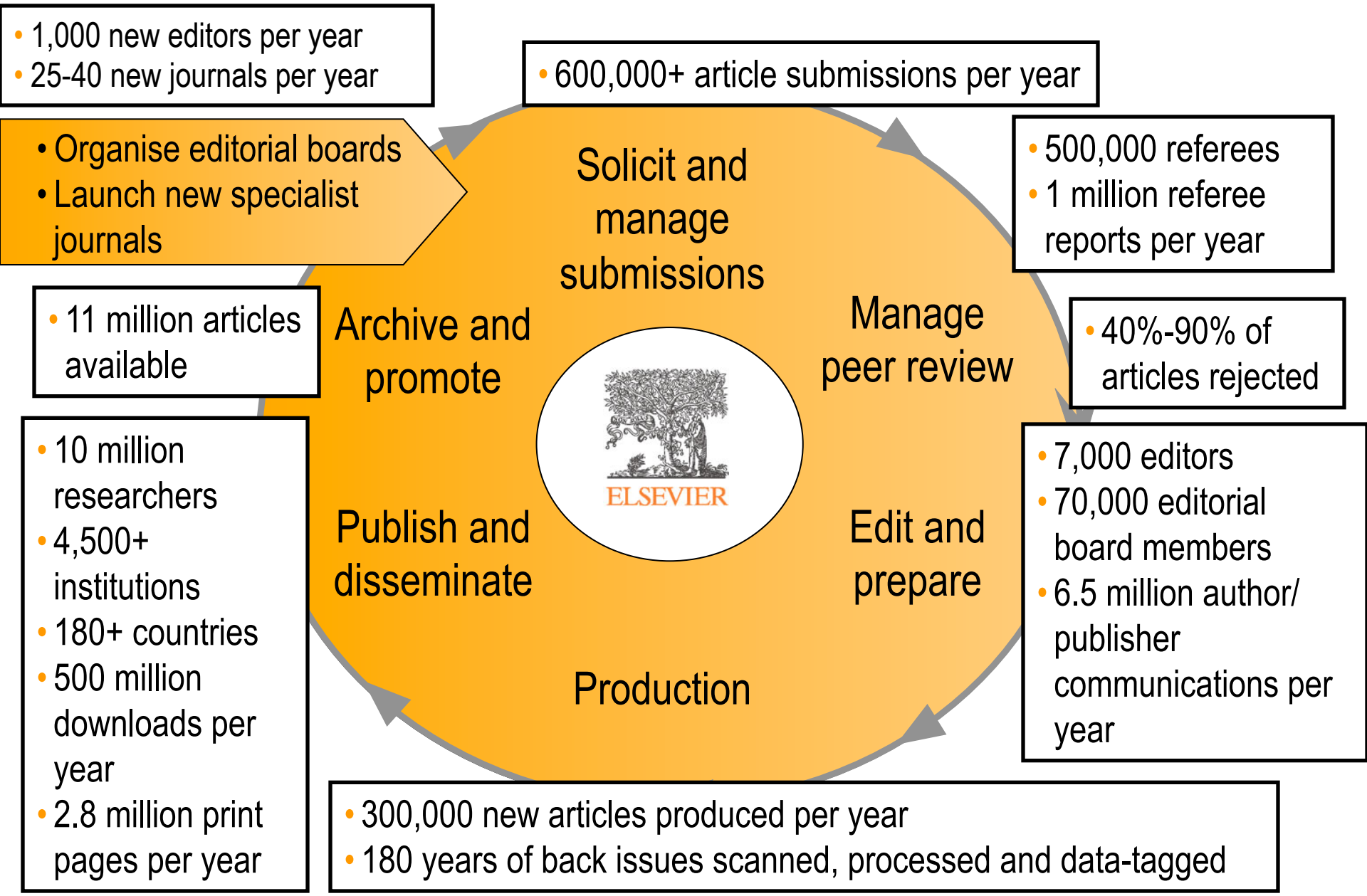
Over one million English language research articles published globally each year

Our Scientific Disciplines



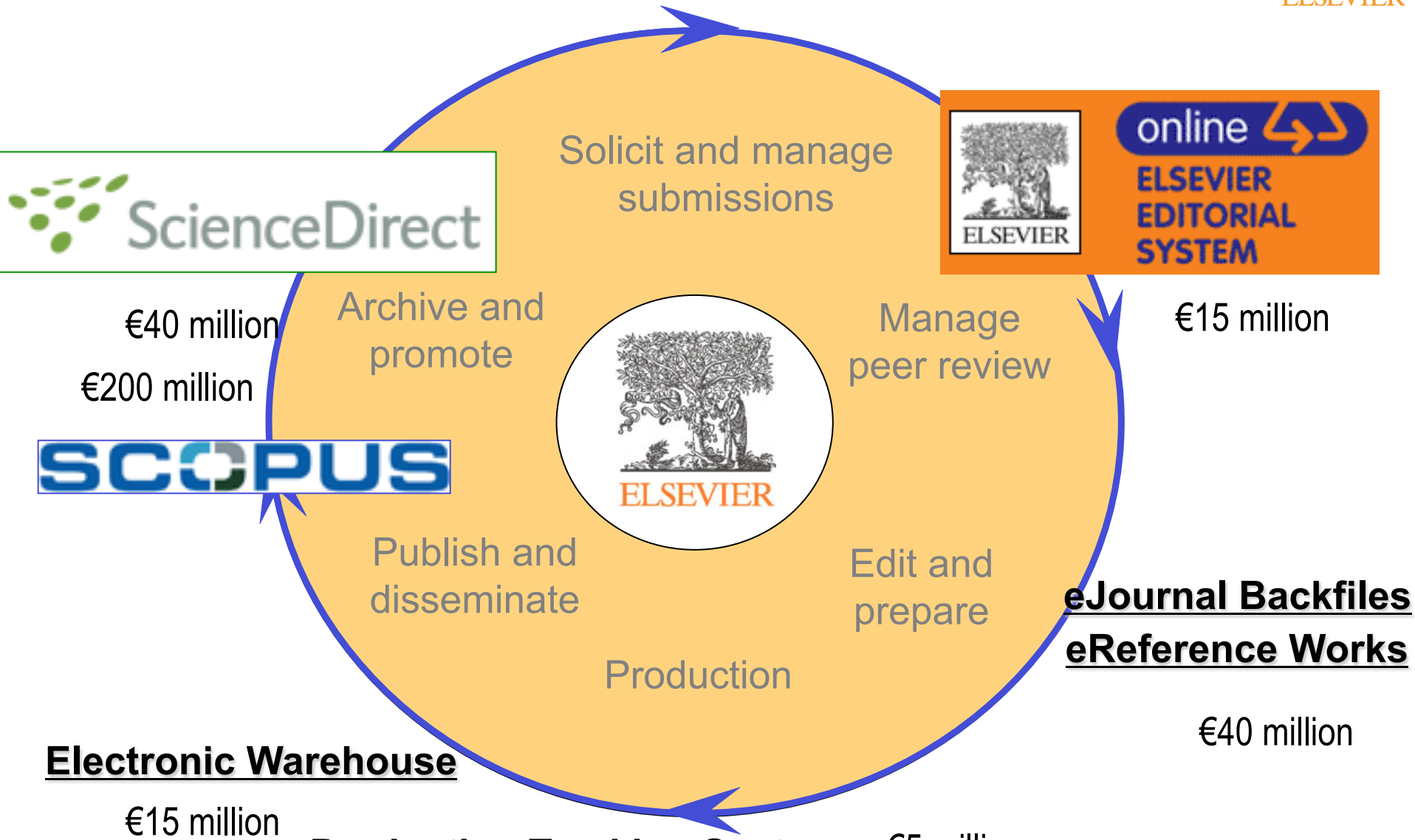
300,000 English language research articles published with Elsevier today

Journal publishing volume

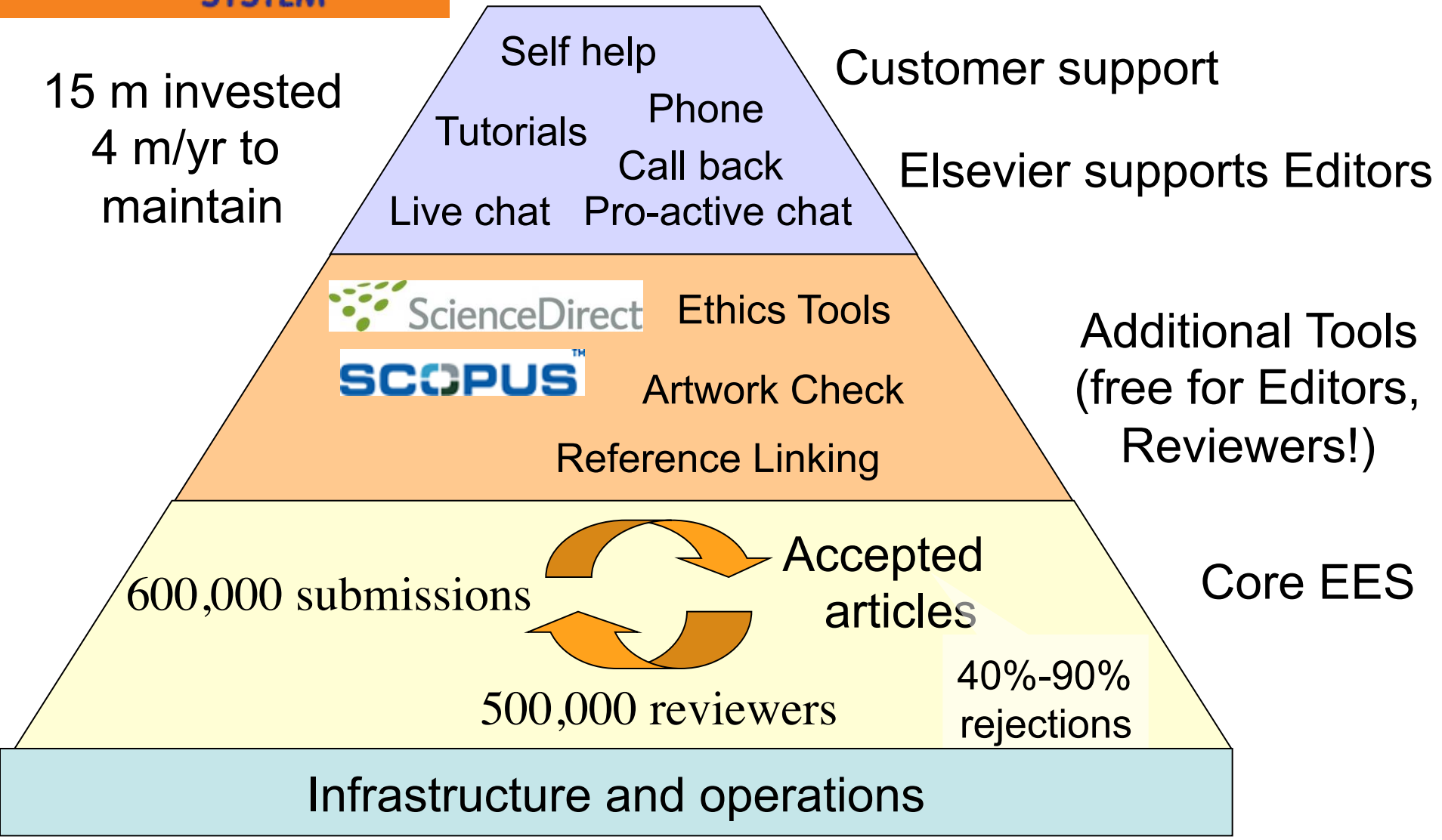


Journal publishing investments – innovative tools

In total, we have invested over €300 million in E-publishing technology & distribution since 2000



Peer review process twice as fast as before



As a result of the investments and innovation:
We are geared towards meeting the key needs of our customers

Meeting our Customers Needs

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What matters to our customers?

1. Quality
2. Preservation
3. Efficiency
4. Value and costs
5. Access

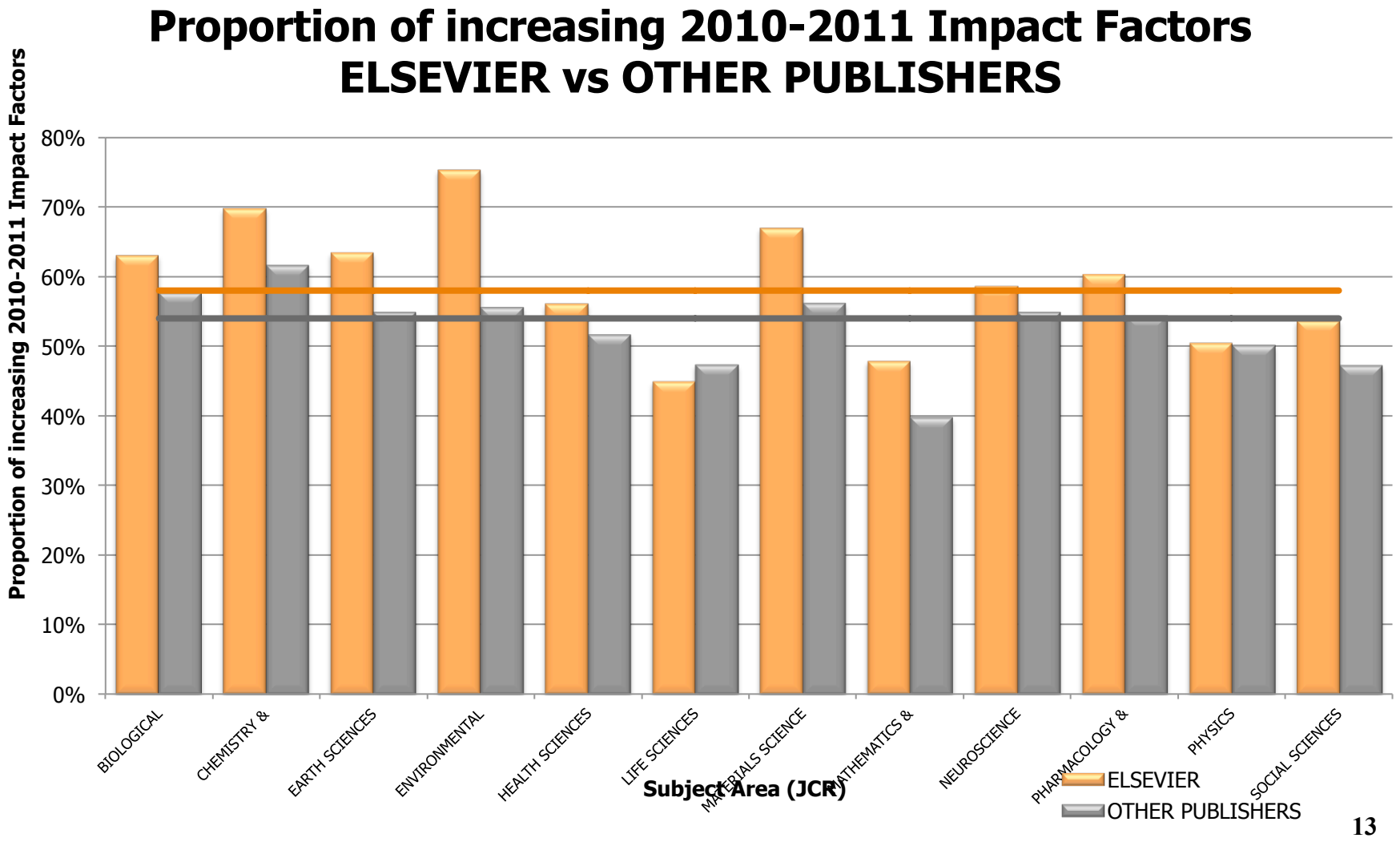
Where are we now?

- Extremely high standards of quality control and integrity
  - 96% of researchers regard Peer Review as important
  - CrossCheck: cross publishers effort to fight plagiarism
- Definitively published research is preserved in perpetuity
  - 11 million articles on SD, *The Lancet* to 1826
  - Koninklijke Bibliotheek (KB), Portico, CLOCKSS
- Significant increases in researcher productivity since 1999
  - Researchers read 25%+ articles from 2x more journals than in print era
- Continuing improvements in value for money
  - Moderating price increases: Elsevier 5.5% for last 5 years (lowest quartile) absorbing inflation (3%), growth in articles published (3-4%), usage (20%/yr)
  - E-licensing terms: many journals at substantially less than print list price
  - Effective pice per article (or title) dramatically reduced
- Dramatic increases in access levels since 1999
  - EU libraries: 3x-10x more journals via ScienceDirect
  - 90+% of researchers have access to about 90+% of STM journal content in almost all EU member states
  - Our customers list access to journals as 1 their top priority
  - Excellent free access to biomedical, agricultural and environmental literature (7000 journals) for 114 lower GDP nations: Research4Life programme

- STM on a very positive trajectory since E-(r)evolution began in 1999
- Question: how to progress even further without undermining current high standards for researchers

Quality – as measured by the Impact Factor

The Impact Factor is the oldest and most familiar citation indicator, which approximates the average number of citations per recent paper for a journal.



Quality – as measured by the Impact Factor

The Lancet and *Cell* – two top Elsevier journals ranked in the top 20 2011 JCR list, out of 8288 titles in total

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Mark	Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						*Eigenfactor*® Metrics	
				Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	*Eigenfactor*® Score	*Article Influence*® Score
☐	1	CA-CANCER J CLIN	0007-9235	10976	101.780	67.410	21.263	19	3.8	0.04502	24.502
☐	2	NEW ENGL J MED	0028-4793	232068	53.298	50.075	11.484	349	7.8	0.66466	21.293
☐	3	ANNU REV IMMUNOL	0732-0582	15990	52.761	42.901	9.174	23	8.2	0.05204	23.410
☐	4	REV MOD PHYS	0034-6861	31368	43.933	44.436	10.026	38	9.8	0.11667	28.864
☐	5	CHEM REV	0009-2665	103702	40.197	42.054	7.158	196	7.9	0.21464	13.305
☐	6	NAT REV MOL CELL BIO	1471-0072	29222	39.123	42.508	6.500	66	5.1	0.17432	23.838
☐	7	LANCET	0140-6736	158906	38.278	33.797	10.576	276	8.9	0.36138	13.602
☐	8	NAT REV GENET	1471-0056	20384	38.075	31.359	7.014	71	4.7	0.12140	16.942
☐	9	NAT REV CANCER	1474-175X	28602	37.545	38.460	4.838	68	5.8	0.12608	17.917
☐	10	ADV PHYS	0001-8732	4400	37.000	25.289	3.778	9	>10.0	0.01485	17.966
☐	11	NATURE	0028-0836	526505	36.280	36.235	9.690	841	9.4	1.65658	20.353
☐	12	NAT GENET	1061-4036	76456	35.532	33.096	6.357	196	6.8	0.33022	17.569
☐	13	ANNU REV BIOCHEM	0066-4154	18684	34.317	35.013	2.951	41	>10.0	0.05695	19.743
☐	14	NAT REV IMMUNOL	1474-1733	22613	33.287	34.302	5.116	69	5.0	0.11980	16.806
☐	15	NAT MATER	1476-1122	39242	32.841	36.732	6.246	134	4.7	0.22089	17.891
☐	16	CELL	0092-8674	171297	32.403	34.774	6.382	338	8.6	0.66143	20.536
☐	17	ENERGY EDUC SCI TECH	1301-8361	2992	31.677		5.460	174	1.5	0.00117	
☐	18	SCIENCE	0036-8075	480836	31.201	32.452	6.075	871	9.4	1.41282	17.508

Long-term content preservation

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Elsevier's Digitized Backfiles / E-journals

e.g. Lancet – volume 1, number 1, from 1823

Elsevier led the establishment of an online, official, trusted third party archive at the Royal Library of the Netherlands.

KONINKLIJKE BIBLIOTHEEK

1st official archive

Developed similar arrangements with other organizations

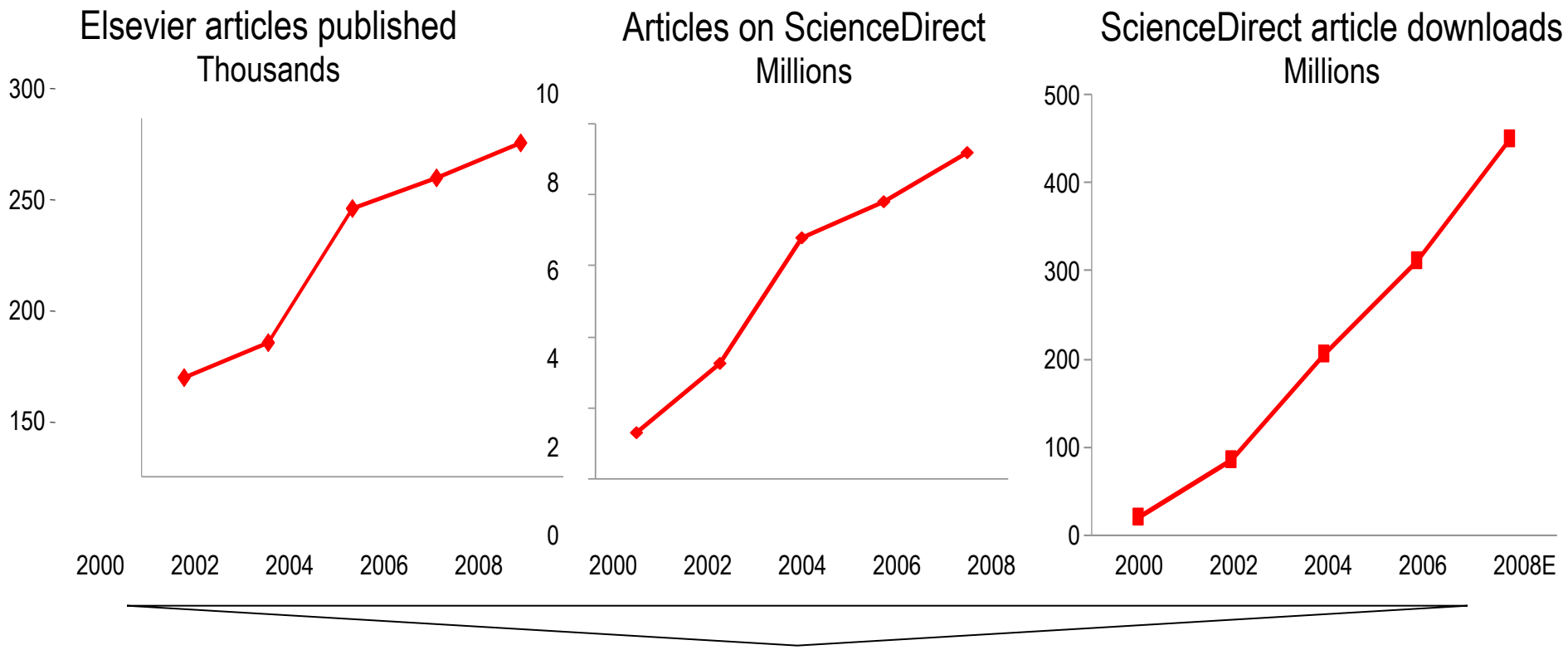
PORTICO

2nd official archive

CLOCKSS

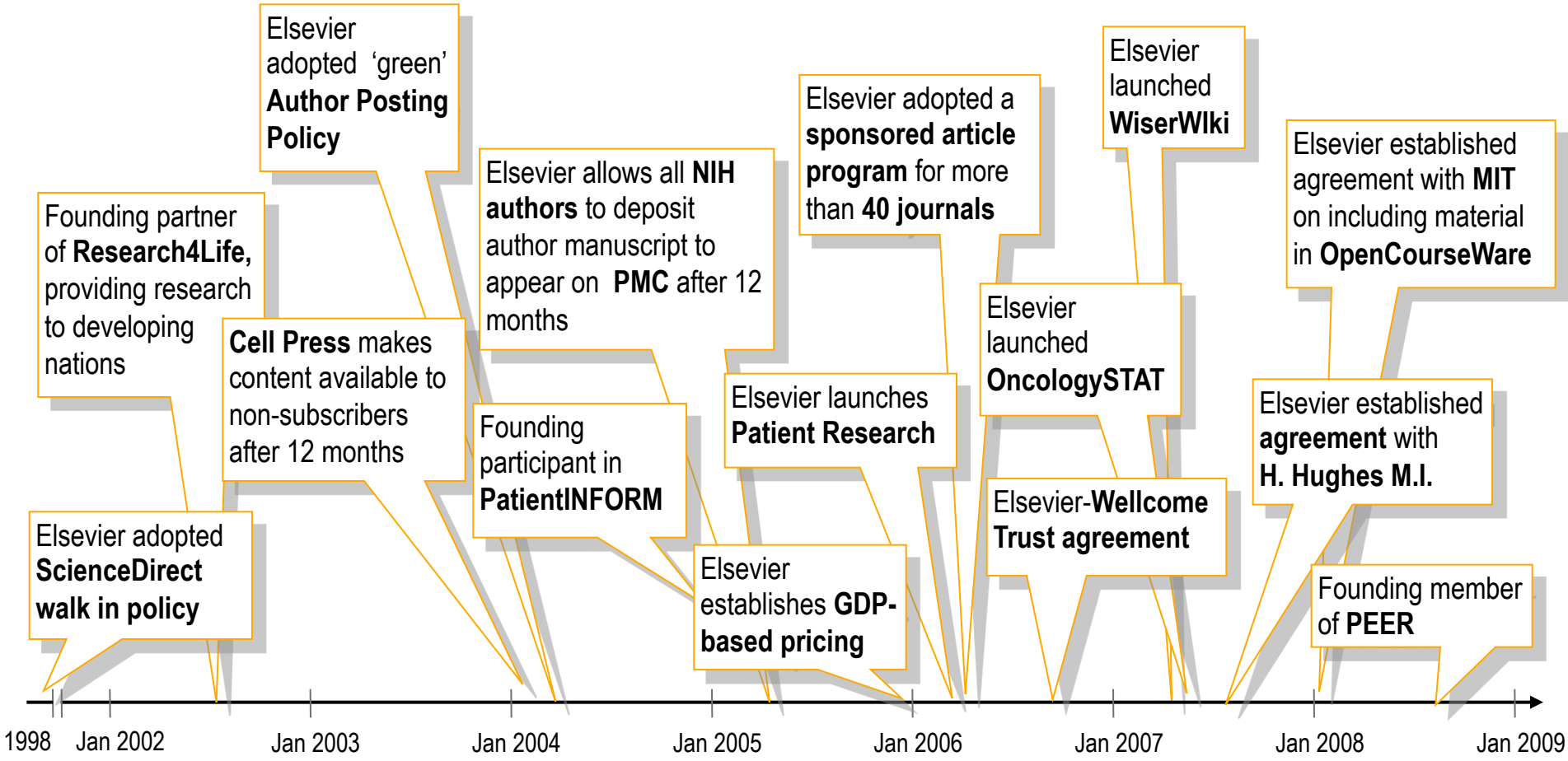
3rd official archive

Value to the customers: expanded content & usage



- Add remaining backfiles, books, major reference works and primary research data
  - *eBooks, lab data and visuals on ScienceDirect*
- Launch new journals, expanded newsletters
  - *25-40 new journals per year (depending on the field),*
- Increase volume with research and development growth
  - *3-4% article growth per year*

Elsevier's record of access initiatives



Research4Life: Access for developing countries

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HINARI
ACCESS TO RESEARCH

WHO initiative provides access to the major journals in biomedical and related social sciences.

AGORA
ACCESS TO GLOBAL ONLINE RESEARCH IN AGRICULTURE

FAO initiative provides access to journals in the agriculture, biological, and social sciences.

OARE
ONLINE ACCESS TO RESEARCH IN THE ENVIRONMENT

UNEP initiative provides access to major journals in the environmental sciences.

Elsevier provides free/very low cost access to more than 1,000 of its journals to public institutions in over 100 developing countries.

Developing Content – Role of a Publisher

Origins of Scholarly Publishing

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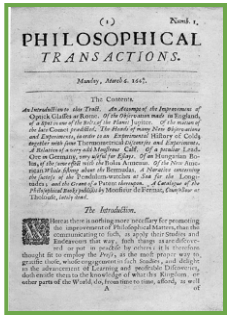
1439
Gutenberg and Moveable Type

Henry Oldenburg (1618- 1677)
Founding editor and commercial publisher of the first scientific journal

1580
Founding of the House of Elzevir


PHILOSOPHICAL
TRANSACTIONS.

6th March 1665
"Philosophical Transactions of the Royal Society"

- **First true scholarly journal**

Establishment of Scientific Publishing Fundamentals

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Registration → The timestamp to officially note who submitted scientific results first

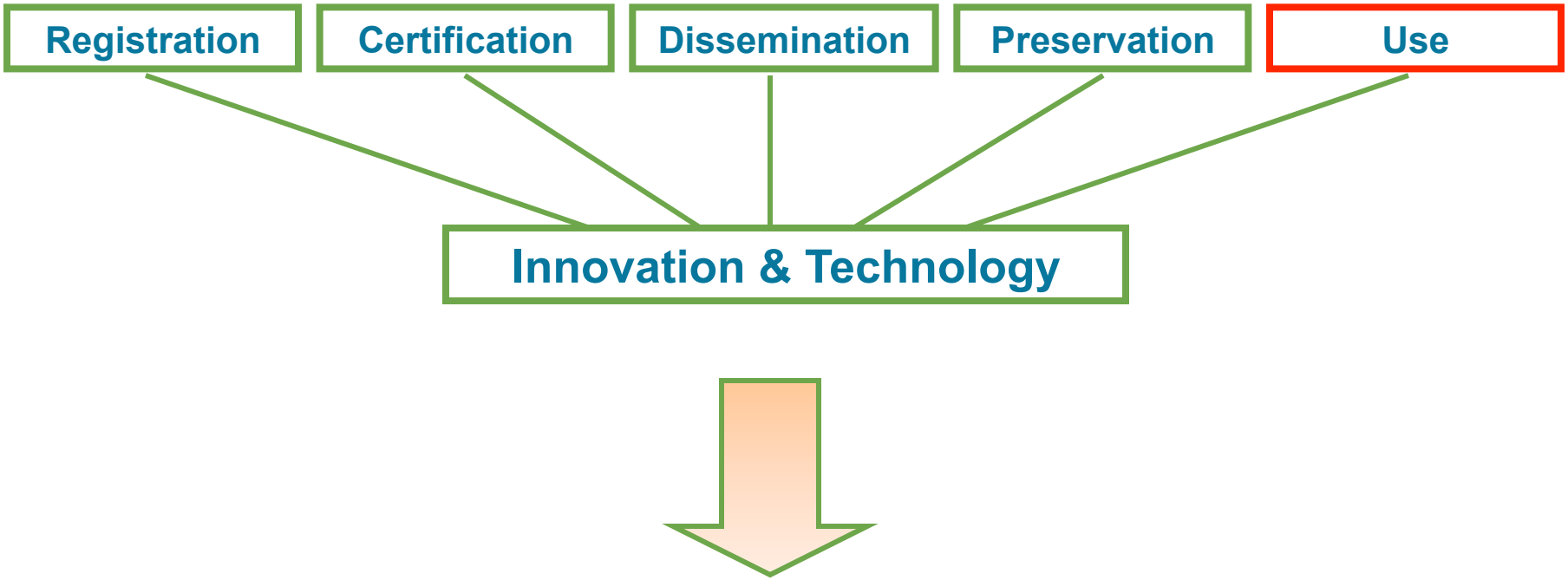
Perform peer-review to ensure the validity

and

Preservation → Preserving the minutes and record of science for posterity

These 4 roles of the publisher were established by the Royal Society then, but are still fundamental today. The methods used to carry out these tasks are evolving, but the roles remain unchanged.

The Publisher's Role



Publishers coordinate the exchange of ideas between authors, editors, reviewers, and the wider STM audience of researchers, scientists, health professionals, students, and patients.

Who We Serve

Publishers support the greater scientific and health communities

Elsevier's Global Publishing Network

- 7,000 editors
- 70,000 editorial board members
- 300,000+ referees
- 600,000+ authors

How do we do what we do?

What is a Journal?

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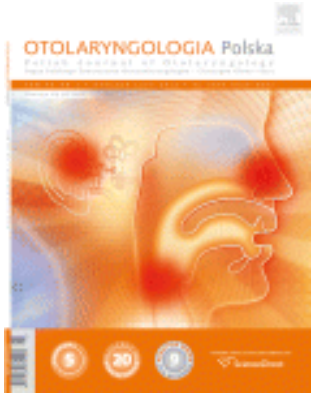
Not just a “magazine”

Peer-review process

Production process

Physical/Online Publication



The Journal Publishing Cycle

Peer Review

The essential filter used to separate science from speculation and to determine scientific quality

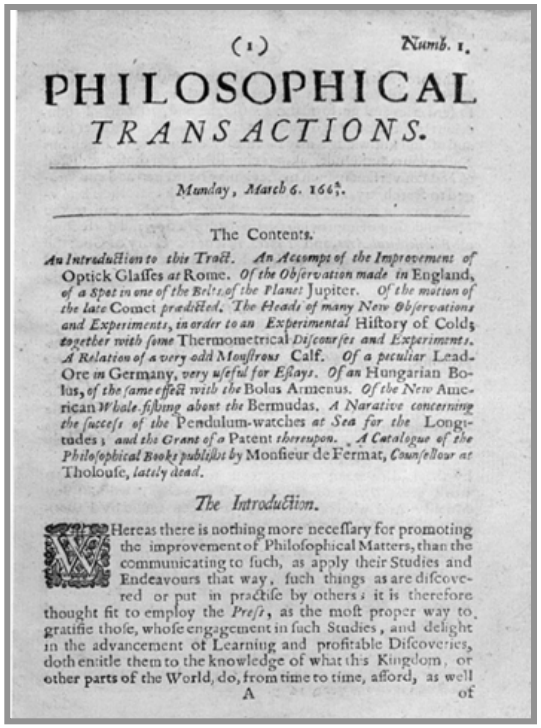
- Peer review helps to determine the validity, significance and originality of research
- Helps to improve the quality of papers
- Publication in peer-reviewed journals protects the author's work and claim to authorship
- Publishers have ensured the sustainability of journals and the peer-review system for over 300 years

The costs of managing the peer-review process are borne by publishers

Publishers stand outside the academic process and are not prone to prejudice or favour

Background on Peer Review

- Cornerstone of the whole scholarly publication system
- Maintains integrity in the advancement of science
- Well-established process over 300 years old



(1) Numb. 1.

PHILOSOPHICAL
TRANSACTIONS.

Monday, March 6. 166⅞.

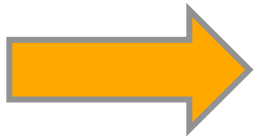
The Contents.

An Introduction to this Tract. An Accompt of the Improvement of Optick Glasses *at* Rome. *Of the Observation made in* England, *of a Spot in one of the Belts of the Planet* Jupiter. *Of the motion of the late* Comet *predicted. The Heads of many New Observations and Experiments, in order to an Experimental* History of Cold; *together with some* Thermometrical *Discourses and Experiments. A Relation of a very odd Monstrous* Calf. *Of a peculiar* Lead-Ore *in* Germany, *very useful for Essays. Of an* Hungarian Bolus, *of the same effect with the* Bolus Armenus. *Of the New* American *Whale-fishing about the* Bermudas. *A Narative concerning the success of the* Pendulum-watches *at Sea for the* Longitudes; *and the Grant of a* Patent *thereupon. A Catalogue of the Philosophical Books published by* Monsieur de Fermat, *Counsellour at* Tholouse, *lately dead.*

The Introduction.

Whereas there is nothing more necessary for promoting the improvement of Philosophical Matters, than the communicating to such, as apply their Studies and Endeavours that way, such things as are discovered or put in practise by others; it is therefore thought fit to employ the *Press*, as the most proper way to gratifie those, whose engagement in such Studies, and delight in the advancement of Learning and profitable Discoveries, doth entitle them to the knowledge of what this Kingdom, or other parts of the World, do, from time to time, afford, as well

A of



What is Peer Review?

Peer Review has two key functions:

- Acts as a filter by ensuring only good research is published. Helps to determine validity, significance and originality
- Improves the quality of the research submitted for publication by giving reviewers the opportunity to suggest improvements

Online Peer Review Systems

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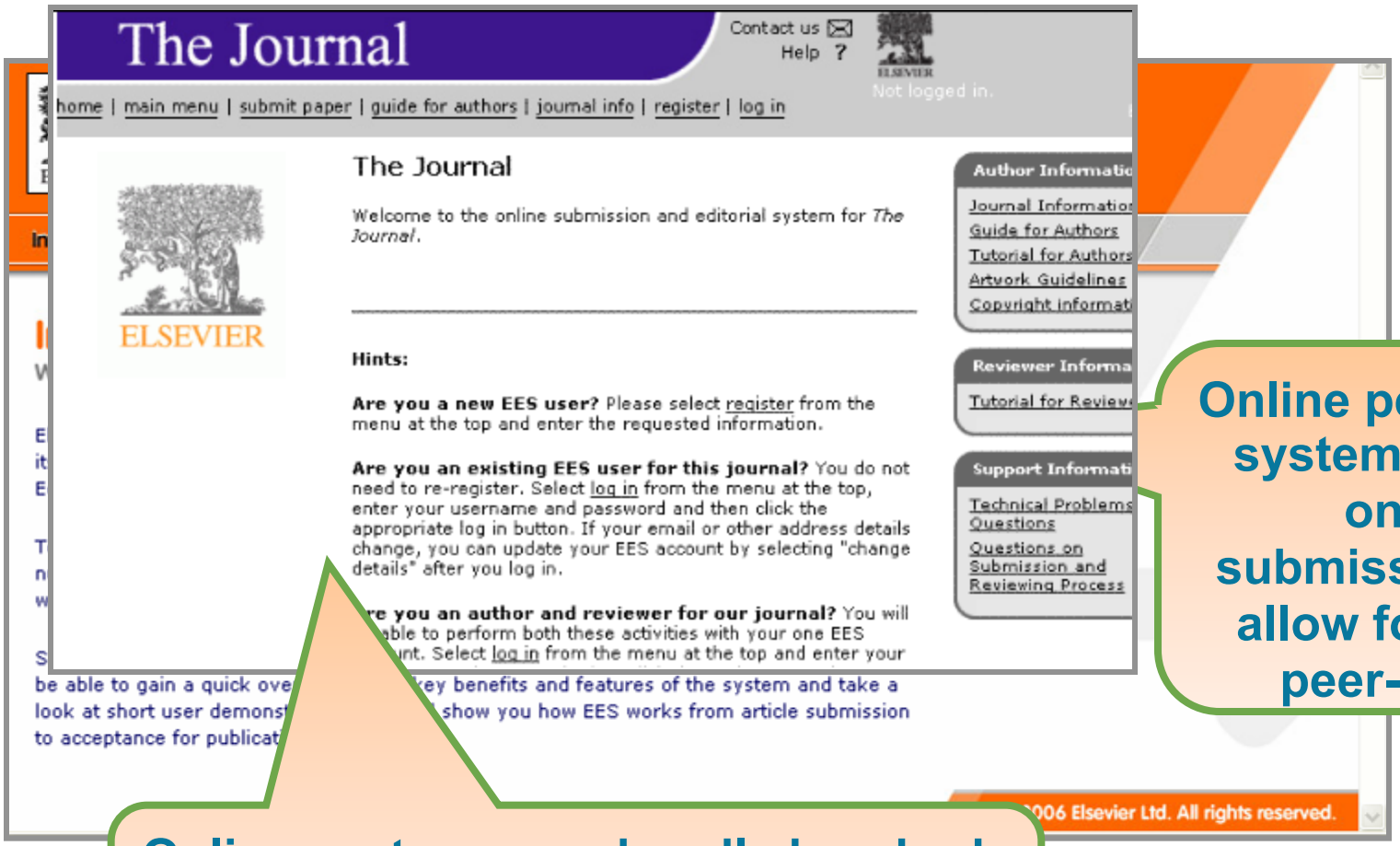
online ELSEVIER EDITORIAL SYSTEM



Online peer review systems accept online submissions and allow for online peer-review

Online systems can handle hundreds of thousands of submissions and reviews per year

Online Peer Review Systems

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project next ees

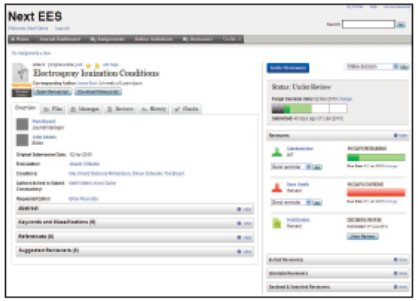
Elsevier has launched Project Next EES to build a next generation editorial platform to replace the Elsevier Editorial System by 2014.

At its heart will be:

• Usability • Efficiency

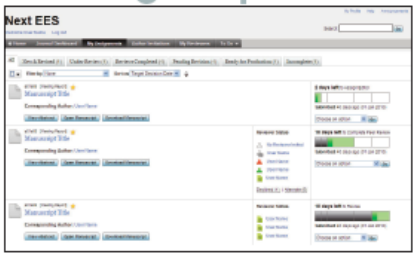
• Flexibility • Scalability

Get a glimpse



Manuscript Page

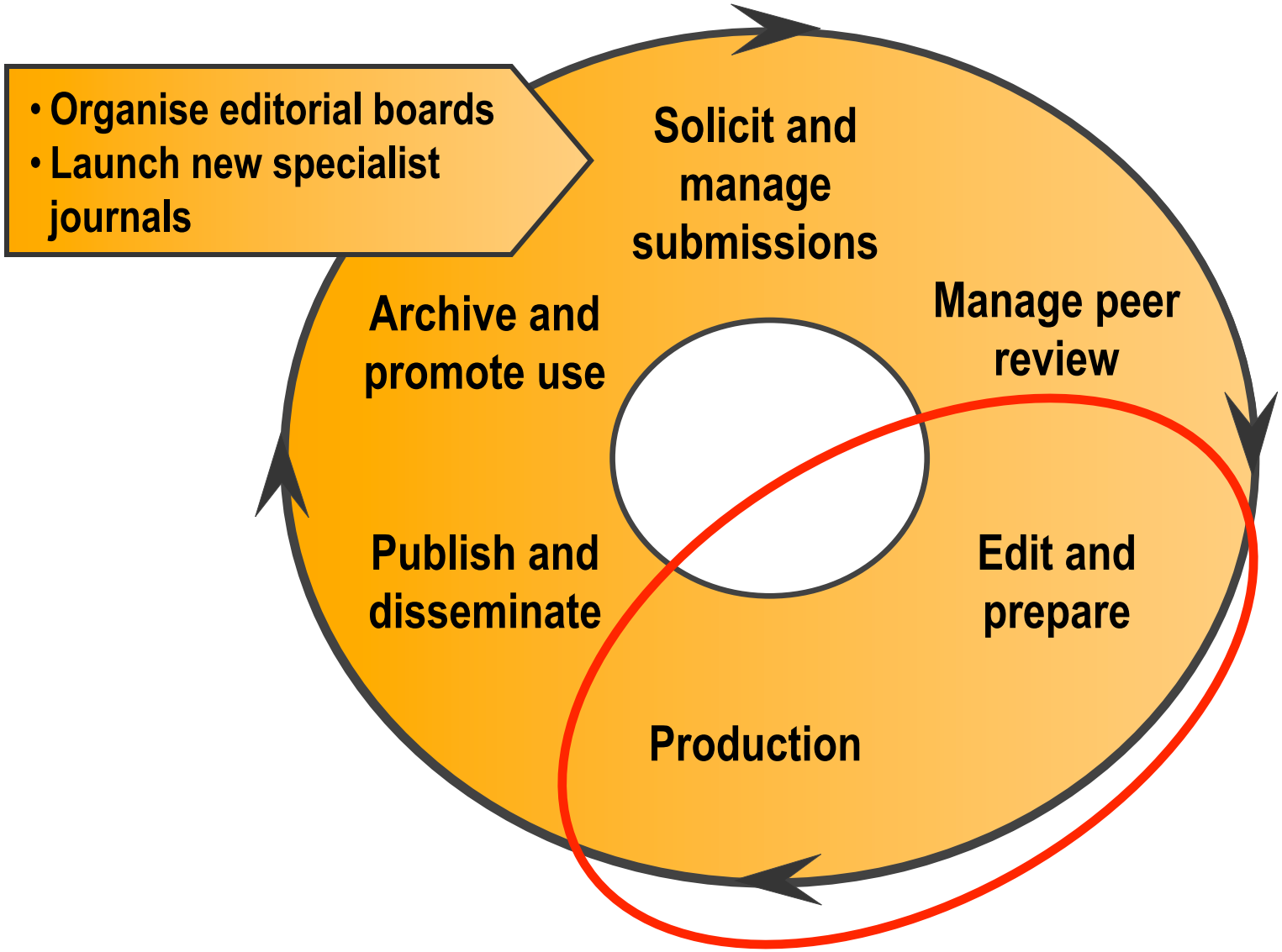
Manuscript page in Next EES with all actions in one page and time indications for easy review process monitoring



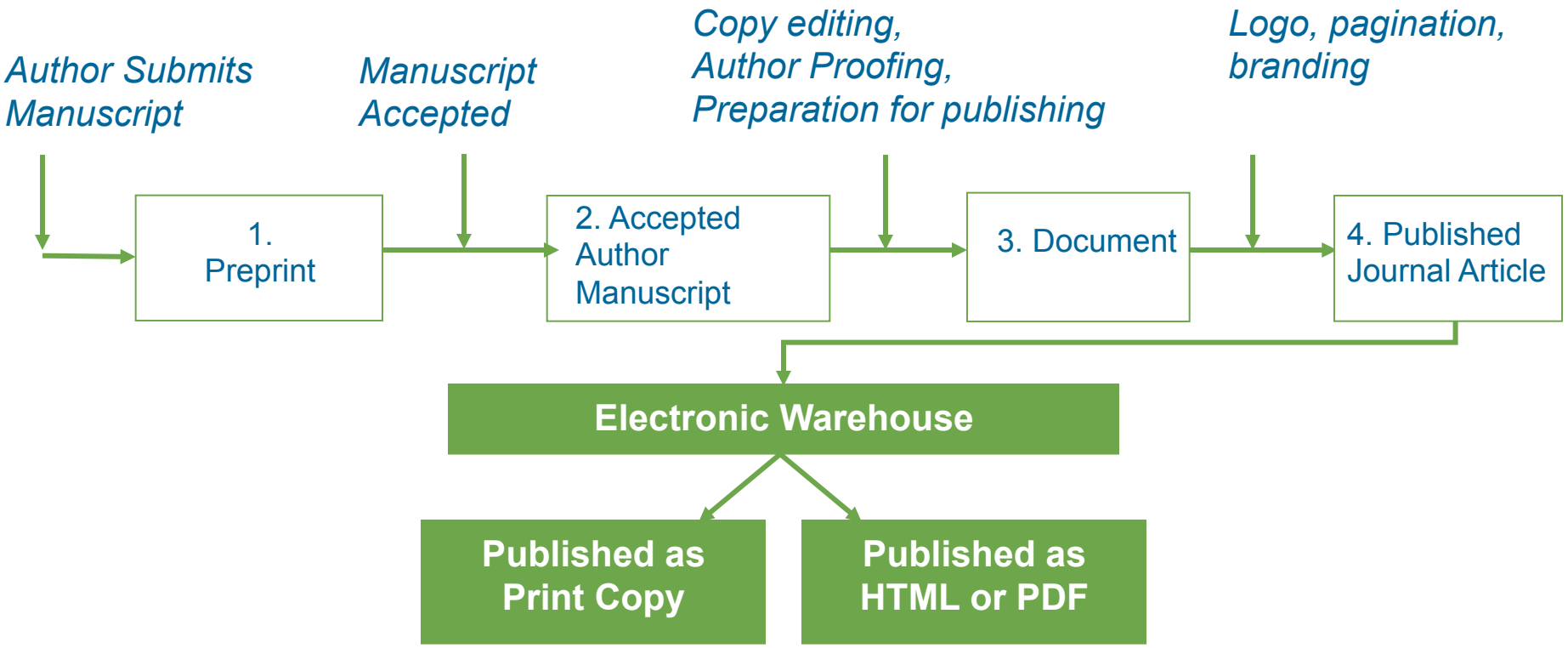
Assignment list

All Assignments Page with most important actions directly accessible from one screen

The Journal Publishing Cycle

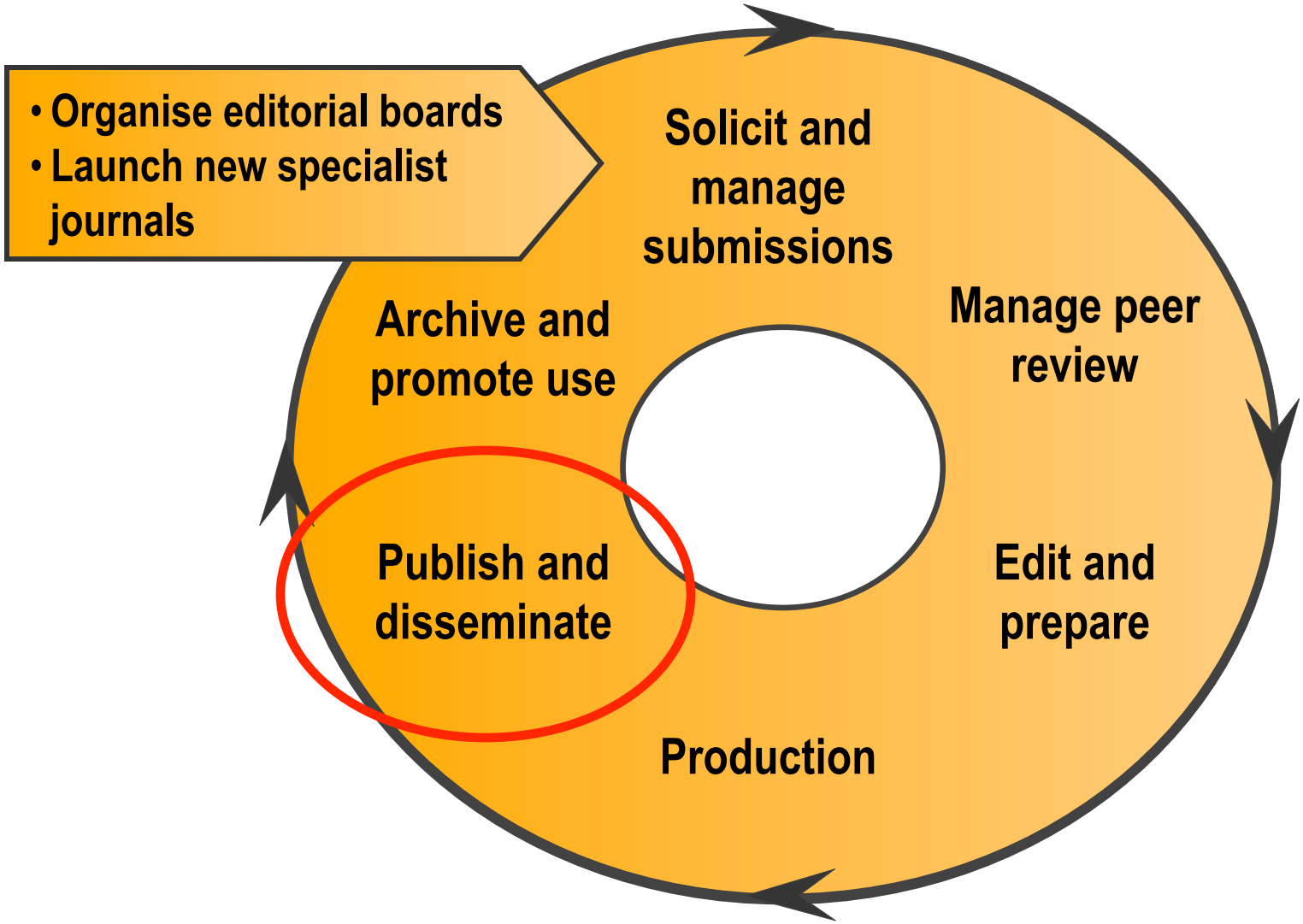


Journal Article Production



- **Publishers can create an Electronic Warehouse and other electronic production tools to quicken production times**
- **These tools require heavy investments, but they can process hundreds of thousands of articles and maintain digitized backfiles**

The Journal Publishing Cycle



Methods of Publication Dissemination

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- Text
- Bullet
- Bullet 2

Traditional Print Journals

AND

Electronic Journal Platforms like Elsevier's ScienceDirect improve online dissemination and access

Other Methods of Dissemination

- Ad-Supported Portals
- Pay-per-View
- Sponsored access
- Open Access
- Podcast
- Blogs
- Mobile devices
- Point-of-care reference tools

Product examples: Article of the future

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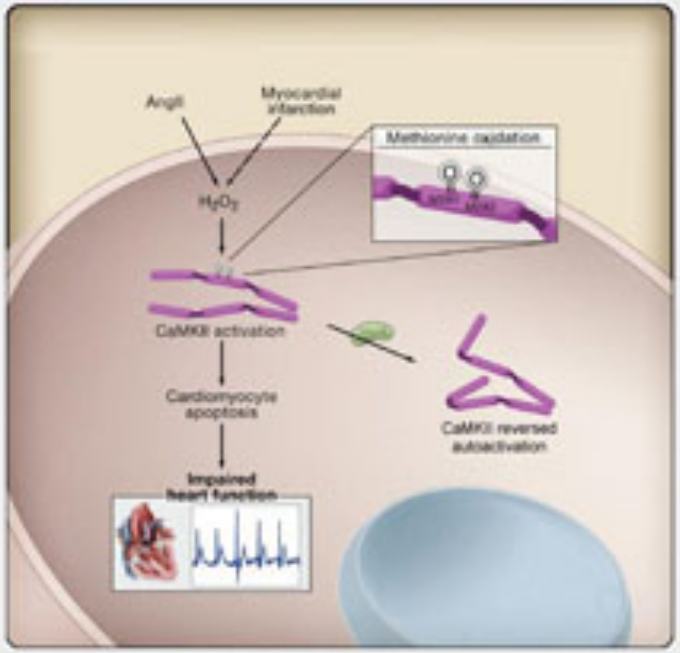
Cell Article Prototype #1 View Prototype #2 Tell Us What You Think Share / Save

May 2, 2008 - Volume 133, Issue 3, pp. 462-474 PDF (1,758 KB)

A Dynamic Pathway for Calcium-Independent Activation of CaMKII by Methionine Oxidation

Jeffrey R. Erickson[1], Mei-ling A. Joiner[1], Xiaoqun Guan[1], William Kutschke[1], Jinying Yang[1], Carmine V. Oddis[2], Ryan K. Bartlett[3], John S. Lowe[1], Susan E. O'Donnell[1], Nukhet Aykin-Burns[1], Matthew C. Zimmerman[1], Kathy Zimmerman[4], Amy-Joan L. Ham[2,3], Robert M. Weiss[1,3], Douglas R. Spitz[1], Madeline A. Shea[2], Roger J. Colbran[2], Peter J. Mohler[1,4], and Mark E. Anderson[1,4,*] Affiliations

Abstract | Introduction | Results | Discussion | Experimental Procedures | Figures (8+) | References (51) | Authors | Comments (3) | Acknowledgements



Article Highlights

- Oxidation of methionine residues activates CaMKII
- Angiotensin II induces CaMKII oxidation leading to cardiomyocyte death
- CaMKII methionine oxidation is reversed by MsrA
- Elevated CaMKII oxidation impairs heart function and worsens ischemic injury

Author Interview

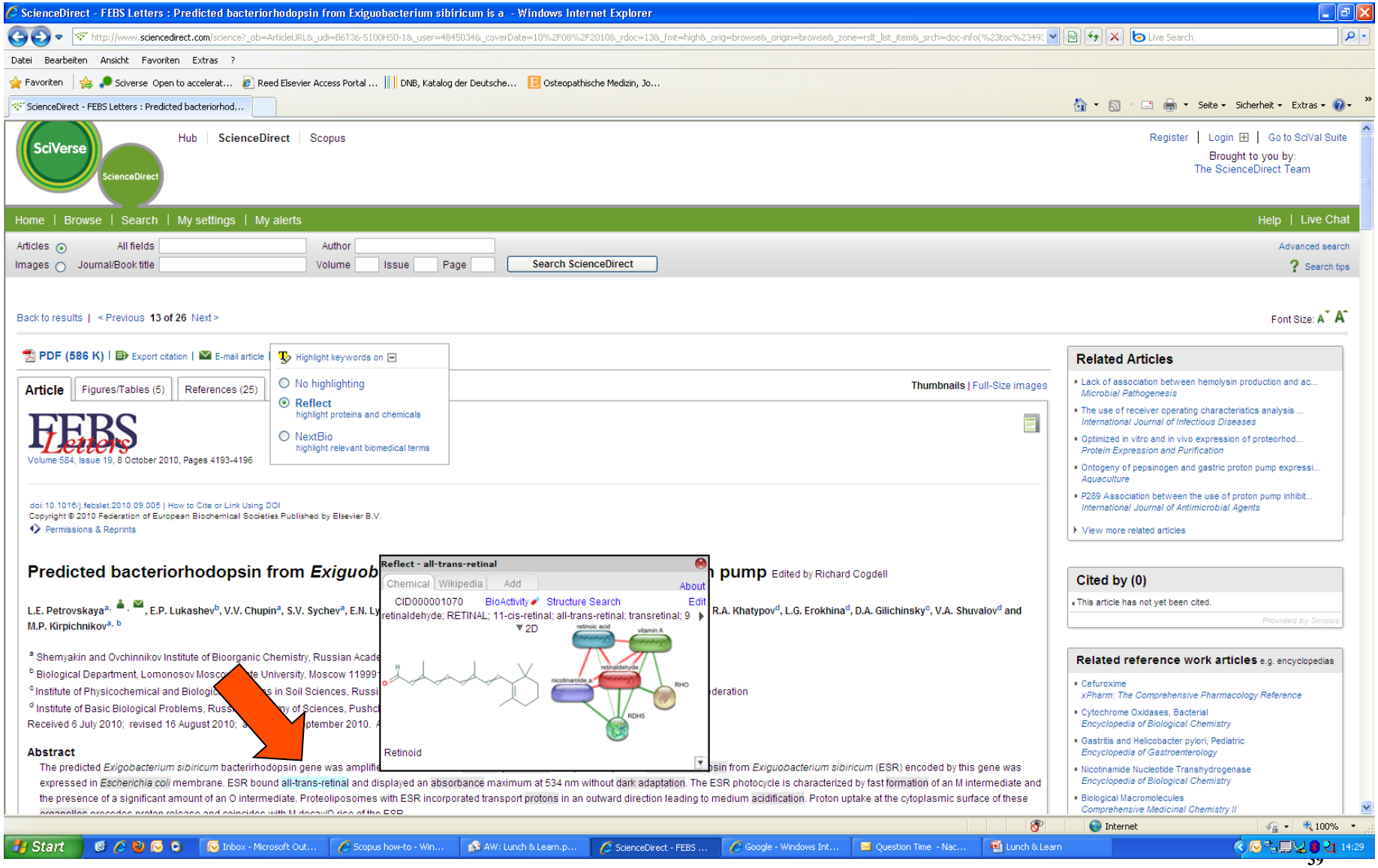
Abstract

Calcium/calmodulin (Ca2+/CaM)-dependent protein kinase II (CaMKII) couples increases in cellular Ca2+ to fundamental responses in excitable cells. CaMKII was identified over 20 years ago by activation dependence on Ca2+/CaM, but recent evidence shows that CaMKII activity is also enhanced by pro-oxidant conditions. Here we show that oxidation of paired regulatory domain methionine residues sustains CaMKII activity in the absence of Ca2+/CaM. CaMKII is activated by angiotensin II (AngII)-induced oxidation, leading to apoptosis in cardiomyocytes both in vitro and in vivo. CaMKII oxidation is reversed by methionine sulfoxide reductase A (MsrA), and MsrA-/- mice show exaggerated CaMKII oxidation and myocardial apoptosis, impaired cardiac function, and increased mortality after myocardial infarction. Our data demonstrate a dynamic mechanism for CaMKII activation by oxidation and highlight the critical importance of oxidation-dependent CaMKII activation to AngII and ischemic myocardial apoptosis.

Switch Position

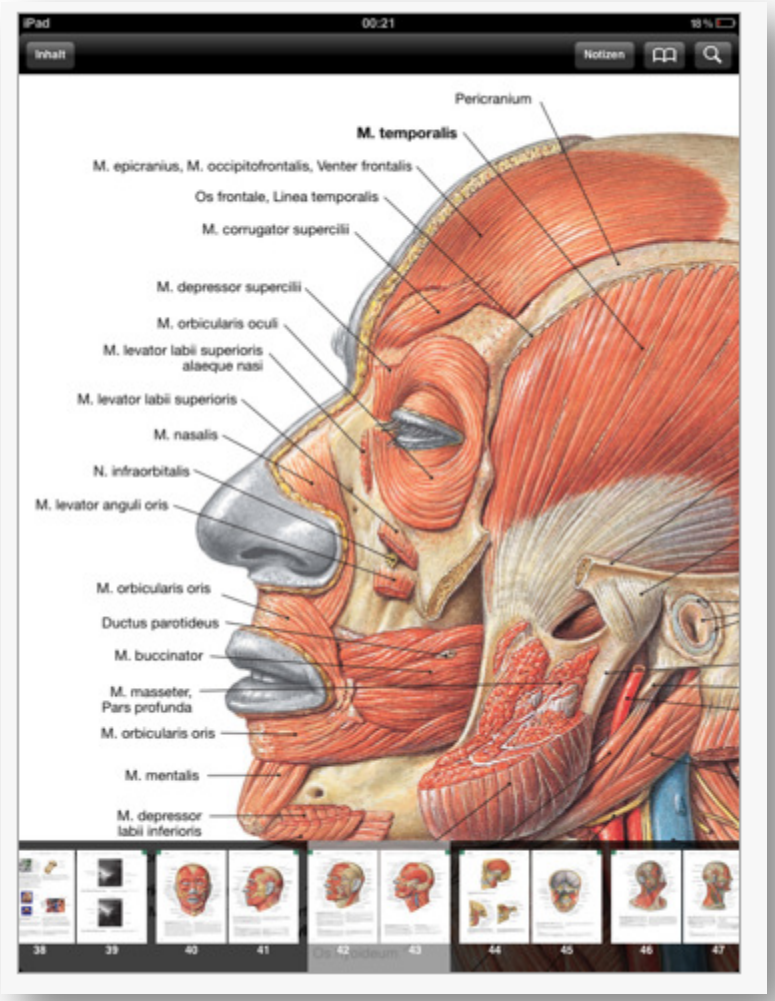
Apps on ScienceDirect

Apps on ScienceDirect

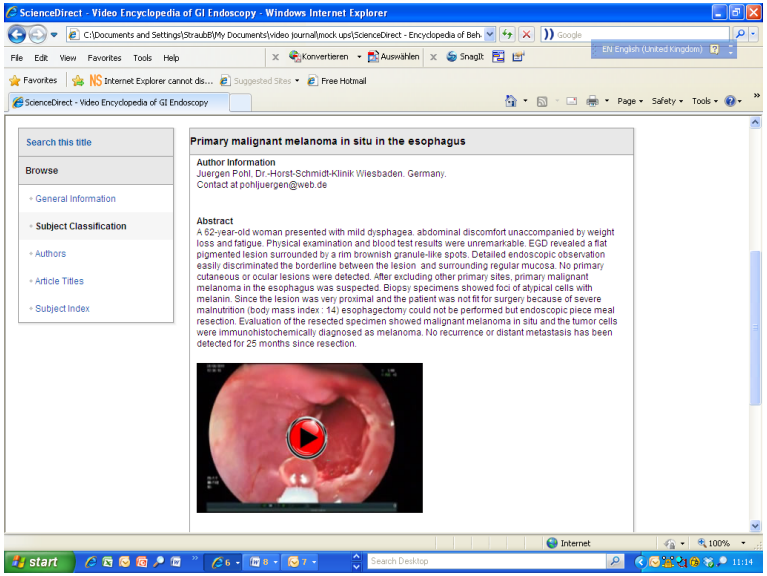


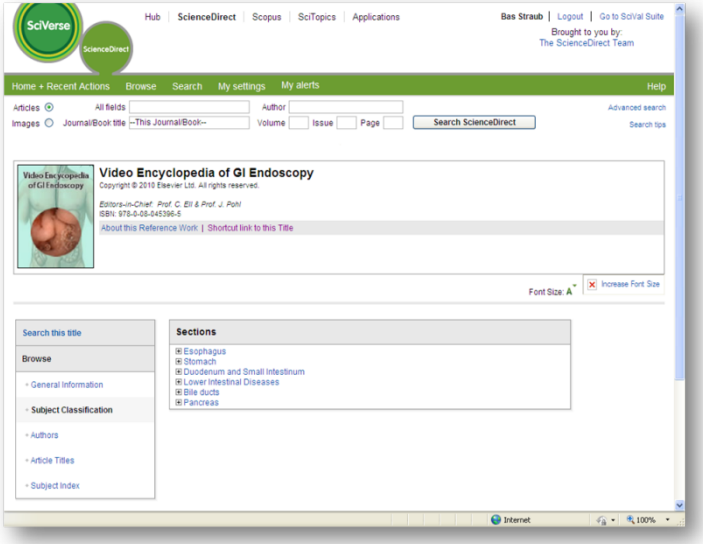
Mobile applications

Sobotta on iPad



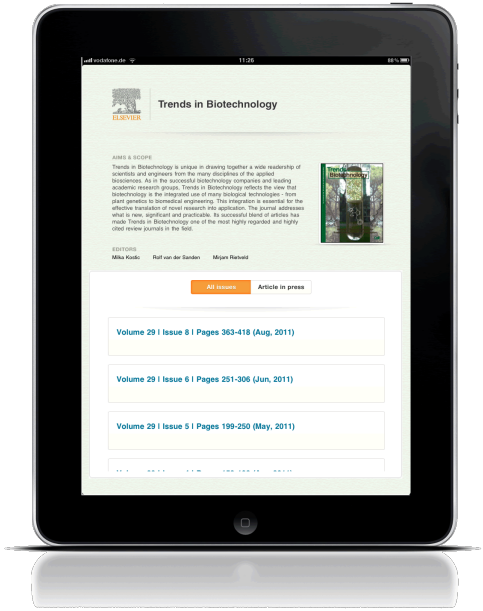
Hot off the press‘; recently launched *Video Journal of GI Endoscopy*



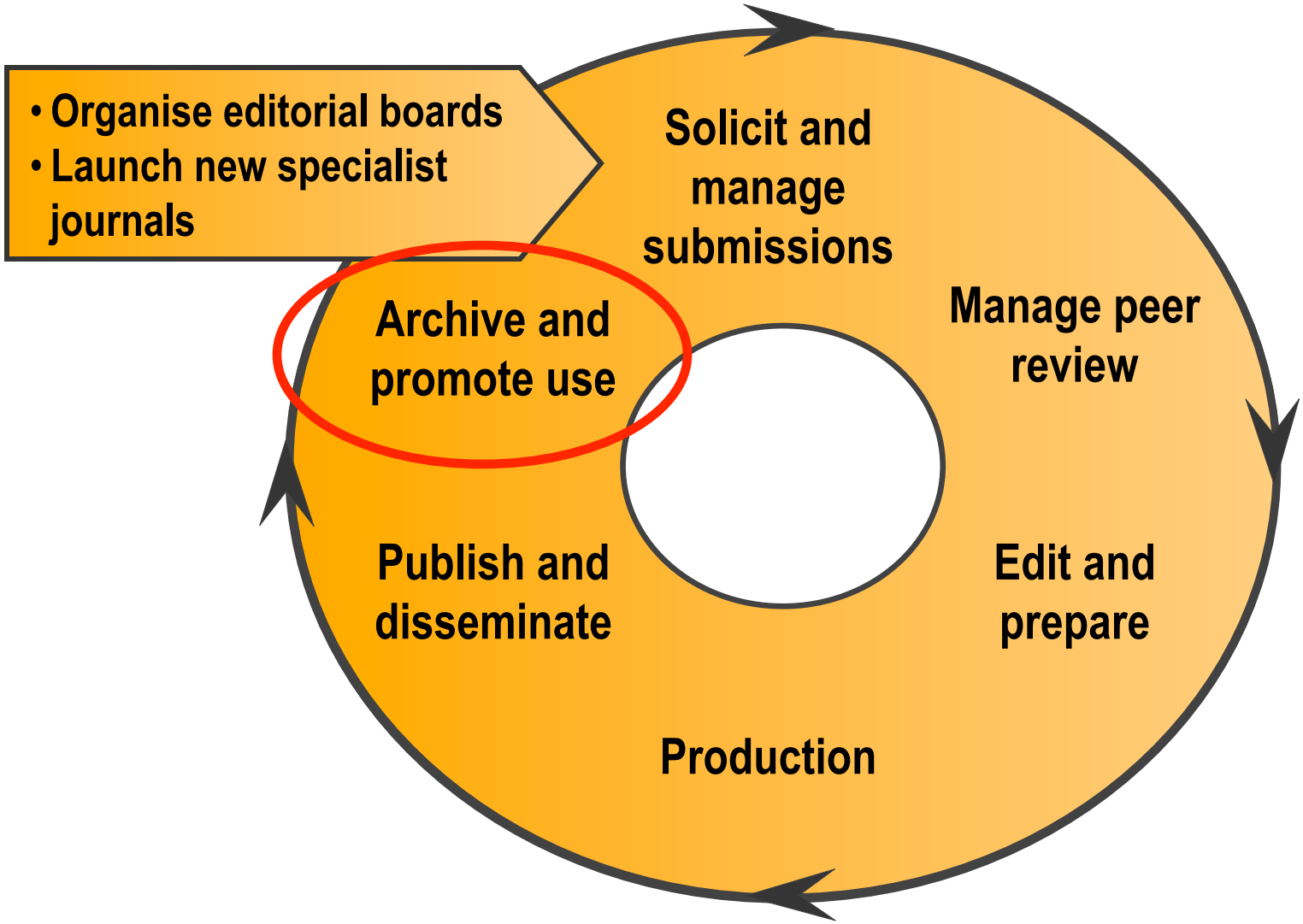


iPad apps for your journal/for your society

- Journal/society-branded native app for iPad
- Device independend app under consideration
- PDF plus full HTML
- Issues plus Articles in Press
- A&E integration
- Investment needed



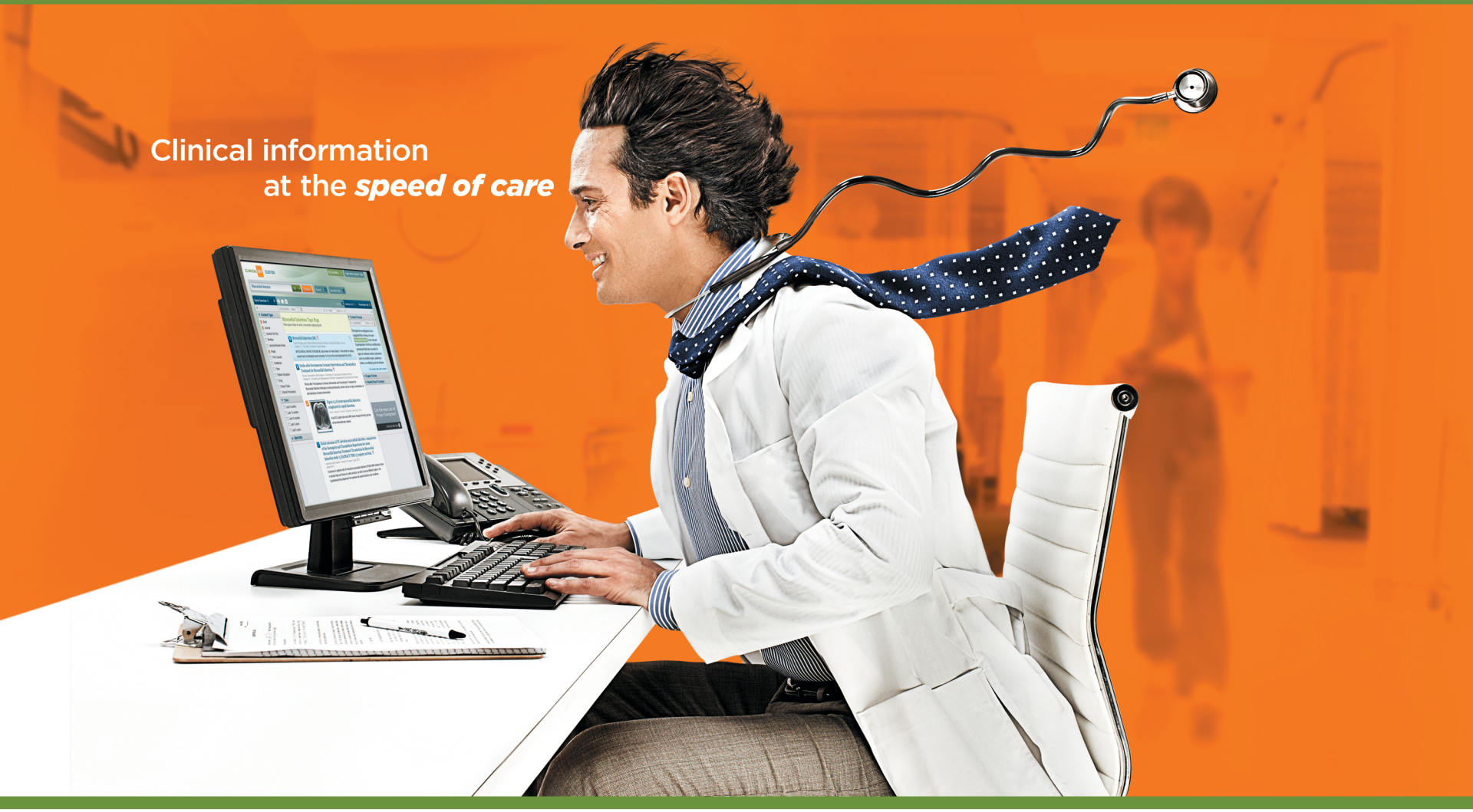
The Journal Publishing Cycle



Promoting Research Information Use

- Abstract & Index Databases
- Workflow & Research Tools

Users can identify if they are a patient in need of medical information after searching for an article



CLINICAL KEY™ beta

Smarter search. Faster answers.

Examples: Datamining

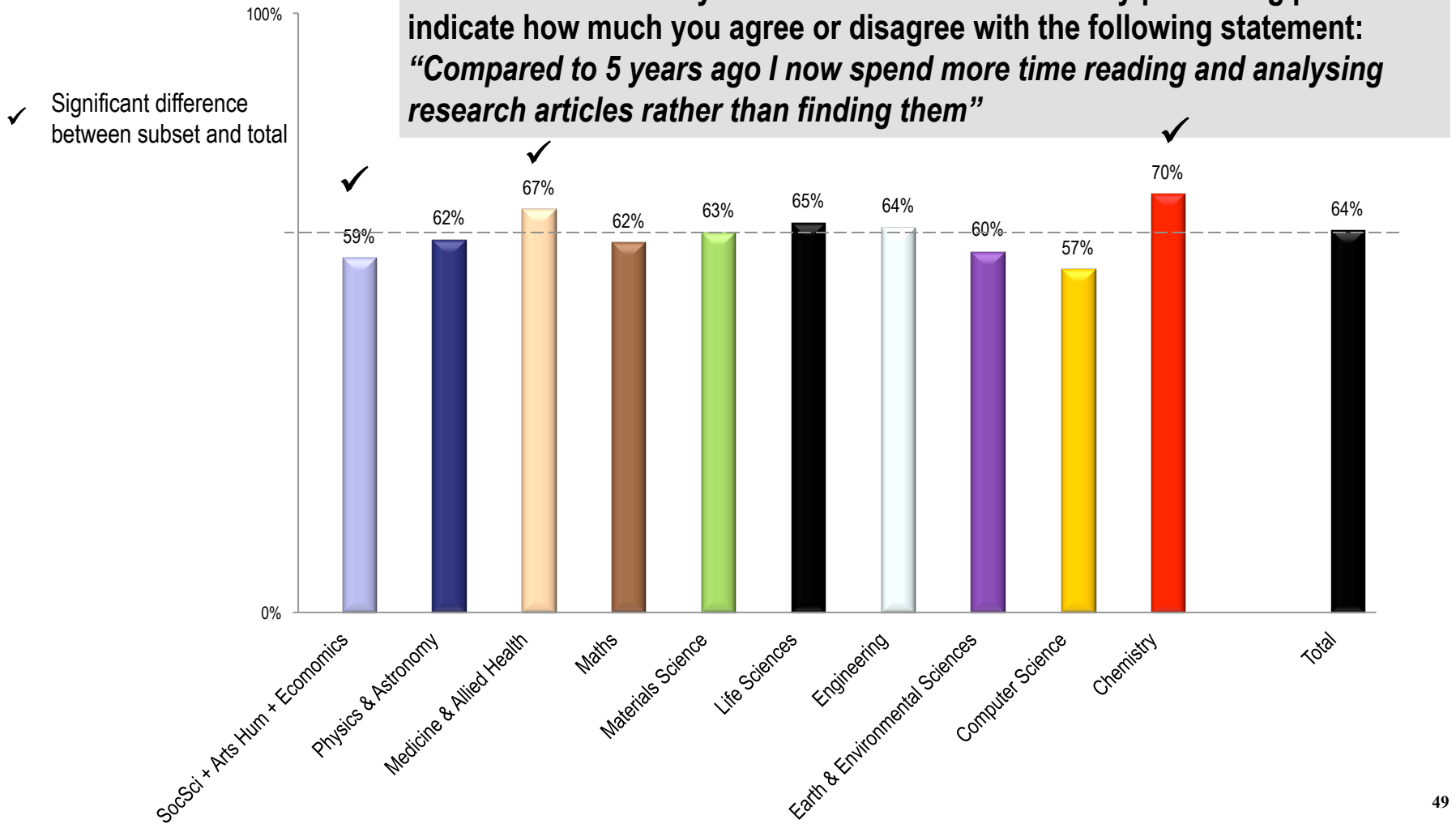
ELSEVIER

eofacets is a web-based research tool that offers access to an extensive database of georeferenced geological maps. With intuitive features
signed for geoscientists working in upstream oil and gas exploration, it enables users to efficiently and confidently assess a region or
sin's geologic characteristics and potential – so they can drive better business outcomes and recommendations.

How do publisher contributions help improve the science and health communities?

Improving productivity

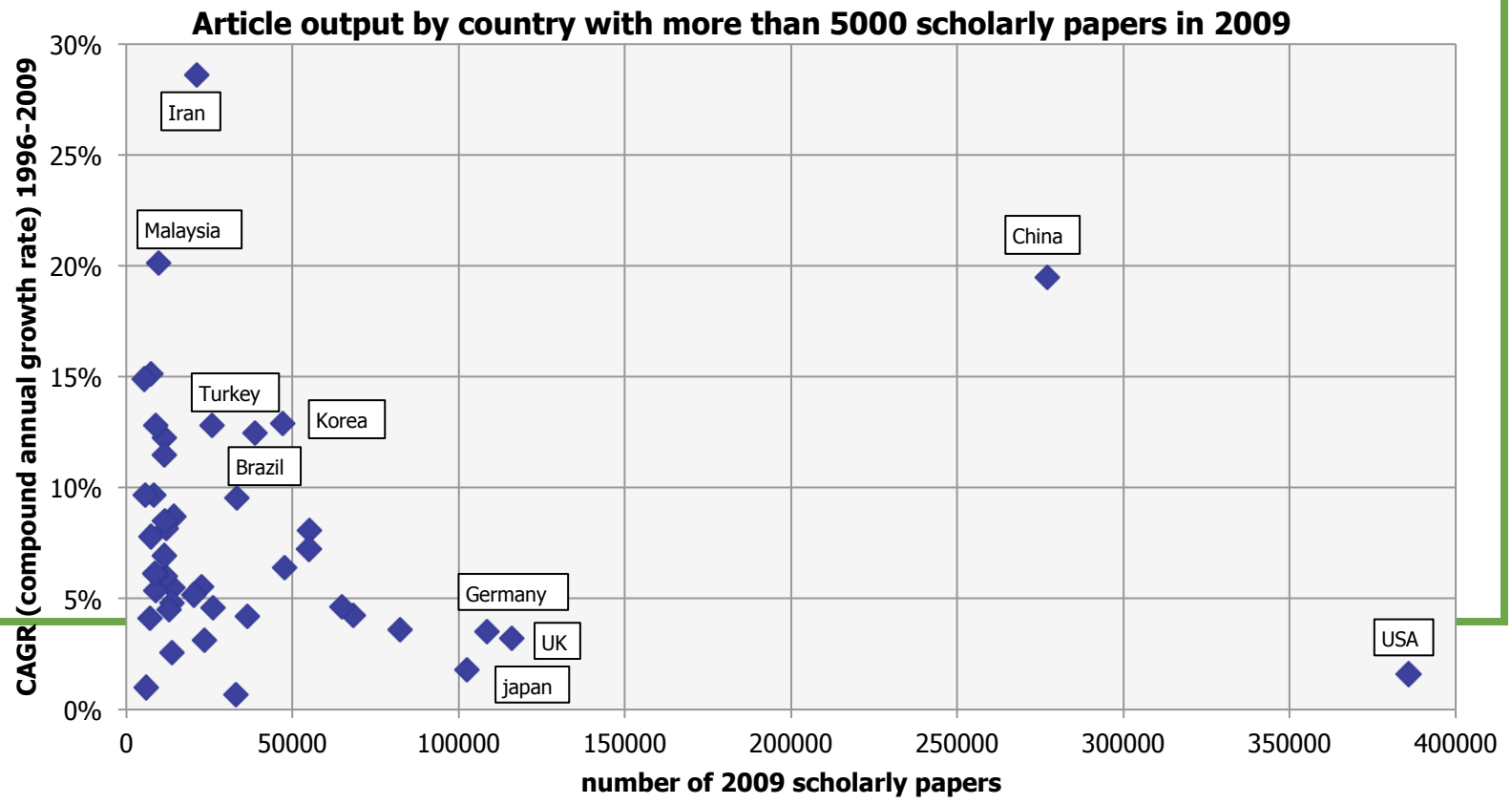
To better understand your attitudes towards scholarly publishing please indicate how much you agree or disagree with the following statement: *"Compared to 5 years ago I now spend more time reading and analysing research articles rather than finding them"*



Global Expansion of Scientific Research

ELSEVIER

Due to investments by publishers, access to research in developing countries has grown, resulting in increased article output and the emergence of a global research network



Evaluating and Developing Country's Research Output

ELSEVIER

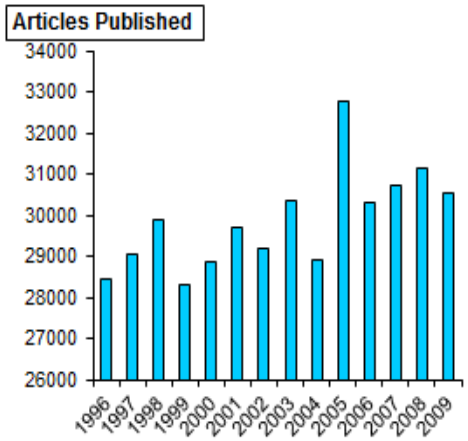
Country Summary Report

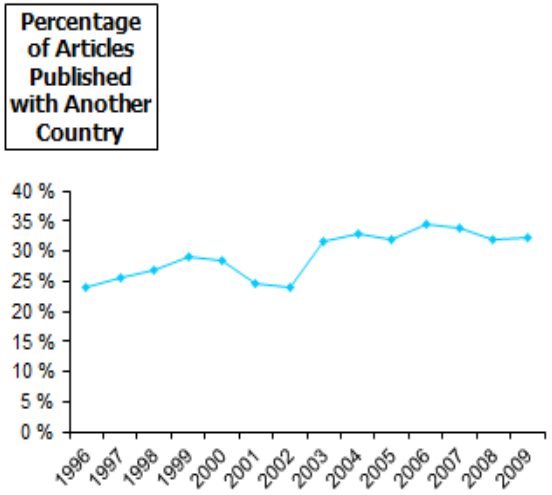
Country Russian Federation

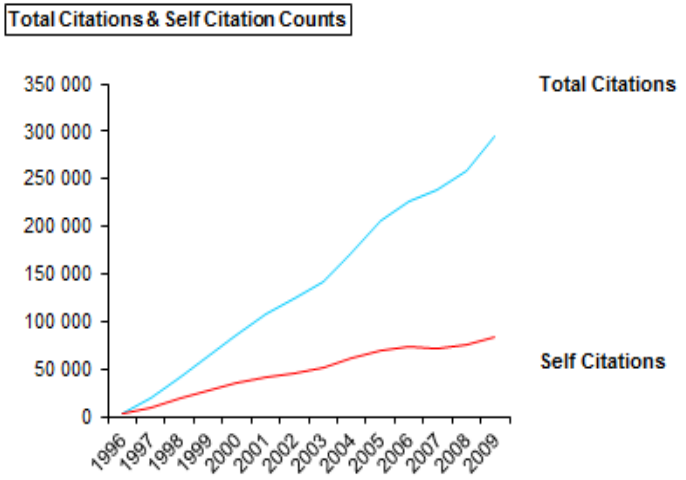
Publication Year 2010;2009

Citation Year 2011

Country Name	Article Count (All Authors)	Citation Count	Average Citation	Field Weighted Impact	Self Citation Count	Self Citation %	Country Collaboration Count	Collaboration %
Russian Federation	62042	66732	1,08	0,50	24760	37,10 %	19281	31,08







Evaluating of Country's Scientific Research Output

ELSEVIER

Subject Data within Country

Subject	Articles	Citations	Self Citations	Field Weighted Impac
Condensed Matter Physics	8442	8971	3754	0,54
Physics and Astronomy (all)	5673	7630	2950	0,74
Nuclear and High Energy Physics	3227	6970	2732	1,02
Electronic, Optical and Magnetic Materials	4291	5225	2207	0,58
Atomic and Molecular Physics, and Optics	3840	4596	2020	0,61
Chemistry (all)	5635	4444	1643	0,30
Biochemistry	2459	4148	1392	0,54
Organic Chemistry	2701	4143	1611	0,57
Physical and Theoretical Chemistry	3181	3829	1663	0,44
Molecular Biology	1053	3129	851	0,91
Space and Planetary Science	1846	2869	1131	0,62
Materials Chemistry	3528	2841	1286	0,37
Inorganic Chemistry	2239	2826	1152	0,51
Materials Science (all)	2832	2787	1099	0,50
Cell Biology	991	2708	756	0,82
Physics and Astronomy (miscellaneous)	2461	2695	1107	0,44
Multidisciplinary	146	2440	498	3,09
Astronomy and Astrophysics	1588	2437	927	0,61
Medicine (all)	1111	1957	422	0,81
Instrumentation	1593	1859	815	0,71

Cited Countries - this country is cited by

Country	Citations	% Citations received
Russian Federation	23452	33,69 %
United States	17093	24,55 %
Germany	10540	15,14 %
China	7117	10,22 %
France	6191	8,89 %
United Kingdom	6016	8,64 %
Italy	4676	6,72 %

Citing Countries - this country is citing

Country	Citations	% Citations given
Russian Federation	23452	20,16 %
United States	21992	18,91 %
Germany	12037	10,35 %
United Kingdom	8154	7,01 %
France	7544	6,49 %
China	5110	4,39 %
Japan	5028	4,32 %

In conclusion….

We provide:

1. Quality (World Class Content)
2. Preservation of Content
3. Efficiency of usage for our Customers
4. Added Value in Innovative Tools
5. Access
6. Guidance on Content Development & Maximization of Country's Research Output