What you should know about Gaia-X?

Antti 'Jogi' Poikola

Lead Architect
antti.poikola@sitra.fi
🐦 @apoikola

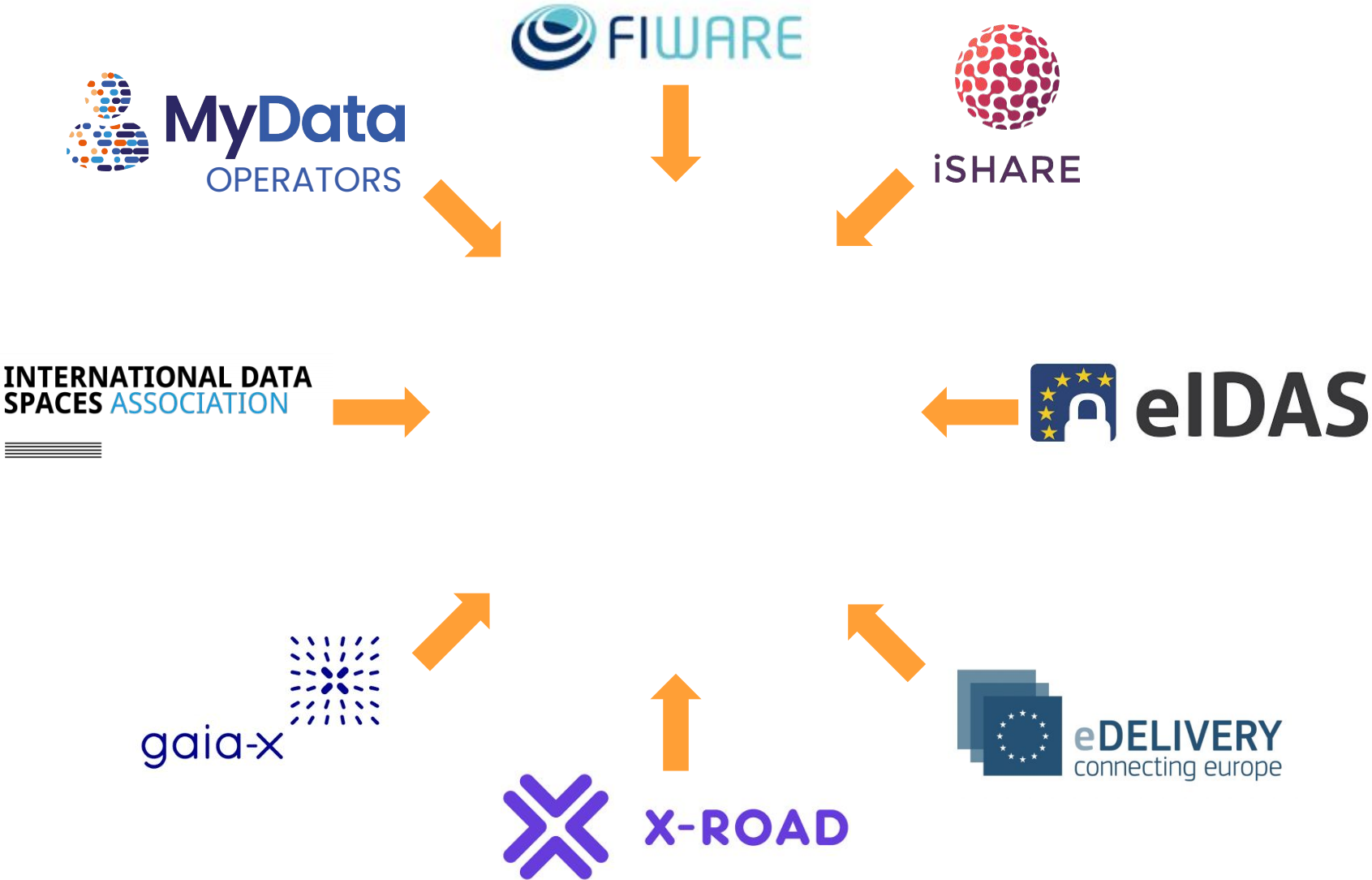**Slides:** https://bit.ly/gaiax-fds

SITRA

1 Landscape of Data Sharing Architectures

2 What Gaia-X is and does

3 Lighthouse projects / Structura-X

4 Gaia-X Finland hub

SITRA

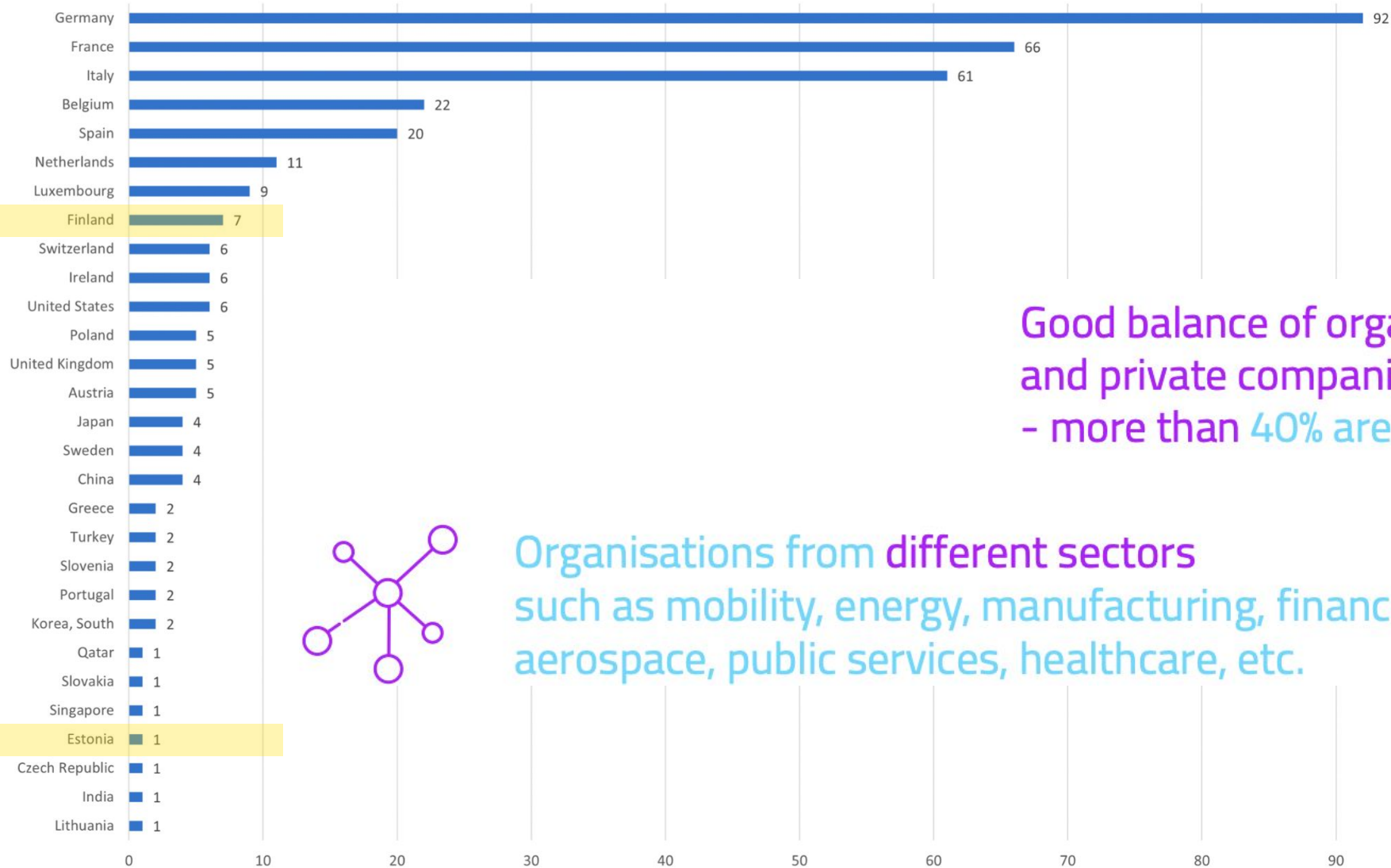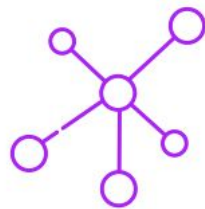# Landscape of Data Sharing Architectures

(some examples)

Gaia-X mission

Together we create an open, transparent, and secure federated digital ecosystem, where data and services respond to common rules and can be freely and securely built, collated, and shared.

355 Gaia-X members

Country	Members
Germany	92
France	66
Italy	61
Belgium	22
Spain	20
Netherlands	11
Luxembourg	9
Finland	7
Switzerland	6
Ireland	6
United States	6
Poland	5
United Kingdom	5
Austria	5
Japan	4
Sweden	4
China	4
Greece	2
Turkey	2
Slovenia	2
Portugal	2
Korea, South	2
Qatar	1
Slovakia	1
Singapore	1
Estonia	1
Czech Republic	1
India	1
Lithuania	1

Good balance of organisations and private companies – more than 40% are SMEs

Organisations from different sectors such as mobility, energy, manufacturing, finance, agriculture, aerospace, public services, healthcare, etc.

SITRA

What Gaia-X is?

Gaia-X is
> A single point of definition of Gaia-X architecture & rules
> Making available an open implementation to all
> A qualification authority for Gaia-X compliance

Gaia-X is NOT
> A formal standardization body
> A SW or HW product or cloud platform
> A runtime implementation of any Gaia-X service

Gaia-X vs. Association
> Gaia-X project is driven by the Association
> Gaia-X architecture is developed by the Association members
> Gaia-X services will not be operated by the Association

(*) AISBL is an independent single point of truth in the determination of a Gaia-X compliancy, but the Association itself will not host or run directly any service. Qualification and compliance will be verified through decentralized mechanisms of digital trust and consensus distributed across the network of Gaia-X nodes (i.e. AISBL stands to Gaia-X like a Registrar to the Internet)

SITRA

What Gaia-X does?

Specify
> Architecture Document
> Trust Framework
> Policies and Rules, Label Framework Documents

Specs

Develop
> OSS framework for community work
> Reference implementation of Federation Services
> Reference implementation of self regulation Services

Code

Qualify
> Service qualification Process
> Service qualification Labelling
> Service qualification

Labels

SITRA

Our X-Model

Connecting Data & Infrastructure Ecosystems

gaia-x

Advanced Services

New (Cross-) Sector Innovations / Applications build from service composition.

Data Spaces / Federations

Interoperable & portable (Cross-) Sector data-sets and services.

Data Exchange

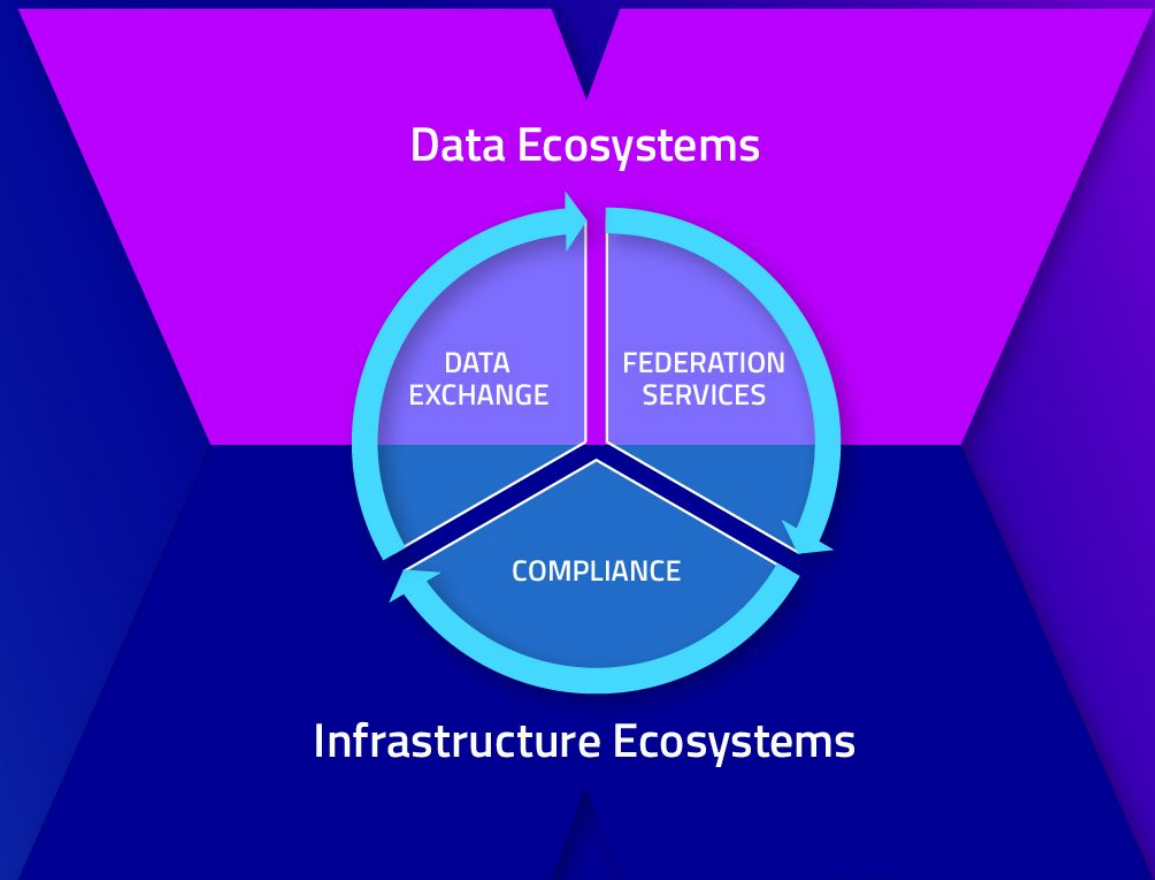Anchored contract rules for access and data usage. asdsadadads

Gaia-X Compliance

Decentralized services to enable objective and measurable trust.

Label framework

Gaia-X and ecosystem specific Labels to ease market adoption through autonomy and self-determination.

Data Ecosystems

DATA EXCHANGE

FEDERATION SERVICES

COMPLIANCE

Infrastructure Ecosystems

SITRA

Lighthouse Projects

Manufacturing, Industry 4.0
EuProGigant

EuProGigant: Austrian-German lighthouse research project "for calamity avoiding self-orchestration of value chain and learning ecosystems" working on central questions related to the smart and sovereign use of data in manufacturing.

Automotive Supply Chain
Catena-X

Catena-X: It is one of the first industrial lighthouse projects of Gaia-X. It aims to create a secure and standardised data-based ecosystem for businesses ranging from OEMs, 1st Tier and to small & medium enterprises in the entire automotive value-chain.

Agriculture
Agdatahub

AGDATAHUB: A European operator of consent and data exchange platforms, this lighthouse project has joined forces with Gaia-X to create value in agricultural chains by mobilising data intelligence for healthy, traceable, and environmentally friendly food and technical advice tools to farmers.

Electronics Supply Chain
SCSN

Smart Connected Supplier Network (SCSN): It is an open data lighthouse ecosystem along the lines of Gaia-X that enables data sharing in a manufacturing environment, resulting in fast, safe, secure, and efficient data exchange within the high-tech supply chain.

Mobility
Mobility Data Space
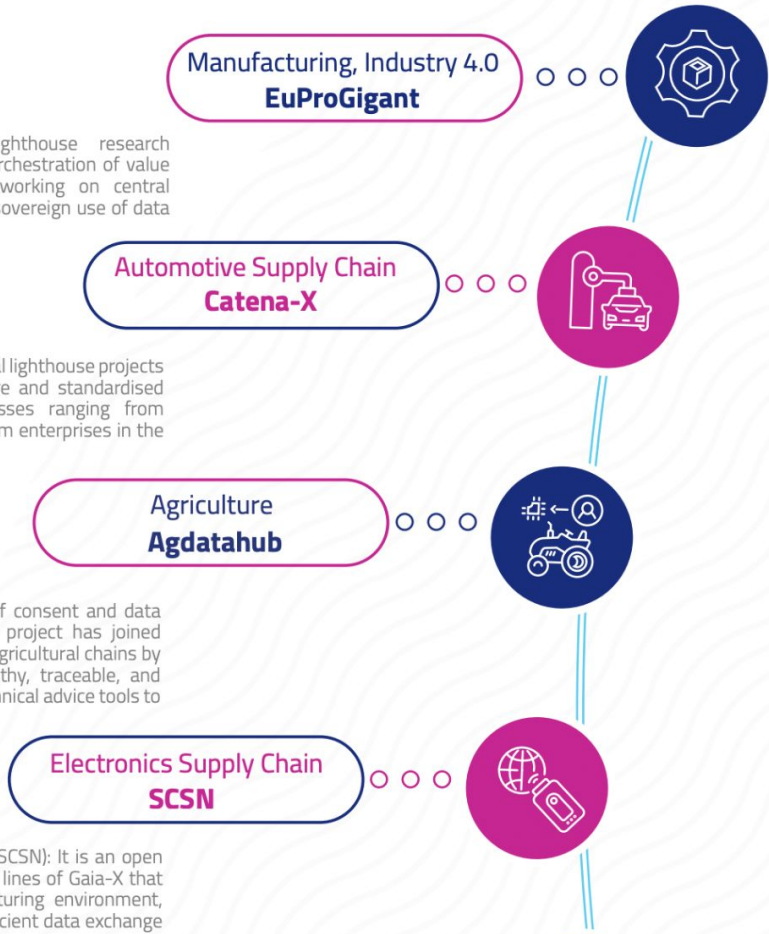
Mobility Data Space (MDS): The lighthouse project focuses on the sovereign data exchange in the mobility sector, offering an ecosystem for everyone working on innovative, environmentally sustainable, and user-friendly mobility solutions. By facilitating Gaia-X compliant data exchange, the Mobility Data Space enables its members to participate in the data economy on equal and fair terms based on shared European values.

Cloud Services
Structura-X

Structura-X: A lighthouse project for European cloud infrastructure endeavours to enable existing Cloud Service and Infrastructure Providers (CSP) data and infrastructure services to be Gaia-X certifiable.

Mobility, Transport & Tourism
EONA-X

EONA-X: provides a trusted environment to unlock data sets and foster mobility, transport and tourism use cases. A primary focus is the optimisation of multimodal trips to contribute to achieving the zero emission target defined by the EU Mobility Strategy. *A powerful demonstrator was delivered based on real time data coming from real production systems of airline and rail industry*
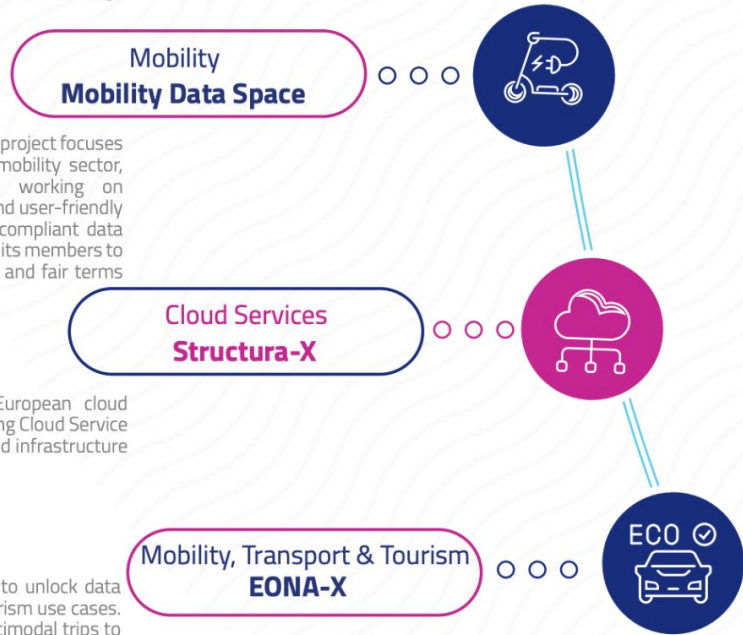
https://gaia-x.eu/who-we-are/lighthouse-projects

SITRA

A lighthouse project for European cloud infrastructure endeavours to enable existing Cloud Service and Infrastructure Providers (CSP) data and infrastructure services to be Gaia-X certifiable.

Structura-X
connected data

infrastructure

SITRA

Gaia-X Finland Hub

Goal: Finland based lighthouse data spaces

1 **Working Groups**

2 **Funding**

3 **Connection to EU level**

SITRA

Working Groups

Health

Circular economy
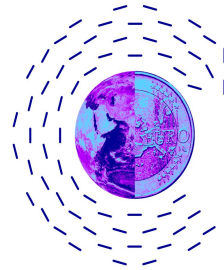
Mobility
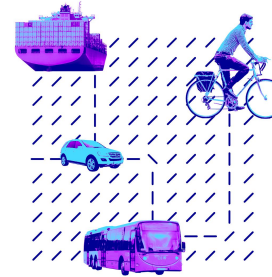
Agriculture
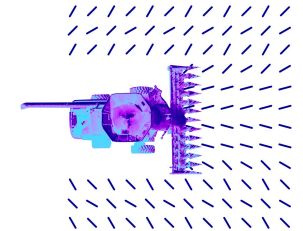
Geo-information

Industry data
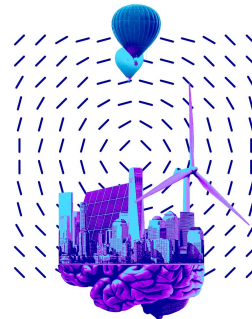
Skills data

Smart cities

SITRA

Funding

Need a boost?

Gaia-X Finland funding call!

SITRA

Thanks!!

Antti 'Jogi' Poikola

Lead Architect
antti.poikola@sitra.fi
@apoikola

Slides: https://bit.ly/gaiax-fds

SITRA