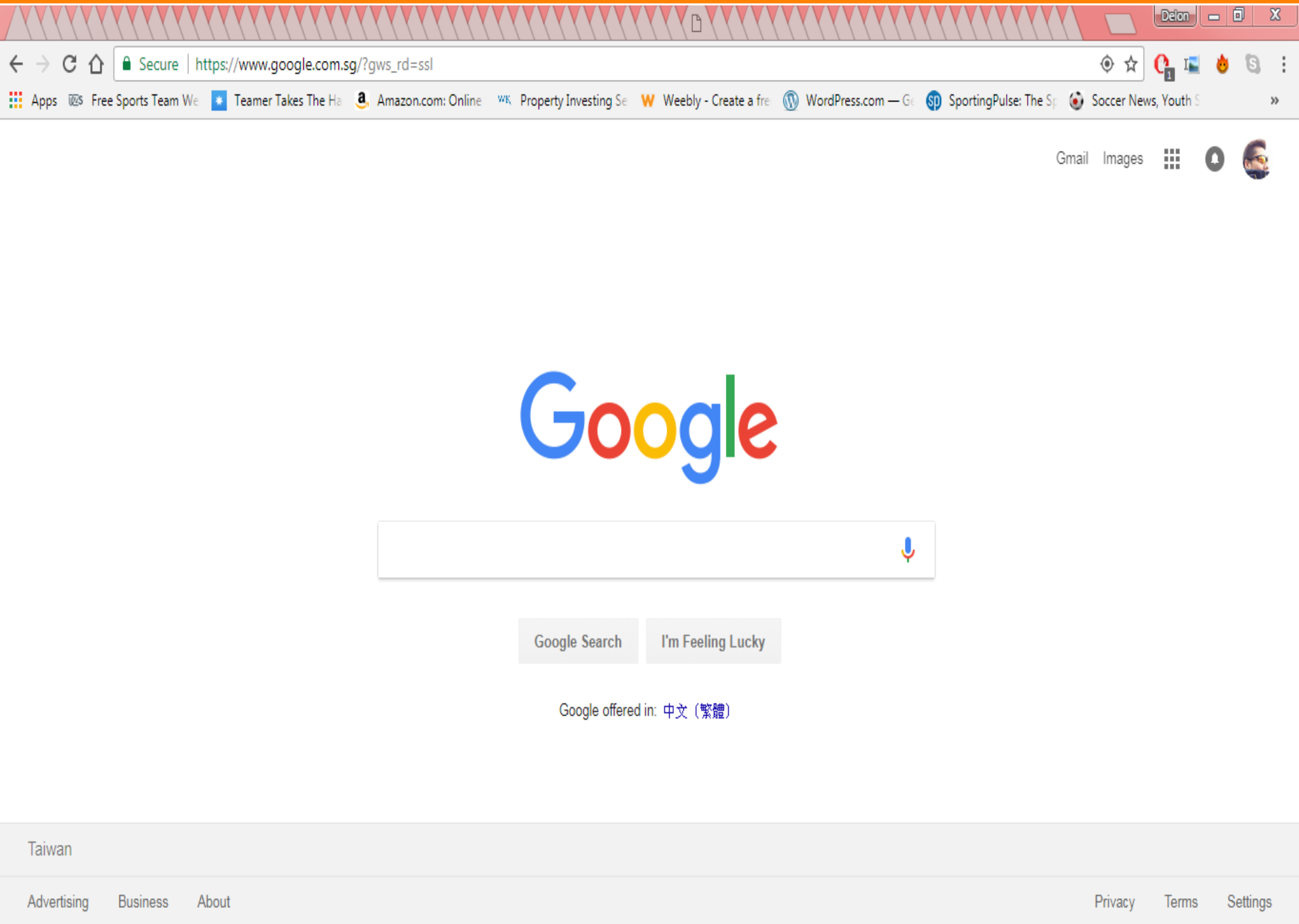
Connecting the Dots: Solving Today's Problems through Content and Technology

點的連結: 透過內容和技術解決今天的問題

Delon Lee
Head of Customer Engagement, Elsevier APAC
Elsevier 亞太區客戶關係總監

The Simpsons™ and © 2007 Twentieth Century Fox Film Corporation. All Rights Reserved.
FOX
THESIMPSONS.COM

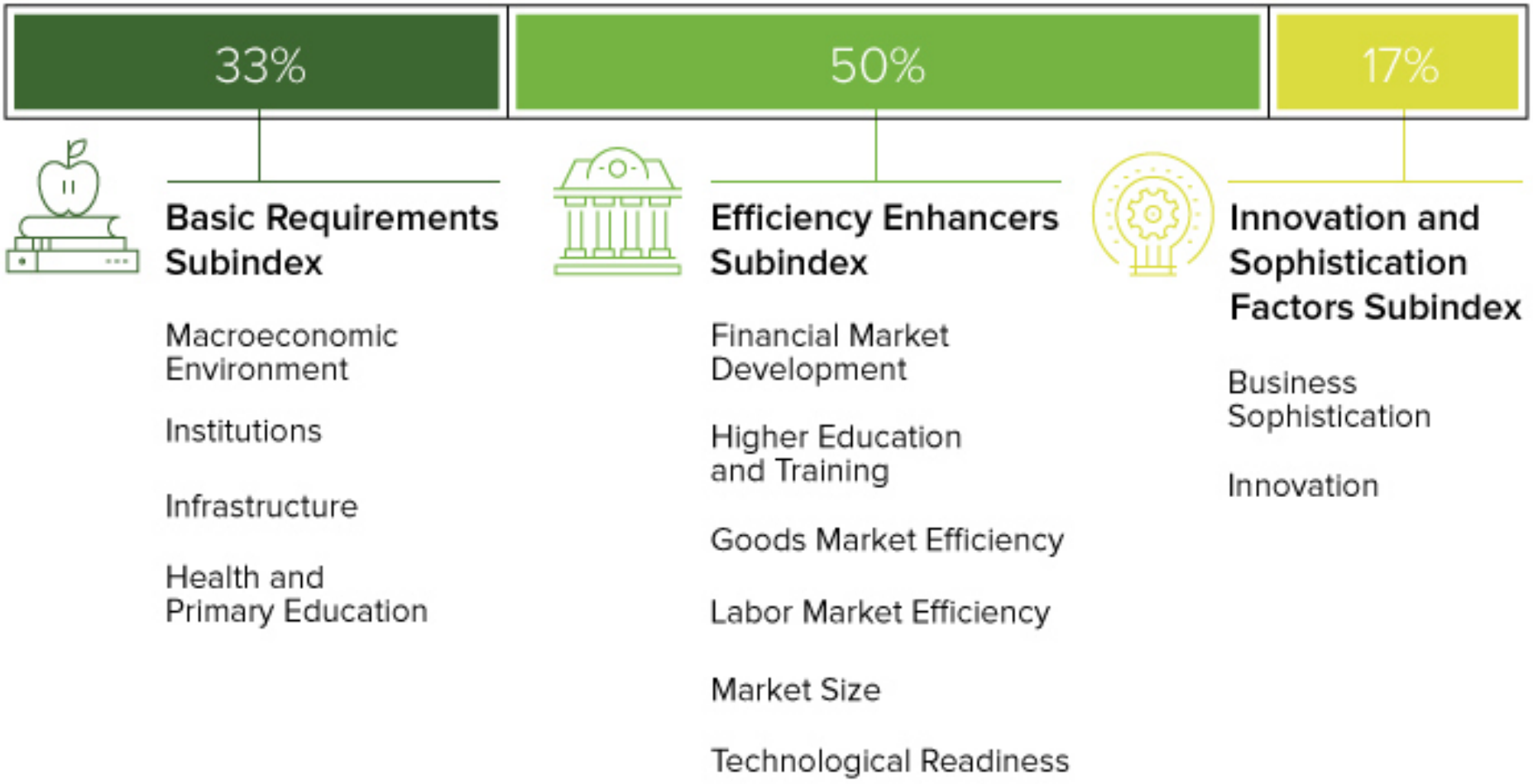

Delon
Secure
https://www.google.com.sg/?gws_rd=ssl
Apps
Free Sports Team We
Teamer Takes The Ha
Amazon.com: Online
Property Investing Se
Weebly - Create a fre
WordPress.com — Ge
SportingPulse: The Sp
Soccer News, Youth S
Gmail
Images
Google
Google Search
I'm Feeling Lucky
Google offered in: 中文（繁體）
Taiwan
Advertising
Business
About
Privacy
Terms
Settings

MEASURING GLOBAL COMPETITIVENESS

The most competitive economies over time, according to the WEF

Source: http://www.visualcapitalist.com/measuring-global-competitiveness/

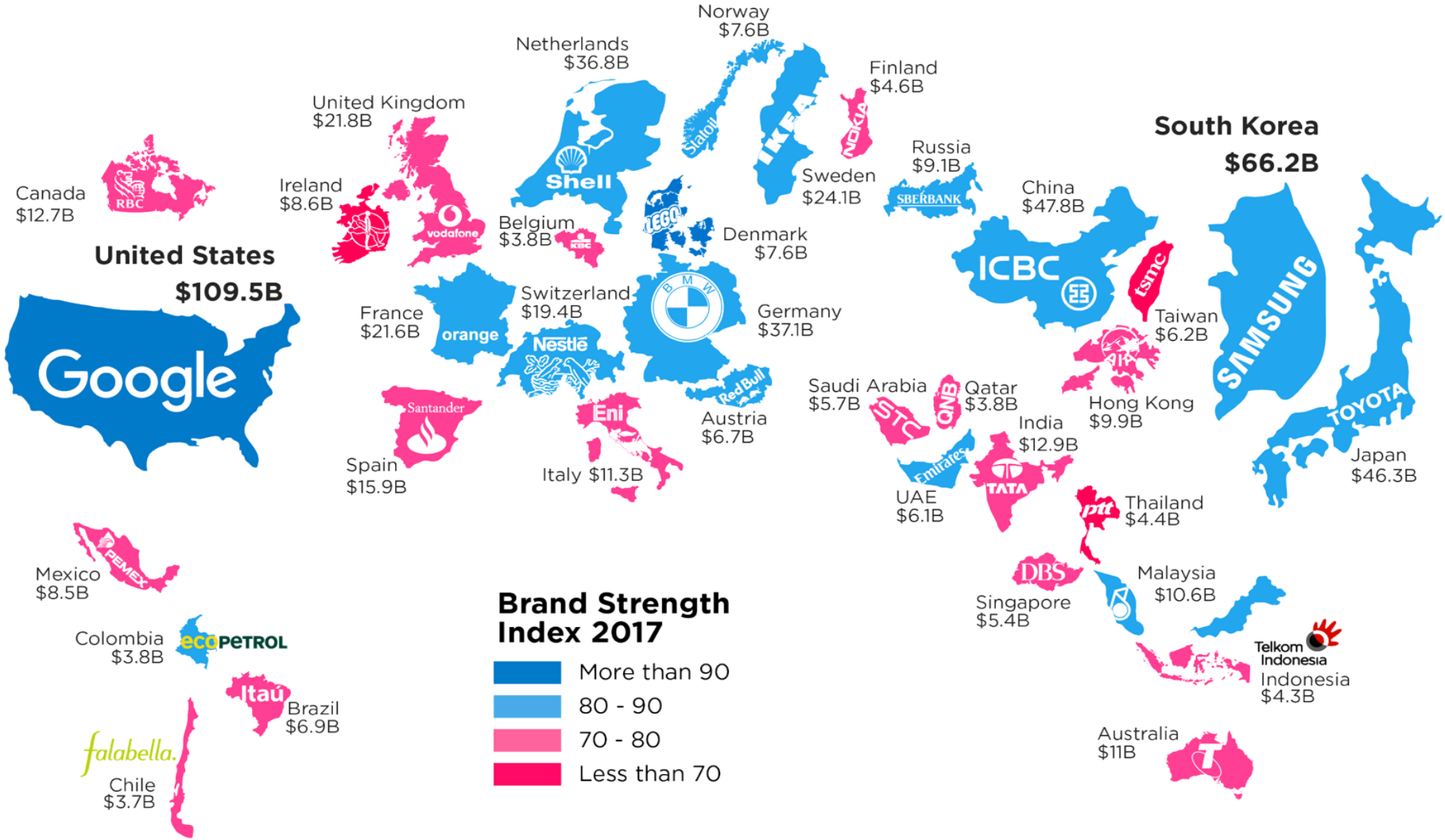
THE GLOBAL COMPETITIVENESS INDEX



Source: http://www.visualcapitalist.com/measuring-global-competitiveness/

Rank	Country	Current Score (2016)	Previous Score (2015)	Change
14	Taiwan	5.28	5.28	0.00
2	Singapore	5.72	5.68	0.04
3	United States	5.70	5.61	0.09
4	Netherlands	5.57	5.50	0.07
5	Germany	5.57	5.53	0.04
6	Sweden	5.53	5.43	0.10
7	United Kingdom	5.49	5.43	0.06
8	Japan	5.48	5.47	0.01
9	Hong Kong	5.48	5.46	0.02
10	Finland	5.44	5.45	-0.01

Source: http://www.visualcapitalist.com/measuring-global-competitiveness/



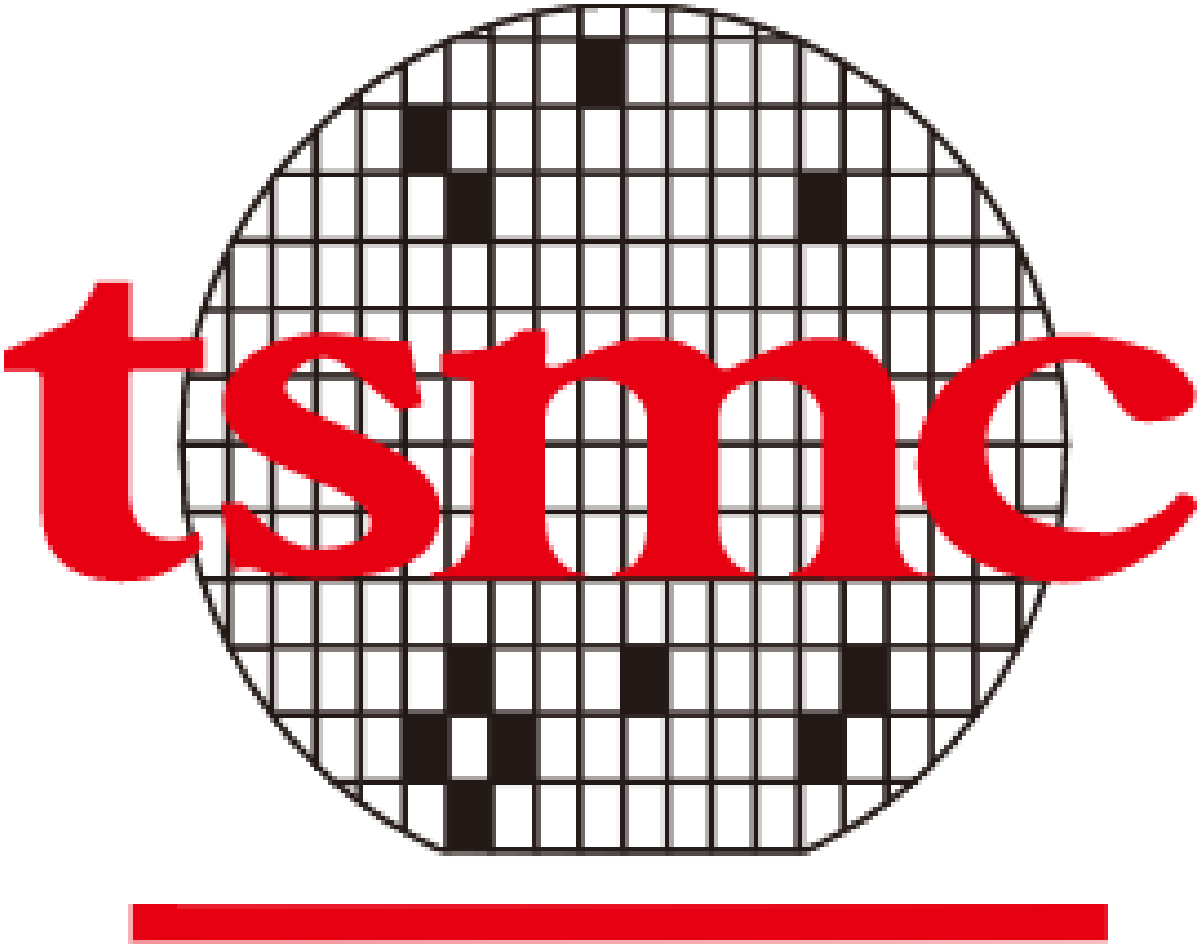
How to read: The map shows the biggest brand in selected countries. Each brand shown is the biggest company of its country. Each country is sized to reflect the global value of its major brand (bigger is more valuable, of course). The colors represent brand strength, out of a maximum of 100.

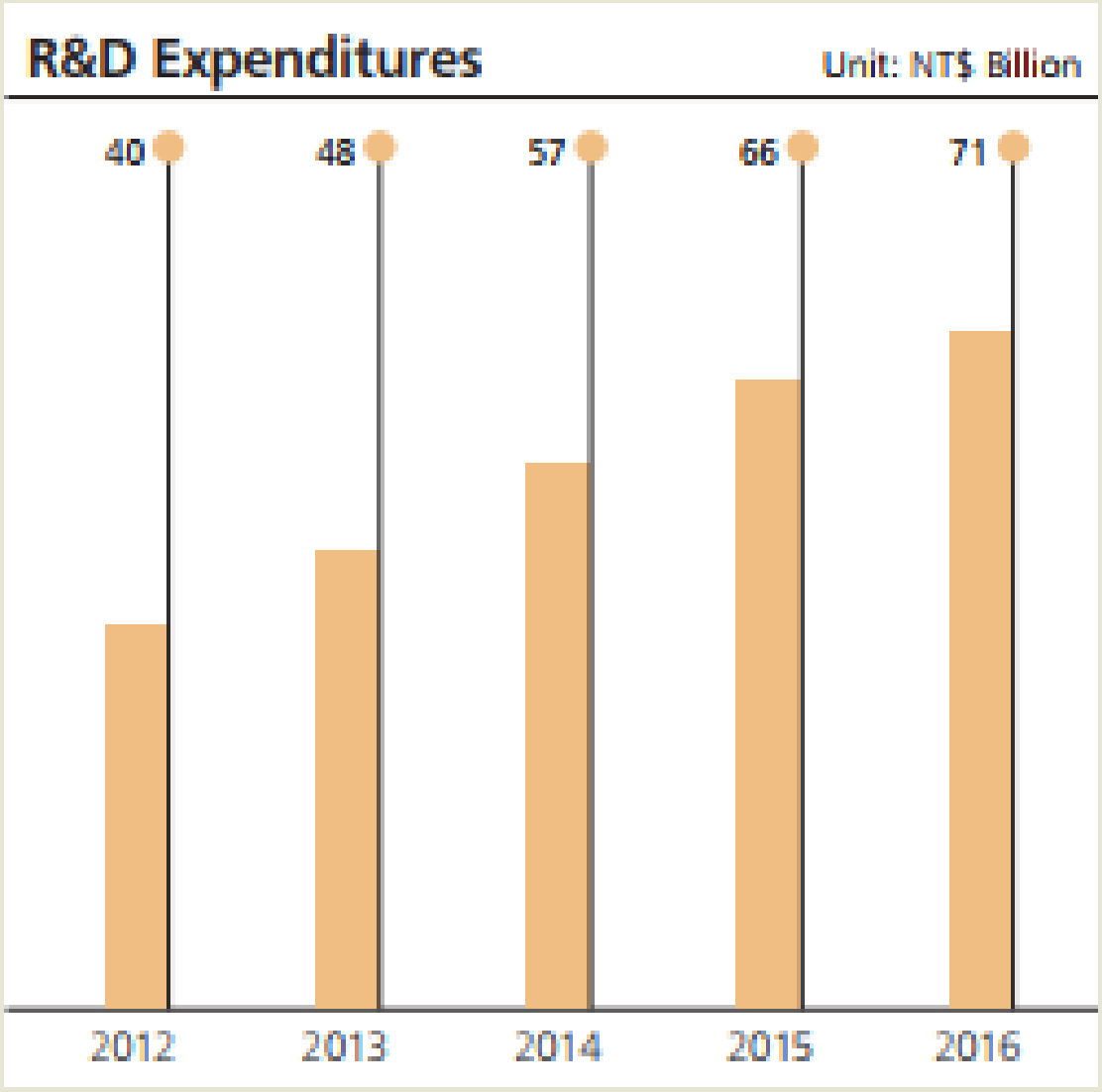
Sources:
https://howmuch.net/articles/most-valuable-brands-2017
http://brandfinance.com/

howmuch.net

Source: http://www.visualcapitalist.com/map-shows-valuable-brand-country/

Taiwan Semiconductor Manufacturing Company





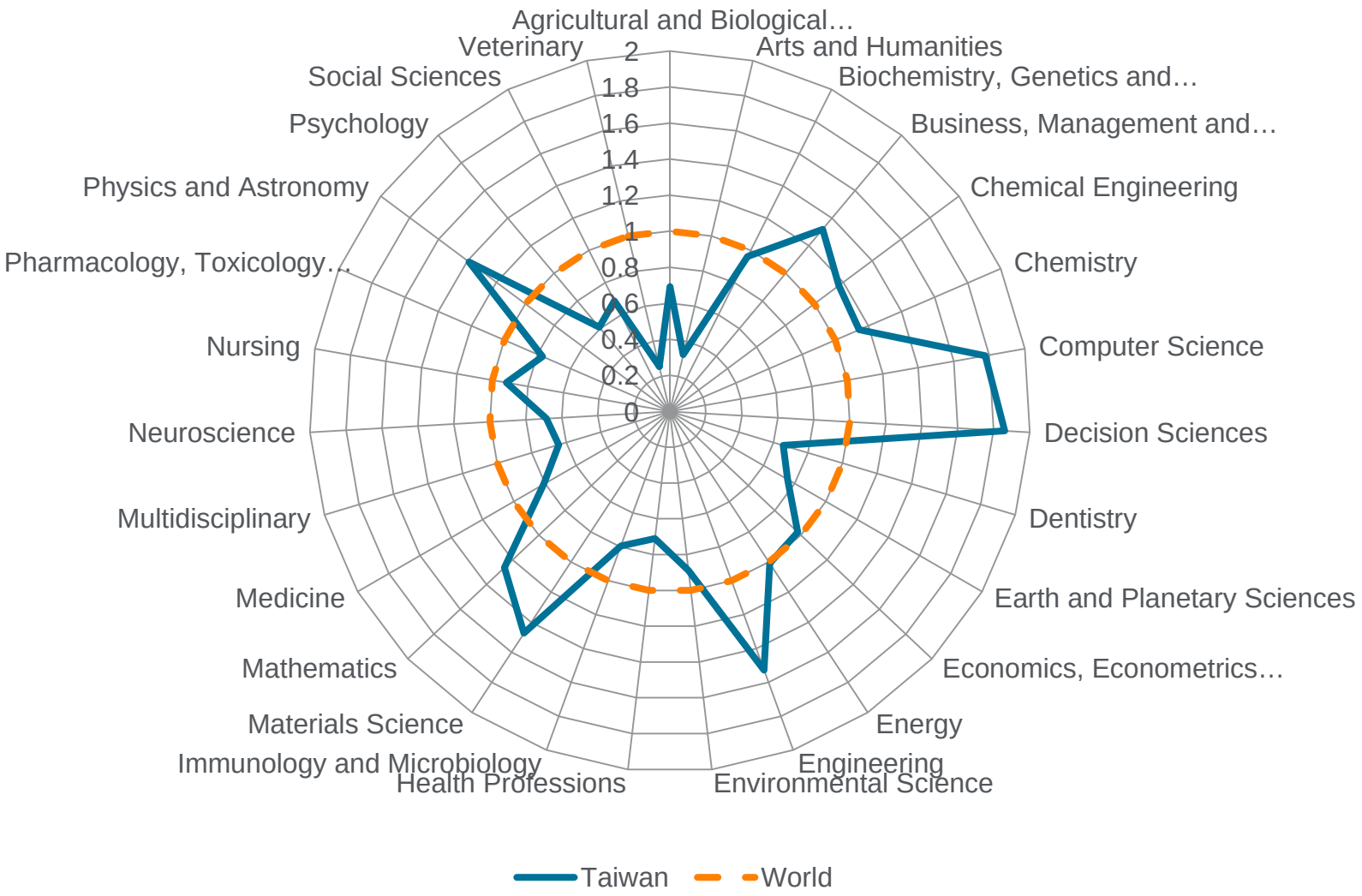
In 2016 TSMC continued to invest in research and development, with total R&D expenditures amounting to **8%** of revenue, a level that equals or exceeds the R&D investment of many other leading high- tech companies.

Future R&D Plans

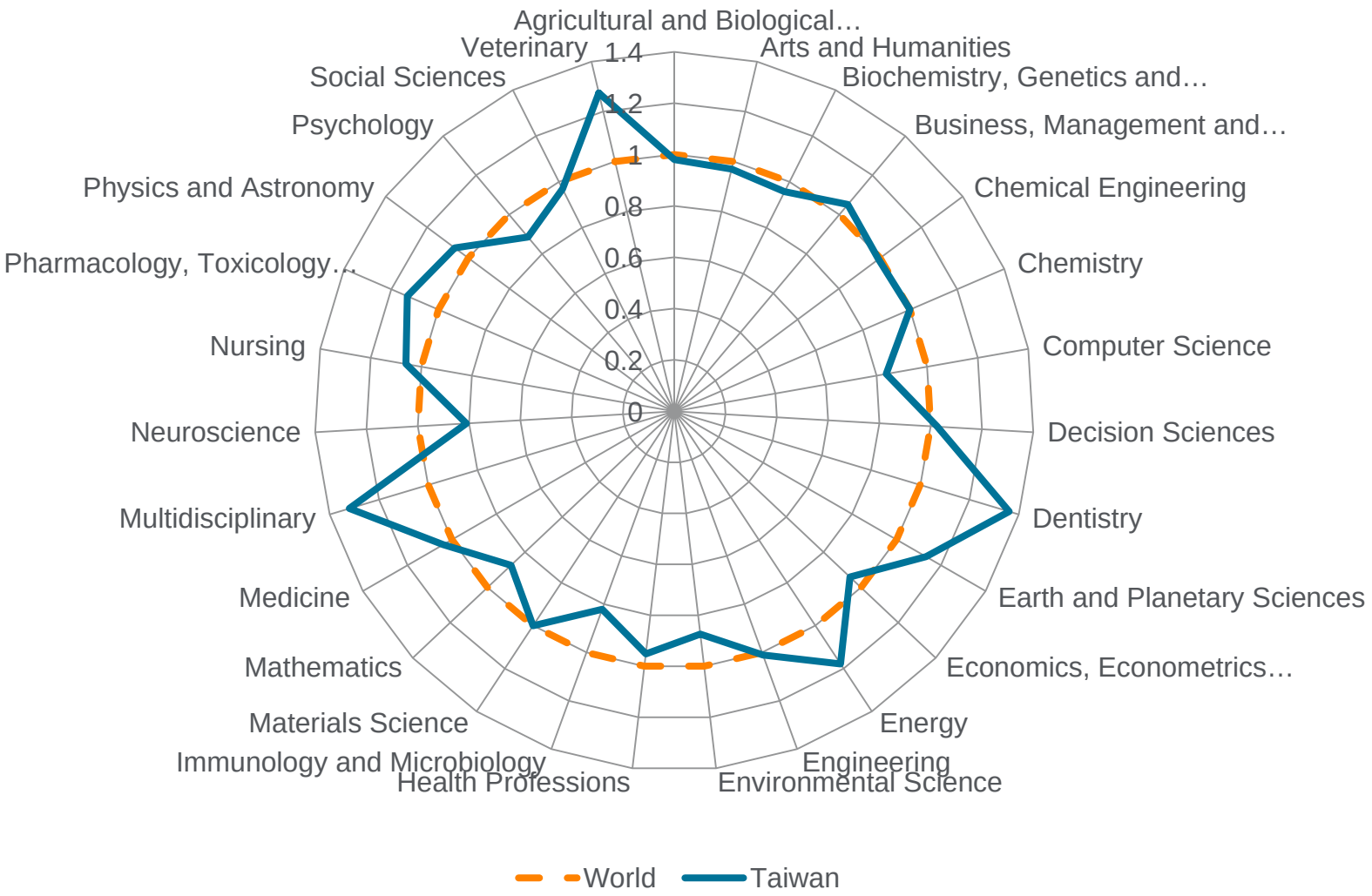
With a highly competent and dedicated R&D team and its unwavering commitment to innovation, TSMC is confident in its ability to deliver the best and most cost-effective SoC technologies to its customers and to drive future business growth and profitability for years to come.

Supporting the Research Through Content

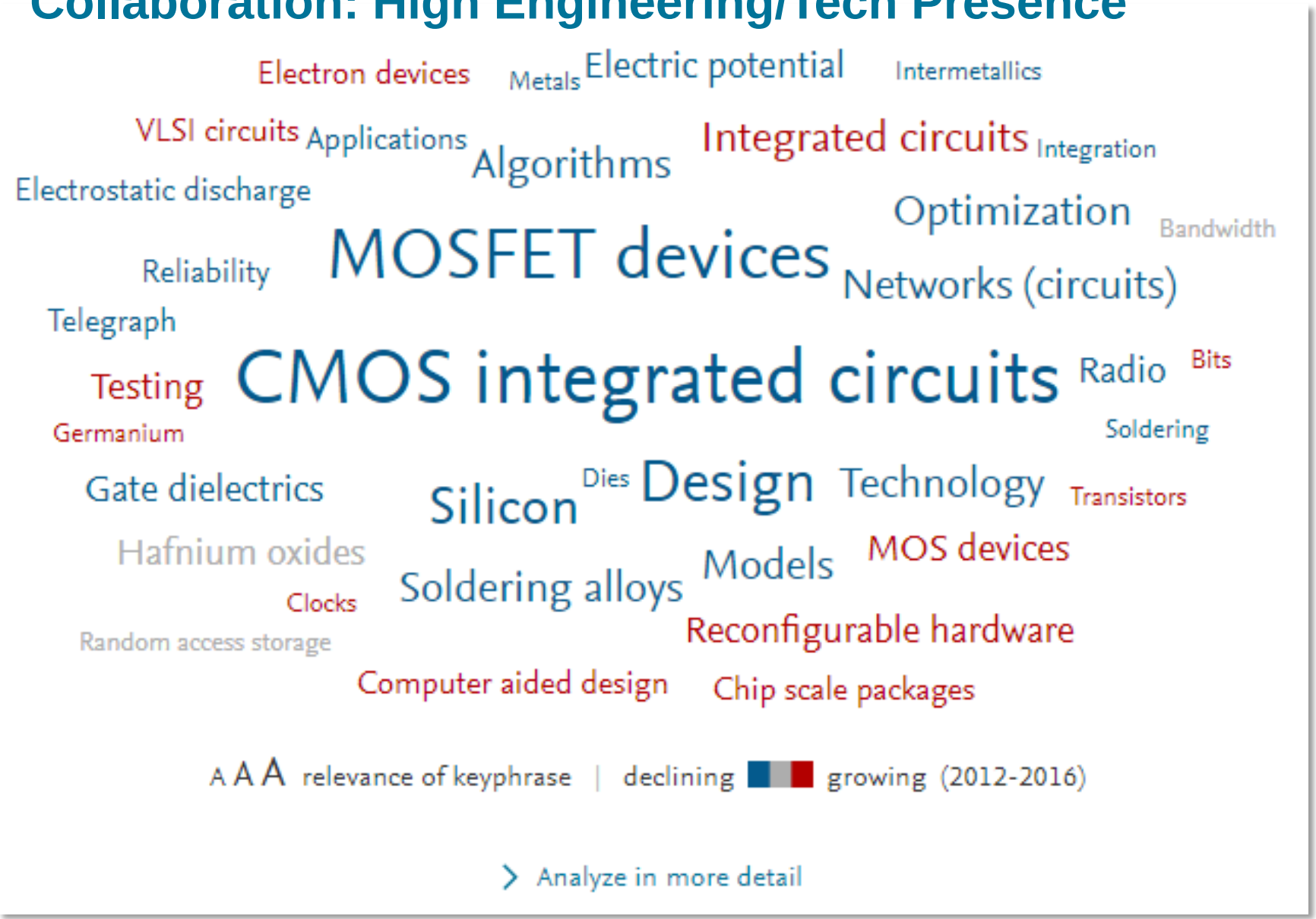
Taiwan's Research Output by Subject Area Normalized to the World's Overall Research Output



Taiwan's Research Impact by Subject Area Normalized to the World's Overall Research Impact



Top Keyphrases in Taiwan's Academic-Corporate Collaboration: High Engineering/Tech Presence



Identifying the content gaps

Scopus & SciVal

- Track all journal activity
- Article citation
- Research/subject growth
- Citation impact
- Influential authors and institutions
- Research funding
- Book usage trends

Analysis

- Identify hot growth areas and correlate with high-performing authors
- Identify research gaps
- Quantify an idea

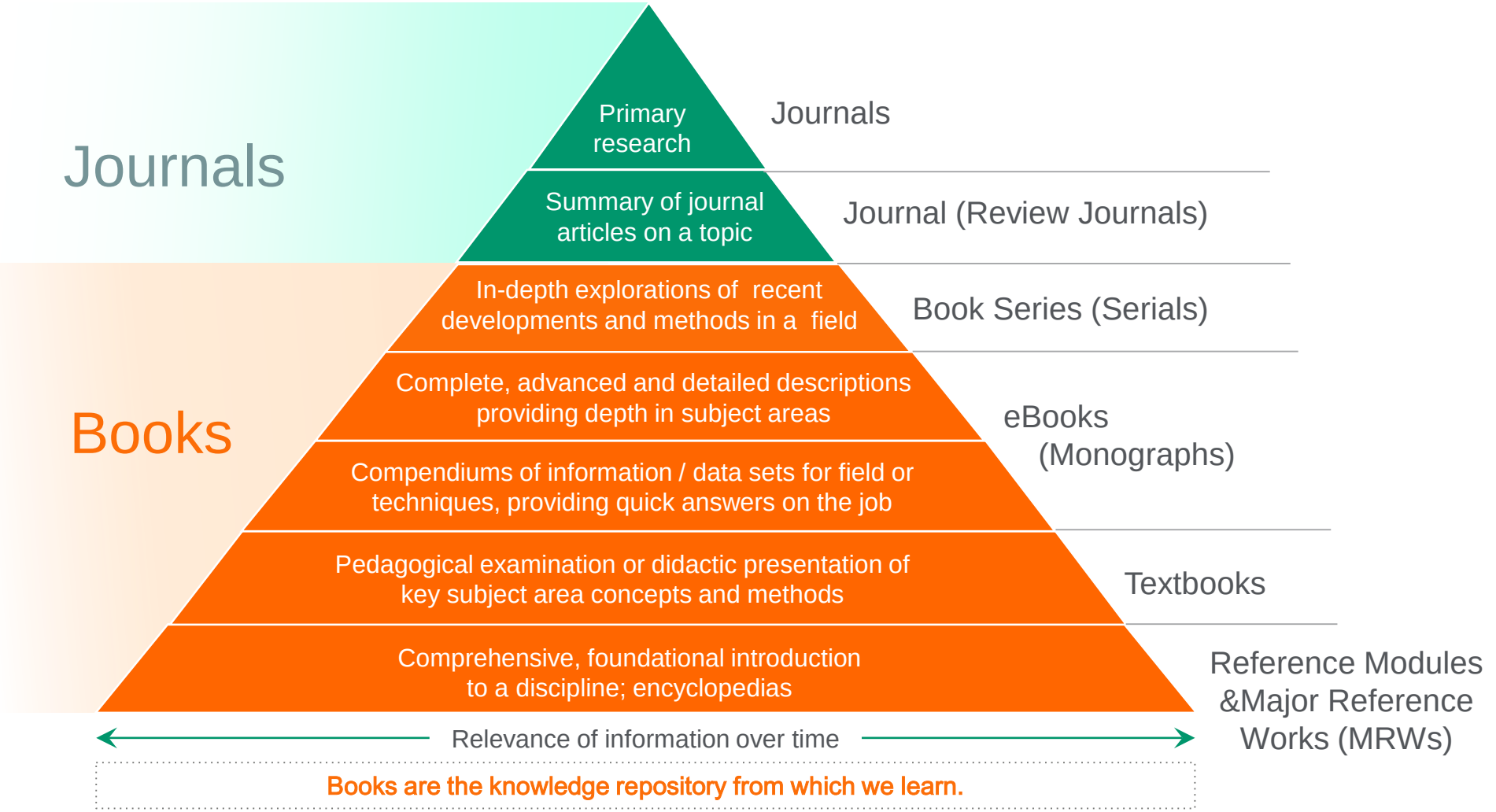
Results

- Create annual strategic plan
- Create ‘hit’ lists
- Profile and prospect for ‘best fit’ authors
- Publish content for comprehensive research coverage

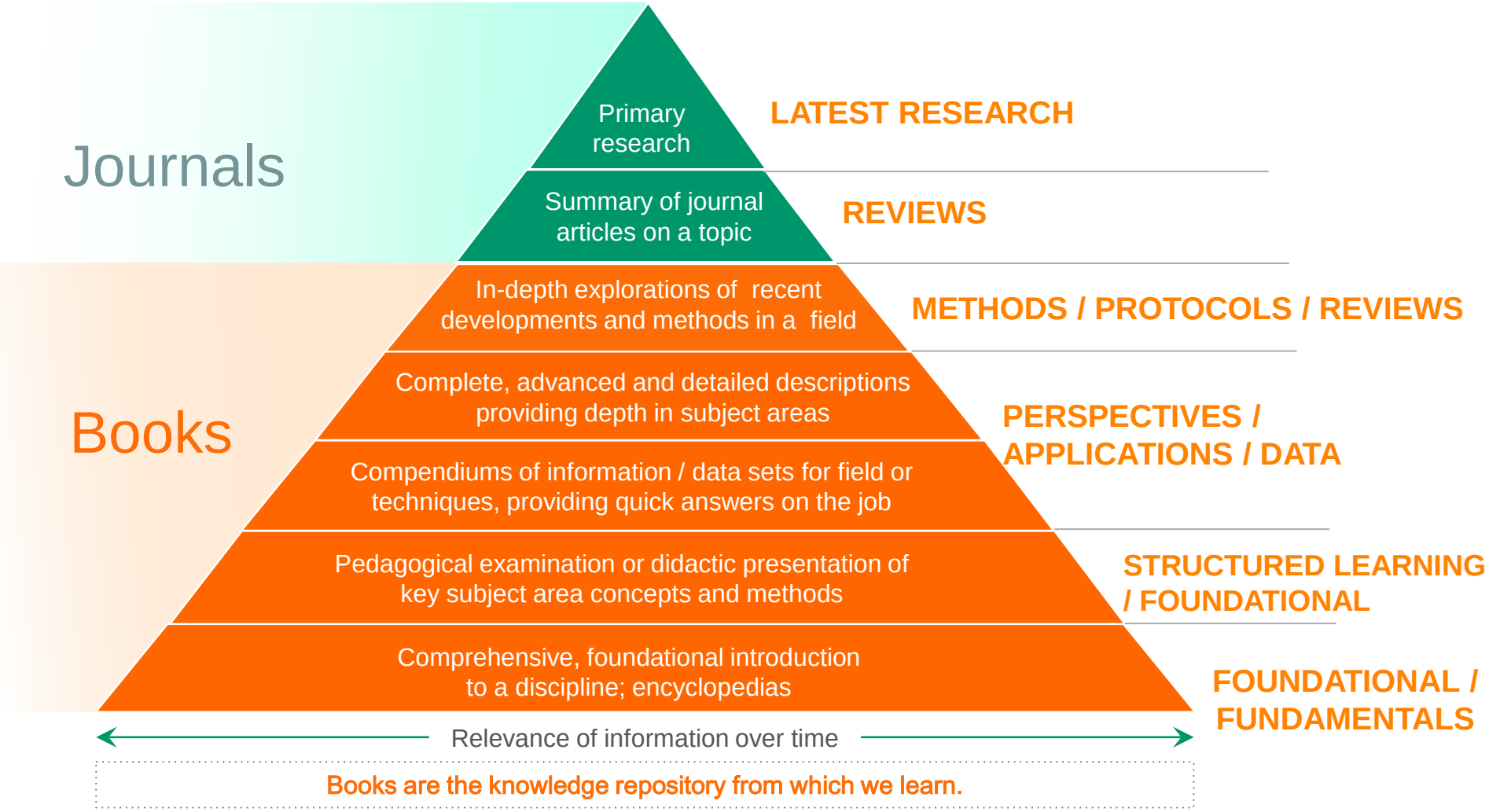
Supporting Research Through Technology

ELSEVIER

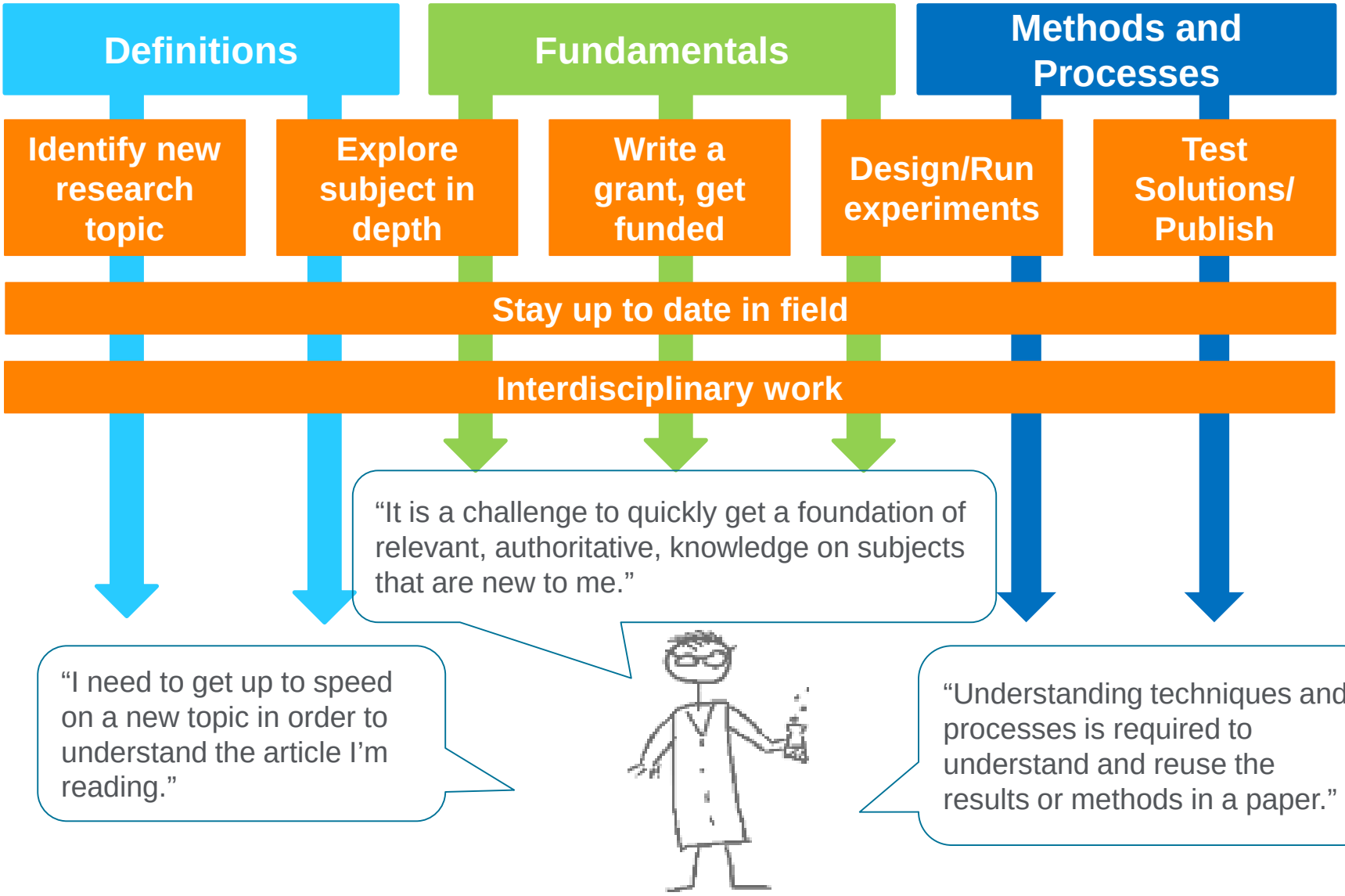
Researchers Need Different Content Types for Different Steps in Their Workflow



Researchers Need Different Content Types for Different Steps in Their Workflow



To Make Their Work Flow Researchers Need Answers To Questions



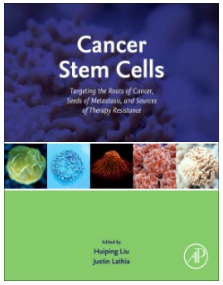
Dr. Yun's Workflow – she's using books AND journals at each stage

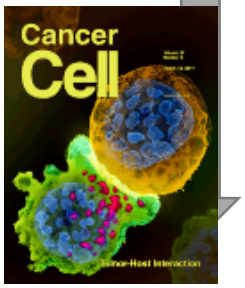
Workflow stage	Explore subject in depth	Design experiments	Analyze results	Create & test solution	Publish Results
Content use cases	Foundational Advcd Reviews Latest Research Applications Case Studies	Methods Protocols Procedures Reference Data	Foundational Advcd Latest Research Methods Applications	Methods Protocols Procedures Reference Data	Future Implications

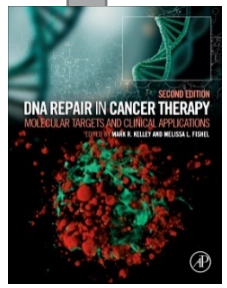
Build knowledge, track related areas, and stay up to date in field

Interdisciplinary work: straddles cancer biology, developmental biology, and stem cell biology

Problem Statements







"I need an authoritative, complete review of cancer stem cells, by authors I can trust, as well as organ-specific identifications and their characteristic mechanisms."

"I need to be aware of the existing FDA-approved anti-angiogenesis agents in enough detail to consider improvements and alternates, and ultimately publish results of my own experiments."

"There is too much literature to cover! We have a weekly 'journal club' discussion in which lab members report on recent scientific papers on cancer stem cells and other relevant fields. This helps me stay up-to-date, but what I really need are overview sources, distillations and summaries that will save us time."

Dr. Yun's Workflow – She's Using Books AND Journals at Each Stage

Alternative View – User Centric – a continuum of content

Journals

Books

Latest Research

Recent Developments

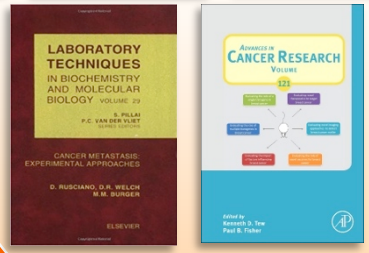
Methods

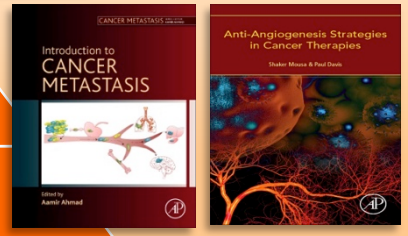
Perspectives

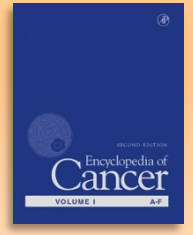
Protocols and Processes

Applications & Fundamentals

Definitions & Comprehensives







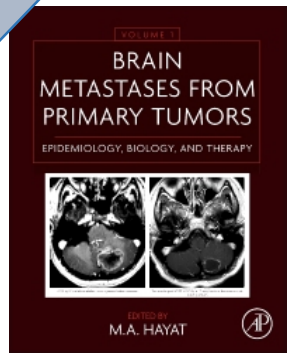
Relevance of information over time

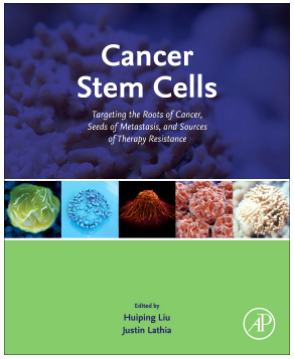
Books are the knowledge repository from which we learn.

Dr. Yun's Interdisciplinary Journey

"I need to understand the links between cancer stem cell biology, brain biology, and drug design."

Cancer Journals





Cancer Biology

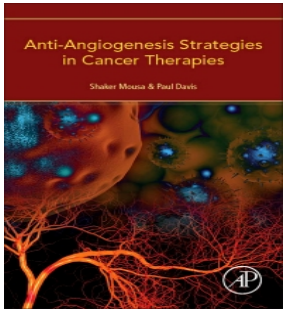
Neuro Journals

Brain Biology

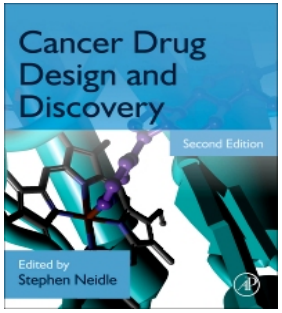
Dr. Yun's Research

Stem Cell Biology

Stem Cell Journals



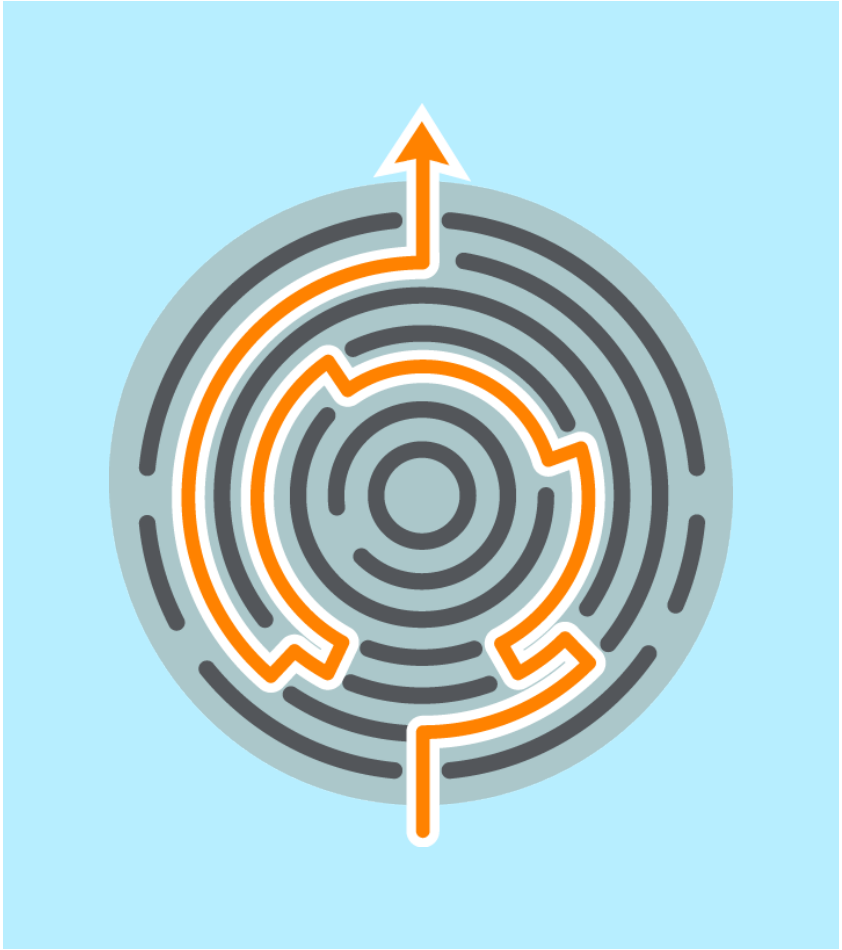
Pharmacology



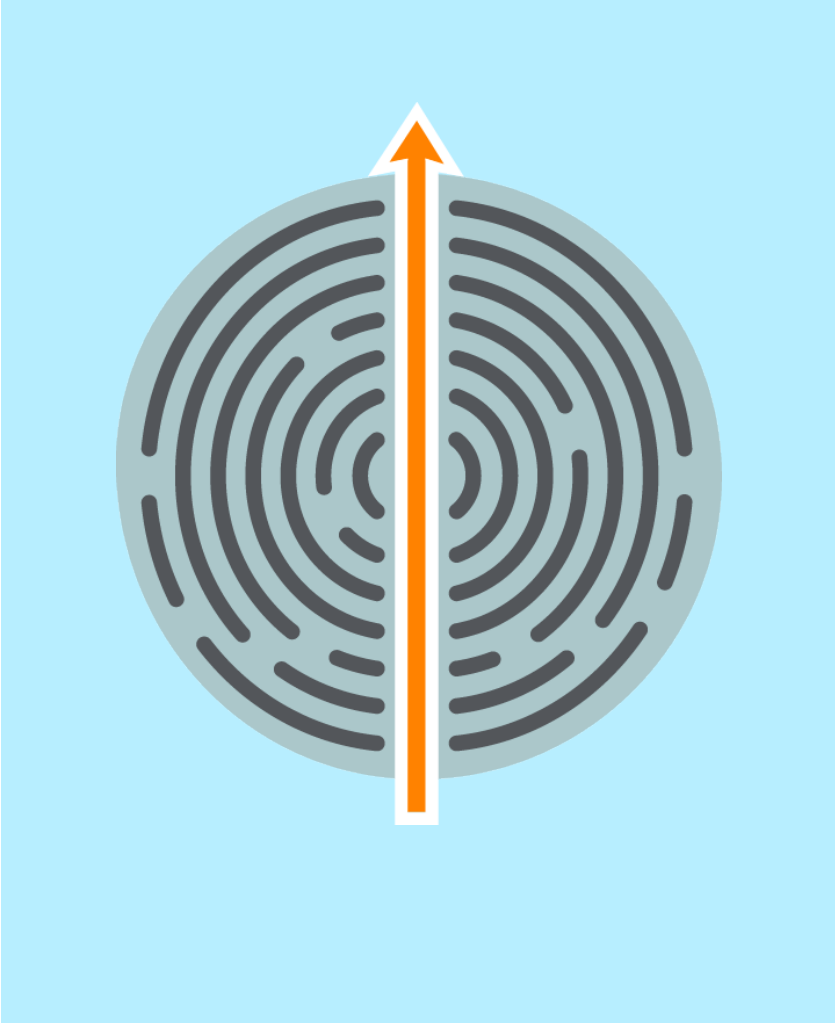
Drug Design/Clinical Trial Journals

Researchers' workflows are a maze through reference materials, Journal articles and Books

- Even with a full arsenal of tools, researchers:
- Lose time searching that could be spent on producing new research
- Get frustrated with dead ends and irrelevant content
- Become unsure of their next steps, stalling



Researchers can now cut straight to the information they need

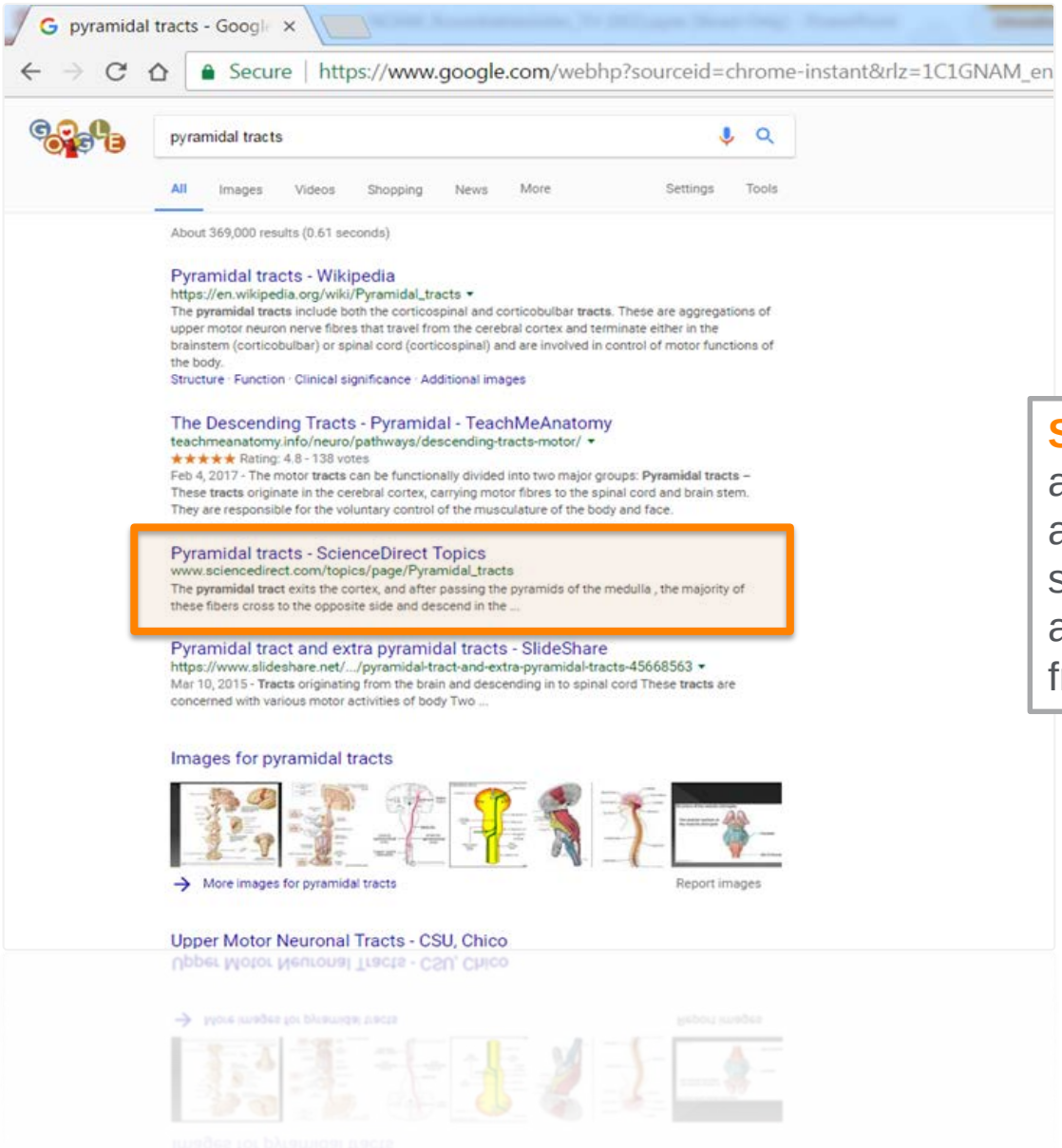


- With ScienceDirect Topics, researchers experience:
- Information at their fingertips
- Curated, relevant, accurate and peer-reviewed content
- A quick, clear path to discovery

With ScienceDirect Topics, Books are available at multiple points within the researcher's workflow

- Books are easily accessed both via search and directly from Journal articles. Hyperlinks embedded in Journal content link to topic pages, which aggregate relevant Book content and topic overviews.

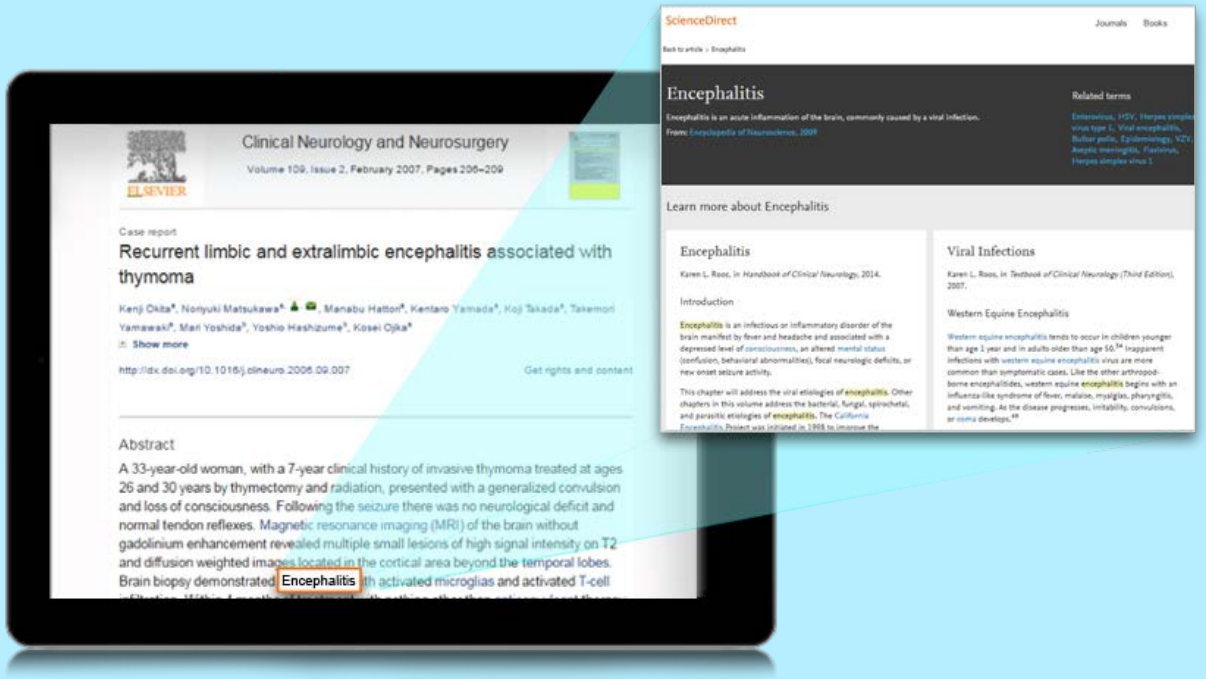
ScienceDirect Topics Improve Efficiency for Researchers



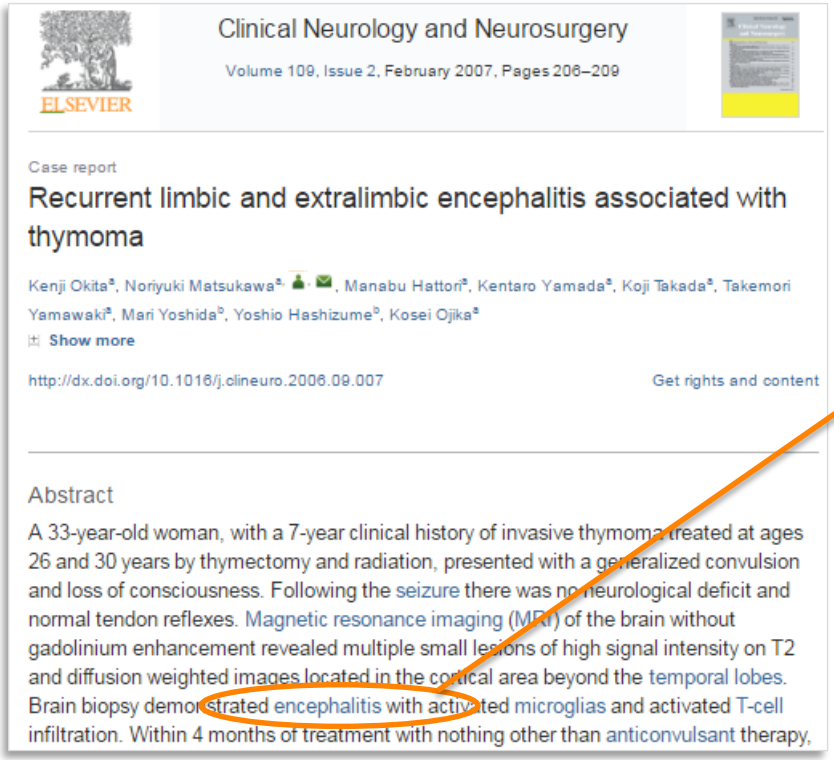
ScienceDirect Topics are indexed through SEO, allowing researchers and students to link directly to the authoritative content directly from the search engines.

ScienceDirect Topics create a seamless route for researchers to link to relevant Book content

- Hyperlinks in Journal content make finding scholarly information quicker and easier, freeing up time for connecting concepts and engaging in innovative research.



ScienceDirect Topics



Clinical Neurology and Neurosurgery

Volume 109, Issue 2, February 2007, Pages 206–209

Case report

Recurrent limbic and extralimbic encephalitis associated with thymoma

Kenji Okita[a], Noriyuki Matsukawa[a], Manabu Hattori[a], Kentaro Yamada[a], Koji Takada[a], Takemori Yamawaki[a], Mari Yoshida[b], Yoshio Hashizume[b], Kosei Ojika[a]

Show more

http://dx.doi.org/10.1016/j.clineuro.2006.09.007 Get rights and content

Abstract

A 33-year-old woman, with a 7-year clinical history of invasive thymoma treated at ages 26 and 30 years by thymectomy and radiation, presented with a generalized convulsion and loss of consciousness. Following the seizure there was no neurological deficit and normal tendon reflexes. Magnetic resonance imaging (MRI) of the brain without gadolinium enhancement revealed multiple small lesions of high signal intensity on T2 and diffusion weighted images located in the cortical area beyond the temporal lobes. Brain biopsy demonstrated encephalitis with activated microglias and activated T-cell infiltration. Within 4 months of treatment with nothing other than anticonvulsant therapy,

ScienceDirect Journals Books

Back to article › Encephalitis

Encephalitis

Encephalitis is an acute inflammation of the brain, commonly caused by a viral infection.

From Encyclopedia of Neuroscience, 2009

1

Related terms

Enterovirus, HSV, Herpes simplex virus type 1, Viral e…, Bulbar polio, Epid…/ZV, Aseptic meningitis, …, Herpes simplex virus 1

2

Learn more about Encephalitis

Encephalitis

Karen L. Roos, in *Handbook of Clinical Neurology*, 2014.

Introduction

Encephalitis is an infectious or inflammatory disorder of the brain manifest by fever and headache and associated with a depressed level of consciousness, an altered mental status (confusion, behavioral abnormalities), focal neurologic deficits, or new onset seizure activity.

This chapter will address the viral etiologies of encephalitis. Other chapters in this volume address the bacterial, fungal, spirochetal, and parasitic etiologies of encephalitis. The California Encephalitis Project was initiated in 1998 to improve the

3

Viral Infections

Karen L. Roos, in *Textbook of Clinical Neurology (Third Edition)*, 2007.

Western Equine Encephalitis

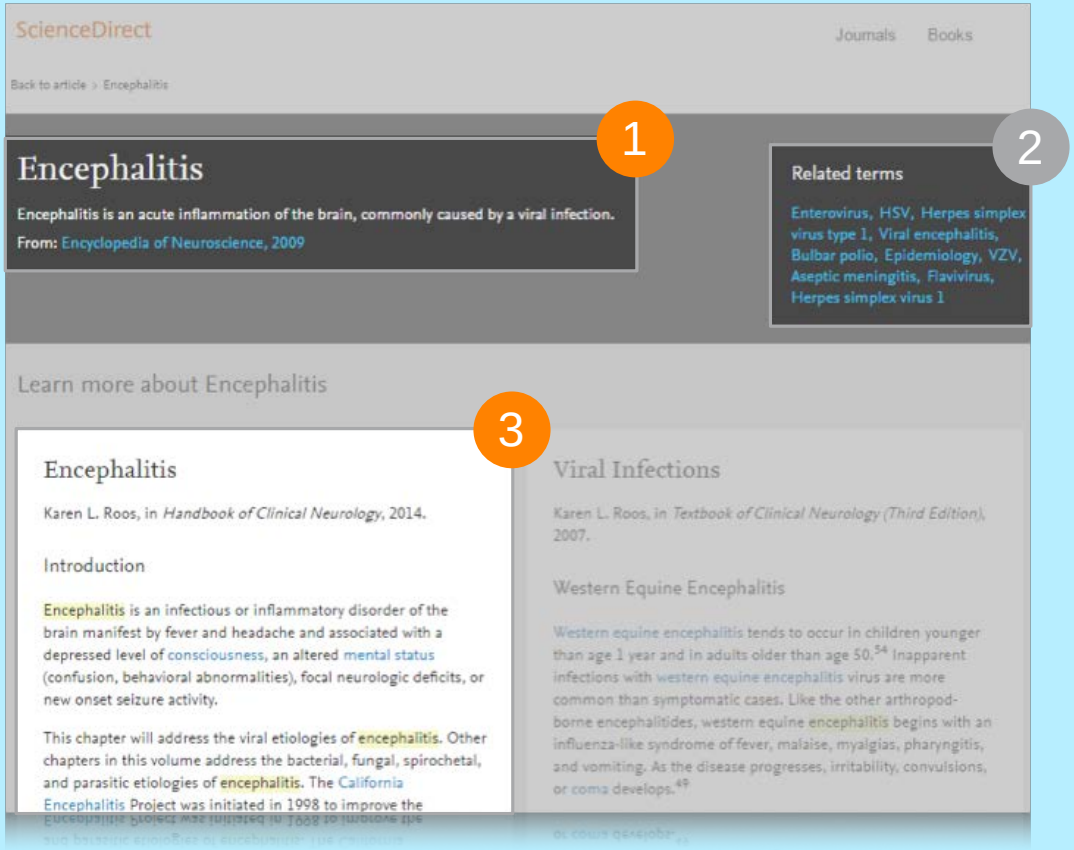
Western equine encephalitis tends to occur in children younger than age 1 year and in adults older than age 50.[54] Inapparent infections with western equine encephalitis virus are more common than symptomatic cases. Like the other arthropod-borne encephalitides, western equine encephalitis begins with an influenza-like syndrome of fever, malaise, myalgias, pharyngitis, and vomiting. As the disease progresses, irritability, convulsions, or coma develops.[49]

Key Features:

1. **Overall clear definition**
2. **Related terms (to topic pages)**
3. **Learn more on topic**
   - 10 longer definitions
   - Related/ relevant reading

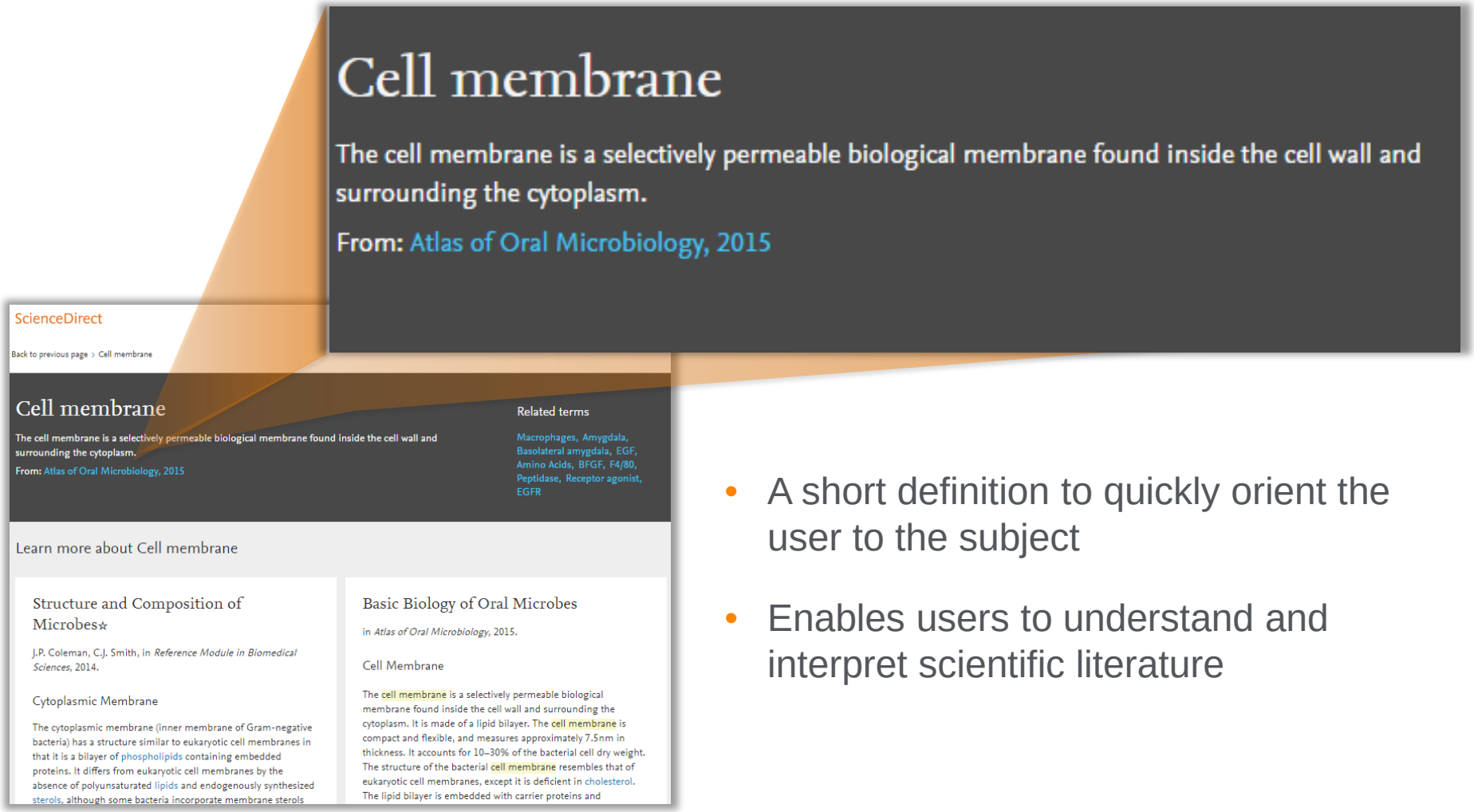
Currently, Neuroscience, Biomedical Sciences and Life Sciences

ScienceDirect Topics help researchers get a quick overview on a topic and link to related content



1. Clear definition
2. Related terms
3. Links to relevant Book content

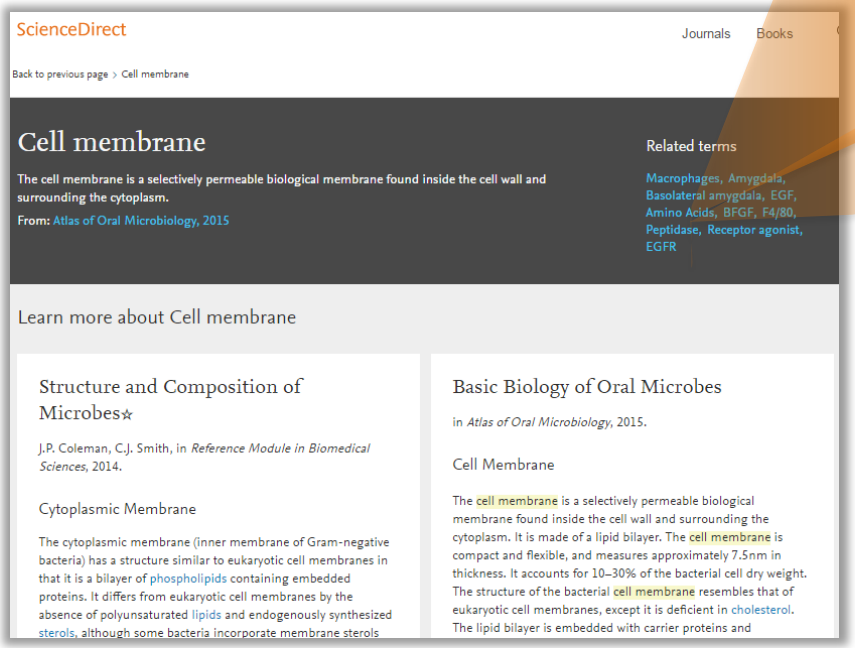
1 Quick Definition

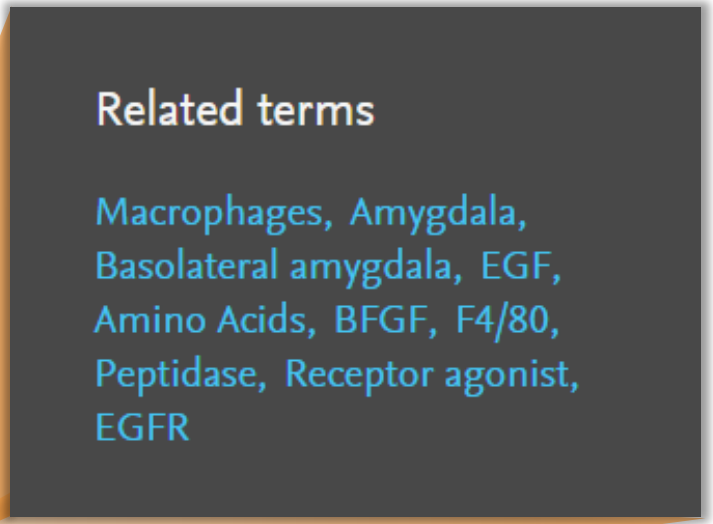


- A short definition to quickly orient the user to the subject
- Enables users to understand and interpret scientific literature

2 Related Terms

- Users can learn more through interdisciplinary links

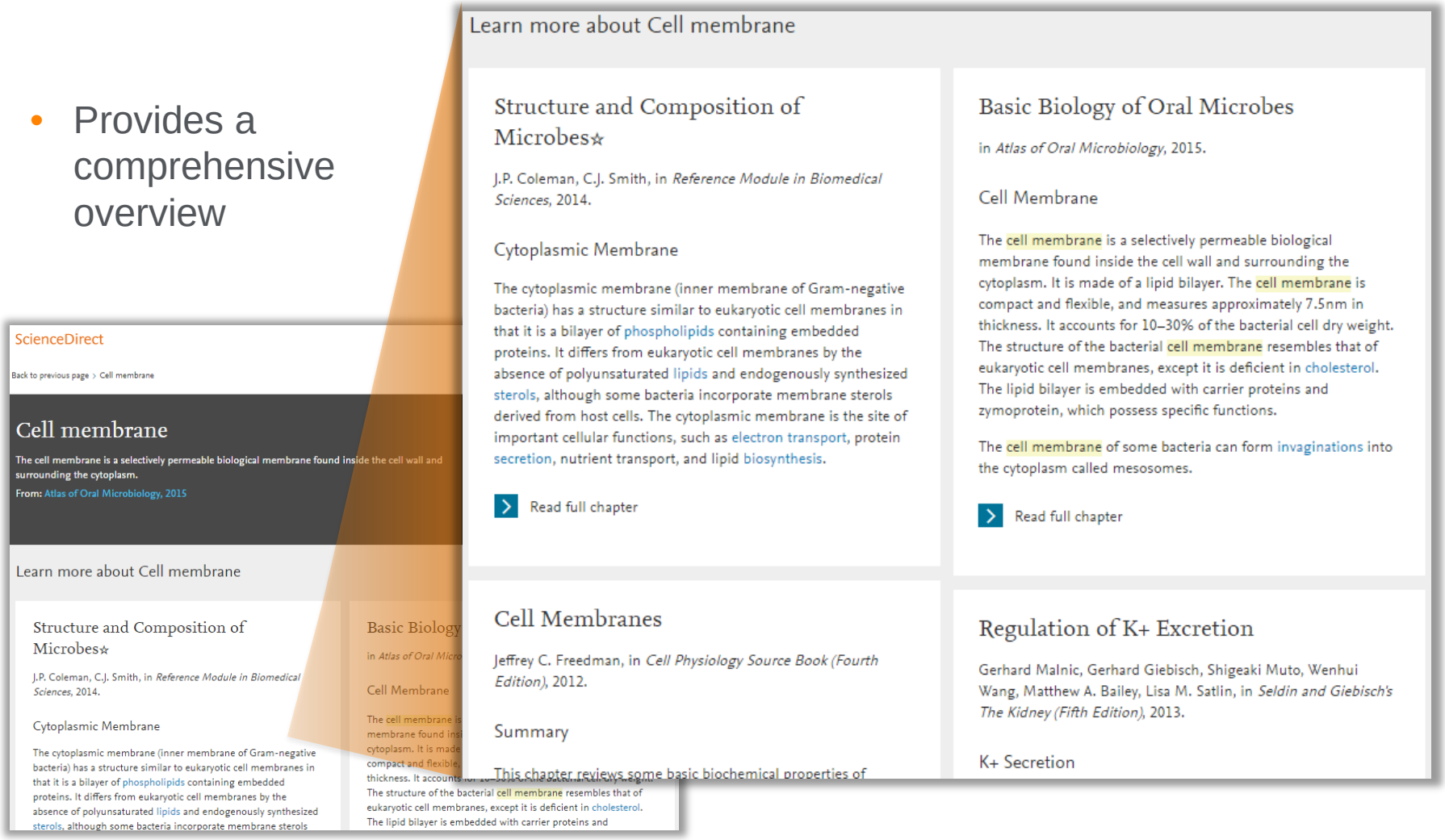




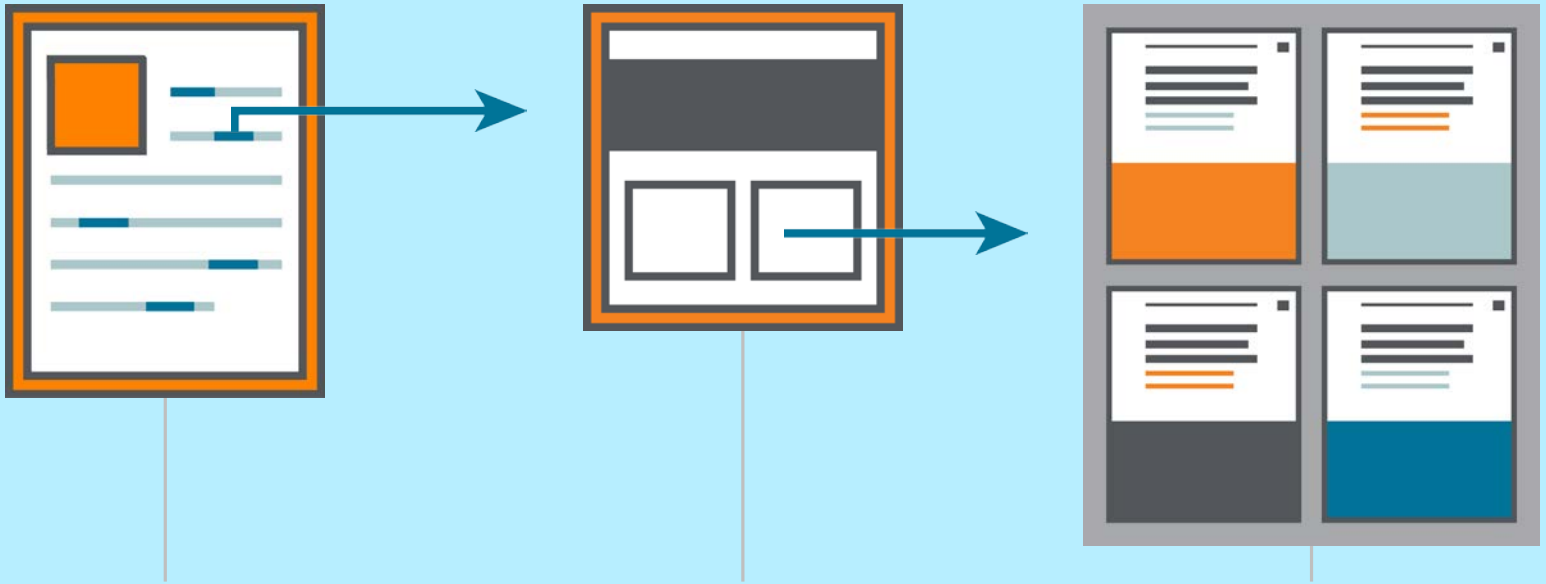
- Ideal for those who want to explore further

2 Relevant Excerpts

- Provides a comprehensive overview



ScienceDirect Topics bring speed, selectivity and serendipity to researchers' workflows



Journal Content

- Specialized knowledge
- Narrow focus
- Extreme depth
- Cutting-edge research

Topic Pages

- Summary knowledge
- Overview
- Connects topics and content

Book Content

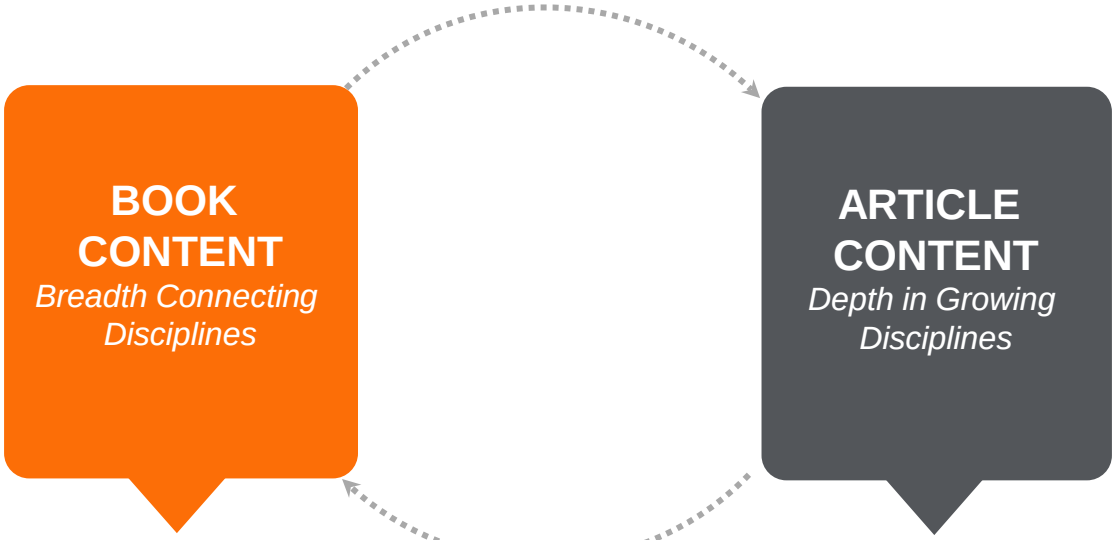
- Gateway knowledge
- General focus
- Comprehensive breadth
- Established cannon

ScienceDirect Topics make all of your content work harder for you

- Linking content through topic pages:
- Increases the ROI of your Journal and Book Content
- Provides you with more user data
- Helps you determine where you can make the most of your content investments
- Increases the discoverability of Books and Journal content
- Encourages researchers to add their papers to the institutional repository to increase their visibility

eBook Content Complements Journal Content

Books and journal articles provide different types of content, but for this reason they are fundamentally interlinked: researchers/students need both to build their knowledge around a topic.

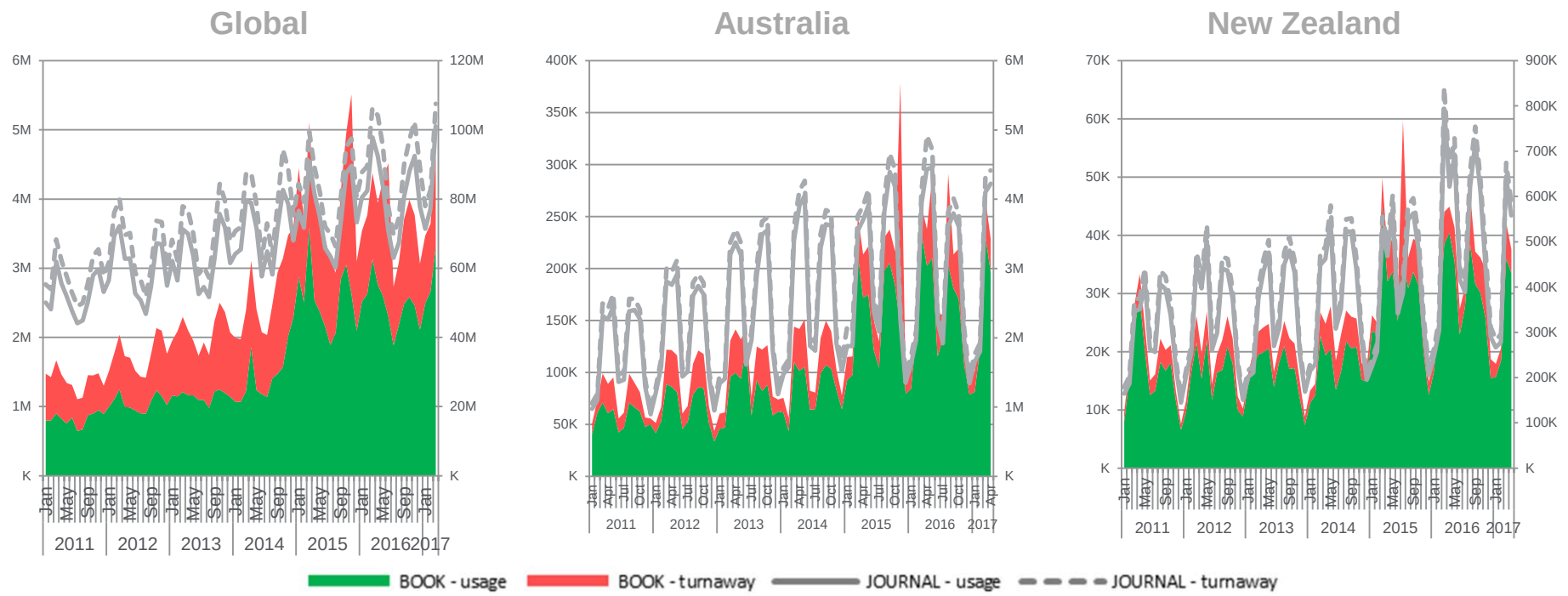


- Facilitating new paths for investigation
- Comprehensive
- Learning tool
- Wide angle
- New topic or recapping old areas

- Specialised knowledge
- Narrow focus
- Extreme depth
- Latest research / new results
- Applying techniques

Source: Communispace survey of 150 users (students to senior researchers) conducted for S&T Books in October 2014

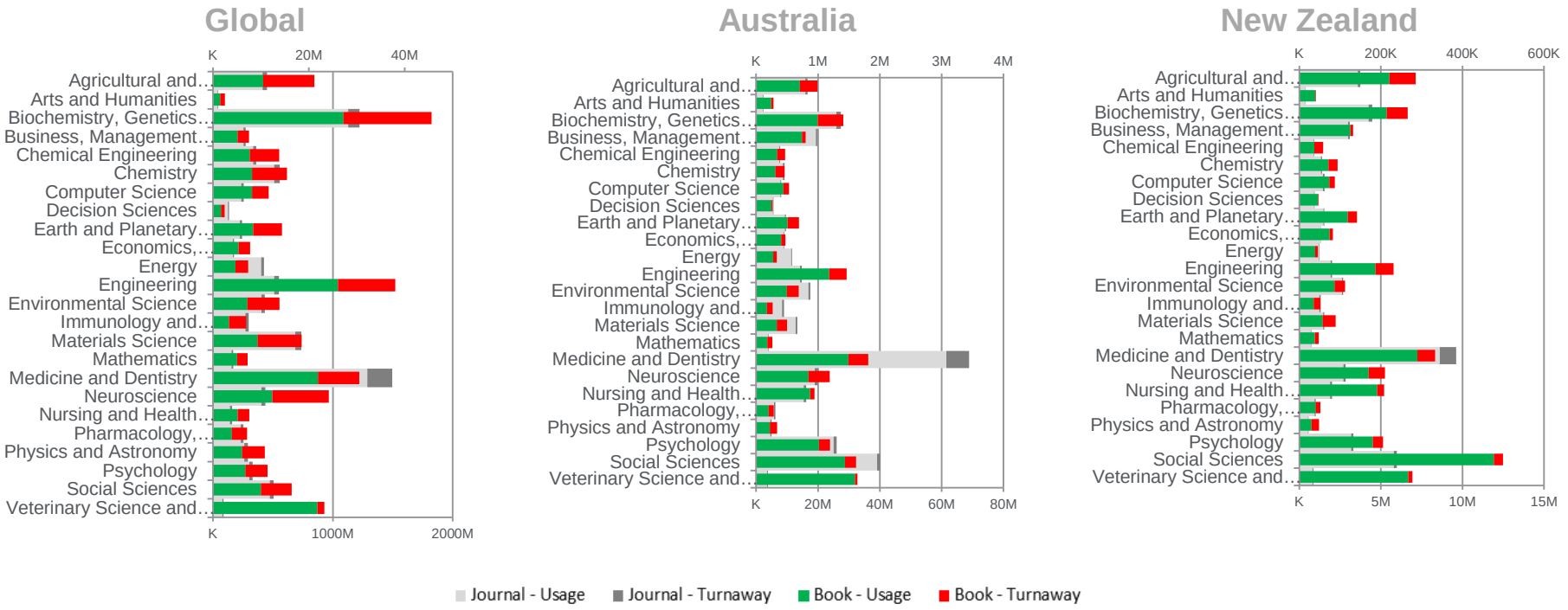
SD content usage & demand – Books and Journals



Global	Australia	New Zealand
Globally, book usage & turnaways are correlated with journal usage & turnaways, showing that researchers and students used both content		
The book usage from has been increased **74%** in 2015 and **-3%** in 2016.	The book usage from has been increased **77%** in 2015 and **4%** in 2016.	The book usage from has been increased **66%** in 2015 and **0.3%** in 2016.
The ratio of turnaways to usage is relatively high, indicating a demand for books.		

Data source: ScienceDirect usage data 2011-2017

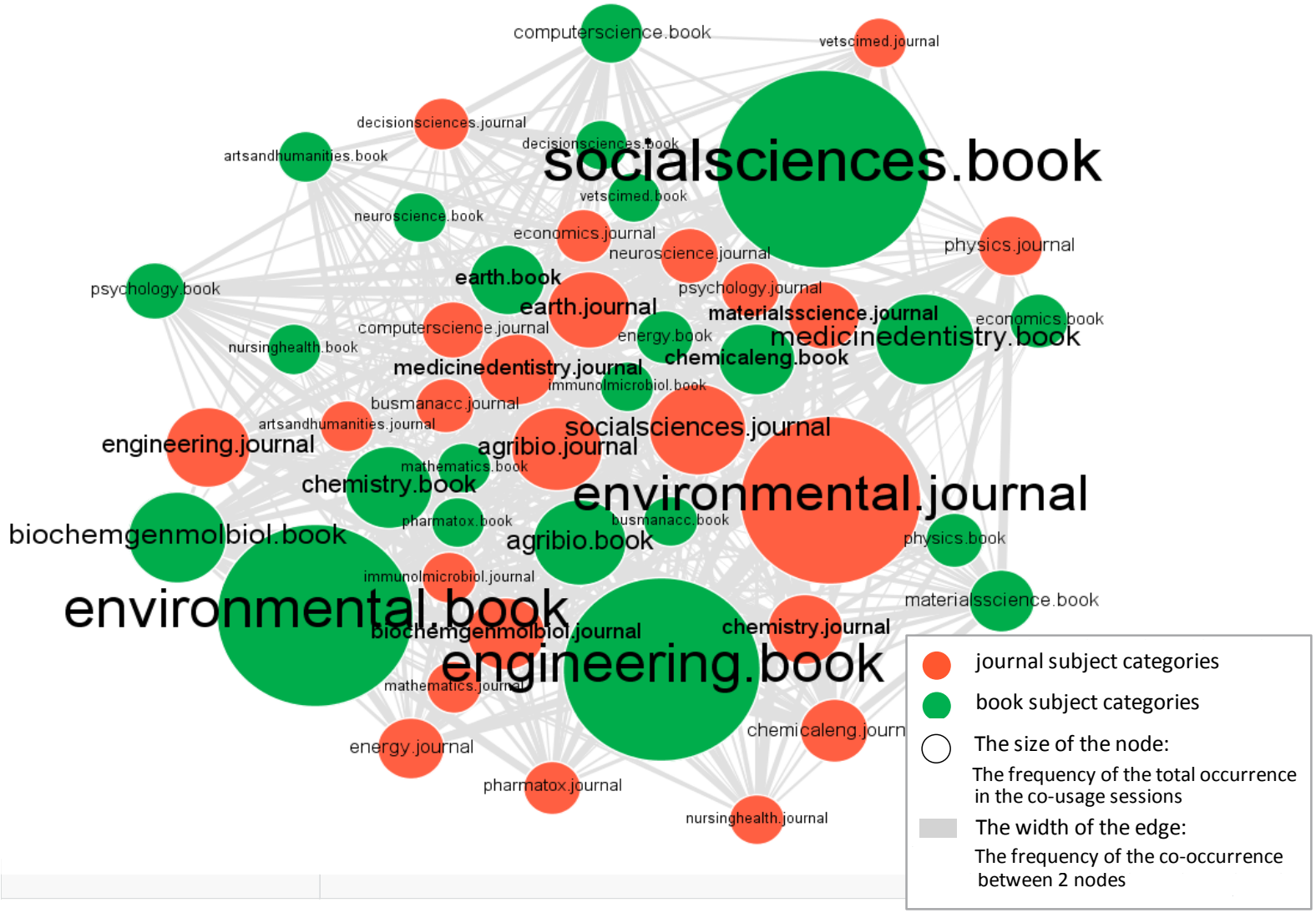
SD usage & demand by subject – Books and Journals



Global	Australia	New Zealand
The comparison of book vs. journal usage & turnaways show the fields in which users downloaded or desired relatively more books than journals (see where is a big gap between book and journal usage & turnaways)		
Biggest gap: ❶Engineering; ❷Biochemistry, Genetics and Molecular Biology; ❸Veterinary Science and Veterinary Medicine; …	Biggest gap: ❶Veterinary Science and Veterinary Medicine; ❷Engineering; ❸Arts and Humanities;…	Biggest gap: ❶Veterinary Science and Veterinary Medicine; ❷Engineering; ❸Nursing and Health Professions;…
Highest demand: ❶Biochemistry, Genetics and Molecular Biology; ❷Engineering; ❸Neuroscience; …	Highest demand: ❶Biochemistry, Genetics and Molecular Biology; ❷Neuroscience; ❸Medicine and Dentistry; …	Highest demand: ❶Agricultural and Biological Sciences; ❷Biochemistry, Genetics and Molecular Biology; ❸Neuroscience; …

Data source: ScienceDirect usage data 2014-2017

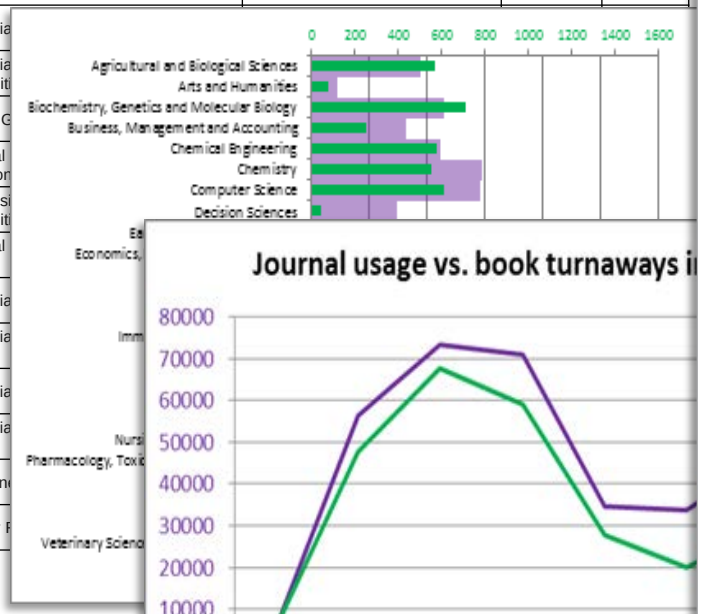
User Behaviour: Data Shows That Users Use Books and Journals Together and Move Between Disciplines

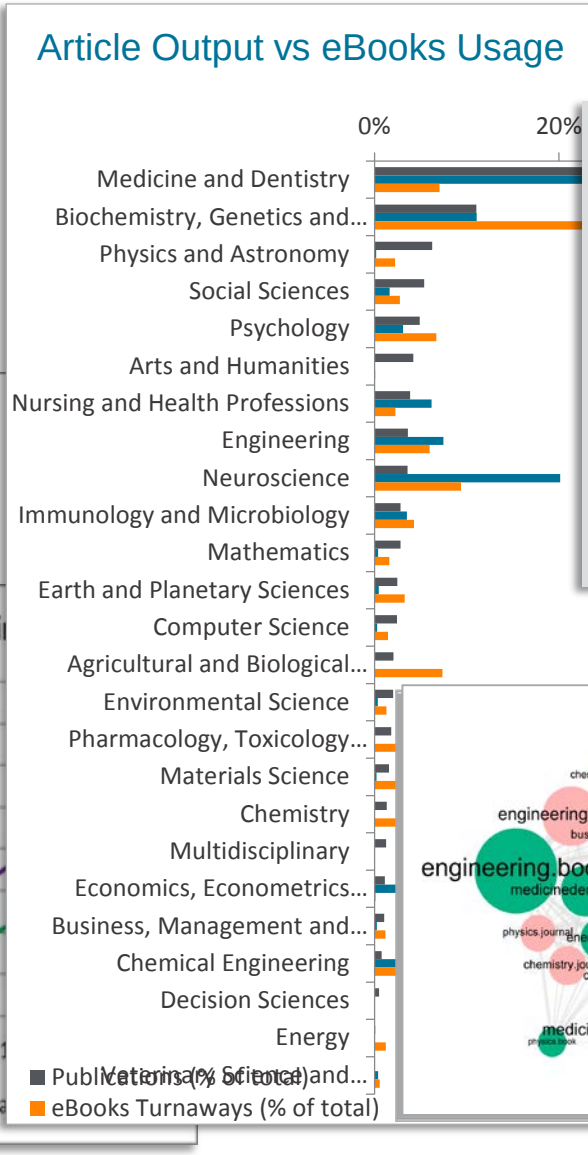


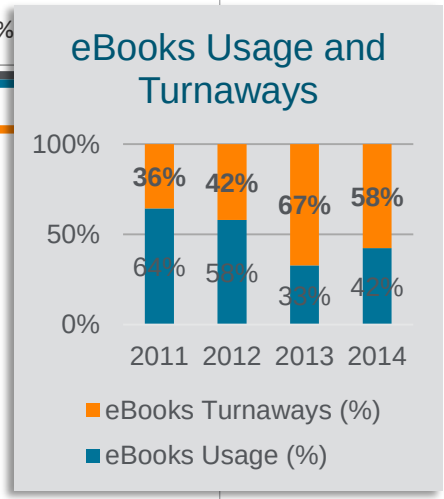
Data source: ScienceDirect usage data in 2015

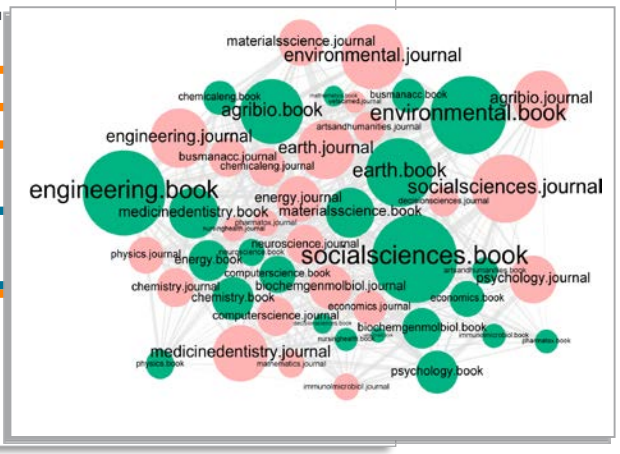
More Insightful Data

Major Reference Work Title	Subject Area	Turnaways	% of Total
International Encyclopedia of the Social & Behavioral Sciences	Social Sciences	59	5%
Encyclopedia of Neuroscience	Neuroscience	41	3%
Treatise on Geochemistry (Second Edition)	Earth and Planetary Sciences	40	3%
Encyclopedia of Human Behavior (Second Edition)	Psychology	39	3%
Encyclopedia			
Encyclopedia (Second Edit			
Treatise on G			
International (Third Edition			
Comprehensi (Second Edit			
International Geography			
Encyclopedia			
Encyclopedia Edition)			
Encyclopedia			
Encyclopedia Edition)			
Climate Vuln			
Other Major			









In Summary…

Supporting Research and Learning through Content

- Elsevier has a strong data driven publishing strategy

Supporting Research Learning through Technology

- The new ScienceDirect Topic Pages will help researchers become more efficient and productive through improved discovery and utility of relevant content

Thank You

Delon Lee,

Head of Customer Engagement,
Books, APAC

de.lee@elsevier.com

2017