

PLATFORM STRATEGIES

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EPLL's view on
Platform business models

August 2019



This is the age of digital where platforms have become one of the most significant business models

The upsurge of platforms is driven by technological innovation. New solutions regarding cloud based solutions, social networks and mobile phone technology are enabling everyone to get connected and contribute to creating content at a worldwide stage.



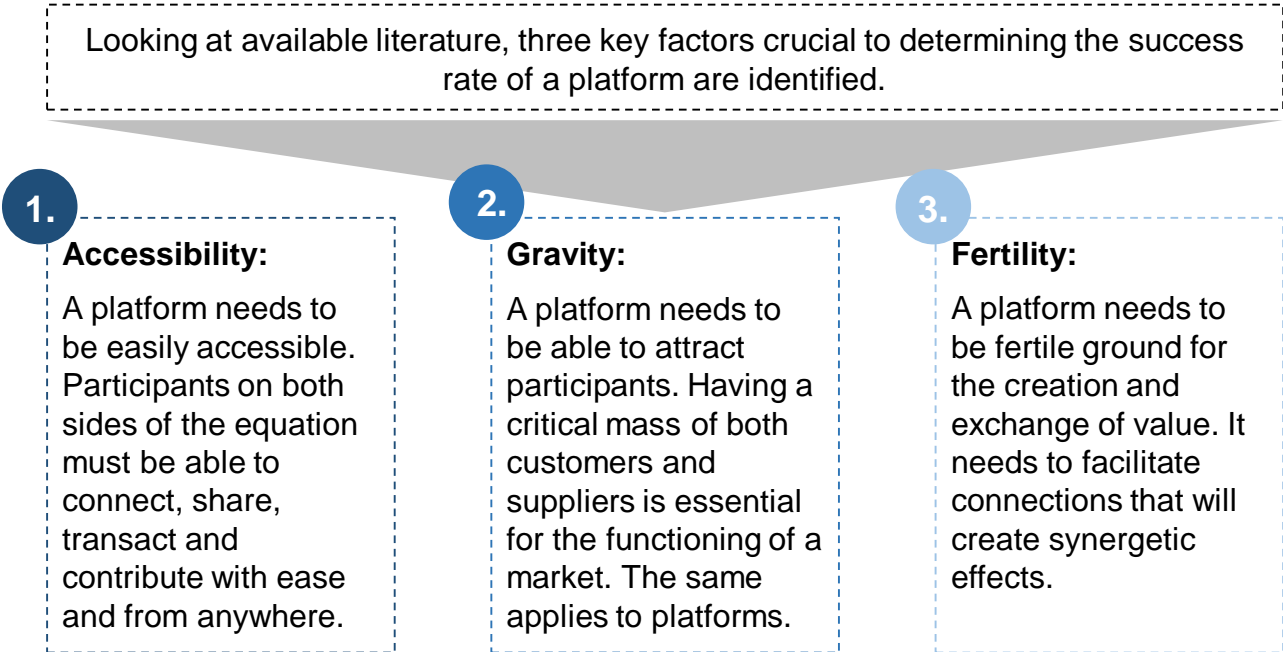
A successful platform functions as an easy-accessible network through which participants can create value, exchange information or purchase goods and services with a few clicks.

An interesting parallel can be drawn between digital platforms and the ones used in the construction industry. Construction platform is a raised, level surface on which people can stand. Similarly, a digital platform can lift participants offering them a level playing field through which they can connect and collaborate in the process of value creation.

As one can imagine, platforms require at least two parties. These parties usually do not know each other, but can profit from the exchange of goods or services. By entering an exchange, parties involved initiate a relationship.

As in any relationship, the key ingredient is trust. Building trust between parties communicating primarily in a digital world is typically facilitated by the use of different rating systems or payment mechanisms.

To build a successful platform one side of the equation needs to be subsidised in order to stimulate the other side to participate. Choosing the side to get subsidised is considered to be the most important decision regarding the development of any platform.



#	11 advices for operating a (platform) based firm
1.	Be proactive.
2.	Keep a positive, open mindset.
3.	Learn from mistakes, use them as opportunities to grow.
4.	Carefully select which participant side to subsidise.
5.	Put trust at the centre of your platform.
6.	Recognise the power of networking.
7.	Collaborate, explore synergetic effects.
8.	Invest all your strength in offering a premium service.
9.	Strive to know what consumers want at all times.
10.	Be aware of your competition.
11.	Never make promises you can't keep.

Simply because there are plenty of successful platform based companies surviving and thriving on the market, does not necessarily mean that constructing a feasible platform business is easy. In all truth, constructing a platform is an arduous task, both time-consuming and capital-intensive. Pursing a platform strategy in no way improves the chances for success. Like any other business venture, platforms fail more often than they succeed. This is why it is important to bear in mind all the headwinds these endeavours face.

Platform strategy is not about selling a good or a service online. It's about involving actors from supply and demand side of the equation and creating an environment that facilitates innovation and value creation through a synergetic effect.

It is no coincidence that today's most valuable companies are based on platforms. Firms like Alphabet, Amazon, Apple, Facebook, Microsoft, Alibaba, Tencent, AirBnb, Uber, Xiaomi and Didi Chuxing are best known examples representing countless other firms that have built their businesses by facilitating digital innovation across various ecosystems of the economy. A recent report listing over 200 current or former "unicorns" revealed that around two thirds of them are based on platforms.

In the brave new age of the digital competition, traditional rules of business disappear. In recent years, digital platforms based on artificial intelligence, big data and machine learning are defying established laws and writing new ones.

Being successful is not about building a platform. It's about proactively creating value.

Uber rents car rides and yet it owns no cars and Airbnb rents rooms yet it does not own a single one. These two companies are based on platforms that enable users to connect with willing service providers. What's even more interesting is the fact that Airbnb's value surpassed long standing hotel chains of Marriot and Hilton.

In this time of rapid change it is important to remember that some business postulates remain no matter the circumstances. When developing a platform based firm, a law that's equally true for any traditional business endeavour must be obeyed: the new company must be able to survive different market circumstances and ultimately outperform its competition.

Conventional businesses of the energy sector are being disrupted

Looking at the energy sector, competition is composed mostly of conventional businesses. It should be noted here that this does not mean the energy industry is easy to enter. Competition is fierce, margins are slim, the sector is based on a behemoth of a system, government regulation is strict and the demand for continuous supply is of paramount importance.

A new entrant does not only have to fit within this frame, but has to be able to thrive within a highly constricting environment. It has to achieve financial viability whilst operating a complex system. It has to keep providing a reliable and affordable source of energy whilst under constant regulatory scrutiny. Changing government policies, social pressures, debt obligations towards investors and all sorts of different competition make things even harder. What makes developing a platform based utility even more difficult is the fact that the energy sector is highly regulated, but digital platforms (as a relatively new area for lawmakers) are not. This imbalance has the potential to cause considerable issues during the next few decades as digital will enter all pores of the energy industry.

Synergetic effects of various market forces such as policy measures, technological innovation and customer evolution facilitate new forms of competition and the emergence of disruptive players. These occurrences are happening at rapid pace and at a global scale fundamentally transforming the energy sector. Digitalisation, decentralisation and decarbonisation do depend on policy support and economic circumstances. However, it is only a matter of time until they reach every single country and every single home with an electrical connexion.

The future of utilities already present on the market heavily relies on what they are doing to enhance their digital capabilities at this very moment. In this context, numerous utilities have already started to engage themselves in digitalising their operations. Given the many restraints typical of the energy industry, this is an arduous, time-consuming process. In general, despite the fact that utilities are increasingly aware of the changes their business models require in order to stay competitive on the new market, their revelations are often not translated into practical actions.

When difficulties associated with digitalisation efforts will be surpassed, technical constraints resolved and when regulation will no longer present an issue, utilities start operating as platforms. And this will happen. Soon.

In the end, the transformational process we are currently witnessing will ensure that not a single component of the energy supply chain is left untouched.

So why should utilities operate as platforms? Oftentimes a stand-alone service or product is the optimal way of achieving profit. In other words, platform thinking isn't a perfect fit for each industry.

There are two reasons why platform-orientated strategy should be applied by an energy utility.

First. In a liberalised energy sector, energy suppliers should be registered as separate legal entities with regard to energy producers. Electricity is produced by a power producer, transmitted by a transmission system operator, distributed by a distribution system operator and then supplied to end consumers. This means that a utility selling electricity to end consumers can act only as a procurator of a commodity. Its job would then be to offer a reliable and affordable supply through the use of various transactions. After establishing contractual connections enabling the flow of energy with all the necessary players of the energy supply chain, the utility could focus on upgrading its service and building an ecosystem that could benefit all involved participants. This type of an entity would not be required to own energy related infrastructure, but would rather rely on different players of the supply chain to produce and deliver the required amounts of energy.

To sum up, if a utility can function only as a commodity procurator and a service provider, without owning energy related assets, having a platform would be essential in differentiating among other suppliers. Especially considering the slim margins that the energy sector is currently facing. A platform can: provide a better service for clients, enable easier and more transparent monitoring of consumption, optimise energy management models and simplify bill handling processes.



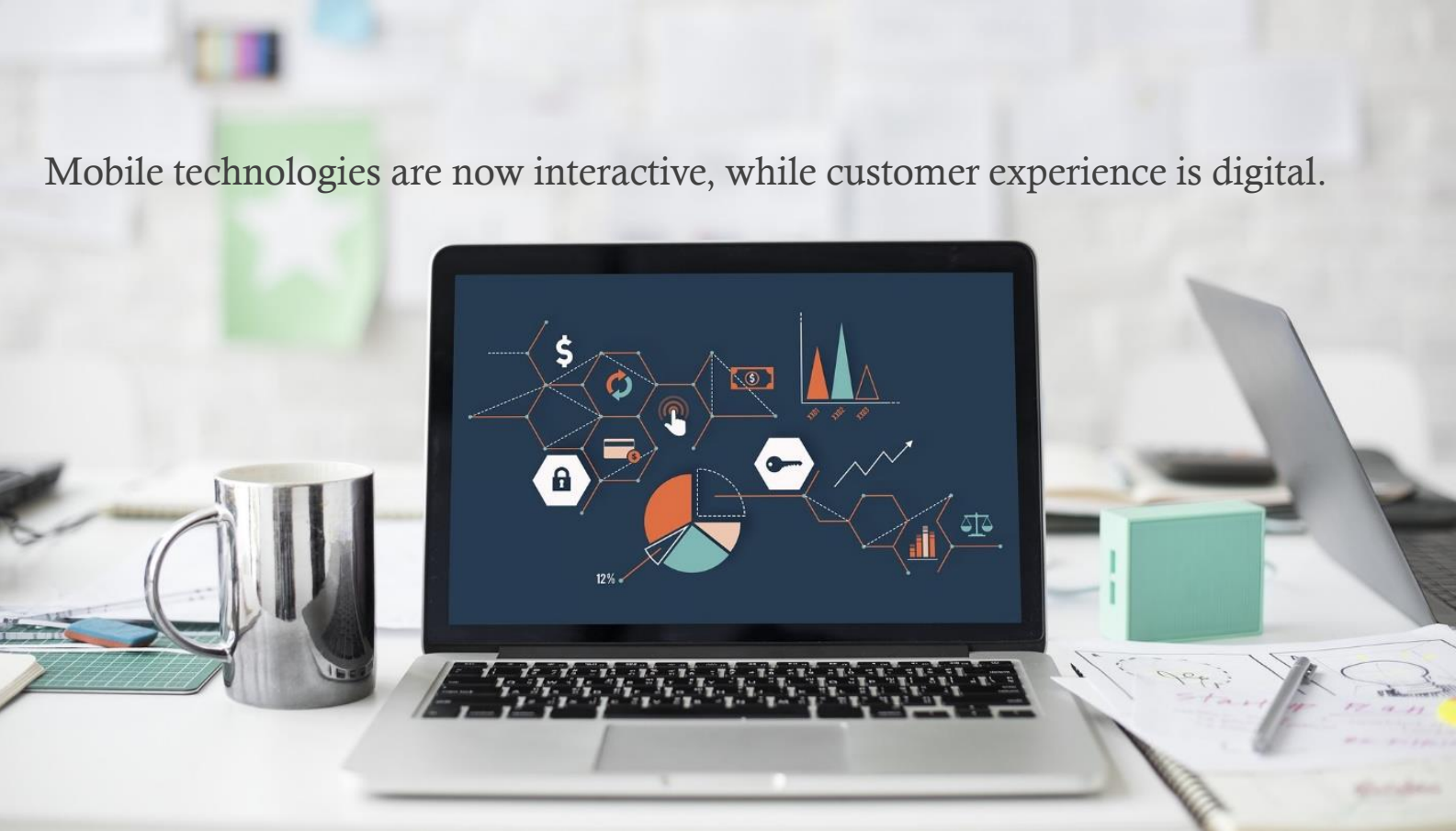
Being successful is not about building a platform. It's about **proactively creating value.**

“Everyone gets smarter because of this technology... and the empowerment of people is the secret to technological progress.”

Bill Gates

Digital transformation is enabled by technological innovation

Mobile technologies are now interactive, while customer experience is digital.



Second. There is only one type of electricity. Since it is always the same type of good you sell, the major distinction between different energy suppliers is cost related. When you base your business on providing a service rather than a particular type of good, platforms are the way to go. Why? The answer is simple. A platform that entails an open innovation model procures capabilities from outside firms. These capabilities raise the platforms level of service and inevitably provide a source of added value for the entire ecosystem. The opportunity is there. It's only a question of making the first step and creating something that will attract customers.

The utility platform must function as a connective tissue that connects various players of the energy ecosystem and enables a digitally controlled, decentralised flow of energy throughout the system.



“Platforms are big business. The world is moving in this direction and companies need to understand the implications.”
David B. Yoffie

Unfortunately, unlike other sectors, where platform companies can often act simply as matchmakers between supply and demand, the story in the energy sector is quite different. And much more complicated. This is because of the specificities of electricity as a commodity and the gravity of the energy system itself. In order to be successful, a platform operating in the energy arena needs to be able to draw real time data from countless physical components of the system. It then needs to utilise this data to optimise system's operation (again in real time) without endangering the reliability of supply. When numerous consumers, regulatory restrictions and technical issues are added to the equation, we are presented with an enormous task of reconciling these constraints with needs and desires put in front of a platform.

As one can assume, there is no magic formula or a singular path towards achieving a satisfactory functionality of such a platform. However, there are certain factors that have a significant impact on the effectiveness of one's digital efforts. In broad terms, a utility needs to foster an environment that can offer a continuative engagement of various actors all aligned towards ensuring an agile, open ecosystem that facilitates the development and application of new concepts and technological solutions.

On this path it is of extreme importance to adopt an open-minded approach and embrace new partnerships. Having an innovative mindset and enabling an open innovation model are prerequisites of a successful, digitally-based company. In our mind, this will prove particularly true in the case of the energy industry where we see the utility serving as glue connecting different players across the energy supply chain. A platform based utility with an open innovation model will also engage new entrants. They will contribute to the enhancement of the system, while at the same time profit from the ecosystem created by the utility.

Where do most utilities place their investment euros?

Looking at recent reports, utilities are starting to get involved in digitalising their operations and becoming more customer centric.

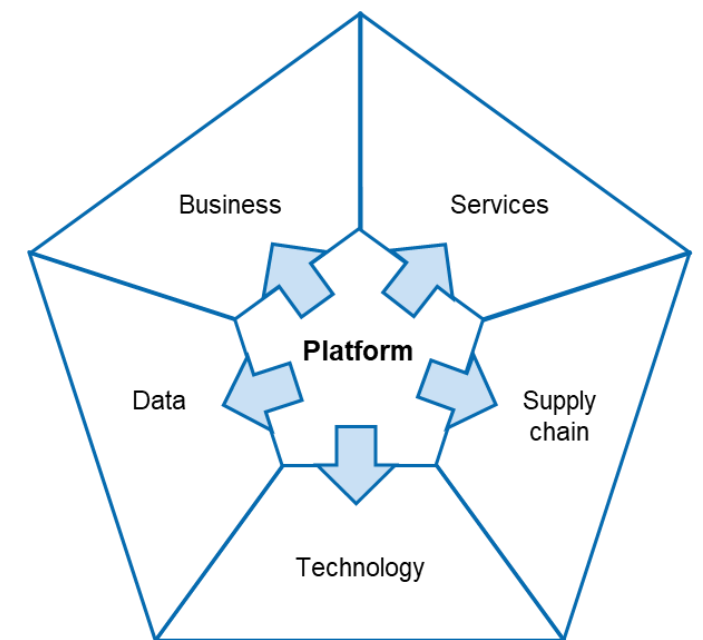
However, when it comes to investments, most of them focus on improving the management of distribution networks. The installation of smart meters is a first step towards better system management, but also towards offering a string of new services to customers. Having a network of smart meters can provide data on real-time consumption rates tied to each micro location in the grid. This data can be leveraged into creating better forecasts regarding demand-supply curves ultimately enabling the optimisation of energy management models. On the other hand, connecting smart meters to home energy management systems would enable customers an easy overview of how they consume energy and an easy way to control that same consumption. Customers have a profound need to control their energy bills and demand more transparency from their respective utilities. Second area of interest for utilities are electric vehicle charging systems.

Considerable efforts are invested in pursuing the implementation of metering solutions in the distribution grid. This entails the implementation of advanced metering infrastructure and monitoring systems which is considered to be one of the first steps towards digitally connecting with energy customers. Meanwhile, during the entire time of the transformational process utilities have a responsibility to provide a reliable and affordable supply of energy. What further complicates things is the strict regulatory framework within which the energy industry operates. Oftentimes the regulatory hurdles utilities have to cross present major obstacles in moving more agilely towards their goals.

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Building a product or service and creating a consumer is the focus of a firm's operating system.



The digital transformation in progress has been questioning the very nature of what we have accustomed to when referring to a company.

A platform firm is structured around an organisational platform and an operating system. It bases its operation on cloud services, external connectors and identity management protocols. At the heart of a platform lies a hardware and software architecture that functions as a hub used for facilitating connections, resources and transactions. By doing so, a successful platform represents an ecosystem enabling a synergy of various participants all with the goal of creating value.

In a truly platform-orientated firm there are no borders for value creation. Assets and outputs are created and developed outside the mother organisation.

Innovation has always been at the heart of progress

This is particularly emphasised today, when we are witnesses of a powerful acceleration in the pace of technological progress. Disruptive forces are facilitating a vast array of changes that discontinued with traditional business models. This rapid transformation towards a digital society is forming new modes of behaviour, introducing new market players and disrupting industries. Interconnectivity and data sharing is lifting a veil over numerous business doings. By doing so it is enabling consumers to be more informed and more involved than ever before. All these changes are fundamentally altering the way the way businesses are imagined. In this context, it might be said that our age is the one of digital transformation.

During this period, innovation allows us to improve the organisational processes of our companies, to introduce new products on the market, to respond adaptively to the constant change of production models, demographic structures and environmental conditions. Most importantly, innovation enables us to improve the quality of our lives. Research and innovation are an indirect component of well-being, making a fundamental contribution to sustainable long-term development.

So how does innovation work?

Today the challenge of innovation is played at the level of integrated ecosystems. These systems consist of various contributors that might come from academic, business or public arenas. Generated output in large part depends on the quality and intensity of interactions between key players of such a system. Optimising the efficiency of data flows within the ecosystem’s network is therefore critical to success.



Worth noting is that generating innovation is not just an activity to be performed, but rather a specific mentality to be acquired at all levels of a company’s organisation.

The life of an innovation does not end with its birth.

In other words, innovating is a process of continuous improvements. This is why increasing the ability to generate innovation involves above all a cultural change. Without a bottom-up approach and a mentality open to continuous experimentation, a company will not be able to keep up with the market in the long run.

Ability to acknowledge errors and then work on correcting them is an essential part of the innovation process.

While start-ups are essentially the result of this culture, large companies have a difficult task of declining an entrepreneurial approach to solving issues.

Free areas where taking risks is encouraged are hard to develop within strict corporate frameworks and yet these concentrations of creation are a power driving the process of innovation.

In order to be cutting edge, innovation must also be open. Opening up to external ideas, building responsiveness and speed of execution, enabling processes of continuous experimentation with new solutions, accepting a logic in which failure is not a failure, but only a step in an iterative development cycle... These are the elements a company’s organization must possess if it aims to excel in generating value through innovation.

Open Innovation as defined by Henry William Chesbrough in Open Innovation: The new imperative for creating and profiting from technology, “is a paradigm that states that companies can and must resort to external ideas, as well as to internal ones, and to access with internal and external markets if they want to progress in their technological skills”.

The concept of openness represents a volte-face compared to the traditional way where the process of innovation was closed within the corporate context. This was done in order to protect intellectual property and maintain a competitive advantage over other companies.

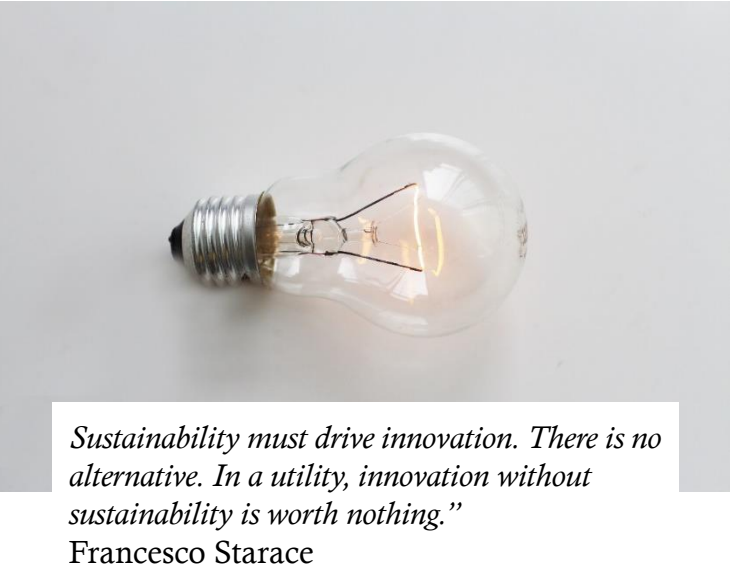
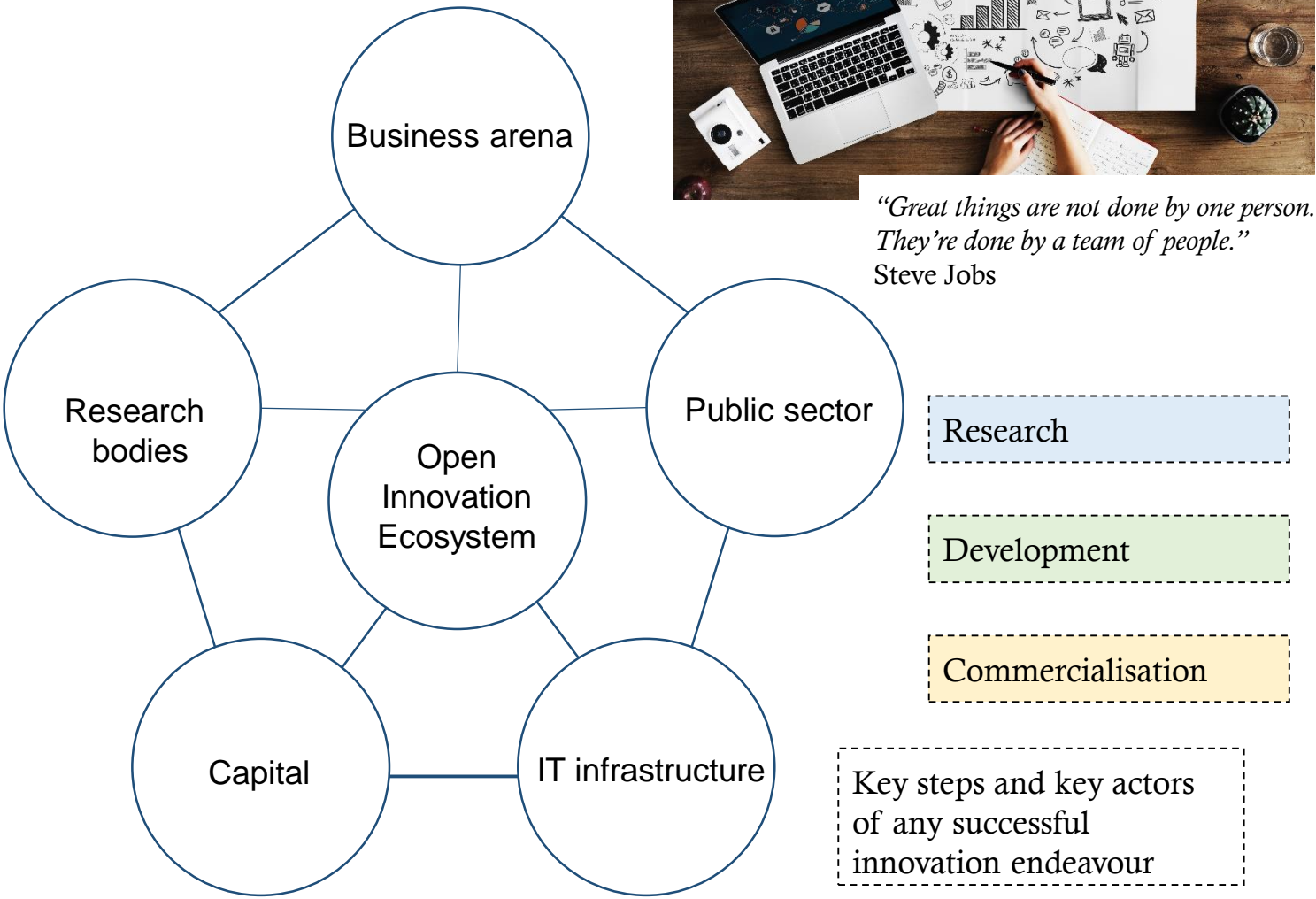
Today, knowledge sharing tools and practices are now widespread. People as well as skills and ideas move at great speed. Preserving a competitive advantage centred on knowledge in the long term is no longer possible.

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Having access to external resources (academia, other companies, start-ups, people, capital, know-how, assets etc.) with continuity and efficiency through a network that generates innovation opportunities through collaborations and partnerships is the basis of a successful Open Innovation activity.

As any change, the adoption of this new paradigm faces different types of resistances obstructing the evolvment of companies’ organisational culture.

The truth is, creating a system able to facilitate innovation is a demanding process, especially when it comes to traditional, large companies. It is difficult to alter the mindset of workers, to open up a company, to involve different sectors within the company and to engage external actors.



We are witnessing a fundamental transformation of the economy

The world is changing. While some concepts grow old, plenty new ideas emerge. With evolved understanding of how our way of life influences the very environment that surrounds us, so come different initiatives aimed at reducing that same impact. In this context, the term circular economy comes to play offering an effective and pertinent response to a series of problems society imposes on the environment.

So far the economy has been functioning on the basis of a linear model where goods are produced, consumed and then disposed. In this model, every product is inexorably destined to reach an end of its life. Over the years, with raised standard of living and the higher number of consumers entering the world market, consumption has increased to extraordinary levels.

This, in turn, causes multiple issues which are likely to severely affect our everyday lives. So where lie the roots of these problems? For one, we are now at a point at which it is becoming increasingly difficult to rely solely on nature as a supplier of goods. Second, we generate enormous amounts of waste which is often difficult to dispose in an environmentally acceptable manner.

As more goods are consumed and more waste is created, we are closer to exhausting the very resources that enable us to live the way we do. Our technology made life easier for us, but it also caused a great imbalance on Earth. It caused pollution and climate changes dangerous for flora and fauna and dangerous to ourselves. It is high time to start actively pursuing new models of behaviour or otherwise we will be faced with a significantly reduced standard of living and an ecosystem beyond repair.

Changes are good. In this context, changes are more than necessary. The energy sector will play a crucial part of this future. A future that we are already witnessing today.

As most people are aware, there is a profound transformation in progress across the sector's main segments. The changes it brings are fundamentally altering the very face of the sector we know today. Some of the key drivers of the energy transformation are identified as the implementation of renewable energy sources, electrification, consumer evolution, emergence of disruptors, technological innovation and digitalisation.

New technologies, new market players and a brand new approach to energy planning force utilities to evolve their business models and adapt to new circumstances. Some utilities recorded progress. However, a number of them is yet to catch this wind of change and still lurk in the shadows of business arenas. In truth, the energy sector is a difficult one for implementing changes. This is in large part to its bond with the extensive infrastructure in place that ensures our interrupted energy supply.

However, despite the fact that today’s utilities are less agile than most technology companies, things are changing. As digitalisation is swiftly entering the pores of our entire society it only remains a matter of time when the entire energy supply chain is digitalised. Utilities are slowly moving towards this direction. Worth saying is that having a large number of companies stuck in a traditional way of operating is not necessarily a bad thing. Sure, it is a negative trait of a sector, but it enables opportunities for those companies that open themselves new innovative technological solutions and new ways of doing business.

Embracing the brand new world of opportunities can only enhance business operations.

Terms like artificial intelligence, blockchain and big data will soon become much more to the energy industry than just buzzwords. In the meantime, the industry’s rules will be rewritten, new players will emerge whilst a number of old ones will fade. As any transformation, this one offers a platform for new opportunities.

To be able to predict only a part of the future one must be perfectly aware of both the past and the present. This is particularly true in a world more interconnected and more complex than ever before. As new technologies evolve, they bridge the gaps between different areas of the economy. With the passage of time, they gently ease into our everyday lives and make it unconceivable for anyone of us to imagine going through our days without some form of technology. The same technology that was likely unavailable just a few years ago.

Only by knowing the past we can understand the present. Only by being perfectly aware of both the past and the present we can aspire to know more about our future.

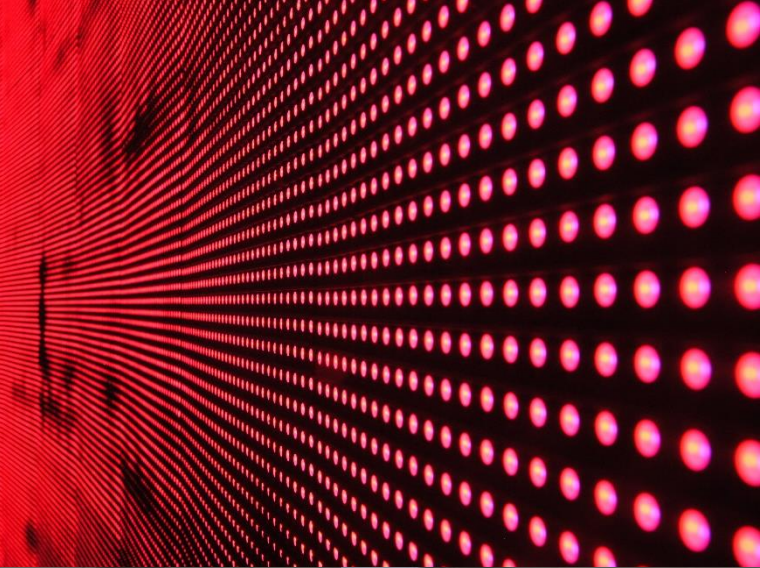
This will go on until one day we realise that the technology we developed has become an integral part of who we are. With the advent of digitalisation knocking on our doors, this day seems closer by the hour.

Only by understanding the dynamics underpinning energy markets can a coherent image of the future be envisioned. We should be clear to note that no-one has the ability to predict the details of how the future will pan out. However, it is of paramount importance for any company to form a clear view on the modes that their sector is likely to evolve and to envision the company’s place in this new market. Despite the nonexistence of a single straightforward version of the future, one truth is quite clear: the energy sector sits on the cusp of a dramatic and fundamental transformation. Different utilities will find different modes to respond to this change. These response depend on a number of various factors such as their respective infrastructure portfolios, regulatory frameworks, customers’ structure, level of agility and technological evolvement. Looking at a longer time horizon, we envision a utility acting as an adhesive between a whole array of market participants. The electricity system of the future will resemble a living organism optimising its demand and production schedules, reporting operational issues and determining maintenance needs. Communication will be crucial to this system, raising the importance of reliable security protocols. Data flows are to be transparent and timely, circulating from large scale power units, smaller scale distributed sources, grid operators, microgrids, battery storages and consumers. In this brand new world, more interconnected than ever before, utilities will have to evolve into active service providers.

This will require serious changes to existing operating habits and the application of new business models. The entire company culture will have to be changed from bottom up to accommodate a new way of thinking about the company’s role in the provision of energy. Make no mistake – this is a long term, arduous task and a lot of companies are likely to fail on their quests towards achieving a modern mindset.

In conclusion, we urge utilities not to wait for opportunities, but to start creating them.

Nothing is more expensive than a missed opportunity.



There is no time to lose. Strong competition forces you to move forward and innovate or go home.

“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.”
Charles Darwin

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