

2023 Oct. 26 (Thu) - STI Policy with Impact



Alex Glennie

15:20 - 15:50 (Online)  
(AM 8:20-8:50 UK Time)

在大挑戰與轉型的時代，  
國家創新局現在與未來應有的角色  
The Current and Future Roles of  
Innovation Agencies in the age of  
Grand Challenges and Transition

英國NESTA基金會 資深政策研究經理

Head of Policy Engagement and Learning at The Innovation Growth Lab (IGL), NESTA

# The Current and Future Roles of Innovation Agencies in the Age of Grand Challenges and Transition

**Alex Glennie**

Head of Policy Engagement and Learning, Innovation Growth Lab

*26 October, 2023*

# The current moment

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# Building strong innovation ecosystems

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Innovation agencies have a vital part to play in developing strong innovation ecosystems. They are **catalysts**, supporting innovative businesses, entrepreneurs and researchers with varying combinations of funding, advisory services and networking activities.

Increasingly, these agencies are also being called on to lead or coordinate **ambitious missions** that respond to major societal challenges. However, they often face a difficult balancing act between the need to plan and invest for the long term, and the reality that their missions, structures and approaches are prone to evolving significantly and sometimes quite suddenly in response to shifting political or societal priorities.



# About the Innovation Growth Lab

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IGL supports the development of productive, inclusive and sustainable economies through the application of **new policy ideas, experimentation, data and evidence**.

We partner with policymakers, researchers, practitioners and funders to address key policy challenges in the fields of **science, innovation, entrepreneurship and business** policies.

To advance our mission, IGL brings together a network of leading government bodies and foundations who share our vision - the **IGL Partners**. This includes innovation agencies from a number of OECD countries.



# Our foundational research

- We have been a pioneer in the study of innovation agencies, with Nesta's 2016 publication [How Innovation Agencies Work](#) setting out the first comprehensive framework to understand the different models and approaches that they take.
- Follow up reports in 2019 proposed [principles and questions](#) to guide the strategic decision-making of innovation agencies, and studied [their activities and responsibilities](#) in depth.
- In 2021-22, IGL mapped the characteristics of nearly 50 innovation agencies across [Europe](#) and [Latin America](#), building a picture of the varied roles that these organisations play within their innovation systems, exploring how these might change in the future, and comparing [similarities and differences](#) between them.



# The evolution of innovation agencies

## Technology driven

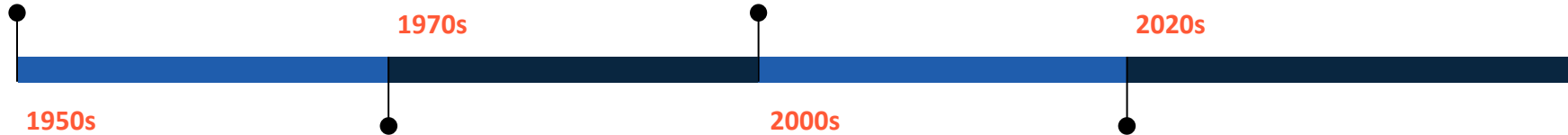
DARPA created to spur breakthrough technologies to ensure national security - a nation state focused mission



## Market / system driven

Focused on building innovation capabilities across the ecosystem, and addressing gaps in the market or system

## SPRIN-D



## Industry / sector driven

Focus on the development of competitive advantage and industrial or sectoral capabilities

Innovate UK



## Transformation / mission driven

Focused on addressing big societal challenges, via disruptive or transformative innovation

# The evolution of innovation agencies

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DARPA created to spur breakthrough technologies to ensure national security - a nation state focused mission



Tekes

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## SPRIN-D



1970s

2000s

2020s

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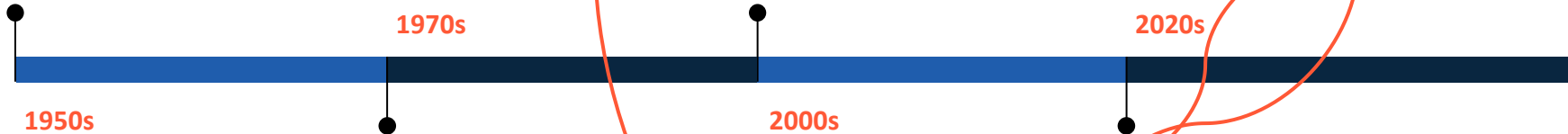
Innovate UK



BUSINESS FINLAND

## Transformation / mission driven

Focused on addressing big societal challenges, via disruptive or transformative innovation





# Current and emerging roles

## The Strategist

*The agency that plays a significant role in the formulation and development of innovation policies*

## The Implementer

*The agency whose primary focus is to run research and innovation activities on behalf of their Ministry*

## The Emergent Agency

*The experimental agency carving a new space in the innovation ecosystem*

## The Lean Agency

*The agency that maintains a growing budget and slim operating costs*

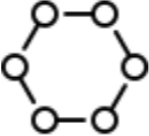





## The Entrepreneur

*The agency generating its own income and sourcing funding from various places, including the Ministry*

## The Internationalist

*The agency focused on internationalisation and gaining the most from the world outside of its borders*

# Factors affecting agency roles

 <p><b>Harmonized ecosystem</b> <i>The extent to which there is agreement about the main goals of innovation policy, and the relative roles and responsibilities of different actors in delivering it</i></p>	 <p><b>Institutional safeguards</b> <i>The degree of independence afforded to an agency by its governance and financial models, that enable it to pursue a stable strategy</i></p>
 <p><b>Learning culture</b> <i>The existence of systems and processes that facilitate continuous learning, and that enable an agency to understand the impact of its activities</i></p>	 <p><b>Autonomy and influence</b> <i>The extent to which an agency is able to shape the formulation and design of national innovation policy priorities, and determine its own strategy</i></p>
 <p><b>Skills and talent</b> <i>The availability of relevant skills and expertise to apply to an agency's current and future work, and its commitment to the nurturing of talent</i></p>	 <p><b>Networks and reach</b> <i>The breadth and depth of an agency's relationships and collaborations within its own national ecosystem and with international partners</i></p>

# Some key challenges

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**Pace of  
technological  
(and social)  
change**

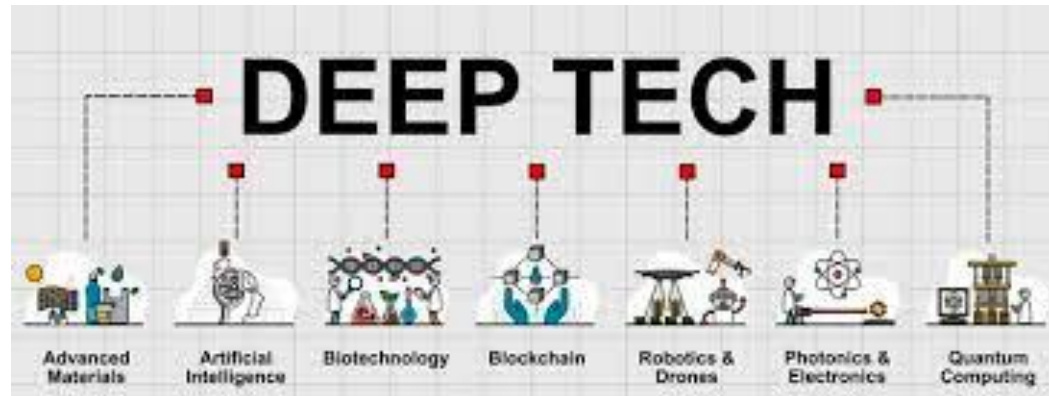
**Moving from  
sectors to  
systems**

**Polarisation  
and mistrust**

**Preparing for  
turbulent and  
uncertain  
futures**

# The pace of technological (and social) change

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# Moving from sectors to systems

## New knowledge and competence

New knowledge and competence are necessary to create the innovations of the future. Therefore, we conduct knowledge and competence programmes that benefit our community. At present, VINNOVA focuses on the following fields:



Health and healthcare



Transportation



Environment



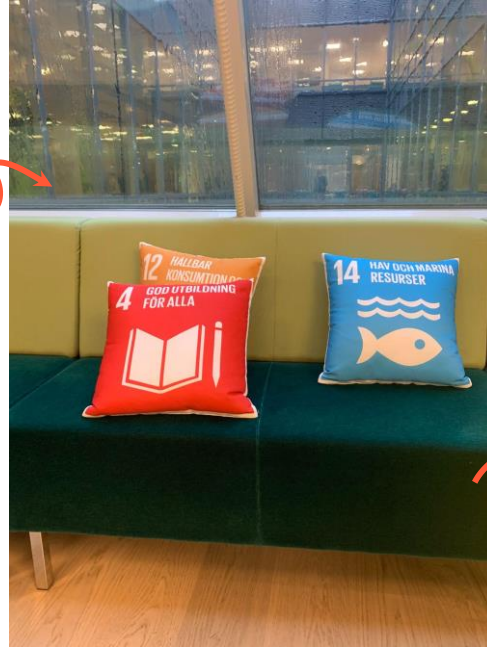
Services



ICT



Manufacturing and Innovation Management



## Designing missions

Mission-oriented innovation in Sweden—  
A practice guide by Vinnova

Written by Dan Hill, and featuring contributions from Brian Eno, Pernilla Glaser, Afton Halloran, Mariana Mazzucato, Darja Isaksson, Anja Melander, Marco Steinberg, Jakob Trollbäck and Amanda Wood.

# Polarisation and mistrust

The New York Times

OPINION  
GUEST ESSAY

## Why So Many Americans Are Losing Trust in Science

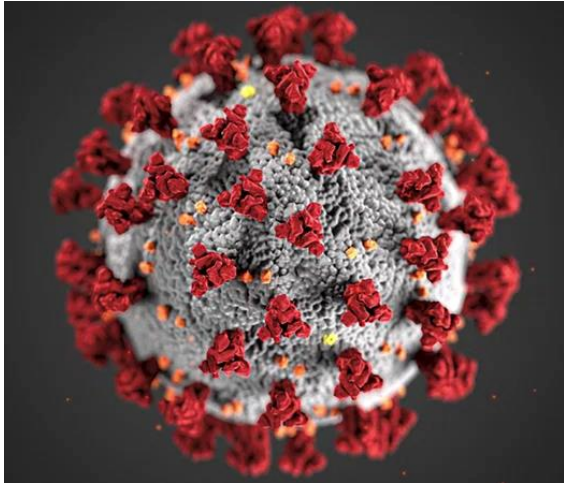
Oct. 3, 2023



Illustration by Sam Whitney/The New York Times



# Preparing for turbulent and uncertain futures



## Explainer

### Why did the \$212bn tech-lender Silicon Valley bank abruptly collapse?

Was it the result of Trump-era regulation rollbacks, risk mismanagement at the bank, sharp interest rate rises - or a combination of all three?



Traders work on the floor of the New York Stock Exchange on Thursday in New York City. Photograph: Spencer Platt/Getty Images

# Opportunities for evolution

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**Pace of  
technological  
(and social)  
change**

**Investing in  
new skills and  
capabilities**

**Moving from  
sectors to  
systems**

**Innovating  
with external  
support and  
internal  
processes**

**Polarisation  
and mistrust**

**Developing  
more inclusive  
innovation  
practices**

**Preparing for  
turbulent and  
uncertain  
futures**

**Drawing on a  
range of  
strategic  
foresight  
methods**



# Investing in new skills and capabilities

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## Manager within data-driven innovation

Stockholm County, Sweden - Administrator

Apply by  
October 24

**FFG** Forschungsinstitut The FFG Funding Services and services information

Vacancies



We ensure real progress - from digitalization to climate change. As a funding institution for research and innovation at national and European levels, the FFG is an important pacemaker for Austria's science and economy. Successfully supported FFG projects are a special lever for change, for Austria and all of Europe. We are looking for progress makers who want to make a difference together with us.

Become part of our team as

**Change agent with a focus on digitalization**  
Full time

**ARIA** Advanced Research + Invention Agency

## Programme Director

Advanced Research + Invention Agency (ARIA)  
United Kingdom

Imagine your version of the future, then create it.

That's what you'll do as a DRIVE Programme Director. We're built to back scientific and technical leaders who are restless to do something bigger and drive impact beyond themselves. ARIA will empower these leaders to take bold, not safe, bets.

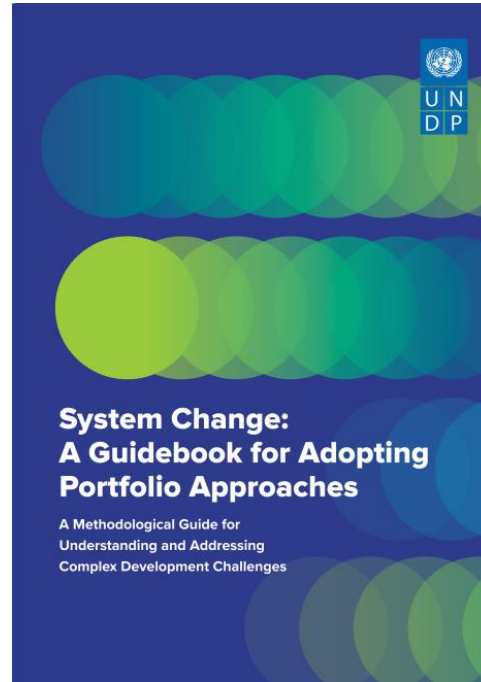
With a £50M+ budget, you'll join ARIA for 3-5 years to develop a focused scientific/technical vision, fund a portfolio of projects and direct progress. You'll retain creative control as you set the programme's ambitions and decide who, what, and how you fund.

**SPRIN-D**

**SENIOR ANALYST  
(M/F/D) – DEEP TECH**

**FULL AND PART TIME  
POSSIBLE, IN LEIPZIG  
OR REMOTE FROM  
ALL OVER EUROPA**

# Innovating with external support and internal processes



## Innovative agencies

*A number of agencies are experimenting with different ways of staying innovative internally (e.g. RVO Netherlands has set up an internal innovation unit to drive this from the agency core, while Austria's FFG has been experimenting and adapting a programme of internal innovation caching)*

# Developing more inclusive innovation practices

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Ethics Framework and Guidelines:  
A guide for research funding organizations  
implementing participatory activities

**pro**Ethics



## No Limits and the EDI Advantage

In 2022, we will launch the No Limits mission, aimed at uniting regional and national change makers with a shared ambition: for UK innovators and the UK innovation ecosystem to represent UK society.

No Limits will unlock the potential of diverse talent in the UK for innovation and involve a portfolio of actions and activities throughout the innovation ecosystem to inspire, involve, and invest in diverse talent.

# Drawing on a range of strategic foresight methods

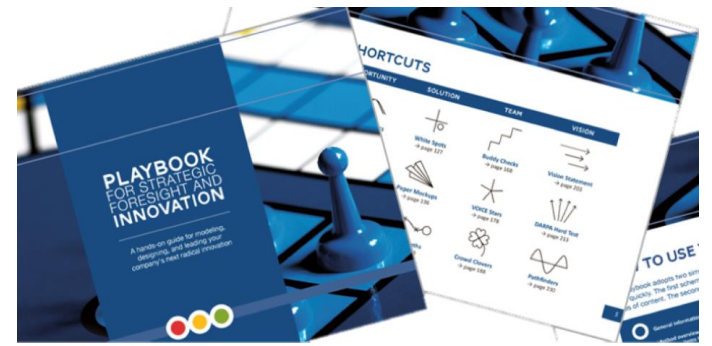
## Asking Magical Questions: Scenarios to explore the future of innovation agencies

AG Written by Alex Glennie, Matt Finch and Marie Mahon | 28 June 2022

Anticipatory Innovation & Foresight Artificial Intelligence Experimentation

# FUTURES FREQUENCY

Futures Frequency is a workshop method for building alternative futures.



# Embedding strategic learning

Innovation agencies face many challenges and opportunities in this era of grand challenges and transition.

They need to manage a **dynamic balance** of focusing on long-term goals and significant impact, while also adapting to changes in both the external context and their own internal organisational environments.

Embedding an **experimental approach that facilitates strategic learning** will be essential in the coming years to ensure continued relevance and demonstrable policy impact.

## Traditional approach

Launch a large programme without prior small-scale testing, with one design and the hope that it will work



## Experimental approach

Start small, trial different designs systematically, learn what works to increase impact and scale it up





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