

May 6, 2011

National Strategies for Research and Innovation: What Can the U.S. Learn?

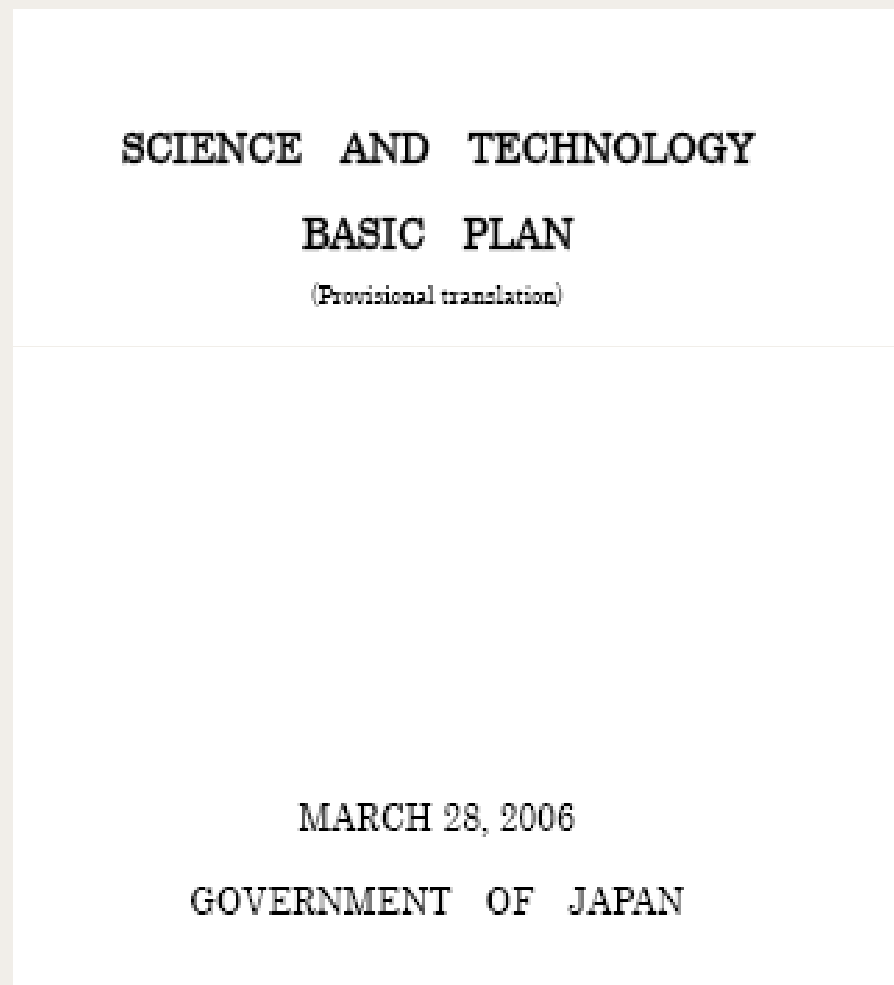
AAAS Forum on Science and Technology Policy

Presented by:

Rob Atkinson, President, ITIF



- What is a National Science and Innovation Strategy?



■ What is a National Science and Innovation Strategy?

- *Those elements of science, technology, and economic policy that explicitly aim at promoting the development, spread, and efficient use of new products, processes, and services, not as an ancillary effect of achieving of other goals, but as the goal.*
- A well-conceived, strategic approach to drive innovation that proactively anticipates and articulates the interactions among policies across:
 - Science and technology
 - R&D
 - Commercialization
 - Education & skills
 - Immigration
 - Statistics/measurement
 - Tax
 - Trade
 - Intellectual property
 - Competition/Regulatory
 - Public procurement
 - Public sector innovation

- Selected Nations with National Strategies

China

Denmark

Finland

Germany

India

Ireland

Japan

Korea

Netherlands

Norway

Portugal

South Africa

Sweden

Taiwan

Thailand

United Kingdom

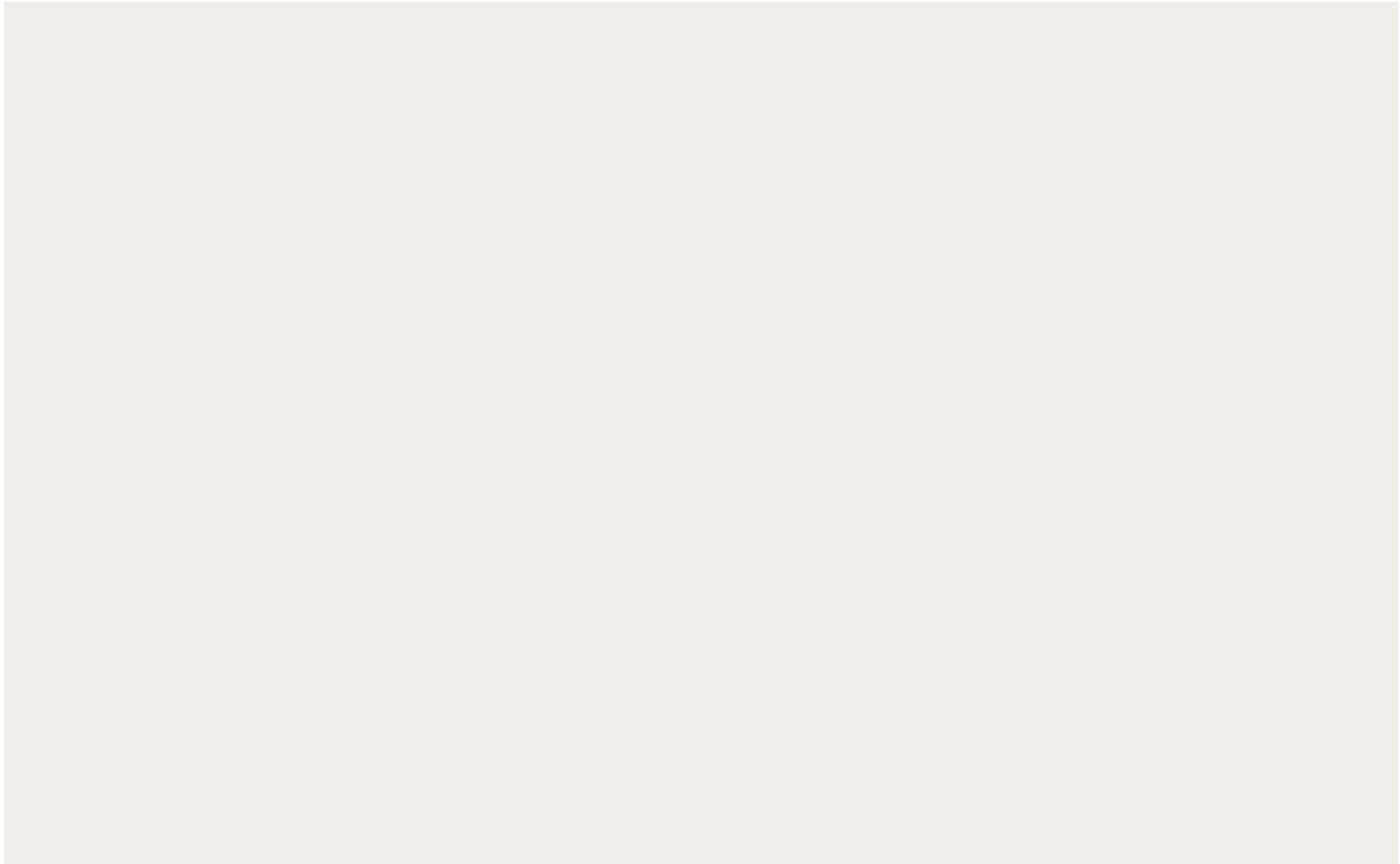
Uruguay

United States

- Even Albania and Uganda



- What is Distinctive About Them



■ Ambitious Goals

■ Lead in Key Technology Areas

- IT: Australia, Canada, Denmark, Finland, Ireland, Japan, the Netherlands, Singapore, Korea, and Sweden
- Clean Energy: Korea, Japan and China.

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■ Lead in Key Technology Areas

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■ Significantly Boost R&D Intensity

- Korea, Canada, Turkey, China.

■ Innovation Policy *Innovation*: Tax Policy

- Patent box
- Collaborative R&D tax credits (Denmark, Korea, France, Japan, Spain, UK)
- R&D tax credits to services industries; (Denmark, Netherlands, Norway)

■ Innovation Policy *Innovation*: Innovation Agencies

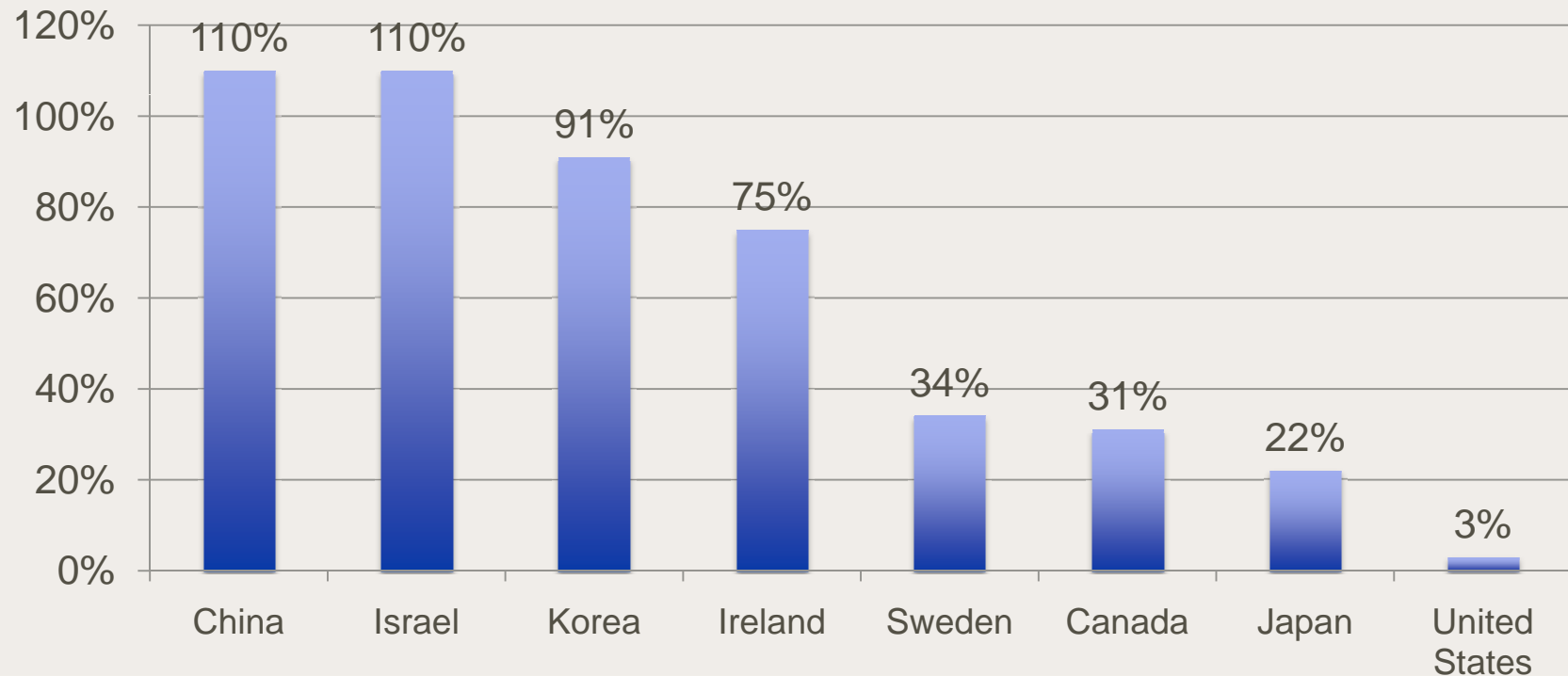
Country	National Innovation Agency/Foundation	Year Agency Introduced
China	Ministry of Science and Technology	1998
Denmark	Agency for Science, Tech, and Innovation	2006
Finland	Tekes	1983
India	National Innovation Foundation	2000
Ireland	Forfas	1994
Japan	NEDO	1980
Korea	Korea Industrial Technology Foundation	2001
The Netherlands	SenterNovem	2004
Norway	Innovasjon Norge	2004
Portugal	Agência de Inovação	2003
South Africa	National Advisory Council on Innovation	2006
Sweden	VINNOVA	2001
Taiwan	Industrial Technology Research Institute	1973
Thailand	National Innovation Agency	2003
United Kingdom	Department of Business, Innovation, and Skills	2009
United States	N/A	N/A
Uruguay	National Research and Innovation Agency (ANII)	2008

■ Innovation Policy *Innovation*: University Reform

- R&D vouchers: (Netherlands)
- Accountability for results: (Finland and Sweden)

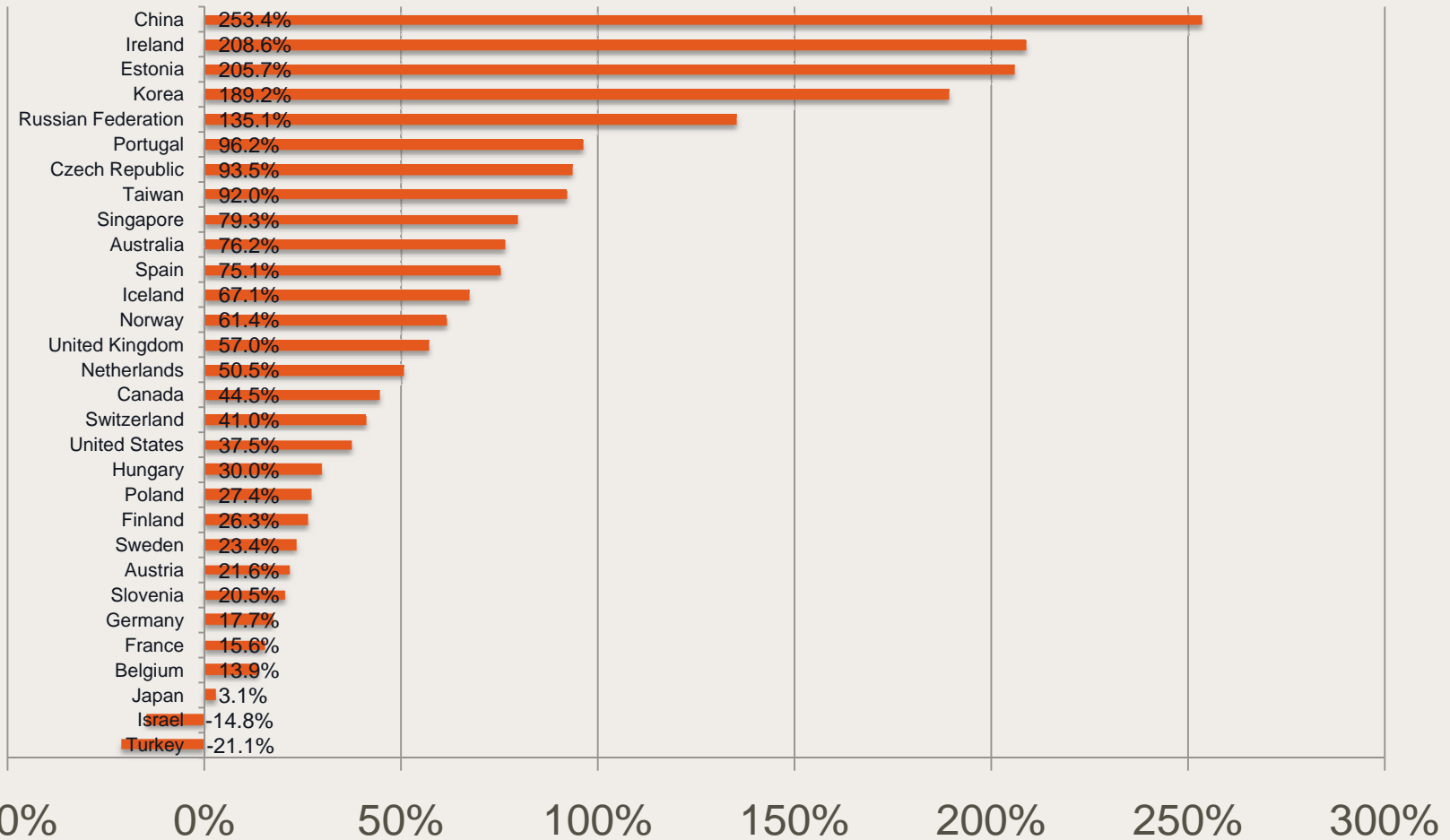
■ They put Their Money Where Their Mouth is.

While U.S. R&D intensity increased by a paltry 3% from 1987 to 2008, R&D intensity increased substantially more in most other nations:



■ They put Their Money Where Their Mouth is

Growth in Government Funding of University R&D, 2000-2008



■ Why Do Nations Need an Innovation Strategy?

1. Because technological innovation drives long-run economic growth.

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1. Because technological innovation drives long-run economic growth.
2. Difficulty in addressing complex and systemic challenges.
3. Markets alone do not produce societally optimal levels of innovation.
4. Because the stakes have been raised.

- Why Can Other Nations Do This, and We Can't?

- They Understand They are in Competition



- They Understand They are NOT # 1 (even when they are)



- They Understand They Need More Than Just Better Innovation Inputs



- They Embrace “Innovation Economics”



www.innovationeconomics.org

- And They See Innovation not as a Market



- But as a System



- It's Time to Fix Our Chain of Illogic



ITIF Report: The Chain of Logic to Get to a Robust National Innovation and Competitiveness Policy

Thank You

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