BMC Air Filter

Gaetano Bergami Founder and CEO





Graduated in Law, Mr. Bergami, moved by a passion for motorcycles and racing, founded a company to build racing motorcycles 48 years ago. Company carried out this activity from 1976 until 1984. Then it started distributing products for racing motorcycles and for racing cars.

In the early 1990s, company began a relationship with Ferrari F1, which was the turning point of the company. In 1995, Ferrari F1 asked the team to supply a specific air filter. They used to import these products from the United States, but the supplier had denied the production of this specific filter. Team had 15 days to produce and present the new filter to Ferrari. That is how BMC Air Filter was born. Mr. Bergami points out that Emilia-Romagna is the motor land, so building the filter in 15 days was not impossible, but he admits that at that time they made the filter on an artisanal way.

After the first customer, Ferrari F1, others arrived like BMW, Audi, Mercedes, Porsche and others. Today, almost three decades later, company has also diversified its portfolio for other sectors, such as aeronautics, for example.

The company has 120 employees and outside the headquarters in Italy it also has an office in China, in Shanghai, and another in India, Bangalore. They decided to leave the local strategy to become a globalized company.

66 BMC Air Filters accepts all the challenges that are proposed to us. Even for sectors that have no connection with motor sport. We are curious and try to do all that when we keep them interesting.



Note

Understanding of Growth

Mr. Bergami emphasizes that they started from scratch, and they are still a growing company. The secret? A lot of work and passion, he says.

They currently have around 90 distributors around the world and are present in most countries. BMC Air filters experienced organic growth without investing in the acquisition of other companies. Their growth came naturally conquering new markets.

He points out that advancing to new markets is the hardest part for SMEs, i.e., becoming globalized is not an easy process, especially for small enterprises. Growth must always be the main goal, even when the situation is favorable, once all products will sooner or later decline.

According to Mr. Bergami, the difference between companies is the products they offer. If a company has competitive products, whether from any sector, the company tends to grow. To maintain their continuous and sustainable growth, BMC commits their efforts on innovation and product diversification. Innovation is crucial to ensure the competitiveness of the company. Diversification is the strategy that allows them to reduce the risks of market waves. They produce diverse types of products in order to reduce their risk when a certain product declines, keeping their growth trajectory.

Mr. Bergami also reinforces that it is during growth period that a company must be prepared to invest on the development of new products, once during a period of crisis it is not easy to have financial resources available to this type of investment.

The entrepreneur emphasizes that a company can grow with only one product, but it should diversify when there is the opportunity to achieve other markets by highlighting the importance of research activities and pursuing new markets in order to keep the company in ascension.

66 A company can have a good Engineering, but if it does not develop innovative products, there is no point.

Motivations for Growth

The main motivation for growth, according to Mr. Bergami is to give everyone the opportunity to grow and develop together: company, owners and employees.

The founder says that the growth of BMC increased the work and therefore the first direct impact was the need to enlarge the number of employees. This impact led to the challenge of finding the right people to integrate the company's team.

He clarifies that 20 years ago it was not easy to find workers (specialized or not) in Emilia-Romagna, the region had a very low rate of unemployment. Now the challenge is to find specialized personnel such as engineers, mechanical experts, and others.

Another important reason to pursue growth pointed out by him is the possibility of contributing to the development of the Emilia-Romagna region. The first challenge is Human Resources. Once growth brings the need for new skills it has becoming more difficult to find the resources with the necessary skills.

The second challenge for Mr. Bergami is Technological Research. Once with the globalized market the products must be world leading. He points out that companies can hardly go ahead with the European market alone. The global vision is the main need for growth nowadays.

Another challenge is to ensure the generational transition, once the new generation must have the important skills appreciated in the current market. But, they cannot lose the ability to pursue the goals that move the company.

Key Success Factors

The key success factors of BMC are Human Resources and Innovation. That is, the ability to mobilize staff with essential skills to carry out company's growth in all departments, not just technical ones. Innovation is responsible for keeping the company's products competitive in the market.

However, Mr. Bergami adds to these two elements the ability of entrepreneurs and managers to have a global vision of the market and the economy. He argues that until the 2000s, entrepreneurs could grow

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the company attending only the internal market or expanding to markets in neighboring countries. However, nowadays the challenge became global, and so entrepreneurs must be globalized managers.

It is important to have a growing understanding of global economic dynamics. And this challenge spreads to the managerial levels. For example, commercial managers must have the competence to look at future markets.

There is no longer a future for nationals, the future for companies is global.



Main Needs

Innovation management is made for engineering and is important, especially considering the importance of the process for the growth of companies as stated before. But the most critical point would be the idea generation process. Currently, about 90% of the new ideas arise from the founder. Therefore, it remains an additional challenge for those who will succeed founder. They must have the ability to identify where innovation is going and the movements of the market. At this point it would be important to have lectures with professors and experts to contextualize the reality of innovation worldwide (especially about the most technologically developed centers).

Mr. Bergami is emphatic to say that in order to support the growth of SMEs it is necessary to have a national government framework that aims to foment the process. For example, he mentions that part of the research fund should go to SMEs once they have difficulty entering the globalized market. The government, he concludes, must work for the development of SME supply chains. **TRAINING:** Inside BMC, training has so far been done internally or with the support of external consultants. According to Mr. Bergami, this is a point that could be supported by universities.

SMEs need training in different areas such as economic, technological and linguistic. On the other hand, the entrepreneurial mindset is not easy to be taught, once it is acquired by working and developing as an individual begins to understand that it is not just a matter of ability but courage to take a chance.

DIGITALIZATION: Digitalization is the most challenging point that exists in the growth of SMEs. In Italy it has a lack of IT workers, the amount of graduation each year is not enough to support the growing process of digitalization.

BMC Air Filter tried to do an internal course with an external consultant, but these are limited once they are involved in specific projects and do not have the aim of spreading internally the philosophy of digitalization.

Business leader importance

According to Mr. Bergami, curiosity is the main characteristic of a leader. However, he reinforces that the ability to mobilize the network and have relationships with other players is vital for the company's growth. Especially on a globalized world, it is crucial to have a network around the world, exchange ideas with colleagues from other countries, go to international trade fairs, travel around countries and understand from external economy.

The ability to identify and seize opportunities is, according to him, the spirit soul of entrepreneurs. No one can teach it.

It is important to know the products, the market trends, the customers' need to sustain and conquer new markets.

Another ability of leaders underlined was team management. Mr. Bergami declares that there is no longer a leader who acts alone. "A leader must have a compact and cohesive team to pursue the gardener theory. They should cultivate all the plants, that is, they should support the growth of everybody working on the team".

Cooperation between SMEs

Currently, Mr. Bergami is also the president of the Emilia-Romagna's Aerospace Cluster. This cluster was founded to foster collaboration between SMEs.

He highlights the importance of cooperation for the growth of SMEs, these companies must act as a team, once it is difficult for a small entrepreneur to move alone. According to him, SMEs must necessarily talk to each other, once the challenge is no longer with colleagues but global.

He highlights that this cluster never failed, all the SMEs involved are cooperative and they understand that only through collaborations they can move forward. When an entrepreneur does not share this value, it leaves the cluster. It is important to reinforce that in this cluster everyone has the same right, everyone collaborates with each other.

Cooperation with HEIs

Unfortunately, the experience with the university has not presented the same result so far to BMC Air Filter. Mr. Bergami clarifies that cooperation with the university is punctual and limited to the connection with professors who are interested in and believe in their work, but there is no systematic relationship with the institution. He declares that the link between universities and SMEs is still missing. However, the entrepreneur recognizes the importance of these institutions for the development and support of SMEs growth. On the other hand, he also points out that universities usually have more interest in dealing with large companies once these projects facilitate their access to funding.

However, he points out that the collaboration between universities and SMEs should be the focal point of the universities, once SMEs represents the major part of Italian economy. SMEs are responsible for a large part of growth, development and employment in Italy, he concludes.

According to the founder of the BMC Air Filter, universities had to carry out development projects in all sectors, not only technology and engineering, but also commercial, economic, managerial as a way of supporting the development of SMEs. He declares that the university's goal cannot be only their competence to graduate new professionals, but also the rate of employment after the graduation.

Danisi Engineering

Giacomo Danisi Founder and CEO



Mr. Danisi graduated in mechanical engineering from the Polytechnic of Turin in 1991 and began working as an engineer in some of the companies in the Piedmont area. He then started working in the research center of the Fiat group where he worked for a few years, mainly in consulting in the research center of Fiat-Ferrari. According to him, the engineering consultancy in the automotive field was perhaps the company from which he drew inspiration for the activity that he may have wanted to carry out on his own. Then he worked for a short time in Peugeot too. After that he started Danisi Engineering more for lack of interesting opportunities at the automotive companies he knew than for a real intention to have a company. He started an engineering consultancy business on his own, but he still repeats that there was no intention of growing a company. However, the company has had some success, always at a local level, mainly with coachbuilders.

At the time there were many companies that dealt with the design and production of cars (e.g. Pininfarina, Bertone, Ital Design). He started asking his former university mates to collaborate with the company and then it started to grow step-by-step without a precise strategy, at least until the end of the 90s, or better even until 2005. After that, he remembers that the company had assumed such a size and already there were about thirty people and therefore he had to decide what path to pursue.



They had a desire to give an organic development to this company. Initially through the intention of diversifying the customer base which at the time was only Italian, due to the difficulties encountered by the great coachbuilders, having as a customer only the FIAT group. However, they believed that this was very dangerous because they did not see the FIAT group as a solid customer for the future. Because, according to him, the strategy that FIAT was applying had not led to any development, but would have brought difficulties for the group, which then promptly happened. In the end, they succeeded in their intent and nowadays the company income is more than 50% from foreign customers and they are also very satisfied with the diversification of customers.

80% of the income is divided into 5 main customers and they still have a group of interesting customers which includes other 5-6 names that make up the remaining 20% and they are all companies that could grow their participation as customers. They still feel quite early on this growth path. Therefore, they believe that the potential of this market is still abundantly to be explored in all its possibilities. In 2021, they opened a series of offices abroad that they count will serve to make the next leap in growth. To clarify the main activity of the company, Giacomo explains that they deal with integration, therefore doing all the engineering, and also experimentation activities that are used to put together a vehicle starting from the subsystems that can be developed or developed at the choice of customers or supplied by large suppliers who are also their customers.

NOTE

SME GROWTH

Understanding of Growth

Mr. Danisi considers that company's growth is organic, even if they are considering and evaluating some acquisitions of small companies that will support them, more than anything else, to increase the company's competences and not enlarge the customer base or increase income.

Their strategy of growth is based on increasing their presence in the markets of interest. So at the moment, they are already working on opening a division in China and Germany. Probably this year they will also open a very small division in England.

Mr. Danisi emphasizes that growth in the engineering sector presents peculiar characteristics that are based on competence. The company is difficult to scale, in the sense that to become bigger they need to acquire staff with the right competences. He adds that it is not enough for engineering companies to invest in machinery and hire all those who happen to be on the market, they need very specialized competences. However, finding the right competence is also a limit to growth, once it is not easy.

The CEO says that they are expanding their service portfolio, so they are trying to expand, starting from the core, the supply aspect. However, for them, that is not the part that will lead them, from a strategic point of view, to take the course of growth. The course of growth they see in increasing markets and increasing customers.

On the needs for the growth process, he

says that they are quite advanced, they still have some areas to develop once they do not know in depth the new markets they are confronting (Germany and China), but they are aware that a period of learning about them will be necessary. However, in order to try to reduce this gap as much as possible, they are recruiting local personnel. According to him, the company thinks that to be successful it must be German in Germany, Italian in Italy, and Chinese in China.

To finance this process, Mr. Danisi clarifies that part of it is their own resources and part of it is debt, most of it bank and a public part. He says that public tools are starting to get interesting, thanks to the latest policies that have been launched in Italy.

Regarding the transformation he observed after the growth process, the main transformation is certainly the increasement of the activity complication. That is, at some point it became crucial the need to structure themselves. As long as there is a small team, it is possible to work in an unstructured way, however when it begins to increase, a company must work in a structured way. For him, among other things, this point had a particularly significant impact, since they were a very small company and they managed to have huge customers quite quickly, after 4-5 years. The fact that the company had acquired this type of mindset and this type procedure was very useful in of accompanying subsequent growth, he concludes.

Motivations for Growth

For Mr. Danisi pursue growth was a natural process, they could not do otherwise. Their sector is characterized by very large companies. He comments that he was looking at a statistic of the 25 largest engineering companies in their field and the 25th is five times their size. Then the twentieth is already ten times bigger and the first ones are about a hundred times bigger than them.

So, if they want to compete and survive in this environment, they need to grow to at

least to the size of the smallest of these 25 companies. He declares that they have to be able to grow about five more times if they want to achieve those levels. He explains that this is the aim of their next ten years, to get into the top 25 automotive engineering companies worldwide. This means that they need to grow between 5 to 10 times their current size.

Challenges from Growth

Mr. Danisi says that the main challenges of small and medium-sized companies normally managed by the owner or the founders to grow are two: personnel and finance management.

Any SME owner will say that he/she does not have a chief of staff or a CFO because they cost a lot of money and they just mess up, they are useless and those type of professionals are needed just in large companies. Instead, it is not true, according to him, they are two fundamental elements.

A company can have a technical director, a director of operations, or a general manager, but very few have a personnel director and a finance director. According to him, these are the two biggest obstacles to growth.

There are many financial instruments, and they are no easy to understand, if the professional does not have a specific culture and a specific preparation cannot do it. When a company begins to exceed a certain size, it is necessary to have a special attention about this topic if the company wants to continue growing.

And on the other hand, according to him, there is the staff. It is essential to have a personnel policy, a management of hiring, a management also of the welfare of the personnel. That is, it is important to have the ability to retain the staff and to be attractive to whoever you want to come to work for you. These are aspects that are considered very secondary in the SME, they are considered a waste of money, while instead it is the key to growth.

Main Needs

According to the CEO, the main need to the growth process of an SME is the consciousness of the management structure importance. He assumes that companies usually think it is a waste of money to invest on this, but in the end, it is important to sustain strategy, manage the team and plan the next steps.

TRAINING: According to him, they consider that Italian universities and European universities in general have a very high level of training regards the technical part and they are satisfied with their current staff. However, he thinks that there is a lack on the managerial field, team management, sensitivity to cost management. For these aspects they realize training activities within the company.

In general, these are the competences that are missing in the people who they hire. However, he complements that companies have a training task, and they cannot assume that a new employee will be one hundred percent finished staff. Training activities are fundamental, and this highlights what he said earlier, namely the importance of having a HR office. In Danisi Engineering this is one of the main things that this office takes care of, staff training.

DIGITALIZATION: As for digitalization, they have no specific training, because they are a particular company, once they are almost all engineers or physicists, according to him. In other words, they have a very refined technical training. In addition, the average age of the company is quite low.

Mr. Danisi also emphasizes about the importance of training towards SME entrepreneurship, access to capital, but not with the intuition of letting them out, but because it is important that they understand the level of complexity of these topics and therefore the need and benefits of this competence.

SME GROWTH

Key Success Factors

According to Mr. Danisi, the key success factors depends on the type of market, once they are not unique. But he believes that the key to a company's lasting success lies in the attractiveness of its product. For him, if the company wants long-term success, it cannot count on the cheapness of the product. That is, the price fight works immediately, it allows the company to make a quick but not lasting success. Because there will always come one that is cheaper. There will always be someone who comes from a country where taxation is lower, the cost of labor is lower, then because it has invented something for which it can spend less, also because maybe it is dishonest, it has a level of cost lower. Then maybe after three years this company is closed by the financial police. He concludes that the price fight is not a policy that can be successful in the long term. So, the key to success lies in the quality of the product, it must be better than the others even if it costs more. However, he makes it clear that it does not apply to all types of products and not even to all markets. However, the fact of having a quality product that has greater value than others, and then costs more, allows the company to immediately disconnect from the price war. This is what they always explain to their customers: "if you came to us because you think you are spending less, you are in the wrong place". They are convinced that their customers spend less, because they get a much higher quality service that they don't have to redo things twice, for example. Clearly, a far-sighted approach is needed when working in business to business, customer's purchase may ask how much the hour costs. They never tell them, or rather they present a standard figure that the customer likes but is not true. He explains that this is not because they want to earn a lot, but because they believe it is the best and most efficient way to serve customers' interests as well. So, their customers always return, even those who left because they were too expensive, after 2, 3, 5 years they are back. He argues that they came back not because they got cheaper, in fact they still got more expensive.

C The fact of having a quality product that has greater value than others, and then costs more, allows the company to immediately disconnect from the price war.

Business leader importance

Mr. Danisi recognizes, on the experience of these 25 years, a certain ability or even "fortune" in interpreting the market, in understanding in advance of at least 2-3 years ahead what will happen. But, as Napoleon said, it is better to have lucky generals than good ones.

First collaboration:

Danisi Engineering has a lot of collaboration with universities, some with other SMEs, but working with clusters in Italy they have never found it truly advantageous. Mr. Danisi says that they have an excellent relationship with the academic world, which is fundamental for them to improve their staff and competences. With other SMEs, however, it has always been a customer-supplier relationship and never a relationship to develop a project to grow together.

With the clusters, in the other hand, he observed that there was a lack of division. That is, the cluster was trying to direct all these companies that had not worked by themselves, or worse still, they had the deleterious attitude of going to large customers, such as automotive company, big industry, saying: "We are many, we are a cluster, we have a lot of staff, a lot of competences, tell us what you need, and we will do it". For Danisi this approach does not work, because a company has to get on the market with a product proposal, a supply proposal. It is not a good strategy to tell the market: "We have a lot of arms, so tell us what we have to do, and we will do it".

Cooperation with Universities:

According to Mr. Danisi, they collaborate with universities to research and training, even though the most frequently is the later. The positive aspects are the genuine enthusiasm from students and professors that is not the enthusiasm you can find inside other companies that is unleashed only when they see the possibility of doing something very useful. But there is precisely the enthusiasm linked to the desire to do, to learn and to work.

The negative side, according to him, is that the bureaucratic structure that one has to confront in order to work with Italian universities is "crazy". Often, they had to leave out projects that were interesting and that everyone wanted to do but couldn't find the right bureaucratic path to do it. He clarifies that he had some experience with foreign universities, in Switzerland and in Germany, which was much simpler. However, he cogitated that it was simpler probably because the contact became from the universities and therefore, they had already built the bureaucratic part.

About the opportunities for collaboration with universities, he has a pessimistic view. He explains that he sees it as a hopeless thing, because at least in Italy, there is always the problem that the proposals that arrive from companies, however from the outside, cannot be evaluated even in a subjective way, but must always be objectified in some way. So, if a company proposes to make a research contract to carry out activities or to carry out training in a certain direction, the largest part of the universities respond as: "Ah but I have to justify the fact that I do it with you and not with another". Although the company will be responsible for the cost, the university justification is that they should explain why they take that specific company and therefore cannot make a customized program to the company. The reasoning is that universities serve the community and must serve everyone without favoring anyone. But with this type of rules, they end up not serving anyone, he reflects.

Mr. Danisi adds by saying that this attitude is not exclusive to universities but also to public investment. In Italy, very often, when the government has a billion to invest, instead of giving 100 million for 10 companies, the State prefers to give ≤ 1000 to one million companies. So, a million companies had ≤ 1000 , but with this a company does nothing, however the justification is that the investment was correct for having given the loans to everyone.

Energica Motors

Livia Cevolini **Founder and CEO**



Livia Cevolini is the CEO of Energica Motor Company. Energica was born within the family business, for the first few years they were within another company. Within this period they developed the first motorcycle when still being part of the CRP Group. That is, right inside, even physically in the CRP factories. Then in 2014 they founded the new company which was called 'Energica Motor Company Srl' and the assets and people moved within Energica. They moved to the new Energica building after they entered on the stock exchange in 2016. The decision to open the capital regarded the necessity to have enough capital to be able to have their own headquarters. After five years they had their headquarters.

In 2010, when they launched the project, there were three of them plus a pilot driver and nowadays they are more than 80 people. In a short time, the company grew quickly, and this was one of the biggest challenges. That is, such a rapid and continuous growth of the staff as well as of the business is very complicated to manage. Even for the employees who constantly see new people coming in and always have someone new to train. So, they all have double jobs in addition to daily tasks, they always have someone new to explain what should be done. Even though it is quite tiring, Cevolini highlights that it is quite fun since there is always something and someone new.



From a business point of view, they started off with electric racing motorcycles, so they were a kind of a small racing and R&D department. In the beginning they focused on the racing motorcycles even participating on a championship, but in 2011 they started taking this know-how to the road motorcycle. Since 2012, they dedicate their effort on road motorcycles project and R&D activities, they have also started the industrialization production to reach the market and offer an industrialized product ready for a final customer (no longer simply for a professional, or rather a pilot). This phase was quite complicated because it was something new that they had never done even for the Research department. The mother company, CRP, is mostly support to the Motor Sport teams, so they were more used to racing market than to production, and it was part of the work that they had to learn.

After two or three years of product industrialization and capital research, in 2016 they decided to open to the stock exchange and made the first deliveries. The first time they were on the market and not simply in research was in 2016. First year of turnover was in 2017 with a turnover of half a million, up to exceeding six million this year. Doubling year over year in four years.

According to Mrs. Cevolini, for next few years they expect a similar growth as in the last years, since there is a demand pull. The electricity sector is very positive despite COVID. The problem in this period was not the final market but the supply chain that needed to slow down a lot due to COVID.

NOTE

SME GROWTH

She expects that once the market continues to pull and the supply chain will return to the usual activities, they could have a very successful and important future. Despite the fatigue of this rapid growth, they are very happy with the results.

founder that Another point the emphasizes is that sometimes the fast growth can be scary once it carries a lot of stress, but it is a positive stress. She explains that this pressure is in the sense that people feel that they are useful and building something important. Everybody makes the difference, and no one is over. Mrs. Cevolini describes that Energica is a company for those who want to get involved and to be part of a group, to contribute, to make a difference and this obviously means greater responsibility.

- Switching from the racing motorcycle to the road motorcycle

According to the CEO, at the end of 2010 they validated the racing project, because in any case the races had gone very well, they had won the European championship and had achieved excellent results. During 2011, they began to evaluate the possibility of also developing a road product to decide whether to do it or not, that is, whether to proceed with this new phase or not. They participated on the EICMA fair (international motorcycle fair) at the end of 2011 with an aesthetic model. The idea was to present themselves with an aesthetic model and start seeing the feedback from the public towards the electric motorcycle. Nowadays, even if they are still few, people accept the electric more.

In 2011, there were already very few cars, but not any electric motorbikes, especially in Italy. They arrived early on the market, and they needed to understand what the reaction of the customers would be, in other words, they should understand who the potential customers would be. The fair went well despite some doubts and also some people who did not received well the idea of an electric motorcycle, but there were still a considerable percentage of people who were curious and curiosity was enough for them. Once curiosity then becomes purchase, when the technology is cleared and launched, according to Mrs. Cevolini.

After the fair, in the end of 2011, they decided to start the actual project as well. In 2012 they started the road motorcycle project, the first one was launched in 2012. In July, they participated on an event and for the first time ever the electric motorcycle was seen riding on the road. She recalls that one more time the reaction was very positive, people showed to be very curious about it and they understood that they had to continue because there was a good chance that this would become a business.

Understanding of Growth

Mrs. Cevolini declares that their growth was fast, because they needed it to be once they were a small company. The major competitive advantage that small companies have is the speed compared to large companies. Therefore, they had to be faster than everyone else, both in product innovation and in bringing this innovation the final market. Their growth guarantees their market presence and economical sustainability. They have a challenge to reach a large number of countries, since the electric motorcycle is still a developing market. In this sense, spreading presence means that they need be structured, because to selling motorcycles all over the world requires a network that attends to provide service to providing consumers worldwide and training in every country. To make it right, a company needs to grow very fast, concludes Mrs. Cevolini. At the moment, they are present in all four continents, almost in all European countries, in the United States, several Asian countries and they are starting to expand to South America.

Cevolini considers that their growth strategy is organic for now. They even think to absorb a startup, but they have not yet found an ideal one, in the sense that they are too big or too small.

Regarding the growth process of engineering companies, she considers that it differs from those working in partnership with third parties and those working alone. However, in general, she considers that anyway a small company must be very fast. Even if a company does not want to grow in size, it still needs to be innovative, developing and offering novelties to the market. It has to be much faster than the others and this is what makes the difference to remain on the market. In recent years, particularly because the timeto-market of products reduced dramatically, pushed by the digital market. She concludes reflecting that Energica is still a young company and for this reason they have a great competitive advantage, once they have a lot less limitations than the big companies.

SME GROWTH

Mrs. Cevolini explains that initially growth was not planned and prepared. She recalls that the idea of developing an electric motorcycle was born in 2008. They launched the project in 2009 as an alternative to confront the global crisis, since their family business was seriously affected by the macroeconomic situation.

They were able to move fast by pursuing a product that they considered would have a great chance on future market (with a promising market request), and was still underdeveloped with a few competitors. In this sense, she concludes that giving the urgency of the situation they were able to predict well but without a well-structured plan.

Their growth strategy involves both development product and market development. She explains that this double effort is mandatory once Energica is a small company, and the electric motorcycle is still a small market. Regarding the particularity of the electric motorcycle early-stage market, Mrs. Cevolini highlights that despite the general issues that Energica needs to face as a small company they also have the challenge to stimulate and create the demand of brand-new product.

She claims that innovation is crucial for their product, once they are working on a technology market and therefore their client expects a development method similar to the digital market. At the same

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time, they must become increasingly widespread in order to reach the minimum of sales volumes that allow their economic sustainability.

Their effort was especially concentrated on expanding the market and developing new products. However, in the last two years they started to increase their collaboration with third parties aiming to approach other markets and putting their know-how within markets where they cannot directly enter. In this sense, they incorporated the product diversification on their strategy. Now they do not only produce the whole vehicle, but also separated components which is sold to large manufacturers who are not in conflict with their main market.

During this period of growth, the main internal impact perceived by Mrs. Cevolini was the constant need to assume new people who are not even easy to find. They are constantly hiring new professionals and this is very tiring, both for the management and for the employees who are continuously meeting new colleagues to get along with, to collaborate with, and even for training. In this context, the greatest impact is stress, but in a positive way, which is the feeling that they are doing something real, concrete. "We are trying to make a difference and to achieve that we need to work this way", Mrs. Cevolini said.

There is not another choice, a small company needs to pursue the growth otherwise the alternative is to stay out of the market

Motivations for Growth

The founder emphasizes that the alternative to growth is to die, to exit the market. In particular, the electric market is still very restricted, that is, there are few everywhere and therefore the only way to be able to reach the necessary volume is to be everywhere, and therefore to grow. She adds that even if this were not the case,

the company would have many competitors and it would have to grow to be stronger than them. Therefore, there is not another choice, a small company needs to pursue the growth otherwise the alternative is to stay out of the market.

Challenges from Growth

For Energica, the number one challenge has always been accessing capital. Cevolini explains that in order to grow, you must have an initial phase of non-sustainability and the company must be able to cover all costs anyway. And therefore, surely there is a financial problem.

Another problem is the access to adequate staff. In particular, inside the Motor Valley (in Emilia Romagna) there is a huge immense staff problem, she had also inquired other large companies and they all declared facing the same problem. That is, if someone wants to find a job in the Emilia Romagna Region, they will find it once the unemployment tax is low. companies are constantly searching and now there are also new large companies that are continuing to hire and are not finding staff. Universities have to graduate four times more.

She explained that there are four years that Energica is looking for some profiles of electronic engineering. For example, while two graduated electronic engineers leave the University of Modena, there are ten companies that are searching for this professional. According to her, they are also hiring from abroad, but hiring a foreign professional should be part of a growth strategy and not due to lack of professionals in Italy.

The main success factor of Energica is tenacity, they have never given up.

The problem is actually the opposite,

Key Success Factors

For Cevolini the main success factor of Energica is tenacity, they have never given up. Even in moments of difficulty of discouragement, they must find a solution and not give up. She stressed that probably this tenacity is quite rare, especially inside young companies.

When they are facing a difficult situation, they try to think of a different way to get around the problem and move on. She also recognizes this characteristic in her team, once to her it would be impossible to do anything by herself. She believes that no one can assure a success of a company alone. In this sense, she detects that they have put together a group of people who, despite the thousand problems they have every day, keep moving like trains This is the great advantage they have in her opinion.



Main Needs

About the main needs she reclaims is the importance of capital access that she mentioned before. Cevolini explains that financial support to SMEs has been lost in Italy in the last years. It has always been done by banks before, but with the changes that have been made in the last period, banks are practically no longer there, i.e. they are there only for large companies but for small companies there are financial conditions that are no longer acceptable and feasible. This is a huge problem not only for businesses but also for the country in general, once, in her opinion, the country is renouncing an income. Cevolini explains that by holding back the growth of these companies, Italy is actually giving up the growth of the whole country.

Another detached point for her is the facilitation and simplification of bureaucracy.

TRAINING: Regarding training needs, Cevolini highlights the training of financial personnel in the first place. She declares that in Italy there is no link between technology and economics, and universities split up these subjects. This issue is even bigger if someone wants to launch a startup, which requires from the entrepreneurs to understand a bit of everything. It would demand a little more versatility, some notion of how to be sustainable, and the concept of having to pay salaries and others. In Italy, an individual either work as an engineer or economics. According to her, a mixture should be done.

She also reiterates on the shortage of electronic engineering, and of STEM careers in general in Italy. Nowadays, there is much more demand for these professionals than there is offer.

Digitization is another important subject in the current market and they are offering specific training for that. Cevolini affirms that those who are on training process must take into consideration that they need to develop these skills and those that are already on the market must move and learn this knowledge if they do not have them yet. She cites a research that concludes that around 2025 and 2030, about 40% of the current jobs will no longer exist and new ones will be created. Cevolini points out that Energica develops some training, and they are also thinking about creating an Academy, not only for internal professionals, but anticipating skills that might be need. She underlines that this initiative is essential since unfortunately in Italy this is still lacking. There is little training for companies' needs.

She says that today on the assembly line they have two areas: a basic mechanics that there is a bike like all the others; and then there is one of to the batteries. The batteries are high voltage, so it needs a mechanical that understands electricity, that is an electromechanic. Because the heat is possible to feel before touch it, but it is not possible to feel the electricity before. Once someone touches it is too late. In this context, she explains that it takes more skills to work on this subject, it doesn't just need an electronic engineer, it also requests a mechanic engineer that knows how to manage electricity. Unfortunately, right now it is not easy to find professionals with these skills.

On the subject of the training needs of Cevolini states that SMEs, internationalization is an important issue for SMEs, once Italy is a small market and must expand beyond the border to survive. However, she declares that for Energica, following the family experience, 90% of its market is abroad, SO internationalization was a natural process. But talking with others she identifies that this limitation exists. One of the obstacles that she identifies relies on the language. She observes that Italy has always had few Italians who speak English, but slowly this reality is changing.

Innovation project management also emerges as an important training subject for SMEs. Mrs. Cevolini explains that to innovate a company should be very competent managing projects. She emphasizes that it is very difficult to manage innovation projects once they involve several departments and therefore it is not easy to keep the thread and make sure that things go on and do not get lost in the meantime.

Business leader importance

Mrs. Cevolini says that the ability of business leaders to form a network is vital. She believes that working as a team is the best strategy, once a company cannot do everything by itself. She remembers that her previous experience is the CPR (a family business) that is a supplier. She affirms that the supply chain is one of the main company's capitals. That is, being able to find a group of people and partner companies is important to carry out a common project. This linkage makes the company stronger than those who try to do everything by themselves. collaborative network takes the best of each one. However, this strategy will work only if the entrepreneurs realize that they need to collaborate, which is not common in Italy. She clarifies that Italian entrepreneurs usually are verv independent.

Another point observed is that business leader should have the ability to identify and seize the opportunity. The entrepreneur must have the ability to glimpse what others have not seen yet and therefore make an advantage over others. Especially a small business. The big business can scout, it can have partners who give them a future perspective, but most part of the small entrepreneur does not have access to market analysis, so having the ability to recognize the trends of the market is fundamental. According to her, this ability is difficult to learn, it is a natural skill of the individual.

Another feature of the business leader in SMEs mentioned by Cevolini is the competence to manage the team. She remembers that there were already differences between her father and her grandfather generation on how to and manage employees. approach Nowadays, she sees that they need to involve them more and more on the goals of the company, since these professionals want to feel that they are part of a plan. Young workers require to understand how they are making a difference. Even though that sometimes when they understand how much take to be involved they don't want it anymore, sometimes they are not ready to face the sacrifices it demands.

Working as a team is the best strategy, once a company cannot do everything by itself.

Support for SME Growth

Regarding the topic of how to support the growth of SMEs, Cevolini takes up the importance of the discussion of financing activities, so that those who are well structured can already move forward and can also support others growth. According to her, financing a company allows SMEs to hire a few more people and it would be possible to have time to stop for a moment to do the operational tasks and think about the growth strategy, internationalization, innovation, etc. Unfortunately, SMEs are made up of people who works on too many things

simultaneously and have no way of thinking about strategy and the rest, this situation slows down growth.

In the meantime, it is important to increase the number of people who come out with scientific skills (in production and engineers in general). She states that there is a necessity to increase the level of scientific skills in people in order to feed SMEs with staff who have the right skills and then companies will not need to spend the short time they have in training these professionals.

Cooperation for Growth:

As already mentioned above, Energica has a wide experience and openness to carry out projects together with other companies. With the university they have already tried and are still carrying out some projects. They have already tried to be part of a cluster, but they did not have a good experience, now they are thinking to be part of MUNER (Motorvehicle University of Emilia Romagna). Muner is an initiative promoted by the non-profit Motor Valley Development Association to bring together major motor brands of the Emilia Romagna region. However, she says that unfortunately very often in order to be part of these groups they ask for disproportionate investments for a small company

Cooperation with Universities:

With universities, the issue that Energica had, according to Cevolini, was regarding the confidentiality. As consequence of this bad experience, nowadays they have just some few projects with universities. That is, they keep less important projects, because they do not trust, once they had problems not only with Italian universities but even with a French university. Cevolini explains that these problems were related to the infliction of patents and intellectual property, which is a critical factor to a company.

However, she underlines that there is the longing to strengthen the relationship with the university, but they need to rebuild the trust. The big issue on this relationship, according to her, is that sometimes the universities' hunger to spread knowledge is greater than the loyalty to companies, and on her point of view this is a big mistake. She addresses that Italian universities should try to be able to make professors and students understand the importance of loyalty and confidentiality of the projects developed in partnership with companies.

Another activity that she would like to develop with the university is to enhance the growth of new professionals, but very often a person who may have participated in a training program or a in project with a company then goes to work with a competitor after. For her, these are the things that unfortunately are still not managed well enough and are holding back the relationship between companies and universities.

She emphasizes that there are regional initiatives in Emilia-Romagna to encourage and support the relationship between companies and the university, but the Region could do even more. In theory, according to her, politics is about making this relationship work but it can still be improved.

HPE Coxa

Federica FacchiniMartina MalagoliHuman ResourcesHuman ResourceManager





HPE Coxa is the result of two distinct companies: HPE and Coxa which merged in 2009. HPE was founded in 1998 as a consulting firm, offering services to other companies in the automotive sector, primarily automotive as well as Motorsport, automation and defense. Initially HPE carried out exclusively engineering studies. In 2009, team started to grow the desire to integrate the engineering studies carried out with the production phases, that became reality with the merge. Actually, the company has been in constant development since the merge, both in numerical terms (therefore in terms of staff growth) and in terms of activities (in the sense that initially team only carried out design, simulation and production activities). Since then, they have been applying an effort to keep up with all the innovations present in the sector and to develop all the activities that are not present but are going to be important to carry out to complete process of product

development. Additionally, they created new departments to allow them to develop an engine from scratch, that is, starting from the blank sheet and reaching the production and even testing phase.

Nowadays, the two realities coexist within the same building, but they still maintain a distinct identity. HPE still remains linked to the entire engineering part, while the Coxa part maintains a focus more connected to the production or construction part. HPE was born as a consulting and an engineering services organization always looking to cooperate with customers and offer services in the best possible way. After the merger they also created their own identity and the ability to develop their own products.

NOTE

Understanding of Growth

Martina explains that until now growth has been mainly focused on an organic basis and is especially oriented in terms of skills, types of activities and revenue. Although they decided to merge with Coxa in the past, the focus of the company's growth is to grow on an organic way. However, later in the interview they reveal that they are already pointing out to perform an external acquisition, but they could not give more details considering the preliminary stage of the negotiation.

Martina explains that the engineering company serves for other realities, so it is important to think about what is affecting the development of the sector at the moment. For example, in the next twenty years the automotive world will go through some transformations, passing from the internal combustion engine to the electric motor. Therefore, for those that work in this sector, consequently they should adjust their focus of the services offered. She assures that they have already started this path, perhaps even earlier by these changes. anticipating Martina explains that those who support the production should have a little longer perspective and be able to anticipate the demands of the market in the near future.

Martina argues that they are focusing on two strategies: increase their revenue, but also discontinuity through external acquisitions. On this last point they have not been able to clarify considering that they are still on a negotiation stage.

Federica explains that those who work in a service area must necessarily have a sensitivity and also the ability to make fast changes. On the other hand, a change on the production has obviously different needs and timing. HPE Coxa must focus on the different professionalization of their resources. She believes that changing a production process that was built over many years is more challenging and riskier for a company. Service companies find it easier to deal with changes. These movements, according to Martina, are financed with internal and external resources.

Federica relates that even companies with an active growth attitudes (using their own resources or acquiring other parallel sectors) can grow for a certain period but then reach a level of establishment. According to her, probably the next years will be for the whole industrial world characterized by huge changes. The pandemic has helped a little to understand that many things are or will necessarily have to change. Federica remembers that the environmental emergency is one of the main challenges for the next years. She argues that resources are obviously scarce, the environment is suffering, and everybody is now realizing it in all parts of the world. An irrational growth of the economy, and therefore of industry, probably the future generations will no longer be able to afford it. According to her, this will be the main challenge of all companies: that is, to be ready to be rapid to change. In this context, the leaner, faster and more capable to face and understand new challenges and adapt, the more companies will be able to stay on the market.

Federica argues that in organizational terms, growth naturally entails the need to find an order and an organization to include new activities, new departments and new staff. They try to advance also on these issues, working on the creation of a good synergy between the existing departments and the new departments in order to create a single goal (e.g., the final result, the company's activities, etc.).

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Probably the next years will be for the whole industrial world characterized by huge changes.



Motivations for Growth

Federica declares that the motivation to grow to an SME is the necessity to stay on the market. She adds that growth is important to be present, to increase reputation and also to increase the possibilities. Growing also means increase and diversify skills. The training and development processes of their staff are also undergoing changes in this process. For her, growing up means having a future.

Challenges from Growth

For Federica currently the main challenge is to be able to stay in the market. Being a service company, they are their own product, so they must always do well, ensure that customers speak well, respect commitments, give a highly qualified service to customers, give internal resources an opportunity for growth, be attractive to young people looking for work and keep employees.

Key Success Factors

According to Martina, first key success factor is an analysis of the market. It is important to understand what the latest developments and needs are. That is, being able to understand, perhaps even in advance, what are the market needs in order to better guide their growth. A study of what's on the market is important to actually be able to work and make a difference. Being renewable is complicated to do and to maintain.

Federica adds by saying that another important success factor is their ability to have contacts, that is a network of possible customers, keep a high level reputation and have internal resources with adequate skills. According to her, one can do market analysis, can have all the contacts, a good network, but if fails to give the quality of service to the required level that it becomes a house of cards that could fall from one moment to the another. Their challenge, their mission at the Human Resource level is to always keep attention to what is the qualification of resources. Their attention is very high from this point of view.

On this topic, Martina says that for this reason the company has always been very active in seeking collaborations (first of all with the university), to try not only to better manage the transition of young people from the last year of university to the world of work, but also to try to continue the training activity. So, having an excellent network of collaborations that somehow support staff development is certainly essential to the company's growth, she concludes. For Federica, the determination of the board is main need. This involves the great ability to face challenges and risks, because growing also means looking towards something that is unknown. Besides this, people and resources are needed too.

TRAINING: Martina says that once there was the integration of a new department and it was necessary to go internally to fill what could be knowledge gaps. Structuring of training activities in order to actually be able to calm down what were the news of the market, rather than activities never carried out before and consequently on which they actually still work, having this desire to always keep up with the times and with the themes, with news.

Federica explains that they are realizing that in the future, which will not be far away, they must also start working on other types of skills. No longer on only those of a technical nature, but also relational and managerial skills. After having trained the technicians, they must also train managers and people about everything. They are beginning to realize that it will also be necessary to work on other issues. For Martina, it is absolutely essential to be able to keep up to date, especially on digitization, otherwise the type of service that they are able to guarantee is a service that is no longer useful to reality. If reality goes on and the company remains backwards. So, for her, updating is essential in any area.

So far, they have not needed digitalization training, once the average age is low (around 35) and they take employees to school, which should already have trained them. Their inputs are almost all engineers, so they already have an advanced level of digitization. However, this does not exclude that this will be an issue on which they must certainly keep their attention high. They are a young company, so they are not also facing a generational shift from older people who have to learn to use modern systems. They have very young boys; she adds that they have a somewhat particular company.

Business Leader Importance

According to Federica, leaders can never stop, that's the trick. You can never say "I'm done" because you can always do more, do better. Basically, you have to get there first. When you find a possibility of development you are never the only one in the world, so if you are the first, you will be more ready. The one who arrives first is more prepared. Those who are slow, who are not prepared and are not ready do not have time. Another detached point for Martina is the ability to manage the team. We must all aim for the same goal, otherwise with individualism in a business reality we probably go a little further. It is necessary to be able to cooperate and know how to work together in order to achieve a goal that must be clear and shared.

Cooperation for Growth:

Martina says that the cooperation with universities and professors is strong and crucial. Certainly, the same with schools or other organizations that deal with training, with whom they are constantly in contact. All those collaborations, they believe, can in some way be favorable to growth, not only in terms of training, but also in terms of business are certainly well regarded and cultivated.

But as soon as cooperation with universities is appreciated, Martina declares that there are companies with whom they cooperate as a consultancy firm. They cooperate with other realities to achieve goals that are often not theirs in the first place, but those of the customer itself. Those are companies who have the elements they need to be able to carry out their activities (software, for example), on which they rely and cultivate to be able to achieve their goals.

Cooperation with Universities:

Martina relates that the CEO's vision is that universities (and professors in particular) train by profession and teach by profession. So, who better than them can help the company in forming the new generations? They are professionals in the sector, as such the support they can give is certainly fundamental, as well as helping on those that are new issues. Collaboration with universities is essential to be able to increase one's skills, also finding channels that can be optimal for identifying candidates who can then continue to train directly within the company walls.

Even though the most frequent cooperation is that of training, they have already had some industrial doctorates. There is direct collaboration by some working groups with spin offs or in any case with university and research groups. Collaboration is extremely varied with universities.

However, the relationship with the university brings some challenges, as Martina points out. According to her, probably more than problems there is an element of diversity: the company works with a concrete goal of achievement, while the university has a more conceptual focus. The support that the university can guarantee to the company reaches up to a certain point on certain issues, then surely there are teams of teaching groups and research groups who have pushed their activity even beyond what is theory. In those cases they actually manage to make a contribution that is probably a little more complete for a business reality. The other aspect that she emphasizes, which for her is a problem of all types of collaborations, but perhaps even more with the university is the whole documentary aspect, all the bureaucracy behind it. Martina states that collaboration with the University of Bologna can be an effective example of collaboration between the university system and companies. They together with the University of Bologna, have created and nurtured a higher education school. This is certainly an element that highlights the possibility of effectively cooperating between universities and the business reality. So, the direct collaborations between their technical offices and the various spin offs rather than the research teams is managed directly by the teachers.

Federica adds that she does not know a tool that pushes the relationship with the university. Indeed, when they have to deal with institutions it becomes all complicated. As already highlighted above, the bureaucracy in Italy slows down, rather than stimulates. It is the entrepreneur and the entrepreneur's vision that gets things done and pushes the company in a certain direction. Then they often find themselves in front of walls, the walls of bureaucracy and public administration. On paper it's all easy. Then when a company starts managing and making it is not like that.

Daryush Arabnia

Group's Chairman, President & CEO **Geico Taikisha**





Image retrieved from: https://geicotaikisha.com/en/

Geico Taikisha is a world leader company in the construction of turnkey automated auto body paintshops. The company was originally founded as Neri & Mandelli in 1963, by Giuseppe (Pippo) Neri and Giancarlo Mandelli. Shortly after it was established, the first major partnerships were formed. In 1965, 70% of the company's shares were acquired by Carrier Drysys group, which specialized in the production of auto body paintshops, and the company was renamed Drysys Equipment Italiana. In the early 1970s, after the financial crisis suffered by Drysys, its shares were acquired by the English company Haden, an industry giant listed on the stock exchange. Due to the oil crisis and the tense political climate of the 1970s, Haden sold its shares to Pippo Neri, allowing the Neri family to buy back 51% of the company, which founded Gecofin S.p.A. in 1976, and acquired 100% of Drysys Equipment Italiana, changing its corporate name to Geico S.p.A.

In 1994, Pippo Neri passed away, and Ali Reza Arabnia and his wife, Laura, decided to purchase all the shares that stood to be inherited to gain control of Gecofin. In 1997, to meet the automotive industry's demands, Geico joined Comau, a Fiat group company specializing in industrial automation. shares in Geico, and Ali Reza Arabnia became the company's President, Chairman and CEO. Arabnia launched an overhaul of the internal processes to improve the company's efficiency. He also organized the first Innovation Day, where the company presents its strategy and future investments to banks, suppliers and stakeholders. At the same time, he launched a cultural revolution based on responsibility, trust, and belonging, and invested heavily in personal and professional development. This led Geico to become one of the industry's world leaders in just 5 years' time. In 2006, Geico established an international network known as the all Geicoproject, and took over the intellectual property rights and patents held by Haden Drysys in 2008.

Between 2008 and 2009, during the global economic crisis, Arabnia decided to focus all company efforts on innovation and resource development in order to render the company more competitive and catch competitors off-guard once the market recovered.

In 2011, the company established an alliance with the Japanese industry giant Taikisha. Gecofin maintained 49% of the shares,

In 2005, Gecofin purchased 100% of Fiat Group's



and was thus able to combine its own cutting-edge technologies and specialized know-how with the solid financial structure and wide reach of the Group's worldwide offices.

After the merge, the company experienced a period of exponential growth, which saw them focus on creating and developing innovation projects for the external community, their own team and the company culture. During this period, the company accomplished important Energy successes such the as Independence Day in 2017, becoming the world's first company to offer a paintshop with zero environmental impact and the birth of the industry 4.0 Oriented Smart Paintshop also in that same year.

In 2020, Ali Reza Arabnia passed the baton to his son Daryush, who at 36 years of age took over the Group and is the current Chairman, President and CEO. In sync with his father's entrepreneurial philosophy, the Daryush will continue the path of innovation with a particular focus on young people to address the challenges of the future of a highly competitive, cuttingedge industry.

Understanding of Growth

Current CEO Daryush Arabnia understands the company's growth because of its adaptable and capable fast-learning nature. Geico's growth has been challengedriven, meaning that during their existence they had to search for innovative ways to overcome external challenges, using them as an impulse to go for more.

Growth Strategies

growth Geico's was propelled by unfavourable circumstances that came up over time and forced the company to quickly learn, adapt, and adopt new strategies. After overcoming periods of external threats such as economic crises that brought down more established companies, they realized that the key for Geico's success relied on establishing an innovation culture within the company. Therefore, they had to always look one step into the future. It is also of paramount importance for the company's employees to share an innovation mindset and be capable of adapting and quickly coming up with new ideas when needed the most.

One of the key strategies they found successful was heavily investing time and resources in promoting research and development within the company, despite being in a global economic crisis. During this period, they bought intellectual property (brands, patents, etc.) and invested in technology as well as in personnel training and development. Taking this risk in a period where other companies were doing exactly the opposite allowed them to gain a competitive advantage when the crisis was over and surpass competitors with new products and services.

For Daryush, another key strategy they used was recognizing potential growth opportunities and taking advantage of them. For instance, they would sell part of the company when it would be beneficial and would buy it back when it was the right time, as well as merging with former competitors and acquiring two new companies to create synergies that would make them stronger and give them the capacity of establishing themselves as global leaders in their industry.

Transformation & Motivators for Growth

The first milestone of Geico's transformation into a global leader was performing business at a larger scale and competing with globally renowned industry players. According to Daryush, this transformation gave them notoriety and positioned them in another league. After this, their focus was on positioning themselves as an innovative company, placing their aim on sustainable energy developments with initiatives such as their Energy Independence Day and CO2 free day.

With this twist on their strategy as a

company, Geico needed to secure a new level of investment in software technology for digitalisation purposes as well as for acquiring people with expertise in these fields.

Apart from considering growth as a necessary step for survival, Geico's main objective has always been to stay ahead of the market trends.

Challenges from Growth

One of the main challenges for Geico's growth is that the time-to-market in their industry changes quickly. As Daryush describes, their industry is not like other industries such as fashion or cell phone technology, where new developments can be made in just three months. For the car technology industry, development takes around six years, while market trends can change way faster. Therefore, speed of change and adaption is always a critical challenge.

Another main challenge is adopting an innovative culture. Managing a company with a multi-country culture and changing the mindset of the company's people was a crucial barrier they needed to overcome and are still working on sustaining, especially because Geico is not a start-up, and they have different generations working together that they need to manage accordingly. Along with this, they are working on establishing a culture of openness and risk-taking.

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Managing a company with a multi-country culture and changing the mindset of the company's people was one great barrier they needed to overcome and are still working on maintaining, especially because Geico is not a start-up, and they have different generations working together that they need to manage accordingly.



Key Success Factors

A key success factor for Geico's growth was staying ahead of the market trends by constantly studying the market and recognizing the different needs on time.

According to Daryush, focusing on market trends mean focusing on different aspects of the business; sometimes focusing on technology innovation, and other times focusing on organization restructuring, acquiring new companies or selling parts of the business, becoming part of a billionaire group, or getting out of one, etc. The key is to be dynamic, able to respond to challenges on time and to forecast what the industry needs will be in 3 or 5 years.

Main Needs

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Geico's main needs for growth were first related to financial aspects and company infrastructure. After overcoming these needs, the subsequent needs were related to people skills and mindsets. Luckily, management was always aware of these needs and willing to take the necessary decisions and risks to stay ahead.

The key is to be dynamic, able to respond to challenges on time and be prepared to forecast what the industry needs will be in 3 or 5 years.

Business leader importance

One could say without a doubt that a critical motivator of Geico's growth and success has been its management. Since the company's formation, its management has shown great initiative, leadership and adaptability skills that have allowed them to successfully navigate periods of uncertainty and crisis in which more established companies collapsed. In Geico's case, it has not only been its director's managerial skills but also their openness to change, as well as a great eye for seizing opportunities for growth. These values led Geico to be in the place they are today.

Cooperation Partners

Throughout Geico's path of growth, cooperation has been critical. Following their culture of openness, Daryush admits that Geico is up for collaborating with everybody, especially since they are exploring new projects for which sometimes they do not have the needed expertise within the company. Within this collaboration journey, Geico has collaborated with start-ups, universities and other companies.

Additionally, they also take part in networking activities organized by the European Union, like start-up matchmaking. For these activities, they visit different countries in search of potential start-ups to collaborate with.

Cooperation with Universities

As mentioned, Geico collaborates with universities, mainly with Italian tech institutions in the fields of research and development.

Opportunities for universitybusiness cooperation

According to Daryush, there is still a lot to be done to improve university-business cooperation in the car technology industry. Specifically, there is a big gap regarding vision and culture between academics and businesses.

In his opinion, universities are structured as companies, but are challenging to get into without knowing who to contact and whether they would be interested in tackling the same challenges as Geico. Therefore, Daryush affirms there is a need to build bridges and more open structures and mindsets for university-business collaborations to improve.

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There is still a lot to be done to improve university-business cooperation in the car technology industry. Specifically, there is a big gap regarding vision and culture between academics and businesses.

Growth Training Needs

As a result of Geico's need of keeping up with the market pace and changes, constant training is critical, and Geico invests significant resources in it. Every two years the company has an event called "Organizational assessment, " where they present to their employees the organizational and strategic restructuring company initiatives. Through this alignment, they aim to create a unified vision of the direction the company is going to.

Furthermore, the company has developed "The Academy", a six-month program in which they train their employees in four areas: 1) Citizenship, which encompasses the general company courses according to the role the person holds, related to processes, management, projects, communication, etc.; 2) Leadership, where they teach courses based on their company's values of ownership, execution, delivery, communication, engagement, people management and growth, and customer fidelity; 3) Art skill, where they do technical training and training for tools such as AutoCad or Excel according to the employees' roles; and 4) Long term training, which are courses not necessarily related to the company itself, but general knowledge in areas that can be useful for the people and help them open their minds (e.g. Innovation Culture). For the training program, they have in-class courses guided by internal or external certified trainers. They also have a Netflix-like learning platform, where employees can find their courses of interest. Additionally, they also rely on social media spaces such as Facebook Workplace, which they use for short daily training and questionnaires.

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Technical training is not only important but necessary, but it is rather easy to achieve; fixing the mindset of a company is something hard to achieve that influences every aspect of the company's functioning.

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Specific Training Needs

Daryush believes that critical skills for SMEs are more related to mindset training than to technical training. Of course, he mentions that technical training is not only important but necessary, but it is rather easy to achieve. Fixing the mindset of a company is hard to achieve, but it influences every aspect of the company's functioning.

Daryush points out that there is no plug and play solution for every company. Instead, each company needs to establish what would work for them. In the case of Geico, they have chosen a mindset guided by openness and innovation, thus they invest to establish this culture as a reality that is represented through every company member, from top to bottom.

Sander den Hoedt

CEO Delmic



Image retrieved from: https://www.delmic.com/en/

Delmic started operating in 2010 but was formally founded in 2011, and their goal ever since has been to create powerful and easy-to-use microscopy systems for researchers.

Sander started working in the company in late 2011. Before joining, the founding team was still working on several side projects and trying to make some money as they were coming straight out of university. In 2012, the team was devoted full time to growing Delmic, and they managed to hire their first employee through a small grant now known as the 'Take-off Grant' (previously known as the valorisation grant in the Netherlands).

From there, Delmic grew steadily until 2014 when a shareholder came on board. The team grew to about 15 people until about 2016 when the company struggled. Delmic had to let go of a lot of their R&D personnel and scaled down to about eight people. In 2018, Delmic pivoted and expanded after pitching potential direction for the company to their existing shareholders. Today the team has about 42 employees.

COUNTY

CONTACT

27.05.2021

METHOD Zoom Interview

LENGTH 45 Minutes

INTERVIEWER Amelie de Rooij

The Netherlands

hoedt@delmic.com

DATE OF INTERVIEW

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Understanding of Growth

To Sander, growth can primarily be defined in terms of revenue; the ability to sell with the option of scaling. Growth for Delmic could also be described in terms of organisational growth, where the company is scaling based on investments. However, Sander's primary definition of growth is in the perspective of an attainable market.

NOTE

Growth Strategies

As Sander describes, when the company started out, the team had little experience and understanding of market perspectives and growth strategy. They thought they would sell ten units of their product in the year and remain a small company. They started with a technology-driven mindset, about simply thinking selling their products somewhere. Only a few years after, they realised that if they strategically utilised their strengths, they could target a larger market.

Around 2014-2015, when the shareholder came on board, the company created a growth strategy plan looking at market perspective, new markets, value proposition, product differentiation, and growth perspective, as the shareholder pushed them to be more ambitious.

For a long period of time, Sander felt that he was limited by the products and the market he was in. Having the shareholder on board helped him shift his mindset to be more creative and in realising that as a company, you can determine what you want to do and expand in any direction. Having the shareholder on board also helped with financing the growth and expansion plans, primarily, together with some grants, from the Dutch government and the EU.



As a CEO, you need to de adaptive, but also invest in the company's sustainable organizational structure, as you cannot be involved in every project and decision making anymore.

Transformation

According to Sander, the issue with growth is that the company continuously faces bigger challenges, such as managing a completely different and new team. As a CEO, you need to be adaptive and invest in the company's sustainable organizational structure, as you cannot be involved in every project and decision making anymore. Simultaneously, the financial pressure becomes bigger, and the company requires additional investors. Hitting financial targets and other milestones become much more important as well.

Challenges from Growth

Through growth, the management team faces challenges almost across the board. In terms of suppliers, for instance, the company must make sure that they can suddenly increase their production volume and capacity, or increase their product quality. But challenges also come at a personal level, where you need to ensure that you always think through everything the right way and that you can adapt to the needs of a changing organization.

Key Success Factors

For Sander, two factors are critical to the success of SMEs when experiencing fast growth. It is of paramount importance to have a team that is very adaptable and willing to constantly challenge the [industry] status quo. Such a team thinks about what needs to happen next and

what needs to be improved in the company.

The other key success factor is to have clear guidelines in place for the efficiency of procedures and processes.



It is of paramount importance to have a (founding) team that is very adaptable and willing to constantly challenge the industry status quo.

Main Needs

Sander describes that one of the main needs for SMEs during the phase of their growth lies in the quality of the training provided to the employees. For the Delmic team, courses that provide a broader perspective on scaling business and growth are particularly useful, especially those tailored to engineering and technology utilisation (not limited to software) for SME product development.

Courses on finance are equally important

for the Delmic team. Sander is interested in how to access enough capital liquidity, which is a big problem in the Netherlands.

Cooperation Partners

Delmic collaborates closely with AMOLF, an academic institute for fundamental physics in Amsterdam, the Delft University of Technology, and also has new collaborations in Germany, the US, and, to a lesser extent, China. These collaborations are very much embedded in the DNA of the company, as they almost primarily sell their products to academics.

On the other, Sander finds it harder nowadays to maintain such collaborations, as on one hand, he has less time to coordinate these collaborations, and on the other hand, the pace is different in academia, who tend to have a longer view.

Cooperation with Universities

Collaboration with academia is primarily on fundamental research, so a multi-year view on partnerships is typical for Delmic. However, funding is a challenge in academia. Since the company is not a small start-up anymore it receives less funding. In addition, a huge commitment is required from companies collaborating with academia, particularly in the Dutch system, where companies are regularly asked to put 100k euros into projects, but as a scale-up, the company does not yet have that kind of money.

Additionally, for Sander, the in-between phase of moving from a startup to scale-up is challenging for SMEs. During this phase, SMEs are forced to collaborate with companies that would normally be considered as their competitors. The phase also makes it impossible for SMEs to collaborate in certain funding rounds for instance.

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The in-between phase of moving from a start-up to scale-up is challenging for SMEs; during this phase, SMEs are forced to collaborate with companies that would normally be considered as their competitors...

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Growth Training Needs

Digitalisation is not critical as most processes are scalable, and available through the cloud. In terms of training needs, besides scalability coaching, some networking sessions around a specific topic/challenge with a speaker could be beneficial; simply also making new friends as being an entrepreneur can be a very solitary exercise.

The SME grant - provided by the EU- provided coaching which has been beneficial as well.

Lucía Abad

IDIP Sales Manager
IDESA/IDIP



Image retrieved from: https://www.idesa.net/

IDIP was created in 2015 through the merging of two former departments of IDESA: Industrial Plants and Field Erections and Shutdowns (both created in 2012). Although a subsidiary of IDESA, IDIP had its own structure and management.

IDIP aimed at first to include Turnaround execution, Engineering Procurement and Construction (EPC) projects, and Multidisciplinary Engineering Projects in its services portfolio. Overtime, IDIP services and product portfolio evolved until the current situation, in which we can identify four main areas: (1) turnarounds, including execution, PMC services and supplies, (2) modules and skids, (3) construction services, including multidisciplinary projects, and equipment

Spain CONTACT Lucia.Abad@idesa.net DATE OF INTERVIEW 11.06.2021 METHOD Zoom Interview LENGTH 45 Minutes INTERVIEWER A. de Rooij & M. Ceccarelli

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termination and installation, and (4) tank singular projects.

IDP's growth trajectory has undergone a substantial increase since its creation in 2015, experiencing more than 400% growth during its first three years (2015-2017). Between 2016 and 2019, IDIP's absolute growth rate was set to 1254,7%, which allowed the company to be ranked 110th in the Financial Times' Top 1000 Ranking of the fastest-growing companies, and 7th in out of the 54 European companies that entered the ranking in Spain.

Understanding of Growth

IDIP understands growth as an organic and steady process that develops over time. The company aims to engage in more projects in the future and to have control over them. For IDIP, the goal is not to achieve great results one year be be unable to grow from there, but rather become a key longterm partner for its customers. In Lucía's view, the only way to achieve this is to steadily grow over the years. This means gradually increasing the number of projects and staff supporting IDIP projects and its clients, while not neglecting their quality standards and identity, to ultimately increase turnover.

NOTE

Similarly to other companies, the growth path of an engineering company depends more on its operating environment rather than its status as an engineering company. If the environment is active and financially stable, there will be more projects and these companies are expected to grow.

According to Lucía, there are five crucial aspects of SME growth. The first one entails the adoption of an entrepreneurial *mindset*. Developing an entrepreneurial mindset is necessary to achieve the goals set by the company. It is done by setting milestones, making decisions and identifying lessons learned. Next is an innovation management scheme. In order to grow, it is completely necessary to be trained in innovation management to develop new ideas that lead to new products, services and solutions. Third, knowledge of how to access capital is essential. For Lucía, SMEs usually have limited resources and thus, getting

knowledge on the different ways to access capital and financing is fundamental for being able to opt for larger projects that help to promote the growth of the Company. Fourth, it is essential for the business model to embed innovation in its strategic goals and follow the trends of the market? how clients modify their behaviour to identify new opportunities, and then adapt our business to the same. Finally, internationalisation is one of the most important factors in the growth of an SME, including awareness of opportunities accessing finance and a skilled on workforce. In most cases, growth is linked to broadening the action area of an SME and knowing the market you are entering, legal framework, potential local its partners, or how to establish (or not) in that market are key factors to define the roadmap to that growth.

Finally, internationalisation is one of the most important factors in the growth of an SME, including awareness of opportunities on how to access finance and a skilled workforce.

Growth Strategies

IDIP is the result of new market developments and diversification of IDESA. IDESA expanded its market after understanding that its clients are demanding not only vessels, but also additional services such as on-site installation, replacement during turnarounds or installments on skids, and connection to the plant. This was the reason why IDIP was born. Additionally, IDIP is continuously seeking to increase its market share by increasing its action ratio. The company started with small projects in Spain and has expanded with projects in Europe, Asia, Africa and America. Product development is a constant in IDIP's sector. Looking at the future, the energy transition is a reality to which IDIP needs to adapt by entering new sectors such as hydrogen, CCS or LNG Bunkering.

Motivators & Challenges for Growth

IDIP wants to become a key player in the sector and continue providing solutions to its clients. IDIP follows the example of IDESA, which has become one of the most important suppliers of PV in the world since it was created in 1993.

The main challenges to growth include

financial challenges and the lack of human capital concerning the increasing demand of the company's services/products, clients' growth, the presence of competitors in the market, and the need to increase staff and to achieve a steady level of growth.

SME GROWTH

Transformation

IDIP strives for steady and controlled growth as it wants to avoid an escalation that would cause the company to lose control of quality of its services. The staff has been increasing steadily through the years, allowing them to have the necessary time to understand the company's philosophy and culture.

Key Success Factors

Lucía claims that the key success factors are reflected in the company's values; client-orientated, innovative and technological capabilities, reliability, strict ethical conduct, safety compliance, respect for the environment and very high quality in the project's execution. IDIP does not exclusively pursue economic profit, as it also wants its clients to experience the

Main Needs

Undoubtedly, infrastructure, skills, management, access to finance are relevant needs for SMEs. It is the sum of these, among others (strength of the activity sector, industrial and labour policies, established supply chain, etc.), that allow an SME to grow continuously. In any sector of activity, but especially in one as critical as IDIP's sector, companies cannot afford to fail. It is the need to gain credibility that makes it possible for SMEs to grow in the client portfolio and company's real performance and inspire trust for future projects. Furthermore, Lucía reminds us that steady and controlled growth is key success factor. Through the years, IDIP has not been trying to reach the 'next level' of business until growth has been consolidated. This allows the company to maintain the quality standard.

therefore increase sales. Once that dynamic has started, it must be accompanied by an increase of staff, resources and, depending on the type of growth, skills.

On the one hand, there is a need to increase sales by reaching more clients and expanding IDIP's action area which, on the other hand, needs to be accompanied by an increase of staff, resources and, depending on the type of growth, skills.

Business leader importance

According to Lucía, one of the qualities that contribute to her being a leader is her ability to *mobilise* a *network*, which depends on the company's reliability with customers, suppliers, employees, etc. Of course, maintaining IDIP's current network and continuing its expansion in the future is a key to its competitiveness and sustainability. Additionally, as a leader, it is fundamental to identify opportunities and also to define which ones can offer the best results to IDIP. Additionally, IDIP wants to identify opportunities that also offer relevant advantages to the IDESA Group, regarding the manufacture of certain supplies. IDIP believes in team leadership and the sum of effort and teamwork. As Lucía states, true leadership lies in empowering each member of the organisation to feel useful and to act as leaders themselves in their daily tasks. The good of the whole must be above the benefit of the parties, and true leaders must avoid being protagonists, guiding the company's strategy in the medium and long term. Finally, each member of the staff should be extremely competent, which simplifies the decision making of the management team. They should also have unique abilities and experience, and the leader should be able to manage and coordinate them.

Cooperation Partners

The company has been very active in collaborations on all fronts. The collaborations established have been very positive for all parties, taking advantage of the best of each of the parties: industrial, scientific and university. More specifically, IDESA collaborated with Technological Centres. such as IDONIAL in Asturias, AIMEN in Galicia. and TECNALIA in País Vasco, as well as with company clusters, like METAINDUSTRY and SMART EUREKA CLUSTER.

Cooperation with Universities

IDESA (and IDIP) are collaborating with the local university by facilitating student internships at the company. The collaboration has historically been a success and helped a few people at the university to start their careers at IDESA. Additionally, the company collaborates with some international Universities based in Coimbra, Modena and Athens in several R&D projects.

Overall, cooperating with universities allows the group to have a different point of view. As the staff is involved daily in the industry, it has a more pragmatic approach to innovation. As Universities are more focused on theoretical aspects and research activities, collaborations lead to brand-new perspectives, which themselves lead to innovative solutions. In particular in collaboration with technological centres, they have developed new welding control processes, new solutions for coatings or optimisation of processes by means of digitalisation.

As Universities are more focused on theoretical aspects and research activities, collaborations lead to brand-new perspectives, which themselves lead to innovative solutions.



Growth Training Needs

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IDIP growth has been closely linked to the expansion of the company services portfolio. There was a clear need to train IDIP personnel in new skills relating to new IDIP activities, with special regards to on-site safety.

Furthermore, the company needs to be up to date on safety standards governing IDIP projects. For Lucía, the company also needs to be aware of market trends, being up to date with energy transition, and new general, technologies. In IDIP places special attention on multidisciplinary-skill training sessions, which enable problem-solving, decision making and self-management mentalities. The most needed trainings according to Lucía are for digitalisation skills, new technologies in the market, legal and management training, as well as international growth.



Joe English has been the Head of Enterprise at Meath County Council since 2015. He is a small business, start-up, and development professional with wide experience in managing pan-European innovation projects.

Joe received his B.E. in Electronic Engineering in 1980 and his MSc in Innovation Management in 2015. Joe previously worked as a software engineer at a large multinational company, at a start-up that created computing machines, and later co-founded his own company that produced automated vision inspection tools for industry.

After selling his company and moving back to Ireland, Joe's local government offered him a position helping start-ups in the county get on the route to growth. In his current role, he has also worked with the European Commission on small business development and small business growth.

Understanding of Growth

There are two ways of looking at SME growth: the government in Ireland defines SME growth as an increase in the number of employees, financial turnover, and potential for export.

Growth can also be described as SMEs growing their product line or their service to include either a wider product offering or a wider potential client base. This ensures that the SME is not only in a small niche market, giving the business some defence against risks and competition. This point of view looks at growth in terms of getting a company to a point where they can "survive and thrive". In terms of government support for SME growth in Ireland, two funds can help SMEs grow: the Innovation Grant and Enterprise Ireland's Agile Innovation Fund. These funds supply both hard and soft support for businesses to help them get through the innovation process. Hard (financial) support is targeted at the smaller companies that lack the money and time to produce the innovation themselves. Joe identifies such companies that have the potential to develop and undergo an innovation process. SMEs with potential are helped to develop a realistic plan to get an innovative product to the market.



Alternatively, soft support provides training and short-term, one-to-one mentoring use experts in management and technology. These help the SMEs with any issues they are experiencing and allow them to be more targeted in their approach.

Growth Strategies

According to Joe, engineering SME growth is about constantly looking to go further and do more. This includes looking for new products, services or clients.

Joe identifies two main growth strategies, the Meath Economic development strategy and the Local Enterprise Office's strategy. The Economic Development Strategy for Co. Meath aims to create 7500 new jobs in the city over the lifetime of the plan, and approximately 1000 new jobs a year. The economic strategy consists of three pillarsspatial planning economics, and marketing, to attract and support business in order to achieve the ambitious, yet achievable 7500-job target. In doing so, the Council is actively engaging with and building relationships with businesses that have a role in economic development, harnessing talent and creating attractive living environments.

Additional support for SME growth is provided by Meath Local Enterprise Office, which offers more tailored training for SMEs.

Further, the Meath Local Enterprise Office (LEO) provides an information and advisory service to new and existing entrepreneurs on all aspects of setting up and running a business. The Meath LEO provides support and services for those looking to start, grow and develop a business in Meath. The office also acts as a source of information for all state enterprise agencies and other initiatives, providing information on enterprise incentives, business structures, taxation, regulatory obligations, market research, etc. Services to local businesses can include the provision of business information and advice; business skills training; mentoring support; financial assistance; and management development programmes. The LEO also spearheads various initiatives to encourage and promote enterprise across the County working with business groups, community groups, various other local and national bodies.

Motivators & Challenges for Growth

Businesses often decide to grow out of fear that they will lose their competitive edge.

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Yet, fear can also be a demotivator of a small company. It is important to get the SME's owner-manager out of their comfort zone to think of possibilities for the future.

Engineering SME growth is about constantly looking to go further and do more. This includes looking for new products, services or clients.

Business leader importance

Having good leadership is a key success factor. Successful business leaders tend to have a good grasp of their industry. They have open personalities and are receptive to suggestions and ideas, especially from their employees and external contributors. They also have a strong sense of self-awareness and are open to admitting faults.

Cooperation Partners

The Meath Local Enterprise Office works with local chambers of commerce and the businesses in the region. Meath County Council also works with other government bodies, for example the tourism board to ensure that companies who are involved in tourist services or products get the support they need.

Cooperation with Universities:

Through Innovate Ireland's Agile Innovation Fund, which provides funding and training assistance, many experts are brought to help SMEs. These experts are either in the technology transfer office, or academics themselves. The Meath Local Enterprise Office makes SMEs aware of the help that they can get from universities, and also refer the SMEs that need advice to the relevant university staff members.

Opportunities for universitybusiness cooperation

There are currently not enough major projects going on between universities and businesses. The different timelines that universities and SMEs have, and the amount of funding required, means that sometimes collaboration between the two can be difficult. Funds such as the Agile Innovation Fund can help bring necessary resources from the university to the company.

There are also possibilities for collaboration between universities and SMEs in education and training of SME employees. It is also useful to direct university resources to the business as a whole instead of a single person. Employees can receive short term trainings and courses that can be tailored to the needs of the business. It may also be beneficial to work with groups of owner-managers who are, for example, working in a particular technology field and create specialized trainings for them. Companies would be more interested if they see a direct benefit to further themselves.

When SMEs and universities do collaborate, it is important to set expectations early for a relationship. Meath Local Enterprise Office clients are made aware of university activities that could benefit their businesses.

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The different timelines that universities and SMEs have, and the amount of funding required means that sometimes collaboration between the two can be difficult

Growth Training Needs

There may be a need for training of SMEs to be able to identify other businesses' needs. There is a growing opportunity for businesses to develop their own products and services to fit the needs of other companies.

There may be an opportunity where smaller businesses that have useful technology offer their knowledge services to other companies that do not have that knowledge or may not be able to afford to hire other experts in that area. An example of this may be ensuring that when an SME offers new technology, it also offers the backup service and support for the technology.

As technology gets more complex, and as manufacturing and services become more automated, there is going to be a different relationship between service providers, product providers and customers, one that is more than likely going to be longer-term. There is a great opportunity for the service provider to have a recurring revenue stream.

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There may be an opportunity where smaller businesses that have useful technology, offer their knowledge services to other companies that do not have that knowledge or may not be able to afford to hire other experts in that area.

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Alvaro has a mixed background that has granted him extensive international experience, having worked both in the United States and Europe. He is currently working in the UK, where he started working on Research and Development activities four years ago.

Alvaro provides innovation and growth services for SMEs that are mostly funded by Innovate UK, the national governmental body for innovation in the United Kingdom. Through these services, he helps SMEs in their growth journeys that go further than just obtaining funding, covering other growth possibilities such as internationalisation, product commercialisation, collaboration opportunities or stakeholder's identification.

Alvaro also has experience in business development in different sectors, which he believes to be one of the key elements that every SME - with a certain degree of R&D in its model - needs to address.

Understanding of Growth

To Alvaro, growth means an increase in turnover, mostly revenue from sales, as well as experiencing an increase of resources to respond to those rising sales. There are, of course, other ways of growth that are not strictly on the financial side. For instance, adding new products and services to the company's portfolio or simply increasing the company's capabilities and the offering to their clients. In Alvaro's opinion, growth is more vertical than horizontal, and it affects sales and resources (people, equipment, etc.). In terms of defining a timeline for growth, this is not an easy task to determine, as it depends very much on each company's goals. Some companies aim to increase their turnover by 15-20% a year, while other companies aim to scale and become a 300 person operation.



Engineering SME Growth

Ways to engineer SME growth depends on the company. Established companies do not usually experience exponential growth, but rather rely on their clients and brands, and prefer a model that allows them to grow steadily. Start-ups, however, are more likely to experience exponential growth, since they get more funding and

Growth Strategies

Alvaro identified a number of growth strategies, including R&D grants, collaboration with other companies and organisations, internationalisation, and scaling by trying to reach new verticals with the same solution. For his latter take bigger risks.

Based on Alvaro's experience, he does not see rapid growth in engineering companies very often, and when he does, it is a product of innovation and tends to be linked to R&D grants.

strategy he pinpointed that if a company has developed a solution for a specific sector and that solution applies to other areas, "why not pursue it?"

It is important to understand the current situation of the company and to make sure, before undertaking a big project that there is capacity, skills, willingness, and vision to accomplish each goal.

Transformation

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To Alvaro, transformation potential is clearly a matter of resources.

Companies need to first look at their culture and their team to understand what they have and what they are lacking. "Does the company have the right people with the right skills in the team to move towards the agreed plan of growth? Does the company have a strong financial position to take certain risks to grow?" The list of questions goes on, he adds.

The second step would be, then, identifying who of their stakeholders the company should involve or rely on when trying to undertake its growth plan. Stakeholders will, of course, depend on the type of growth a company is trying to achieve.

Finally, if the growth is intended to happen through Innovation and R&D, then the

company needs to identify potential universities that could support it. Following this, the company could catalyse the creation of a network and find other relevant partners, clients or projects to add to this network.

In summary, it is important to understand the current situation of the company and to make sure, before undertaking a big project, that the capacity, skills, willingness, and vision exist to accomplish each goal. Alvaro puts the example of a 57-year-old member of the senior management team of a company who probably is not willing to adapt to the time difference in Australia. It needs to be a collaborative effort and the whole company needs to be ready for that, especially in terms of passion and energy.

SME GROWTH

Challenges from Growth

According to Alvaro, before the transformation takes place, a number of factors should be met, such as the financial capacity to face new risks; having a team that is ready to embark on the growth process; the identification of the profiles within the team that will drive the growth with passion; reliance on the stakeholders to support the company in the growth process; understanding and capacity to communicate the added value of the offered solution to whomever the company is talking to; flexibility, which is not always easy for a company with needs, tight deadlines, and other pressing forces; and maintenance of normal operations (clients, sales, bills, etc.) while you are preparing or moving towards a new stage of seeking growth and taking risk.

Subsequent to the transformation, the ability to consolidate and to re-structure the company based on that is a key factor. However, the process for that depends heavily on the main driver of growth. In particular, a company that has gone abroad and entered the international market now must now deal with customs, different languages, cultures and time zones, new clients, etc. All those factors need to be understood and integrated within the operation of the company. Additionally, if the main driver of growth was R&D and a company has been working with a university, part of the knowledge needed for R&D sits at the university. The company might not have the full picture of the technology it wants to exploit, which means a team with the right knowledge is needed to really take advantage of the opportunity. Moreover, when talking about approaching new sectors, it might be worth it to bring business developers with 10-15 years of experience in those sectors to help the company consolidate its position in that market.

A general challenge, regardless of the driver, would be to understand the transformation and bring it "in-house" in order to reduce the number of third parties on which the company depends.

Key Success Factors

Digitalisation is clearly one of the key success factors for SMEs. Many digital tools improve performance and provide knowledge of the operation of a company, and not many firms use the tools. Looking at the funding that digitalisation-related initiatives get, both at the European and national levels, one can see the importance of the topic. This is particularly true in the case of engineering, where many of these tools can help a company gain a competitive advantage in cost, productivity, and more.

6 6 Digitalisation is clearly one of the key success factors for SMEs; many digital tools improve performance and provide knowledge of the operation of a company, and not many of them use those tools.

Business leader importance

Successful business leaders tend to have a good grasp of their industry. They have open personalities and are receptive to suggestions and ideas, especially from their employees and external contributors. They also have a strong sense of self-awareness and are open to admitting faults.

Cooperation with Universities

Well established companies, especially those in the fields of aerospace and automotive engineering, tend to be more connected with universities. Alvaro mentioned that this is usually linked to grant schemes that companies have in their countries that "force" them to partner with universities to be eligible to receive funding.

Otherwise, it is very rare to see companies proactively approaching universities solely because they think that a partnership will help them evolve and grow. One exception to this would be companies who have senior management who come from academia and are more willing to bridge that gap or see fewer obstacles to do so. In his experience, people working in universities are usually focused on publications and research outcomes, and do not really understand the business side of things. Thus, the timing of a university might be very different from the timing of an SME, which is a major barrier for collaborations between universities and SMEs.

Opportunities for universitybusiness cooperation

Grant funding is starting to disappear little by little and the world is moving from grants to loans or blended options. Alvaro thinks that commercialisation is going to take over R&D and grants, and now due to the pandemic everyone, including universities, is losing money. Therefore, universities should change their focus towards having a proposal where they cooperate with SMEs for a certain amount of money. The main obstacle here is to turn senior researchers who have spent their whole lives in university contexts into commercially driven researchers with the right mindset to work with SMEs.

If universities were able to undertake that transformation and offer R&D services to SMEs, new generations of researchers would benefit greatly from new incentives, including economic rewards or higher salaries. This would also create new intellectual property for the universities. Alvaro thinks that all universities should start moving to a more sustainable system where they do not rely on government funding and become more autonomous in their operations and actions. Thus, a change of mindset and culture within the university would be the key element of success for greater cooperation between universities and SMEs.

Another opportunity for collaboration has to do with the fact that SMEs are less aware of how to better exploit their IP. To exploit this IP, one of the key steps would be understanding what the current state-of-the-art of a certain technology is. Companies usually do not possess this understanding and they could potentially collaborate with universities, instead of hiring an IP attorney or a specialist in IP, to get advice on the potential development of their own products.

Also, many SMEs who struggle with finding the right profiles or do not have access to specialised candidates could see universities as talent pools. However, SMEs usually do not even think of approaching a university when looking to recruit. That would also be very beneficial for the universities, which would see their employability rates rising.