

SARMED: Regional Freight Delivery in Greece

MULTI-SIDED PLATFORMS IN EUROPE'S LOGISTICS SECTOR (Case 3)

Introduction

In 2016, the European Commission launched the EU Horizon2020 Project SELIS (Towards a Shared European Logistics Intelligent Information Space) to accelerate digitalization of the logistics sector in Europe. Eight SELIS Living Labs (LLs) took place in different geographical settings all over Europe, including the Netherlands, Belgium, Greece, etc. During the project, supply chain visibility was one of the key strategies targeted by the LLs, also strongly related to other strategies like data reliability and quality. The overall aim of all the SELIS LLs was to contribute to the adoption of innovative business models by logistics communities and enabling the participation in a green, agile and collaborative European logistics and transportation system. In summer 2019, the project came to an end and it was time for the actors participating in the LLs to scale the multi-sided platforms launched within the project in a pilot base and implement them in their actual day-to-day business activities. How would the use of a multi-sided platform transform their business? What challenges would they encounter when implementing it? And how to improve the platform in order to make it most effective and maximize its long-term value?

Multi-sided Platforms

Multi-sided platforms (MSP) are “technologies, products or services, that create value primarily by enabling direct interactions between two or more distinct customer or participant groups”¹. Platforms as such have existed for years; a shopping mall for example, works a platform, connecting consumers and traders. The difference of this era, which is dominated by the growth of information technology (IT), is that the need to own physical infrastructure and assets has been substantially reduced. Because of the use of IT, developing and scaling up platforms has become way simpler and less expensive, as the smooth and almost seamless participation is made possible, and thus network effects are enhanced.

This case was written by Dr. Anastasia Roukouni under the supervision of Professor Rob Zuidwijk at the Rotterdam School of Management (RSM), Erasmus University. We wish to thank Toai Truong, Project Manager & Quality Assurance Associate of SARMED, and Carla Gatt and Tao Yue at the RSM Case Development Centre for their time and input.

This case is based on field research. It is written to provide material for class discussion rather than to illustrate either effective or ineffective handling of a management situation.

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A digital platform matches supply and demand of physical goods, services and/or information provision. The position of the platform is in between the two markets as an independent player; the platform host is the “matchmaker”. What the platform sells to its users is access. The role of the platform host can differ in intensity (**Exhibit 1**); they could just offer a platform for exchange or retain more control over the interactions and have an integrated payment system and customer service.

Platforms can vary a lot, but they all have an ecosystem with common structure and four main categories of players involved: owners, providers, producers and consumers (**Exhibit 2**). The platform owners have control over their intellectual property and the governance of the platform. Providers serve as the platforms’ interface with users. Producers create their offerings, and consumers use those offerings³.

Many digital platforms create economies of scale, as costs of enabling a transaction decline when the number of transactions increases. This scalability is a reason why digital platforms can cause a disruption to existing market; they can potentially grow fast. Multi-sided platforms are characterized by network effects (**Exhibit 3**) which should be taken into account when defining the relevant market, measuring market power and evaluating the anti-competitive effects as well as efficiencies in competition cases². Network effects can be either positive (value-enhancing) or negative (value-diminishing)².

Exhibit 1. Types and examples of platform businesses³

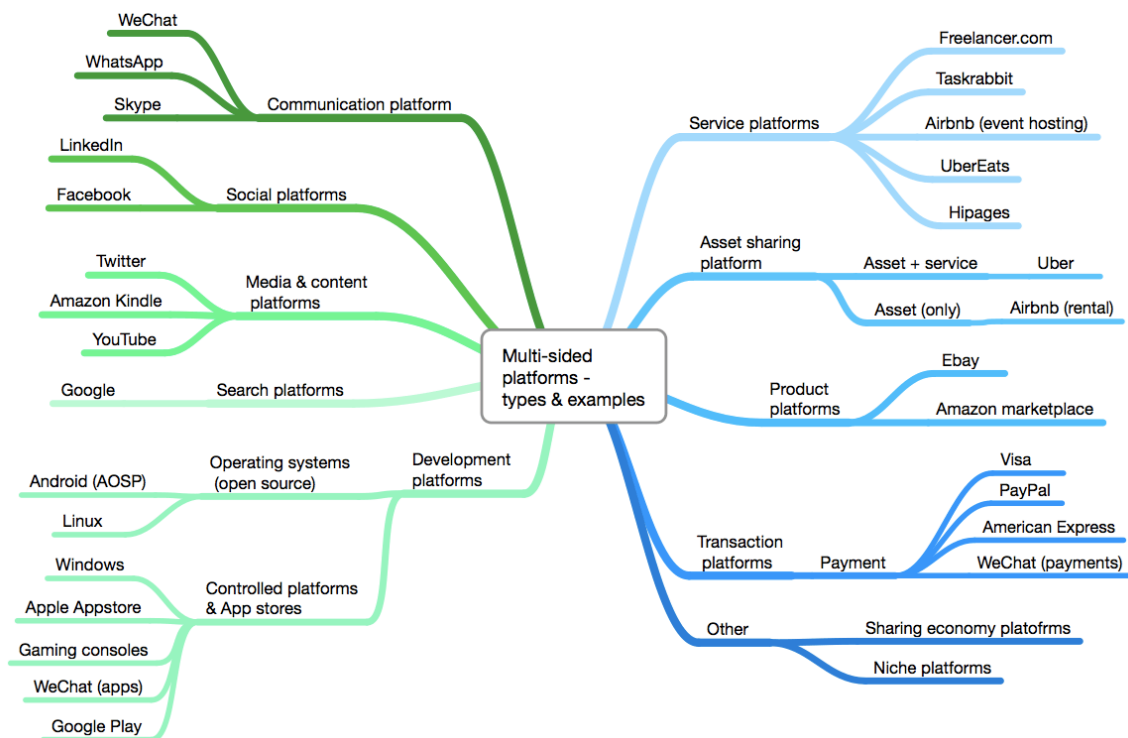


Exhibit 2. The players in a platform ecosystem⁴

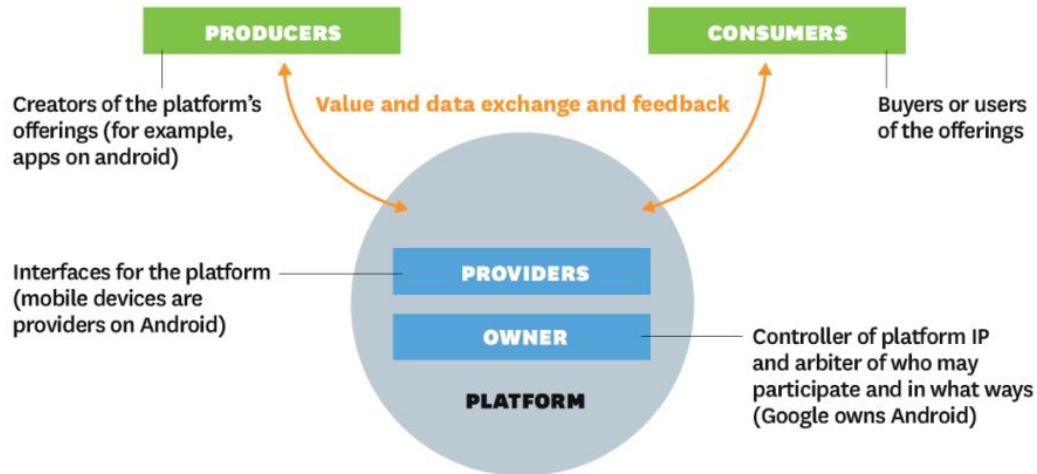
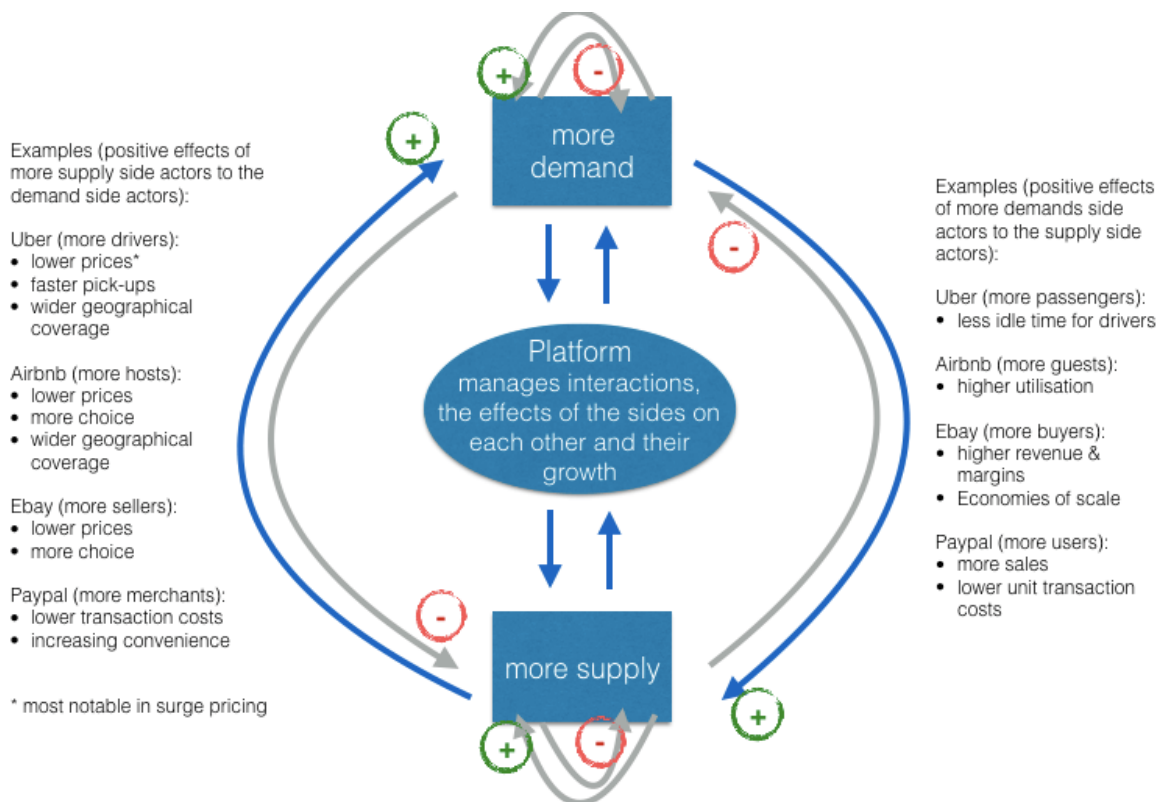


Exhibit 3. Potential network effects of multi-sided platforms²

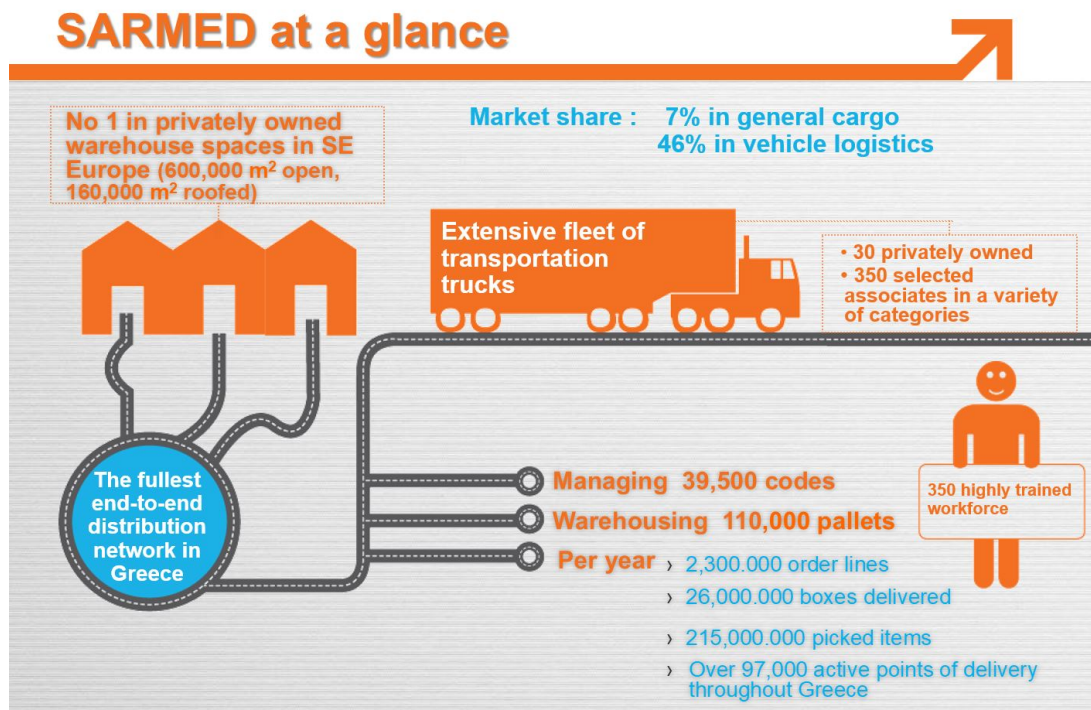


SARMED

In 2019, SARMED was one of the leading third-party logistics (3PL) companies in Greece, using state-of-the-art technological infrastructure and delivering pioneering logistics since 1991. The main attributes of the SARMED company are exhibited below (**Exhibit 4**). Vehicles were transported from the port of Piraeus to SARMED's premises and then delivered to dealers' network throughout Greece, with a capacity of 800 vehicles/day and a self-owned fleet of 30 car carrier trucks.

Toai Truong, Project Manager & Quality Assurance Associate of SARMED, based on the company's premises in Athens, was thinking of what the multi-sided platform could offer to his company for the future now that the EU Project, under which it was set up, was drawing to a closer. The most important question that was an overarching challenge worrying him was: Who should take ownership of the platform and decide to whom or to which parties to give access to? What would be the costs involved for maintaining and expanding the platform? And most importantly, who should be responsible for covering the costs, and what would be the ideal pricing model to move forward?

Exhibit 4. SARMED at a glance⁵



Industry Actors Involved in Freight Transport in Greece

The sector of transport and logistics have always had a very important role in the Greek economy. In a challenging global environment, according to a study performed by the Hellenic Logistics Association's [EEL] (2014), the sector accounts for 10.85% of GDP, which corresponds to approximately €19.8 bln⁶.

As the performance of freight transport and logistics is inevitably influenced by external factors that shape the needs and patterns for production and consumption of goods, in the recent years, there have been considerable challenges for the logistics providers in Greece, following the global financial crisis of 2008 which caused a significant downturn of the Greek economy.. Nevertheless, a recent industry study (2016), based on a sample of 163 3PL companies in Greece, showed that the 3PL market has actually been growing, even during the years of the debt crisis with the turnover of the examined companies reaching €840 m in 2014, showing a noteworthy increase of around 3% compared to the previous year⁶.

Leading 3PL companies in Greece usually offer a variety of services, including innovative solutions in fields such as reverse logistics, procurement, supplier management, ICT etc., while at the same time there is also an important number of companies which offer more specialized added value services, like packaging, repackaging and labelling⁶.

The most robust logistics markets in Greece have been developed around the two largest metropolitan areas, both closely linked with the country's main international harbours; the port of Piraeus and the port of Thessaloniki respectively⁶.

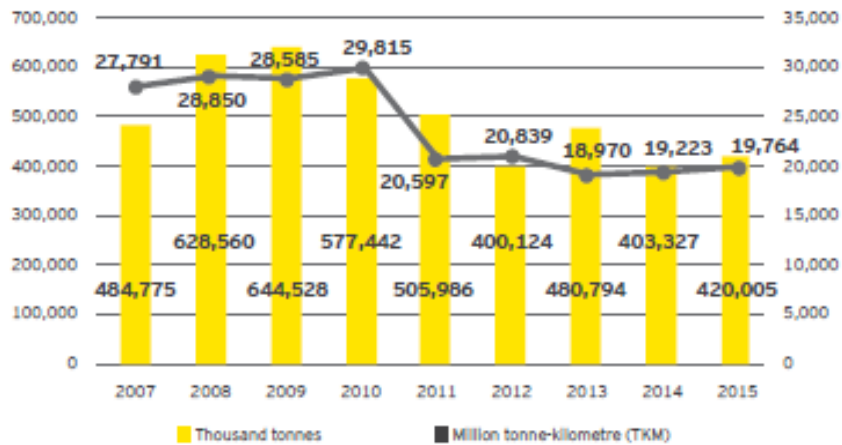
Near Athens, the key logistics facilities are located mainly in two areas in the region of Attica: one in the western part of it and one in its northern borders. Most 3PL providers have built warehouses and distribution centers around these principle logistics centres of Athens (Attica) and Thessaloniki. The same holds usually for big retailers and manufacturers⁶.

Nevertheless, apart from the aforementioned two large concentrations, 3PLPs usually prefer tend to develop a network of collaborations with agencies or smaller logistics providers, to avoid having their own facilities on local level in the rest of the country. Moreover, in the case of remote areas or/and the islands, they opt for subcontracting their transportation and distribution activities to regional agencies or/and transportation companies⁶.

The evolution of freight road transport performance in Greece is presented in **Exhibit 5**⁶.

Exhibit 5. Evolution of total road freight transport performance in Greece⁶

Evolution of total road freight transport performance in Greece



Source: Eurostat data, 2017, analysis by EY

The SARMED Digital Platform – Opportunities Created

SARMED, participating in the EU project SELIS, decided to introduce a multi-sided digital platform in two different use cases, in order to tackle different problems that they were facing. These two use cases are described below.

Use Case 1

SARMED had realized that often, information regarding the transportation of goods that were shipped through Regional Agencies (RA) to the regions outside Attica and Thessaloniki lacked consistency; in addition to that, goods were not always delivered on time. Delays occurred usually in different stages of the information provision chain and had an impact on the following different times:

- Time to exchange information with RAs
- Time to exchange information with End Customers
- Lead time to share/provide information for the delivery
- Time to track a delivery

Aiming at addressing these problems, an online platform was introduced. The platform was used as a Supply Chain Visibility enabler, attempting the seamless integration of

information coming from multiple sources, by all stakeholders involved (RAs, Logistics Service Providers (LSPs), Clients and End Customers).

The provided platform facilitated the reliable operation, as it provided end-to-end Supply Chain real-time visibility of:

- Clients: the status of their customer orders (execution, tracking, delivery, etc.)
- LSPs: all orders' delivery status
- RAs: all relevant information regarding their responsibilities
- End Customer: status of their orders (picked, loaded, in transit, in hub X, etc.)

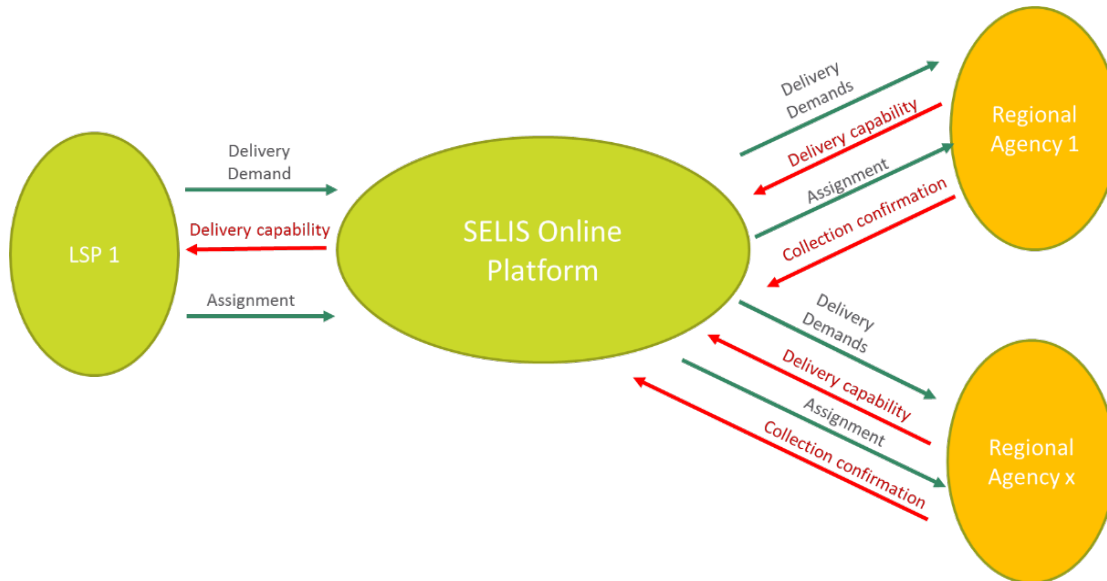
The platform participants were subscribed to the “content related queues” of their interest, and at the same time they were able to “publish” their data/events in order to transmit the required information to the relevant parties. Automated corrective actions were also incorporated to the platform, to allow timely handling of unexpected events (such as delays)⁷.

Use Case 2

Another challenging issue that SARMED had to face, was that RAs as well as LSPs had limited and often only last-minute knowledge of the preferred delivery dates for each final point, and low-to-none capability to influence these delivery dates in an efficient way. This resulted in delays in the time used to exchange information, and also lead to a low loading factor as well as empty returns⁷. A digital platform was introduced under the objective of tackling this.

With its introduction, SARMED had the intention to observe whether the platform could facilitate collaborative planning and value sharing among the LSPs and the RAs, allowing hence higher load factors for shipments, which due to the reduced transport distances, had the potential to have a significant impact on the reduction of CO² emissions. They aimed to achieve full transparency of the operational details, and to boost a negotiation process between the LSPs and the RAs, intended to eventually evenly share the benefits of the optimization of the process. The architecture of the platform of Use Case 2 is presented in **Exhibit 6**.

Exhibit 6. Architecture of the platform used for Use Case 2⁷.



Impact of the introduction of a digital platform for both Use Cases

Before the implementation of both digital platforms, at SARMED, the Transport and the Customer Service departments (comprising 13 persons) had to manually contact the RAs and the customers to exchange information for the status of deliveries on a daily basis. Therefore, they had to communicate with approximately 60 RAs and 100 customers, which means $60+100 = 160 \times 2m = 320$ minutes daily. The savings that the introduction of the platform brought for SARMED have been calculated as a 5% reduction in operation costs. Moreover, the other stakeholders reported spending also less time and effort to obtain information related to the shipments' delivery status.⁷

Overall, it can be said that the platforms allowed the creation of a common view of the intended actions. With them, all involved stakeholders were able to have full visibility of the supply chain, and they were hence able to create a common view of the intended actions, which enabled them to significantly improve the level of their customer service.

The Way Forward – Remaining Challenges for SARMED

According to Toai Truong, for SARMED, the design, the planning and the development of both use cases was not very complicated and the reaction of the majority of clients to the introduction of the digital platforms was positive; nevertheless, some important challenges for the company remain:

- One of them is deciding and implementing the future plan of how succeeding to involve a wider number of stakeholders, such as more RAs, to get on board to the platform solution. A main obstacle to overcome is the segmentation observed the group of RAs; there are the "the well-organized" and the "less organized" ones.

For RAs that are organized, they are usually already using a traditional software to plan their activities, which means they are expected to show some resistance when asked to add the use of another, new tool in their daily workload. For the less organized RAs, they have to first be informed and convinced about the benefits of using new technologies and tools, as they are not familiar to the concept at all sometimes. How this could be achieved (e.g. probably means such as workshops etc. will be needed)?

- Furthermore, answers are needed to the following very important questions: Who will be responsible for the costs of the maintenance? Who will benefit from the savings? And, most importantly, who will eventually take ownership rights (having the main regulatory role and the power to provide access to users, always depending on the governance model that will be selected) of the online platform?

Conclusion

Toai Truong struggled in the search of a solution with which he could be able to continue satisfying SARMED's customers' willingness to continue using the online platform, but on the other hand ensuring that the cost of doing so would not be harmful for the company, and the platform would be beneficial for them in the long term. Which would be the optimal business model to use in this case?

Endnotes

¹ Hagiu, A. and Wright, J. (2011), "Multi-Sided Platforms", Working Paper, Harvard Business School

² Evans, D.S. and Schmalensee, R. (2013), "The antitrust analysis of multi-sided platform businesses", The University of Chicago, Institute for Law and Economics Working Paper Series Index.

³ Uenlue, M. (2017), "The Complete Guide to the Revolutionary Platform Business Model", Innovation Tactics

⁴ Van Alstyne, M.W., Parker, G.G. and Choudary, P.S. (2016), "Pipelines, Platforms, and the New Rules of Strategy", Harvard Business Review, April issue.

⁵ SARMED (2019), Company presentation, provided by Toai Truong

⁶ EY (2017) "Greece – International Freight Centre".

⁷ SELIS Deliverable (2017), D7.21 Living Labs operation learning conclusions and other SELIS Value propositions (final version).