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Mapping Ecosystems: using big data to understand ecosystems and policy impacts

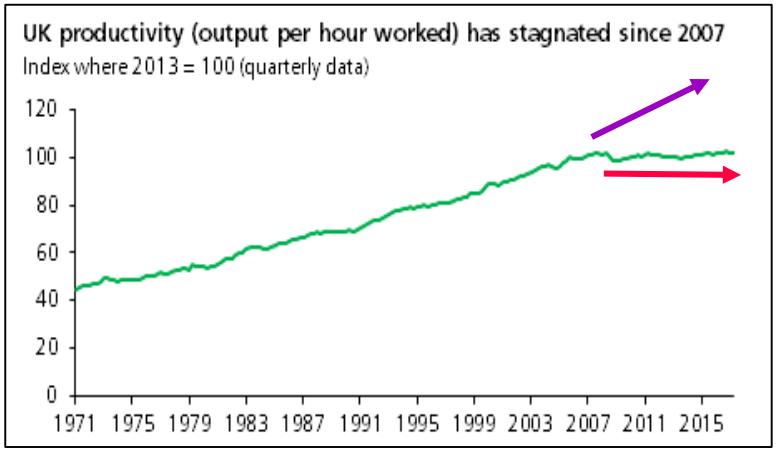
Introduction to the session

Juan Mateos-Garcia
@JMateosGarcia

The challenges for Research and Innovation policy are big: a productivity slowdown, geographic inequality, ideas getting harder to find.

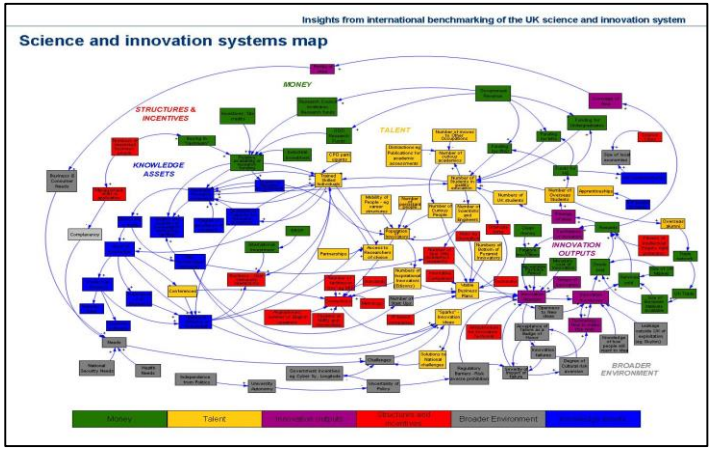
This is being addressed by big policy initiatives: sector deals, missions, challenges...but do we have the right maps to inform them?

The maps: Simplified, aggregated, obsolete



Credit: http://www.parliament.uk

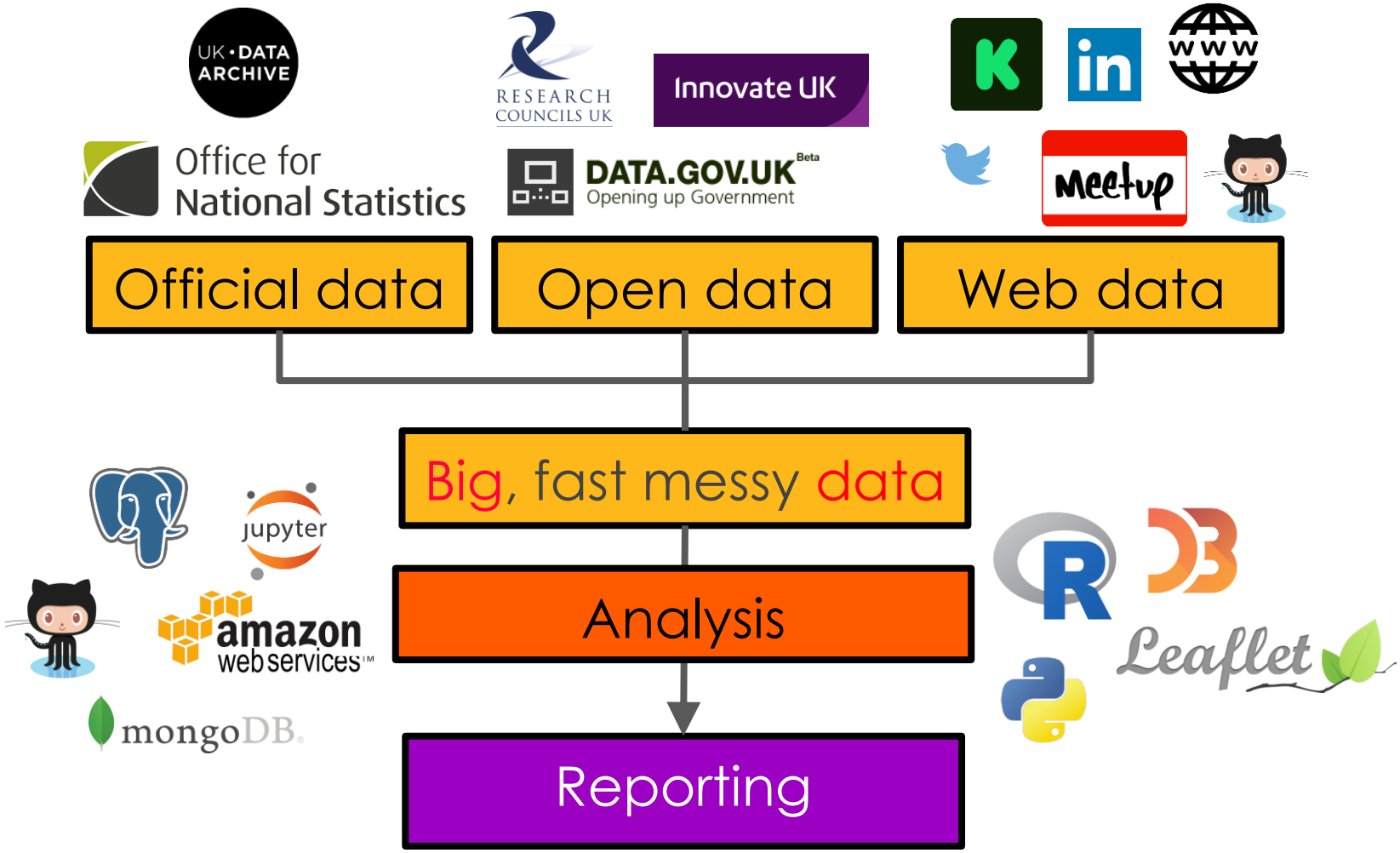
The territory: Complex, diverse, dynamic



Credit: http://www.gov.uk

This is not enough to make decisions. **We need better maps**

A big data opportunity



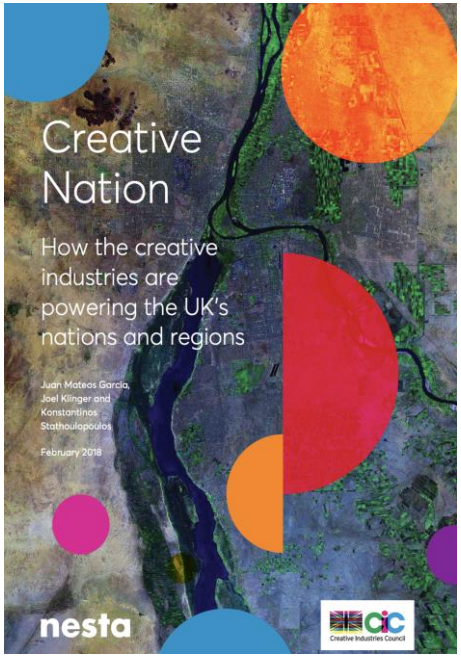
Where and when is innovation happening?

Who are the innovative actors?

How are innovators connected?

What are the impacts of innovation interventions?

Exciting projects

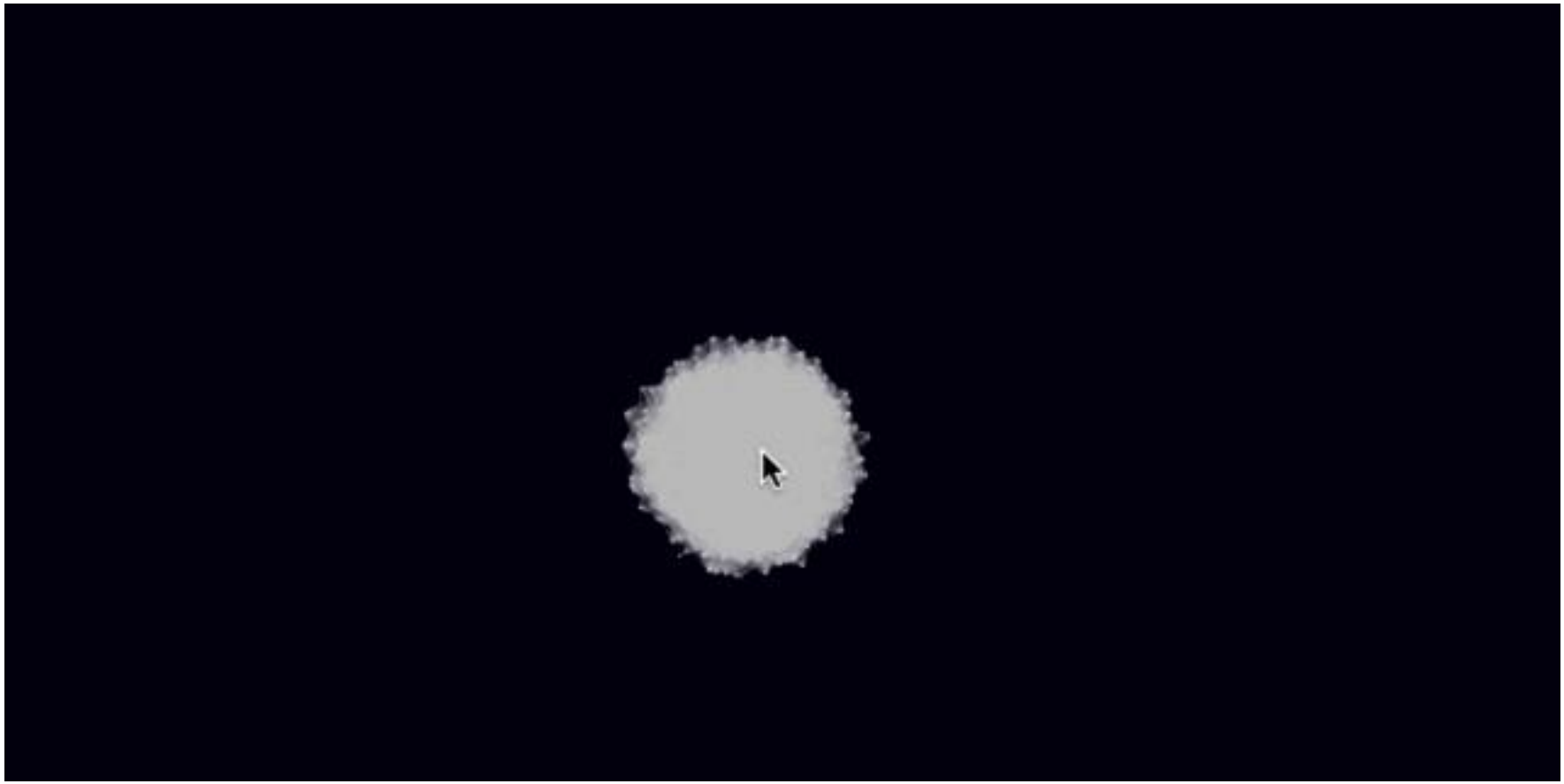


EURITO

RELEVANT, INCLUSIVE, TRUSTED AND OPEN INDICATORS FOR RESEARCH AND INNOVATION POLICY

Robert Wood Johnson Foundation

The challenge: taming complexity



New data are more detailed, messier complex: we need new theories, methods and tools to understand it: **new ways of seeing and understand innovation systems** through machine learning, text mining, network science and interactive visualisations.

Today

Katy Börner
Professor of Engineering and Information Science, Indiana University (USA)

César Hidalgo
Associate Professor of Media Arts and Science, MIT and Director, Collective Learning Group, MIT Media Lab (USA)

Leading scholars creating new maps of science and innovation, and empowering others with tools, data and skills

IGL

A network for innovation policy experimentation and learning

Discuss how we transform new ways to see innovation into new ways to inform and deliver innovation policy!

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nesta.org.uk

@nesta_uk

Juan.mateos-garcia@nesta.org.uk

Hive 205 Big data for innovation studies: A masterclass

Facilitated by: **Juan Mateos-Garcia**, Head of Innovation Mapping, Nesta (UK), and **Chantale Tippett**, Principal Researcher, Innovation Systems, Nesta (UK)

This session will give participants an opportunity to turn their data into insight by walking them through key phases of the project pipeline. Starting with an overview of how big data can be used to explore questions of interest in the innovation policy landscape, the session will then be broken down into a series of practical exercises covering data collection, analysis and outputs. These will consist of a combination of short presentations with insight drawn from Nesta's vast experience and small group exercises. The practical exercises will encourage participants to reflect on how they might implement projects in their own institutional context. The session will conclude with a Q&A on the use of big data for exploring innovation and a recap of key points.