

The European Commission's science and knowledge service

Joint Research Centre



European
Commission

Opening & Introduction

Sven Langedijk, Head of Unit

COIN 2017 - 15th JRC Annual Training on Composite Indicators & Scoreboards
06-08/11/2017, Ispra (IT)

Complexity



© pixelrobot - Fotolia

Complexity and super-abundance of knowledge



© Andrea Izzotti - Fotolia

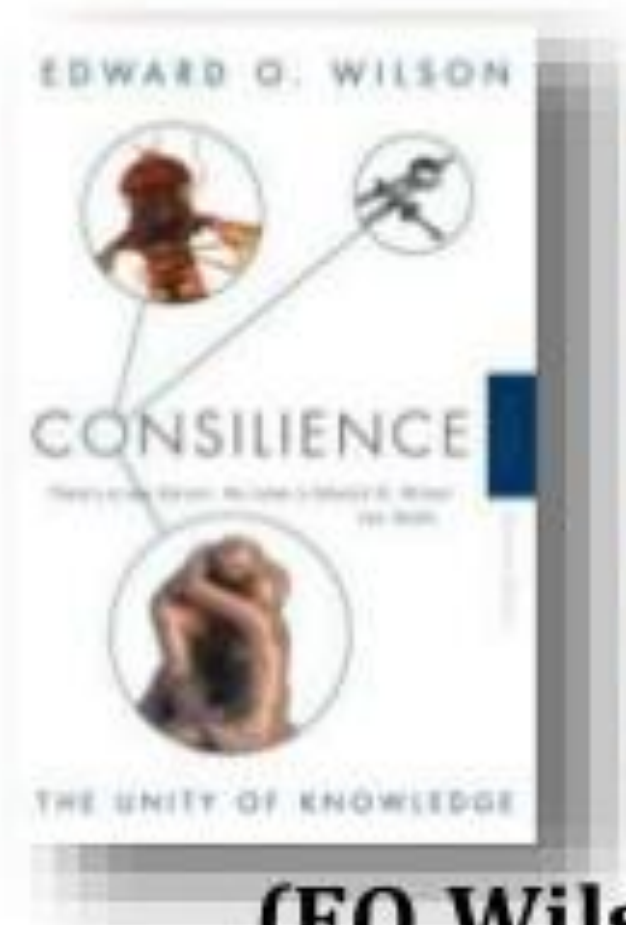


European
Commission

Data Revolution

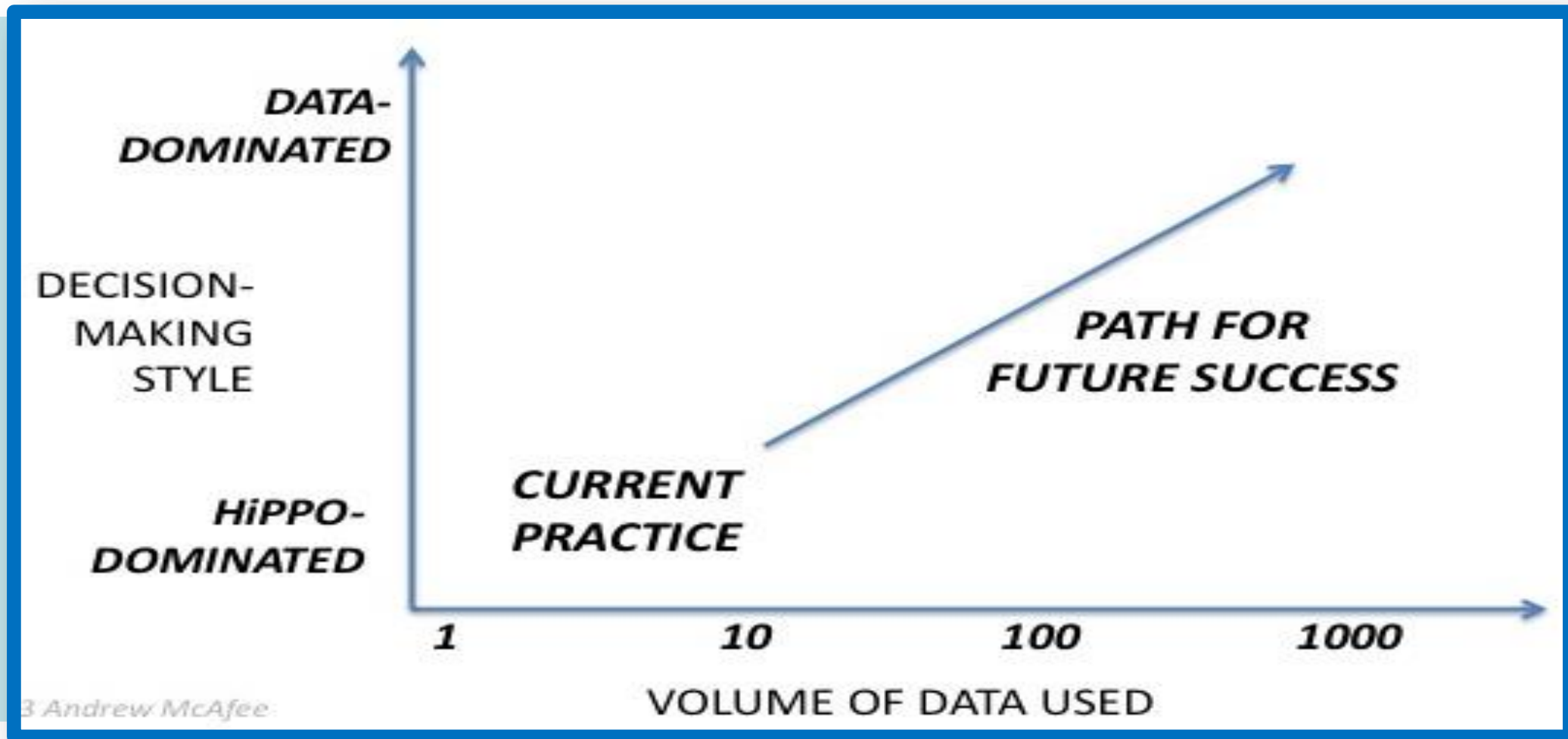
"We are *drowning in information*, while starving for *wisdom*. The world henceforth will be run by synthesizers, people able to put together the *right information* at the *right time*, think critically about it, and make *important choices wisely*."

[E.O Wilson, 1998, Consilience]



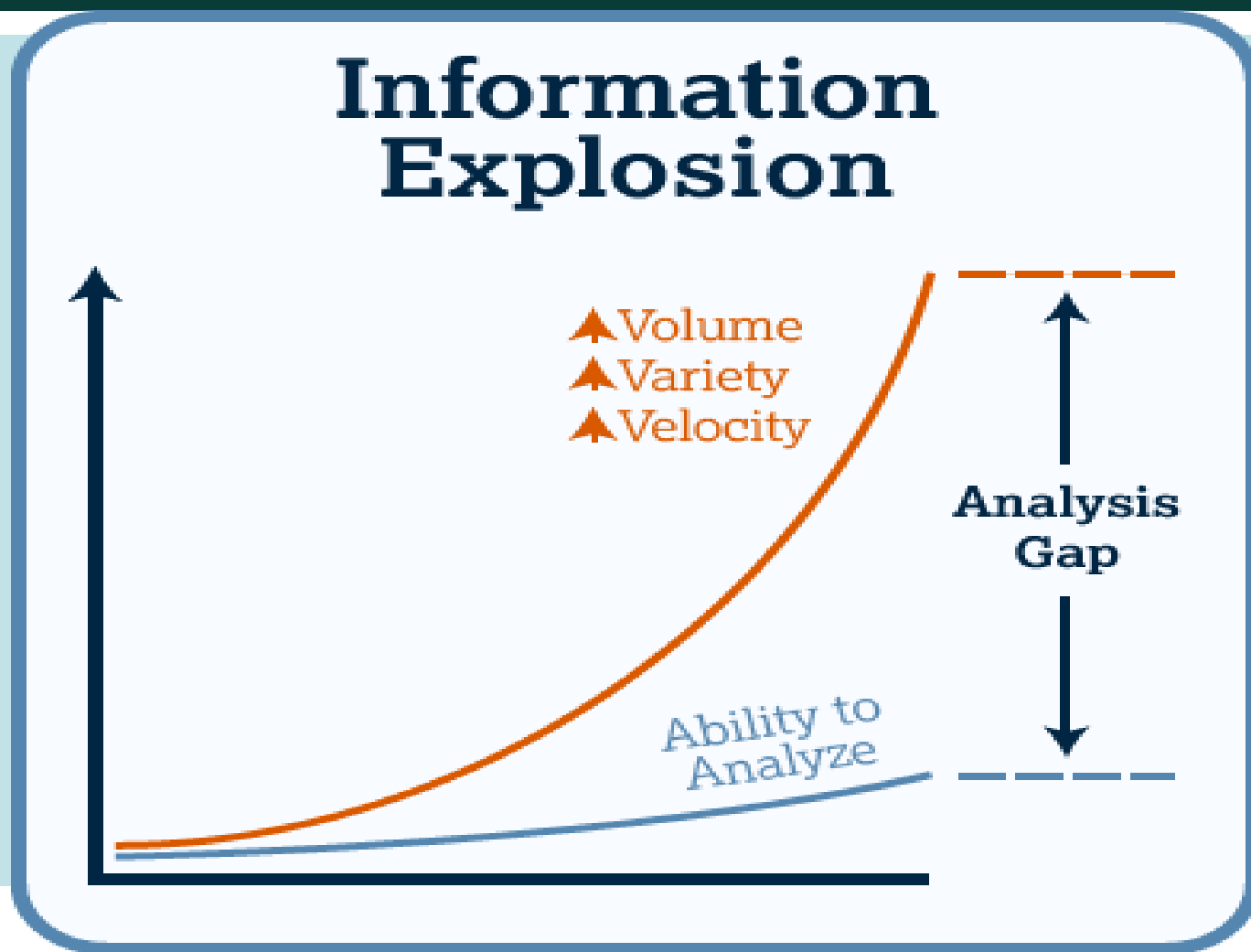
(EO Wilson, 1998)

Data Revolution



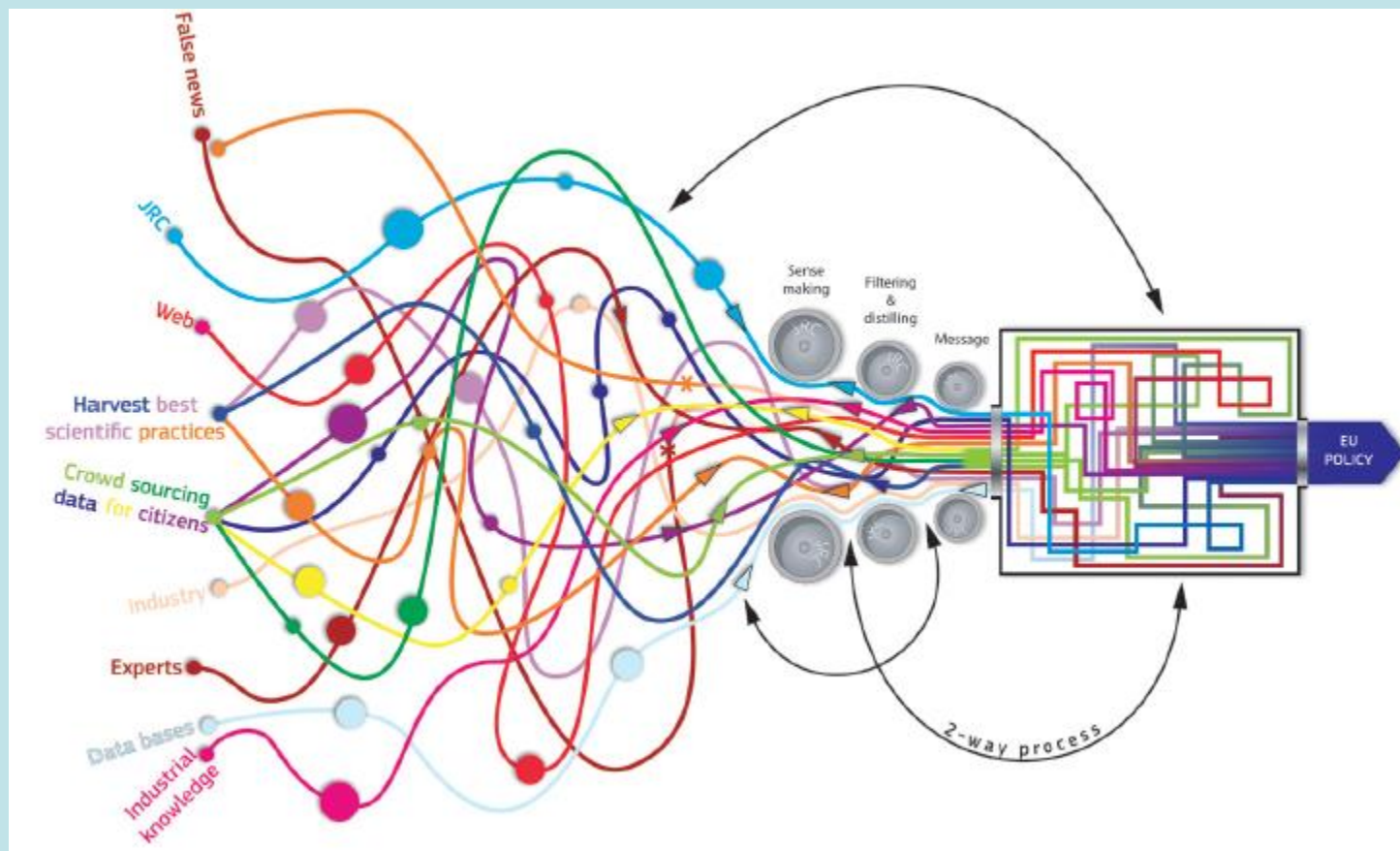
Source: http://digitalcommunity.mit.edu/community/featured_content/big-data/blog/2013/06

Data Revolution



Making sense of Data, Information and Knowledge

- Today's information deluge
- Fundamental role for the JRC role in managing knowledge in support of EU policy making



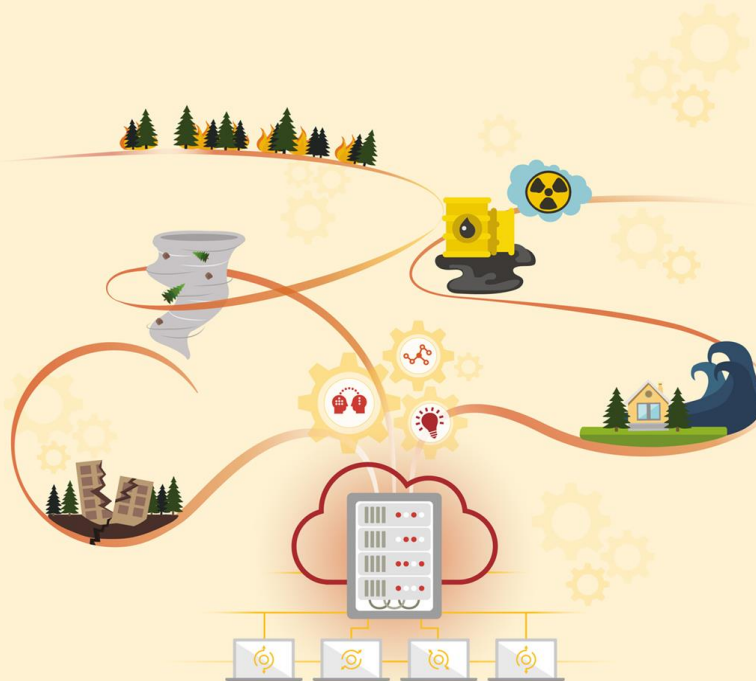
Knowledge Centres

Provide

- ✓ relevant data
- ✓ knowledge
- ✓ intelligence

in a specific policy field

The European Commission's Knowledge Centre for Disaster Risk Management



The European Commission's Knowledge Centre on Migration and Demography



Knowledge Centres

Provide

- ✓ relevant data
- ✓ knowledge
- ✓ intelligence

in a specific policy field

The European Commission's Knowledge Centre for Territorial Policies



The European Commission's Knowledge Centre on Bioeconomy



Competence Centres

Provide

- ✓ scientific expertise
- ✓ state-of-art methods
- ✓ tools

to inform policies in
any policy field



The European Commission's Competence Centre on Microeconomic Evaluation



Competence Centres

Provide

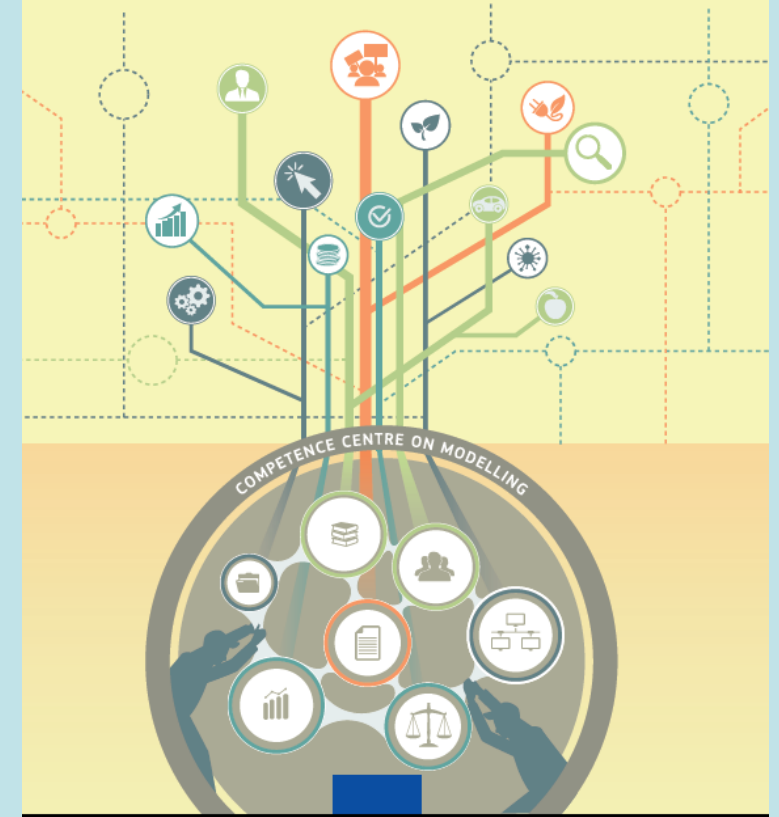
- ✓ scientific expertise
- ✓ state-of-art methods
- ✓ tools

to inform policies in any policy field

**The European Commission's
Competence Centre on
Text Mining and Analysis**



**The European Commission's
Competence Centre on Modelling**



Competence Centre COIN

Provide

- ✓ scientific expertise
- ✓ state-of-art methods
- ✓ tools

to inform policies in any policy field

The European Commission's
Competence Centre on Composite
Indicators and Scoreboards



Our aims

- 📖 Serve as **reference point for EU policy makers** on monitoring multi-dimensional phenomena
- 📖 Maintain the **global recognition** in auditing composite indicators and scoreboards

Competence Centre COIN

What we do



Support to EU Services (> 40 indices & scoreboards)

E.g., Social Scoreboard for the European Pillar of Social Rights (26/04/2017; CAB Juncker), Cultural and Creative Cities Monitor (06/07/2017; Commissioner Navracsics)



Collaborations with international partners (> 100 audits)

E.g, Global Innovation Index (INSEAD, WIPO), Commitment to Reducing Inequality Index (Oxfam), Financial Secrecy Index (Tax Justice Network)



Methodology

Jointly with the OECD quality control frame (conceptual coherence, multivariate analysis, sensitivity analysis, multi-criteria decision analysis, statistics and policy)



Training & Community of Practice on Composite Indicators and Scoreboards

6-10 November 2017, Ispra (15th year! and 2nd CoP)

Ever increasing number of monitoring tools

150

composite indicators
and scoreboards

developed or used by the EC

*[**COIN Data Hub**,
available mid 2018]*

50% of the EC indices/scoreboards are developed
with JRC contribution

DG FISMA	• Banks' contribution to EU Single Resolution Fund
DG ECHO	• Index for Risk Management (INFORM)
DG JUST	• Consumer Conditions & Markets
DG REGIO	• Europe 2020 Index
DG GROW	• Small Business Act Principles
DG RTD	• Innovation Output Indicator
DG JRC	• Cultural and Creative Cities Monitor
EEAS	• ASEM Sustainable Connectivity Index (Oct. 2018)
ECB	• Systemic Risk Heat Maps

Example 1: Cultural and Creative Cities Monitor



Tibor Navracsics @TNavracsicsEU · Jul 6
New @EU_ScienceHub tool for #EUCreativeCities is excellent example of #science and facts supporting #culture, #innovation & development

THE CULTURAL AND CREATIVE CITIES MONITOR

2017 edition

The Cultural and Creative Cities Monitor will strengthen the evidence base for the sound policies we need to promote cultural diversity and the role of the creative industries in boosting growth and people's well-being.

Commissioner Tibor Navracsics @TNavracsicsEU

Media uptake

Cultural and Creative Cities Monitor*

- So far 62 articles in the media, including praise in a UK tabloid
- 381 000 direct reach of JRC content on social media

FINANCIAL TIMES

WORLD BUSINESS NEWSPAPER

Friday 14 July 2017

Gillian Tett
What would Gary Cohn bring to the Fed chair role? — COMMENT PAGE 15

Winter isn't coming
Game of Thrones' HBO is thriving in world of disrupters — COMPANIES PAGE 37

Bolivian bourgeoisie
How a few became rich in a starving Venezuela — IT INVESTIGATION PAGE 11

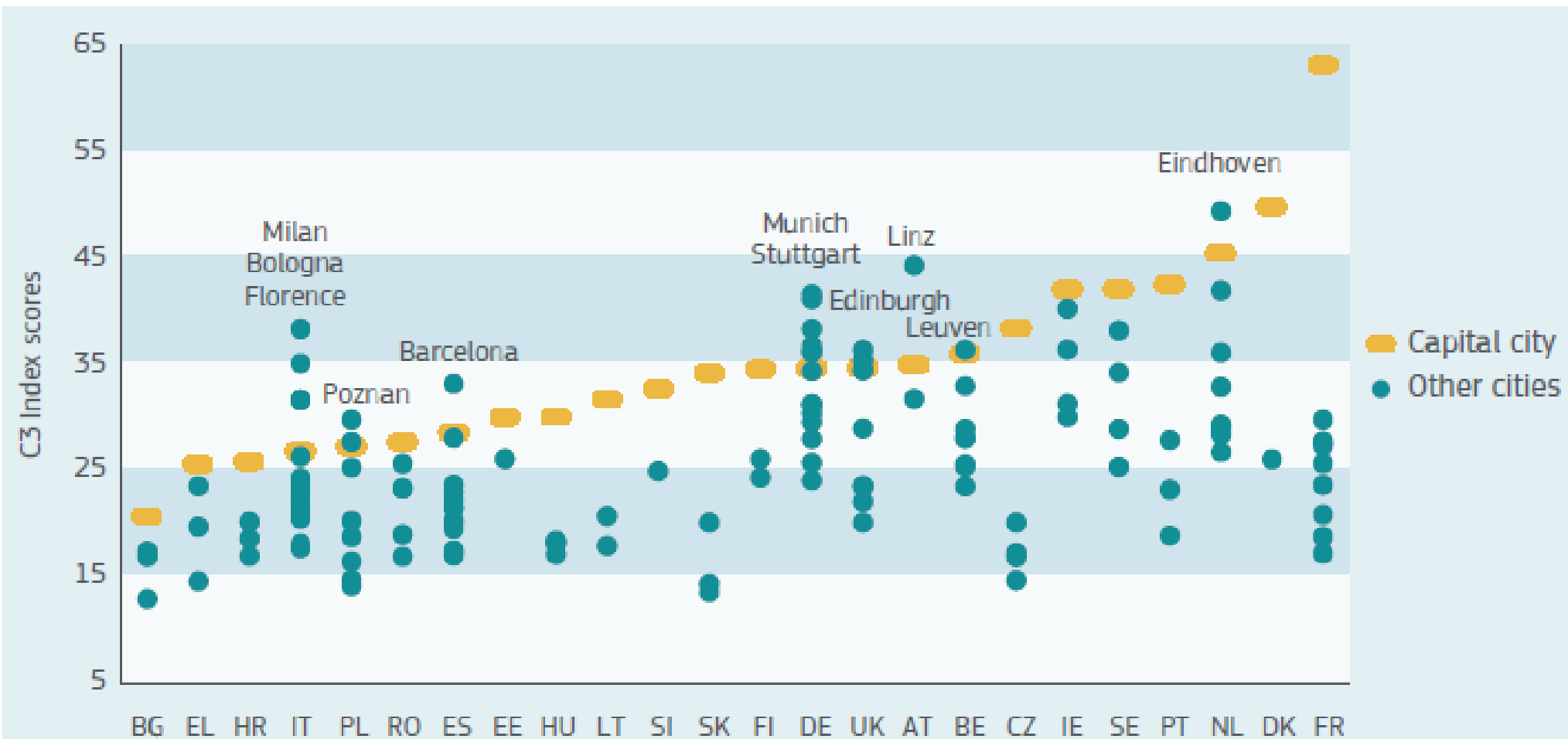
London goes on offensive in effort to entice Aramco IPO
Reforms open door for \$2tn listing
Battle heats up with rival New York

Liu Xiaobo
Death of a Chinese dissident

Briefing
• Fax move for Sky heads to full inquiry
• May face 'hell' over equal bill
• Roffe counter Wanda deal causes worry
• France to appeal against Google tax
• Tata paid bonus £2.5m after pension cut
• A 100 prison sentence for Chinese businessman
• A 100 prison sentence for Chinese businessman

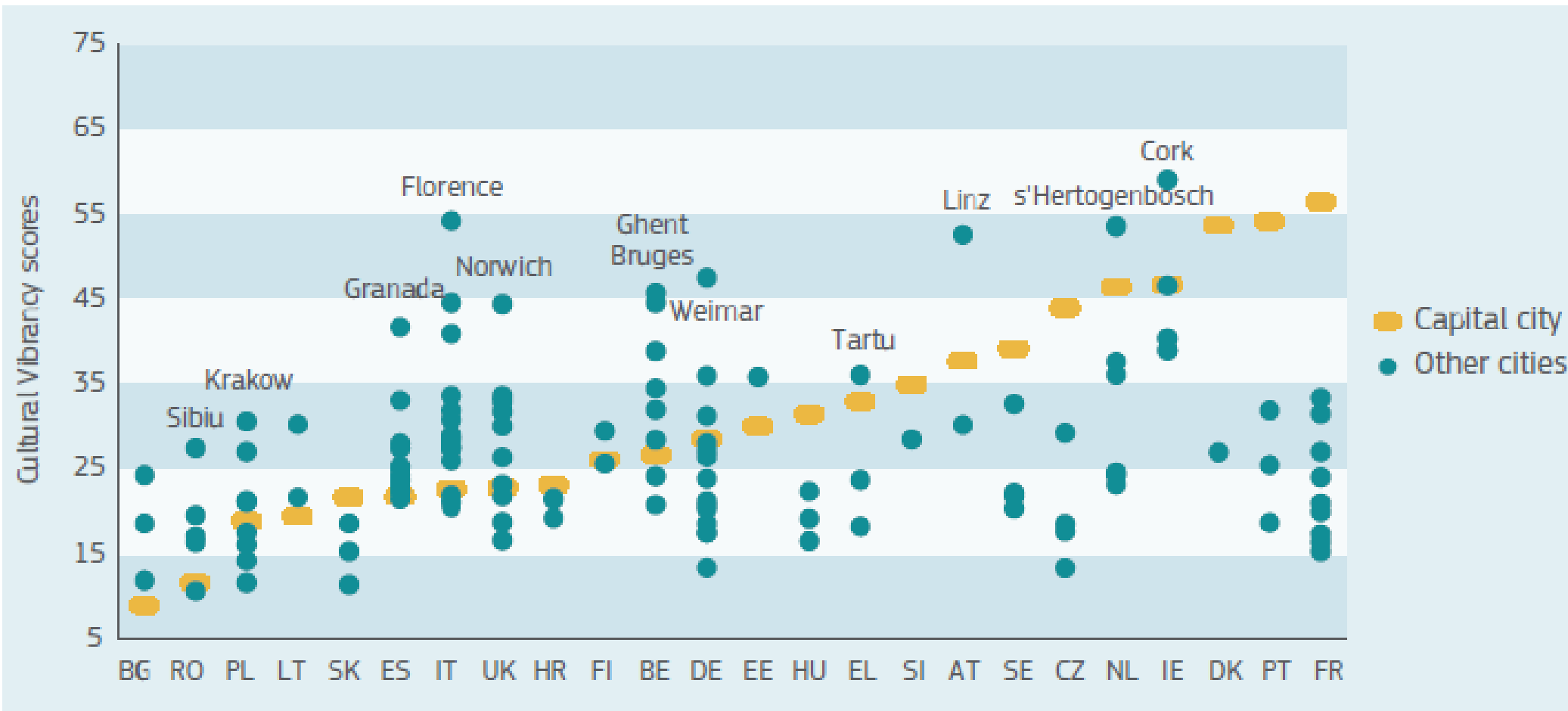
Watch
• A 100 prison sentence for Chinese businessman
• A 100 prison sentence for Chinese businessman

Example 1: Cultural and Creative Cities Monitor



<https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor>

Example 1: Cultural and Creative Cities Monitor



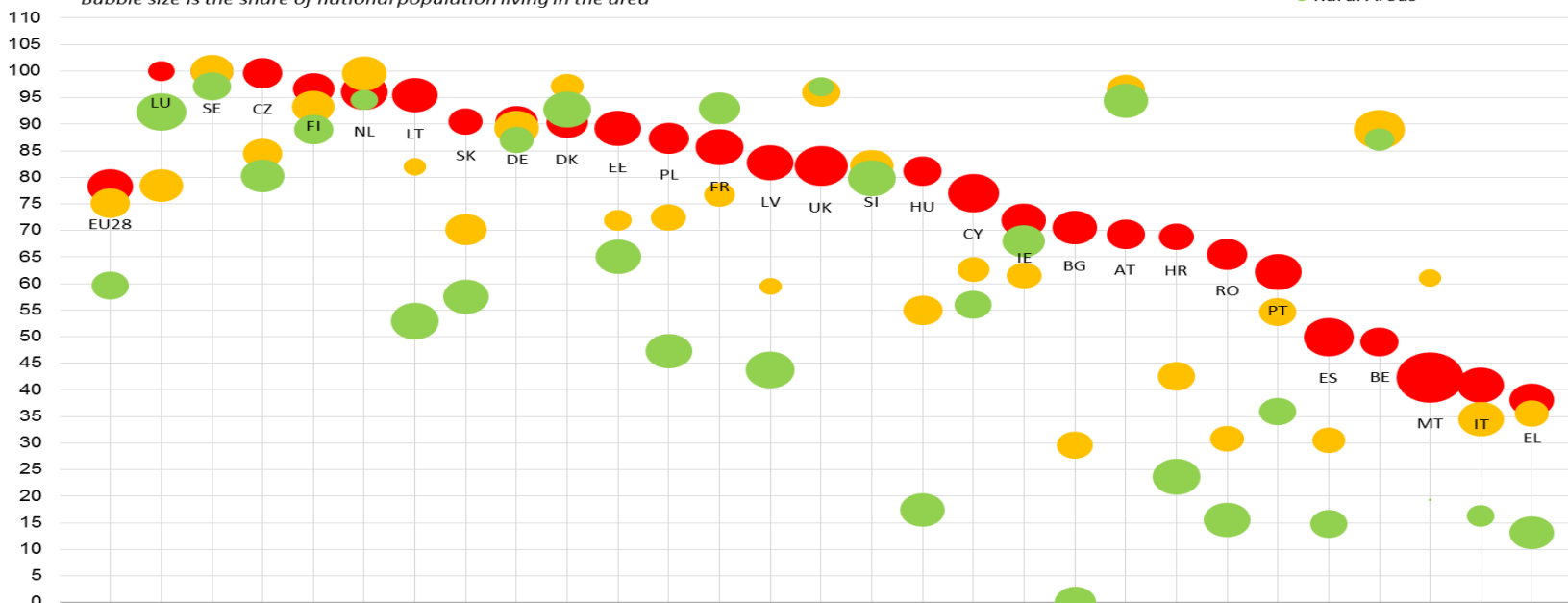
<https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor>

Example 2: JRC support to DG Regional & Urban Policy

EU2020 Index - EU Targets, 2014

Bubble size is the share of national population living in the area

- Cities
- Towns and suburbs
- Rural Areas



Source: Eurostat and calculations by JRC and REGIO Bubble size is the share of national population living in the area



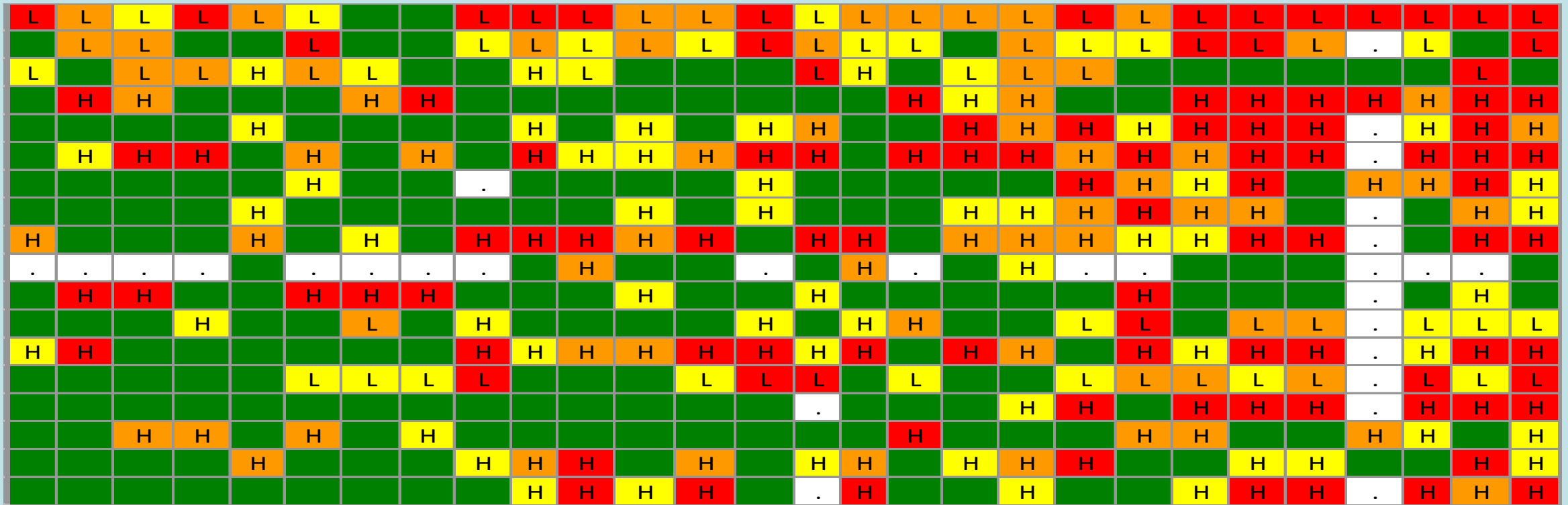
THE EUROPE 2020 INDEX:
THE PROGRESS
OF EU COUNTRIES,
REGIONS AND CITIES
TO THE 2020 TARGETS

Lewis Dijkstra and
Stergios Athanasoglou

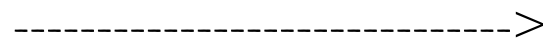
Regional and
Urban Policy

Example 3: JRC support to the European Central Bank

ECB – Systemic Risk Country Heat Map



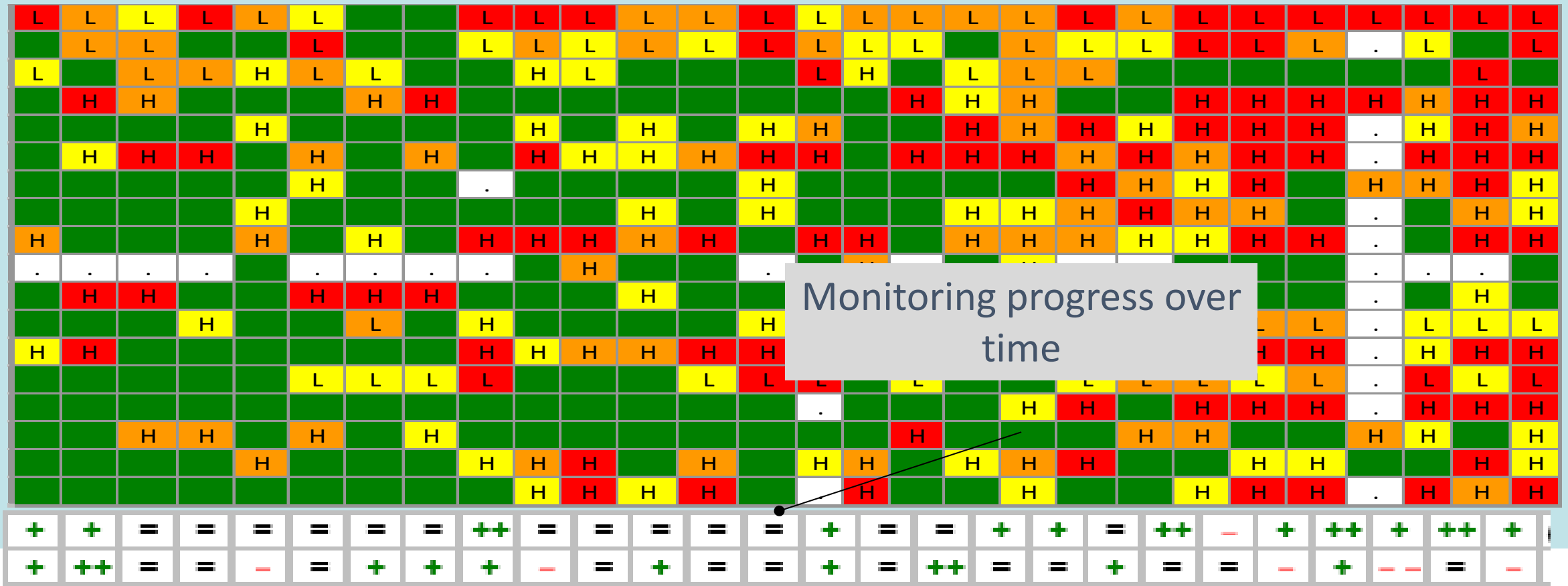
Low systemic risk



High systemic risk

Example 3: JRC support to the European Central Bank

ECB – Systemic Risk Country Heat Map



Example 3: JRC support to the European Central Bank



*On behalf of the ESRB Secretariat, I would like to thank you and your team for the invaluable support you have provided us. [...] . The **ranking algorithm** your team provided is now **approved by the ESRB Advisory Technical Committee**. According to this decision, from 2014 onwards, your work will be used for the (confidential) version of our systemic risk heat maps. These will be included in the regular briefing material for the quarterly ESRB General Board meetings and **incorporated in our general risk analysis**.*

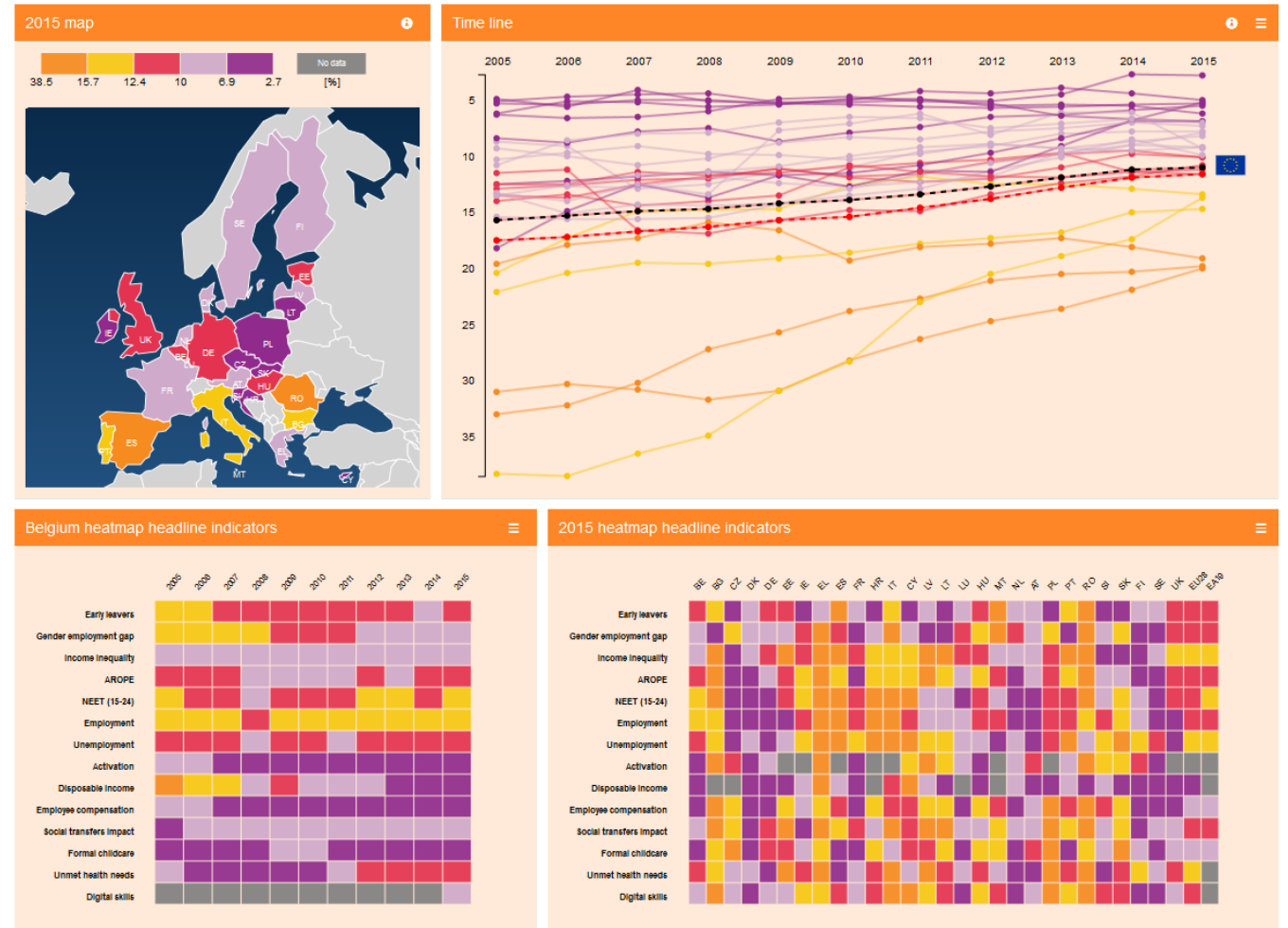
*In addition, [...] we recently discussed **the use of heat maps at an IMF conference** on managing strategic risk earlier this month, and of course, also gave full credit to the JRC.*

Example 4: Social Scoreboard for the European Pillar of Social Rights



A compass towards better living and working conditions in the EU

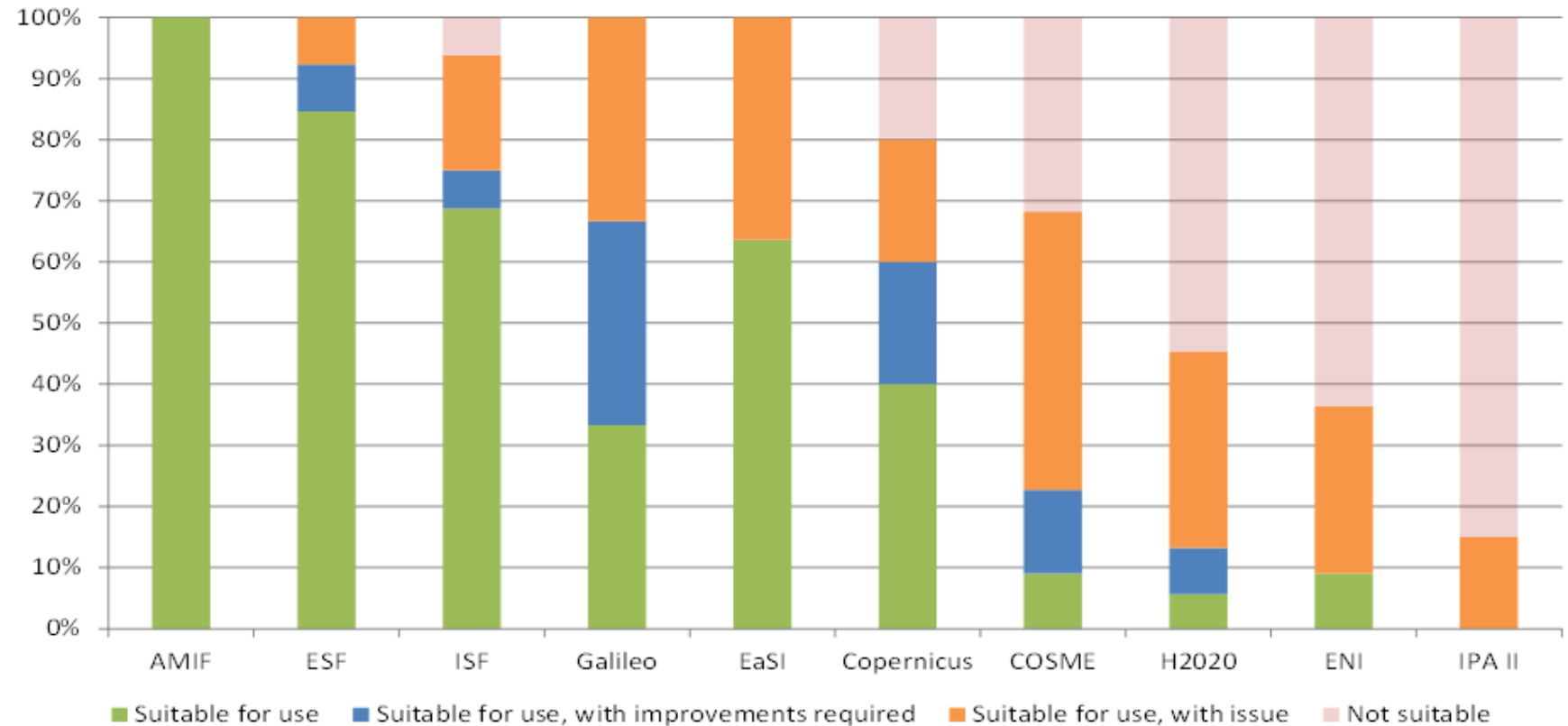
- 3 dimensions & 12 areas
- 14 headline & 28 secondary indicators
- 93 indicators in total (gender/age)



<https://composite-indicators.jrc.ec.europa.eu/social-scoreboard/>

Example 5: JRC support to DG Budget

- ✓ Assessment of the existing database of indicators
- ✓ Strengths and weaknesses of the current system for reporting budget performance
- ✓ Recommendations & Conclusions for an indicator framework for the next MFF.



Requests for JRC audits

UNDP	• Human Development Index
UNICEF	• 3 child-poverty indices
UN IFAD	• Multidimensional Poverty Assessment Tool
WIPO	• Global Innovation Index
ITU	• ICT Development Index
TJN	• Financial Secrecy Index

100 requests for JRC audits by international partners (UN, UNICEF, Tax Network, WEF, INSEAD, WIPO, UN-IFAD, FAO, Harvard U., Yale U., Columbia U., Cornell U.)

Forbes

The EC JRC is an in-house science centre providing technical advice to a variety of projects throughout Europe. As part of that mission it is also an expert reviewer of project methodologies, says Siddharth Bannerjee, Nesta project lead for the EDCI. It's important to be rigorous about methodology. It's how bias can sneak in when not expected," he adds. "The EC JRC may not be well known outside certain circles, but it is the ultimate indicator of what a composite index looks like."

Indices are powerful advocacy tools

*COIN helps to ensure that composite indicators are ...
developed sensibly and used responsibly.*

- ✓ '**Sensible development**' of a composite indicator implies a quality control process based on both conceptual and statistical considerations.
- ✓ '**Responsible use**' calls for care in drawing conclusions and recommendations without taking into account the conceptual context in which composite indicators were developed.

The European Commission's Competence Centre on Composite Indicators and Scoreboards





THANK YOU

Welcome to email us at: jrc-coin@ec.europa.eu

COIN in the EU Science Hub

<https://ec.europa.eu/jrc/en/coin>

COIN tools are available at:

<https://composite-indicators.jrc.ec.europa.eu/>

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