An Roinn Caiteachais
Phoiblí agus Athchóirithe
Department of Public
Expenditure and Reform

DATA.GOV.IE

Open Data Conference 2020

Open Data for a Data Driven Public Service Delivery

2nd December 2020

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	Agenda Item	Timing	Speakers
1.	Opening and Welcome	10:00 - 10:05	Prof. Declan O'Sullivan Computer Science - Trinity College Dublin
2	Opening	10:05 - 10:15	Minister Ossian Smyth Minister of State for Public Procurement and eGovernment
3.	High Value Datasets - From Publication to Impact	10:15 - 10:30	Prof. Elena Simperl Computer Science - Kings College London
4.	OSI Publication and Covid 19 - how the publication of data informed and provided insights into the crisis	10:30 - 10:45	Hugh Mangan Business & Marketing Manager of Ordnance Survey Ireland (OSI)
5.	Sharing on the Journey - Testimonials from Publishers and re-Users: 1. Data Publisher: the Tusla Journey 2. Data Re-Use Smart Cities: the Dublin Dashboard 3. Data Re-Use Health & Wellbeing: Hale & Hearty	10:45 - 11:25	Moderator: Cianan Clancy (Shipyard Technology Ventures) • Peggy Ryan and Sheila Moore (Tusla) • Liam O'Sullivan (Dublin Dashboard) • Deirdre Lee (Derilinx) • Hugh Mangan (OSI)
6.	Publication of Open Datasets • Open Data Directive • Ireland Public Service Data Catalogue • High Value Datasets	11:25 - 12:05	Moderator: Dr. Edward Curry (Insight Centre) • Rhoda Kerins (Open Data Unit - DPER) • Mark Warren (OGCIO - DPER) • Josh D'Addario(ODI)
7.	Open Data as part of a wider European Data and AI Ecosystem	12:05 - 12:20	Dr. Edward Curry Principal Investigator - Insight Centre
8.	Closing	12:20	Dave Hanley Principal Officer – Reform and Delivery Office (DPER)

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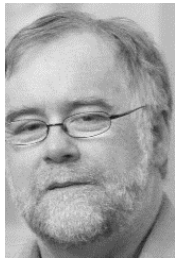
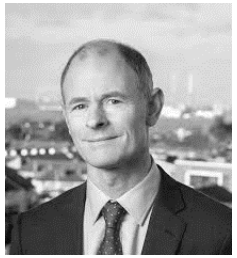
The speakers



Prof. Declan O'Sullivan
Computer Science - Trinity College Dublin



Minister Ossian Smyth
Minister of State for Public Procurement and eGovernment

Prof. Elena Simperl
Computer Science - Kings College London

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Cianan Clancy
Shipyard Technology Ventures

Liam O'Sullivan
Dublin Dashboard

Peggy Ryan
Tusla

Sheila Moore
Tusla

Deirdre Lee
Derilinx

Dr. Edward Curry
Insight Centre

Rhoda Kerins *Open Data Unit - DPER*

Mark Warren
OGCIO - DPER

Josh D'Addario
ODI

Dave Hanley
Reform and Delivery Office - DPER

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1

Minister Ossian Smyth

Minister of State for Public Procurement and eGovernment

Opening of the Conference

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2

Prof. Elena Simperl

Computer Science - Kings College London

High Value Datasets - From Publication to Impact

HIGH-VALUE DATASETS

FROM PUBLICATION TO IMPACT

Elena Simperl
@esimperl

National Open Data Conference
December 2, 2020

EUROPEAN DATA PORTAL

data stories

WDAqua

SCIFI Smart City Innovation

Interreg 2 Seas Mers Zeeën

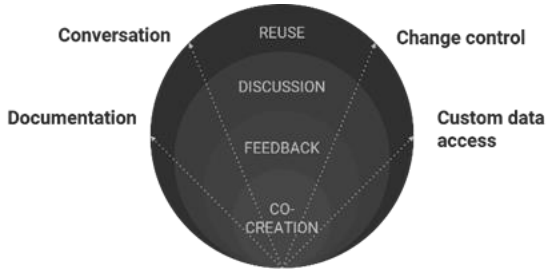
ODINE Open Data Incubator Europe

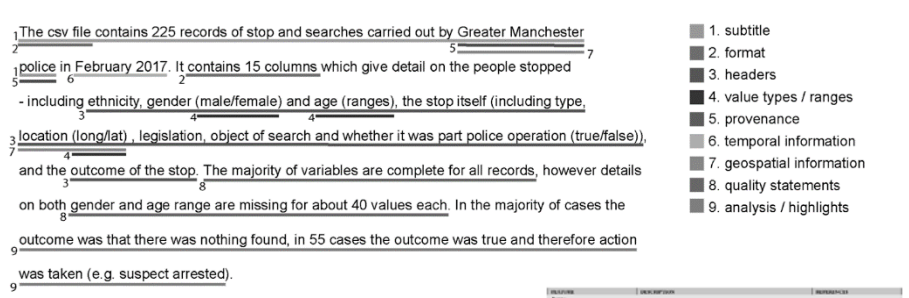
How do people search, make sense of, and use open data?

HUMAN DATA INTERACTION

FRAMEWORKS, METHODS, TOOLS

Fig. 7. Patterns of activities and attributes in data-centric sensemaking





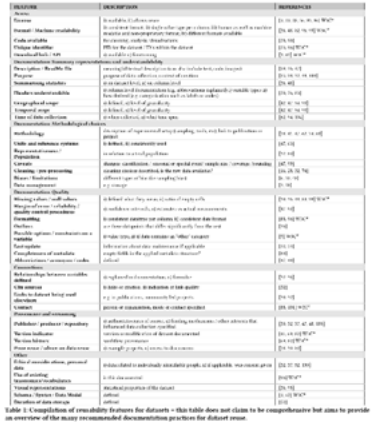
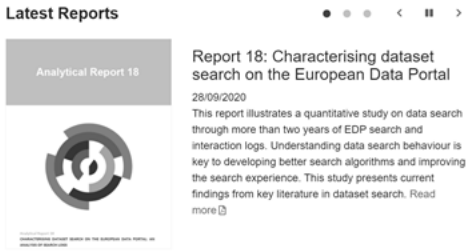
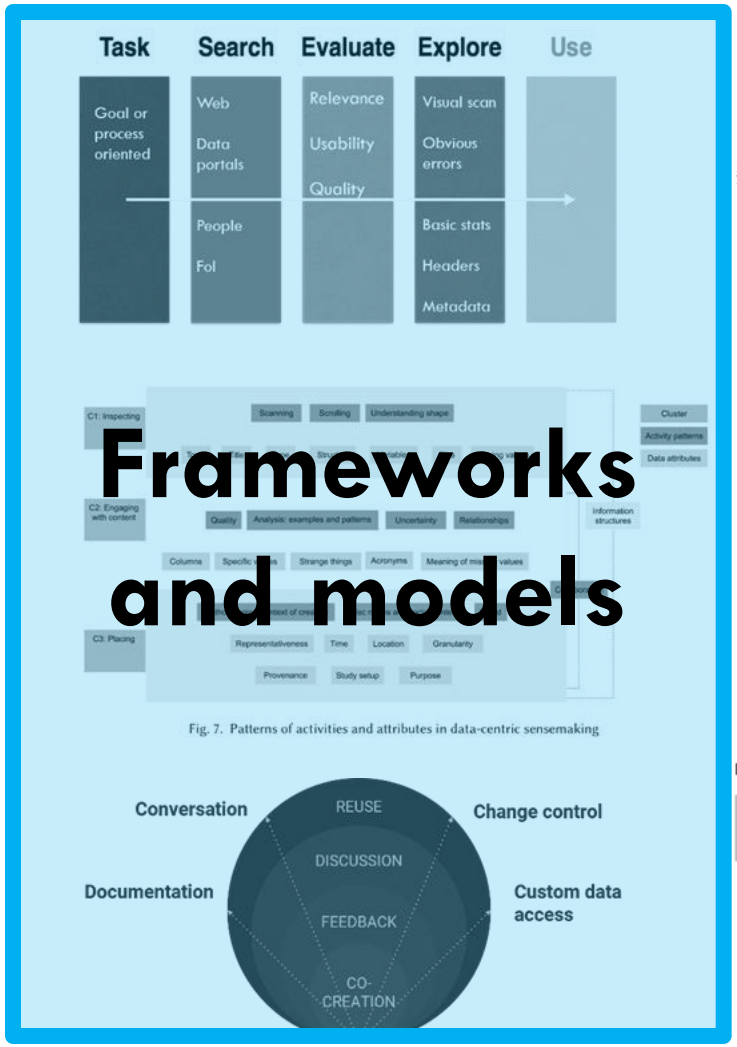


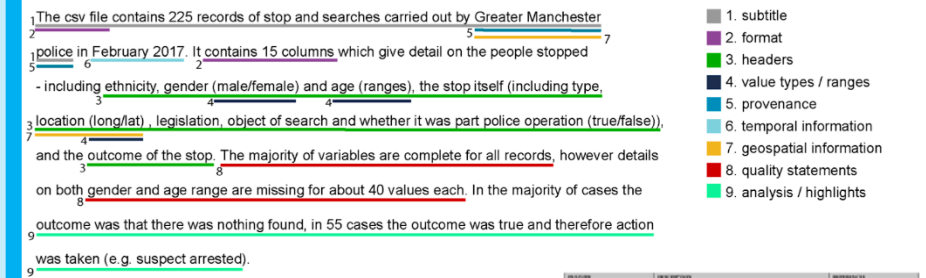
Table 1: Compilation of reusability features for datasets – this table does not claim to be comprehensive but aims to provide an overview of the many recommended documentation practices for dataset reuse.

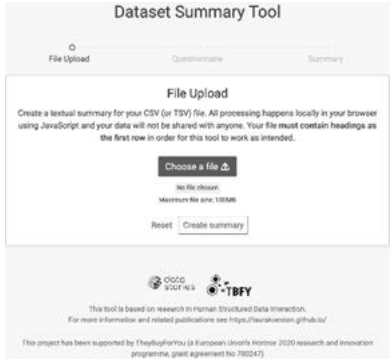


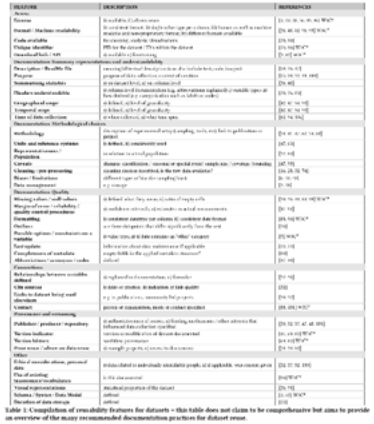
HUMAN DATA INTERACTION

FRAMEWORKS, METHODS, TOOLS









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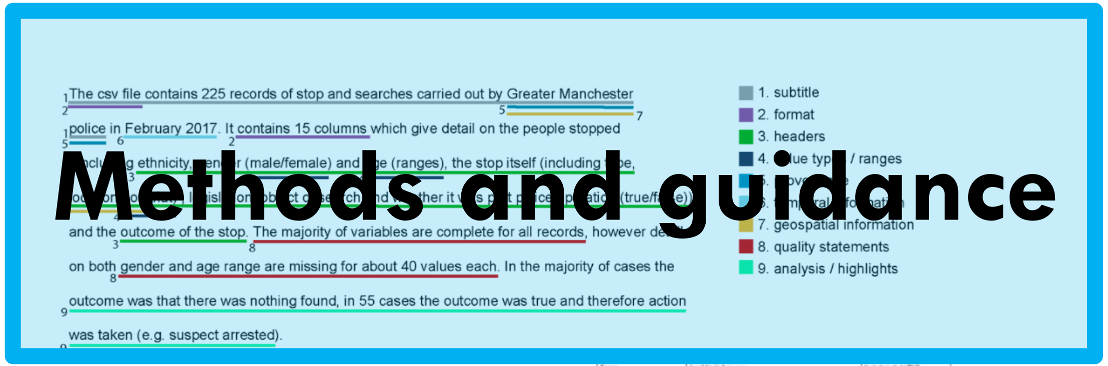
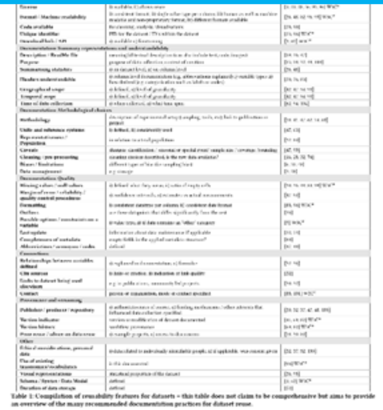
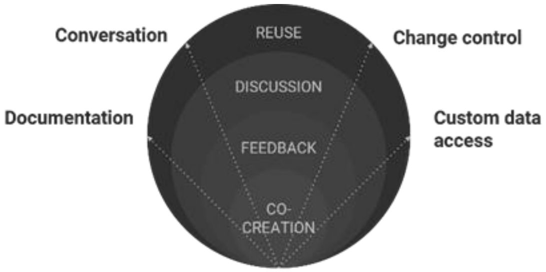


Methods and guidance

Fig. 7. Patterns of activities and attributes in data-centric sensemaking





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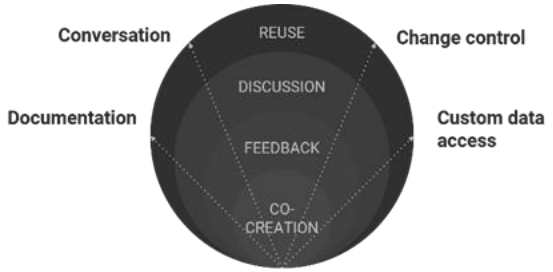

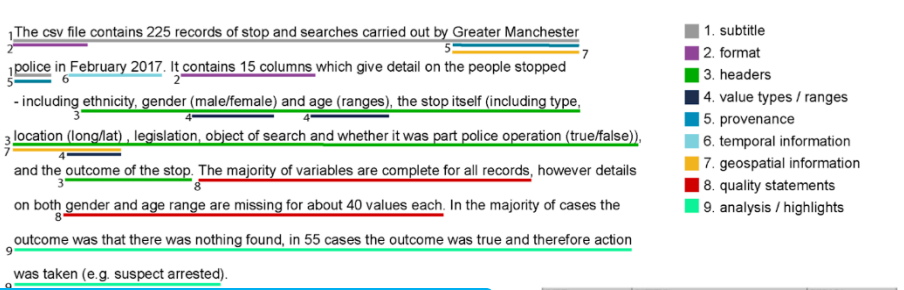

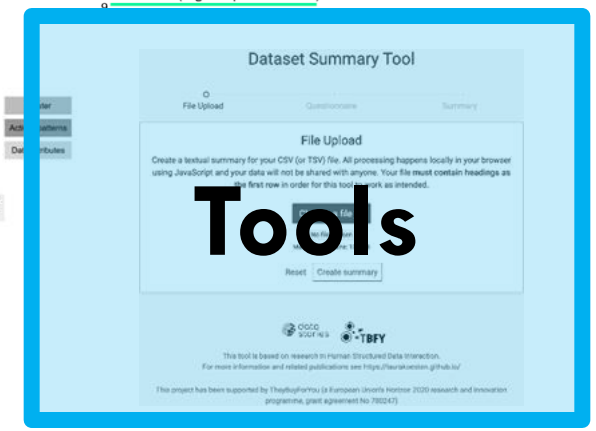

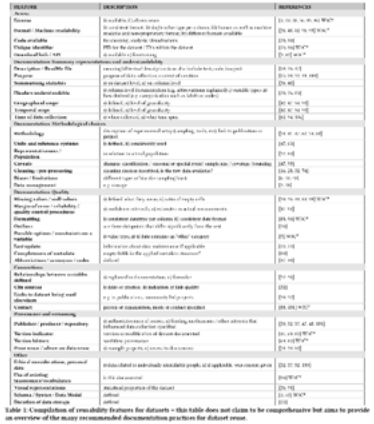

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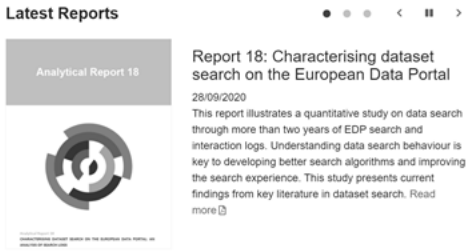

HUMAN DATA INTERACTION

FRAMEWORKS, METHODS, TOOLS

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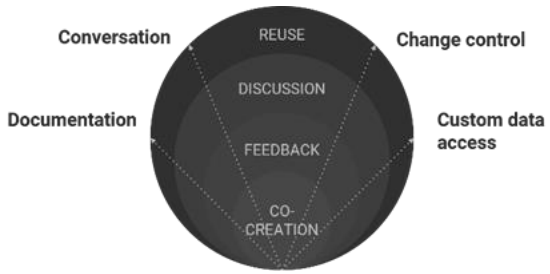
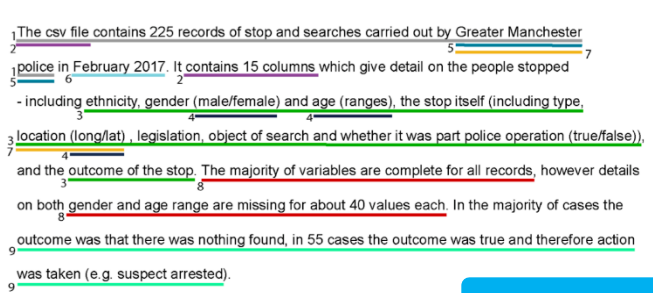
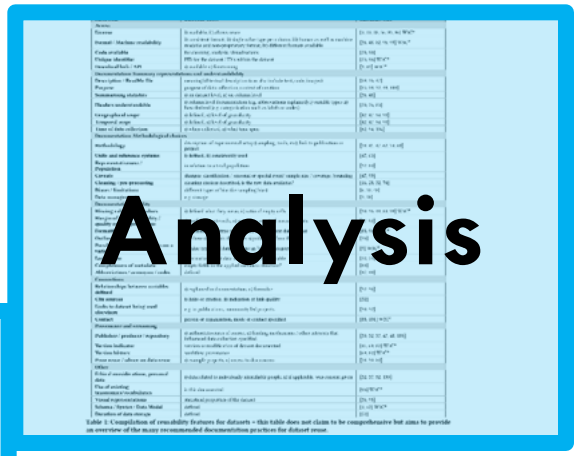




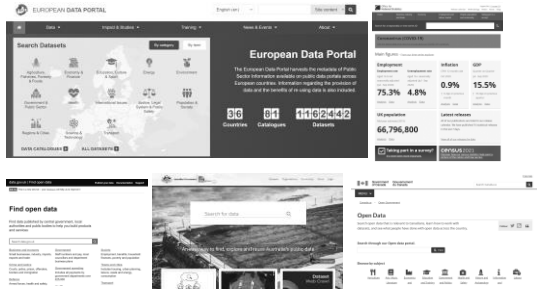


HIGH-VALUE DATASETS

UNDERSTANDING USE THROUGH BEHAVIOUR ANALYSIS TO PROVIDE GUIDANCE TO PUBLISHERS

Open government data portals

- Search logs
- Data requests



Data science platforms

- Activity logs

GitHub kaggle

2018 STUDY

ANALYSIS OF LOGS AND REQUESTS

Four national open government data portals, 2.2 million queries from 2013 to 2016, 1500 data requests.

Data search is a work-related activity.

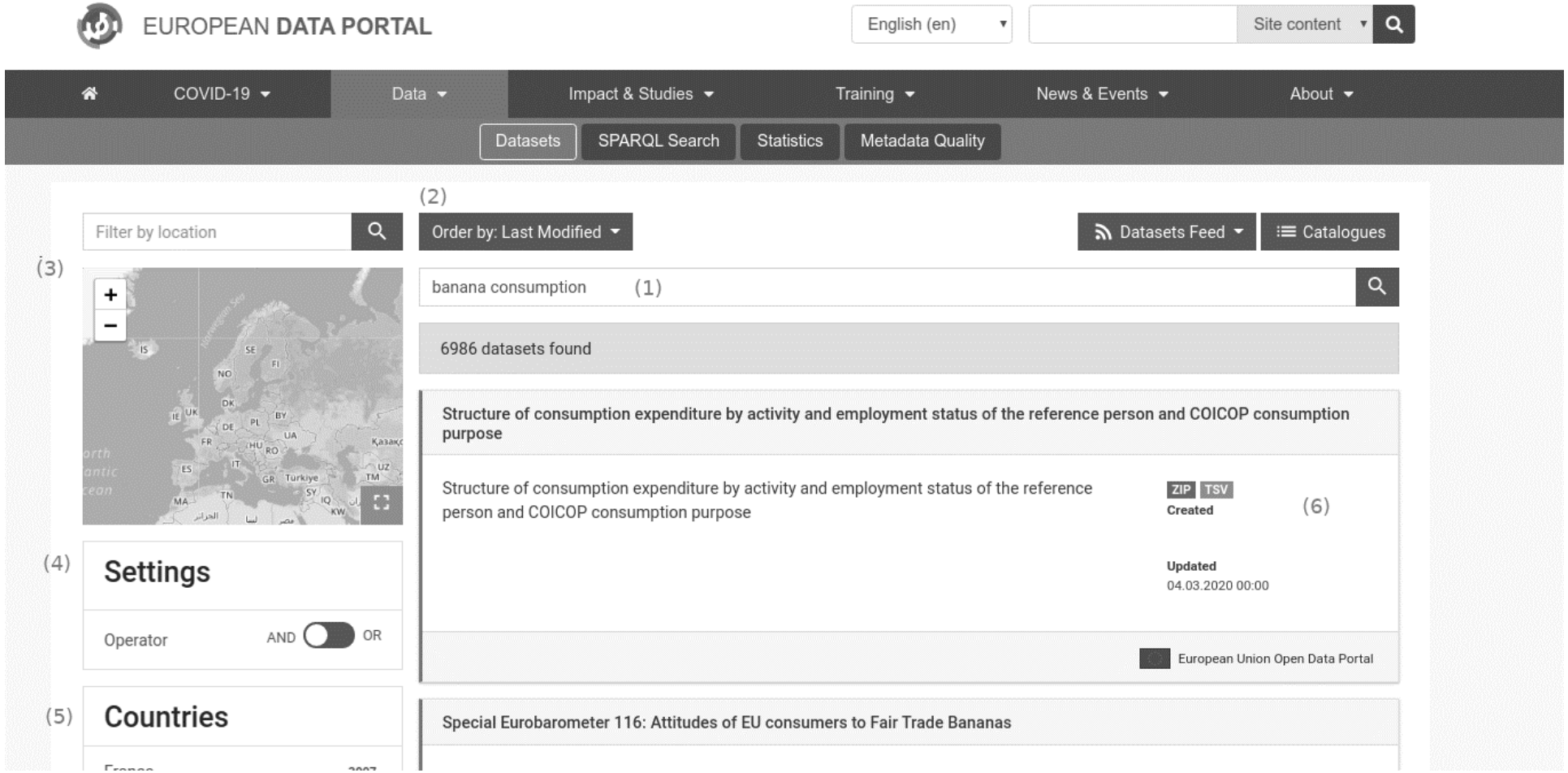
Shorter queries, include time and location, with varying levels of granularity.

Explorative search, using keywords and filters.

Native and external queries topically different.

Data requests describe the data through boundaries and restrictions on location, time, data type, granularity.

Kacprzak, E., Koesten, L., Ibáñez, L.D., Blount, T., Tennison, J. and Simperl, E., 2018. Characterising dataset search—An analysis of search logs and data requests. *Journal of Web Semantics*.



2020 STUDY
ANALYSIS OF LOGS

844,343 user sessions
(April 18 to June 20)

Characterising Dataset Search on the European Data Portal: An Analysis of Search Logs. LD Ibáñez, E Kacprzak, L Koesten, E Simperl. *European Data Portal*, Analytical Report 18, 2020

TOOLS TO FIND DATA

EDP is used to find datasets, but it is not the only tool people use. 60% of sessions arrive to the EDP from the web.

Changes in portal design impact traffic (and user experience).

Covid-19 datasets were in high demand in 2020.

A large majority of users visit only one section of the portal at a time.

Content on the site needs to be better interlinked (both data and other pages). When links exist, people use them.

SEARCH APPROACHES AND AFFORDANCES

Filters are important: 60% of native sessions use filters-only; 15-20% use keywords *and* filters.

Common search strategies: single-filter; keywords first, then one or more filters.

Popular filters are country and category. Less so: format, license.

Keyword queries are short, less use of time, format and data attributes, more use of location.

SUCCESS IN DATASET SEARCH

20-40% of native queries and 8-25% of external queries are successful.

Keywords + filters seem to work better. Might also be a proxy for seasoned users.

IMPLICATIONS FOR PUBLISHERS

SEO strategy	Filter affordances	Granular location data
Dataset retrieval	Dataset preview pages	Links between content and datasets

WHAT'S NEXT

Studies on users and their information needs.

Granular activity data captured and shared by portals for new studies.

Portals publish lots of data. They now need to do more to become data communities.

GitHub kaggle

DATA.GOV.IE

3

Hugh Mangan

Business & Marketing Manager of Ordnance Survey Ireland

How the publication of data informed and provided insights into the crisis

How the Covid-19 crisis drove the publication of Open Data

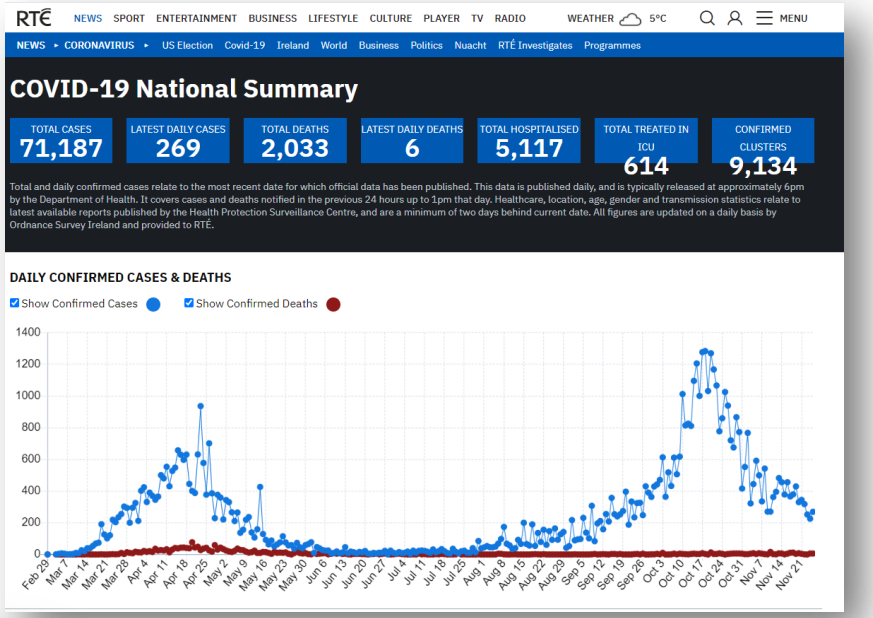
Hugh Mangan, Ordnance Survey Ireland

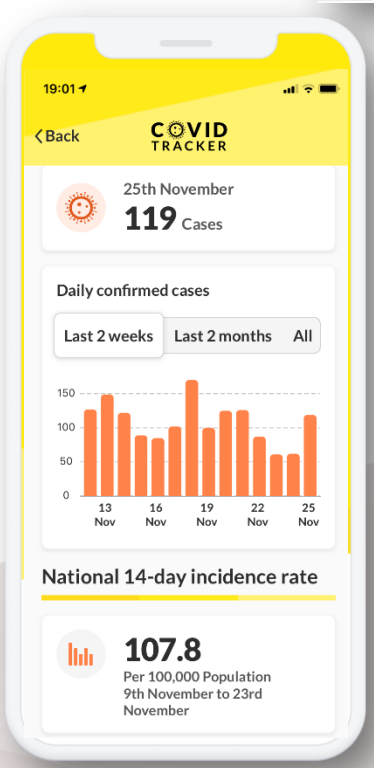
2nd December 2020

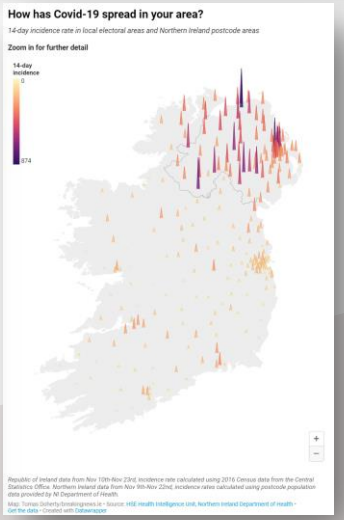
Rialtas na hÉireann
Government of Ireland

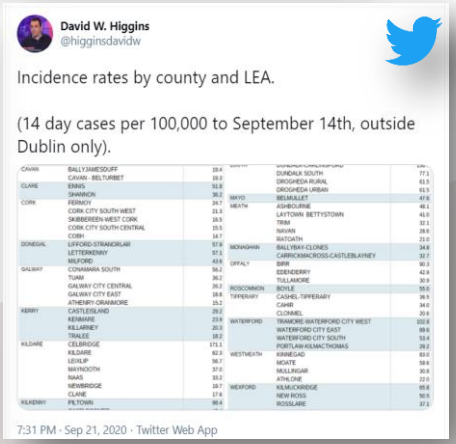
This is a story about the importance of authoritative data …

- It's a story about **public sector led collaboration and problem solving**, under demanding circumstances.
- It's a story about the behind the scenes data supply chain to produce **Open Data** that many of us consumed, in many ways, over the last few months.
- And the **lessons learnt** from that.

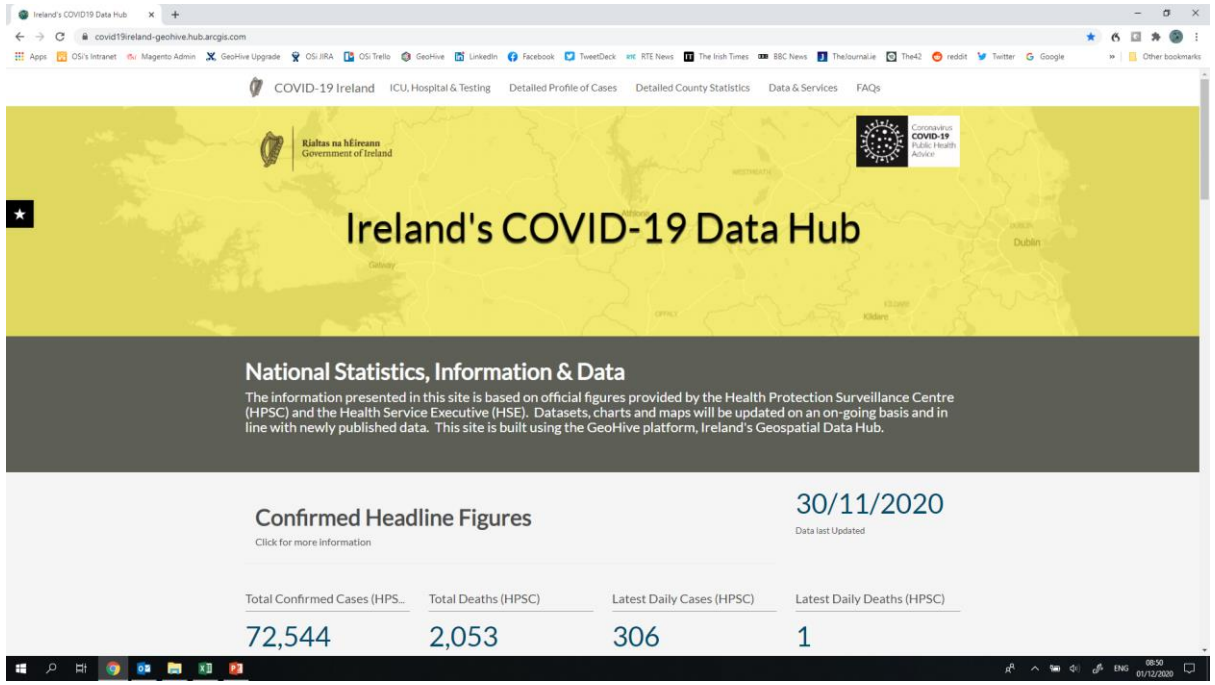


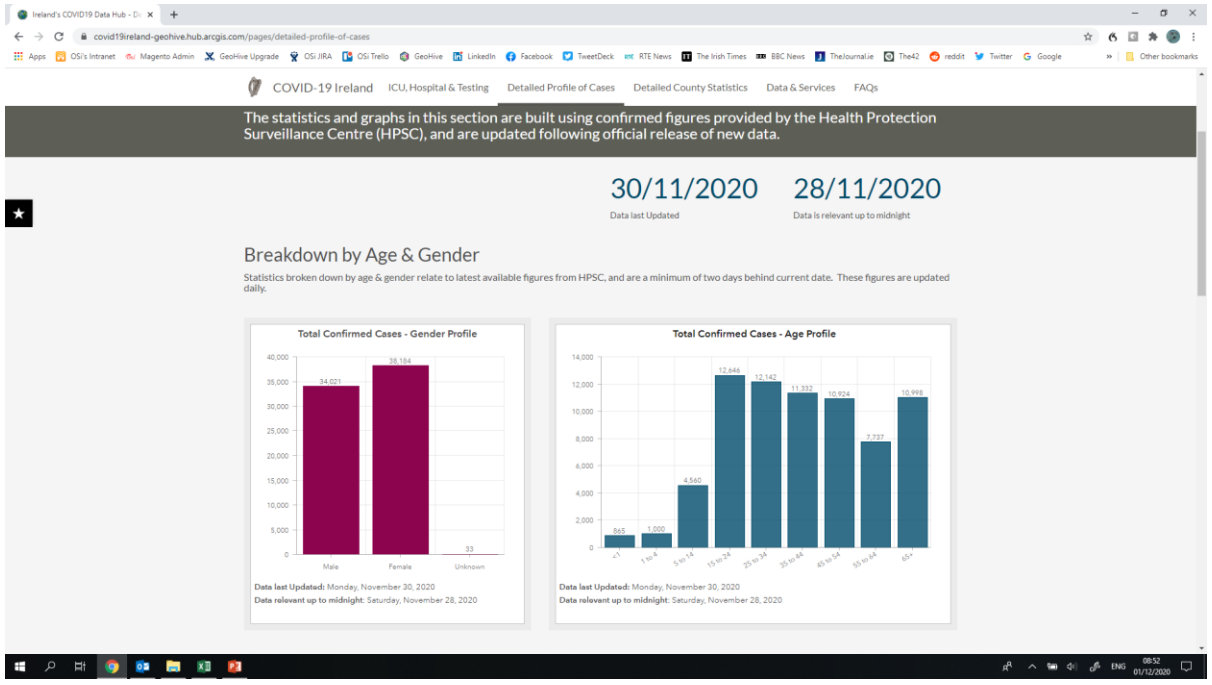






Rialtas na hÉireann
Government of Ireland





HSE

An Roinn Caiteachais Phoiblí agus Athchóirithe
Department of Public Expenditure and Reform

An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
Department of Housing, Local Government and Heritage

An Roinn Sláinte
Department of Health

An Phríomh-Oifig Staidrimh
Central Statistics Office

hpsc

AIRO

OSi Ordnance Survey Ireland

esri

Context: Public Sector Data Strategy

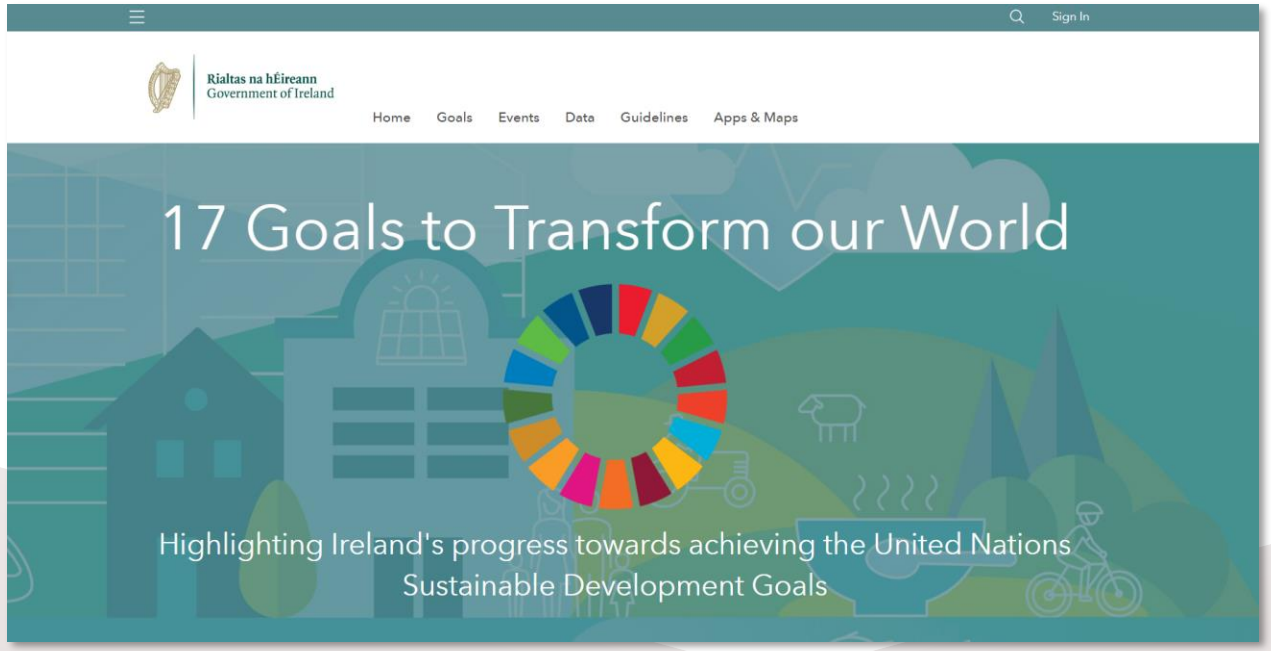
An Roinn Caiteachais Phoiblí agus Athchóirithe
Department of Public Expenditure and Reform

Context: SDGs and Open Data

An Roinn Comhshaoil, Aeráide agus Cumarsáide
Department of the Environment, Climate and Communications

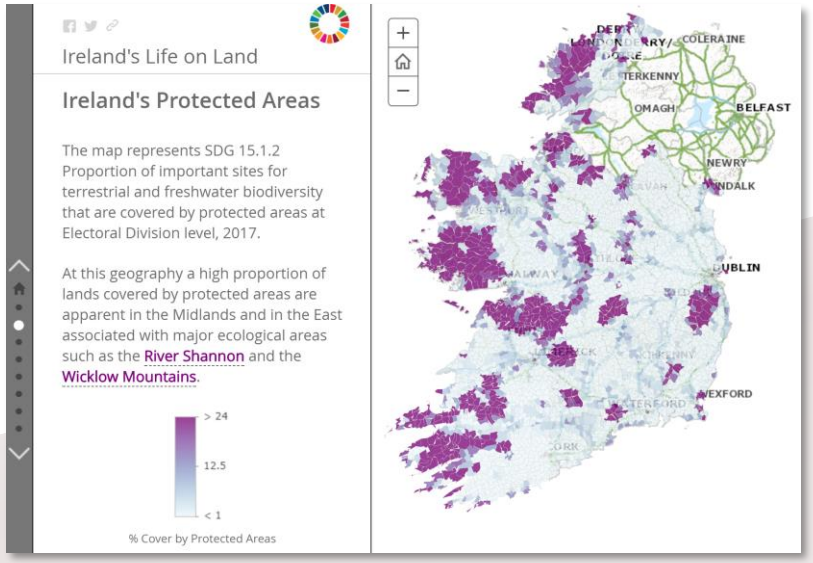
Geospatial Data and GeoHive Platform

Ordnance Survey Ireland



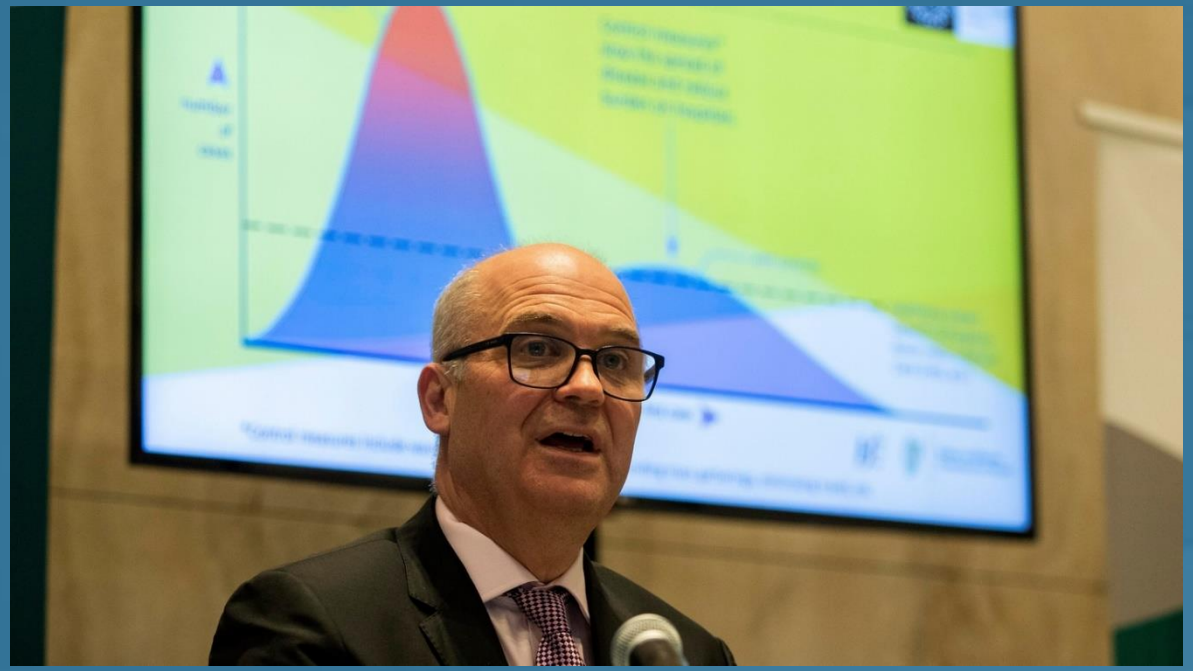
Statistics and Data Governance

An Phríomh-Oifig Staidrimh
Central Statistics Office



Coronavirus COVID-19

Public Health Advice



Dr. Tony Holohan – Chief Medical Officer (CMO)

Refocus SDGs Group to GeoHive COVID-19 Response Co-ordination Group

GeoHive COVID-19 Group - Purpose & Vision

Purpose

- To coordinate the technical, data, policy, and financial activities related to providing key data and tools, via GeoHive the State's geospatial data hub, to inform Ireland's response to the COVID-19 outbreak

Vision

- To provide key data and tools to inform Ireland's operational intelligence and situational awareness efforts in response to the COVID-19 outbreak

Terms of Reference, March 2020

GeoHive Covid-19 Response Coordination Group

Name	GeoHive Covid-19 Response Coordination Group
Membership	The membership of this group consists of the following organisations: • Ordnance Survey Ireland (OSi) • The Central Statistics Office (CSO) • The Department of Housing, Planning, and Local Government (DHPLG) • the All-Island Research Observatory (AIRO) • Esri Ireland. The associated levels of responsibility and accountability are defined in a separate RASCI matrix.
Goals for the Group	The goals for this group are to: 1. Build a participation network that facilitates the "collect once, use many times" philosophy of the Public Services Data Strategy for geo-statistical data in the response to the Covid-19 outbreak. 2. Introduce geospatial and statistical data governance procedures that focus on reducing/removing data duplication. 3. Maximise the use of the State's geospatial hub (GeoHive) through appropriate data collection and data visualisation.
Group Working Methods	The GH-COVID19-RCG meets on a daily basis with all meetings held using remote video/phone conferencing to maintain social distancing. The Group has established a: • GeoHive Covid-19 response platform with public, private and secure virtual data room capabilities • Geo-statistical data governance and management sub-group to provide expertise in support of the Government's Covid-19 response • GeoHive technical architecture sub-group to provide the expertise in support the Government's Covid-19 response.
Group Documentation	A Terms of Reference (TOR), Data Governance and Stakeholder Relationship mapping is in place to manage the governance and co-ordination of the stakeholders involved and communication channels. A shared programme repository has been established.

1. To build a participation network that facilitates the **"collect once, use many times" philosophy** of the Public Service Data Strategy in the response to the COVID-19 outbreak

2. To introduce geospatial and statistical data governance procedures that focus on reducing/removing data duplication.

3. To maximise the use of the GeoHive through appropriate data collection and data visualisation

Rialtas na hÉireann
Government of Ireland

Data, infrastructure and processes

The Group has established:

- ✓ GeoHive COVID-19 response platform with public/private/secure virtual data hubs
- ✓ Geo-statistical data governance and management sub-group to provide expertise in support of the national COVID-19 response
- ✓ GeoHive technical architecture sub-group to provide the expertise in support of the national COVID-19 response
- ✓ Various data led initiatives - which are summarised in the following slides

COVID-19 Ireland | ICU, Hospital & Testing | Detailed Profile of Cases | Detailed County Statistics | Data & Services | FAQs

1

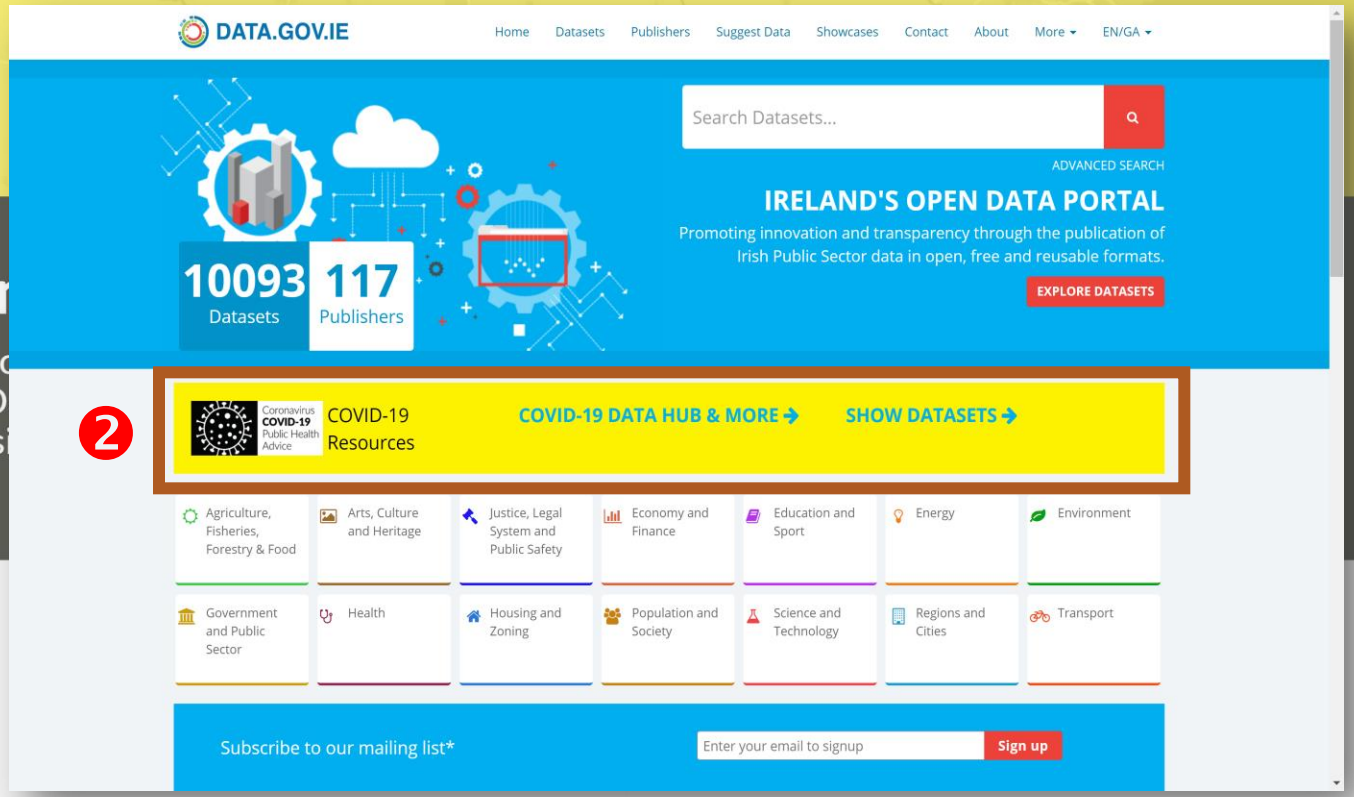
Rialtas na hÉireann
Government of Ireland

Coronavirus COVID-19 Public Health Advice

Ireland's COVID-19 Data Hub

National Statistics, Informatio

The information presented in this site is based on
(HPSC) and the Health Service Executive (HSE). D
line with newly published data. This site is built us



Confirmed Headline Figures

Click for more information

Total Confirmed Cases (HPS...

Total Deaths (HPSC)

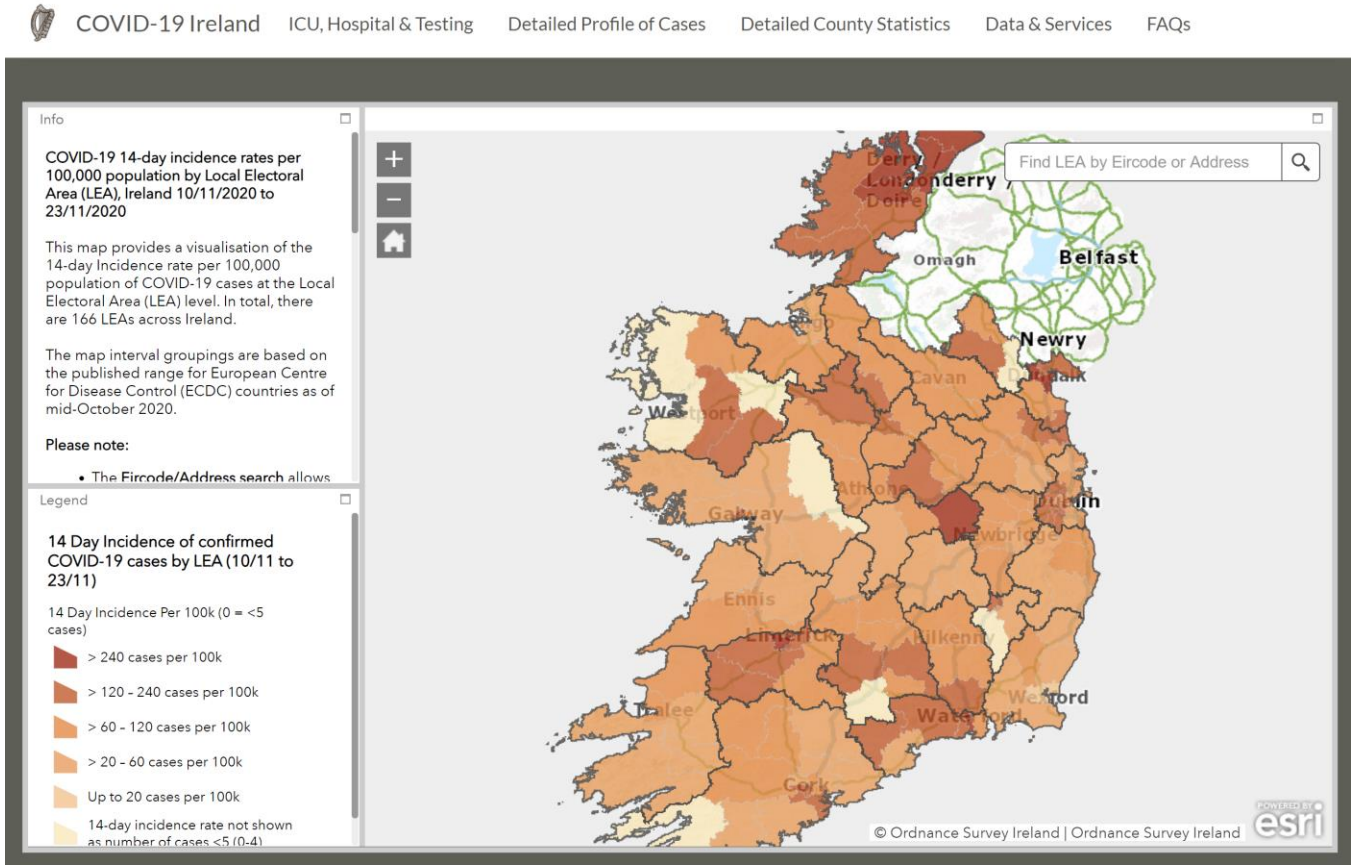
Latest Daily Cases (HPSC)

Latest Daily Deaths (HPSC)

Over

100 million

views since mid June



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Central Statistics Office

hpsc

AIRO

Ordnance Survey Ireland

esri

COVID-19 Health Surveillance Monitor (Ireland)

Confirmed Cases Last Update: (11am, 10/05/2020), Cases Profile Last Update (12 midnight, 08/05/2020)

Total Confirmed Cases

22,996

10/05/2020

Total Deaths

1,458

10/05/2020

The following charts are based on an analysis of 22,671 cases

Publically available Health Surveillance Monitor Dashboard for the Department of Health.

Updated daily.

Confirmed Cases: 08/05/2020

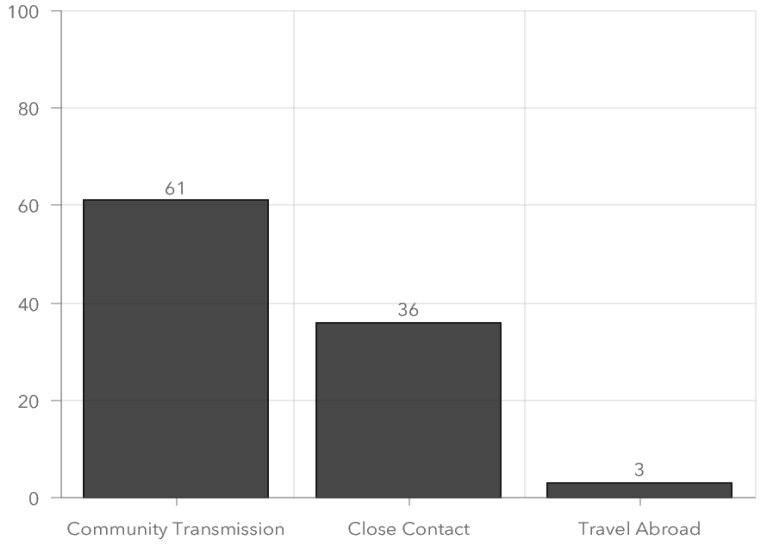
Points are representative of counties and not specific locations. Click on a point for county figures.

Total Confirmed Cases by County *(08/05/2020)*

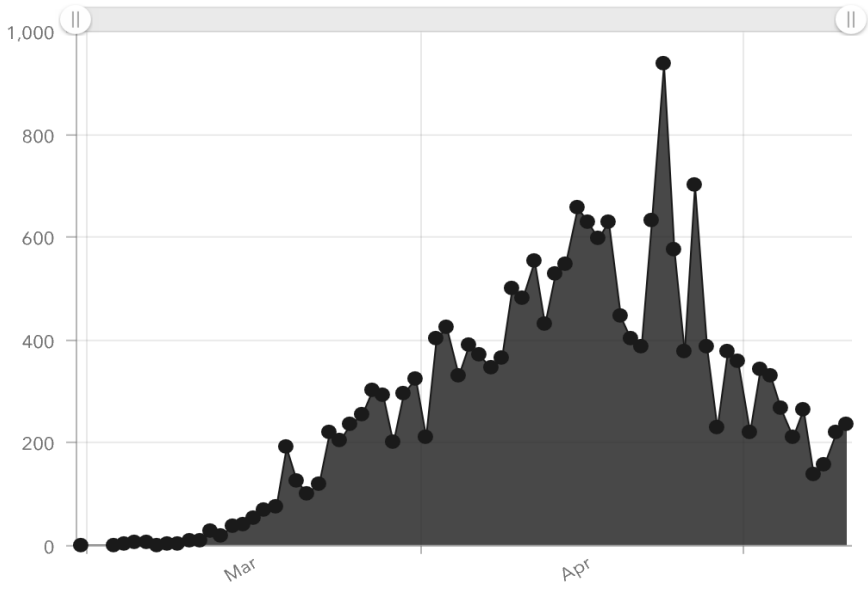
To see more results, hover over the top right of this chart and click the expand icon.

County Stats | Global Stats | Advice and Sources

% Known Mode of Transmission *(08/05/2020)*



Transmission | Gender | Age Profile | Hospitalisation



Daily Confirmed Cases | Total Confirmed Cases | International Rates

Rialtas na hÉireann
Government of Ireland

hpsc

GeoHive

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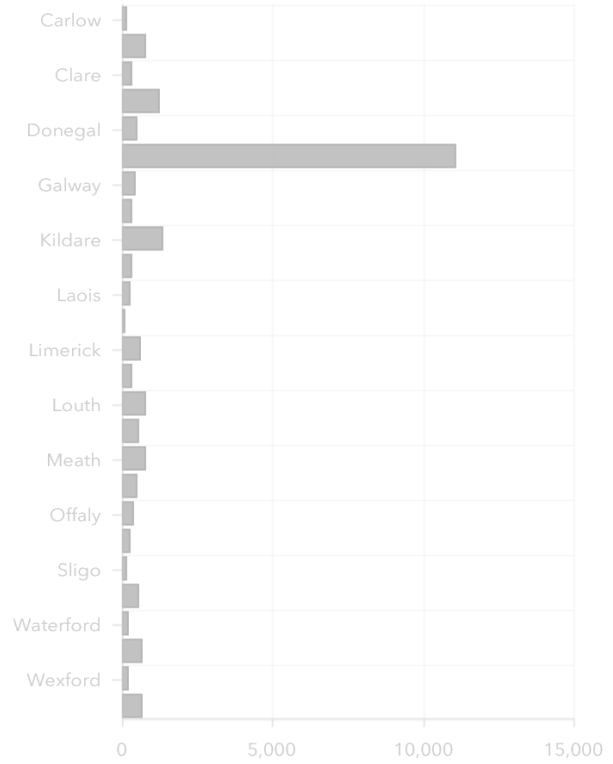
National Public Health Emergency Team (NPHET) & Chief Medical Officer (CMO) COVID-19 Geospatial Data Hub.

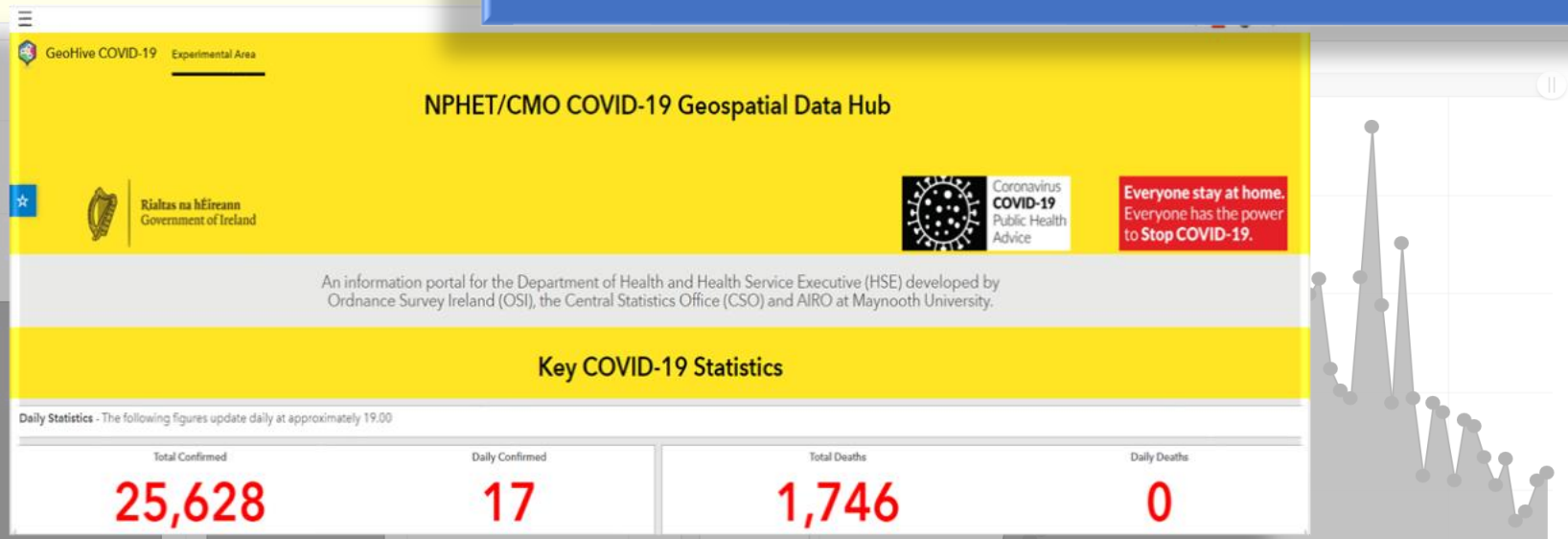
Confirmed Cases: 08/05/2020

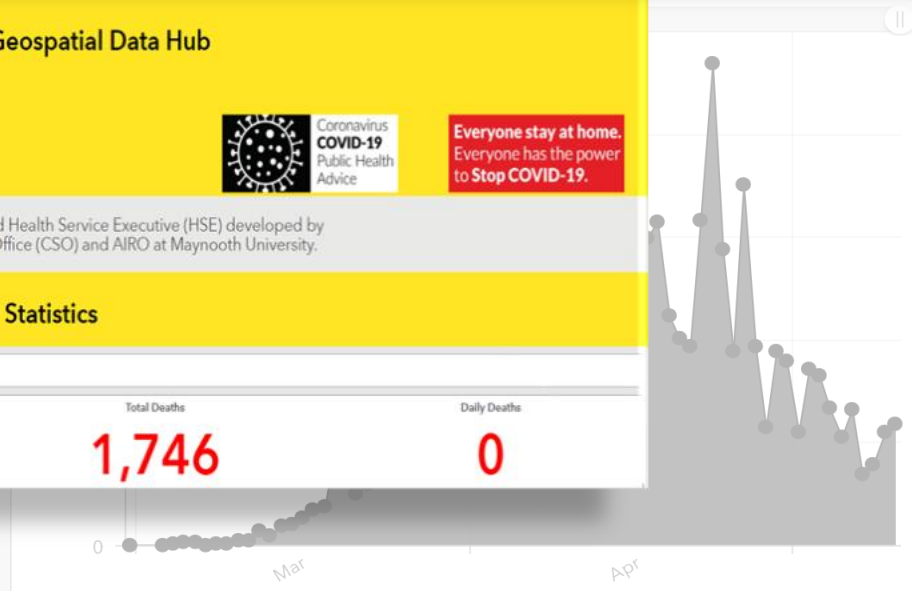
Total Confirmed Cases by County *(08/05/2020)*

To see more results, hover over the top right of this chart and click the expand icon.



County Stats | Global Stats | Advice and Sources





Transmission | Gender | Age Profile | Hospitalisation

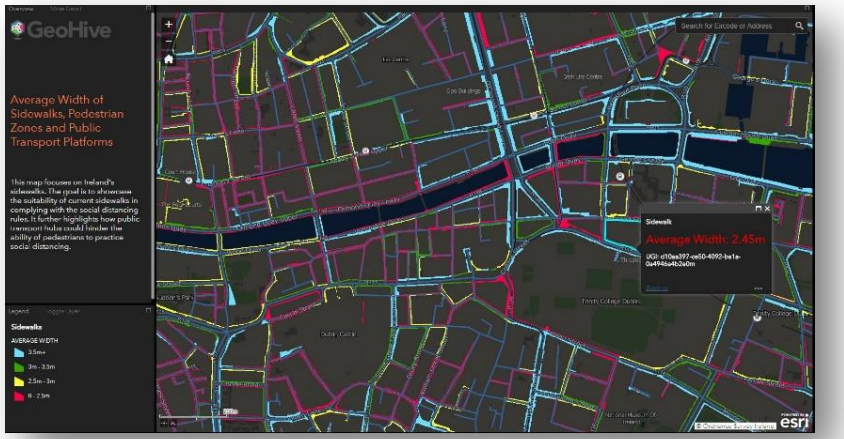
Daily Confirmed Cases | Total Confirmed Cases | International Rates

Rialtas na hÉireann
Government of Ireland

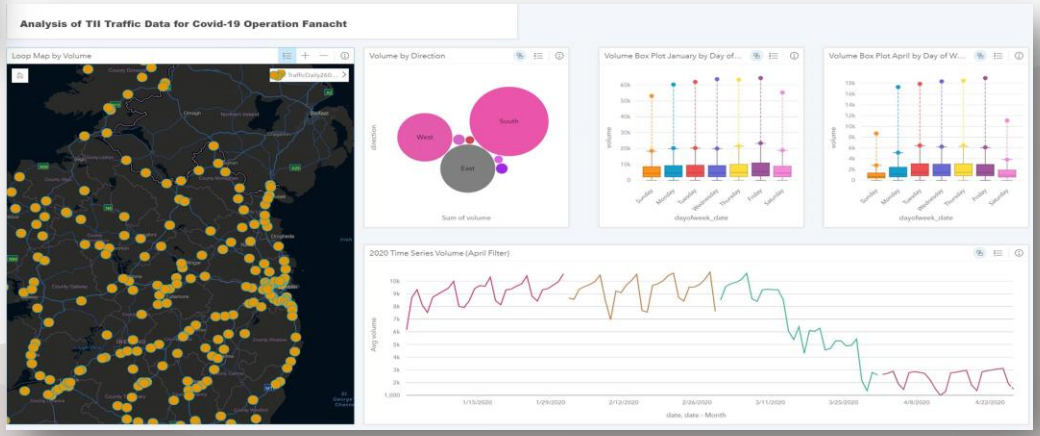
GeoHive

Local Authority Dashboards & An Garda Síochana Data Hub

Public and secure dashboards; updated daily.
Publically available for use by all Local Authorities with a daily data supply.

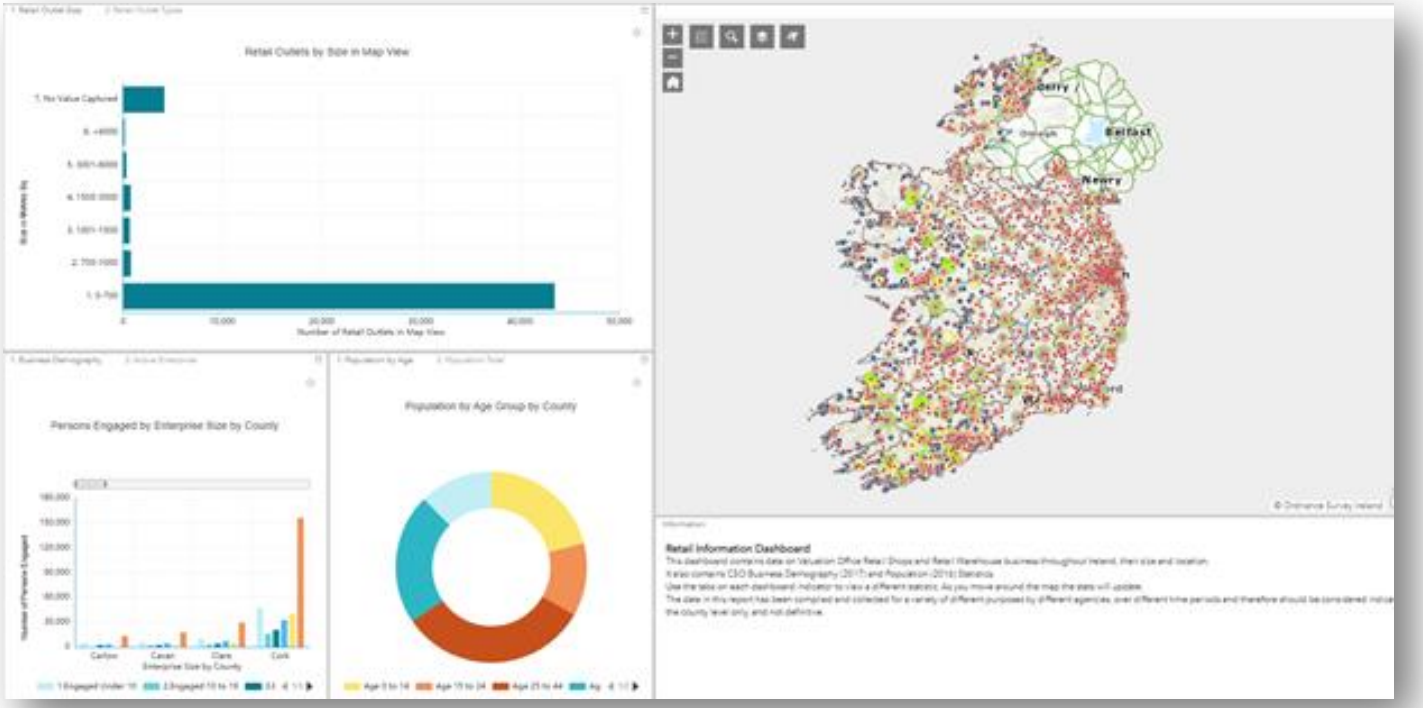


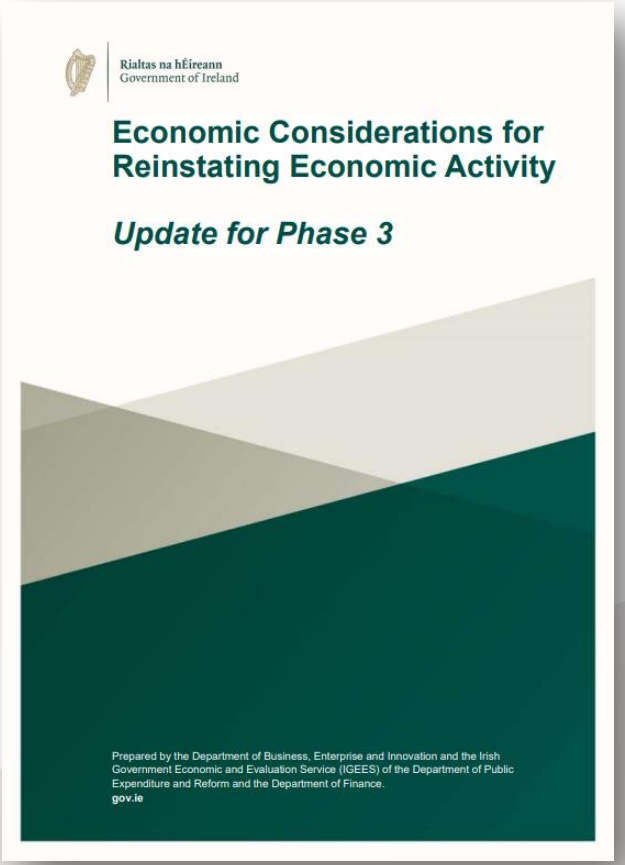
Pavement Width, Public Transport & Retails Locations



Secure access for all Senior Garda Personnel and Garda Control Room for traffic mobility and trend analysis.

Dept. of An Taoiseach business dashboards / reports





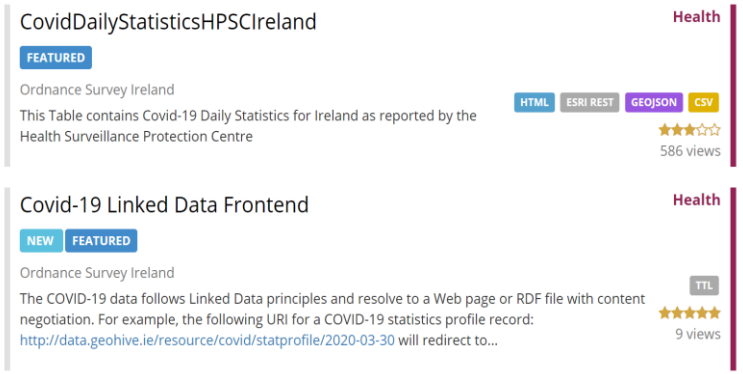
Map-based dashboard and report hat displays business and retail information, showing the classification, density and size of business premises by location.

Oifig Luachála
Valuation Office

GAMMA
Locate, Analyse, Predict

Rialtas na hÉireann
Government of Ireland

5* Linked Open COVID-19 data

GeoHive service	Apps	Usage
Daily Open Data update to data.gov.ie as 3-star and 5-star linked open data. https://data.gov.ie/dataset?q=covid&sort=score+desc%2C+metadata_created+desc		Updated daily. Between 3k and 13k hits per day for the 6 services.

Engaging Content
Engaging People

Rialtas na hÉireann
Government of Ireland

DATA.GOV.IE

4

Panel Session

Sharing on the Journey - Testimonials from Publishers and re-Users

Cianan Clancy
Shipyard Technology Ventures

Peggy Ryan
Tusla

Sheila Moore
Tusla

Liam O'Sullivan
Dublin Dashboard

Deirdre Lee
Derilinx

Hugh Mangan
Business & Marketing Manager of Ordnance Survey Ireland (OSI)

Outcomes4Children.tusla.ie

Outcomes for Children Data & Information Hub

TUSLA An Ghníomhaireacht um Leanaí agus an Teaghlach Child and Family Agency

An Roinn Leanaí agus Gnóthaí Óige Department of Children and Youth Affairs

CYPSC Children & Young People's Services Committees

What Works Sharing Knowledge

2020 Open Data Conference, 2nd December 2020

Open Data for a Data Driven Public Service Delivery

Peggy Ryan, Sheila Moore, Information Management, TUSLA WEST

Introduction & Background

In 2016 TUSLA and the DCEDIY agreed to the establishment of a new project
Outcomes for Children National Data & Information Hub

- This initiative arose out of Children & Families Services (*in the HSE*) involvement in the border areas of the NW and NE, in partnership with colleagues in NI on a cross-border Project – CAWT (2009-2011).
- This project is one of the initiatives of TUSLA's National Prevention, Partnership and Family Support (PPFS) Programme, building on the legacy experience and knowledge from Children & Families Services being involved in the CAWT project in border Areas during the years 2009 to 2011.
- Funding for this project was agreed and ring fenced through the AP PPFS grant and DCEDIY/What Works for product prototype development and a pilot to include (initially) 11 CYPSCs in Phase 1.
- Ongoing independent evaluation was conducted throughout Phase I via NUIG, Child & Family Research Centre.
- The Outcomes for Children Data & Information Hub is now live at outcomes4children.tusla.ie and continues to be supported by TUSLA and DCEDIY for sustainability.

Aims & Objectives

Outcomes for Children National Data & Information Hub

- Incrementally build one centralised national Data Hub that will host a wide range of published data from various agencies involved in the provision of services to Children, Young People and Families.
- Agree a set of indicators referencing the published national set of indicators (*DCYA*), framed against the five national outcomes Better Outcomes, Brighter Futures (BOBF).
- Use validated and quality assured datasets from the agencies to populate the agreed indicator set.
- Train and support both TUSLA personnel and relevant CYPSC partners at national and local level in the use and application of the system to underpin and optimise children's services planning.
- Inform the enhancement of both quantitative and qualitative data collection to support TUSLA and the DCEDIY research agendas and meet corporate objectives regarding capacity as a learning organisation.
- Utilise relevant published datasets from the Open Data platform.
- Underpinning the development of the Hub, the principles of Outcomes Based Accountability (OBA/RBA) methodology (training delivered to CYPSC 2018)

Project Structure

Outcomes for Children National Data & Information Hub

Governance Group

DCEDIY, TUSLA, DPER, Barnardos
Galway University Foundation (GUF) * Phase 1

Data & Information Working Group

- DCEDIY
- TUSLA PPFS National Manager
- TUSLA Information Management (IM) Leads
- TUSLA Alternative Care, Child Protection, PPFS
- TUSLA Research
- National CYPSC Co-Ordinator
- Information Manager (NI)
- NUIG Research

Project Team

- TUSLA PPFS National Manager
- TUSLA Project Accountant
- TUSLA Information Management (IM) Leads
- TUSLA Data & Analytics Manager
- National CYPSC Co-Ordinator
- Galway University Foundation (GUF) * Phase 1
- TUSLA Workforce Learning and Development

Information Consultation Group

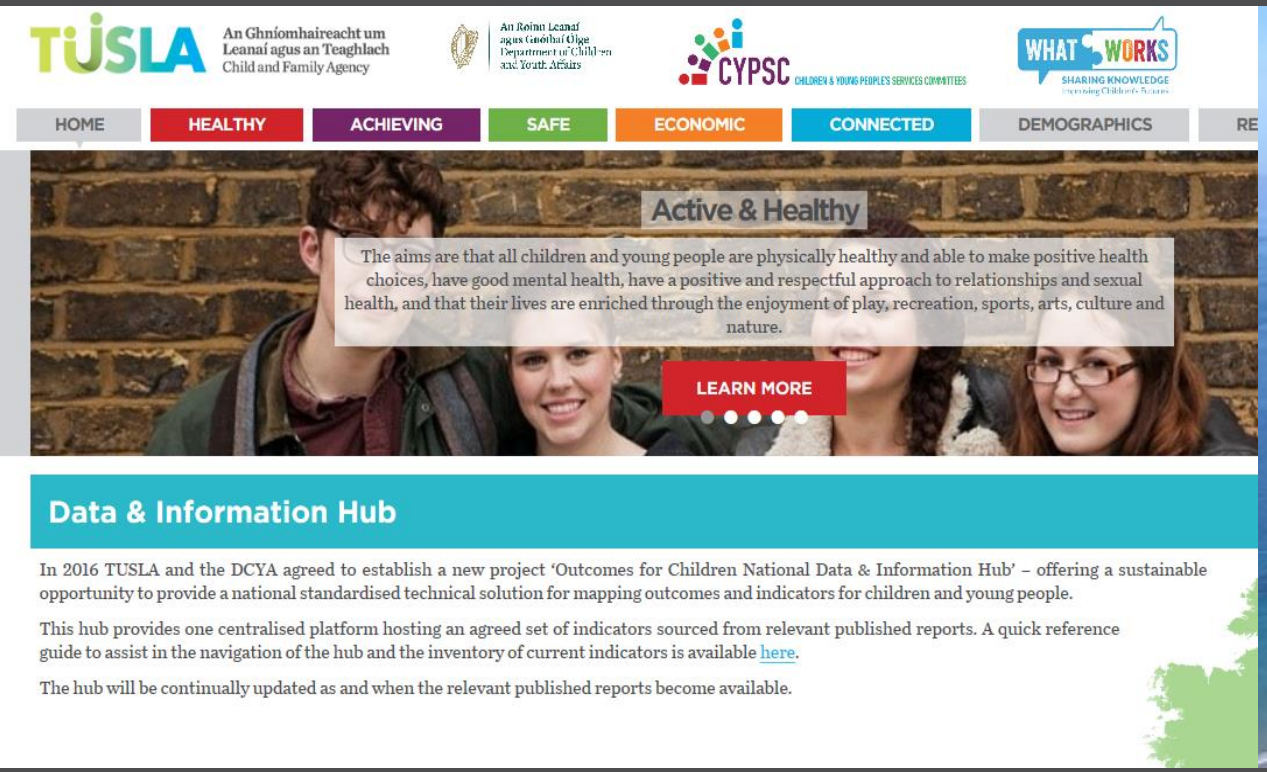
- DCEDIY (WhatWorks)
- TUSLA PPFS National Manager, IM Leads
- National CYPSC Co-Ordinator
- TUSLA Workforce Learning and Development

National Information Consultation Forum
(held 15th May, 2019)

Included 60 delegates
from statutory and voluntary agencies

Outcomes4Children Data & Information Hub

Building CYPSC Profiles Using O4C Hub



Demographics | Population, Under 18 Years

Safe (Data Catalog) | Demographics (Data Catalog) | Safe (Data Catalog)

outcomes4children.tusla.ie/demographics/

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CYPSC Children & Young People's Services Committees

What Works Sharing Knowledge Improving Children's Futures

HOME | HEALTHY | ACHIEVING | SAFE | ECONOMIC | CONNECTED | DEMOGRAPHICS | REPORTS | LINKS

Demographics

Choose Data

Theme

Population

Under 18

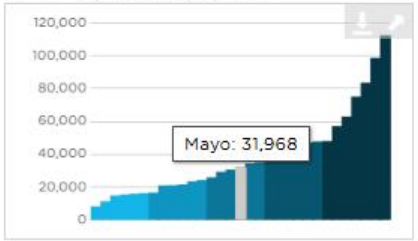
Indicator

Age 0 - 17 Total

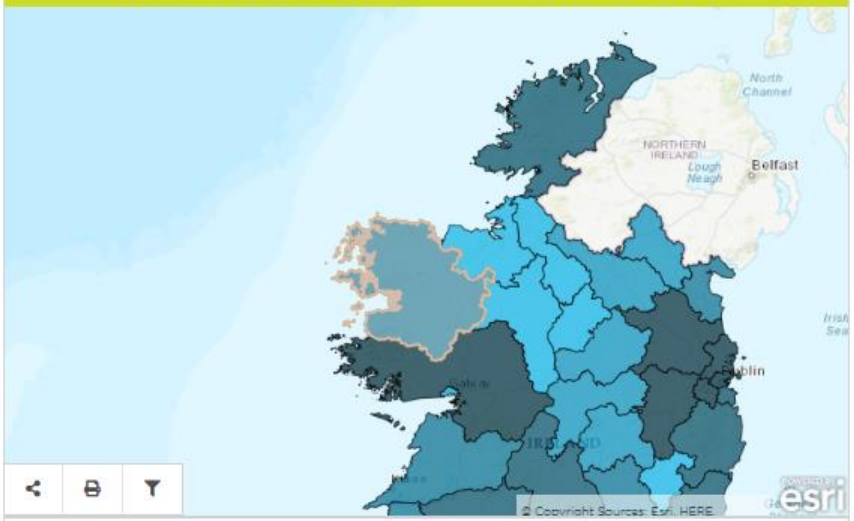
Geography

Counties

Counties
- 8,051 - 16,357
- > 16,357 - 25,387
- > 25,387 - 37,402
- > 37,402 - 48,026
- > 48,026 - 112,425
- Counties (overlay)



Counties | Population >> Under 18 | Age 0 - 17 Total (2016)



Description: Age 0 - 17 Total, Source: CSO, Last Published: 2017-07-01, Methodology: Aggregated from single year data in census table 1. Total population aged 0 to 17 inclusive., https://www.cso.ie/en/census/

2011 | 2016

Counties	Age 0 - 17 Total (2016)
Limerick City and County	47,090
Longford	11,218
Louth	35,046
Mayo	31,968
Meath	57,134
Monaghan	16,564
Offaly	21,127
Roscommon	16,305
Sligo	15,961
South Dublin	75,106
Tipperary	40,764
Waterford City and County	29,347
Westmeath	23,584
Wexford	39,166
Wicklow	38,041

Clear | Filter

Regional & National Data

Ireland	1,190,502

Demographics | Population, 0-24 Years

Safe (Data Catalog) | Demographics (Data Catalog) | Safe (Data Catalog)

outcomes4children.tusla.ie/demographics/

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HOME | HEALTHY | ACHIEVING | SAFE | ECONOMIC | CONNECTED | DEMOGRAPHICS | REPORTS | LINKS

Demographics

Choose Data

Theme
Population

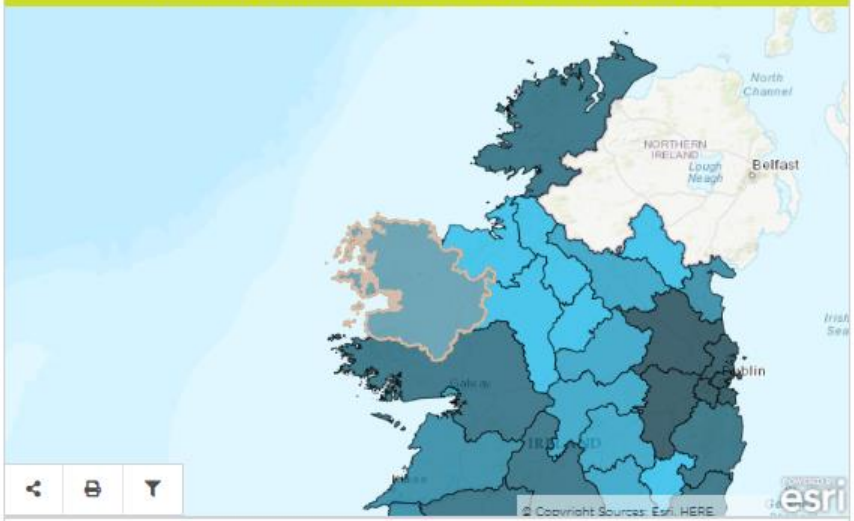
0 - 24

Indicator
Age 0 -24 Total

Geography
Counties

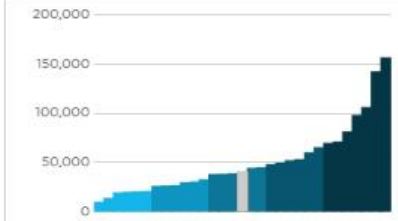
Counties
10,097 - 25,839
> 25,839 - 37,840
> 37,840 - 48,152
> 48,152 - 67,244
> 67,244 - 156,649
Counties (overlay)

Counties | Population >> 0 - 24 | Age 0 -24 Total (2016)



Description: Age 0 - 24 Total, Source: CSO, Last Published: 2017-07-01, Methodology: Aggregated from single year data in census table 1. Total population aged 0 to 24 inclusive., https://www.cso.ie/en/census/

2011 | 2016



Counties	Age 0 -24 Total (2016)
Limerick City and County	65,428
Longford	14,065
Louth	45,291
Mayo	40,691
Meath	71,297
Monaghan	20,950
Offaly	27,085
Roscommon	20,419
Sligo	21,330
South Dublin	98,235
Tipperary	52,341
Waterford City and County	38,345
Westmeath	30,771
Wexford	49,898
Wicklow	48,463

Clear | Filter

Regional & National Data

Ireland	1,583,004

Demographics | Registered Births

Safe (Data Catalog) | Demographics (Data Catalog) | Safe (Data Catalog)

outcomes4children.tusla.ie/demographics/

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HOME | HEALTHY | ACHIEVING | SAFE | ECONOMIC | CONNECTED | DEMOGRAPHICS | REPORTS | LINKS

Demographics

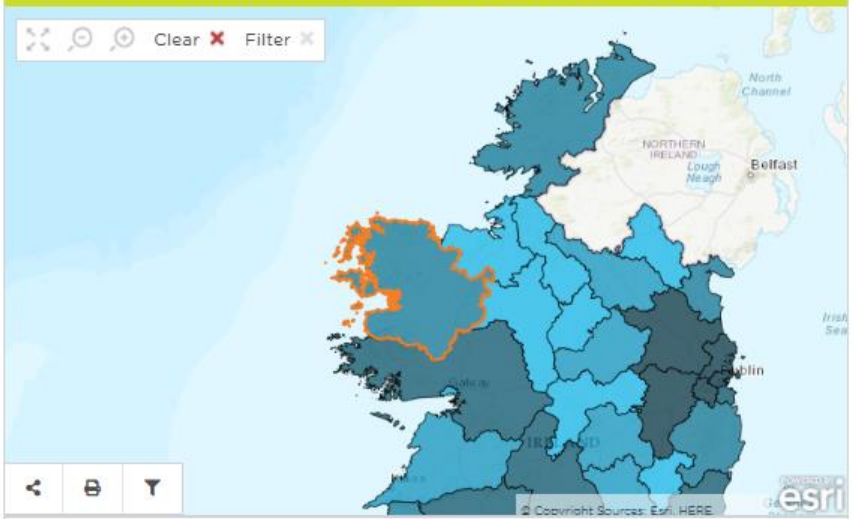
Choose Data

Theme
Registered Births by Mothers Age

Indicator
Total Registered Births

Geography
Counties

Counties | Registered Births by Mothers Age | Total Registered Births (2019)



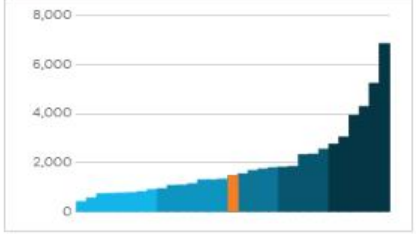
Source: CSO, Statistics, Vital Statistics Yearly Summary 20YY

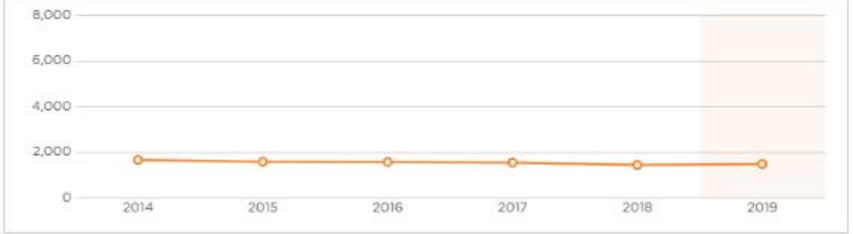
Counties	Total Registered Births (2019)
Limerick City and County	2,366
Longford	586
Louth	1,700
Mayo	1,481
Meath	2,771
Monaghan	785
Offaly	924
Roscommon	804
Sligo	768
South Dublin	3,949
Tipperary	1,864
Waterford City and County	1,353
Westmeath	1,164
Wexford	1,835
Wicklow	1,769

Clear | Filter

Counties
- 399 - 924
- > 924 - 1,353
- > 1,353 - 1,819
- > 1,819 - 2,752
- > 2,752 - 7,828
- Counties (overlay)

2014 | 2015 | 2016 | 2017 | 2018 | 2019





Regional & National Data

Ireland	59,796

Security (Data Catalog) | Healthy (Data Catalog) | Safe (Data Catalog)

outcomes4children.tusla.ie/security/

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CYPSC Children & Young People's Services Committees

What Works Sharing Knowledge Improving Children's Futures

HOME | HEALTHY | ACHIEVING | SAFE | ECONOMIC | CONNECTED | DEMOGRAPHICS | REPORTS | LINKS

Economic security and opportunity

Choose Data

Theme

Deprivation

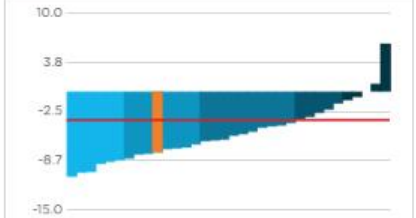
Indicator

HP Index (Absolute)

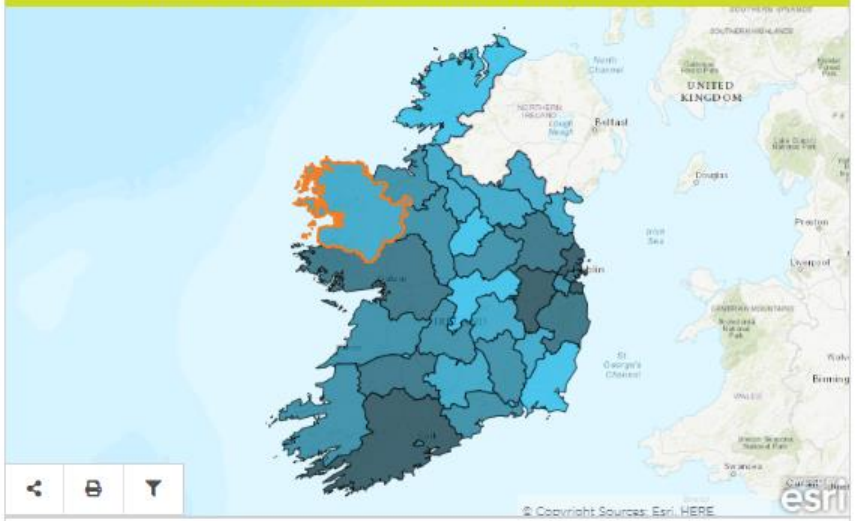
Geography

County 2011

County 2011
-12.8 - -8.7
> -8.7 - -6.5
> -6.5 - -3.9
> -3.9 - -1.2
> -1.2 - 7.8
Counties (overlay)

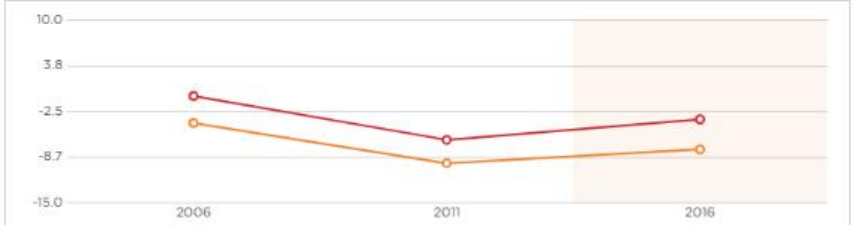


County 2011 | Deprivation | HP Index (Absolute) (2016)



Absolute Deprivation Index. Source: trutzhaase.eu/deprivation-index/area-profiles/. Raw data adjusted to match CSO County GUIDs.

2006 | 2011 | 2016



County 2011	HP Index (Absolute) (2016)
Louth	-7.2
Mayo	-7.7
Meath	-2.3
Monaghan	-7.3
North Tipperary	-6.1
Offaly	-8.7
Roscommon	-6.3
Sligo	-5.6
South Dublin	-4.0
South Tipperary	-8.5
Waterford City	-9.2
Waterford County	-4.6
Westmeath	-6.2
Wexford	-8.9
Wicklow	-2.7

Clear | Filter

Regional & National Data

Ireland	-3.6

Economic Security and Opportunity | Deprivation

Safe (Data Catalog) | Healthy (Data Catalog) | Safe (Data Catalog)

outcomes4children.tusla.ie/safe/

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CYPSC Children & Young People's Services Committees

What Works Sharing Knowledge Improving Children's Futures

HOME | HEALTHY | ACHIEVING | SAFE | ECONOMIC | CONNECTED | DEMOGRAPHICS | REPORTS | LINKS

Safe and protected from harm

Choose Data

Theme

Total Number of Child Referrals

Indicator

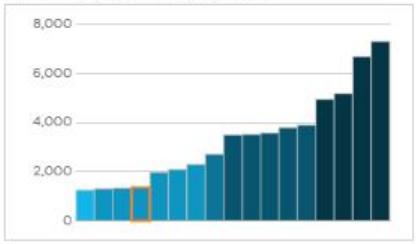
Total Child Referrals

Geography

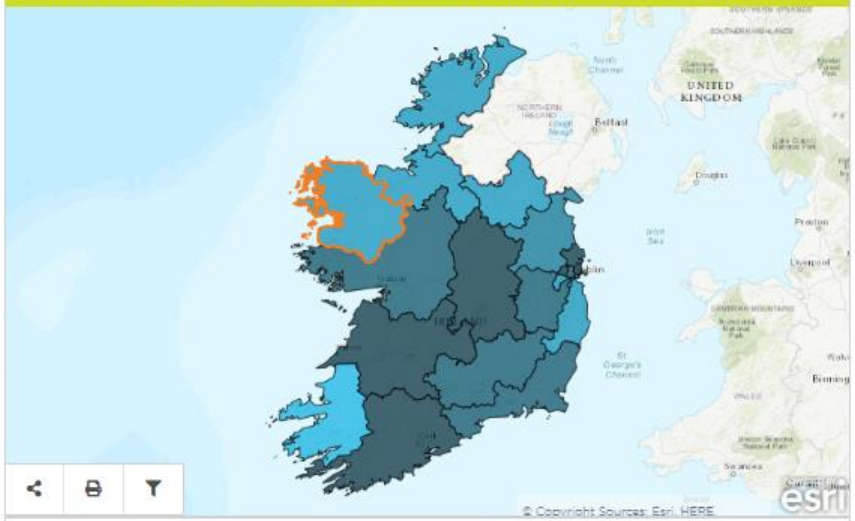
Tusla Areas

Tusla Areas
- 771 - 1,257
- > 1,257 - 2,299
- > 2,299 - 3,296
- > 3,296 - 4,070
- > 4,070 - 7,370

Counties (overlay)

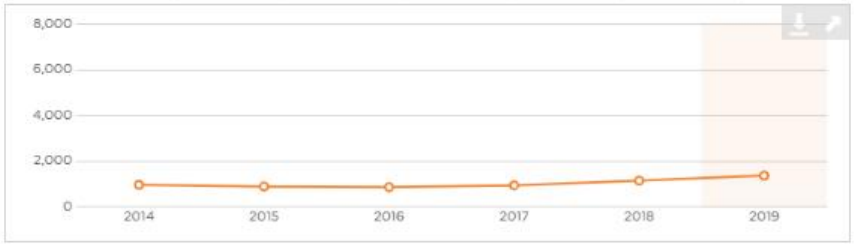


Tusla Areas | Total Number of Child Referrals | Total Child Referrals (2019)



Full details on this indicator can be viewed in https://data.tusla.ie/

2014 | 2015 | 2016 | 2017 | 2018 | 2019



Tusla Areas	Total Child Referrals (2019)
Carlow/Kilkenny/South Tipperary	3,781
Cavan/Monaghan	1,970
Cork	7,287
Donegal	1,324
Dublin North	5,165
Dublin North City	3,489
Dublin South Central	2,083
Dublin South East/Wicklow	2,294
Dublin South West/Kildare/West Wicklow	3,881
Galway/Roscommon	3,567
Kerry	1,249
Louth/Meath	2,708
Mayo	1,362
Mid West	4,931

Clear | Filter

Regional & National Data

Ireland	56,561
West	12,484
South	15,821
Dublin North East	13,332
Dublin Mid Leinster	14,924

Safe and Protected from Harm | Total Number of Child Referrals

Safe (Data Catalog) | Healthy (Data Catalog) | Safe (Data Catalog)

outcomes4children.tusla.ie/healthy/

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HOME | HEALTHY | ACHIEVING | SAFE | ECONOMIC | CONNECTED | DEMOGRAPHICS | REPORTS | LINKS

Active & Healthy

Choose Data

Theme
Immunisation Uptake

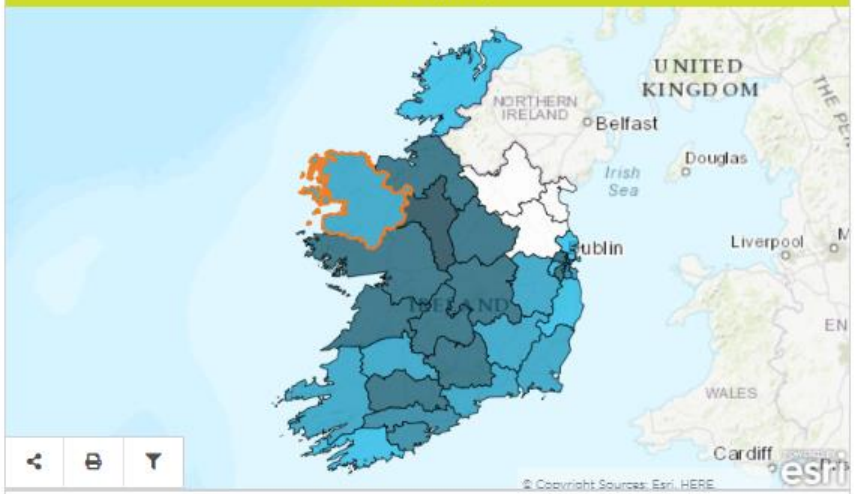
MMR at 24 Months

Indicator
% of children who have had first dose

Geography
LHOs

LHOs
85 - 90
> 90 - 92
> 92 - 93
> 93 - 95
> 95 - 97
No Data

LHOs | Immunisation Uptake >> MMR at 24 Months | % of children who have had first dose (2018)

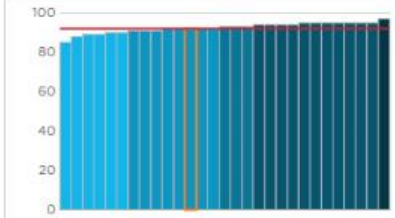


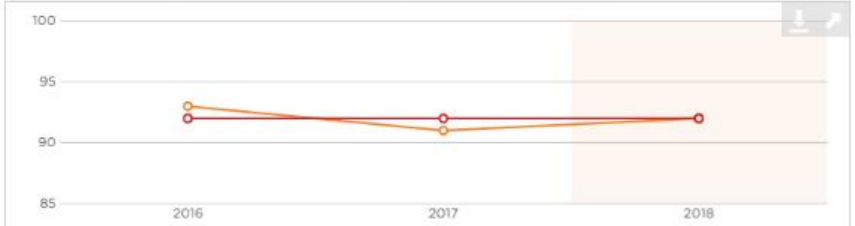
% of children at 24 months who have had their first dose of the Measles, Mumps, Rubella (MMR_1) vaccine. Source: Annual report on immunisation uptake at 12 and 24 months, HPSC

2016 | 2017 | 2018

LHOs	% of children who have had first dose (2018)
Louth	No Data
Mayo	92
Meath	No Data
North Cork LHO	94
North Lee	93
Roscommon	97
Sligo/Leitrim/West Cav	95
South Lee	93
Tipp/East Limerick	95
Tipperary South	94
Waterford	91
West Cork	90
Wexford	92
Wicklow	85

Clear | Filter



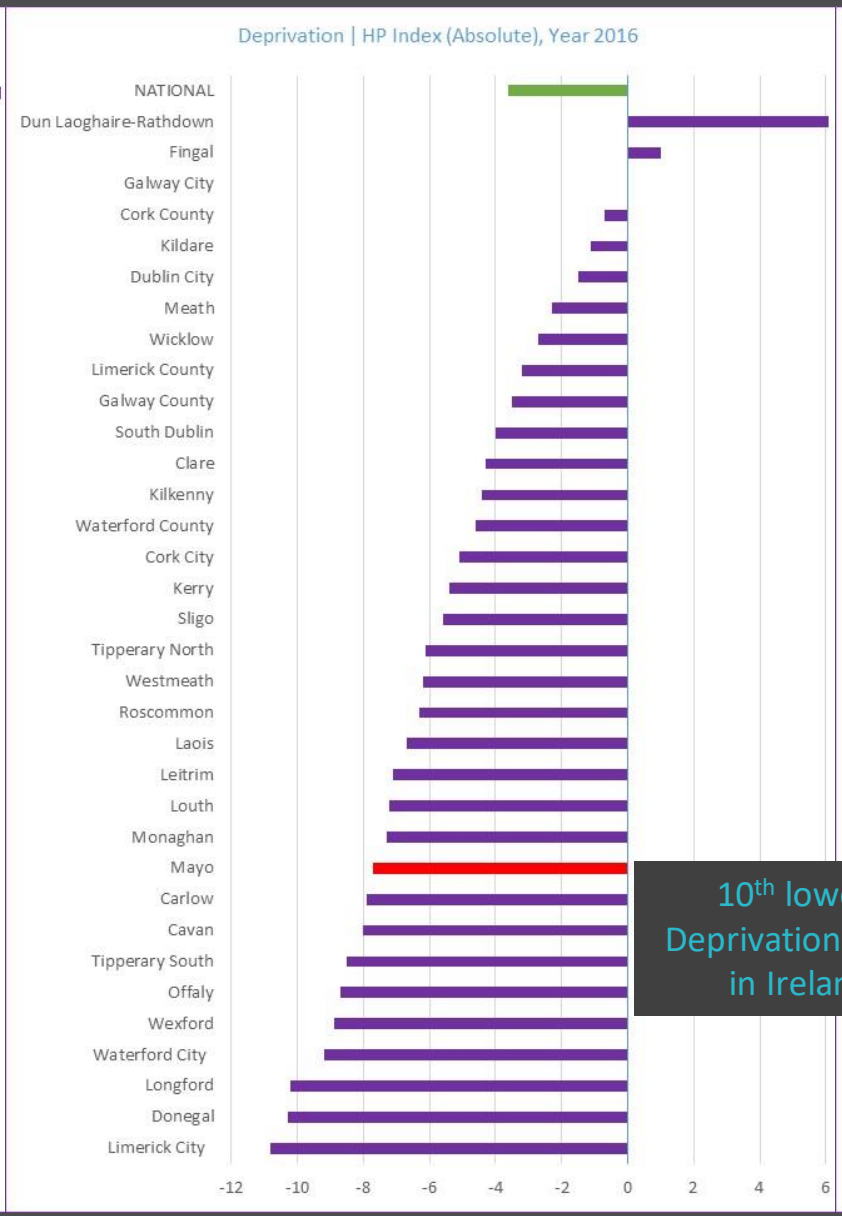


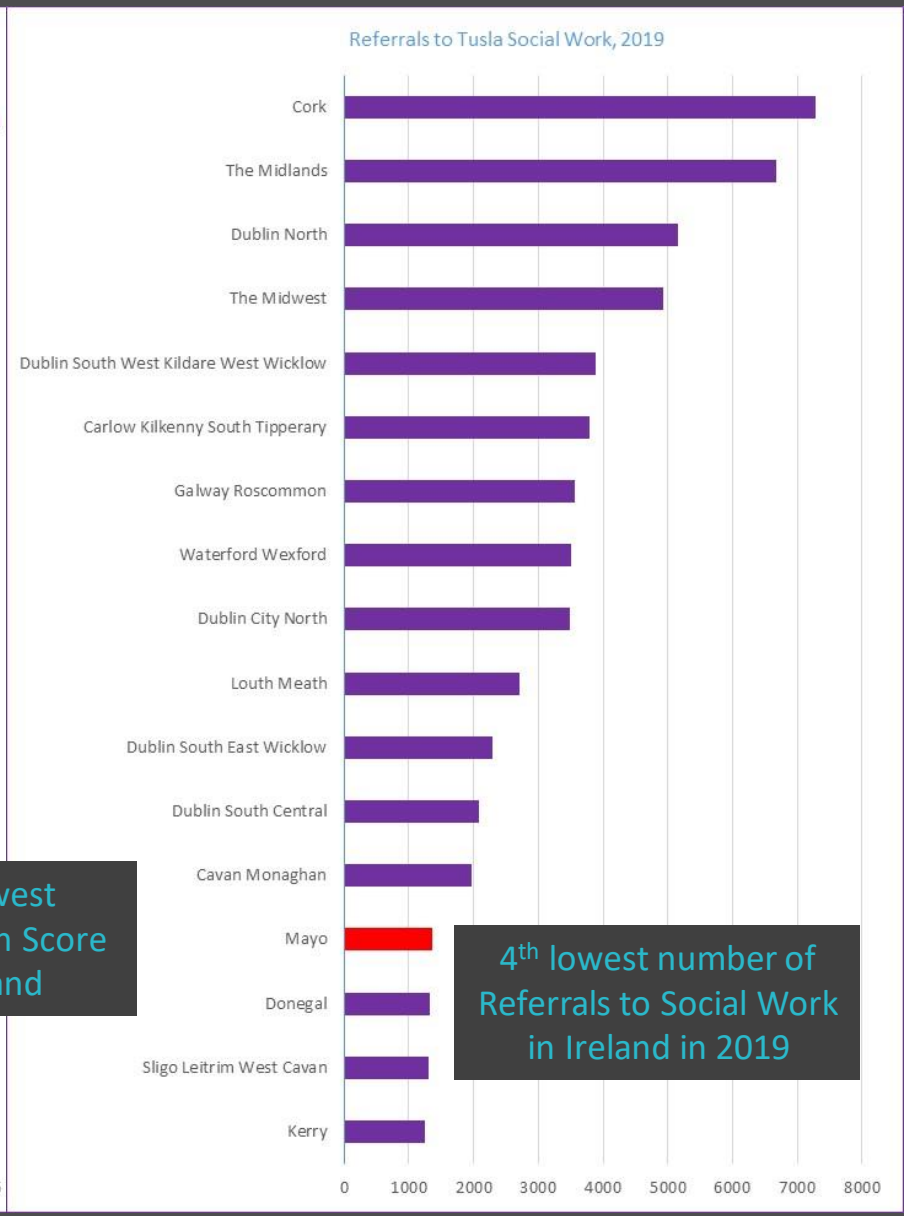
Regional & National Data

Ireland	92

Active & Healthy | Immunisation Uptake

Building a Standard Profile Report for all CYPSCs | Mayo Sample Profile





Backend Data Load

(i) Manual Load from published documentation via .csv files

(ii) Automated Load via Open Data Platform (available datasets)

Outcomes4Children.tusla.ie

Outcomes4Children Data & Information Hub

Healthy	Achieving	Safe	Security	Connected	Demographics

Thank You

Building City Dashboards Project: The Dublin Dashboard

Building City Dashboards

Liam O'Sullivan

Senior Software Developer

NCG National Centre for Geocomputation An tIonad Náisiúnta Geoiriomhaireachta

Maynooth University Social Sciences Institute

Maynooth University National University of Ireland Maynooth

Science Foundation Ireland sfi For what's next

dashboards.maynoothuniversity.ie

dashboards@mu.ie

@dashbuild

The BCD Project

Funded by SFI for 4 years

Fundamental and applied research

Open science, open source, open data

Usable by experts and novices

Increase data literacy and outreach

Work with stakeholders:

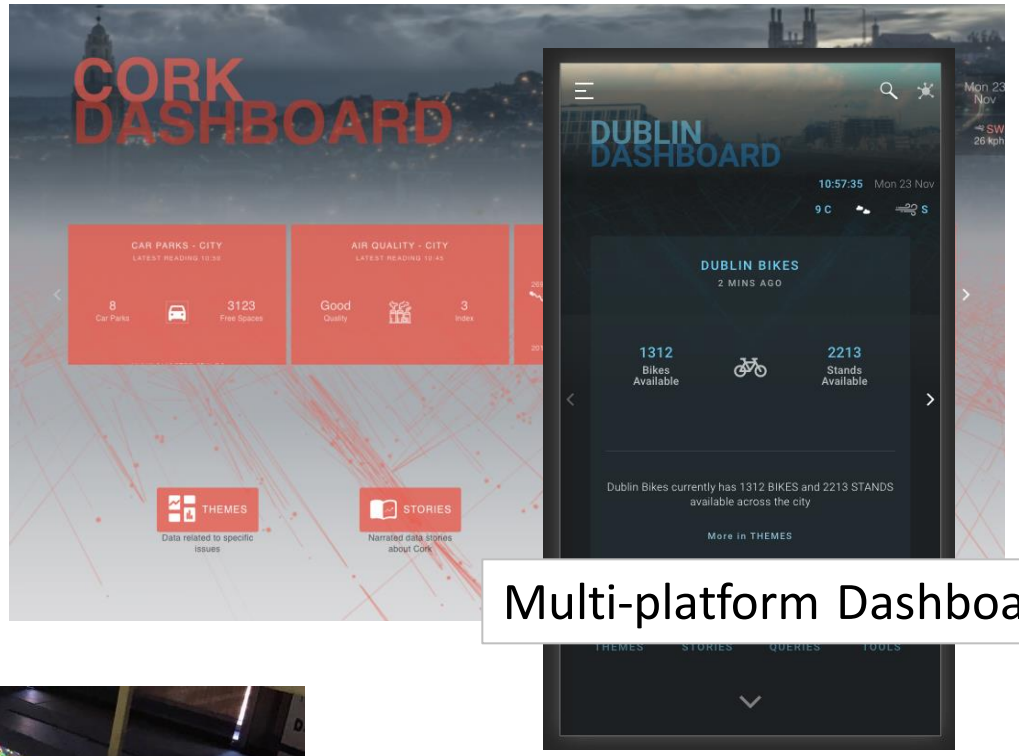
- Four Dublin local authorities
- Two Cork local authorities
- Central Statistics Office
- Ordnance Survey Ireland

How can we build more extensive and effective city dashboards?

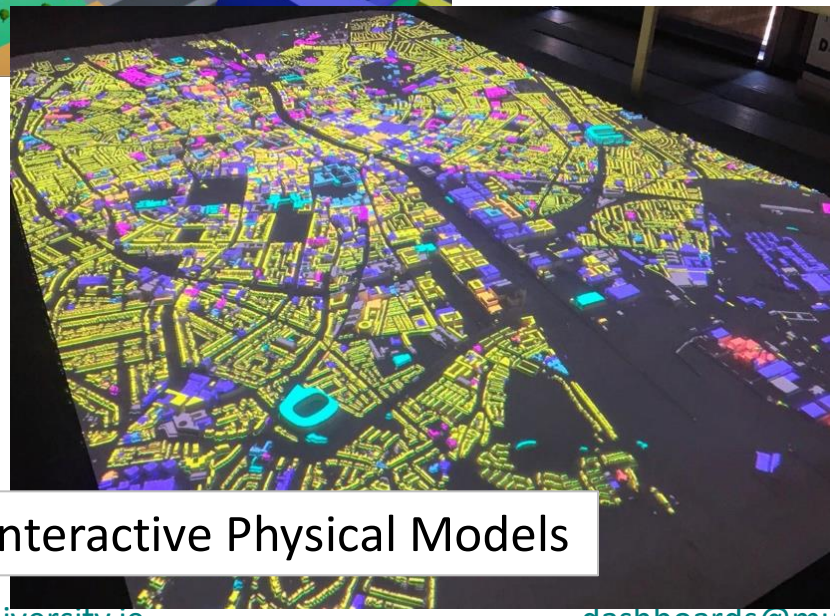
- Data issues
- Visualization and interaction issues
- Design, navigation and comprehension issues
- Analytics and modelling issues

Technological Outputs

3D & Mixed Reality



Multi-platform Dashboards



Interactive Physical Models

Artistic Interpretations

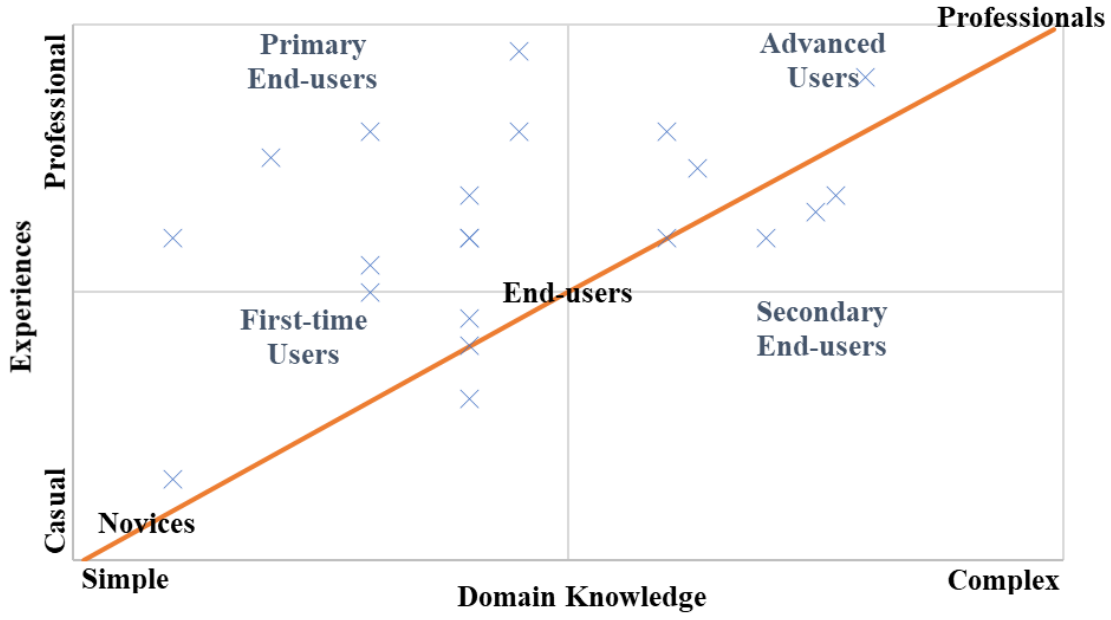
What is a city dashboard?

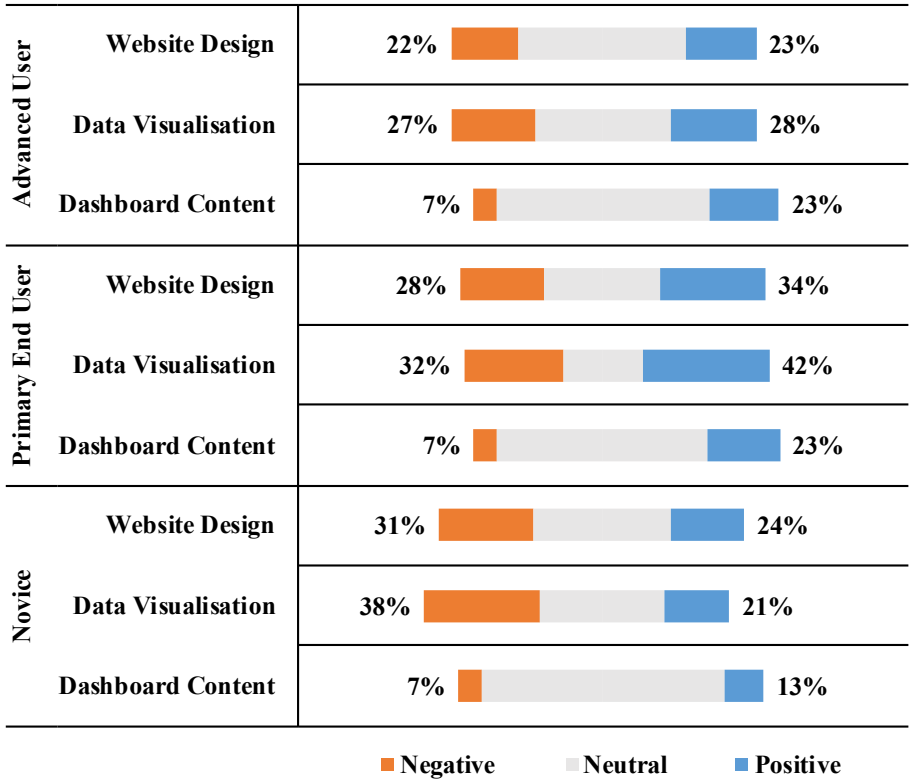
dashboards.maynoothuniversity.ie

dashboards@mu.ie

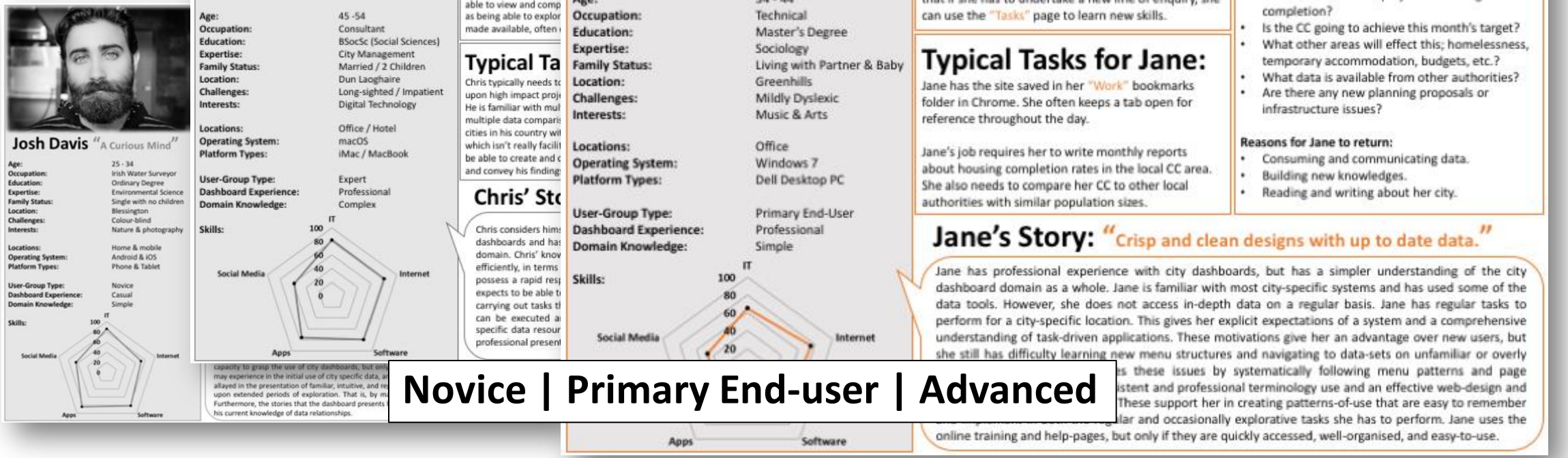
User Research (Dr. Gareth Young)

What are the central dimensions that are relevant for the creation of a quality city dashboard?





User Personas



Novice | Primary End-user | Advanced

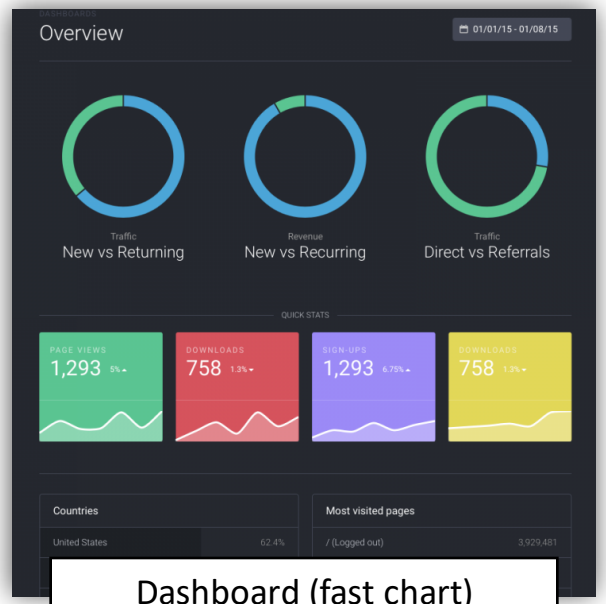
Visualization

Explanative
(communication of insights)

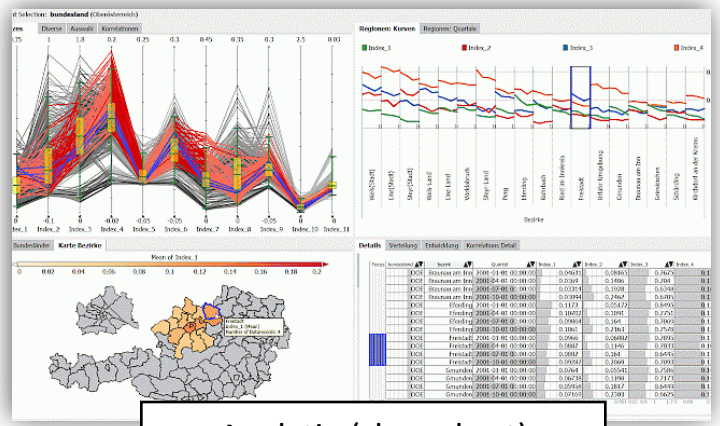
Increasing Visualization Complexity

Explorative
(discovery of patterns)

Data stories



Dashboard (fast chart)



Analytic (slow chart)

Novice | Casual

End-user | Professional

Advanced | Professional

Increasing Contextual Information

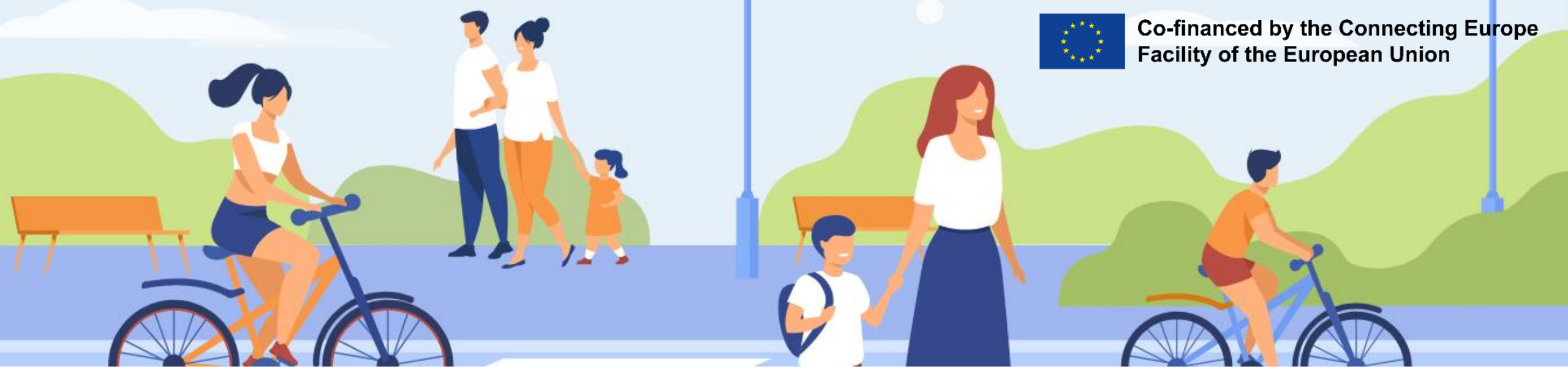
dashboards.maynoothuniversity.ie

dashboards@mu.ie

Demo: dublindashboard.ie

dashboards.maynoothuniversity.ie

dashboards@mu.ie



Co-financed by the Connecting Europe Facility of the European Union

Hale & Hearty

Improving the Health & Wellbeing of People Living in Ireland

Deirdre Lee, Derilinx

An Roinn Caiteachais Phoiblí agus Athchóirithe
Department of Public Expenditure and Reform

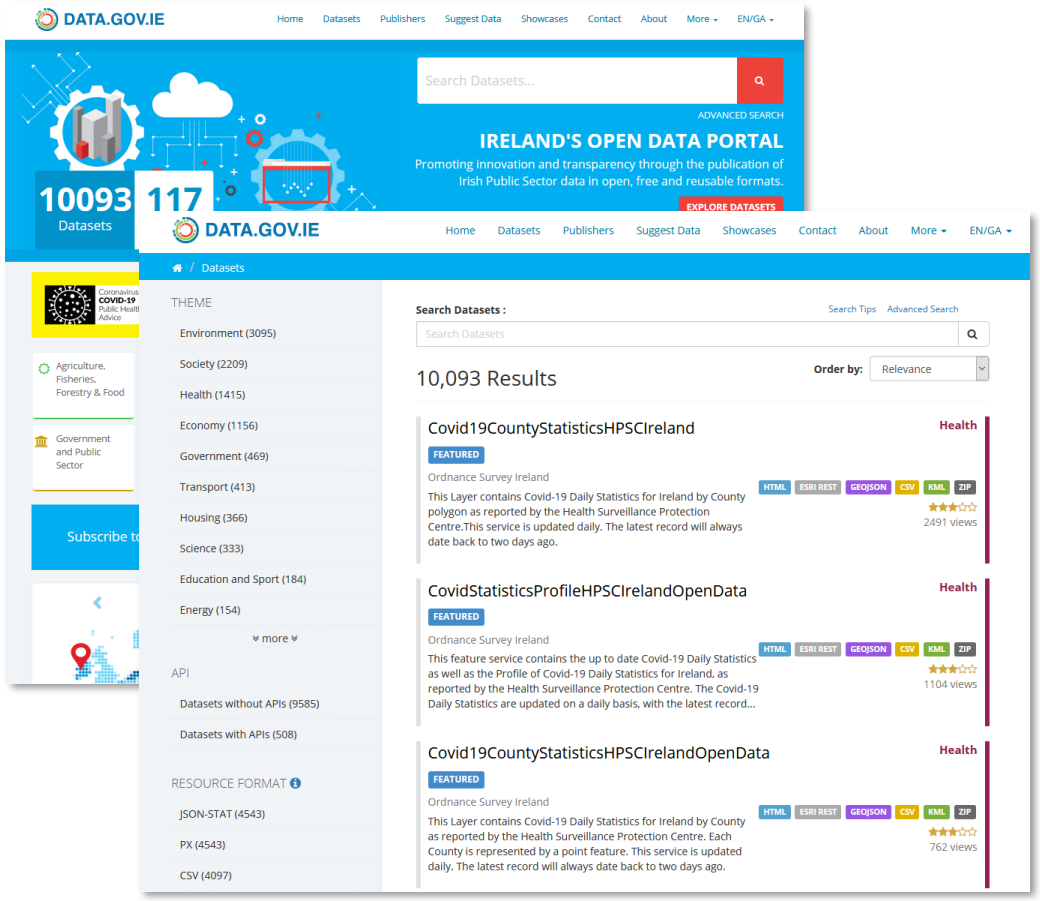
An Roinn Sláinte
Department of Health

Comhairle Contae Fhine Gall
Fingal County Council

An Phríomh-Oifig Staidrimh
Central Statistics Office

Derilinx

Irish Data & Cloud Cluster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Publishers
Suggest Data
Showcases
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More
EN/GA
Search Datasets...
ADVANCED SEARCH
IRELAND'S OPEN DATA PORTAL
Promoting innovation and transparency through the publication of Irish Public Sector data in open, free and reusable formats.
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10093
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117
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Government and Public Sector
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THEME
Environment (3095)
Society (2209)
Health (1415)
Economy (1156)
Government (469)
Transport (413)
Housing (366)
Science (333)
Education and Sport (184)
Energy (154)
more
API
Datasets without APIs (9585)
Datasets with APIs (508)
RESOURCE FORMAT
JSON-STAT (4543)
PX (4543)
CSV (4097)
Search Datasets :
Search Tips
Advanced Search
Search Datasets
10,093 Results
Order by:
Relevance
Covid19CountyStatisticsHPSCIreland
Health
FEATURED
Ordnance Survey Ireland
This Layer contains Covid-19 Daily Statistics for Ireland by County polygon as reported by the Health Surveillance Protection Centre.This service is updated daily. The latest record will always date back to two days ago.
HTML
ESRI REST
GEOJSON
CSV
KML
ZIP
2491 views
CovidStatisticsProfileHPSCIrelandOpenData
Health
FEATURED
Ordnance Survey Ireland
This feature service contains the up to date Covid-19 Daily Statistics as well as the Profile of Covid-19 Daily Statistics for Ireland, as reported by the Health Surveillance Protection Centre. The Covid-19 Daily Statistics are updated on a daily basis, with the latest record...
1104 views
Covid19CountyStatisticsHPSCIrelandOpenData
Health
FEATURED
Ordnance Survey Ireland
This Layer contains Covid-19 Daily Statistics for Ireland by County as reported by the Health Surveillance Protection Centre. Each County is represented by a point feature. This service is updated daily. The latest record will always date back to two days ago.
762 views


IMPACT
DATA
PLAN
IDEA
JOBS
TIME
TARGET
PROJECT
FINANCE
BRAND
VISION
STRATEGY
ADVERTISING
MANAGEMENT
KNOWLEDGE
CAREERS
MOTIVATION
INFORMATION
INNOVATIVE ACTION
TEAM EFFECTIVE WORK BEST SALES

Hale & Hearty

How can Public-Sector Bodies not only publish Open Data, but also ensure their initiatives achieve **positive impact**?

➔ Environmental ➔ Economic ➔ Political ➔ Social

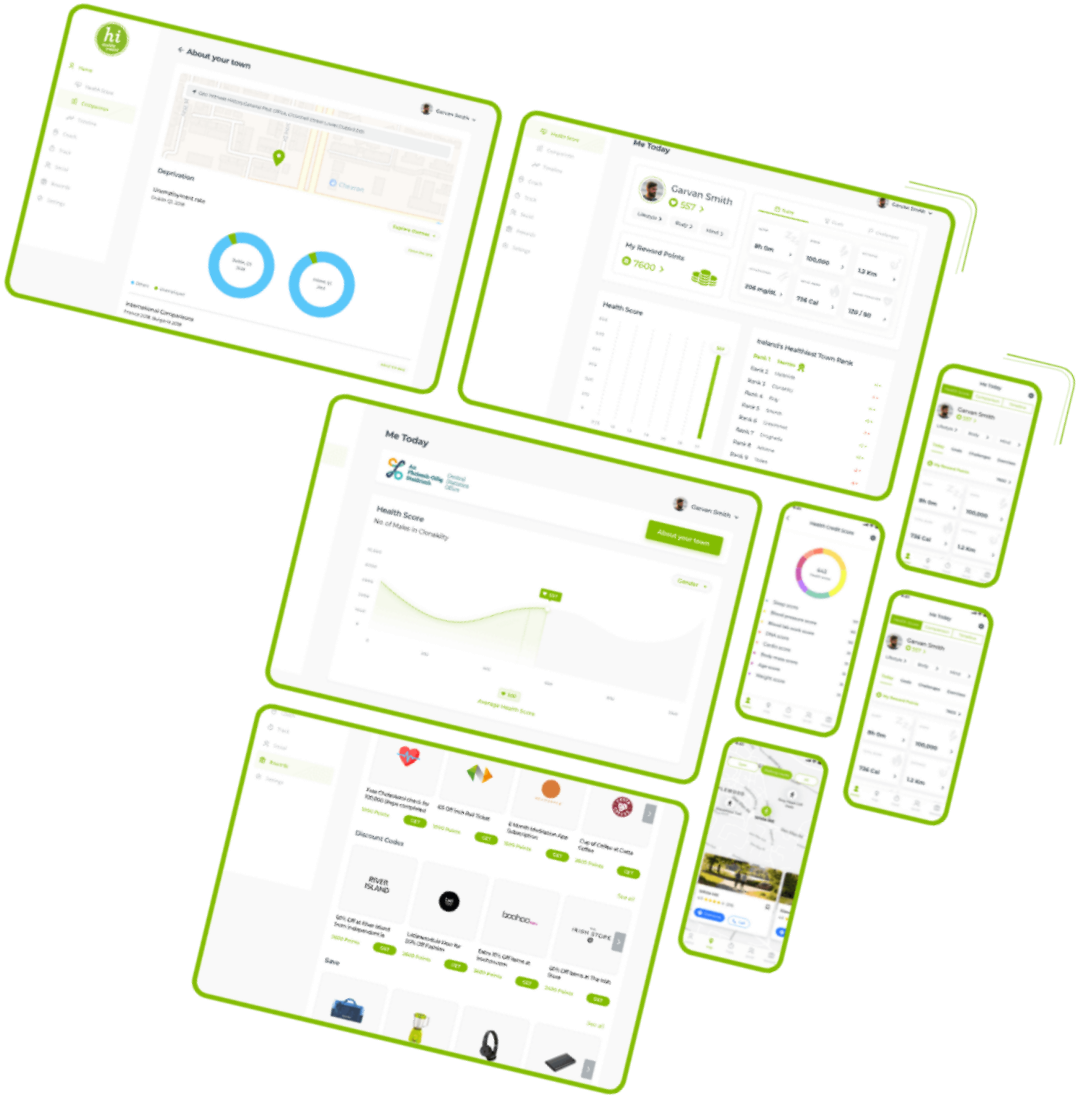
Hale & Hearty

Overall Objective

Provide a comprehensive

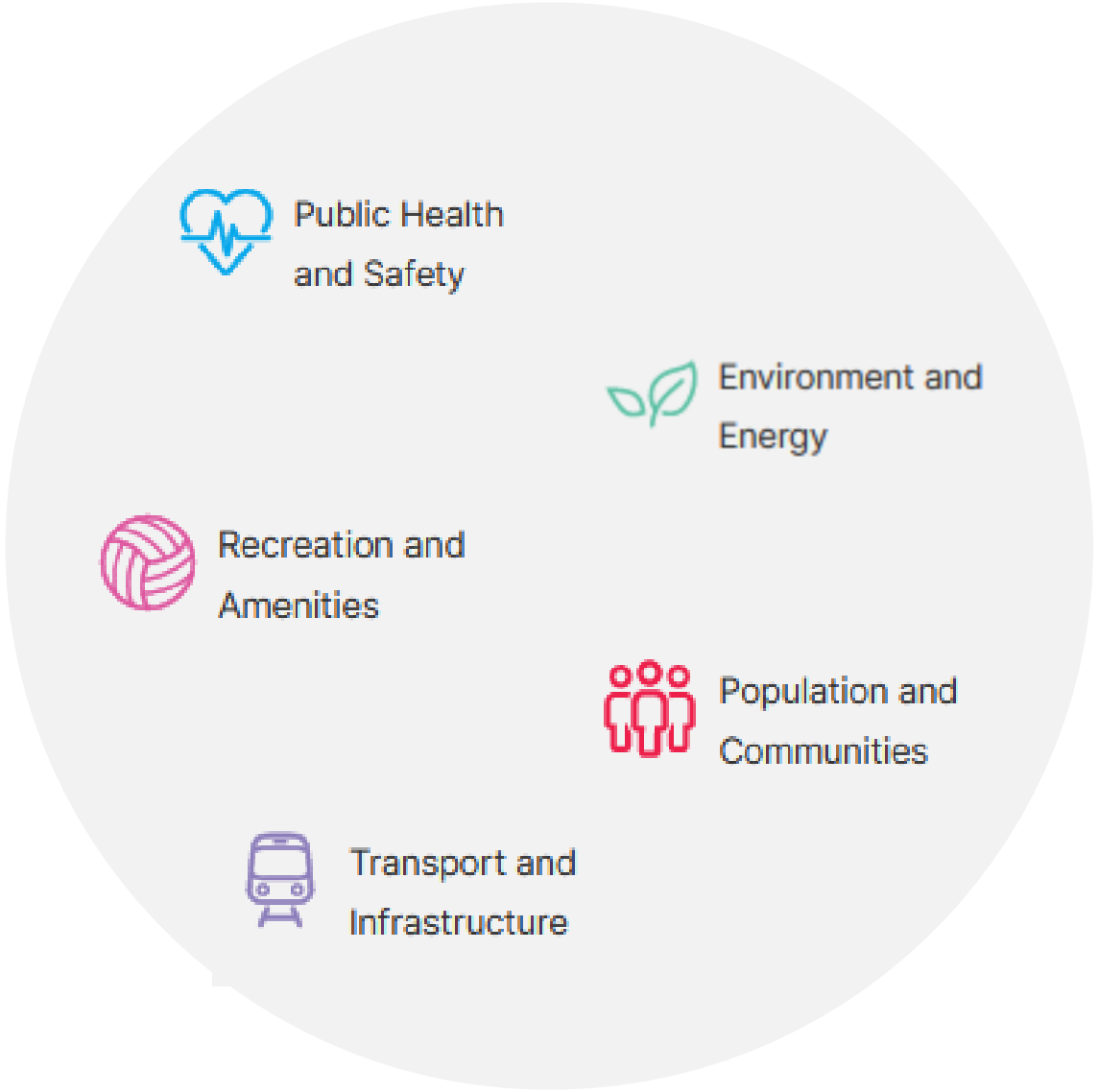
Health & Wellbeing Knowledge Base

at a granular level, which can be used for analysis, insights and action.

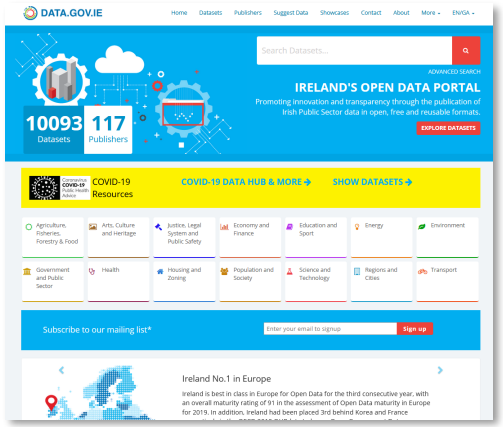


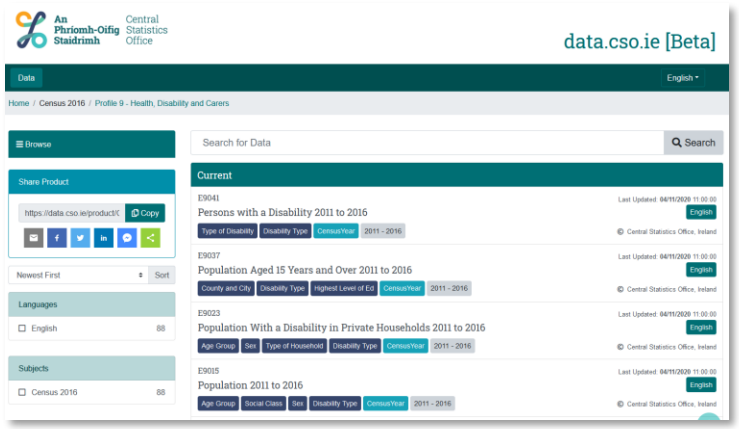
Hale & Hearty

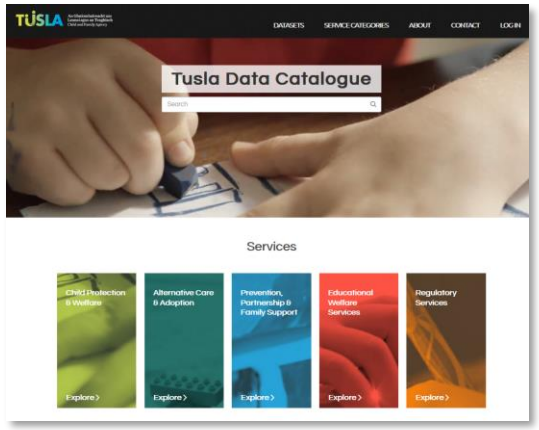
Health & Wellbeing Data



Existing & New Data Sources …







Hale & Hearty

… Improved Data

Granular

Harmonised

High-Value

Up-to-date

Accessible

Historical

The *Hale & Hearty* App

Measurable

Keep a detailed track of your health

Track of Activities

Keep a Track of what you do

Earn Rewards!

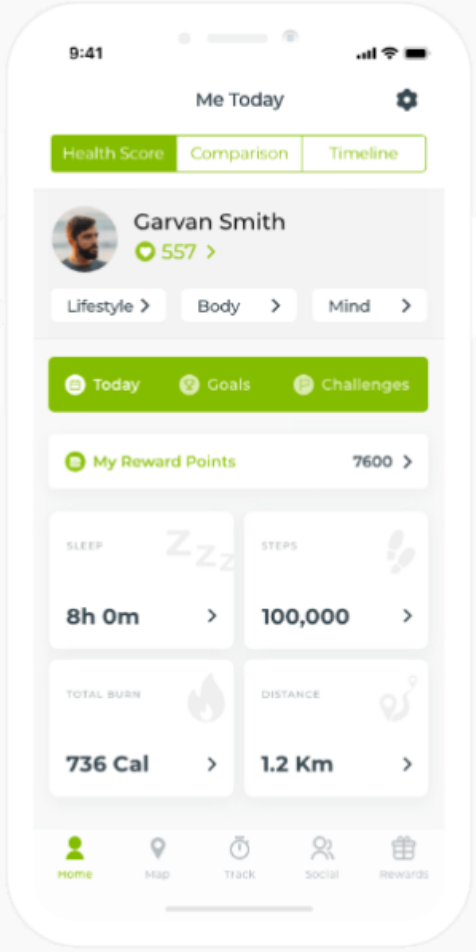
Earn Real Rewards for staying active

Ireland's Healthiest Town

Your score contributes to helping your local town win Ireland's Healthiest Town Award

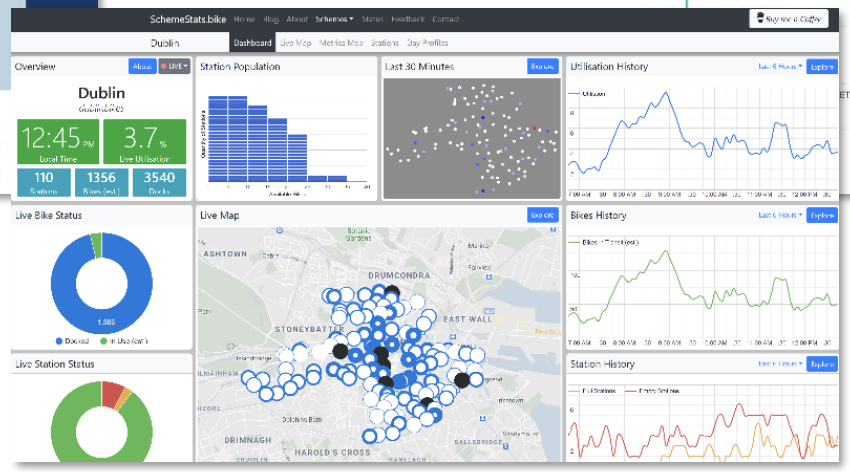
We care about your Privacy

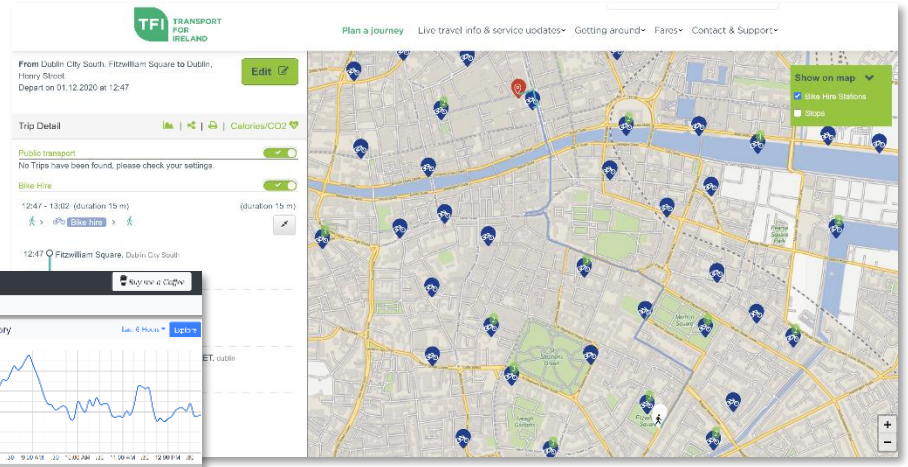
All your personal data and information is protected with us



Hale & Hearty

Impact Example





https://smartdublin.ie/open-data-for-dublins-bikeshare-services-where-to-find-it-how-its-used-whats-coming-next/

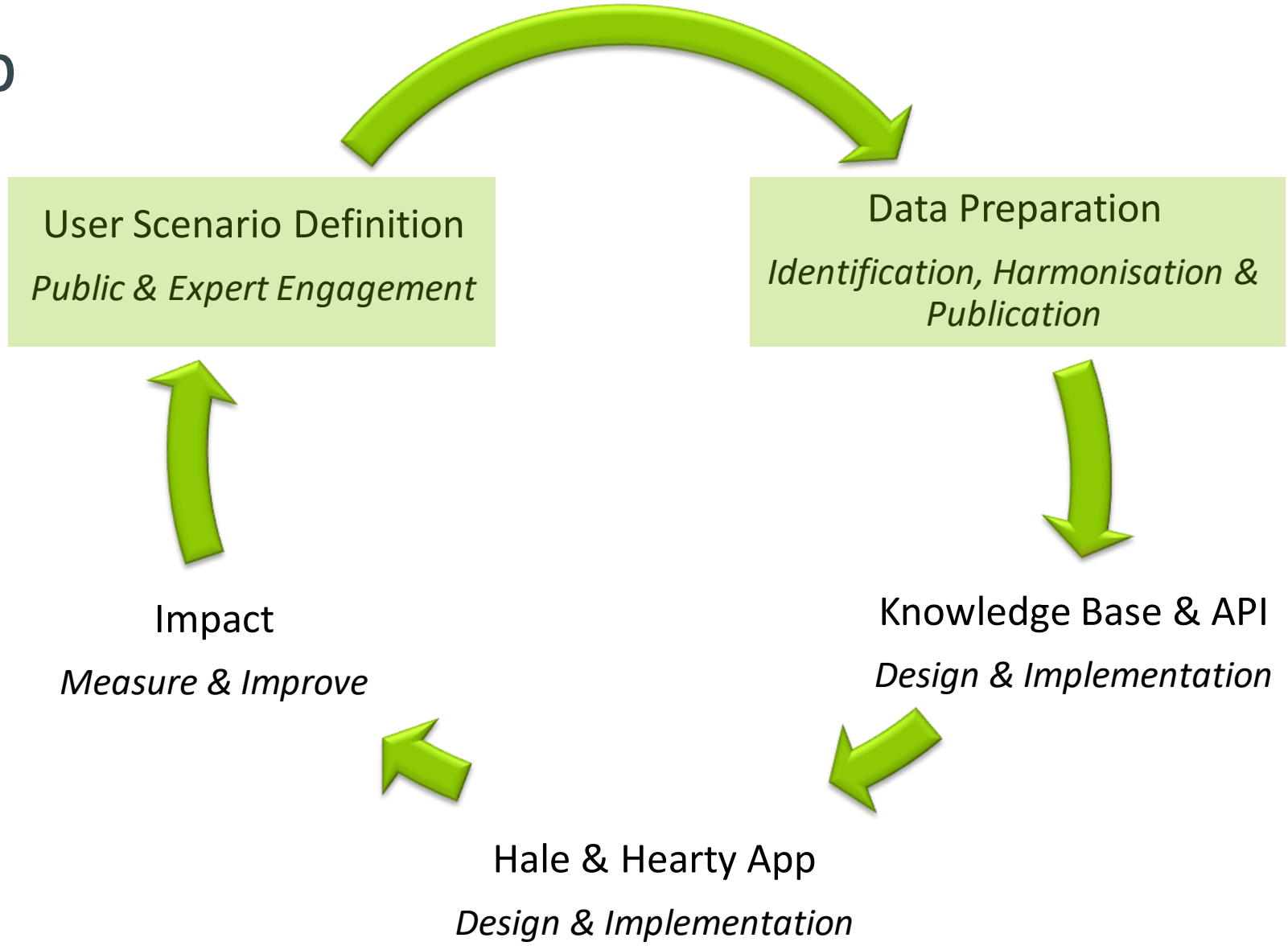
Hale & Hearty

User-Focused

- Families
- Schools
- Data Scientists / Researchers
- Public Sector Employees
- Healthcare Workers

Hale & Hearty

Roadmap


User Scenario Definition
Public & Expert Engagement
Data Preparation
Identification, Harmonisation & Publication
Knowledge Base & API
Design & Implementation
Hale & Hearty App
Design & Implementation
Impact
Measure & Improve

DATA.GOV.IE

5

Panel Session

Publication of Open Datasets

Dr. Edward Curry
Insight Centre

Rhoda Kerins *Open Data Unit - DPER*

Mark Warren
OGCIO - DPER

Josh D'Addario
ODI

An Roinn Caiteachais
Phoiblí agus Athchóirithe
Department of Public
Expenditure and Reform

Open Data and PSI Directive

Rhoda Kerins

2nd December 2020

DATA.GOV.IE

Open by Default and Design

Must Release Data

- Release of non-personal data becomes an obligation
- Open Formats
- Open Standards

Free Re-use

- New rules on charging
- Free re-use becomes a principle
- Stronger transparency

Public Utilities

- Re-use of data held by public undertakings such as utilities and transport sector

Research Data

- Re-use of publicly-funded research data

Data Lock-in

- Prevention of data lock-in
- Exclusive arrangement no allowed

Real-Time Data

- **Real-time data**
- **APIs**
- **Bulk download**

Actions in Open Data Strategy

2.2
Carry out a data audit, make the results public

2.2
Publish an Open Data publication Plan

2.3
Facilitate any request for datasets

2.8
Use Eircodes in Addresses

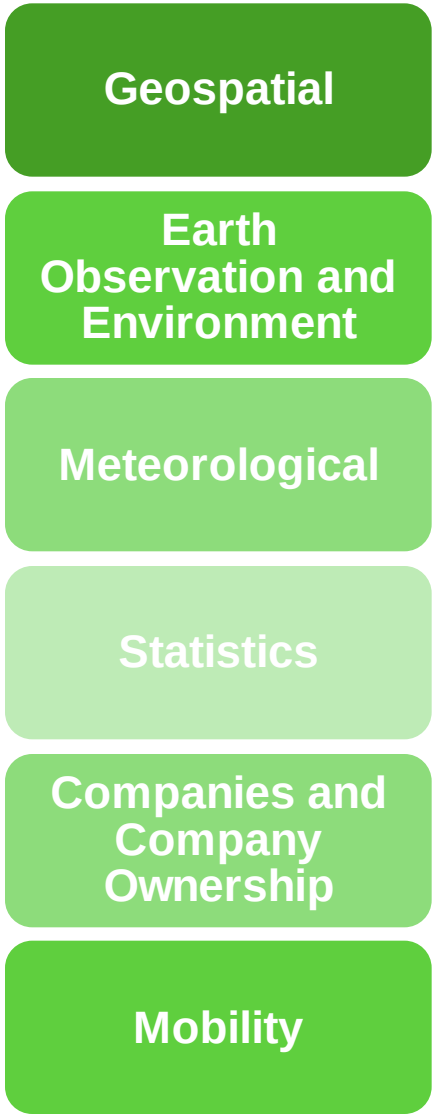
3.1
Collaborate with re-users

7.4
Open Data Liaison Officer

First Implementing Act

List of high value datasets which must be released:

- Free of charge
- Open Formats
- Machine readable
- Via APIs and where relevant as a bulk download



Company and Company Ownership

Basic information		Companies' documents and accounts	Companies ownership		Companies insolvency status
Non personal	*Personal*		Non personal	Personal	
• Name of the company (full version, in different languages when applicable); • Company status (active, resolved, in liquidation, reconstruction, merger…) • Founding date; • Cessation date (if applicable); • Historical names; • Addresses (i.e. legal, visiting postal); • Legal form; • Identifiers (registration number / company identifier / tax identification number / phone number / e-mail address); • Member State where registered; • NACE code (of the predominant and secondary activities and the code's source); • Number of employees; • Turnover; • Capital; • Detailed information on branches • All changes (to individual companies and list of companies dissolved), and date of the last update.	• (Name(s) of company legal representative(s); • Name of company's directors ;) • The appointment, termination of office and particulars of the persons who either as a body constituted pursuant to law or as members of any such body: ✓ are authorised to represent the company in dealings with third parties and in legal proceedings; it shall be apparent from the disclosure whether the persons authorised to represent the company may do so alone or are required to act jointly; ✓ take part in the administration, supervision or control of the company • All changes (to individual companies and list of companies dissolved), and date of the last update.	• Legal entities; • Detailed data on branches; • Accounting documents, incl. financial statements, non-financial statements, management reports, and other reports (e.g. financial reports, audit reports, corporate governance reports); • Intra-group transactions • Date of the last update; • Other companies documents which are provided to the authority (i.e. companies' meeting minutes).	• Share (percentage) of ownership, and nature and extent of Beneficial Interest held (in shareholdin g and/or voting rights) as well as legal ownership; • Capital links between companies; • All changes, and date of the last update.	• Name of the owner; • Month and Year of birth; • Nationality; • Owner identifier; • Names of shareholder s; • Country of residence of shareholder s / owners.	• Type of insolvency proceeding; • Time limit for lodging claims; • Date of closing main insolvency proceedings; • The court before which the decision opening insolvency proceedings is to be lodged; • All changes (i.e. to individual companies and list of companies dissolved), and date of the last update

Company and company ownership

Higher intensity intervention – Recommended measures

Dimensions		Basic information (non-personal and personal)	Companies documents and accounts	Companies ownership	Companies status
Openness-data specification	License (terms of use)	CC.BY 4.0 No terms of use No database right			
	Format	XML - Json			
	Machine-readability	Mandatory			
	Availability of API, bulk download	Both API and bulk download			
Documentation	Metadata (dataset content description)	Complete (*.csv document available), DCAT-AP			
	Data linking	No specific recommendation			
	Documentation (incl. structure and semantics)	Complete and web-available			
	Shared vocabularies	ISA² Core Vocabularies			
	Taxonomies	Recommended			
Completeness	Traceability	Not necessary			
	Update frequency and timeliness	Real time (minimum daily for insolvency data)			
	Granularity	Individual company level (plus identifier)		Individual owner (plus identifier)	Individual company level (plus identifier)
	Key attributes	Company code for disambiguation		Beneficial owner code for disambiguation	Company code for disambiguation

GeoSpatial

Datasets	Short description	Use Cases
Administrative Units	Units of administration, dividing areas where Member States have and/or exercise jurisdictional rights, for local, regional and national governance, separated by administrative boundaries. Land Administrative Units and Maritime Units are the basic units. Land Administrative Units are covering mostly land surface, while Maritime Units are covering territorial waters.	Mapping or use as statistical units, manage emergency rescue, waste management plans, protect water ecosystems, find responsible party for policy implementation and administration, forest management, subsidies for farmers, forecast agricultural production, spatial planning, monitoring of regional and urban policy implementation using territorial typologies based on administrative units, maritime spatial planning, integrated coastal management
Place Names	Geographical names or place names (or toponyms) are the proper nouns applied to topographical features and settled (and used) places and spaces on the earth's surface. Toponyms represent an important reference system used by individuals and societies throughout the world.	Emergency response Economic, social and environmental analysis Cultural identity and heritage Mapping and navigation Providing a link / index function to other spatial and aspatial data
Addresses	Location of properties based on address identifiers, usually by road name, house number, postal code. The basic unit of addressing is a building; a permanent construction, intended or used for the shelter of people, having at least one entrance from publicly-accessible space.	Geocoding of statistical surveys, manage emergency rescue, locate where people are, accessibility studies, manage incidents; locate economic activities in ecosystem accounting
Buildings	Geographical location of buildings. Constructions above and/or underground, intended or used for the shelter of humans, animals, things, the production of economic goods or the delivery of services that refer to any structure permanently constructed or erected on its site [from INSPIRE Data Specifications on Buildings].	Buildings are 3D topographic objects and, as such, may influence the propagation of physical phenomena. These data are required for serving citizens (e.g. school, hospital), assessments for air and noise pollution or risk assessments to various kinds of risks (earthquake, fire, flood etc.), monitoring of land consumption, population concentration and access to services.
Cadastral Parcels	Single areas of Earth surface (land and/or water), under homogeneous real property rights and unique ownership, real property rights and ownership being defined by national law.	Protect state lands, reduce land disputes, facilitate land reform, agriculture, land management, taxation, disaster management, real Estate Market, Taxation, LPIS (Agriculture), Land consolidation, Infrastructure Management, Spatial Planning, Protection of Soil and Water, Statistics

Geospatial Higher intensity intervention

	Description	Administrative units	Place Names	Addresses	Buildings	Cadastral parcels
Openness	License and terms of use	CC0				
	Format	GeoPackage; GeoJSON; INSPIRE requirements.	GeoPackage; CSV; GeoJSON INSPIRE requirements.	GeoPackage; CSV; GeoJSON; INSPIRE requirements.	GeoPackage; GeoJSON; INSPIRE requirements.	GeoPackage; GeoJSON; INSPIRE requirements.
	Machine-readability	Mandatory				
	Availability of API, bulk download	Bulk download; INSPIRE distribution services; RestAPI (e.g. OGC API, ArcGIS RestAPI, Carto API).				
Documentation	Metadata (dataset content description)	INSPIRE				
	Documentation (incl. structure and semantics)	INSPIRE / GeoDCAT-AP				
	Data linking					
	Shared vocabularies/taxonomies	INSPIRE				
Completeness	Traceability	National geodata Catalog and open data catalog.				
	Update frequency and timeliness	Annual update	When necessary	When necessary	When necessary	Continuous update (close to real-time).
	Granularity	From municipalities to countries; sea-frontiers.	National coverage	National coverage	National coverage; Level of scale 1:5000 (minimum requirement).	National coverage; Level of scale 1:5000 or beyond (1:2000).
	Key attributes	National identification code; identification code of the upper administrative level; official name; country code; name in multiple languages (only for countries with more than one official language).	Name; name in multiple languages (only for countries with more than one official language); category; latitude and longitude (INSPIRE)	Latitude and longitude; house number; suffix of the number; name of the street; zip code; name of the municipality; national identification code of the municipality; last update; type of position.	Footprint of the building; height; entrances; floors; type of use.	Geometry of cadastral parcels; type of particle; particle code; references to the administrative area to which the particle belongs.

Thank you.

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Open Data Unit
Rhoda.Kerins@per.gov.ie

@GovData.ie
@IRLDeptPER

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An Roinn Caiteachais
Phoiblí agus Athchóirithe
Department of Public
Expenditure and Reform

OGCIO
Connecting Government

Public Service Data Catalogue

Open Data Conference

2nd December 2020

Background

Public Service Data Governance Unit

Data Sharing and Governance Act

- The Act provides a legal basis for data sharing and puts in place strong governance to oversee such sharing

Public Service Data Strategy

- Strategy sets out a vision for data in the Public Service and 31 actions/deliverables to improve data quality, reuse and transparency

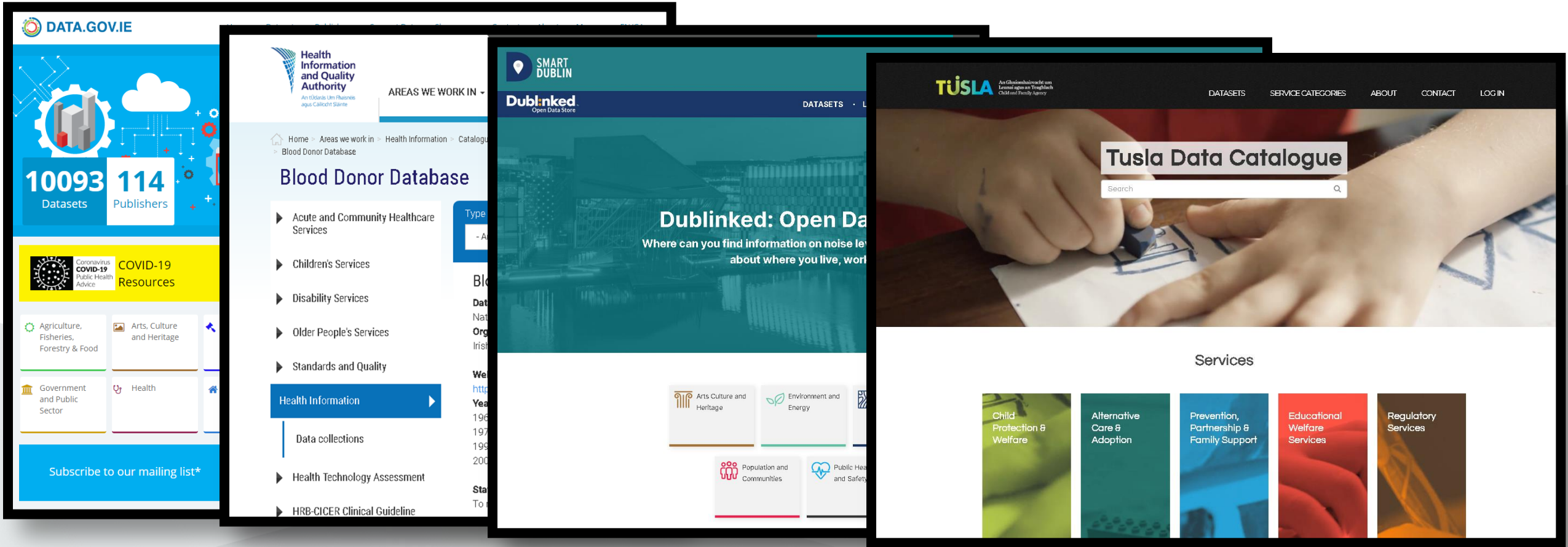
Act and Strategy complement each other and have the same ultimate goal – to put in place a series of measures to improve how data is governed, managed and re-used in a secure, efficient and transparent manner

Step 1 – the Public Service Data Catalogue

OGCIO
Connecting Government

What is a Data Catalogue?

- A Data Catalogue is a detailed inventory of data assets in an organisation. It is designed to help quickly find the most appropriate data for analytical purposes, for business purposes, or simply for general awareness and transparency.



The Public Service Data Catalogue

Public Service Data Strategy

Action: Develop a Government data catalogue, for internal and public use, cataloguing key data holdings within PSBs, supporting reuse and transparency

- Increase the awareness of data holdings
- Stimulate cross Government data reuse
- Single place to go to get the information
- Facilitate openness and transparency with both citizens and businesses
- Expenditure savings
- Help public bodies in their data protection obligations

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Connecting Government

Scope of the Catalogue

Single Catalogue for the entire Public Service – All PSBs

Store / Display metadata about key data holdings

Includes personal data, sensitive personal data, business data, spatial data

Supports customisable sub-catalogues, similar in manner to the Department websites on gov.ie.

Public facing view - available to citizens

Public Service facing view - available to PSBs

Administration view – allowing internal recording of datasets

Supports custom data fields

Dataset and data fields may be defined as "visible/invisible/public service visible".

Admin interface - PSBs will have the ability to manage their own catalogues.

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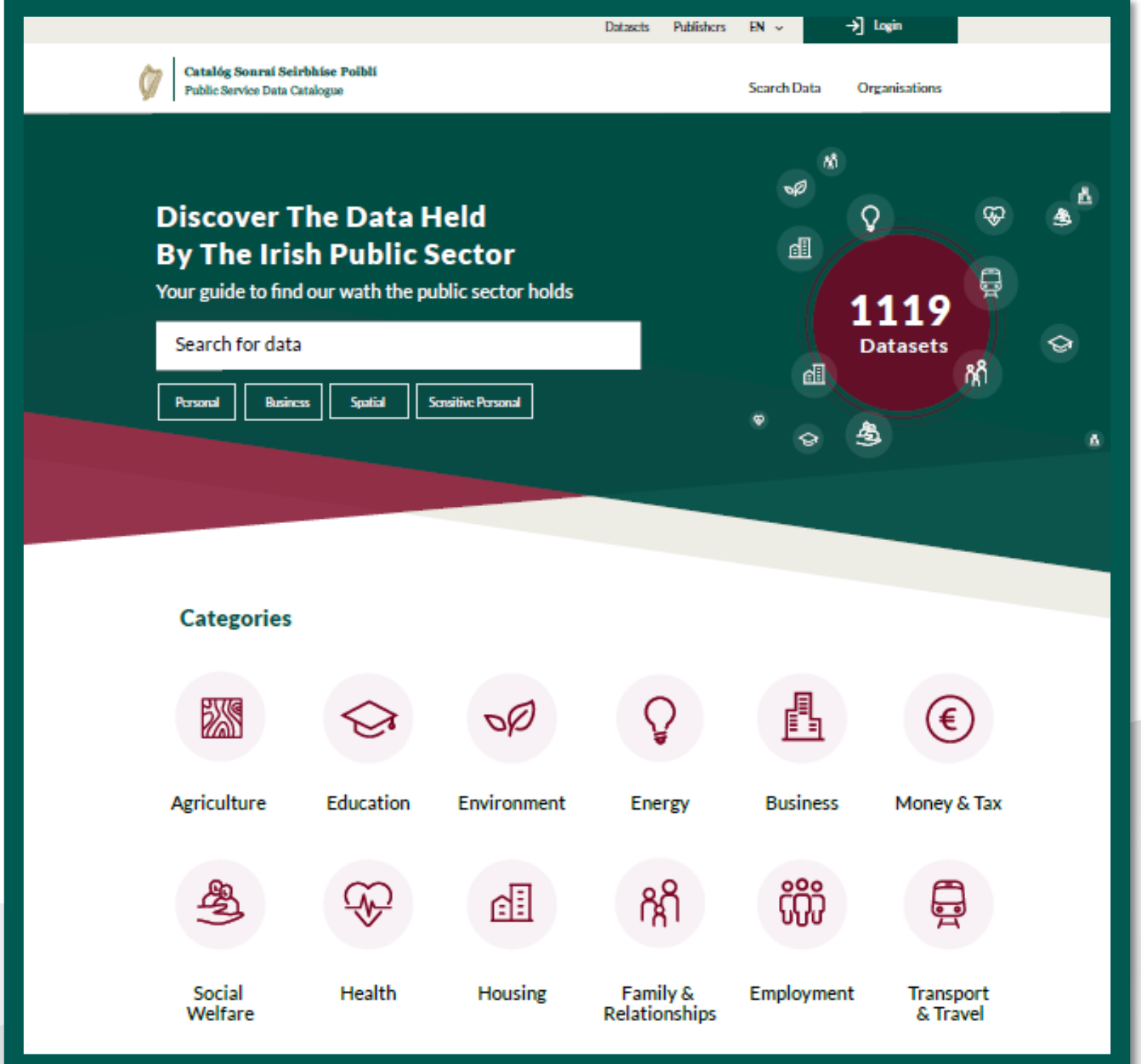
What Data is on it?

- PSB Name
- Dataset Name
- Description
- Coverage
- Sector
- Personal
- Business
- Spatial
- Sensitive
- Primary Identifier
- Update Frequency
- Currently being shared
- APIs available
- Open Data
- Open Data Link
- Contact Point (only visible to PSBs)
- Custom fields…

Connecting Government

Homepage



OGCIO
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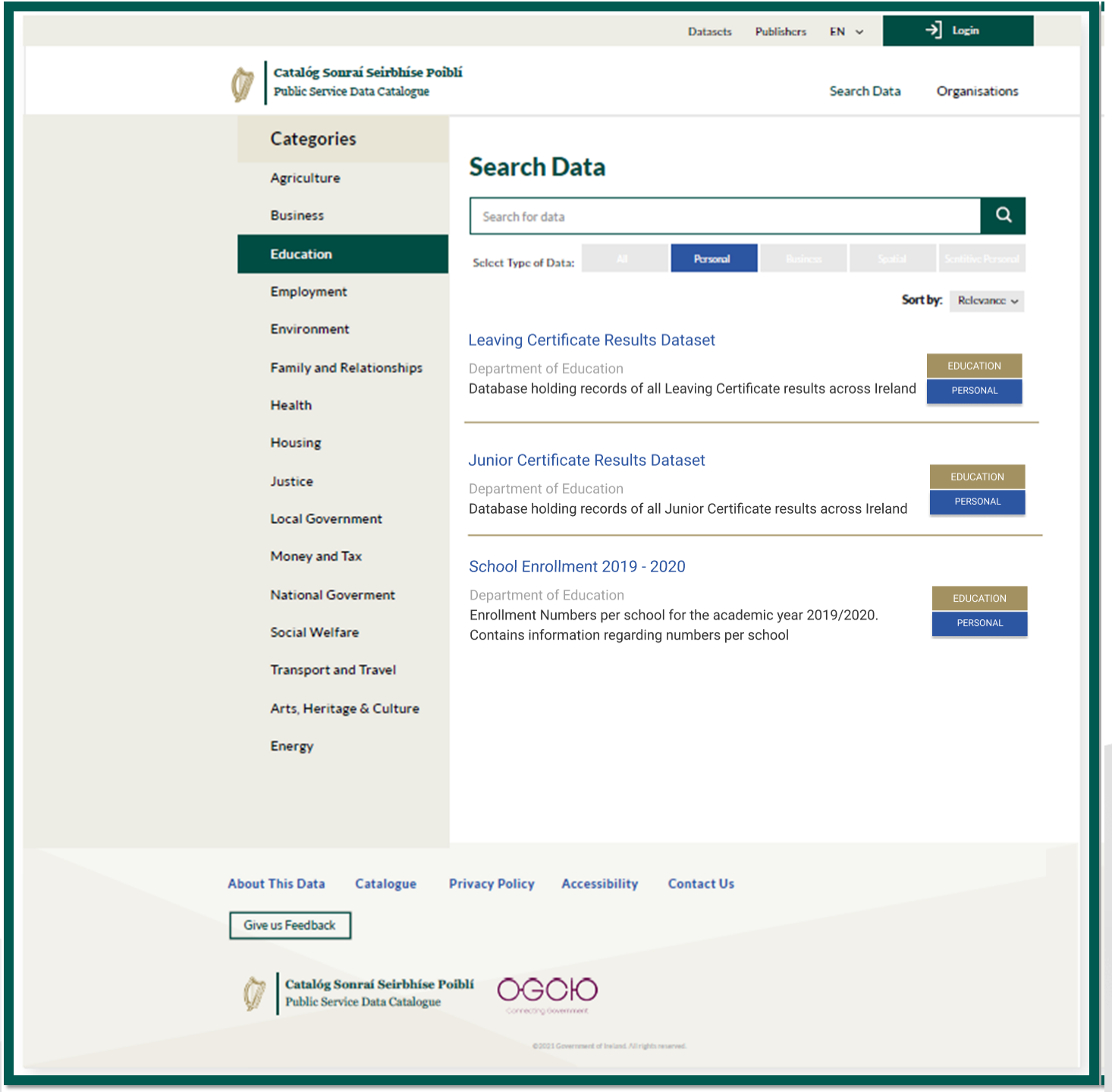
Data Listing Page



OGCIO
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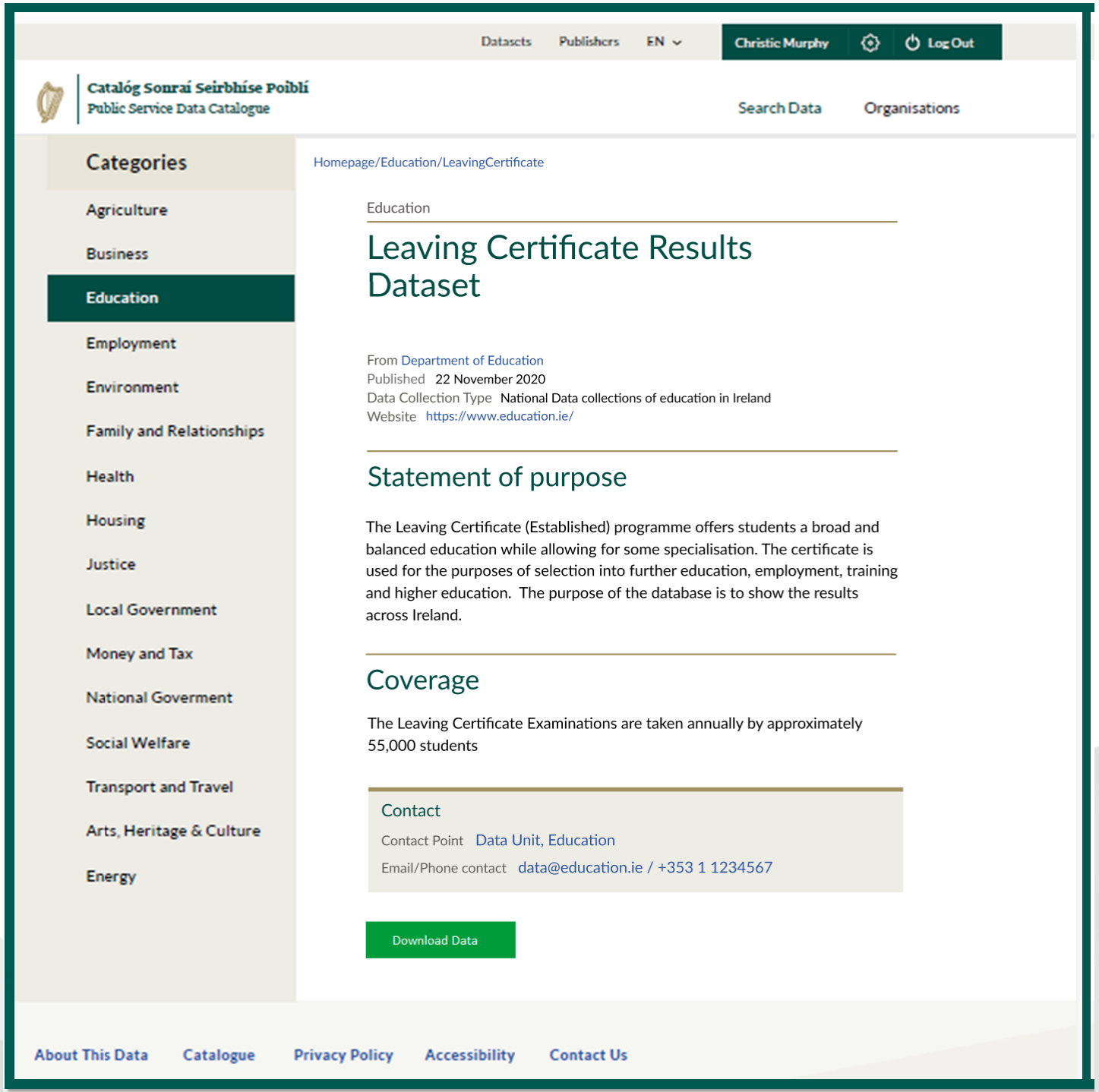
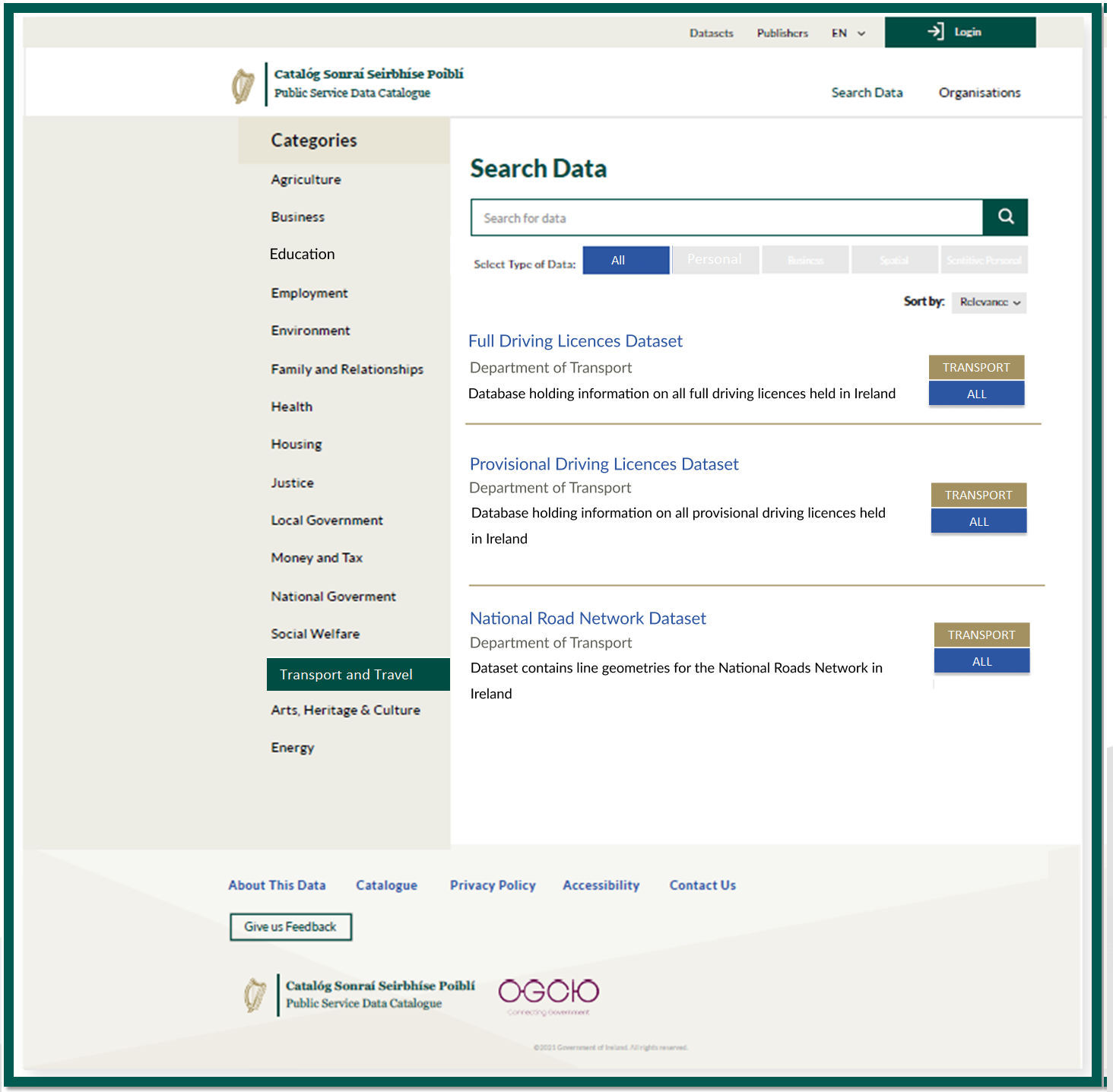
Data Listing Page



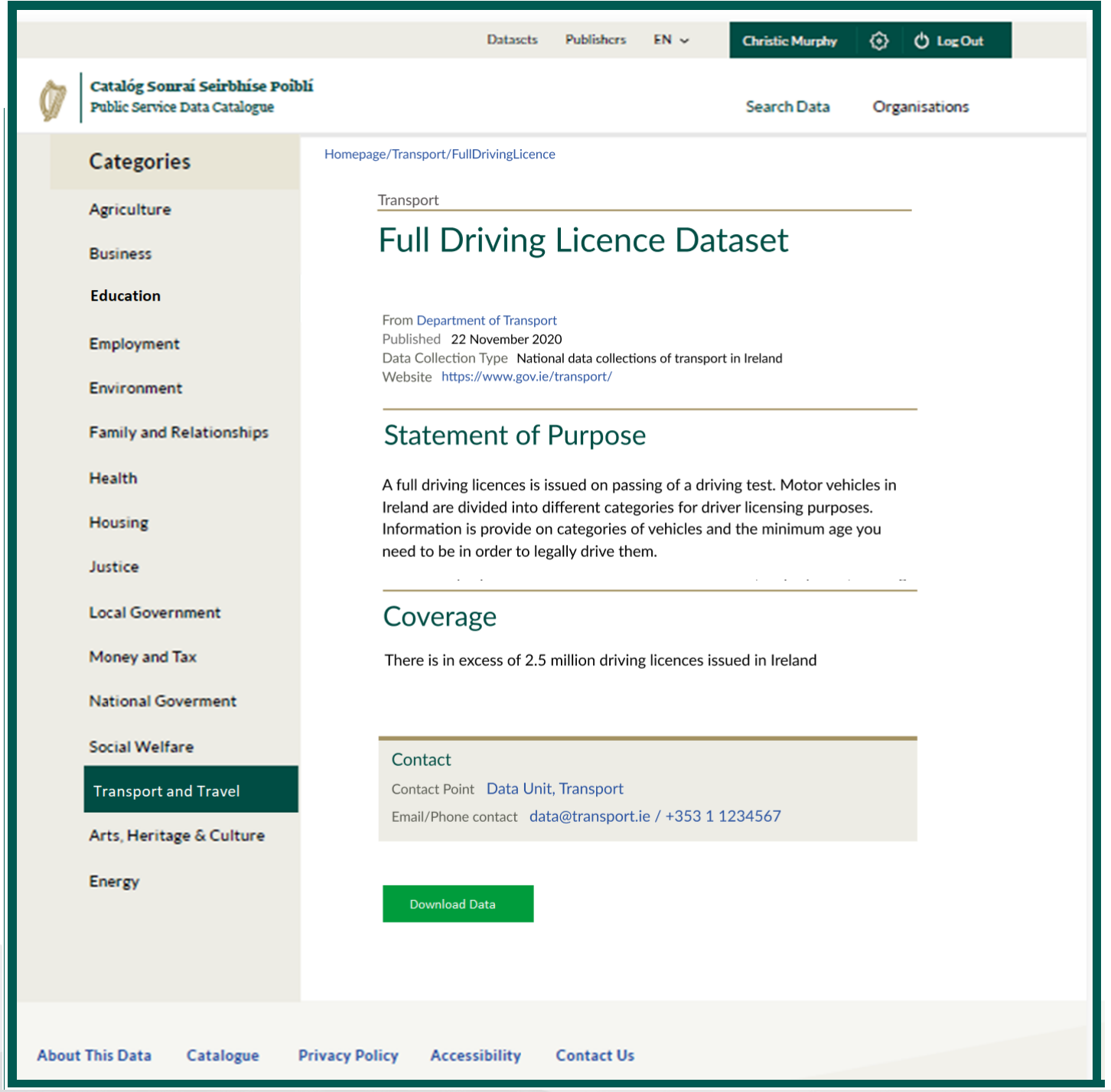
Connecting Government

Data Listing Page



OGCIO
Connecting Government

Data Listing Page



Connecting Government

Populating the Catalogue

- An excel survey of relevant data in each PSB
  - *capture high-level information on key datasets across the public service*
  - *making this information available both to citizens and PSBs.*
  - *Not an audit of all datasets you hold*
  - *No direct access to datasets*

- Survey issued to all PSBs - inc bodies under their aegis

- Next Steps
  - *OGCIO to aggregate and sanity check the results*
  - *OGCIO to input the results and publish the Catalogue*

OGCIO
Connecting Government

Datasets collected

- High-level Information gathered on over 250 Key Datasets of Public Interest across the Public Service from over 50 PSBs

Health
- Dataset of Hospitals
- National Waiting List Register
- Work Related Accidents

Education
- Primary Online Database
- Register of Teachers
- SUSI Grant Applications

Geospatial
- Bathing Water Locations
- National Land Register
- Commercial Property Valuations Database

Community
- Early Years Platform
- Deprivation Index
- Town & Village Renewal Scheme

Agriculture
- National Forest Inventory
- Nitrates Database
- Animal Identification & Movement

Business
- Product Safety Database
- Patent Register
- Register of Companies & Business Names

Justice
- Sheriff Systems
- Wards of the Court
- Citizenship Applications

Taxation
- Local Property Tax
- Unique Business Identifier
- Tax Clearance

Ireland Open Data Conference
High Value Datasets

open data institute

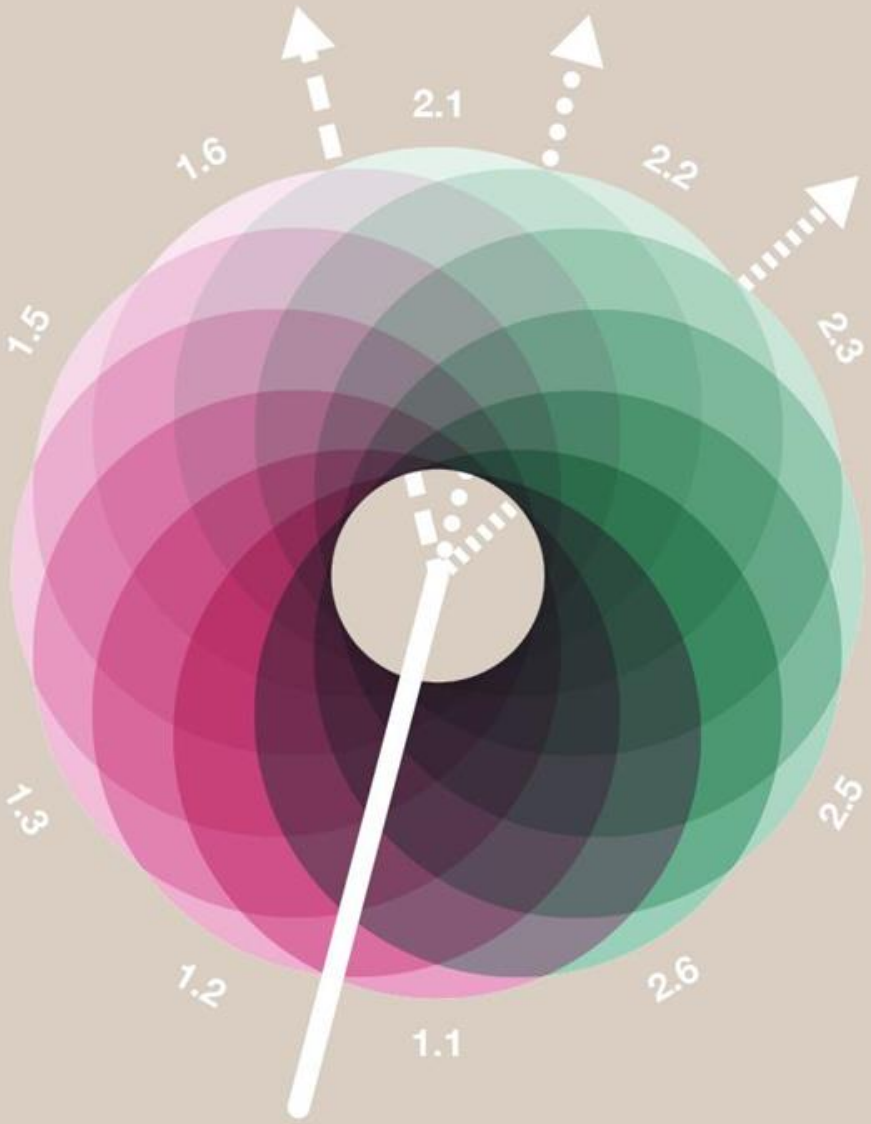
Vision

We want a world where data works for everyone.

Mission

We work with companies and governments to build an open, trustworthy data ecosystem.

What makes data valuable?



Economic lens

1.1 Excludability

1.2 Externalities (pos and neg)

1.3 Increasing/ decreasing returns

1.4 Option value

1.5 High fixed, low marginal costs

1.6 Complementary investments

Information lens

2.1 Subject

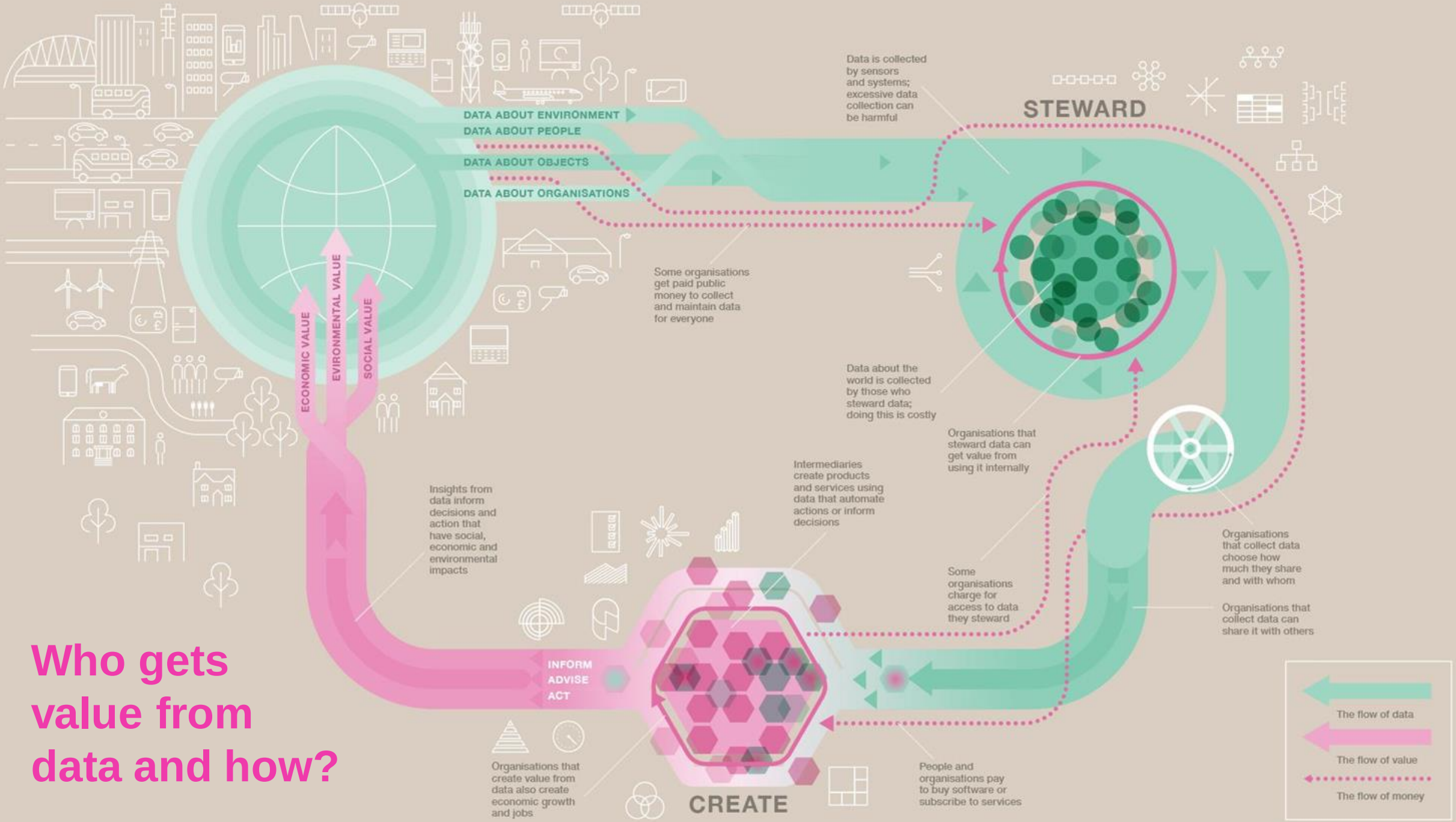
2.2 Generality

2.3 Temporal coverage

2.4 Quality

2.5 Sensitivity

2.6 Interoperability/ linkability



Who gets value from data and how?

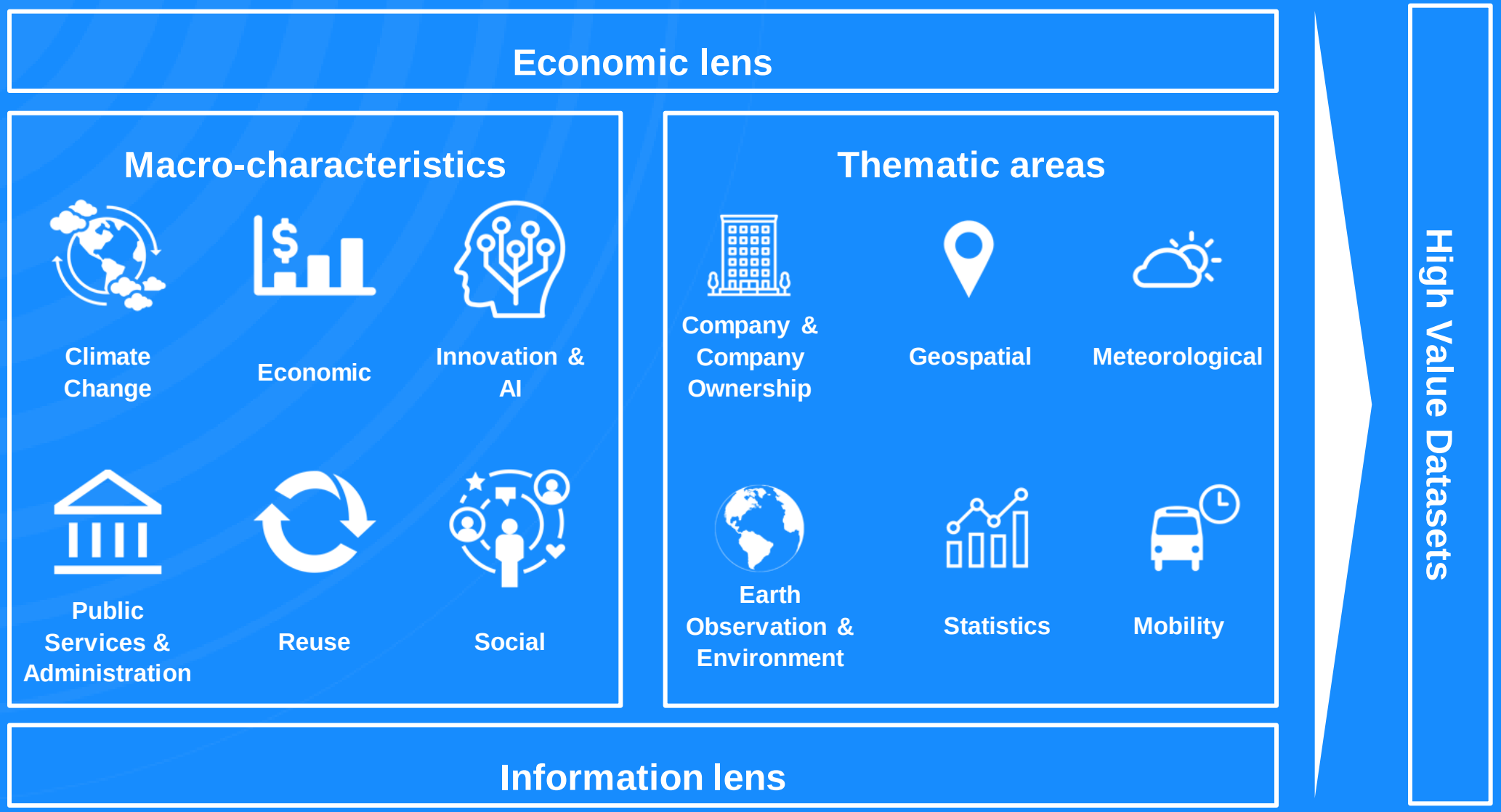
High Value Datasets

Create the value framework
Identifying characteristics and relevant indicators of the value of data

Undertake an impact analysis
Ten EU member states selected, ODI focussed on Ireland

Deliver policy options and recommendations
Low and high ‘intensity’ policy options and recommendations for the EC

High Value Datasets - The Project



Impact analysis → Policy options

Thematic areas

Member states

Multi-Criteria Analysis

- Effectiveness
- Efficiency
- Coherence
- Proportionality
- Feasibility

Policy Options

‘Low intensity’

‘High intensity’

Policy options

‘Low intensity’ policy options

Includes:

- Open licences
- Mandatory machine-readability
- Key datasets
- Regular update frequency and timeliness
- Good granularity

‘High intensity’ policy options

Includes:

- More open licenses (ex: from CC-BY to CC0)
- More datasets in scope
- Increased update frequency and timeliness
- Increased granularity
- Additional key attributes

High Value Datasets - Key Takeaways

These datasets are foundational for the data economy
They should prioritised in the public sector, and pushed for more openness outside of the Open Data Directive

The more open they are the better
This means more open licences, and anonymisation where personal data may restrict publishing openly

Lower priority datasets are still important
Data exhibits network effects that increase their own value and the value of other datasets when connected

Organisations might need support to get to the open goal
Some organisations are lacking the technical infrastructure currently, or would need to significantly change their operating model

Standardise across Europe
Member state organisations supporting each other will increase value for all, faster

Thanks!

theODI.org

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Dr. Edward Curry

Principal Investigator - Insight Centre

Open Data as part of a wider European Data and AI Ecosystem

Empowering Citizens. Smarter Societies.

Insight
Centre for Data Analytics

Open Data as part of a wider European Data and AI Ecosystem

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A World Leading SFI Research Centre

This publication has emanated from research conducted with the financial support of Science Foundation Ireland (SFI)under Grant Number SFI/12/RC/2289, co-funded under the European Regional Development Fund

(Open) Data is Key to AI

"The world's most valuable resource is no longer oil, but data. The data economy demands a new approach to antitrust rules"

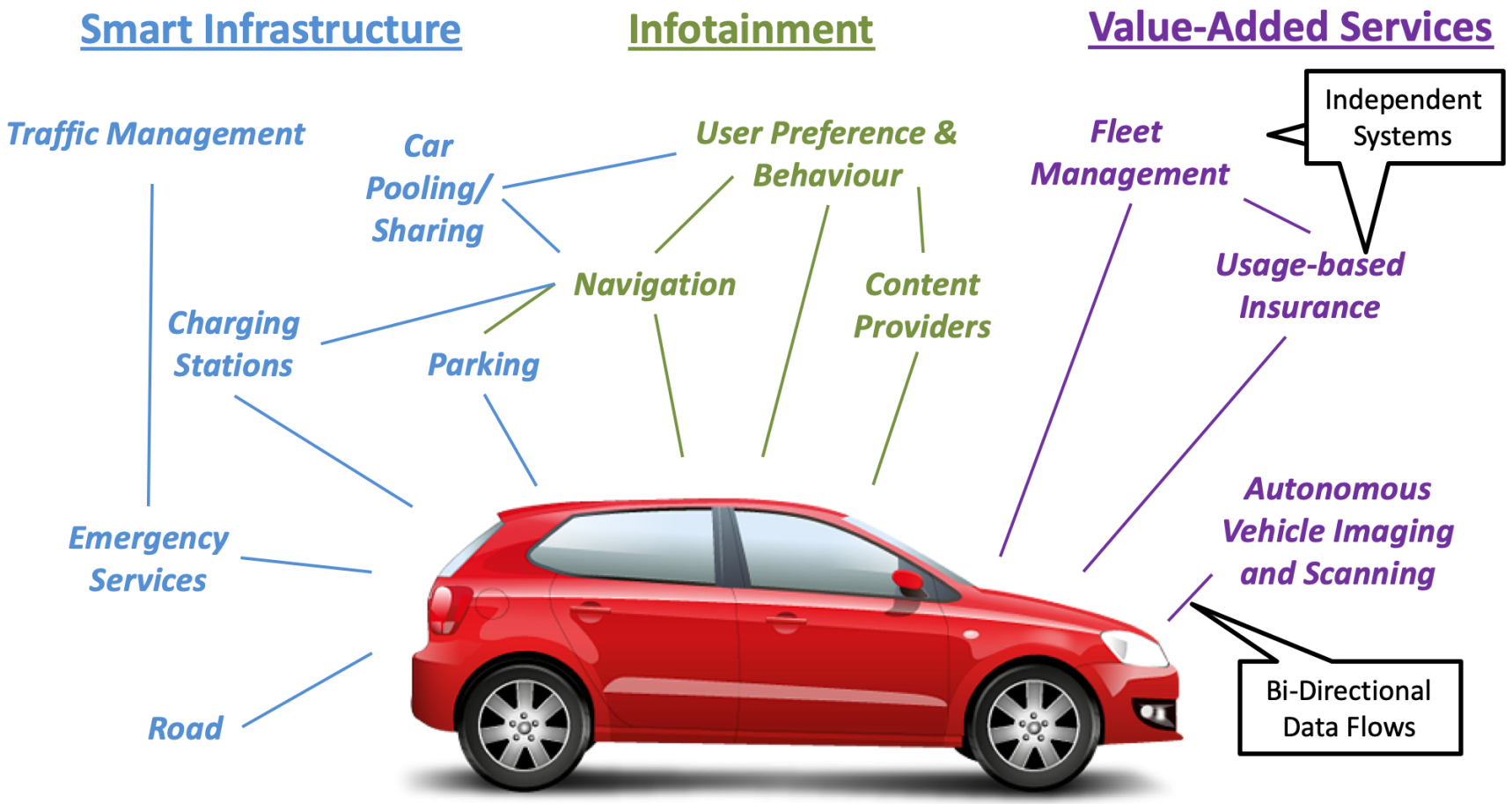
The Economist

...startups and established firms that are just beginning to use AI **need access to data** in order to train their AI systems. Difficulty in accessing the necessary data can create **a barrier to entry**, potentially **reducing competition and innovation**. - Forbes

Insight
SFI RESEARCH CENTRE FOR DATA ANALYTICS

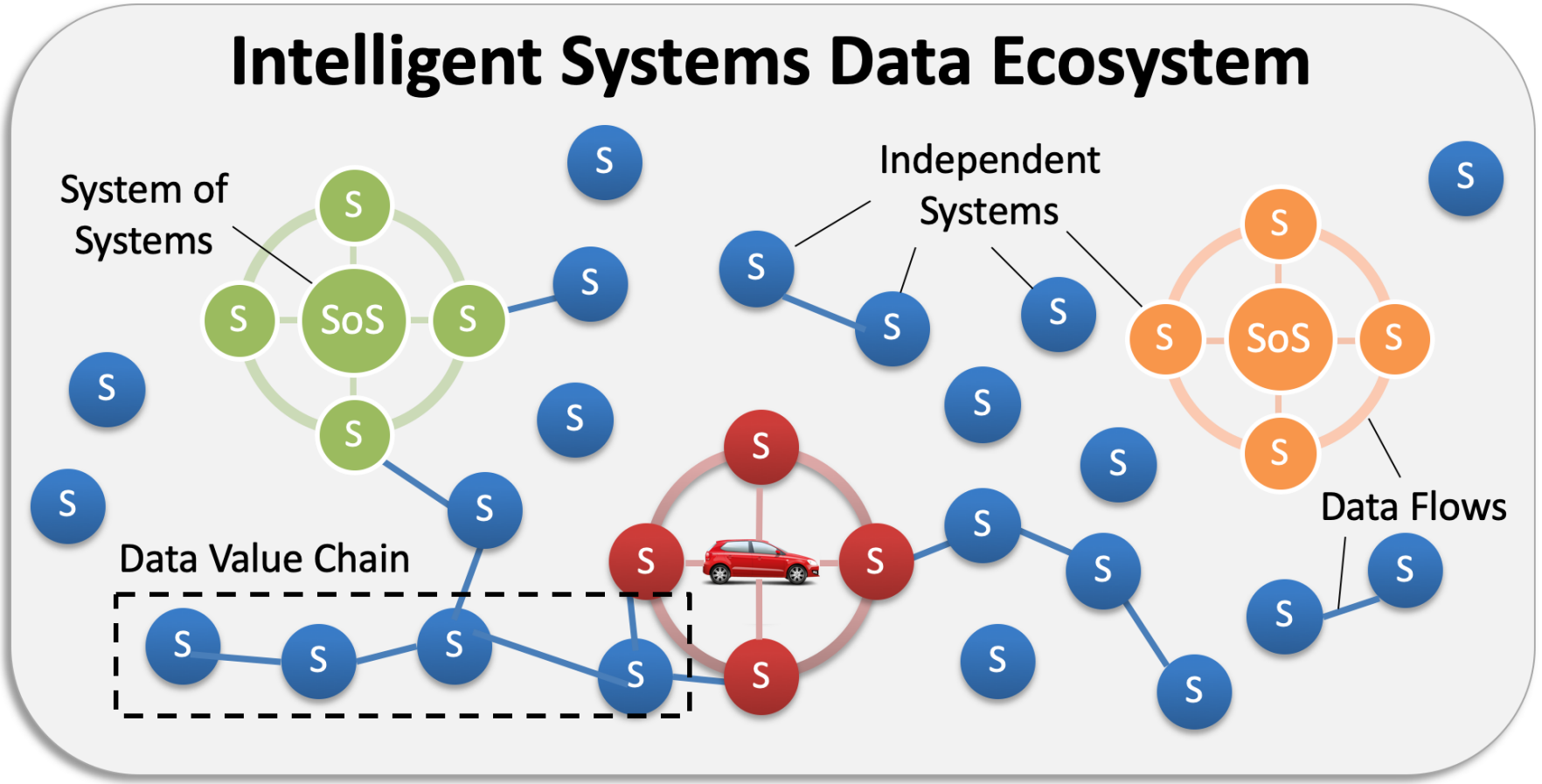
Emerging Smart Environments….

Connected Intelligent Systems



*Data-driven Intelligence will be drive by industrial, personal and **open** data*

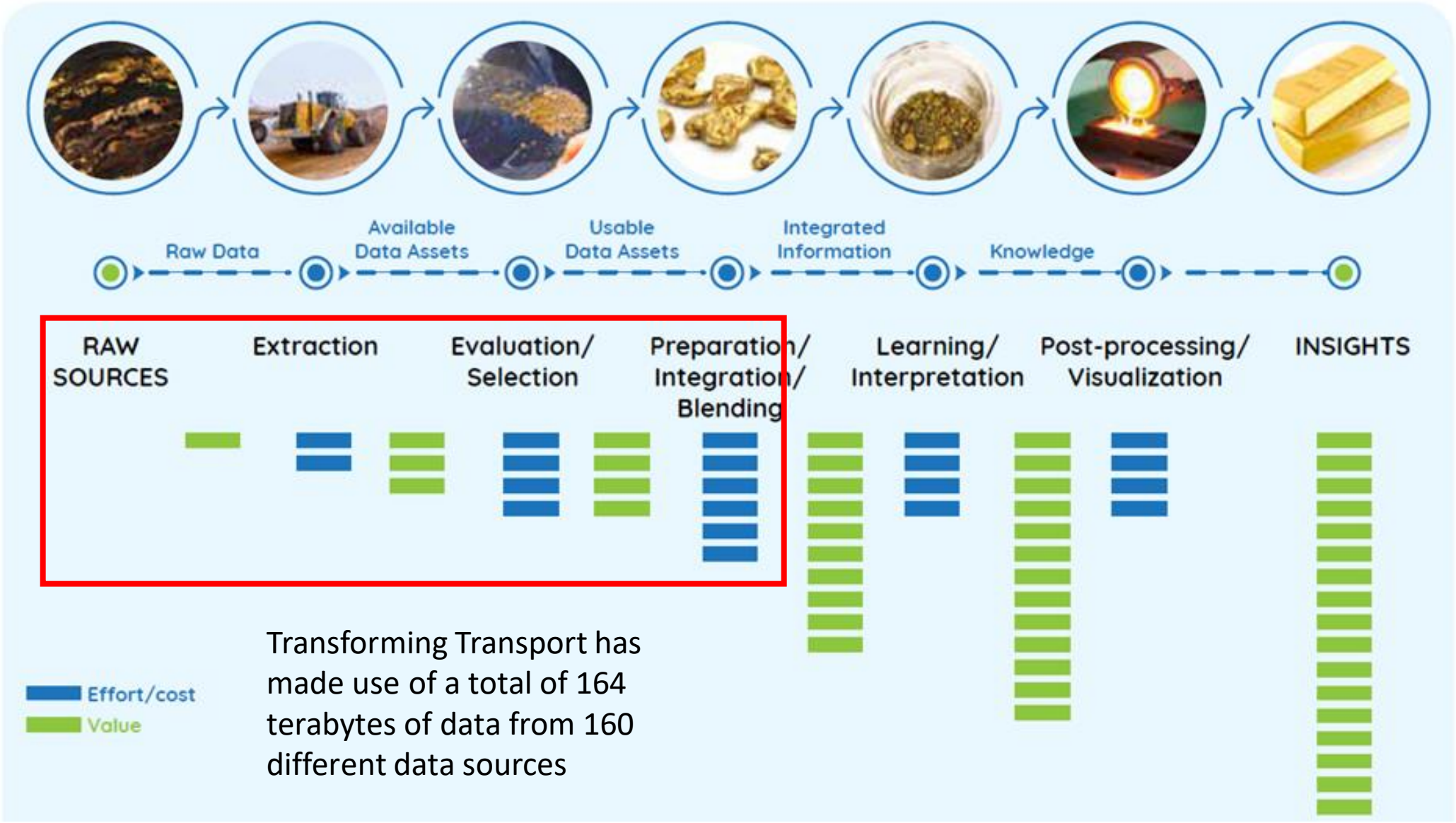
Distributed and Decentralised Data Ecosystems



Key Barrier: Interoperability – Protocols and **Semantics**

TRANSFORMING
TRANSPORT

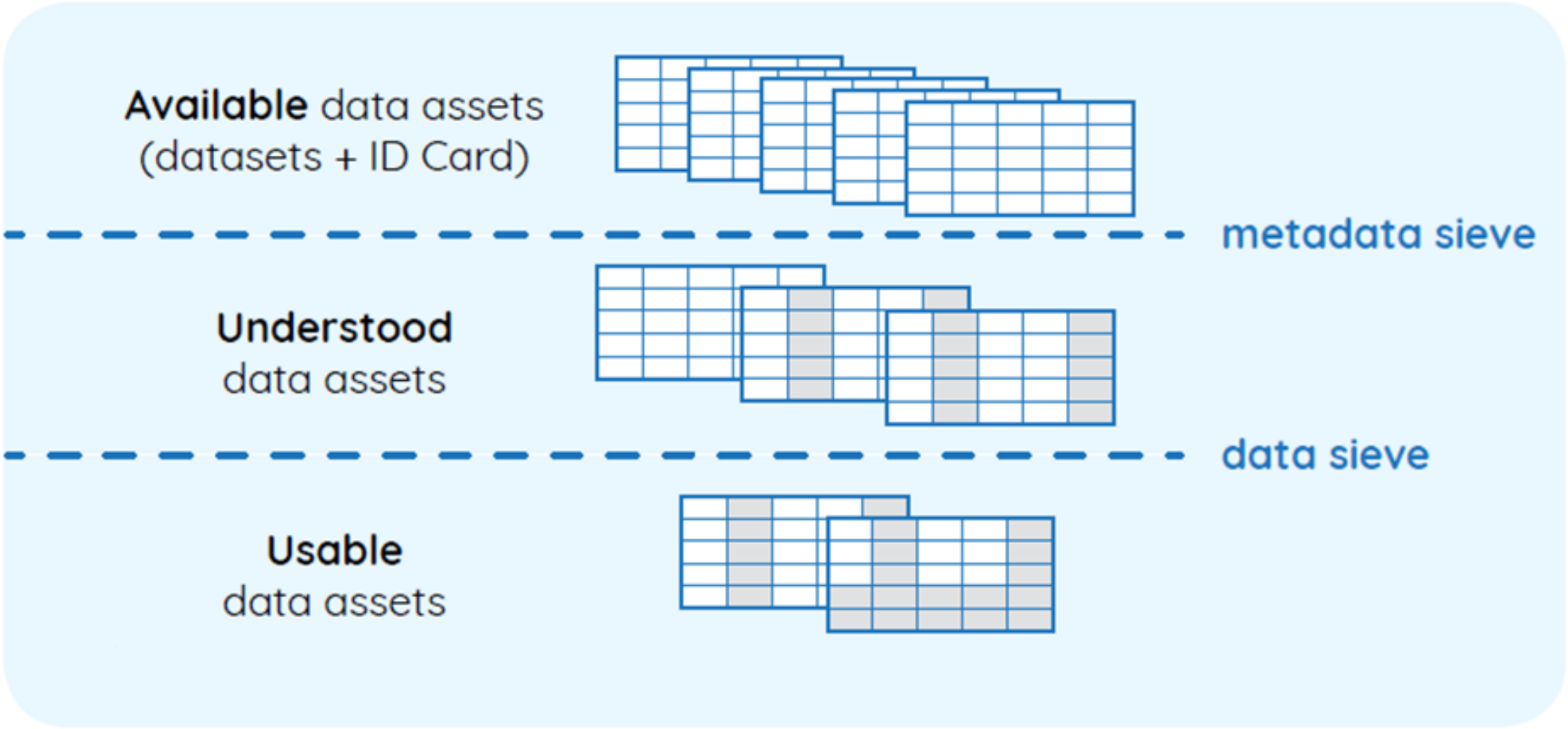
The “gold mining” metaphor applied to data processing



Transforming Transport has made use of a total of 164 terabytes of data from 160 different data sources

Maturity stages of data assets and related “sieves”

TRANSFORMING TRANSPORT



Insight

SFI RESEARCH CENTRE FOR DATA ANALYTICS

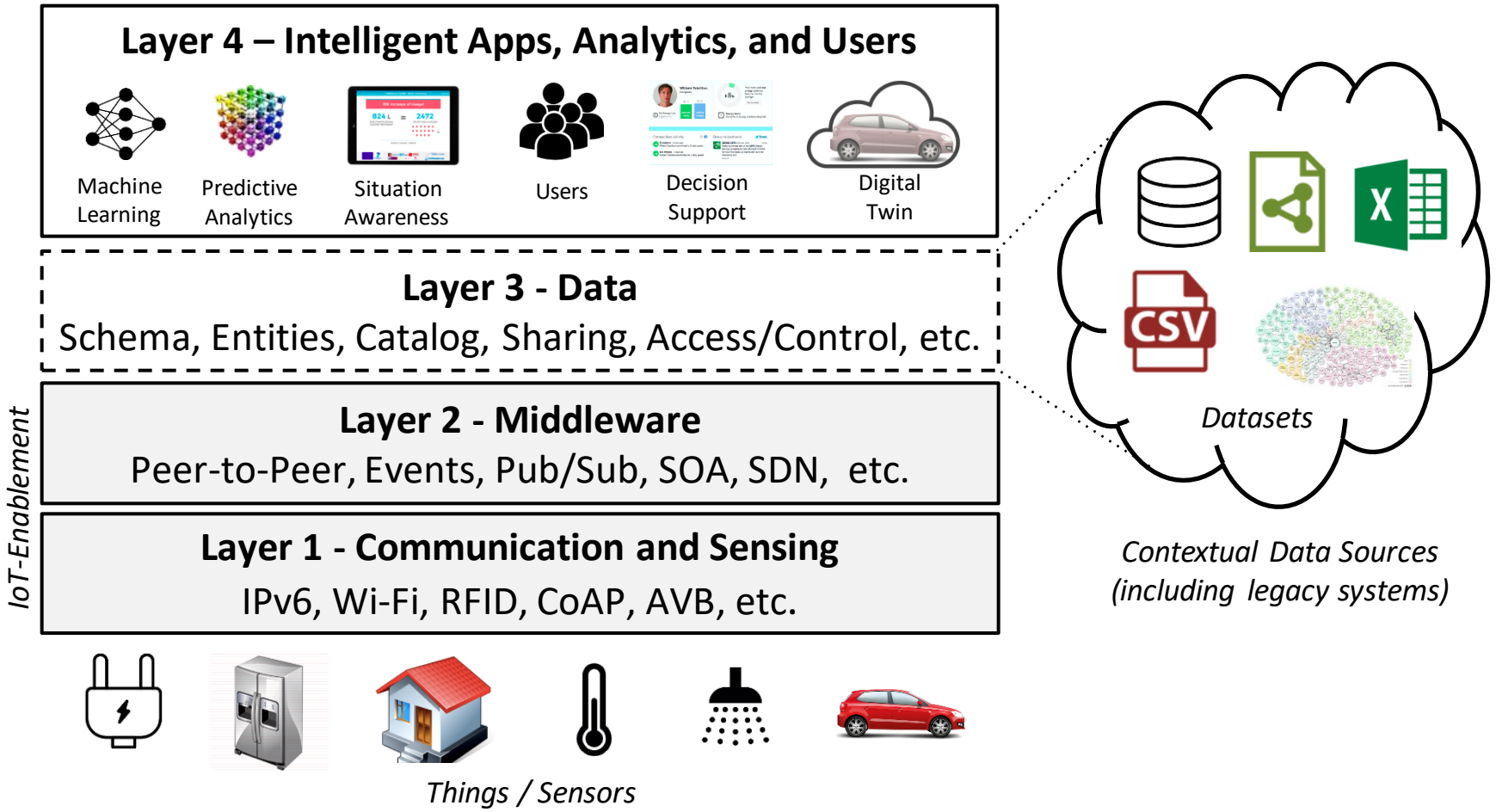
Data Platforms will Fuel AI-Driven Decision-Making

Data Generation and Analysis (including IoT)

Data Platforms (Access and Portability)

AI and Decision Platforms

A Data Sharing Layer is needed….



Adapted from: L. Atzori, A. Iera, and G. Morabito, "The Internet of Things: A survey," *Comput. Networks*, vol. 54, no. 15, pp. 2787–2805, Oct. 2010.

What is a Data Sharing Space

Emerging ***Data Ecosystems*** rely on three complementary technologies:

- ***Data Spaces:*** Data storage, lifecycle management platforms and protocols
  - networked industrial and/or personal data spaces
- ***Data Platforms:*** Next generation data acquisition and processing platforms
- ***Data Marketplaces:*** Data sharing and exchange platforms where data is commercialized using Open Data, Monetized Data and Trusted Data sharing mechanisms.

Wide Angle Perspective……..

……..Different scales and orientations

- **Data platform for Aviation**
- **Across full Value Chain**
- **Large-scale**
- **Multi-sector**

WatErnomics

- **Dataspace for Water and Energy Management**
- **Localized**
- **Medium-scale**

Real-time Linked Dataspaces

Insight
SFI RESEARCH CENTRE FOR DATA ANALYTICS

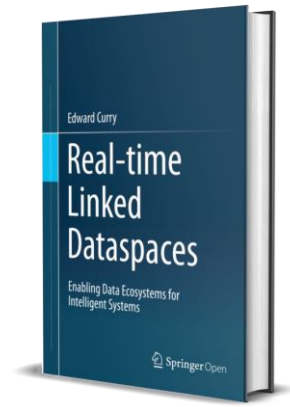
Enabling platform for data management for intelligent systems within smart environments

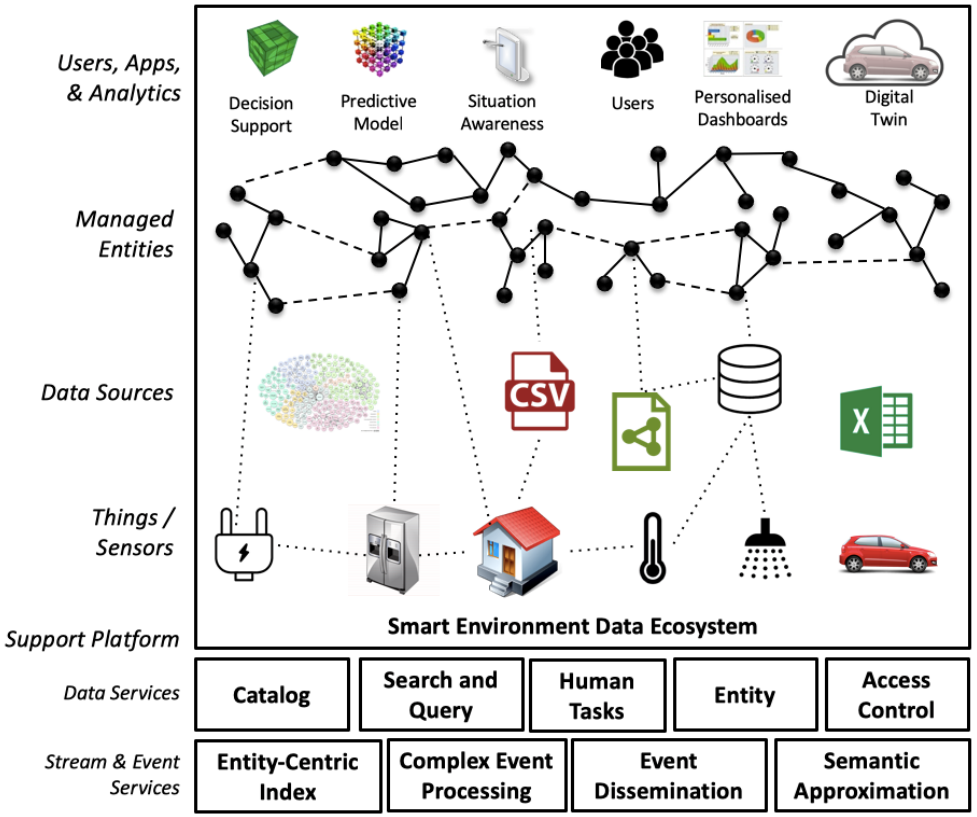
Combines the pay-as-you-go paradigm of dataspaces, linked data, and knowledge graphs with entity-centric real-time queries

Open Access Book (dataspaces.info)

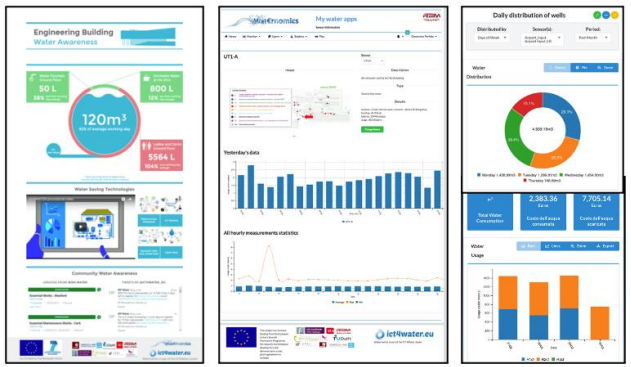
Contents

Part I: Fundamentals and Concepts
Part II: Data Support Services
Part III: Stream and Event Processing Services
Part IV: Intelligent Systems and Applications
Part V: Future Directions

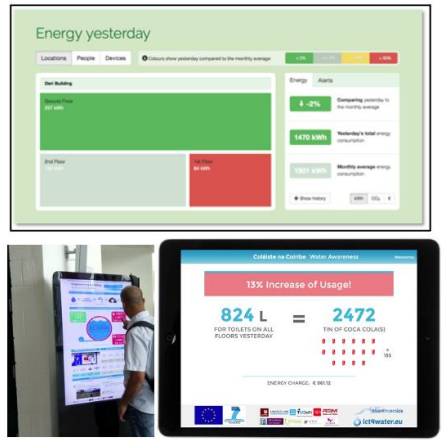




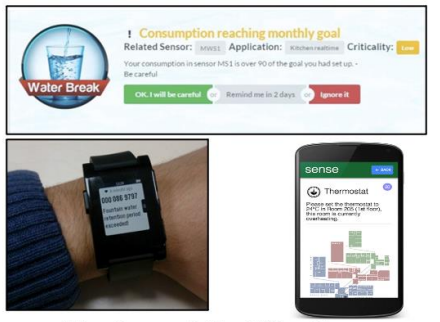
Real-Time Linked Dataspace



Personalised Dashboards



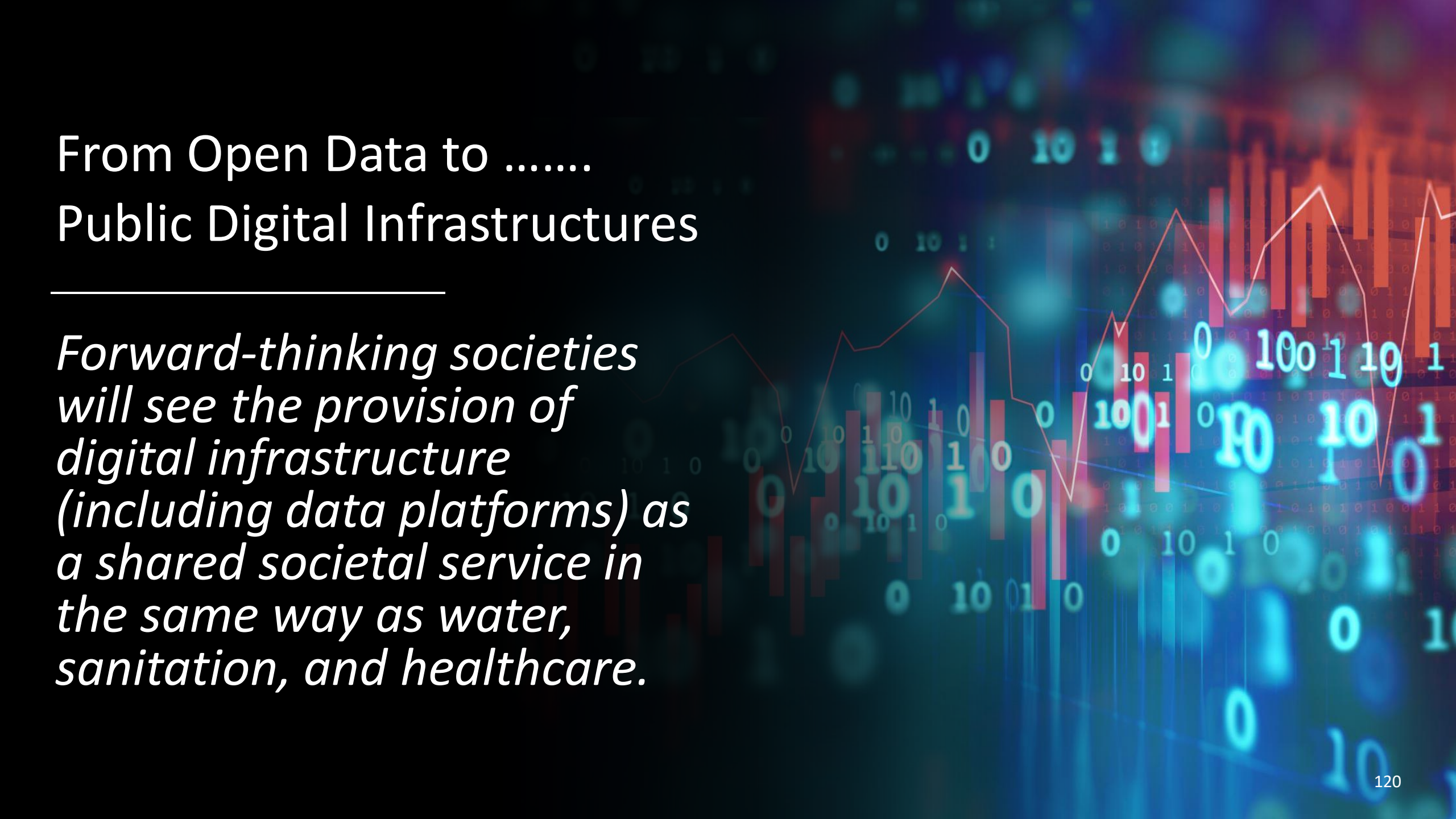
Interactive Public Displays



Alerts and Notifications

From Open Data to …….
Public Digital Infrastructures

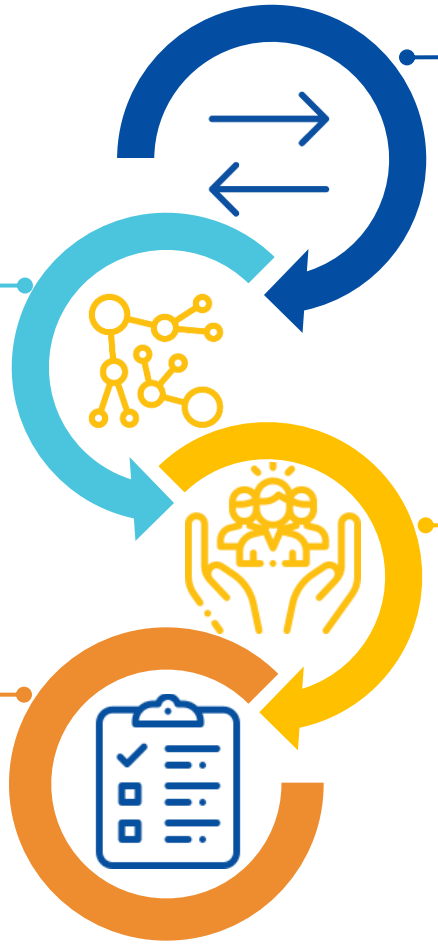
Forward-thinking societies will see the provision of digital infrastructure (including data platforms) as a shared societal service in the same way as water, sanitation, and healthcare.



A European strategy for data

European Strategy for Data

A common European data space, a single market for data



Data can flow within the EU and across sectors

Availability of high quality data to create and innovate

European rules and values are fully respected

Rules for access and use of data are fair, practical and clear & clear data governance mechanisms are in place

European Commission

Common European data spaces

Rich pool of data (varying degree of accessibility)

Free flow of data across sectors and countries

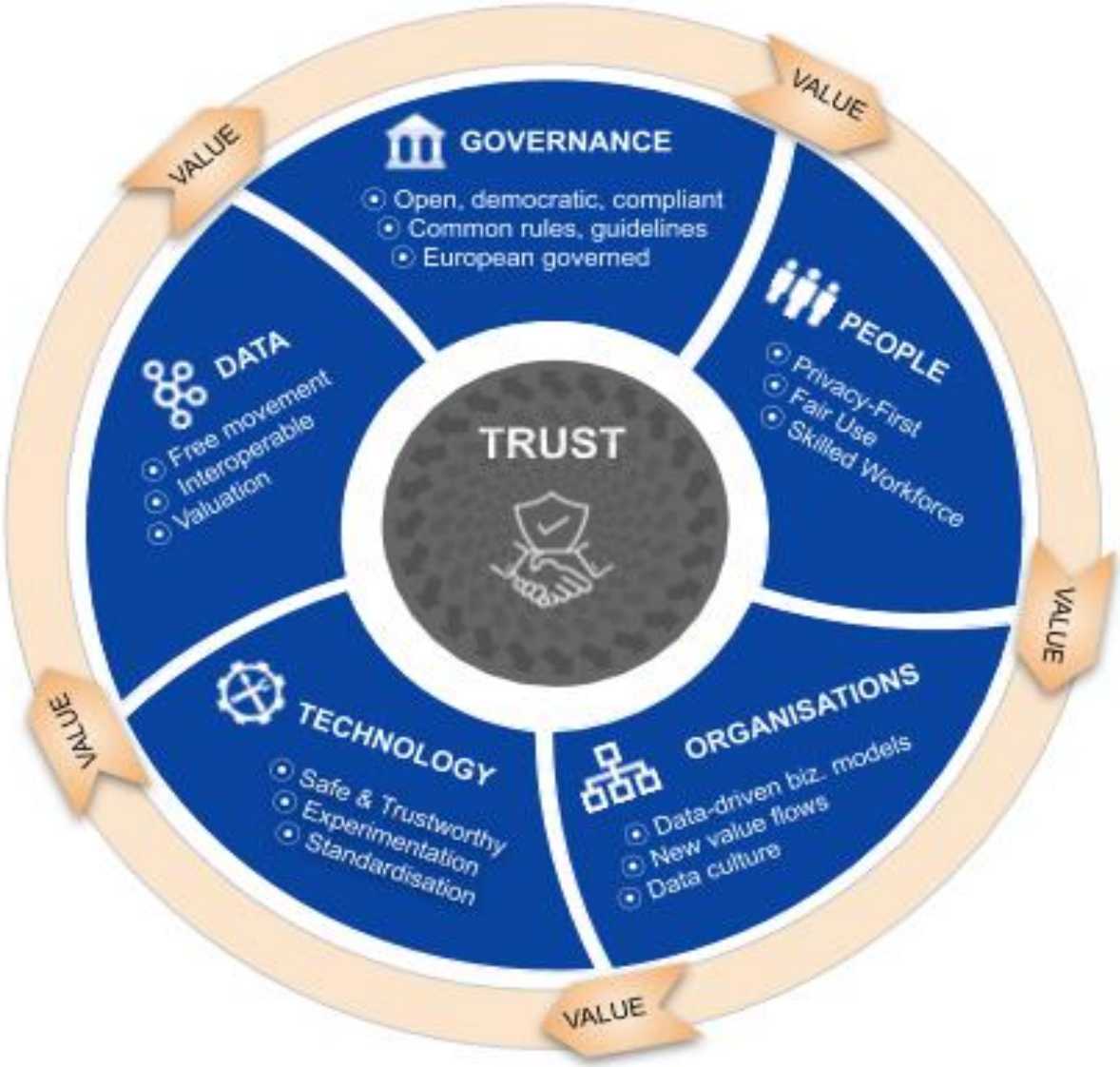
Full respect of GDPR

Horizontal framework for data governance and data access

- Technical tools for data pooling and sharing
- Standards & interoperability (technical, semantic)
- Sectoral Data Governance (contracts, licenses, access rights, usage rights)
- IT capacity, including cloud storage, processing and services

Towards a European-Governed Data Sharing Space

BDV BIG DATA VALUE ASSOCIATION

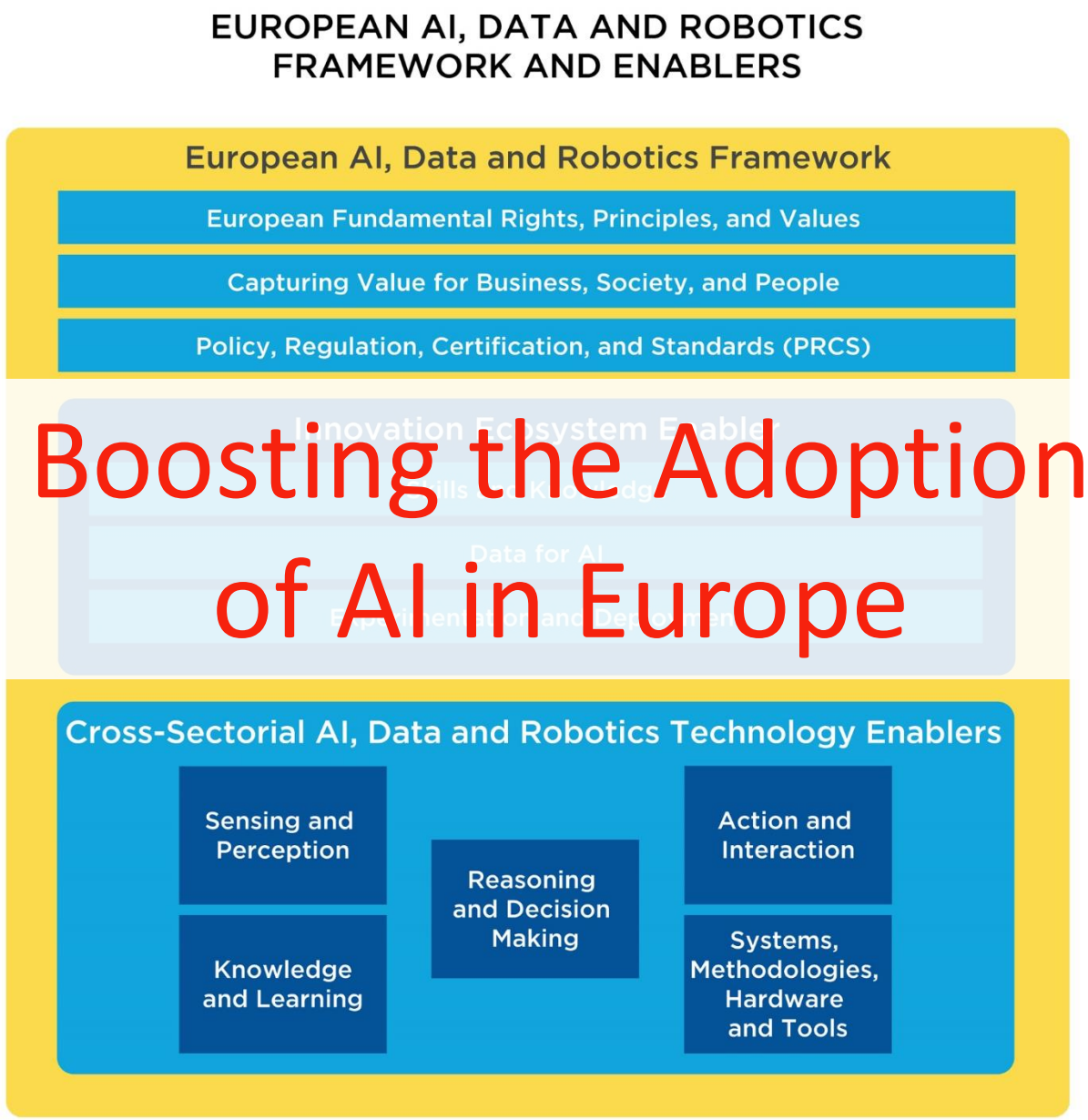


European Partnership on Artificial Intelligence, Data and Robotics

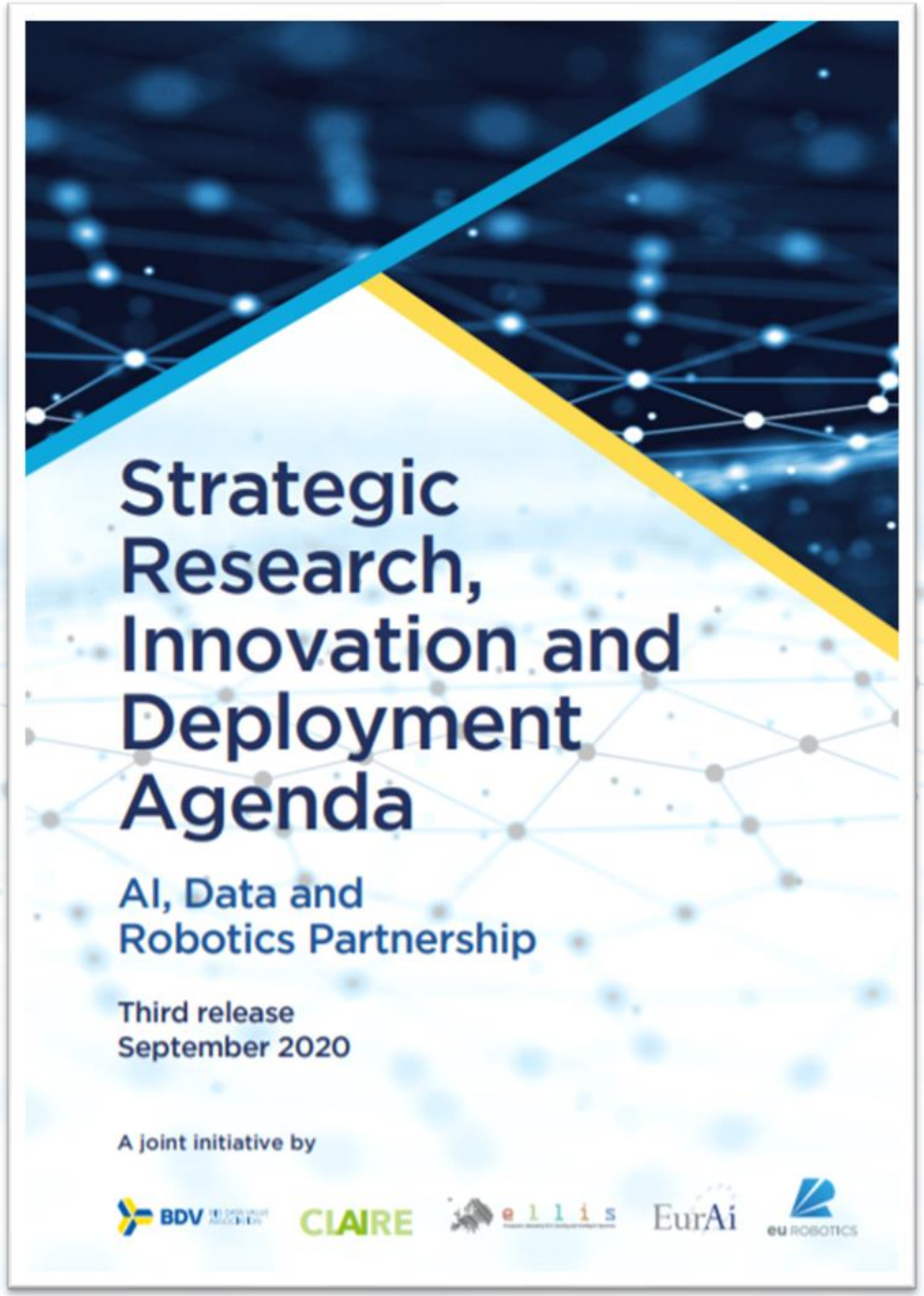
The Vision of the Partnership is to boost European competitiveness, societal wellbeing and environmental aspects to lead the world in researching, developing and deploying value-driven trustworthy AI, Data and Robotics based on fundamental European rights, principles and values.

A joint initiative by:

BDV BIG DATA VALUE ASSOCIATION CLAIRE ellis EurAi eu ROBOTICS European Commission



Boosting the Adoption of AI in Europe



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Dave Hanley

Principal Officer – Reform and Delivery Office (DPER)

Closing Remarks