IOTWeek

Dublin — June 20-23, 2022

Business Modelling for a Data Marketplace Backplane and a Data Pricing Model Tool

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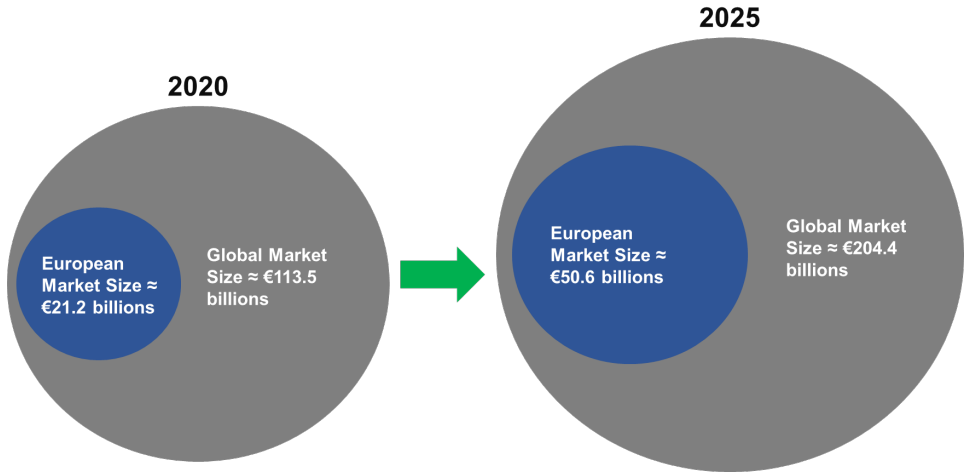
GLOBAL VISION:
IoT TODAY AND BEYOND

IOTForum

Why did data marketplaces emerge?

- The total volume of data created, captured, copied and consumed worldwide is growing rapidly
- The use Data can changes the way companies generate value and significantly change even traditional industries.
- Businesses are realizing the importance of external data
- Security, trustworthiness and ease of data access remains a major challenge in the market

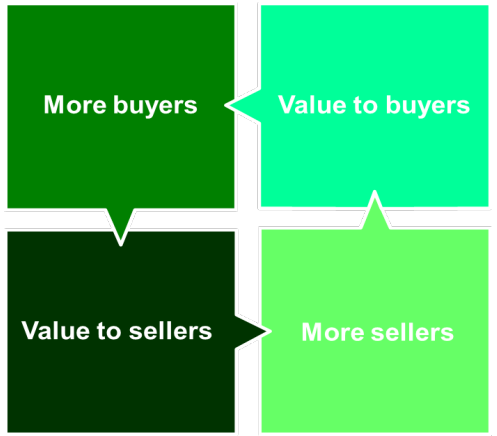


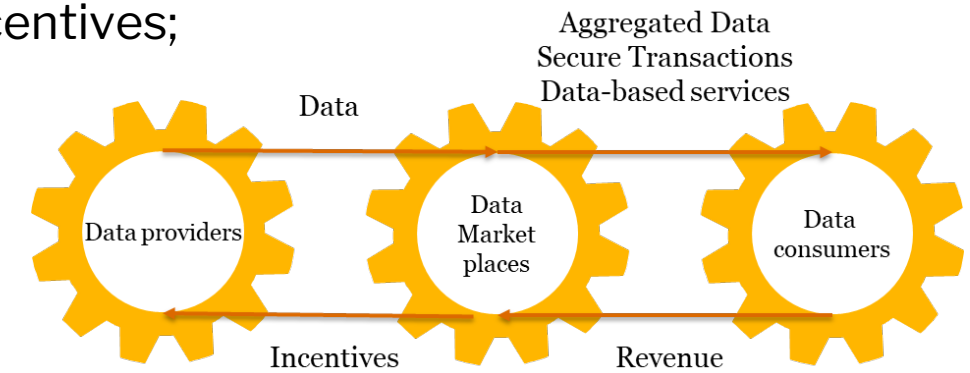
Big Data Market Size Projection

The Role of Data-marketplaces

Data-marketplaces can be an enabler for both internal and external monetization by:

- Solving the “Chicken and Egg” problem
- providing an accessible avenue to commercialization;
- “absorbing” processes that are beyond a company’s core competencies;
- allowing owners to capture greater value and reinforcing their rights;
- easily demonstrating the financial incentives;
- allowing for broader synergies.





Data-marketplaces as a Catalyst for Business Model Innovation

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Owner

Receives:

- Flat Fee
- Pay-per Unit
- Commission Fee
- Subscription

Data Marketplace

Main Revenue Partner:

- Seller
- Buyer
- 3rd Party
- Other

End-user

Pays:

- Flat Fee
- Pay-per Unit
- Commission Fee
- Subscription
- Freemium

The market at a glance

Types of data marketplaces

Personal Data Marketplaces
B2B Data Marketplaces
IoT Data Marketplaces

The process

Browse Data
Compare Data
Sample Data
Purchase Data
Review Data

Types of data

Energy Data
Mobility Data
Automotive Data
Environmental Data
Real Estate
Health Data
Financial Data
Audience Data
Machine Learning Data

Identifying user needs and challenges from the data market

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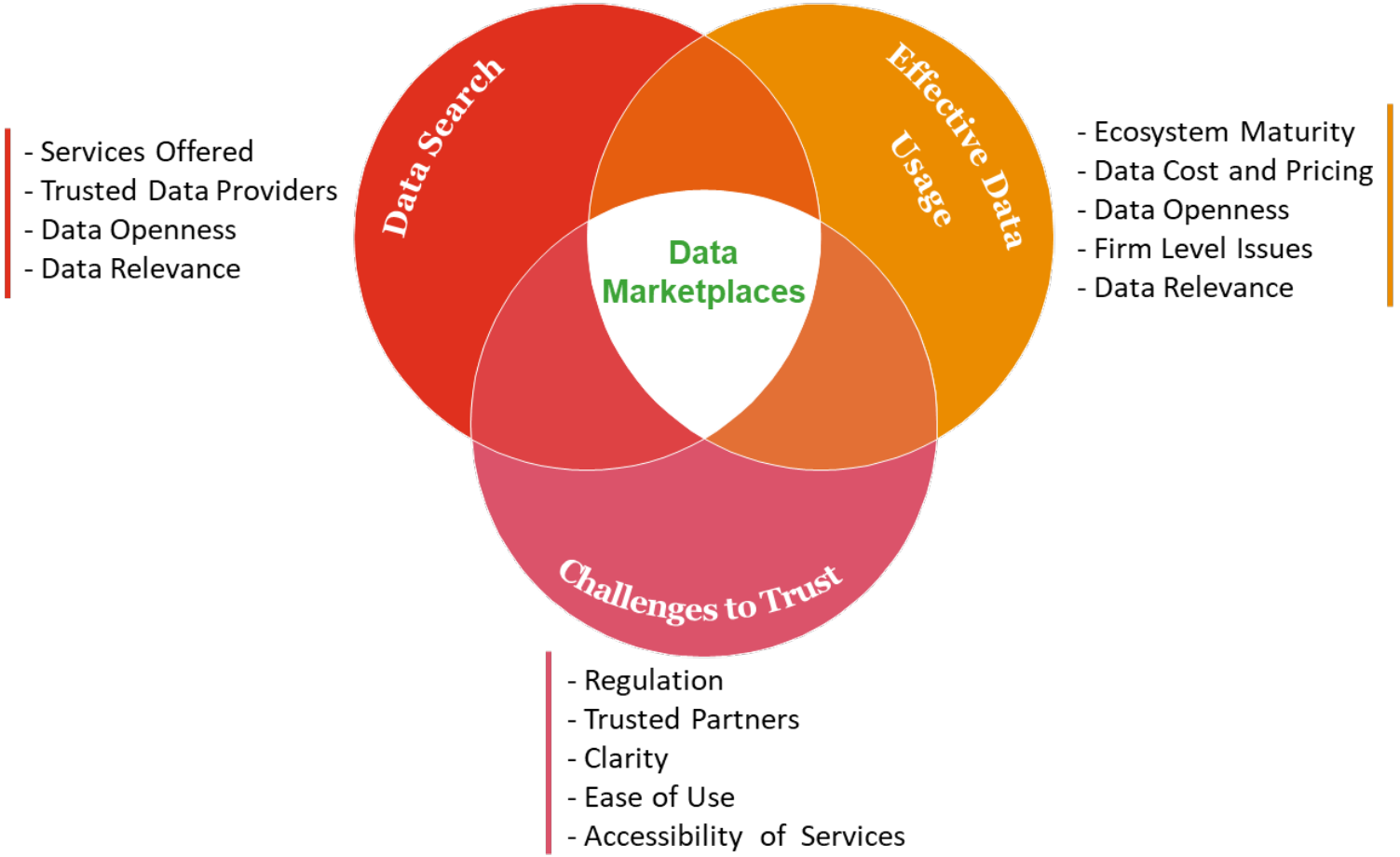

Data marketplace ecosystem and i3-MARKET

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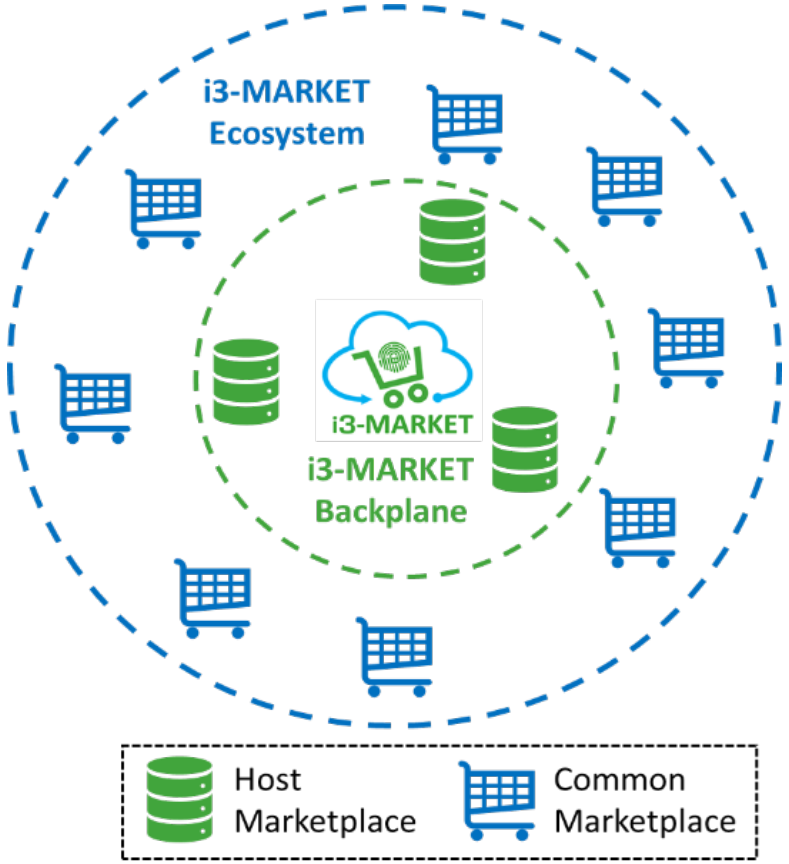
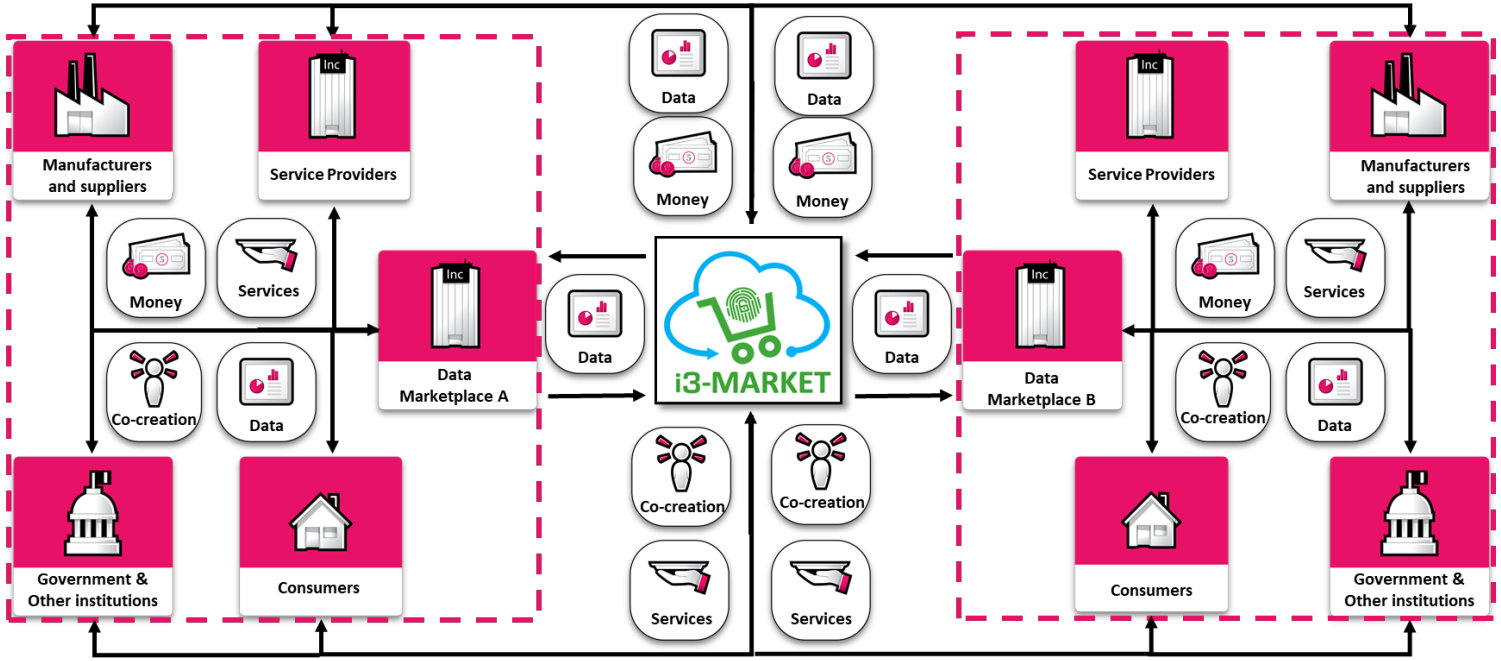
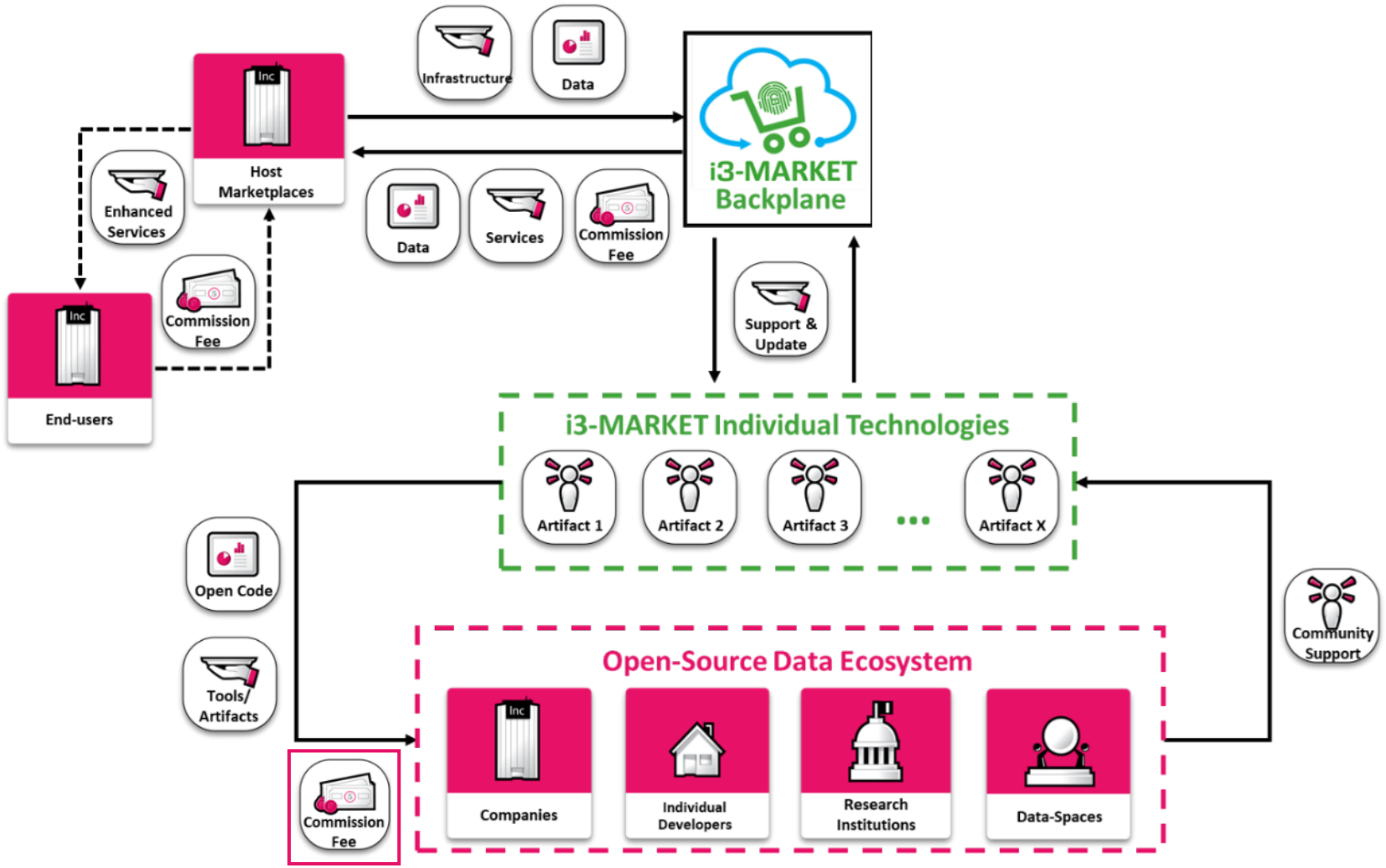




i3-Market Business Model



The i3-MARKET Business Model Canvas

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<table>
<tr>
<td>Key Resources
Data
Infrastructure
Individual i3-MARKET Artifacts
Developers</td>
<td rowspan="2">Key Activities
Research & Development
Product Development
Stakeholder Engagement
Platform Maintenance
New Marketplace selection and onboarding
Integration</td>
<td>Type of Intervention
Open-Source platform
Individual artifacts</td>
<td>Segments
Host Marketplaces
Common Marketplaces
Open-source community
Developers
Researchers

Beneficiary</td>
<td rowspan="2">Value Proposition
Decentralization
Interoperability
Trust
Security
Open Source
Standardization
Social Value Proposition

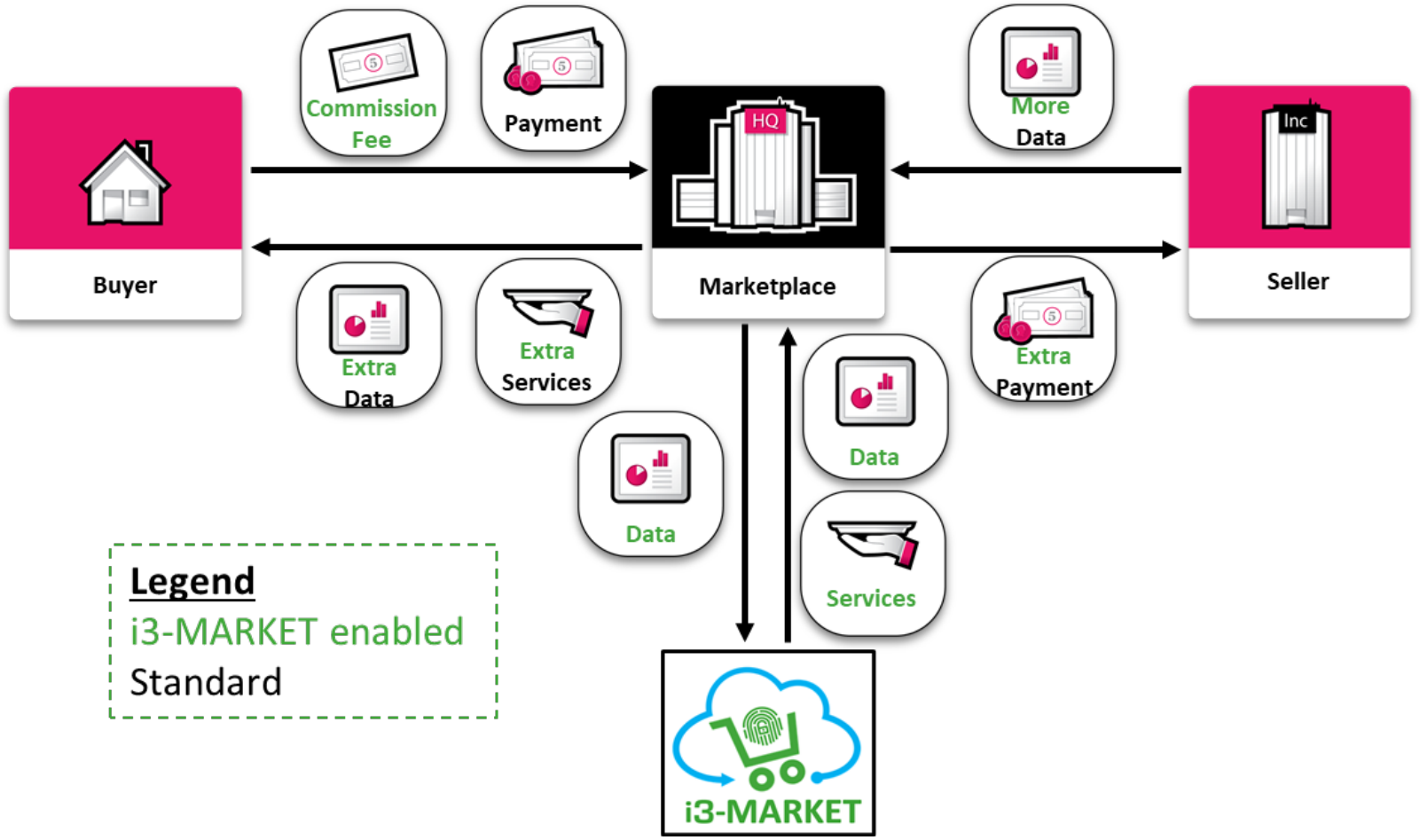
Impact Measures
Open-source ecosystem engagement
Long term availability of tools

Customer Value Proposition
Interoperability
Trust
Security
Access to new tools</td>
</tr>
<tr>
<td>Partners + Key Stakeholders
Data Marketplaces/Spaces
Data Owners/Consumers
Open-source Community</td>
<td>Channels
Digital Space
GitLab
Conferences
Social Media</td>
<td>Customer

Marketplaces</td>
</tr>
<tr>
<td colspan="2">Cost Structure
<u>Initial</u>
Artifact Development
Promotion

<u>Operational</u>
Maintenance
Infrastructure</td>
<td>Surplus
Host Marketplace bonus</td>
<td colspan="2">Revenue
Commission fee</td>
</tr>
</table>

The Data Marketplace Business Model



The Data Marketplace Business Model Canvas

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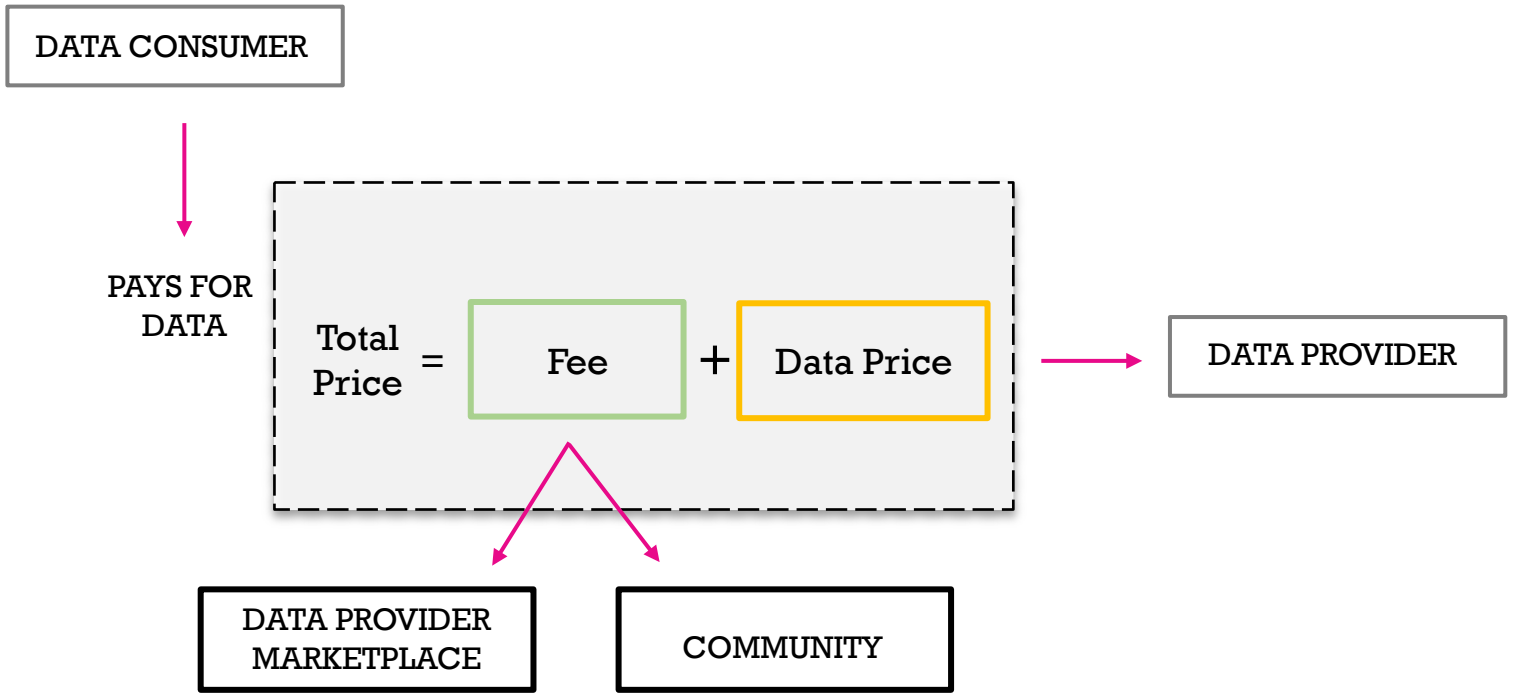
Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
Data Owners Data Warehouses Service Providers (Open) Data Community	Value Chain Positioning Data Processing Data Transfer Compliance Integration	Privacy Security Sovereignty Cross marketplace trading Smart Contracts Data as a Service Clean & Processed Data	Self Service Stakeholder Engagement Community Events	Large Companies SMEs Researchers Developers
	Key Resources Infrastructure Record Keeping Standards and Frameworks		**Channels** Digital Ecosystem Engagement i3-MARKET platform	

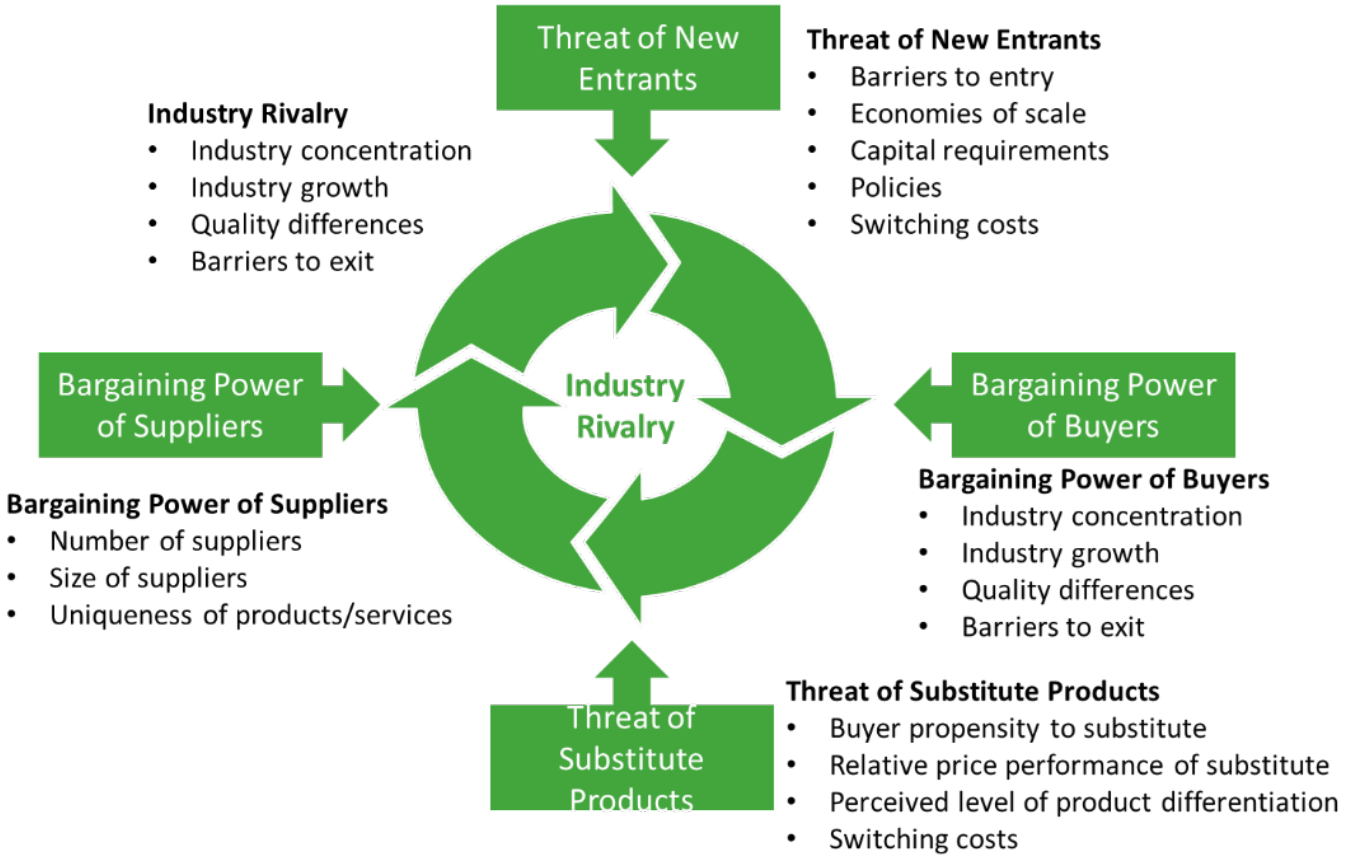
Element Legend
i3-MARKET enhanced
i3-MARKET enabled
Standard

Cost Structure	Revenue Streams
Infrastructure Maintenance Support	Transactional/Subscription/Licensing/Freemium Commission Fee

Revenue model and commission fee



Porter's Five Forces and i3 Market



<u>Critical priorities</u>

- Strengthen and enhance BM channels.
- Support new products and services.
- Establish a strong connection and manage critical stakeholders.
- Strengthen the i3-MARKET brand.

i3 Market stakeholders

i3 Market stakeholders

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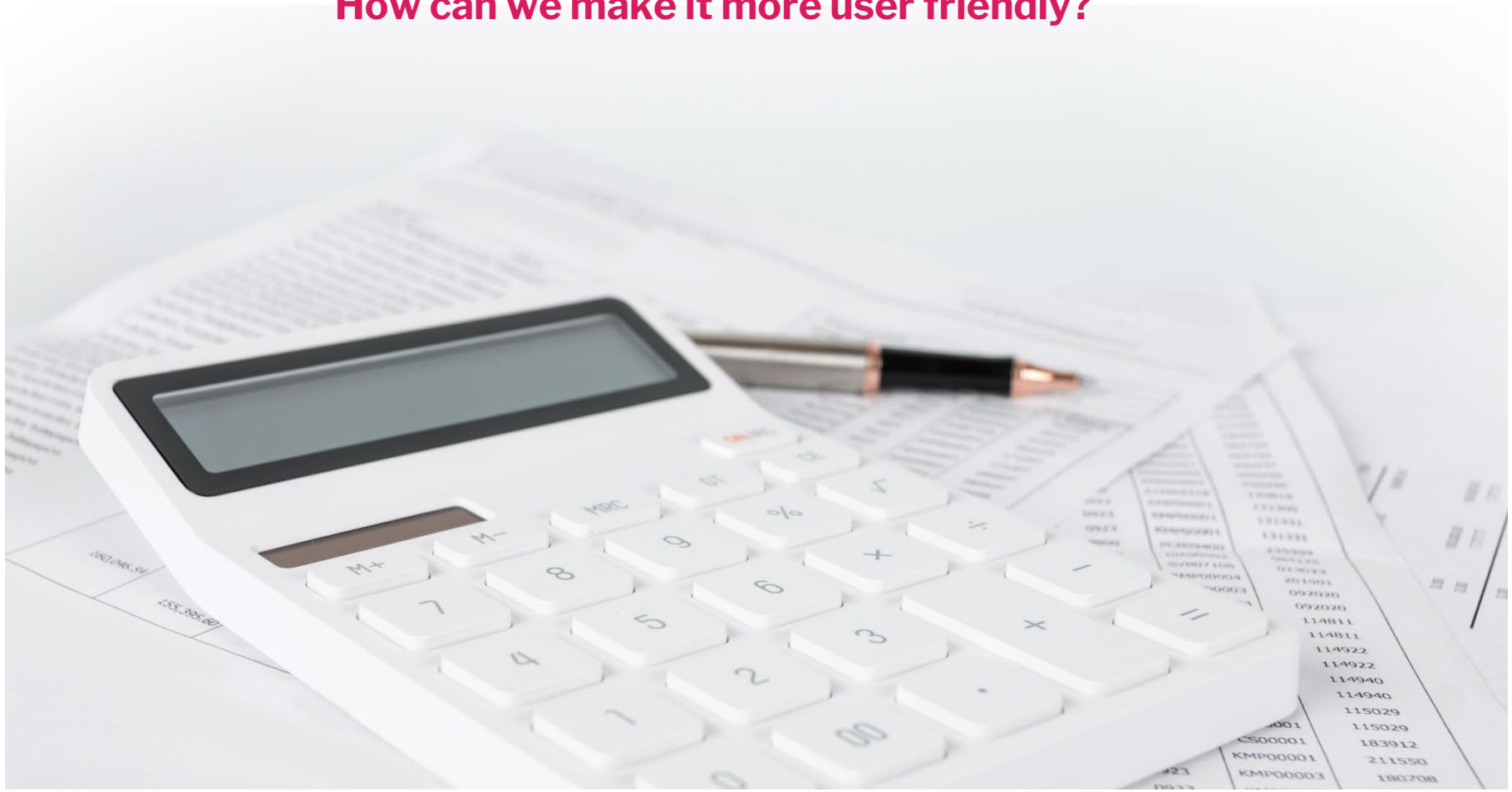
Open-source community	Telecommunication Companies	Other companies	European Union (EU)
Entrepreneurial Community	Internet Related Companies	SMEs	Council of Europe (CoE)
Individuals	Manufacturing Companies	Freelancer professionals	Organization for Economic Cooperation and Development
Data Marketplaces	Healthcare companies	National Governments	Researchers and Professors
Data Warehouses	Data Spaces	Municipalities	Digital/Online Media

Our price recommendation calculator

How can we make it more user friendly?



Creation and Cross-validation Methodology

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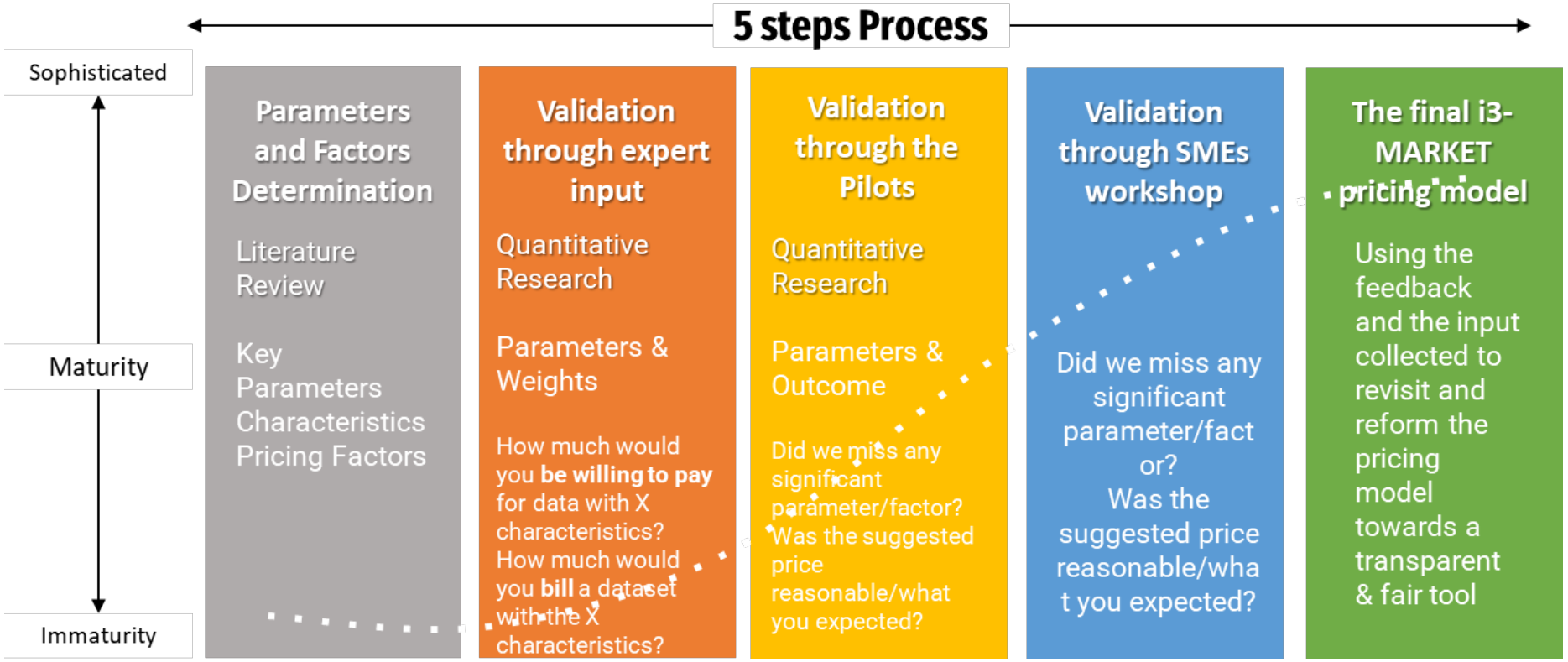

Suggested Pricing Model parameters

- Value-based parameters
- Quality-based parameters
- Cost-based parameters
- Law and License-based parameters

Our parameters in more detail...

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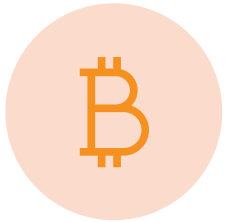

COST OF COLLECTING, STORING OR/AND ANALYSIS

ESTIMATED VALUE FOR THE CONSUMER

DATA COMPLETENESS

DATA ACCURACY & VALIDITY

UNIQUE ENTRIES/VALUES

RARITY/SCARCENESS

TYPE OF LICENCES

CREDIBILITY OF THE SELLER

How it works?

- A user-friendly pricing calculator
- Default parameters with specific weights that affect the final result
- Questions to assist the data provider/seller self scoring
- Scales in a user-friendly way
- The resulting value is a recommendation, and the user chooses whether to accept or modify it

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Thank you!

Find more:

https://www.i3-market.eu/

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