European Centre for Environment & Human Health

Horizon Scanning at the European Centre for Environment and Human Health

Marco Palomino
Tim Taylor
Richard Owen

European Regional Development Fund
Investing in your Future

European Union
European Social Fund
Investing in jobs and skills

convergence
for economic transformation

PENINSULA
COLLEGE OF MEDICINE & DENTISTRY
UNIVERSITIES OF EXETER & PLYMOUTH

"I think there is a world market for maybe five computers."
Thomas J. Watson (CEO of IBM, 1943)

European Centre for
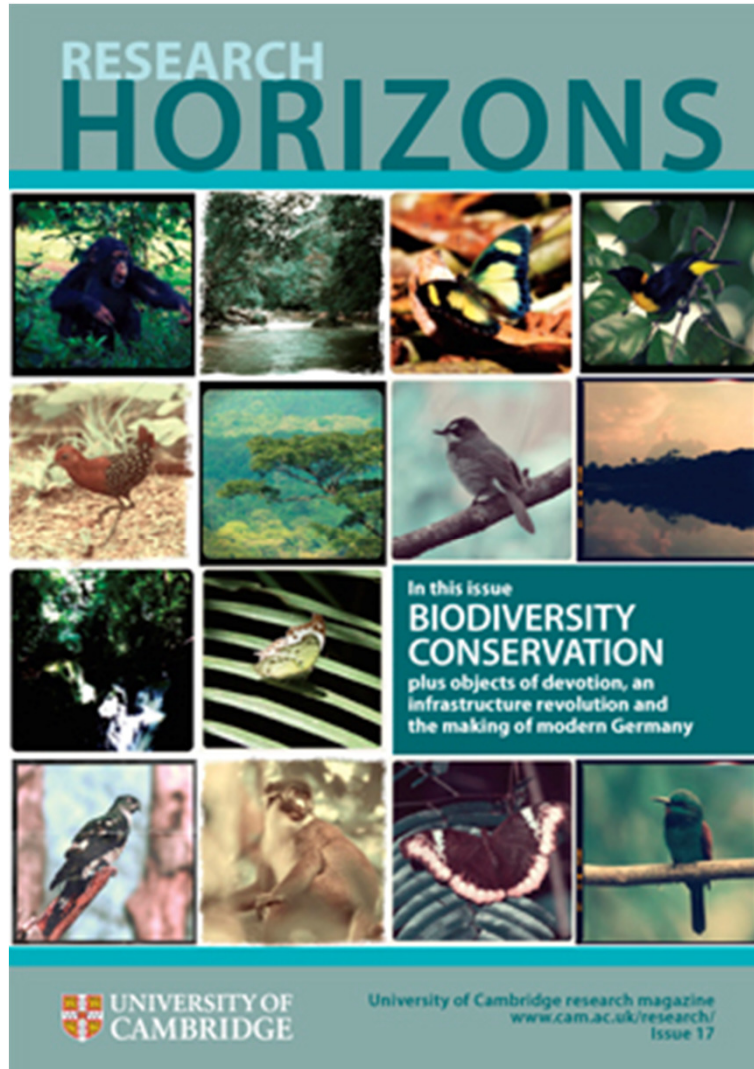Environment & Human Health

Outline

- What is horizon scanning?
  - How has it been carried out traditionally?

- How are we carrying out horizon scanning?
  - Web-based approach.

- What have we done so far?
  - Examples of previous work.

European Centre for
Environment & Human Health

RESEARCH
HORIZONS

In this issue
BIODIVERSITY
CONSERVATION
plus objects of devotion, an
infrastructure revolution and
the making of modern Germany

UNIVERSITY OF
CAMBRIDGE

University of Cambridge research magazine
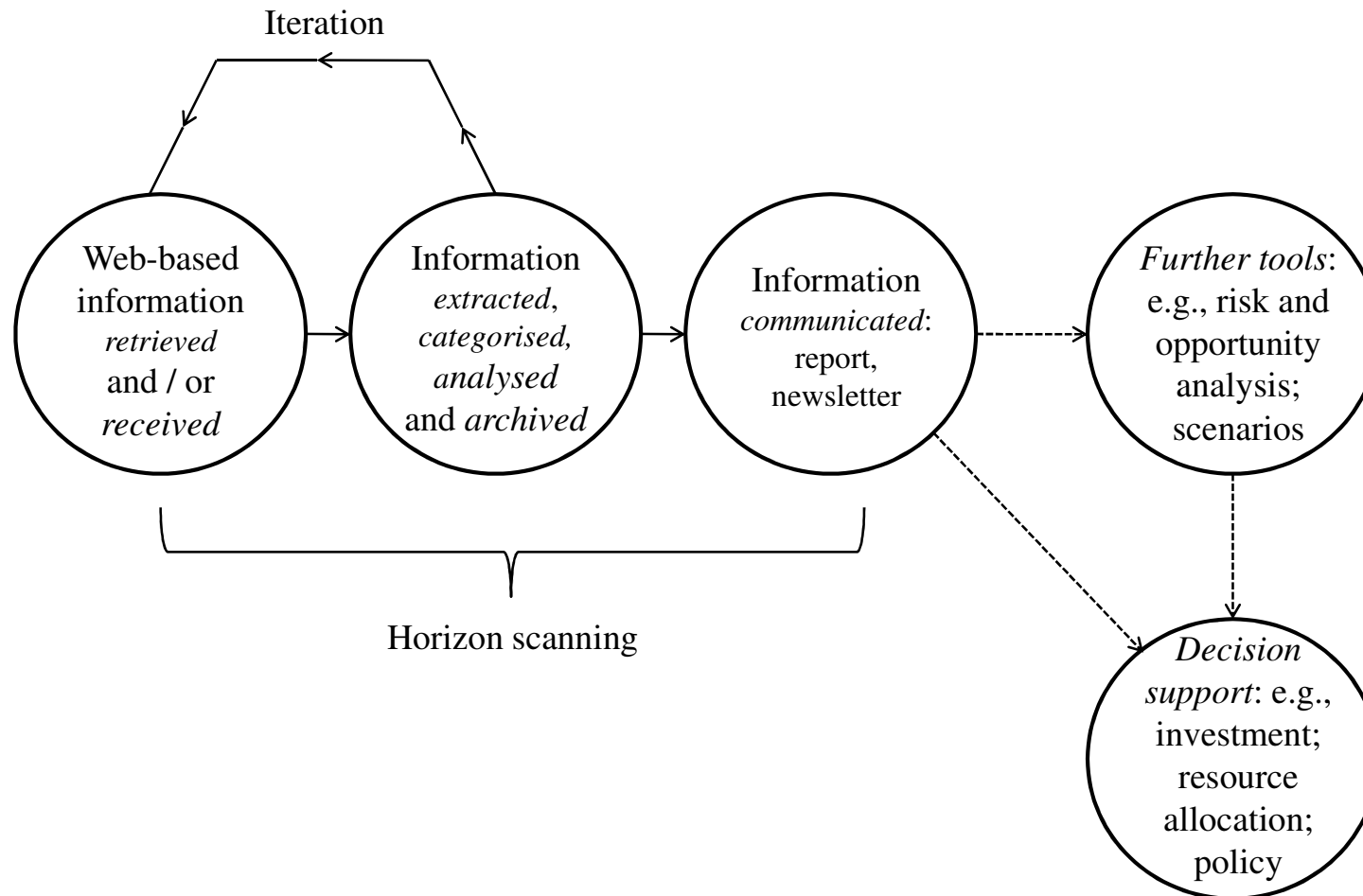www.cam.ac.uk/research/
Issue 17

Definition

Horizon scanning is the systematic search for incipient trends, opportunities and constraints that might affect the probability of achieving management goals and objectives. Explicit objectives of horizon scanning are to anticipate issues, accumulate data and knowledge about them, and thus inform crucial decisions" (Sutherland *et al.*, 2011).

European Centre for
Environment & Human Health

- **Traditional approach:** Emerging issues are identified through meetings, conferences, workshops and informal networking.

- **Web-based approach:** Emerging issues are identified through the World Wide Web.

- **Web-based approach:** Augments personal interaction with the use of electronic information sources, in particular the Web.

European Centre for
Environment & Human Health

Iteration

Web-based
information
retrieved
and / or
received

Information
extracted,
categorised,
analysed
and *archived*

Information
communicated:
report,
newsletter

Further tools:
e.g., risk and
opportunity
analysis;
scenarios

Horizon scanning

Decision
support: e.g.,
investment;
resource
allocation;
policy

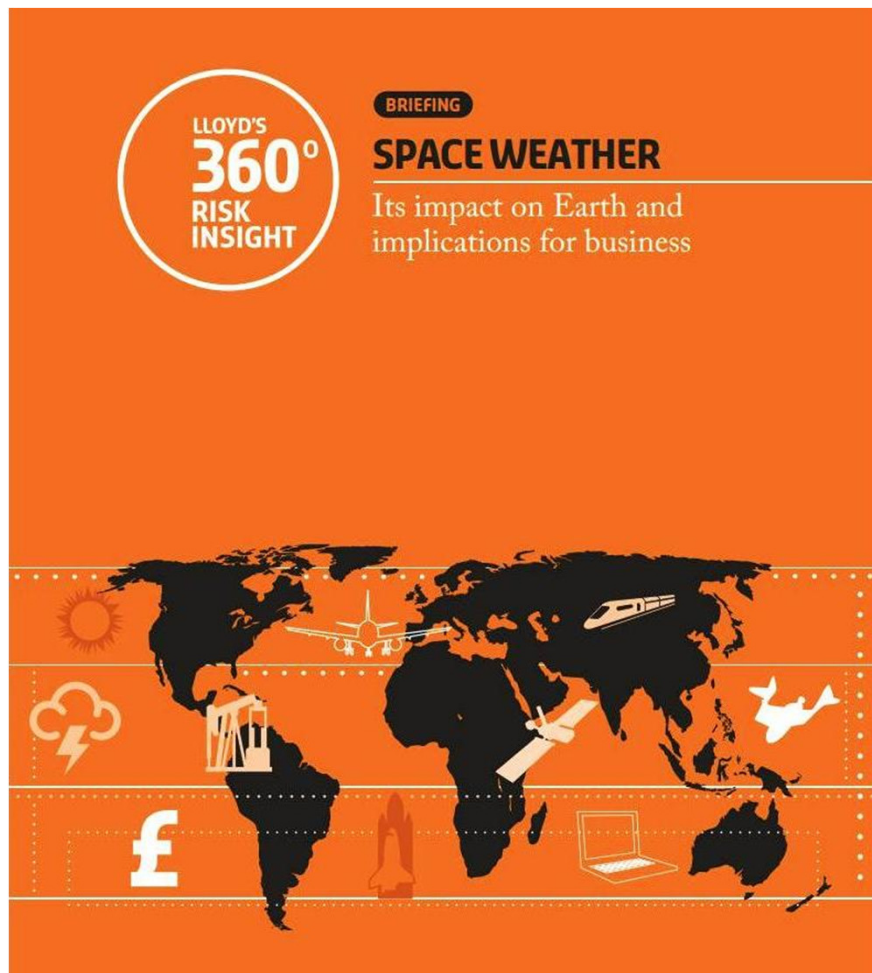European Centre for
Environment & Human Health

- We have developed a **prototype** to continuously scan the Web for new and emerging information related to the environment and human health.

- Apart from its information gathering capabilities, our **prototype** organises the information that it collects and displays it on a website that can be browsed using any Web-browser.

- Both the information gathering process and the website creation are performed automatically.
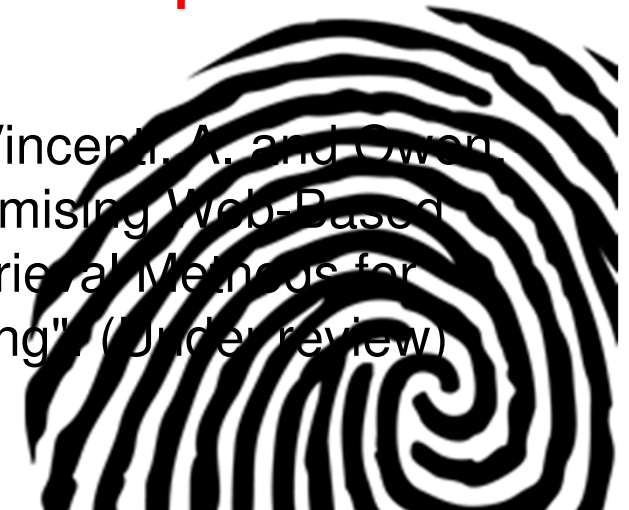
European Centre for
Environment & Human Health

- We have focused on **news articles** thus far (more than peer-reviewed journals or other academic sources):

  - If it is in the **news**, it may not be backed by a large body of scientific evidence, but it may refer to new and unknown issues.

  - If the information is published in a book, it is not **"fresh"** enough anymore.

European Centre for
Environment & Human Health

Using an area of interest for the insurance industry, namely, **space weather**–the changing environmental conditions in the near-Earth space–and its potential risks to terrestrial and near-Earth insurable assets, we benchmarked our Web-based approach against current information retrieval practice within **Lloyd's Emerging Risks Group**.

Palomino, M., Vincent, A. and Owen, R. (2012), "Optimising Web-Based Information Retrieval Methods for Horizon Scanning" (under review)

European Centre for
Environment & Human Health

	Web-based Horizon Scanning			Emerging Risks Group Current Practice	
	Very relevant	**Relevant**		**Very relevant**	**Relevant**
Week 1	29	66		3	1
Week 2	19	64		2	1
Week 3	11	74		0	1
Week 4	5	74		3	1

European Centre for
Environment & Human Health

Questions

European Centre for
Environment & Human Health

- We have been collecting information everyday since the beginning of **February**.

  - Is any of you interested in having a look at it?

- Is any of you interested in scanning the Web for information on a particular subject?

  - Please, contact me.