Exploring the role of diplomacy for (industrial) innovation

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My goals for today

- Show that the role of innovation in diplomacy is growing
- That this changes the traditional picture of science diplomacy with its orientation on scientific collaboration
- That it puts new demands on diplomats.
- To give an overview of the present state of the field.
- And present a few ideas about what diplomats can do.

My personal experience with innovation diplomacy

Example of interaction between:

- Research collaboration
- Industry collaboration
- Government level MoUs and specific agreements

Key-concepts

- *Innovation diplomacy* is what diplomats do with/for/to/… science, technology and innovation.
- *Innovation* is the process of translating an idea or invention into a good or service that creates value (market, social).
- *Innovation policy* aims at increasing the opportunities to innovate. This may involve a broad set of policy actions related to education, research, technology clusters, risk capital, and markets (to name just a few).
- Innovation diplomacy is *part of foreign policy*, with close linkages to economic and trade policies

Growing role of diplomacy for innovation

- Number of publications
- Academic courses and training
- Number of STI personnel in embassies

Related activities:

- Foreign Investment Agencies
- Business Support Offices
- Economic departments
- Agriculture attachés
- Infrastructure and Environment Attachés

Netherlands Innovation Attaché Network

Early examples of innovation driven diplomacy

- Asian Tigers: Taiwan, South Korea

- Dangers of industrial policy:
  - Corruption
  - Protectionism
  - Lack of innovation

Innovation in global governance instruments/institutions

- Trade and Innovation advances in WTO Topics
  - IPR (TRIPS/WIPO)
  - Innovation hubs/cluster policies
  - Green technologies (access restrictions?)
  - What about internet and digitization in WTO?
  - And ethics?
- UN: Paris Agreement on Climate Change
- UNIDO: Industrial policy (social goals)
- ILO: Future of work (social goals)
- Wassenaar Agreement (focus on defence issues)
- (Washington Consensus)

Developing countries exemption? 3 Visions

- Neo-liberalism (no exemption)
  - Free trade best guides search for comparative advantages
  - Preferential schemes have disruptive effects
  - ➢ But how about disruptive subsidies for agriculture in EU/US or intellectual property provisions in Uruguay round?
- Special treatment for developing countries (STD in Doha Declaration)
  - Agriculture protection
  - Nurture infant industry (import substitution)
  - ➢ Does it really work?
- Leapfrogging (based on radical new technology)
  - Historical examples: Netherlands by UK (18C) and UK by US (20C)
  - Recent examples: solar countries, bio-ethanol in Brasil, mobile payment systems, …
  - ➢ Who invests?

➢ Multi-stakeholder Cooperation / “Help thy neighbour”

➢ “Absorptive capacity” is key

Rise of innovation mercantilism?

Strategy to expand domestic innovation capacity and technology exports by manipulating and abusing the international trading system.

- Forcing companies to transfer technology or setup research centers as a condition of market access (localisation policies),
- Issuing or threatening to issue compulsory licenses for cutting-edge drugs,
- Mandating local technical standards or certifications to ensure local production,
- Directly or implicitly supporting government-sponsored theft of intellectual property, especially over the Internet.

Source: ITIF 2016

How to fight innovation mercantilism?

- Trade and innovation as strategic policy interests in “whole government approach”
- (temporary) suspension of developing countries exemption (e.g. EU and US rule on workers rights in Bangladesh)

Source: Dhaka Tribune 24/03/2017, Ready Made Garments

Protectionism, Trump, China and the WTO

- Rise of protectionism and techno-nationalism under Trump
- China in “bad guy” role (the 5 mln. manufacturing jobs) seeking leadership in over 400 advanced technologies by:
  - Government backed acquisition of foreign high-tech enterprises
  - Forced technology transfer
  - IP theft and IP approval problems
  - China only standards
  - Denial of market access unless …

➢ Stronger pressures on China needed, but requires stronger alliances to enforce WTO and other “rules of the game”

Innovation diplomacy actions and competencies

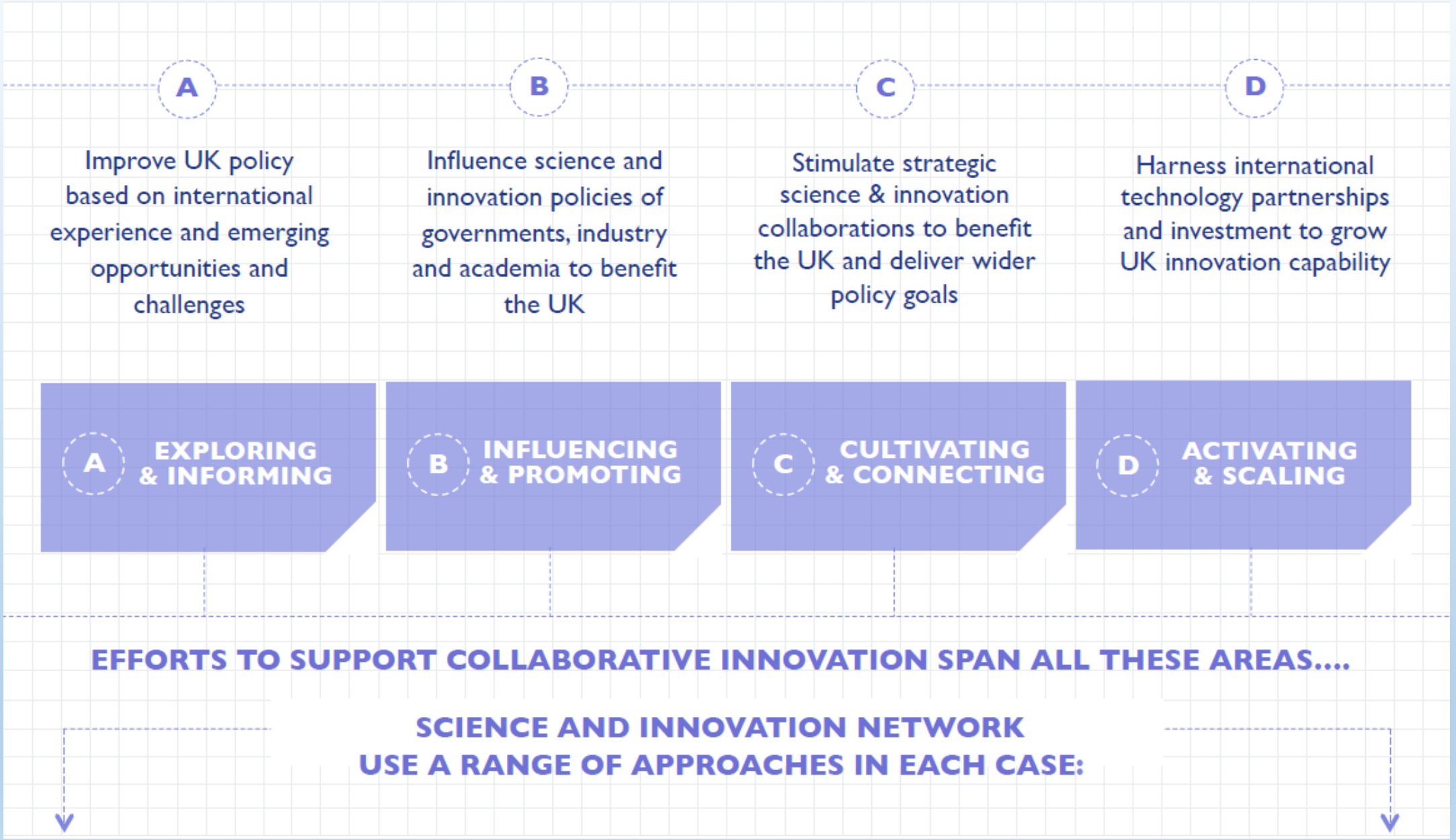
1. The innovation policy perspective
   - Starting from innovation systems perspective
   - (the flow of technology and information among people, enterprises, and institutions is key to an innovative process)

2. The (economic) diplomacy perspective
   - Starting from what diplomats (can) do
   - (to represent the interests and policies of their country)

Innovation systems and diplomacy actions

Innovation system functions						
1. Entre-preneurial discovery	2. Knowledge development	3. Knowledge diffusion	4. Guidance of the search	5. Market formation	6. Resources mobilisation	7. Creation of legitimacy
Development of technology trajectories, innovation networks, value chains, etc.	International collaborative research and education	Innovation culture, *learning by interacting*	Priority setting, identify needs and wants (e.g. challenges)	Enable testing, piloting, niche markets	Capital and human resources for different stages of innovation	Build coalitions, how to deal with vested interests?, new legal framework required?

Source: Hekkert e.o., 2007, 2009



Source: Nesta 2017

A EXPLORING & INFORMING	B INFLUENCING & PROMOTING	C CULTIVATING & CONNECTING	D ACTIVATING & SCALING
▪ Develop in-depth understanding of the host country innovation system (statistical data, tacit knowledge, horizon scanning etc) ▪ Create real-time information flows back to HMG on opportunities and threats ▪ Spot and communicate opportunities to wider stakeholders (that could help UK exploit strengths, achieve strategic policy goals, gain access to talent/ facilities/funding for innovation etc)	▪ Influence policies to improve the wider conditions for collaboration with innovative UK companies (eg IPR regime, market access) ▪ Encourage adoption of UK models and systems for supporting innovation (eg standards) ▪ Promote the strengths of the UK innovation system, creating demand for collaboration ▪ Promote the UK as a destination for foreign technology-based investments	▪ Build relationships with decision-makers (policy, funder, institution, VIP) ▪ Design and run targeted events and workshops to spur new international partnerships ▪ Organise missions and visits to familiarise researchers and companies with new opportunities ▪ Match individuals/institutions/ companies with appropriate international partners ▪ Channel and facilitate enquiries about the UK innovation system to the appropriate institution/ individual	▪ Follow up connections and encourage partnership development and best practice collaboration ▪ Develop, co-develop or identify external resources to help secure and scale promising collaborations (finance, advisory etc) ▪ Accelerate the commercialisation of research that could benefit the UK (See case study 4) ▪ Partner with other UK innovation support agents (UKTI, Innovate UK, RCUK, IPO etc) to help them achieve their international goals

Source: Nesta 2017

From science diplomacy to STI diplomacy

Starting point: Innovation has become the key engine for economic growth and development

- Technological and policy complexity
- Stakeholders/new players interests
- Ethics

- Is there a difference between STI diplomacy and “regular” international collaboration in STI?
  - National or alliance economic and/or technological power goals
  - Multilateral political goals (e.g. challenges, 2030 agenda for sustainable development)