

Science, Technology and Engineering Perspectives in the Process of Public Policy Making

Professor David Cope
University of Cambridge, England



1613 - 2013
Four Hundredth
Anniversary
of Anglo-Japanese
Relations





3



Parliament and Policy

- Policy *exploration* – especially *choices*
- Policy *scrutiny* – effectiveness

An *iterative* process



5





Alvin Weinberg, 1915-2006

A 5000 Reactor World

About 400 Reactors currently

**A world where nuclear electricity is
unexceptionally contributing a major share
of electricity production**

Copyrighted Material	
REPORT NUMBER 19	THE CHERNOBYL ACCIDENT AND ITS IMPLICATIONS FOR THE UNITED KINGDOM Edited by NORMAN WORLEY and JEFFERY LEWINS
Published on behalf of The Watt Committee on Energy by Elsevier Applied Science Publishers	

1988

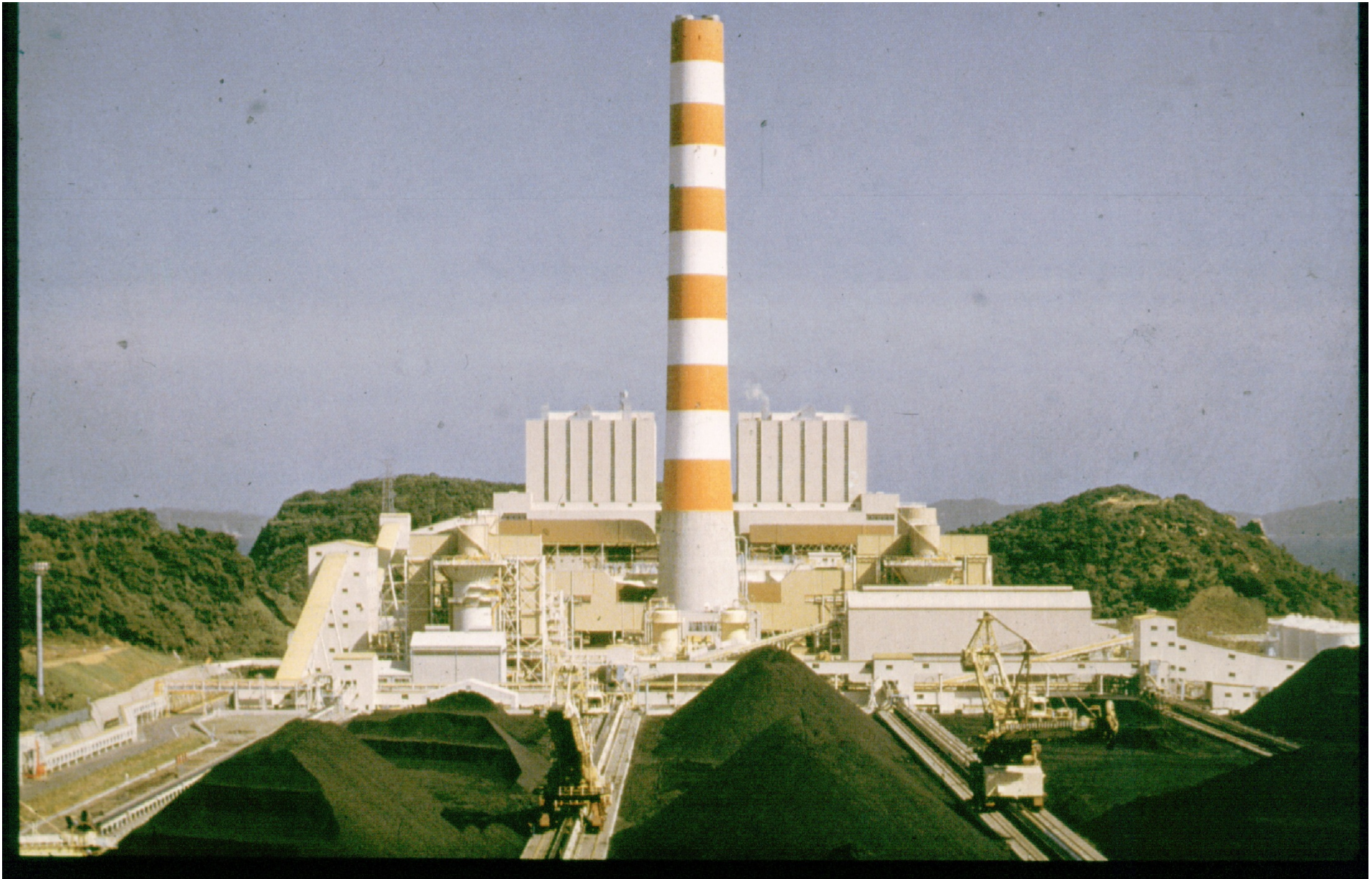
Section 8	<i>International dimensions of the implications of the Chernobyl accident for the United Kingdom</i> DAVID COPE	71
------------------	---	----



1994 “archive” nuclear expertise for potential use in the future

2005 UK government initiative announced – KNOO – 4 years, £6 million







6. The Future of Nuclear Power in Japan

Professor David Cope

Disclaimer

I should begin by emphasising that I am speaking in a personal capacity and in no sense representing the views of the Parliamentary Office of Science and Technology, still less those of Parliamentarians, whose positions on nuclear power are as diverse on this as on any other subject.

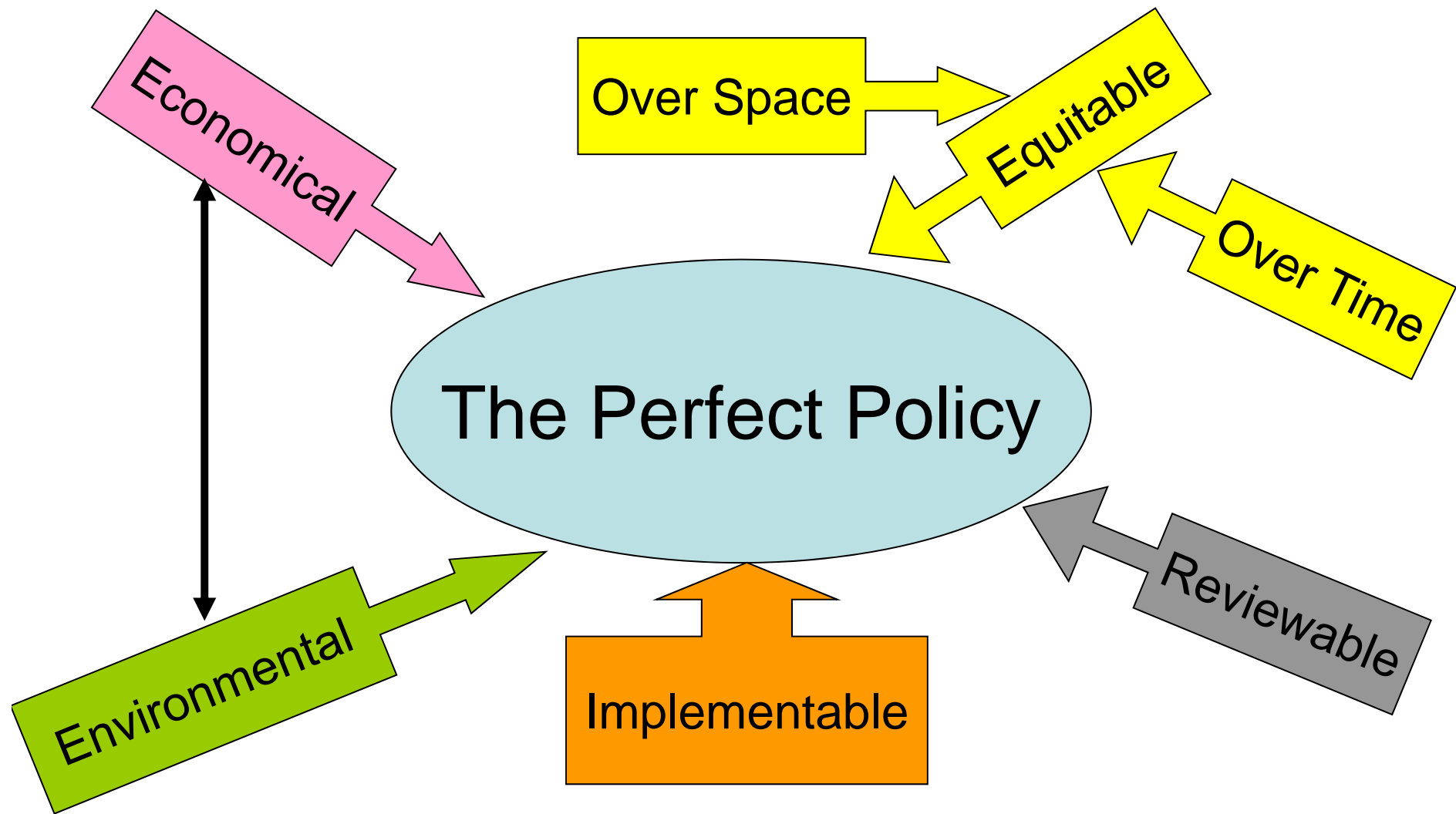
Introduction

People often ask me if I am 'pro' or 'anti' nuclear power or, more emotionally, if I 'believe' in nuclear power. I have always found these questions strange, particularly the latter, which seems akin to asking whether I believe in ships. Ships can sometimes have adverse environmental impacts but they can also carry cargo and encourage contact and trade between people. Often, there are alternative forms of transport, which may be preferred to ships, but for some purposes, they are the most efficient way to move goods or passengers. Furthermore, the situation can change over time - a new bridge may replace a ferry, for example.

Overall, this seems a good analogy for nuclear power. My position is that nuclear electricity generation has to be assessed alongside other means of achieving the same end - producing electricity. A choice has to be made, taking into account a wide

Daiwa Anglo- Japanese Foundation Lecture Series Paper, Autumn 2000







An amusing warning sign you can buy on the internet!

First, establish or augment:

Trustworthiness

then establish or augment

Trust

“Scientists should be on tap, but not on top”.

Winston Churchill

Randolph S. Churchill, *Twenty-One Years* (1964), p12





Hindenburg Disaster 1937

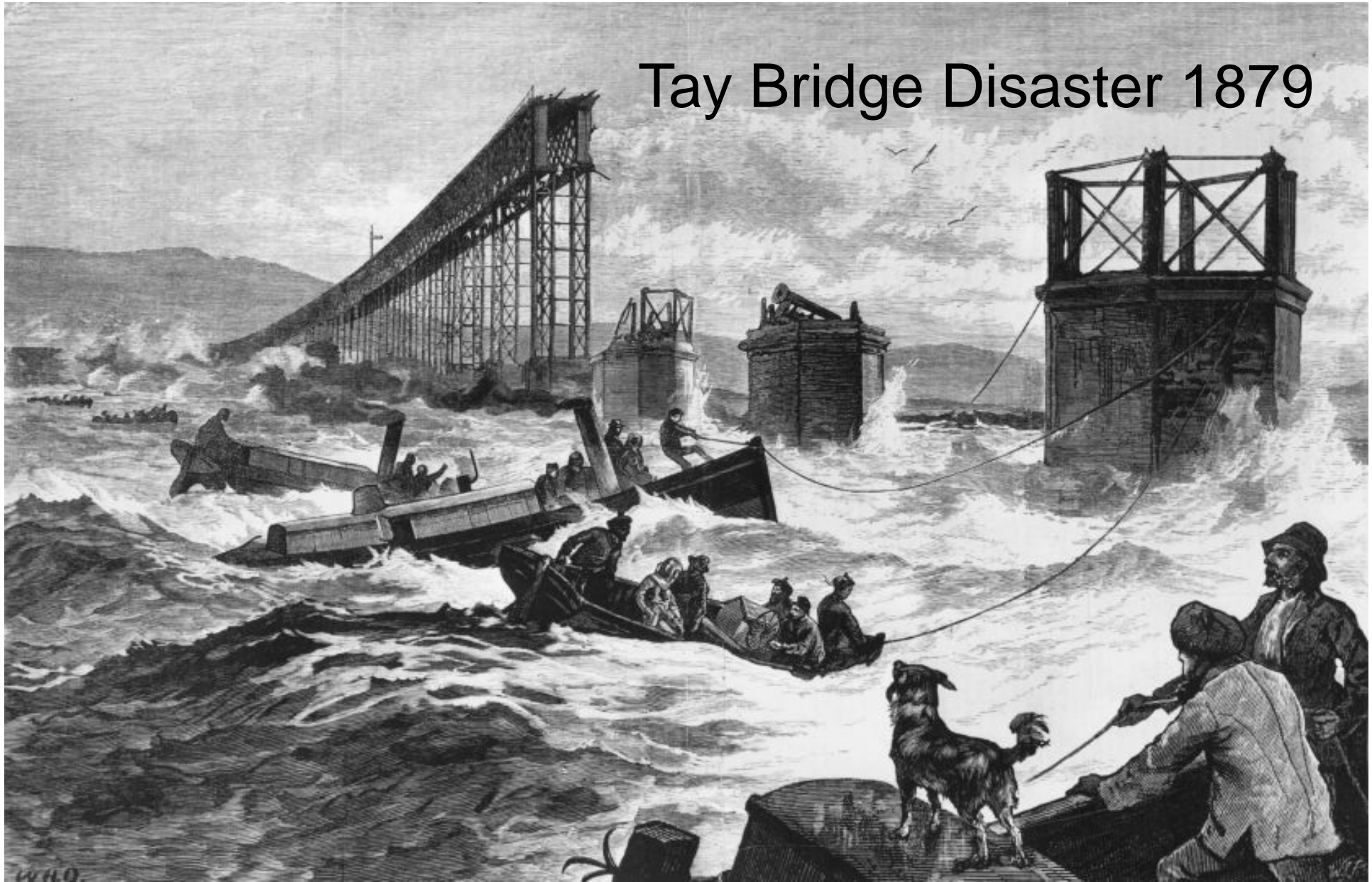


UNIVERSITY OF
CAMBRIDGE

17

JAIF 一般社団法人 日本原子力産業協会
JAPAN ATOMIC INDUSTRIAL FORUM, INC.

Tay Bridge Disaster 1879





For while the tired waves, vainly breaking
Seem here no painful inch to gain,
Far back through creeks and inlets making,
Comes, silent, flooding in, the main.

Arthur Hugh Clough (1819–1861) – *Say Not
the Struggle Nought Availleth*



UNIVERSITY OF
CAMBRIDGE

20

JAIF 一般社団法人 日本原子力産業協会
JAPAN ATOMIC INDUSTRIAL FORUM, INC.