

State of Digitalization, 2024

# Digital Maturity Advancement Initiatives, Strategic Platform Management and Ecosystem Participation

by Agusti Miro



## Introduction and Content

The two previous papers, “*State of Digital Maturity, 2018-2023 Evolution, Stages and Barriers*”, and “*Digital Maturity Advancement Initiatives, Knowledge Transfer and Skilling*”, presented the Digital advancement barriers related to digital knowledge and unclear benefits, and proposed initiatives to overcome them.

This paper aims to outline the potential initiatives to overcome the digital barriers that arise from shared data rights and outdated platform governance models, and includes the following content:

### Part I: Shared Data and Platform Governance Conflicts Deter Major Value-Creation Areas

#### A. Effect A: Limited Platforms’ Transaction Facilitation and Value-Creation

- A.1. Platforms as a Business Model
- A.2. Platforms as Providers of Business Services to Enterprises
- A.3. Own Enterprise Platform Solutions and Bilateral Transactional Model Limitations

#### B. Effect B: Reduced Exploration and Participation of Ecosystem Business Models

#### C. Effect C: Insufficient Generation of High Demand Reusable Data

- C.1. Reusable Data Suppliers: Portals, Utilities and Data Service Providers
- C.2. Data Ecosystem as Value-Distributed Business Model
- C.3. Data Ecosystem as Own Data Access Solution
- C.4. Data Spaces

### Part II: Data and Governance Digital Advancement Actions and Key Learning

#### 1. Leverage Recent Regulatory and Technological Innovations

- 1.1. Innovative Shared Data and Governance Regulation, the EU Case
- 1.2. Robust Technical Architecture-Based, Platform Governance
- 1.3. Reliable Data Adjustment and Gateway Services

#### 2. Multi-Prong Approach to Access Reusable Data and Analytics

- 2.1. Create a Dedicated Data Access Role or Functional Unit

- 2.2. Map Analytical Capabilities Required and Decide the Level of Outsourcing

#### 3. Strategically Realign Own Platforms to Facilitate Transactions

- 3.1. Assess New Regulation Impact and Proactively Adjust Digital Strategies and Investments
- 3.2. Adjust Data and Platform Governance, and Integrate New Tools
- 3.3. Offer Own-Platform Functionality as Shared Services Provider
- 3.4. Monitor and Participate in Consortia and Public Agencies’ Platform and Ecosystem Building
- 3.5. Expand from Technically and Operationally Oriented to Strategic Platform Management

#### 4. Explore and Consider Business Ecosystems Participation

- 4.1. Business Ecosystems Adoption, Benefits and Success
- 4.2. Monitor Ecosystems Experiences and Start Assessing Participation Just as Contributor

### Closing: The Need for Strategic Platform Management and Ecosystem Participation

### Part I: Shared Data and Governance Conflicts Deter Major Value-Creation Areas

The present state of Digital Maturity is defined as being **biased towards internal operations**, and B2C interactions, with a significantly lower application of digital technologies to facilitate B2B transactions and enterprises’ collaboration, as indicated in the article “*State of Digital Maturity, 2018-2023 Evolution, Stages and Barriers*”. This is mostly due to outdated regulations and owner-biased platform governance models, that have become major barriers to the advancement of Digital Maturity.

**Shared data and governance conflicts deter digital transactions and curtail three value-creation areas:**

- Constrain platforms’ transaction-facilitating and value-creation potential.
- Discourage the exploration and participation in new ecosystem business models.

- Limit generation of high-demand re-usable data, for fact-based decision-making and AI training.

## Effect A. Limited Platforms' Transaction Facilitation and Value-Creation

Digital platforms have a myriad of applications and overlapping definitions. From a strictly technological point of view, platforms are a set of applications designed to contain, access and facilitate cross-use of other hosted applications powered by cloud computing. Other definitions to consider include:

### A.1. Platforms as a Business Model

Platform Business Models, leverage unique value-creation economies, such as direct and indirect network effects, near-zero marginal costs, scale economies in data gathering and analysis and high exit barriers. Additionally, they offer transactional cost reduction for all participants, more information and choice, search time reduction, and lower marketing, and sales costs. These economies have been leveraged extensively by well-known pure-play intermediary B2C platforms.

In order to generate value, independently of the owner, there must be at least three kinds of participants; suppliers, buyers and service partners conducting transactions through a common digital technological system (the platform in the strict technological sense).

### A.2. Platforms as Providers of Services to Enterprises

The term Digital Platform is confusingly used to refer to business services provided through proprietary platforms, services that range from narrow functions like e-mail management to broad enterprise business systems that provide applications for core day-to-day business activities, internal operations and back office, plus interface with customers and employees and data analysis and insight.

### A.3. Own Enterprise Business Platform Solution and Bilateral Transaction Model

To access and leverage the capabilities offered via platforms, enterprises operate either:

- Accessing a variety of separate business shared-services platforms.
- Cobbling a selected array, generally around ERP, CRM or industry-specific service platforms.
- Integrating them into a tailored solution, that becomes an internal operating system.

In this article, we use the term "own platform" to refer to the last two solutions. To set own platforms is a complicated endeavour, as the integration level, the scope of functions, and their fit with enterprises' needs depend on enterprises' resources. In particular, having a digital development strategy in place, access to digital knowledge, and reliable technical integrators, as explained in the article "*Digital Maturity Advancement Initiatives, Knowledge Transfer and Skilling*".

### Most "own platforms" have an internal orientation, even if including logistics and CRM modules.

Many resources and much knowledge have been generated in developing their architecture, the optimal building blocs and the operating model of these "own-platforms".

The complexity of creating them, and the importance of modifying the operating processes has naturally resulted in an internal focus by enterprise management, with some attention devoted to sales and CRM, but far less to how suppliers, B2B buyers and service providers interact, and the costs and incentives to do so.

**As a result, most enterprises' "own platforms" use a bilateral transactional model,** "platform owner-to-suppliers" and "platform owner-to-buyer" with bilateral interfaces. This model does not allow transactions among buyers and suppliers, nor generate value creation economies, and provides few incentives to participate. Generally, interfacing with the owner's platforms is just an obligation to conduct business with the platform-owning enterprise.

**Suppliers and B2B buyers are forced to establish a multitude of interfaces with many other platforms** to continue their business relationships, resulting in incremental transactional costs and data-sharing conflicts. This in turn inhibits voluntary participation, slows down the Digitalization of transactions and becomes a barrier to the advancement of Digital Maturity.

This explains, for example, that the mere Digitalization of the bill of lading transport documents (e-CMR) is just 1% in the EU, and the global benefits forfeited, were in 2022, estimated to be USD 6.500 million (6,5 US Billion) of direct cost reduction and up to USD 40.000 million in lost trade (McKinsey Institute).

## Effect B. Reduced Exploration & Participation in Ecosystem Business Models

The ecosystem concept has been used as a metaphor for joint value creation by enterprises.

Over time, the ecosystem's concept was applied to just entrepreneurial collaborative networks.

**Business ecosystems are confederations of platforms set around the development of a task or objective.**

Participants include enterprises acting as orchestrators, buyers, suppliers, distributors, and service partners. Ecosystems also involve developers, public agencies and other ecosystems. Objectives comprise the development of new products, services and capabilities, the creation of industry-wide and cross-industry services and even new product categories, through both competition and cooperation.

**Ecosystem business models are based on distributed-value creation and collaboration**, apply best practices in platform governance, and maximise indirect network economies and other platform economies to the point of being considered the next Digital Transformation evolutionary step.

**Participating in business ecosystems generates important competitive advantages, including:**

- Business growth through geographically expanded markets, and cost-efficient access to new segments and customers.
- Cost reduction in sales, distribution, and procurement through new supplier acquisition, new product development, and technology investments.
- Co-opt and leverage advanced capabilities of other participants, emerging as cost and risk-efficient alternatives to mergers & acquisitions.
- Intense knowledge transfer, that accelerates learning processes, and powers efficient innovation and R&D.

In addition, once ecosystems reach a certain size, they create significant entry barriers to new competitors, as prospective entrants need to compete against the entire system of independent complementing businesses and suppliers that form the ecosystem network.

**The ecosystem business model considered a fringe topic until 2021, is being adopted by leading enterprises**, not as B2C pure play, just to conduct part of their business, resulting in a 12,9% cost reduction and

13,7% contribution to total revenues, according to Ernst & Young.

**Ecosystem participation remains a low priority in management's digital agenda**, as most enterprises, with great differences depending on size and country, are still grappling with creating their own platform and modifying their processes, and for many, their efforts have yielded mixed results.

## Effect C. Insufficient Generation of High Demand Re-usable Data

**Reusable data is required for enterprises' evidence-based decision-making**, monitoring and fact-checking to optimise operations, logistics, planning and investing. Also facilitates policymaking, and public administrations' and citizenry's decisions. Additionally, massive amounts of data are essential for AI training and increasingly important to achieve competitive advantages.

**There are three mechanisms to increase the generation, access and use of reusable data:**

1. Data Suppliers: Data Portals, utilities and service providers
2. Data Ecosystems as value-distributed business models, supported by Data Spaces
3. Data Ecosystems as own enterprise data solution

### C.1. Reusable Data Suppliers: Portals, Utilities and Data Service Providers

**Data Portals are public websites that publish data sets in open format** to facilitate access, reuse and distribution of data. Most are set up by public agencies, academia, think tanks, development agencies and international institutions. The Data Portal's components include seamless integration with data sources, metadata management, data analytics and complex queries, data visualization and reporting tools.

**Data Portals can be open, partially open and closed:**

Open Data Portals offer data that can be accessed, used and shared again by anyone independently of their intent, and free of restrictions. Closed Data Portals, can be accessed by enterprises and individuals with a specific intent and qualification, under a broad range of licensing agreements. They can be accessed through fees or participation as data sources.

**Most Data Portals are either completely or partially open** with some data requiring licensing and data aggregation services involving payment. Dataportals.org offers a comprehensive list of over 600 open portals. Additionally, it is estimated to be over 2600 semi-open ones, and there is a buoyant industry of reliable technical providers including CKAN, DKAN, Socrata and OpenDataSoft.

**Data utilities, provide aggregated data sets and their analysis to other enterprises**, like for example credit bureaus and consumer-insights firms. In turn, Data service providers range from data-set treatment to Big Data analytics.

### C.2. Data Ecosystem as Value-Distributed Business Model

Data Business Ecosystems are confederations of platforms set to develop and deliver data services. Collaborative participants include;

- Data buyers
- Suppliers of collected data in pre-established formats, including Data Portals and data utilities
- Providers of enhanced data with rankings, tagging and scoring
- Adaptative data services that complement data given by a client enterprise with external data
- Data analytics and data insight service providers
- Developers and public agencies

Data Ecosystems objectives include the development of new data products, services and capabilities, and even new product categories like GeoPlatform.gov. which brings together the U.S. government offering geospatial data from its satellite systems and research institutions, entrepreneurs and developers treating 160,000 geospatial datasets of broad commercial use.

### C.3. Data Ecosystem as Own Enterprise Data Access Solution

As a result of the increasing importance of data analytics, since 2018 large enterprises have been developing capabilities in internal and external data collection and analysis. In that context "Data Ecosystem" is applied to a proprietary, internal cloud-based solution for acquiring internal and external data, and outsourcing data analysis capabilities. It may entail participation in different Data Business Ecosystems explained above.

This is an increasingly important business capability that yields good results, but in strict terms, it is not a business ecosystem, it is just a "Hub-and-Spoke" proprietary enterprise data supply system, bilaterally transacting with data service providers, and sometimes also with data ecosystems.

### C.4. Data Spaces

Whereas exchanging open data is relatively straightforward since the licensing terms allow reuse for any purpose, exchanging data with more restrictive conditions is a more complex transaction. This creates the need for more sophisticated functionalities to enable data sharing through the creation of Data Spaces.

**Data Spaces are regulatory frameworks to overcome legal and technical data-sharing barriers.**

They provide harmonized governance models, platform architecture requirements, technical standards, and required tools to facilitate the development of data platform business models and their federation into ecosystems based on shared governance, rules and technological standards.

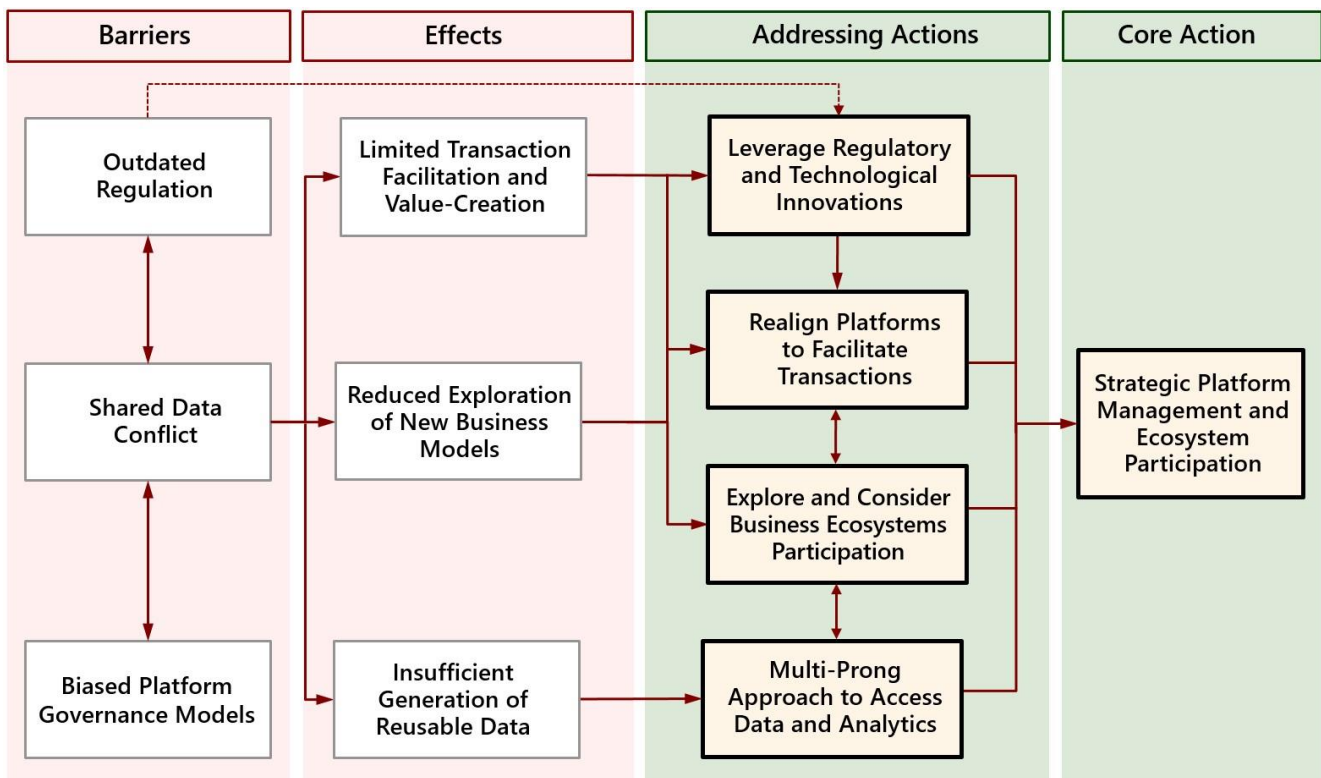
**EU is actively working on the creation of union-wide sector Data Spaces** (Common European Data Spaces SWD 2024-21) for Health, Agriculture, Manufacturing, Energy, Mobility, Finance, European Green Deal, Language, Public, Administration, Skills, Cultural heritage, Research and Innovation, Tourism and Media. In terms of adoption, the Health Data Space (EHDS) is the most advanced. The EHDS facilitates the exchange of various health data types to enhance healthcare coordination, research, and innovation and includes open healthcare data sources, like Eurostat.

## Part II: Data and Governance Advancement Actions and Key Learnings

The rest of this paper presents a battery of related Digital advancement initiatives, with specific examples and key takeaways to be considered, adjusted and applied to the digital advancement efforts of any enterprise, consortia and development agency independently of their size.



## 2024 – Data and Governance Barriers to Digitalization and Value Creation - Actions



©CETMO 2024 - Permission granted to use this image provided that proper credit is given by citing or mentioning the source

### Takeaway 1. Leverage Regulatory and Technological Innovations

A platform governance model defines the rights of the platform's participants on data usage, participation, value-generated distribution and conflict resolution.

There is very limited relevant information on the details of platform governance models because it is part of contracts and commercial agreements that are difficult to access in sufficient numbers. However, significant regulatory improvements and technical innovations have emerged to reduce shared data conflicts.

#### 1.1. Innovative Shared Data and Governance Regulation, the EU Case

EU law is particularly relevant as it directly affects the country members' policies and regulations, and also becomes the point of reference for many other countries. The EU has engaged in a harmonizing regulatory update, with mandatory implementation deadlines and technical standards, that leverage innovative architecture-based governance, data adjustment services and platform gateways.

The EU established the European Strategy for Data in 2020 (COM-2020-66), to optimise government-to-business (G2B), B2B and B2G data availability, through improved data governance plus mandatory interoperability and cybersecurity.

This strategy has led to the 2023 Data Governance Act (DGA) 2022/868, to facilitate international and national public data sharing across the EU and among sectors, by fostering trust in data-adjustment service providers and gateway platforms. It includes technical standards, data governance models, deployment timetables, and mandatory deadlines.

The recent 2024 EU Data Act 2023/2854 further harmonises European B2C, B2B, and B2G rules on fair access and use of data. It balances the rights of cloud-computing service providers and establishes common governance for data generated by devices equipped with IIoT. The Data Act entered into force in January 2024 and has a three-year deployment timetable. This set of regulations is complemented by the EU's Data Space initiative introduced before.

The EU's objective is to set the backbone for the development of EU and national sector-wide ecosystems, greatly facilitated by common governance models and technical specifications, and enabling most enterprises to conduct business participating as either Ecosystem suppliers, buyers or service providers.

EU enterprises will be shortly required to make regulatory-complying decisions and investments, and there is an increasing risk that without a broader strategic frame, enterprises' decisions may simply seek to comply with the most immediate deadline, losing sight of the transformation in course.

### 1.2. Robust, Technical Architecture-Based, Platform Governance

A set of Best Practices addresses the need for balanced platform governance by scripting the governance in the very technical architecture of the platform. These platforms facilitate participation and reduce data-sharing and governance conflicts with guaranteed authentication, adjustment of the level of information shared, interoperability and standardisation.

*A good example is X-Road*, considered by the OECD a Best Practice in technical-architecture-based governance, and a model for the development of extensive business ecosystems. X-Road, in its very technical architecture, offers a system for managing variable rights and authentication codes that reduce potential frictions. Additionally, increases mutual trust among participants by providing system authentication, encryption and routing across all participants.

### 1.3. Reliable Data Adjustment and Gateway Services

Data adjustment tools and gateway platforms ensure that the privacy and confidentiality of data are respected in re-use situations, providing anonymization, pseudo-anonymization and voluntary adjustment of the level of information shared with each participant in a given transaction. These services are expected to expand due to the support given by the last batch of data governance EU regulations.

*FluidTime, Pioneera, NV and Transfollow* are some examples of the many successful robust providers of technical solutions for data-reuse facilitation. FluidTime provides cross-industry data anonymization, and Pioneera, NV or Transfollow, offer gateway platforms with voluntary adjustment of the level of information shared to facilitate freight transport transactions.

*EU 2023 Data Governance Act, and 2024 Data Act, leverage innovative data-adjustment service providers* and gateway platforms. To facilitate their expansion and standardization, new regulations include technical standards, mandatory functionality, and balanced data governance models.

## Takeaway 2. Multi-Prong Approach to Access to Reusable Data and Analytics

As previously indicated the economic and societal potential of data usage is enormous, as is key to fact-based decision-making and for AI training, and there are in place a variety of ways to access reusable data.

**Just a fraction of data is accessible through open portals and data licences.** Additionally while using open data is relatively straightforward, exchanging data with more restrictive conditions is a complex transaction. These two reasons make Data Portals insufficient and create the need for more sophisticated functionalities to enable data sharing.

**Data services platforms and other data-sharing business models already exist but are insufficient** and the spectrum of data offered greatly varies depending on the sector. Moreover, data sharing is often not as systematic and efficient as it could be. Presently is often necessary to adapt data formats, validate interfaces, and negotiate contracts before a broad and generalized use can be achieved.

**The information and terminology on data ecosystems and data spaces are confusing** and even contradictory, further complicating an already intrinsically complex topic. This leads to hesitancy and lack of trust on the part of users, particularly small and medium enterprises that do not yet see concrete added value in creating ecosystem business models, nor know how to participate.

**At present Data Ecosystems have difficulties in achieving participant critical mass** to gain trust and a solid bargaining position with data operators and participants. Additionally, there is an extended legal uncertainty dealing with data, and a lack of standards and trust between the actors involved. This is being addressed in the EU by the recent Data Act, and Data Governance Act, as explained before.

Research indicates that most companies have not developed yet the capabilities to obtain and use data

efficiently. Based on the arguments above, we suggest a multi-prong approach to increase access to data and analysis.

### 2.1. Create a Dedicated Data Access Role or Functional Unit

An initial step is to create a functional unit dedicated to providing data by leading internal data collection efforts, identifying and interfacing with data sources, matching data requests and coordinating the participation in Data Ecosystems. With time this could become the kernel of a future own data access solution.

As usual in any digital advancement initiative, it is suggested to engage in fast cycles of small trial-and-error projects, to learn the ropes, develop a broader network of data service providers, and gain direct experience.

### 2.2. Map Analytical Capabilities Required and Decide the Level of Outsourcing

There is a very broad range of data services available including data collection in a pre-established format, data treatment and enhancement, adaptive services that combine data given by the enterprise with external data, and data analytics and insight services.

It is advisable to assess present and expected external data needs and to map internal and external data access and analytical capabilities, to later determine the capabilities to be outsourced and to whom.

### 2.3. Tap into Data Ecosystems and Develop Own Enterprise Data Access Solution

As indicated in the fourth takeaway, developing ecosystem business models, requires capabilities that few leading companies have, and the failure rate is estimated to be 85%. For these reasons for most enterprises is advisable to tap into all data sources and data ecosystems already in place, by interfacing with existing ecosystems as a supplier of enterprises' own data access system, or becoming ecosystem participants.

For most enterprises is not advisable to play a leading orchestrator/owner role, as ecosystem building is risky and exceeds the capabilities and resources of most enterprises.

Some examples of successful data ecosystems developed by public agencies include:

**Data and Information Services (DIAS):** The DIAS platform is a European Union service for accessing data from the Copernicus Earth observation programme. DIAS is provided by the sentinel satellites of Copernicus and creates an ecosystem of collaborators and consumers of the information provided to entrepreneurs, application developers and the scientific community. To create an ecosystem, it offers tools and applications to collaborate and improve the management and conservation of the environment and safety.

**GeoPlatform.gov:** GeoPlatform is a U.S. government-owned platform that offers a DIAS-like model, as well as tools such as ArcGIS Online and GeoPlatform Map Viewer.

## Takeaway 3: Strategically Realign Own Platforms to Facilitate Transactions

### 3.1 Assess New Regulation Impact and Proactively Adjust Digital Strategies and Investments

EU's new data, Data Spaces and industry regulations, greatly modify the competitive environment, due to the following reasons :

- There are no mere directional regulations, they specify even platform architecture, interface and data format standards and implementation timelines, that enterprises will have to comply with.
- The stated technical standards and functionality exceed their stated short-term objectives, and respond to an encompassing, and not necessarily apparent digital development strategy.
- The technical committees that design the technological and functional details, are driven by experts from some of the most digitally advanced countries in the world (Denmark, Finland, the Netherlands and Sweden), countries that have been experimenting with platform development for decades.
- EU's implementation timelines are usually long (2-4 years), which may lead management to delay their analysis and deployment planning. What is often overlooked, is that those timelines are deadlines, and country members and enterprises are free to implement them years in advance.
- EU regulations affect directly the union members, and influence countries of the European Economic Area (EEA), the European Free Trade Association (EFTA), and



those with association agreements. Additionally, particularly well-designed EU regulations have become, in past cases, worldwide references.

**Enterprises in the affected countries should strategically assess the impact of regulations as a whole**, becoming aware of their profound operational and competitive effects, and adjusting enterprises' strategies, digital investments and timeframes accordingly.

**Regulations open a window of opportunity to lead platform-related new value-creation opportunities.** By establishing data and technological standards, new regulations reduce the risks and increase the potential benefits of evolving enterprise platforms to facilitate business transactions and knowledge exchange.

### **3.2. Adjust Data and Platform Governance, and Integrate New Tools**

A relatively simple initiative is to quickly comply with new data rights and governance regulations that rule enterprise platforms interfacing with suppliers, B2B buyers, and logistic agents.

Also to proactive integrate and offer to suppliers and B2B buyers, incentives and data-shared adjustment tools and leverage transaction getaways that greatly reduce platform data sharing and transaction frictions. Tools and gateways that in turn, have been standardized by the before-mentioned regulations. One further step would be to include blockchain technology to further establish trust.

This potential functionality increase and transaction facilitation, does not imply the adoption of platform business models, rather is an overdue update of the basic bilateral transactional model.

### **3.3 Offer Own-Platform Functionality as Shared Services Provider**

Direct research on the effects of the EU's, implementation of Electronic Freight Transport Information (eFTI) (2020/1056), resulting from the Sustainable & Smart Mobility Strategy (SWD-2030-331). Reveals that enterprise platforms that fast and successfully address the new regulatory requirements are approached by other enterprises and logistics agents, requesting to use part of the platform functionality as a shared service. This generates four relevant sets of benefits:

1. **Triggers new revenue streams and places the enterprise at the centre of a new network**, and as an essential member that controls critical resources, that can be leveraged in future platform business model participations.
2. **Enables a progressive learning process** regarding, among others, participation incentive strategies, the balance of enterprises and network interests, and new governance models, which facilitates the development of a more network-oriented managerial mindset.
3. **Incentivizes the expansion of enterprises' platform operational model.** Similarly, the need for data compatibility, the addition of data pseudo-anonymization, data-exchange sequence and authentication, incentivates the evolution of platform technical architecture and expansion of the own platform operational model.
4. **Greatly facilitates future participation in platform business models.** Operating model evolution, accumulated learning, evolved network-oriented managerial mindset, and being at the centre of a network, facilitate becoming a key participant in future platform and ecosystem business models.

**Large and medium enterprises can leverage this opportunity as it requires fewer resources and capabilities than the development of platform business models.**

**Most sectors have low platform business model adoption and digital transaction facilitation levels, like;**

- Transport and logistics, hospitality & tourism, basic manufacturing health care, pharma, & chemicals, agriculture, mining and construction. Sectors with low overall Digital Maturity and platform economy adoption, and that combine complex and interdependent transactions, heavy regulations, low tolerance for failure, repeated attempts of vertical integration, and are asset or labour-intensive.
- Advanced manufacturing, wholesale trade, oil & gas, and utilities, sectors are more digitally advanced, with significant digital investments biased towards internal operations, with low digital transaction facilitation and adoption of platform business models.
- ICT, media, finance, insurance and professional services sectors, have an overall high Digital Maturity level combined with significant levels of investments towards transaction-facilitating and platform evolution.

### 3.4. Monitor and Participate in Consortia and Public Agencies' Platform and Ecosystem Building

While EU new regulations rely on private initiatives to develop transaction-facilitating platforms and business ecosystems, the most digitally advanced European countries have a strong tradition of digital leadership from their public agencies.

If recent EU regulations fail to increase data sharing and platform and ecosystem business model development in some sectors or countries, it will not be unexpected to see the emergence of platforms and ecosystems led by public agencies, consortia and sector organizations. This already happened in Mobility-as-a-Service platforms (MaaS) aiming to optimize multi-modal and multi-operator passenger transport. The repeated failures of private-led MaaS; Ubigo (2020), and Whim, Kyyti and Citymapper (2021), have resulted in public transport operators leading their development in partnership with leading technical providers, as in the case of the Rivier platform built by the main transport passenger operators in the Netherlands and Siemens Mobility.

Consortia and public agency leadership can also be expected to take a leading role in non-EU countries with centralized policy-making and high enforceability power. In that case, and if deemed a serious endeavour it is recommended to proactively participate as it will likely achieve an oligopolistic position difficult to replicate.

### 3.5. Expand from Technically and Operationally Oriented, to Strategic Platform Management

Large leading enterprises already manage strategically their platforms to increase competitiveness and generate value by framing platform management within their corporate strategy and by evolving the platform's role, functionality, architecture and operating model.

Enterprises' own platform management is affected by the state of platform development and enterprises' level of Digital Maturity. Enterprises that are still immersed in building their own platforms, and those that achieved it recently, have a natural tendency to equate platform management with just its technical aspects. In turn, enterprises already adjusting their processes, logically pay particular attention to determine and refine their operational model.

It is advisable for any enterprise, independently of its platform development situation, to be aware of the growing competitive impact and strategic importance of

their own platforms, and to progressively adjust their management accordingly. This entails having, not only digital technological skills but also developing or acquiring strategic digital management ones.

The following are some examples of our own platforms evolving into platform and ecosystem business models.

**GCcollab** (<https://gccollab.ca/about>), created by the Government of Canada in 2016, was initially an e-government platform for improving the internal management of the Administration, which has expanded to become a complex ecosystem of professional networks for internal and external collaboration among civil servants, researchers and service the improvement of public service.

GCcollab is complemented by a set of digital tools provided by GCTools Canada, a digital platform also owned by the Canadian Government. GCcollab and GCTools provide channels and tools for navigating through ecosystems that connect over 160,000 federal civil servants, as well as invited academics and experts, including its own Wikipedia and Twitter-like chat services.

**X-Road** originated in the effort to increase interoperability between public databases in Estonia and has evolved into a free, open-source, mass platform, designed from the outset to facilitate secure transactions and cross-platform interaction. All participants, for their own interests, whether private or public integrate their platform into the X-Road ecosystem, which ensures interoperability and the establishment of internal rules acceptable to all.

X-Road allows the federation of different platforms and ecosystems, and thus achieves the integration of different private or governmental initiatives, as in the case of the joint use by the administrations of Estonia and Finland since 2018, as if they were part of the same ecosystem. In addition to Estonia and Finland, it is used in Iceland, Germany, Colombia, Argentina, Brazil and Japan.

## Takeaway 4: Explore and Consider Business Ecosystems Participation

### 4.1. Business Ecosystems Adoption, Benefits and Success

**From 2021 on, there has been a progressive enterprise adoption of the ecosystem business model, to conduct**

part of their business, and not exclusively for B2C, as the diagram below illustrates. In 2021 IBM invested USD 1000 million in its hybrid cloud ecosystem infrastructure, and according to 2022 surveys from BCG Henderson Institute and EY, 52% of the world's largest enterprises are engaged in ecosystem business models. Additionally, working ecosystems yielded a 12,9% cost reduction and 13,7% increase in revenues.

**Ecosystem business models are outperforming traditional methods**, prompting companies worldwide to adopt them strategically. Consequently, business leaders are increasingly leveraging these models to achieve key objectives such as growing core operations, diversifying revenue streams, and fostering innovative value creation.

Just a few years ago it was considered a fringe topic, nowadays many leading enterprises across industries have begun to develop cross-sector ecosystem offerings. As illustrated in the diagram below, according to 2021 McKinsey estimations, by 2030 the use of business ecosystems could account for 25% of the total economy, generating global revenues of USD 70 Billion or 70 Trillion using the Anglo-Saxon convention, (USD 70\*10<sup>12</sup>).

**Business ecosystems' impact on business, is set to increase**, due to; a) positively changing regulations on data-sharing, b) technological innovations, c) new collaborative governance models, d) benefits generated e) proven resilience in times of crises and f) the decisive actions of leading enterprises and countries.

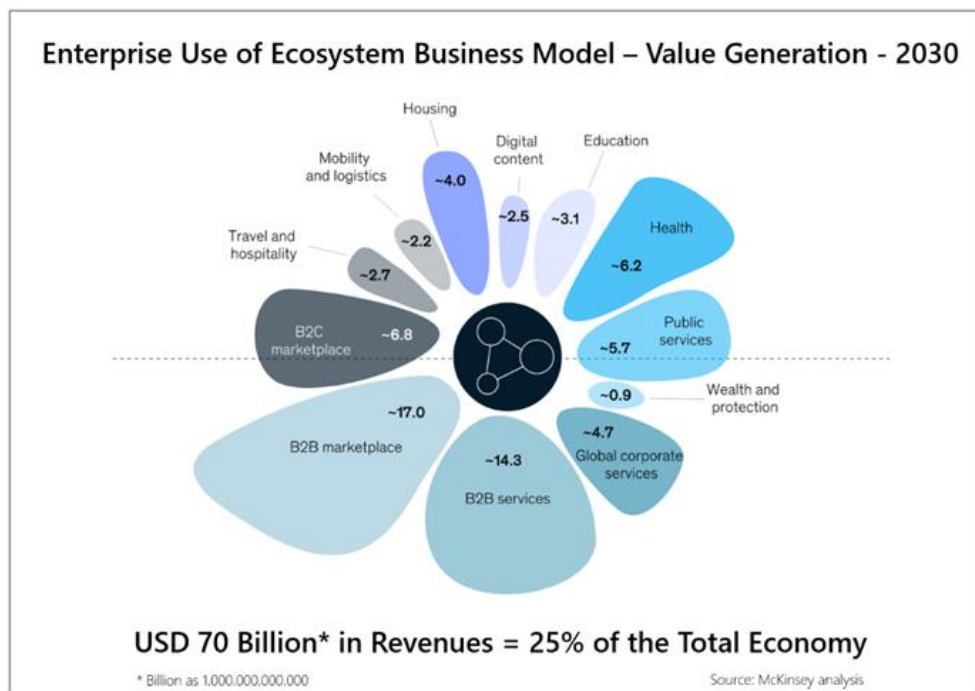
Industries with significant customer friction and markets which have not yet been disrupted by digital and data-led platforms provide many opportunities. Moreover, many B2C opportunities have already played out but B2B and public sector opportunities remain largely untapped.

**Ecosystem building is risky and exceeds the capabilities and resources of most enterprises.**

According to BCH Henderson Institute, only 15% of business ecosystems thrive in the long run, and to develop them is not a simple process.

#### 4.2. Monitor Ecosystems Experiences and Start Assessing Participation Just as Contributor

**Ecosystem management requires an uncommon, systemic, network-integrated, strategic mindset**, as the business models are based on distributed value creation, and ruled by specific microeconomic effects which do not always coincide with standard "linear" business models.



***We suggest that most enterprises, monitor ecosystem experiences and start assessing potential participation.***

While setting up and managing ecosystems as owner/orchestrator may not be possible nor advisable for most enterprises, we suggest, for competitive reasons, at least following up the ecosystem business model ongoing adoption and its results, to define potential participation objectives, scout ecosystem targets and governance models, and explore the pros and cons of the rules of engagement to become an effective ecosystem partner.

***Regarding enterprises already considering their participation, it is advisable to do so just as contributors,*** either as ecosystem suppliers or service providers. Research indicates that there is no need to be the owner/ orchestrator to obtain significant benefits. Contributors require limited upfront investments and fewer cultural and operational adjustments. They also assume lower risks and have the possibility of engaging with many ecosystems thus gaining insight and bargaining power.

Being an ecosystem contributor has large and little-explored potential benefits, like neutralizing competitive threats, accessing new markets and segments, and enhancing or developing new products and services. However, it also generates challenges in building robust relationships with the orchestrator and other participants, finding a balance between own and cooperative interests, and managing conflicts regarding the level of commitment, data sharing and customer access among many others.

***Some guiding principles can start being extracted from the limited existing research and analysis*** on ecosystem contributors' participation, just to select a few:

- To have a clear objective to achieve; competitive play, market expansion or product development.
- Enterprises participating as service providers tend to perform better if highly committed to a single ecosystem, just the opposite of enterprises participating as suppliers.
- Ecosystem suppliers narrow the scope of offerings to high-demand products (achieving logistics cost reduction) and use the ecosystem as a showroom to get access to new customers to later redirect them to their own platform.

To summarize, becoming an ecosystem participant as a supplier or service provider presents for most companies a very large but generally neglected business potential, to unlock it requires, among others, a complex learning process, specialized skills, and scalable tentative experimentation, supported by an overarching specific strategy.

## Closing

The digital technologies' unprecedented capacity for innovation, the accelerated expansion of their applications, and the steady increase of the leading enterprises' Digital Maturity exert constant pressure on most enterprises to increase their digital capabilities and know-how, in order to maintain or increase their competitiveness.

All research and analysis agree that this constant innovation and growing impact on enterprise operations will continue in the foreseeable future. Digital technologies are transformative, and it is strongly advisable for enterprises' management to adjust their strategic framework accordingly.

Digital advancement initiatives are more efficient if managed strategically, and are part of a specific digital development and management strategy, that should be fully integrated as an essential component of the overall corporate strategy.

**The Strategic Management of platforms and new business models is becoming a necessary condition to maintain competitiveness and leverage the continuous stream of digital innovations.**

To keep up with digital technologies's continuous innovation, every enterprise should facilitate an ongoing learning process and acquire digital management skills and expertise. This can be achieved through sustained engagement in scalable, tentative, learning-oriented trial-and-error initiatives, even if done at a smaller scale, considering each enterprise's size and resources.

### CETMO Foundation

Agusti Miro  
Av. de Josep Tarradellas 40 entlo. - 08029 Barcelona

cetmo@cetmo.org - <https://www.cetmo.org/>  
Registered with the number 129  
in the "Protectorado único de Fundaciones".

Copyright © 2024 CETMO. All rights reserved.