



# What finance needs from biodiversity data

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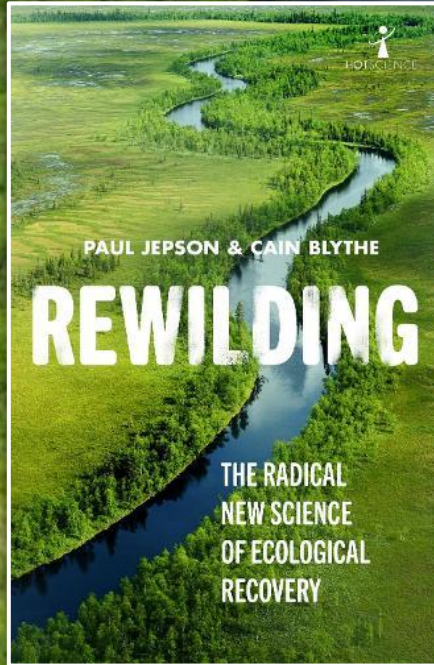
Opportunity to unlock  
investment in nature  
recovery with data  
products

Existing biodiversity  
metrics not fit  
purpose. But new  
design principles are  
emerging

A biodiversity data  
commons to enable rapid  
product development to  
meet investor needs



UNITED NATIONS DECADE ON  
**ECOSYSTEM  
RESTORATION**  
2021-2030



*“Rewilding should be central to the massive restoration efforts needed to overcome the global biodiversity crisis and enhancing the biosphere’s capacity to mitigate climate change”.*

*Jens Christian Svenning One Earth 2021*

# This is an exciting decade of opportunity

- ‘The goal is to create a world that is not only net zero but also nature positive’ G7 leaders pledge Cornwall 2021
- Leading corporates seeing nature recovery as material to their long- term business viability
- Investors and activists collaborating on developing guidelines for disclosing nature-related risk (TNFD)
- Rise of ‘nature positive’ and desire for nature positive investments and ‘high integrity nature markets’ (for nature credits)
- Big advance is ecosystem science and technologies of biodiversity assessment

# 'Unlocking' nature investments requires metrics which need data feeds

## Metric Use cases

- Corporates to manage, reduce and report biodiversity-related risk
- Nature-related credit markets to evidence forecasted and realised 'uplift's in biodiversity
- Nature-related performance bonds to evidence



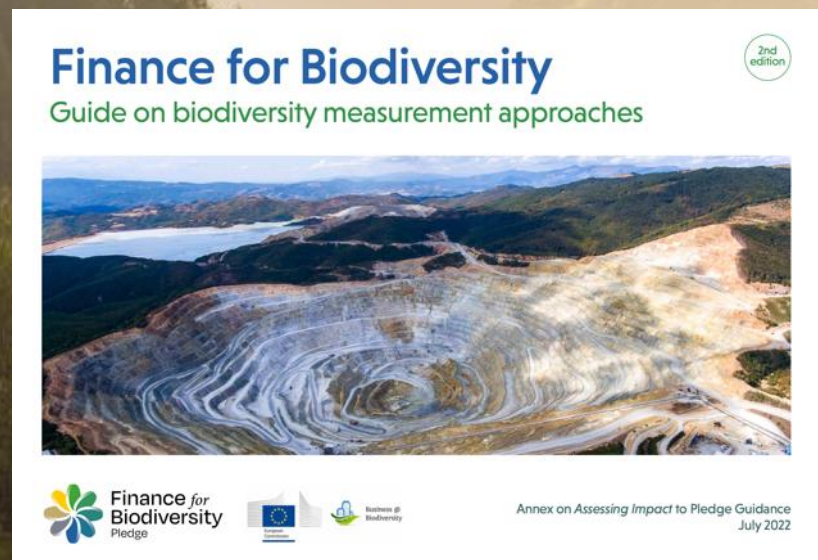
# Wild west of biodiversity metrics

## Characteristics

- Focus on a limited set of species or habitat metrics
- Weak science rationale for choice
- Static and backward looking data
- Repurpose existing data sets
- Not embracing newer types of data

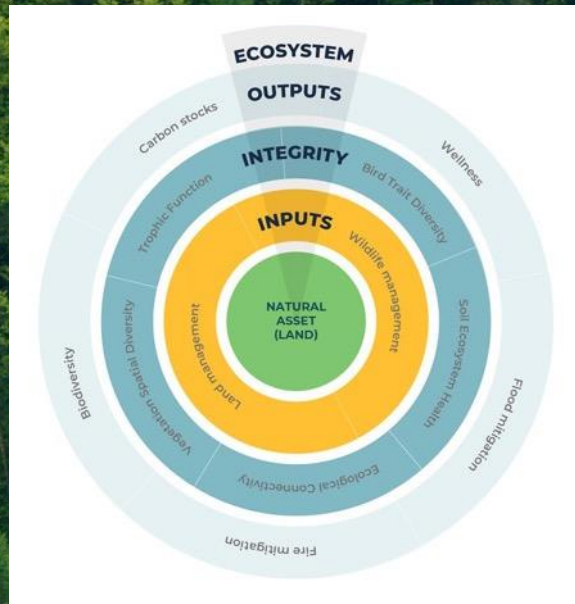
*Frustrating development of nature markets*

*Risk that a big asset manager will decide to run with a poor one which will become the standard*



# A new nature fintech company born out of Ecosulis Ltd.

Asset-level data & metrics



NARIA Framework  
(Natural Asset Recovery  
Investment Analytics)

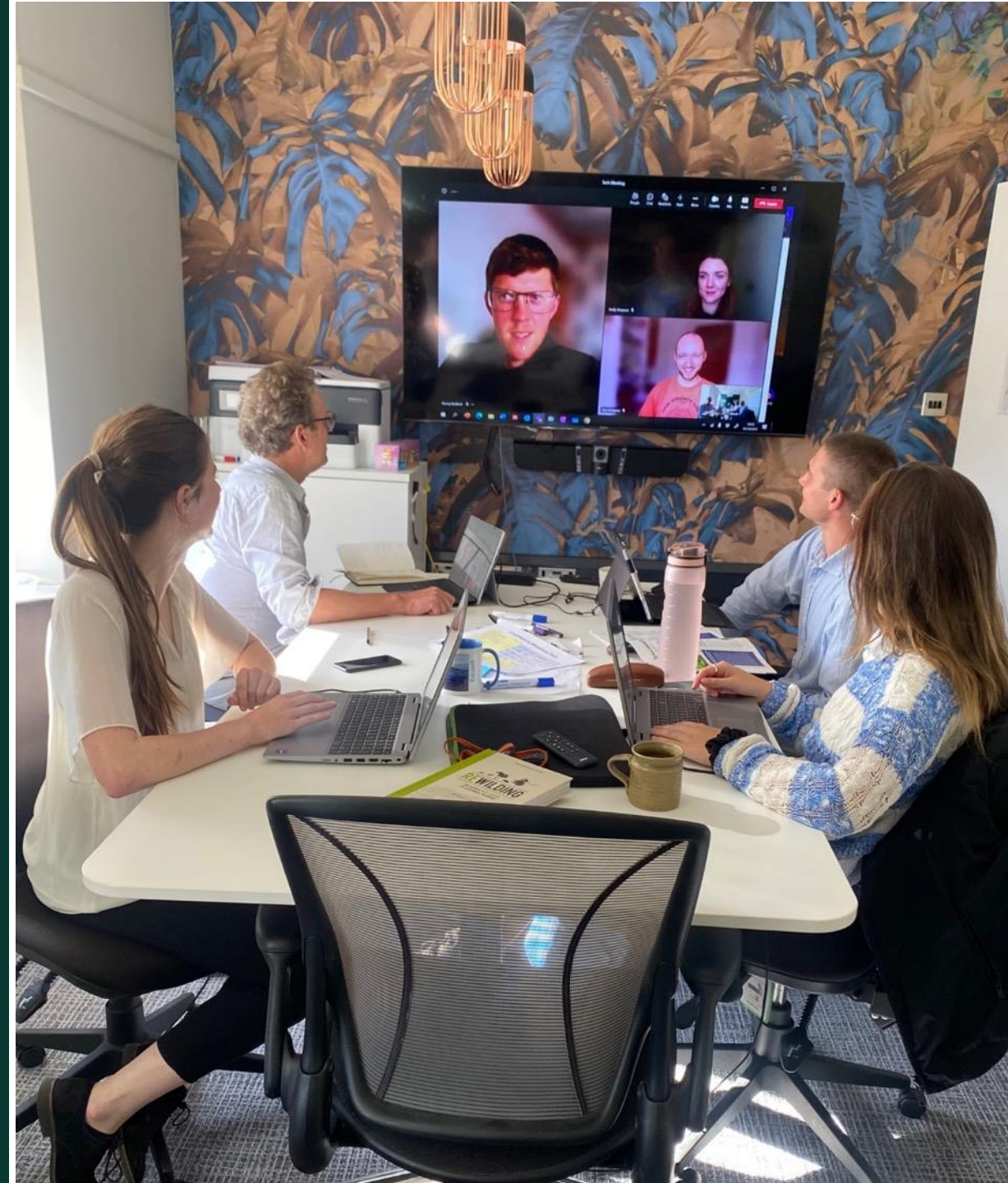
Financial instruments



Nature Impact Token

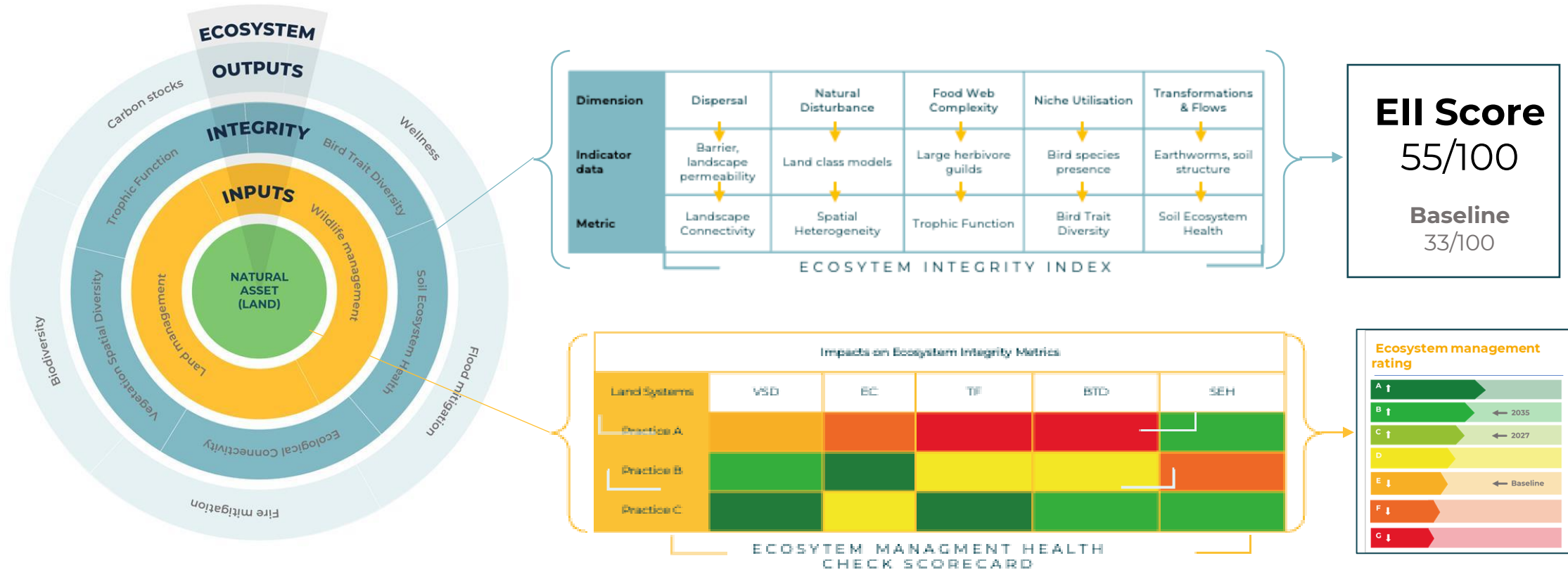
# Principles for metric design are beginning to emerge

- 1. Holistic** – captures key dimensions of bio-physical complexity
- 2. Scientific rigor** – rooted in latest developments in biodiversity and ecosystem science
- 3. Socio-ecological** – recognise humans as part of ecosystems.
- 4. Consistent** – can be applied in a standardised manner across different ecoregions and land systems.
- 5. Future-proofed** – architecture and metrics can be improved and updated as science, technology and data availability advances.
- 6. Affordable** – metrics are based on data that is cost-efficient to acquire across different scales
- 7. Verifiable** – metrics and their scores and ratings can be substantiated by third parties.
- 8. Useable** – outputs are easily communicable, meaningful and understandable and compatible with decision-making platforms.
- 9. Aggregative** – amenable for combining (model fusion) with data from other domains and sectors.



# NARIA: Natural Asset Recovery Investment Analytics

Framework for measuring ecosystem & biodiversity uplift



# How biodiversity data providers can contribute

- APIs
- Pre-commercial developer licences
- Standard & affordable data use licences
- Functional ontologies to give taxon data meaning
- 'Bigger' data
- Align with emerging data standards

*Embrace the reality that commerce will drive investment in nature recovery*

*Analytic companies are becoming the agents of transformative change*

DATA



SORTED



ARRANGED



PRESENTED VISUALLY



EXPLAINED WITH A STORY



ACTIONABLE (USEFUL)



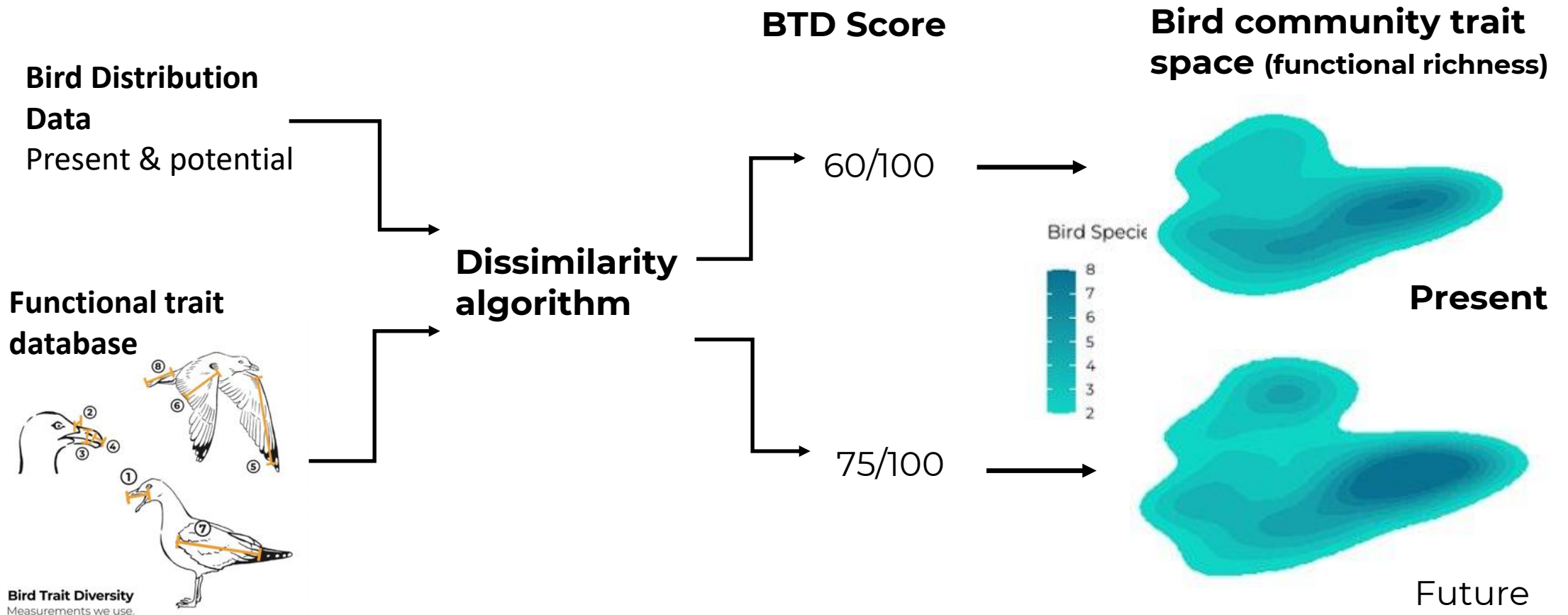


# BIRD TRAIT DIVERSITY



Bird Trait Diversity

Measures the dimension of niche utilisation is proxy for relationship between biodiversity and ecosystem function.



Bird Trait Diversity  
Measurements we use.

# Does OS-Climate offer a vision of the future?

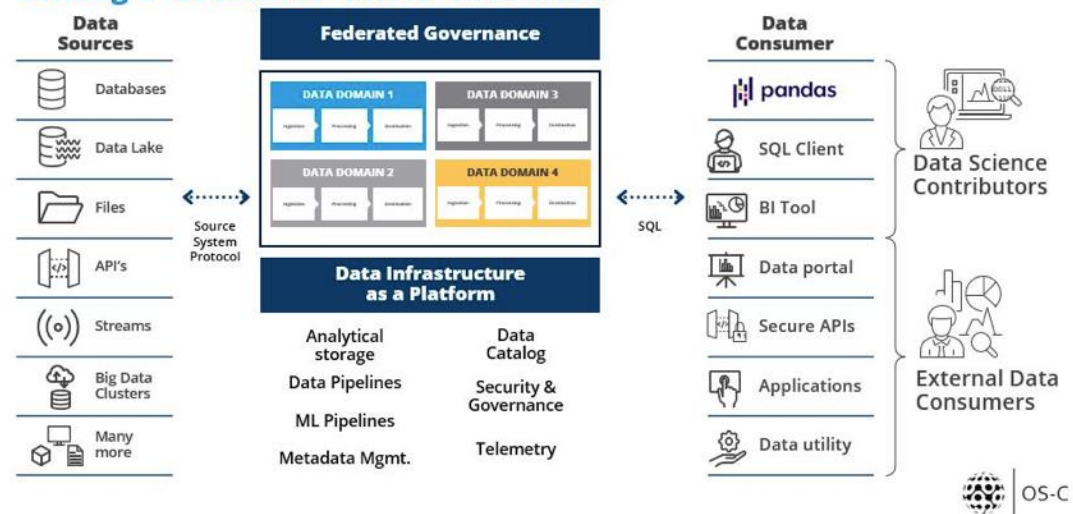
## Present situation

enormous range of data sources in a wide range of formats.

## Future situation

- Federated governance layer.
- Open-source data science tools as platform with standards.
- Commercial data provides contributing on limited use basis.
- Agile teams solving user needs in open data domains.

## OS-Climate Data Commons Turning a "data mess" into a "data mesh"



## Manage Data as a Product...

Data is managed as collections of related data aligned to business functions and goals, under a single owner stream that is responsible for governance of data created, provided, stored, transformed in and consumed



I need an easy way to obtain corporate ESG data along with new tools to decarbonize a portfolio.

Investment Manager & ESG Communications Specialist



I require tooling that can evolve as rapidly as science and climate are changing. And I need transparency to trust their results.

Portfolio/Asset Manager & Client Reporting Specialist



To accurately assess risk, I need an ever-increasing range of data sources as well as ways to combine climate and financial data.

Risk Analyst



I need a strong data governance system which controls data integrity, as well as provides transparency across a multitude of regulatory frameworks.

Regulatory & Compliance Managers



I need to procure, ingest, and process data that's new to the financial community.

Data Procurement Specialist



Private capital is ready to invest in nature recovery, but it needs a biodiversity metric to do so.

@creditnature

@prjepson