Personalizing education through human-centric data sharing

Personalizing education

Value

- Adapting pedagogy to each person's needs and situation
- Detecting when somebody is going to drop out
- Personalizing guidance according to people's habilities
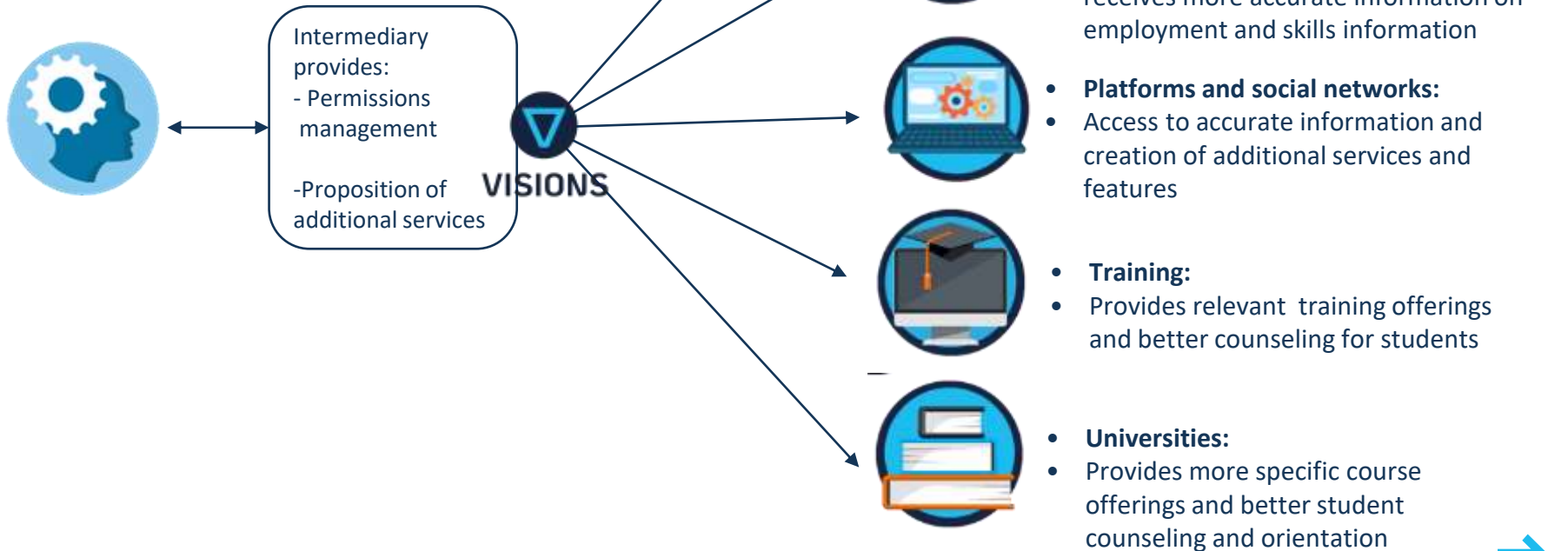- Proposing the right training at the right time in a lifelong learning perspective

Needs

- Lots of data about people
- Trustworthy AI
- Data sharing infrastructure
- Human centric data management

Challenges

- Accessing data
- Governance
- Interoperability
- UX
- Business models

Skills data ecosystem

Intermediary provides:
- Permissions management

-Proposition of additional services

VISIONS

- **Employer :**
- More relevant offers and sources skills information to best match candidates

- **Regional governments & affiliated organizations:**
- More appropriate funding and grants and receives more accurate information on employment and skills information

- **Platforms and social networks:**
- Access to accurate information and creation of additional services and features

- **Training:**
- Provides relevant training offerings and better counseling for students

- **Universities:**
- Provides more specific course offerings and better student counseling and orientation

Prometheus-X : Community to build digital commons

Public actors and research

Higher ed and lifelong learning

EdTech and Cloud

Bilan d'Orientation : 4 edtechs interconnectées

ORIENTOi

Découverte de contexte professionnel

Une plateforme numérique d'identification des talents par le jeu et de découverte des contextes professionnels adaptés à la personnalité de l'utilisateur.

JOBREADY

Détermination des soft skills

Grâce à un chatbot interactive et l'intelligence artificielle JobReady génère une série de compétences douces (soft skills) que la personne a acquises.

LyLi
RÉSEAU LYCÉE-LICENCE

INOKUFU

Les contenus éducatifs ciblés

Une plateforme qui permet aux utilisateurs de recevoir du contenu éducatif (mooc, contenu pédagogique, videos)

cozy.io

Stockage dans un espace sécurisé de données

Une plateforme permettant le stockage des données sécurisé dans Cozy.io, donnant à la personne la possibilité de visualiser, gérer et envoyer ses données vers un conseiller
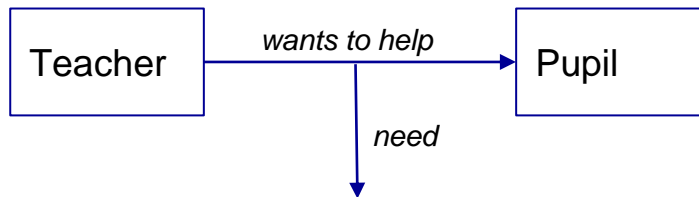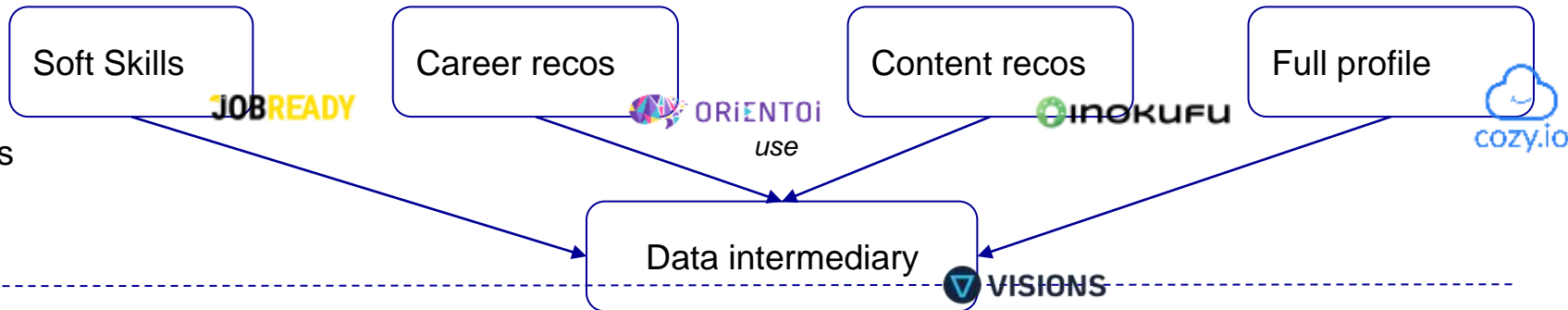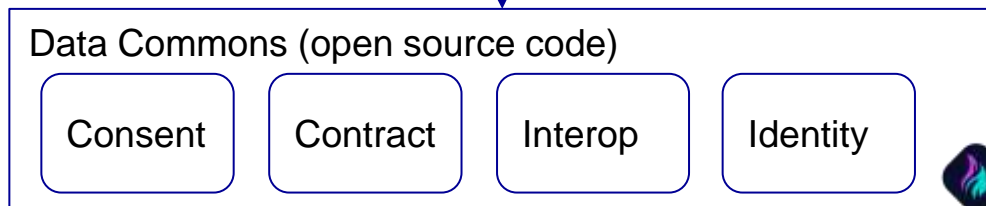
Demo

Use case

Users

Teacher → *wants to help* → Pupil

need

Data & Services

Soft Skills

Career recos

Content recos

Full profile

use

Data intermediary

Infrastructure

use

Data Commons (open source code)

Consent | Contract | Interop | Identity

2018

Silos, winner takes all & privacy issues

Privacy regulation global landmark
(GDPR, portability, rights)

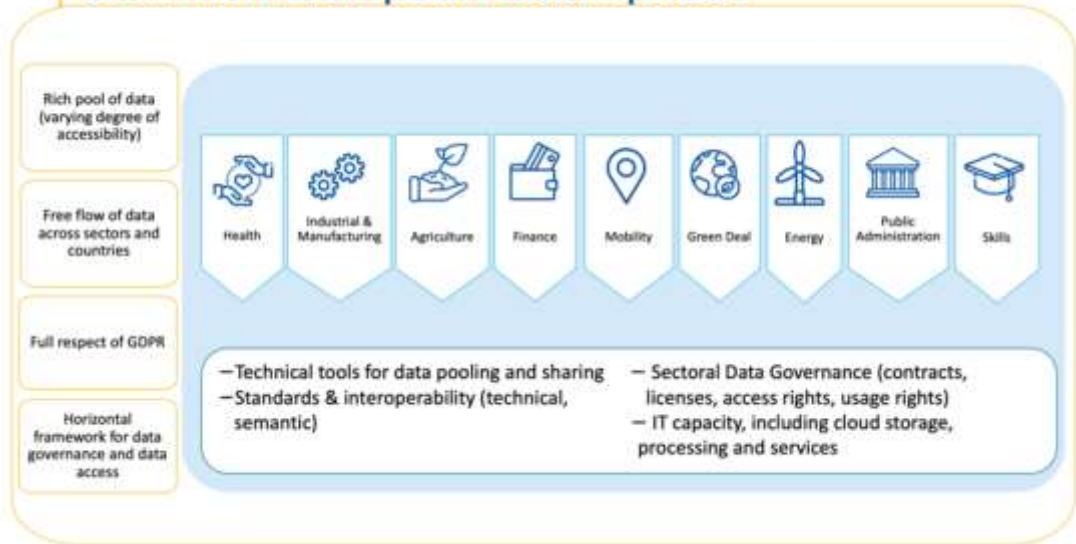**Data-sharing as a cornerstone**
(DGA, DSA, DMA, DA)

Data Spaces Standardization
(Data Spaces projects)

2022

*' Today we are defining a truly European approach to data-sharing. Europe needs **an open but sovereign single market for data**. Our regulation, coupled with the right investments and key infrastructure, will help Europe lead the world in data. '* Thierry Breton – EU Commissioner for Internal Market
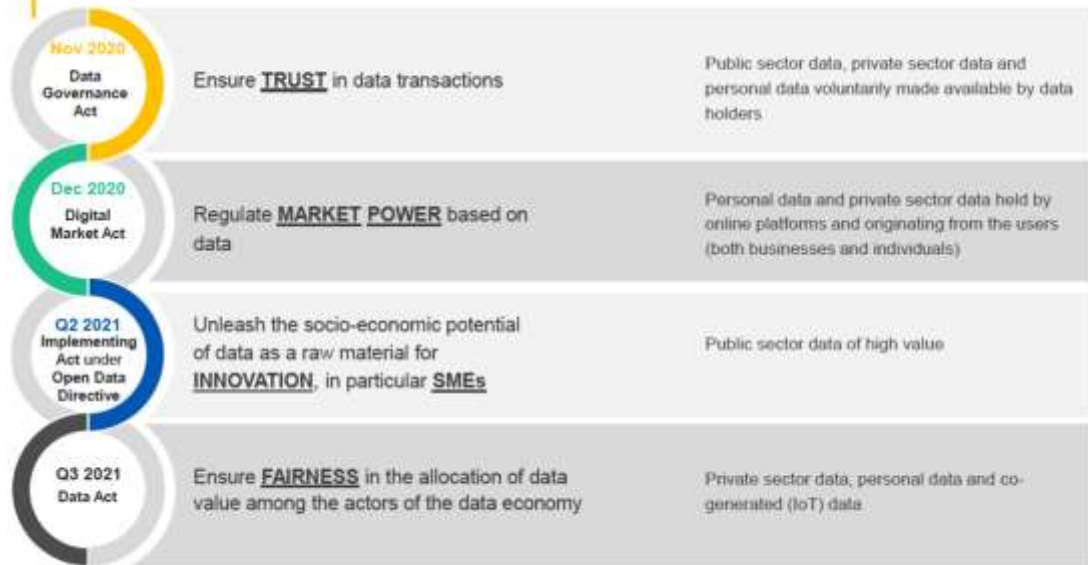

Common European data spaces

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

Health | Industrial & Manufacturing | Agriculture | Finance | Mobility | Green Deal | Energy | Public Administration | Skills

— 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

+10 B€ EU Investment
350 B€ Global Market Size

7

4 legislation pieces
- **Data Governance Act (DGA):** Trust in Data Sharing
- **Digital Markets Act (DMA):** Regulate the global platforms
- **Digital Services Act (DSA):** unleash public data to create value
- **Data Act (DA):** Level-Playing field in the Data Market

European Strategy for Data: 4 key instruments

Nov 2020 Data Governance Act	Ensure **TRUST** in data transactions		Public sector data, private sector data and personal data voluntarily made available by data holders
Dec 2020 Digital Market Act	Regulate **MARKET POWER** based on data		Personal data and private sector data held by online platforms and originating from the users (both businesses and individuals)
Q2 2021 Implementing Act under Open Data Directive	Unleash the socio-economic potential of data as a raw material for **INNOVATION**, in particular **SMEs**		Public sector data of high value
Q3 2021 Data Act	Ensure **FAIRNESS** in the allocation of data value among the actors of the data economy		Private sector data; personal data and co-generated (IoT) data

European Commission

EUROPEAN DATA GOVERNANCE

A NEW APPROACH FOR THE DIGITAL DECADE

November 2020

Setting up a new European way of data governance will facilitate data sharing across sectors and Member States. It will create wealth for society, and provide control to citizens and trust to companies.

The economic value of data sharing

- Data access and reuse can generate social and economic benefits of 1% to 2.5% of GDP[1].
- The new measures could increase the annual economic value of data sharing by up to €7-11 billion by 2028[2].
- In addition, the new rules will have a wider impact on the EU economy and society as a whole.

€ 1.3 trillion
in increased productivity in manufacturing through Internet-of-Things data by 2027[3]

€ 120 billion
of savings per year in the EU health sector[4]

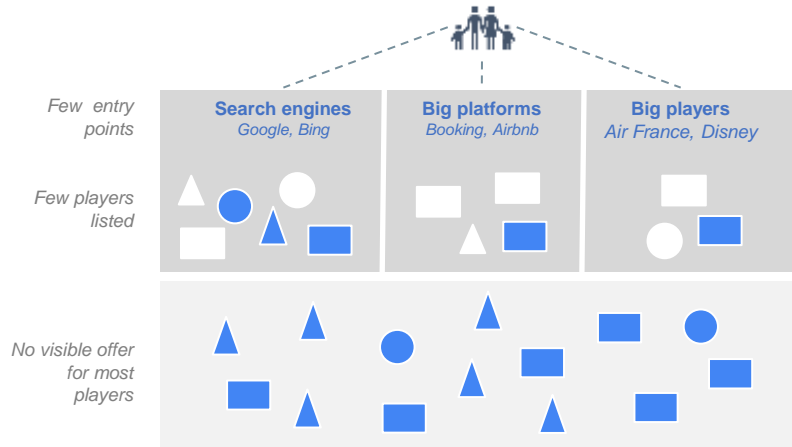### The EU will boost the development of trustworthy data-sharing systems:

- Empower Europeans to decide what happens to their data, and what data they would like to share with whom.
- Facilitate data altruism to make it easier and safer for companies and individuals to voluntarily make their data available for the benefit of society.
- Enhance the reuse of public sector data that cannot be made available as open data.
- Create new EU rules on neutrality to allow novel data intermediaries to function as trustworthy organisers of data sharing.
- Set up a European Data Innovation Board to steer data governance and prioritise standards.

[1] OECD (2019). Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies. OECD Publishing, Paris.
[2-3] European Commission (2020). Support Study to the Impact Assessment accompanying the proposal for a Regulation on European data governance, SMART 2019/0024, prepared by Deloitte.
[4] McKinsey (2020). Shaping the digital transformation in Europe.

DATA SPACES: A PARADIGM SHIFT

CENTRALIZED TODAY

Data is controlled by very few gatekeepers
deciding by themselves on data-sharing rules

Few entry points

Search engines
Google, Bing

Big platforms
Booking, Airbnb

Big players
Air France, Disney

Few players listed

No visible offer for most players

- **FEW ENTRY POINTS**
- **CENTRALIZED LISTING** WITH NO VISIBILITY FOR MOST PLAYERS
- **MONOPOLISTIC** VALUE CAPTURE
- **FRAGMENTED** USER-EXPERIENCE

- **LIMITED** PROFILES-BASED
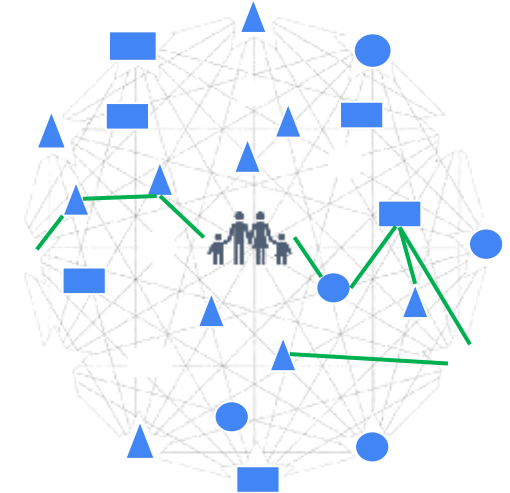
DECENTRALIZED TOMORROW

Data is shared P2P among digital services,
with individuals' consent and fair value redistribution

DATA SPACE

Incumbents, SMEs, Public organizations, etc

« An ecosystem of organizations willing to share personal and non personal data, in a decentralized manner, through mutualized governance & infrastructure. »

- **MULTIPLE (RE-)ENTRY POINTS**
- **DISTRIBUTED LISTING EFFORT** WITH ENHANCED VISIBILITY FOR ALL
- **FAIR VALUE REDISTRIBUTION**

- **END-TO-END SEAMLESS**

9

Next steps

- **Workshop organized in NYC**

Collaboration with INDIA :
- **DEPA**
- **EkStep**
- **Use case discussion**

Working groups

- Join us and let's discuss how to work together : let's find a powerful international data sharing project

Contact

- Matthias De Bièvre
- matthias@visionspol.eu