



Mobelizing Data to Create Data Markets

Irene Ng

CEO, Dataswift
Professor of Marketing and Service Systems
University of Warwick





The boundary between the physical and the digital is becoming fused



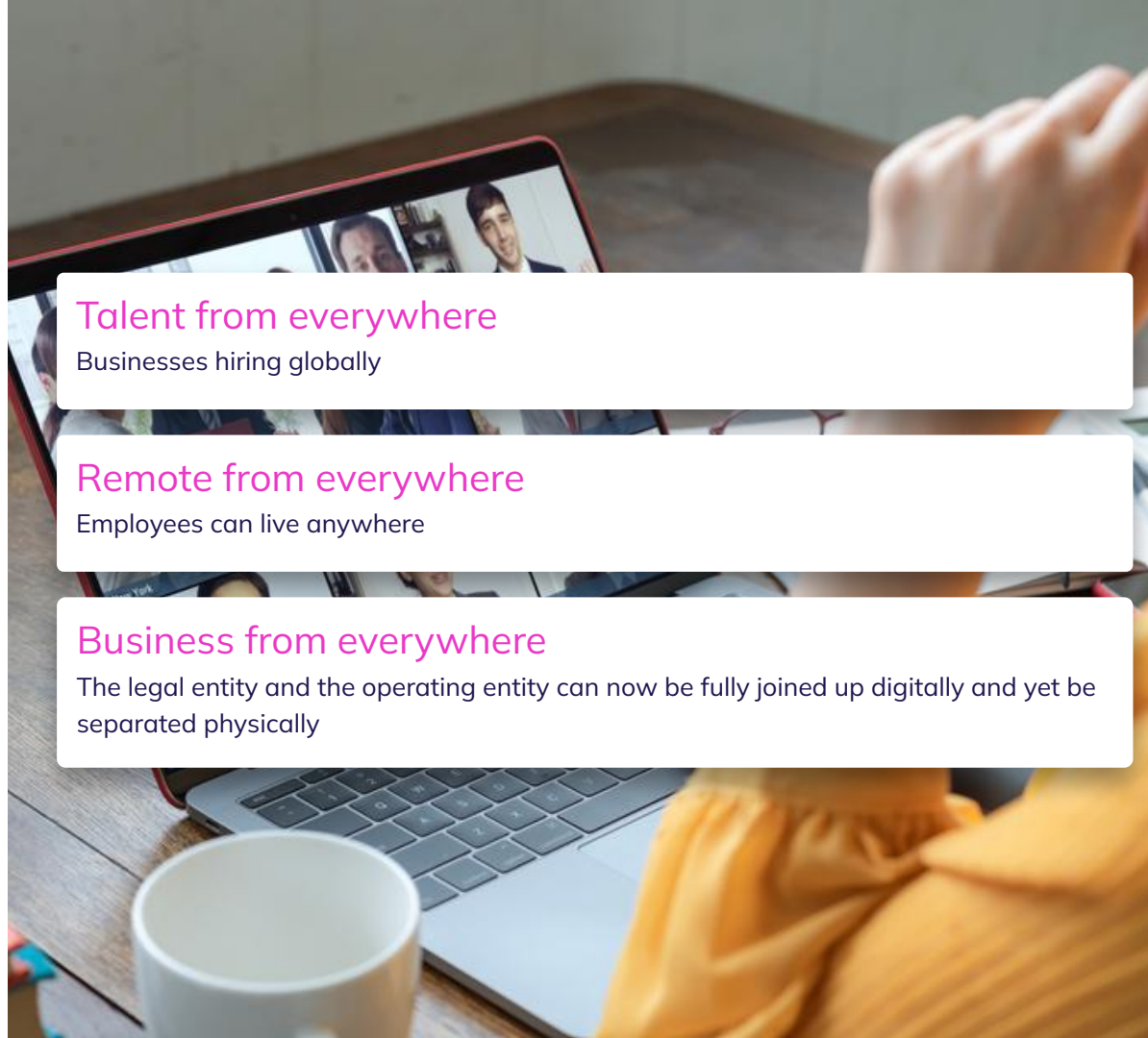


**Our health, our finances, our shopping,
our things - they are now fully digitised
and exist in the form of data.**

The way individuals and businesses work together is also changing

Inflation-adjusted wages are falling faster than they have in 40 years

95% of firms in the world are Micro, Small and Medium Enterprises (MSMEs) accounting for 70% of workforce



Talent from everywhere

Businesses hiring globally

Remote from everywhere

Employees can live anywhere

Business from everywhere

The legal entity and the operating entity can now be fully joined up digitally and yet be separated physically

Our data isn't just in one app, it's in all apps.



And that data is the essence of who we are.



**The Data Economy will be the
biggest economy**

\$11.7 tr

**...But we don't use our data the
way we use money**

**We keep our money
in bank accounts.**

We transact freely with whomever we choose.
Frictionless, instant transactions.

That's how we drive economic growth

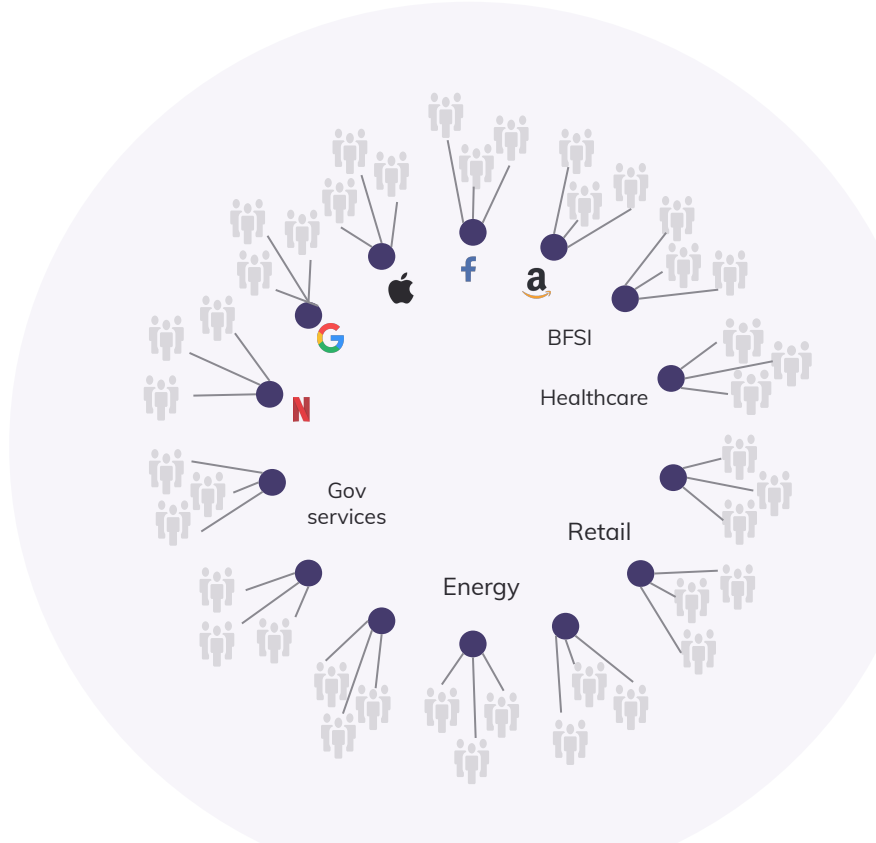


The current Data Economy isn't structured for sharing data

Data is siloed within centralized systems

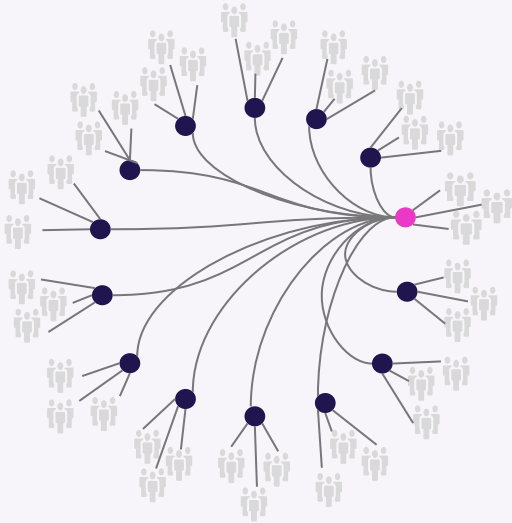


This is because the **legal title** to the data is tethered to the originator

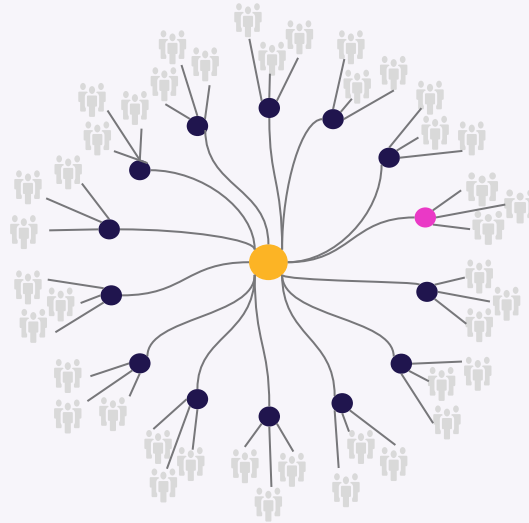


When the legal title resides with the originator, the modes of sharing data aren't scalable

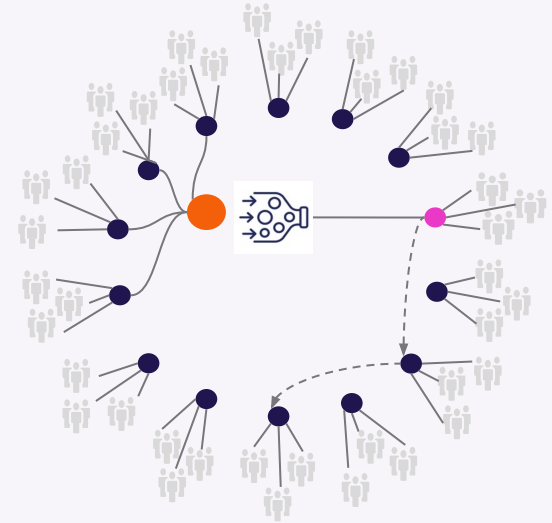
Bi-/Multi-lateral



Hub

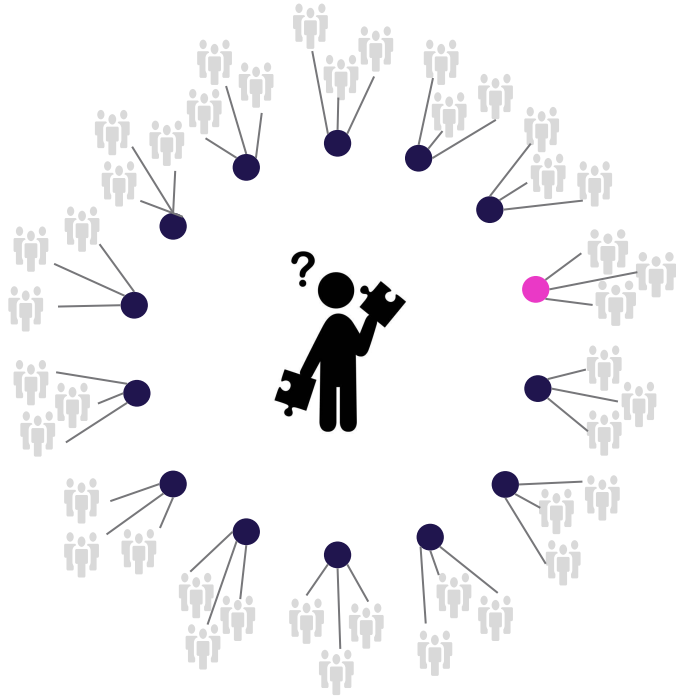


Intermediary



Either deal with **consent fatigue** and **bottlenecks** OR **pseudonymizing** data. All are not ideal.

What other ways are there?



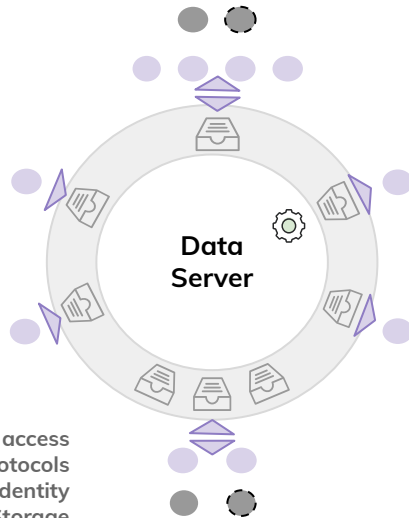
What if **any**
organization-held personal
data can be made into a
legal, fungible asset?

A new technology for decentralizing data and data titles (**re-homing***)

*Re-homing: Where data (or a copy of the data) is transferred to a **decentralized data server** by the data originator to the data subject together with the legal title to the data.

The decentralised data server database provide a data account “tenancy” for every app to rehome their data to the legal entity

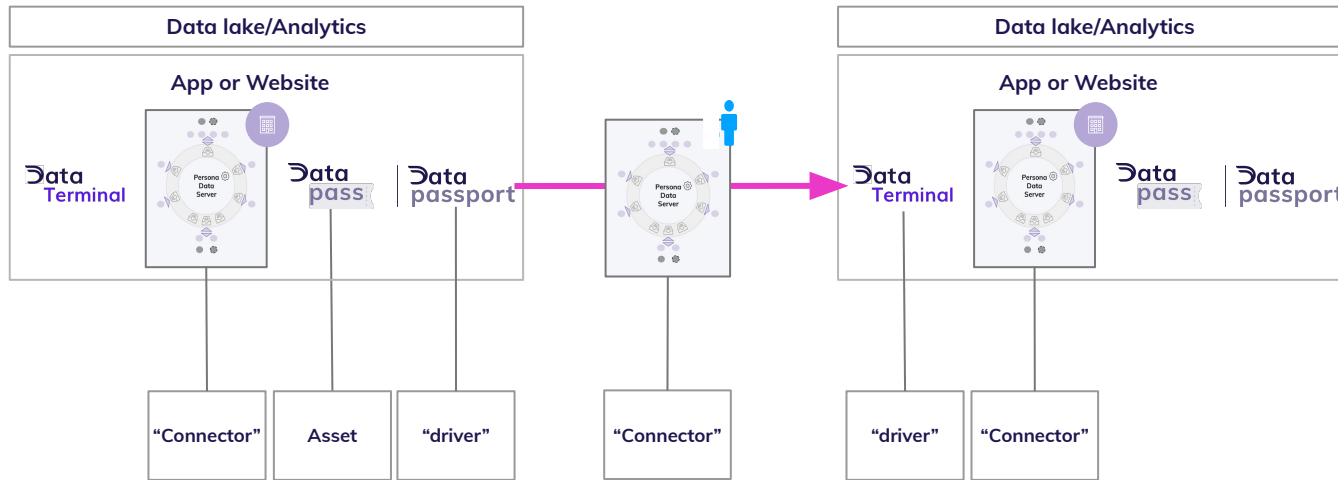
Not blockchain-based.



6 categories of access
10 protocols
Self sovereign identity
Storage
Edge computation

There are parallels in currency terms; individuals are not originators of a currency (you can't add another zero to your bank account balance) but we own title to the currency and can therefore transact on it.

Decentralized Data Servers enable data to become an asset to be mobilized



Rehomed data can be used to create a “Data Pass” - a legal, fungible and (non-forgable) data asset



Fully compliant data mobility between apps - including **personal identifiable information**

Credit
score

Allergies

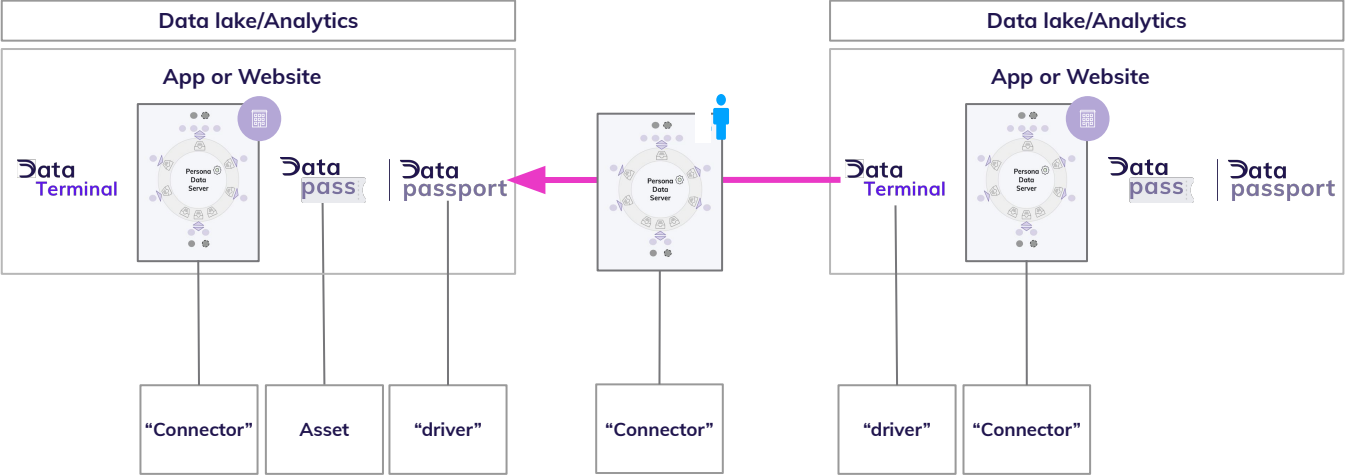
Location

KYC /
Identity

Verifiable
weight loss



Decentralized Data Servers enable discoverability



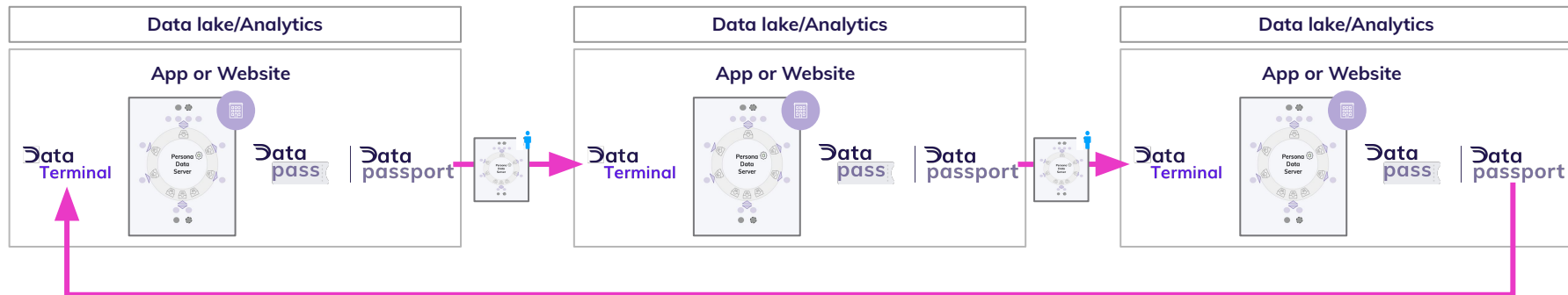
Where partners can discover, offer services and pay for data connections



**For use of data
assets to fuel
personalized
product and
services**



Decentralized Data Servers enable the creation of data pipelines



For scalable, real time, cross border data flows of any data (including PII), fully compliant to all data regulation



Enabling programmable **event based** actions across a data ecosystem

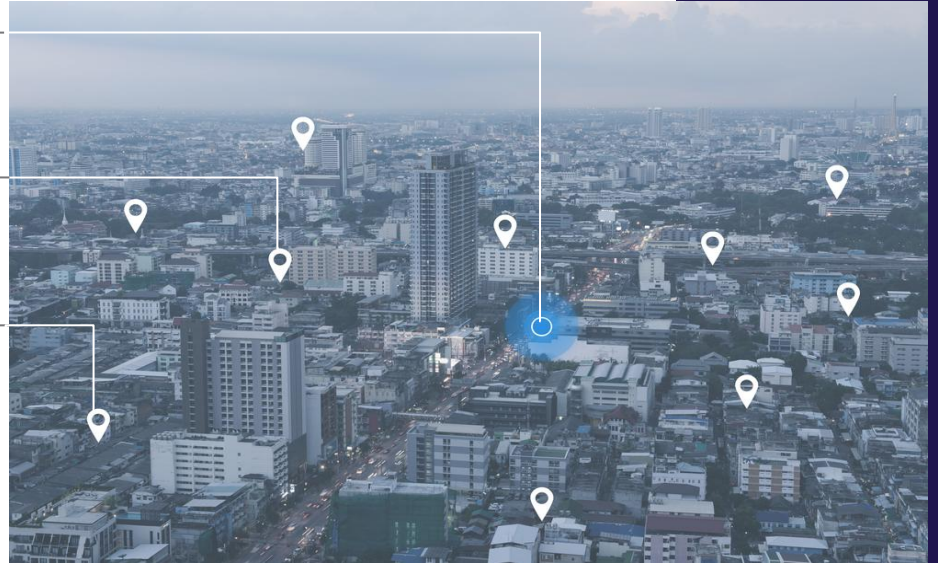
Where any event that changes data of an originator can trigger an action at a destination in real time

An event on your app (arrival in the city, increase in income or credit score)

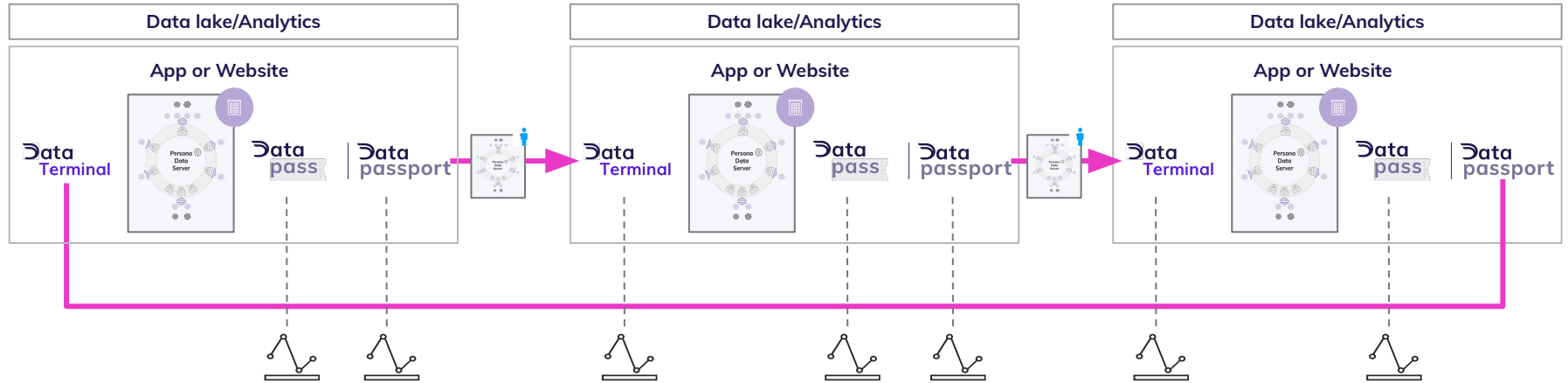
... triggers an update for your partner app

... and recommendations on another partner app

With full customer participation and privacy preservation



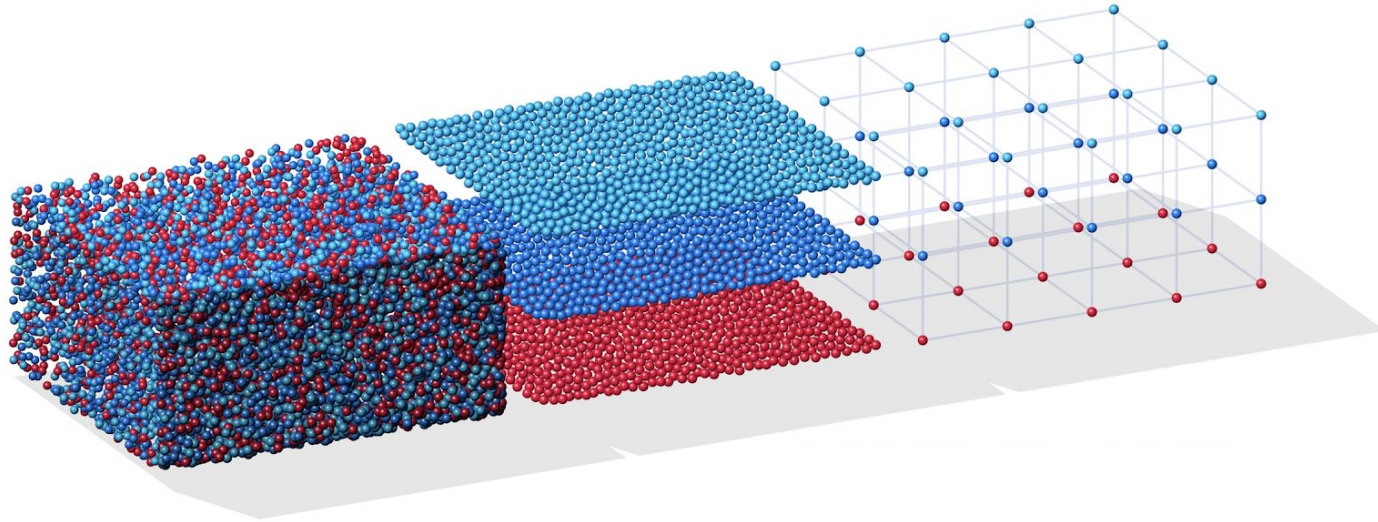
Decentralized Data Servers provide full visibility of asset journeys



Reach, Audience, Impression, Engagement, Transactions and Data Transfers,
fully privacy preserving



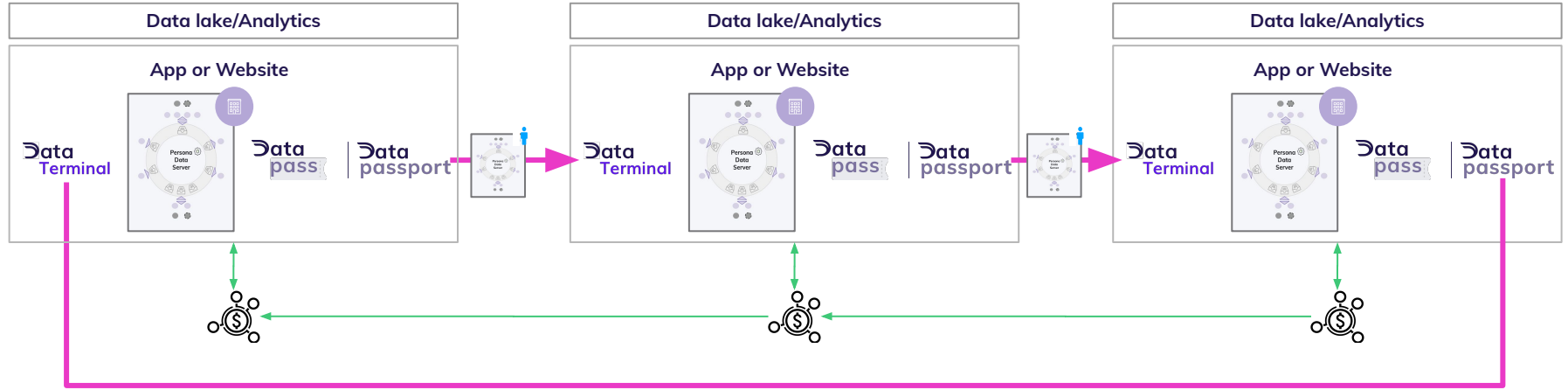
Emerging the demand for the **data asset**



...when they are matched with the offers



Decentralized Data Servers enable downstream income from the data asset



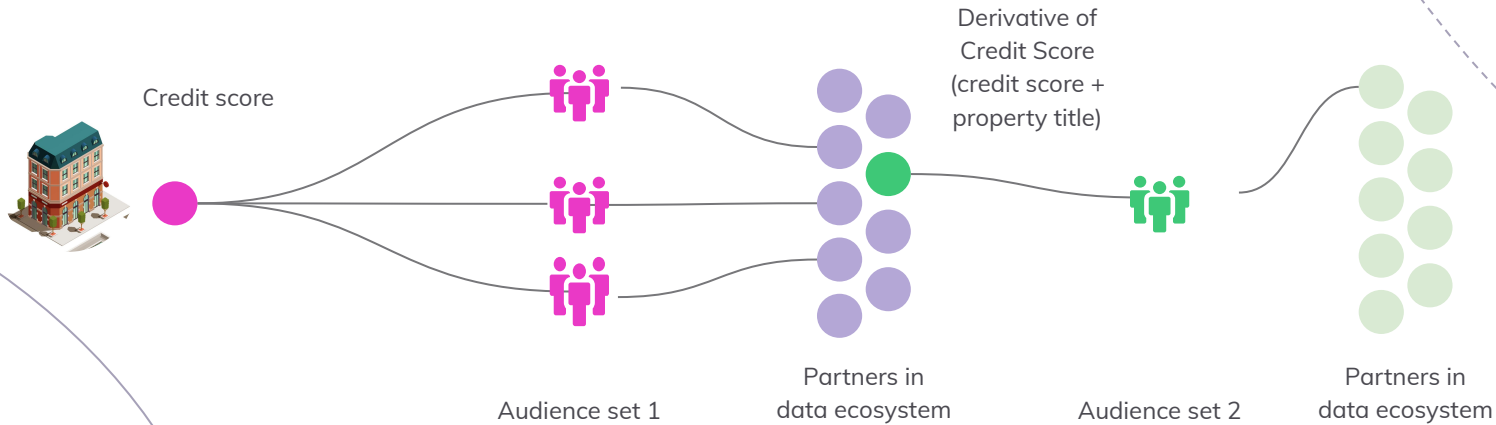
That are distributed back to data originators



Providing **Return of Investment** into Data Analytics, AI/ML and other data “spaces”/lakes



Decentralized Data Servers enable data to be **recombined**, creating new derivatives and increasing its usage and value



To create marketplaces for the data asset as well as **strong and resilient data ecosystems**



Nationwide
Weight loss



Provide credit
access to small
traders



Tourism
activity
tracking



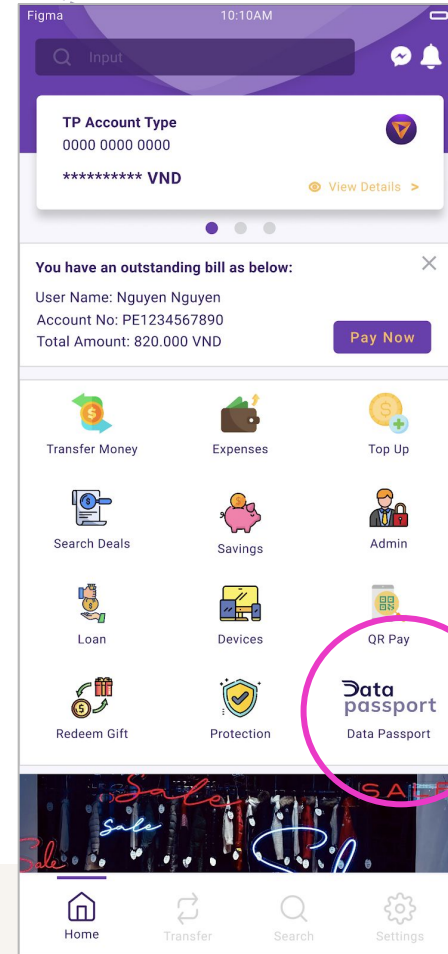
Receive
compensation and
land rights

Works with any
app, any system,
any technology
and any data

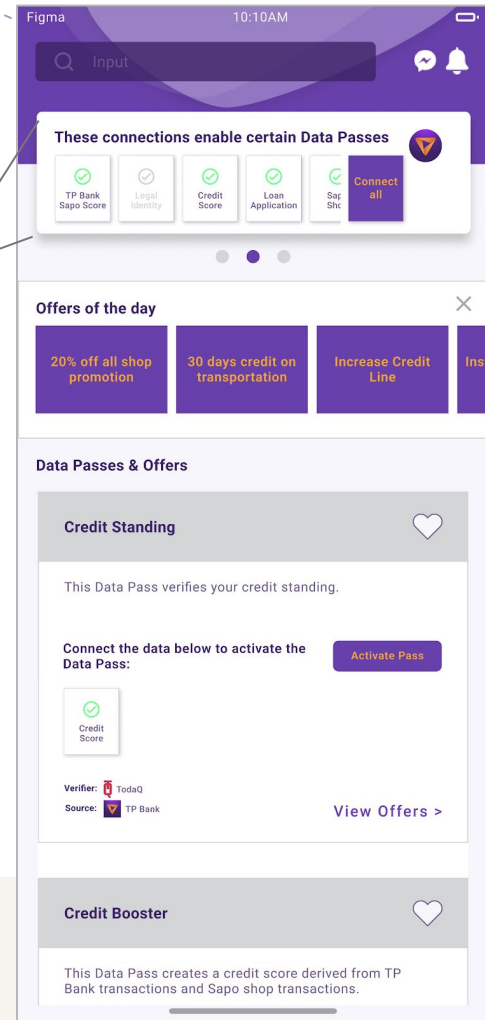
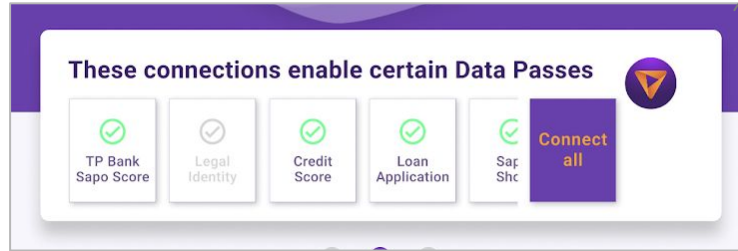
How does it work? (Individuals)

Enable Data Passport

Data Originator issues user a Data Passport from within an app or website, resulting in the provisioning of universal ID and a decentralized data server



How does it work? (Individuals)



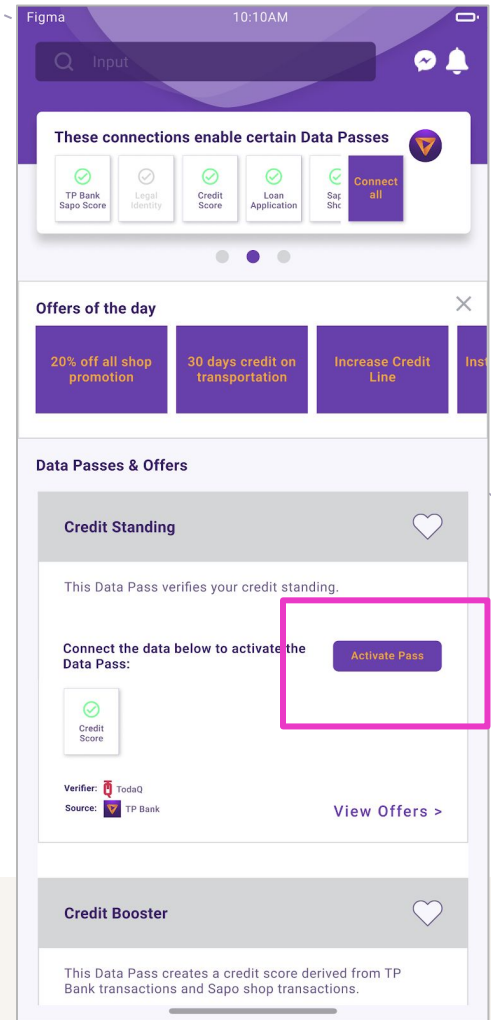
Connect Data

Data is re-homed into the server database to enable a data asset to be created - called a "Data Pass"

How does it work? (Individuals)

Activate Data Pass

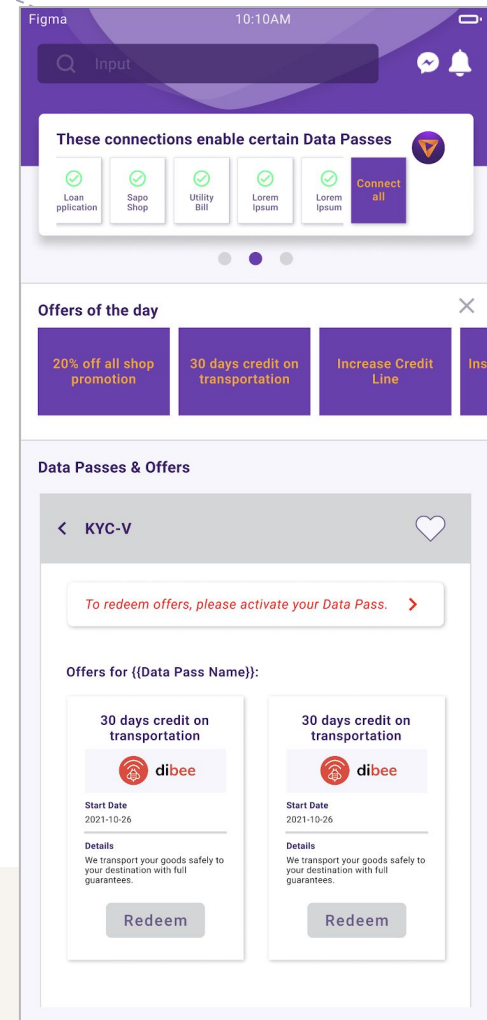
Data Pass activation verifies the credentials of the user and the user's persona



How does it work? (Individuals)

View offers

The data originator decides the partners they choose to invite into their marketplace/network to offer services for their users



How does it work? (Individuals)

Transact Data Pass

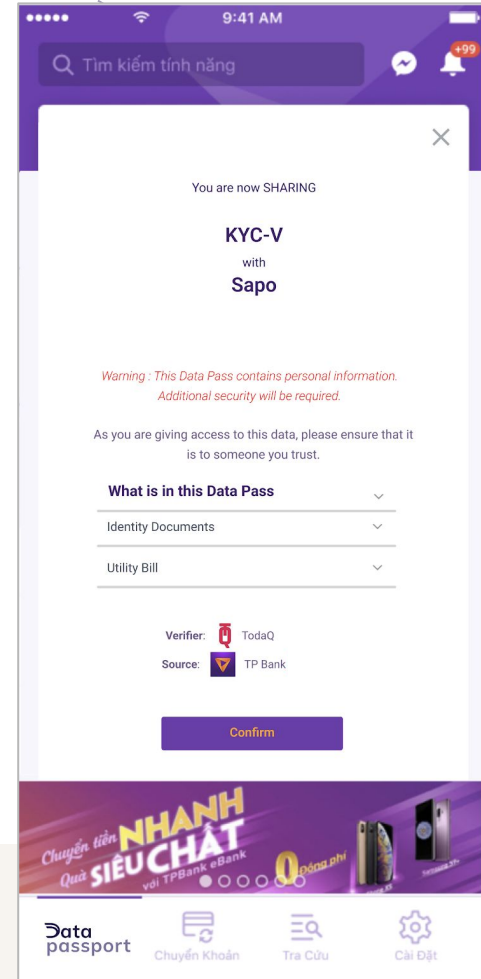
In physical spaces, a Data Pass transaction is a QR code scanned



How does it work? (Individuals)

Share data

Verified data is shared



How does it work? (partner-side)

Obtain a data terminal

Partner signs in to a data terminal provided by Dataswift. Also provisioned with a Universal ID and a Decentralized Data Server

Data
Terminal

Email

Password

[Forgot password?](#)

LOG IN

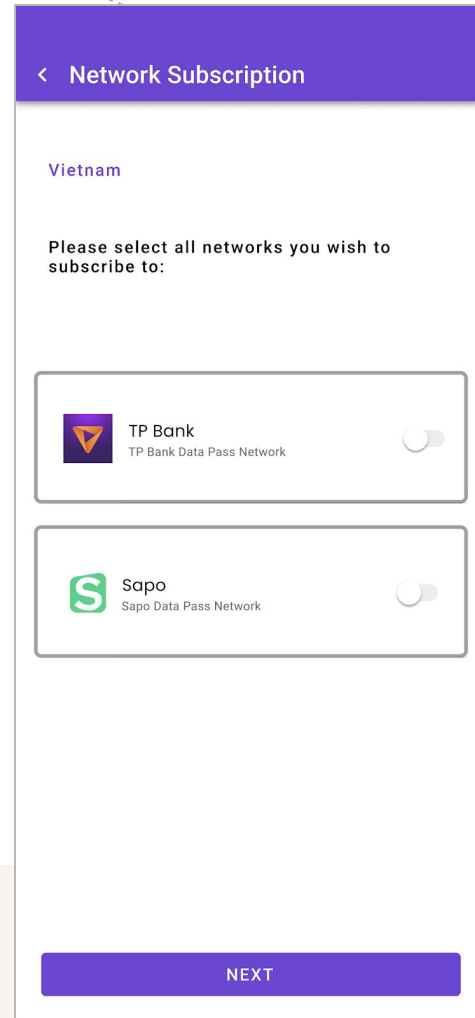
OR

SIGN UP

How does it work? (partner-side)

Subscribe to data originator's network

Data originator is also called the Data Passport issuer with their own Data Pass Network



The screenshot shows a mobile application interface for network subscription. At the top, there is a purple header with a back arrow and the text "Network Subscription". Below the header, the word "Vietnam" is displayed in purple. A message reads: "Please select all networks you wish to subscribe to:". There are two subscription options, each in a white box with a grey border. The first option is "TP Bank" with a purple and orange logo, the text "TP Bank Data Pass Network", and a toggle switch that is currently turned off. The second option is "Sapo" with a green logo, the text "Sapo Data Pass Network", and a toggle switch that is currently turned off. At the bottom of the screen, there is a purple button with the text "NEXT".

How does it work? (partner-side)

View the Data Passes available

Data Pass represent a persona offered by the data originator. Audience size for the persona is shown as well as how much the data transfer fee would be.

KYC-V
Population: 4,000,000
Audience: 800,000

This pass provides verified information on

- Legal Identity
- Utility Bill

Source: TP Bank
Verifier: TodaQ

Listing Fee: \$50 a month
Data Transfer Fee: \$3

email.name@company.com

Create Your Offer

Choose a Data Pass from the TP Bank Network

Credit Booster
Population: 4,000,000
Audience: 200,000

This pass provides verified information on

- Credit Score derived from TP Bank and Sapo transactions

Source: TP Bank Sapo
Verifier: TodaQ

Listing Fee: \$10
Data Transfer Fee: \$0.60

KYC-V
Population: 4,000,000
Audience: 800,000

This pass provides verified information on

- Legal Identity
- Utility Bill

Source: TP Bank
Verifier: TodaQ

Listing Fee: \$50 a month
Data Transfer Fee: \$3

Credit Standing
Population: 4,000,000
Audience: 1,500,000

This pass provides verified information on

- Credit Score

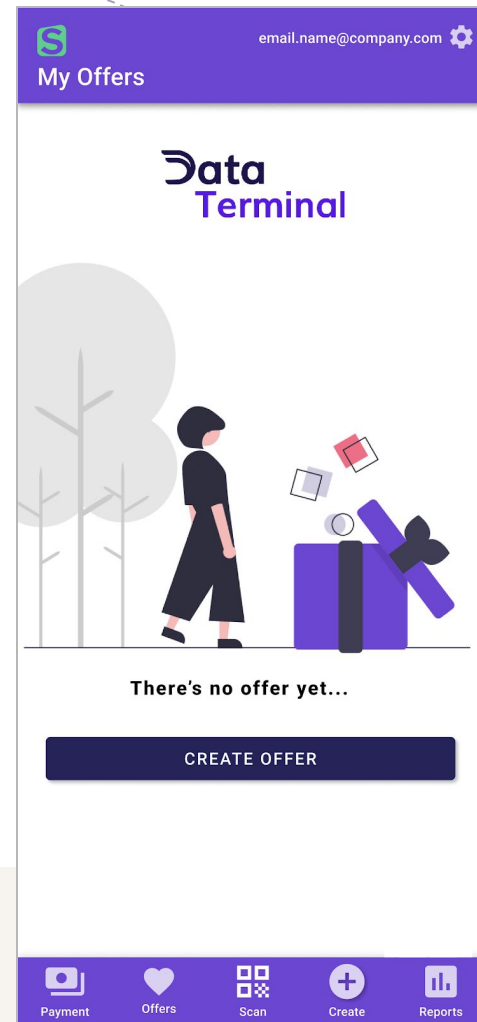
Source: TP Bank
Verifier: TodaQ

Listing Fee: \$10
Data Transfer Fee: \$0.10

Payment Offers Scan Create Reports

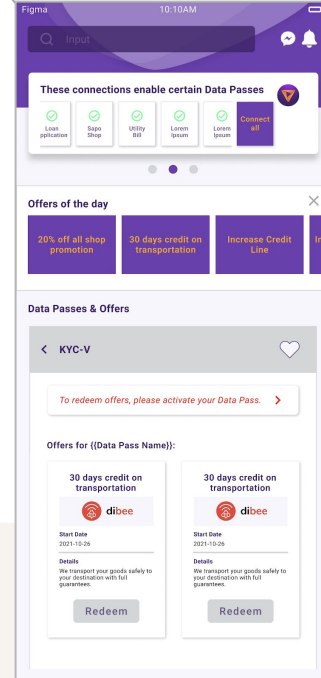
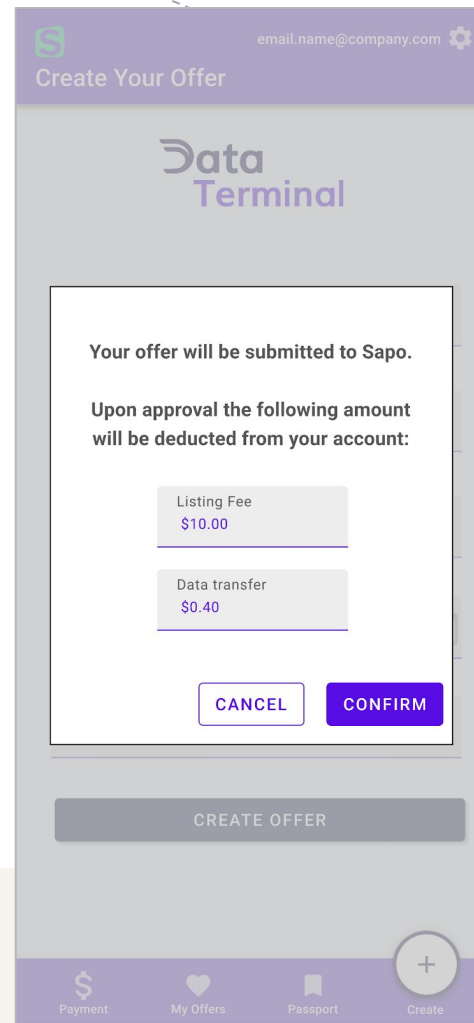
How does it work? (partner-side)

Offer services to the audience that the Data Pass represent



How does it work? (partner-side)

Submit services for approval and when approved, the offer will be visible in the data originator's app



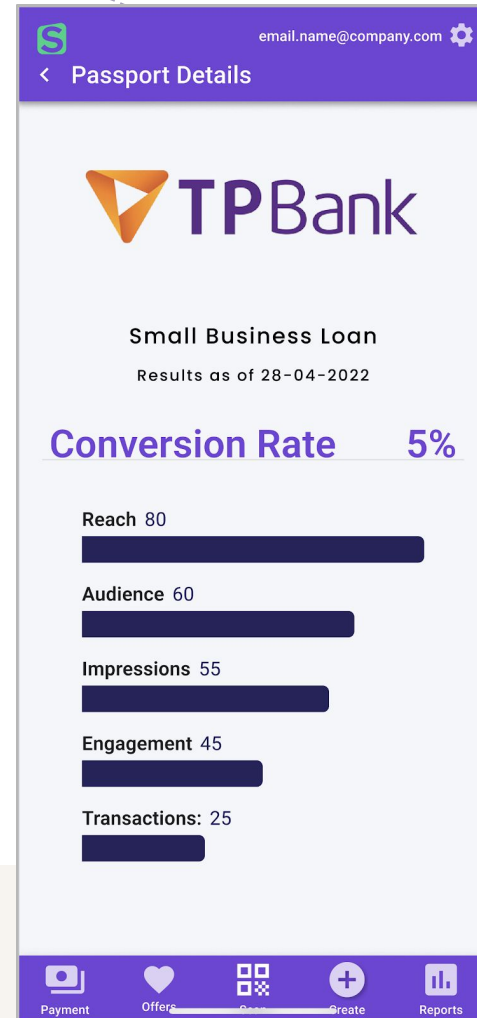
How does it work? (partner-side)

Receive data into their own data servers when shared by customers



How does it work? (partner-side)

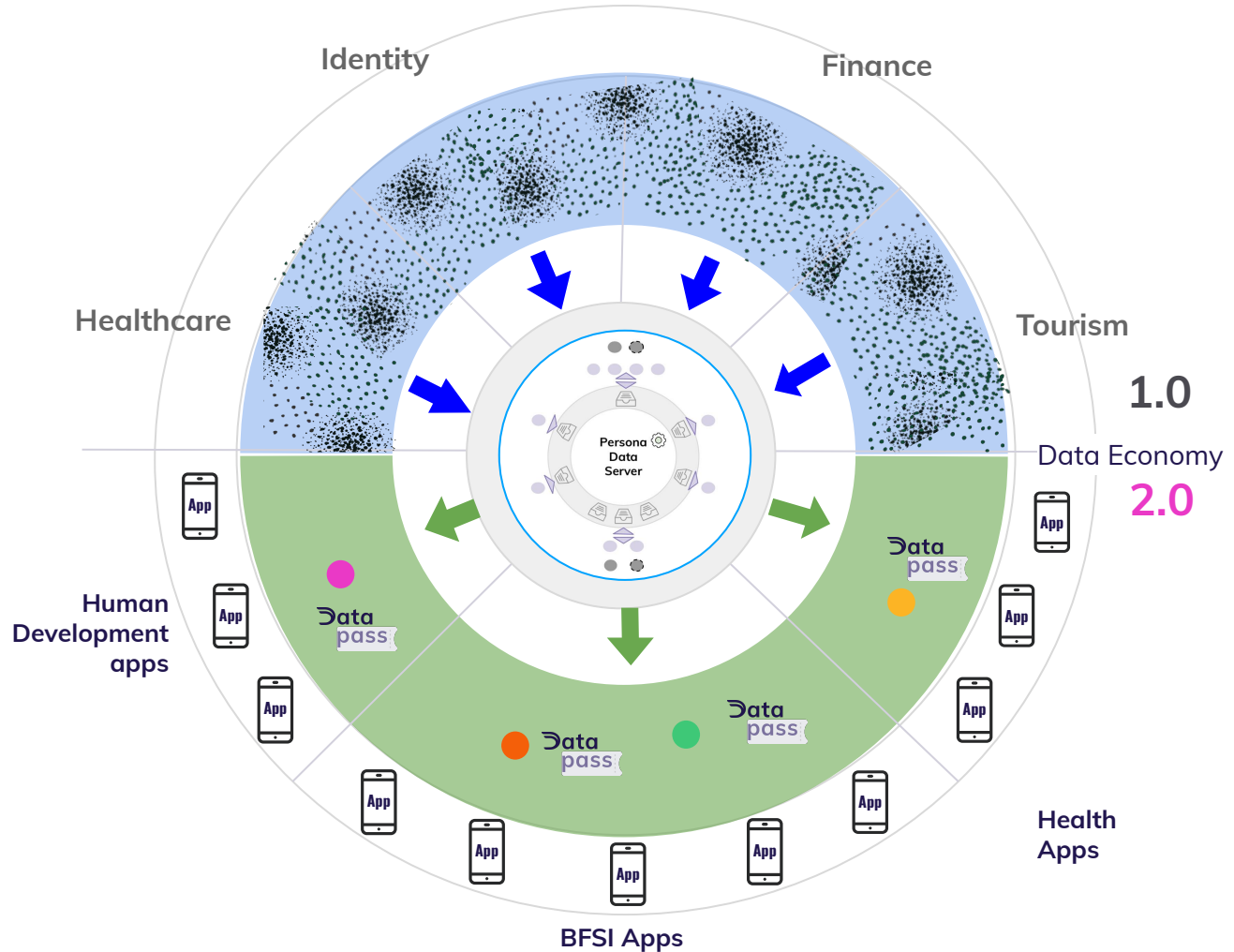
View the effectiveness of the offer



Re-homing Data

From messy,
high-variant, high
friction, uncertain
value of data as a
commodity

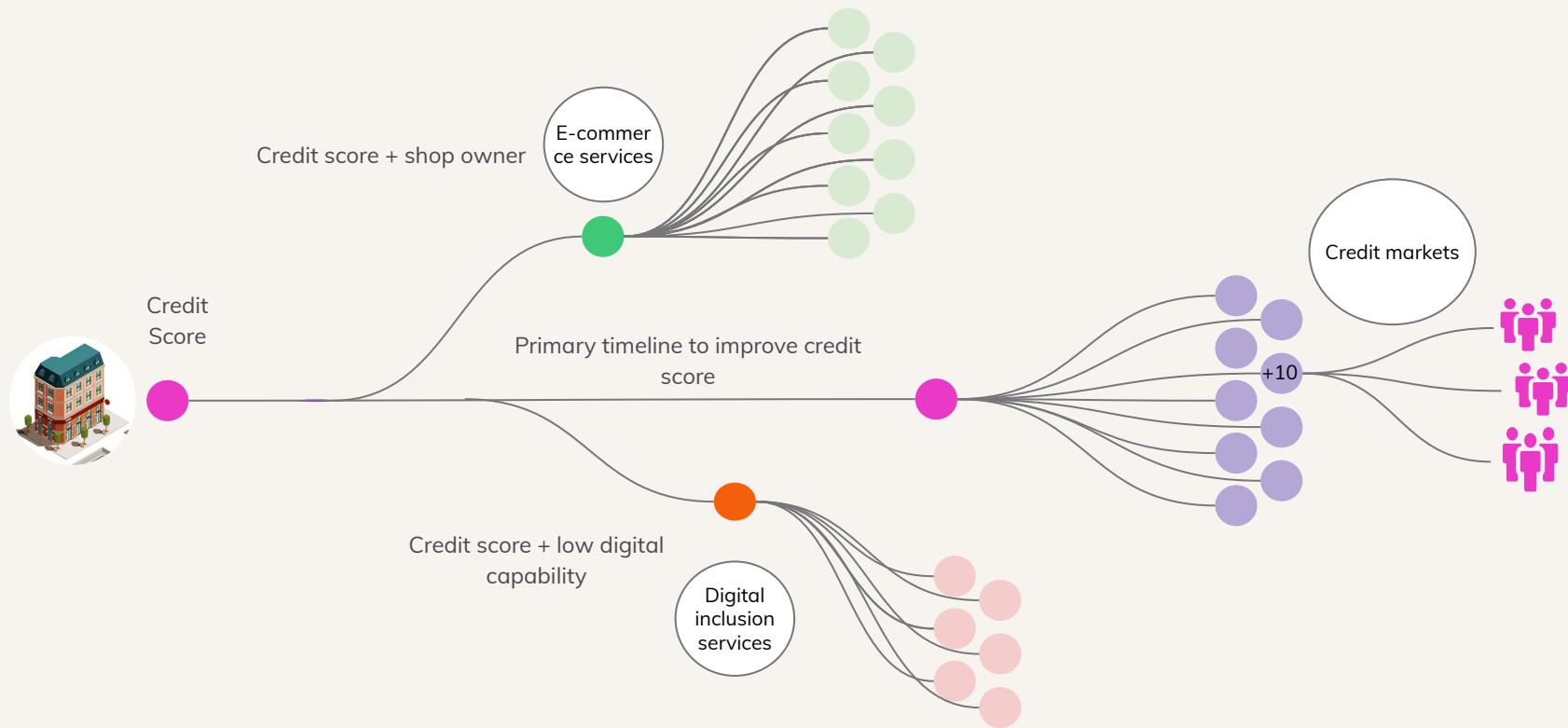
...to well formed,
safe-to-transact,
mobile and high value
**decentralized data
assets**



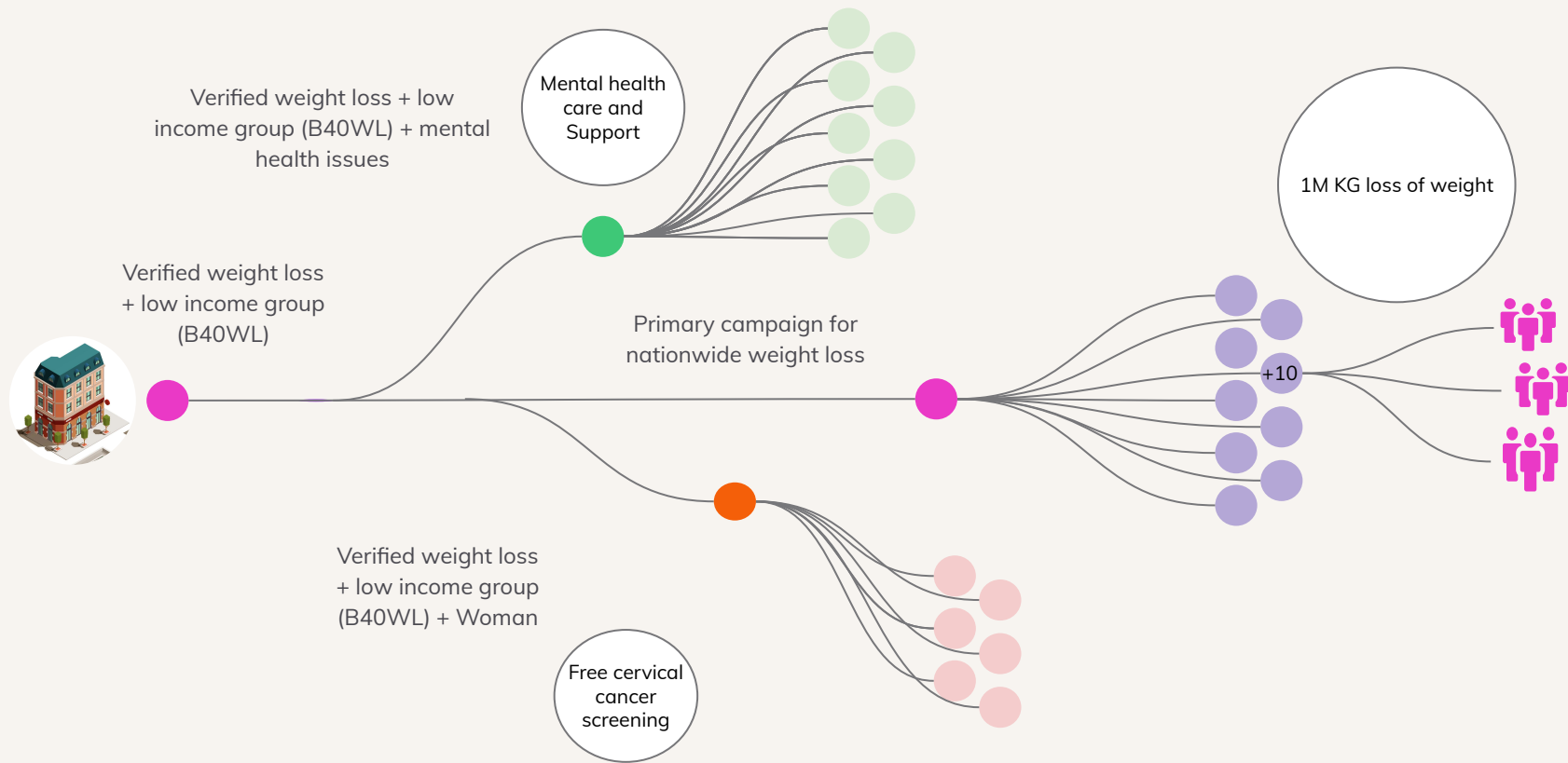
Meet some of the decentralized data assets under our management

| Data Asset | Demand for Persona | | | | Price | Apps |
|---------------------------------|--------------------|-----------------|-------------------|--------------|-------|-------------------|
| | Mobility | Demand for data | Demand for Person | Network size | | |
| Credit score | Medium | Medium | High | High | High | Finance |
| KYC (Identity) | Low | Low | High | Low | High | Finance |
| Verified Graduate | Low | Low | High | High | Low | Human Development |
| Verified behavior (weight loss) | High | High | High | High | Low | Health |
| Verified location | High | Low | High | High | Low | Tourism |

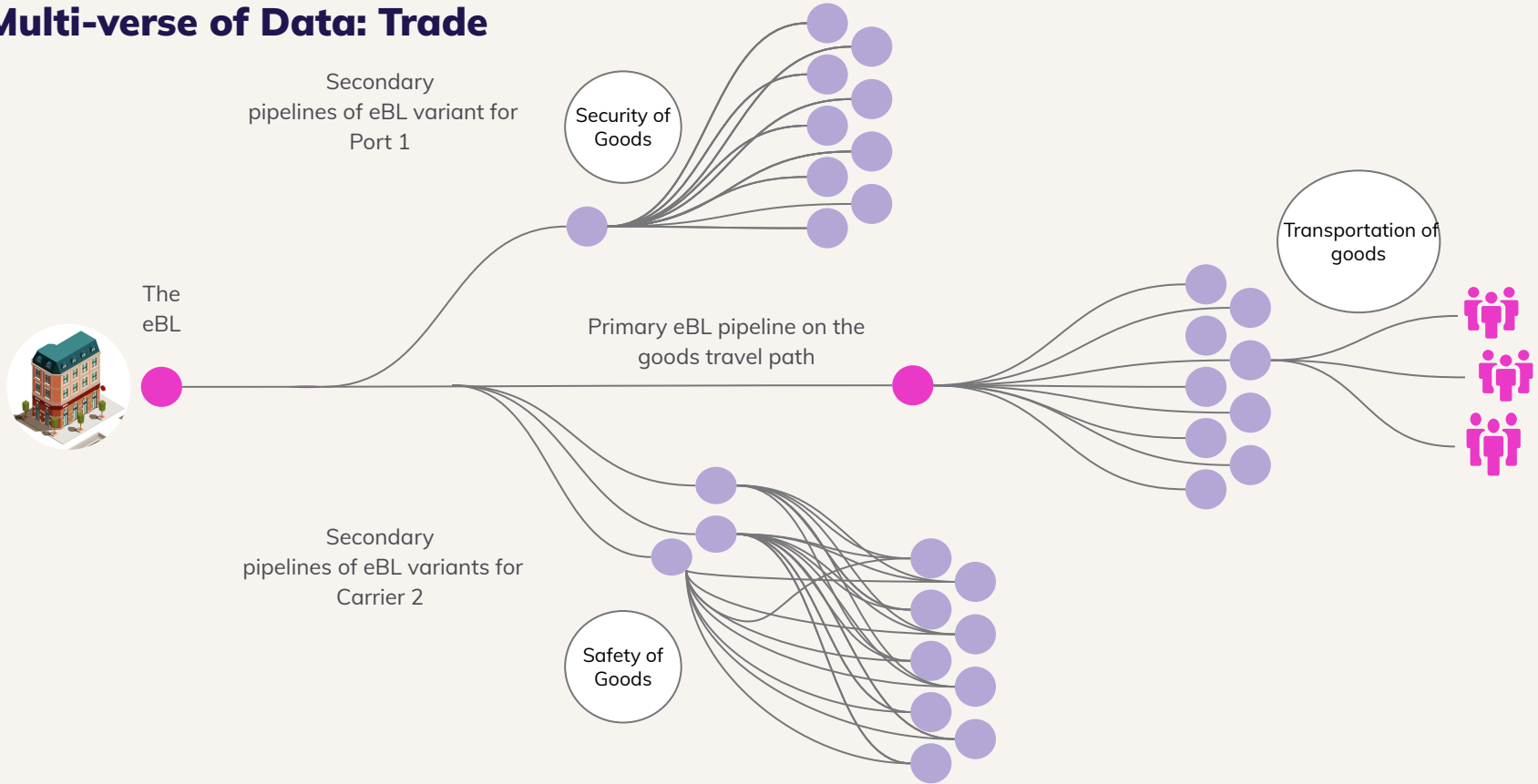
Case study of the decentralized data asset “multiverse”: Finance



Case study of the decentralized data asset “multiverse”: health



Multi-verse of Data: Trade



We create and manage our clients' decentralized data assets and their marketplaces

Marketplaces can be closed or open depending on the assets under management

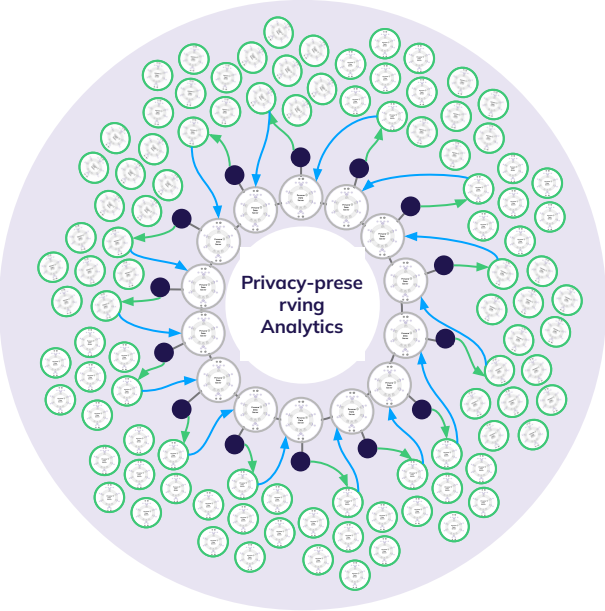
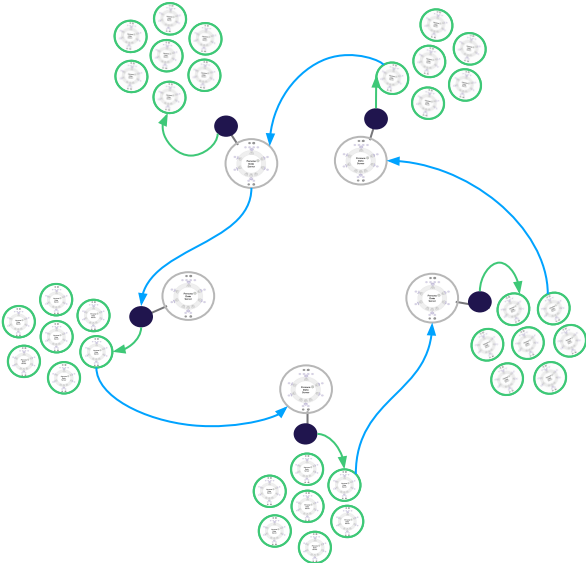
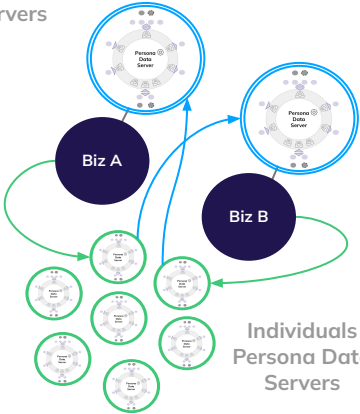




Data Asset: Credit score

Data Asset: Verifiable behaviour

Data asset: tourist location

Organizations
Persona Data
Servers



Decentralizing data flows 
Sharing data flows 

We assess the economic value of data

Talk to us if you:

Have data and want to unlock its value

Have invested in data lakes/ data science
AI/ML and want returns on investment

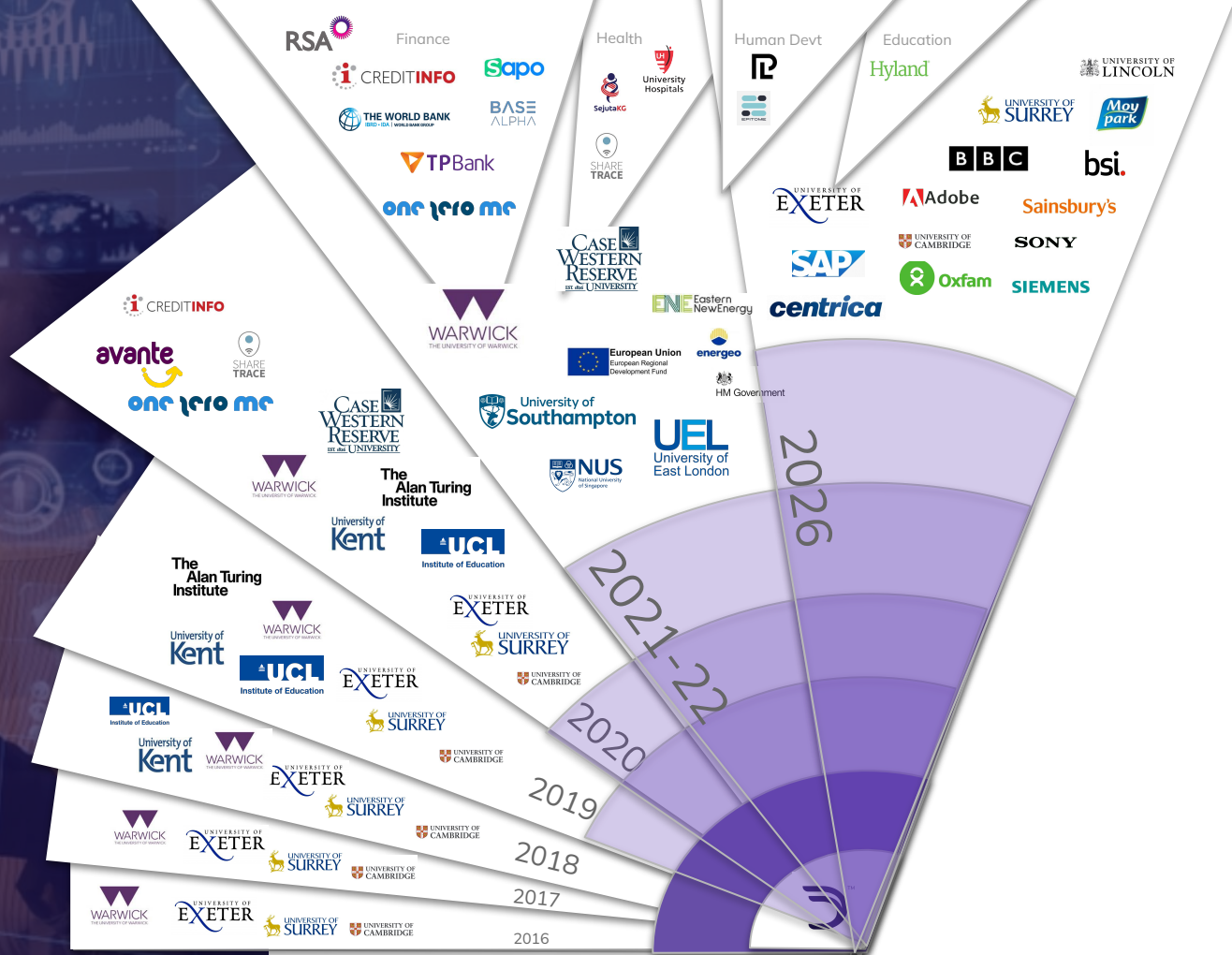
Need more data!



Created from a collaboration of universities and businesses

More than £33M of grants by 9 U.K. universities on legal, economic, governance and technical infrastructure of data

[Visit our Open Sourced Projects](#)



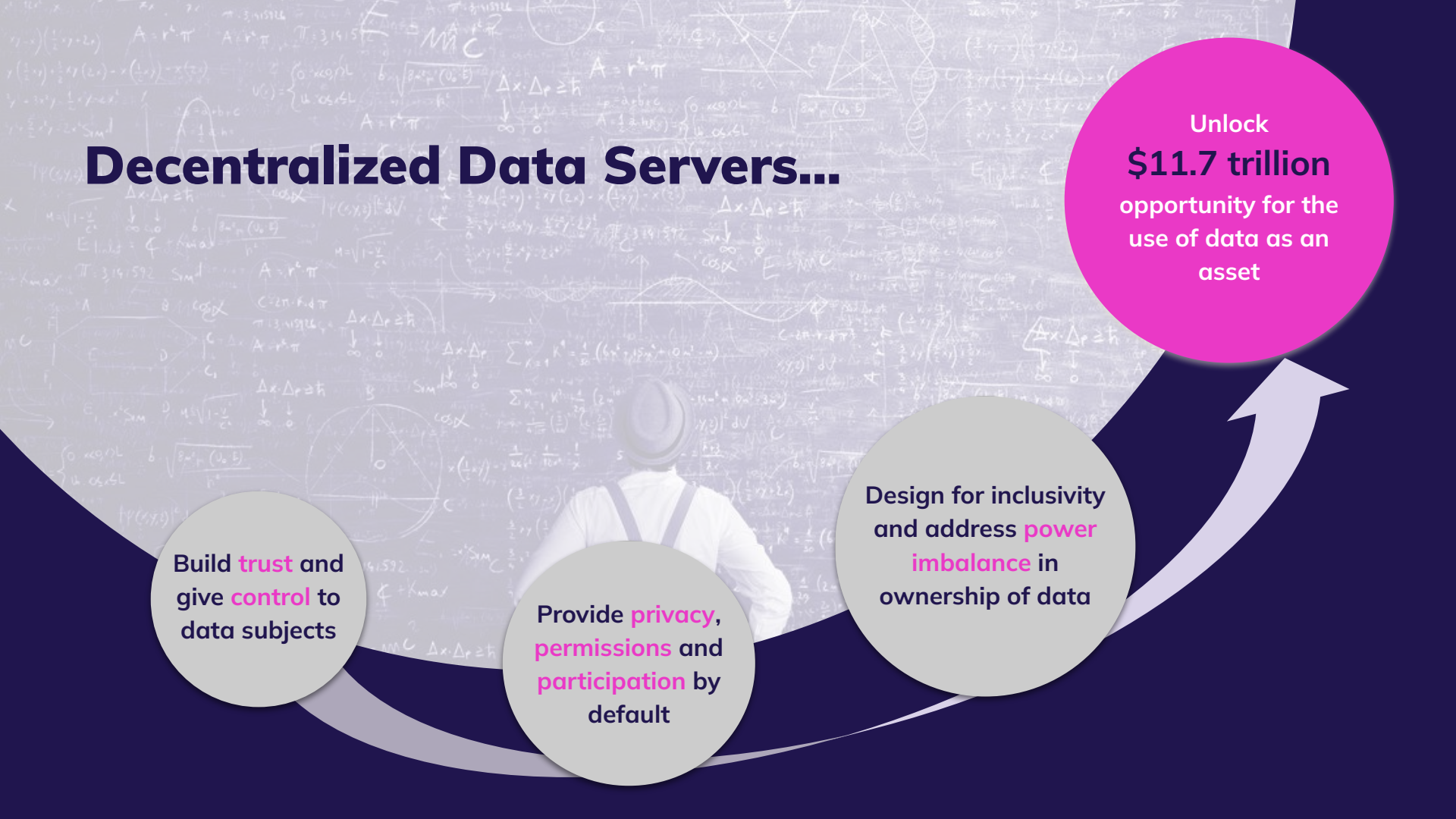
Decentralized Data Servers...

Unlock
\$11.7 trillion
opportunity for the
use of data as an
asset

Build **trust** and
give **control** to
data subjects

Provide **privacy**,
permissions and
participation by
default

Design for **inclusivity**
and address **power**
imbalance in
ownership of data



We keep our data in data accounts.

We transact freely with whomever we choose.
Frictionless, instant transactions.

That's how we drive economic growth



Accepted
Here



The Data Economy 2.0

Join us.

