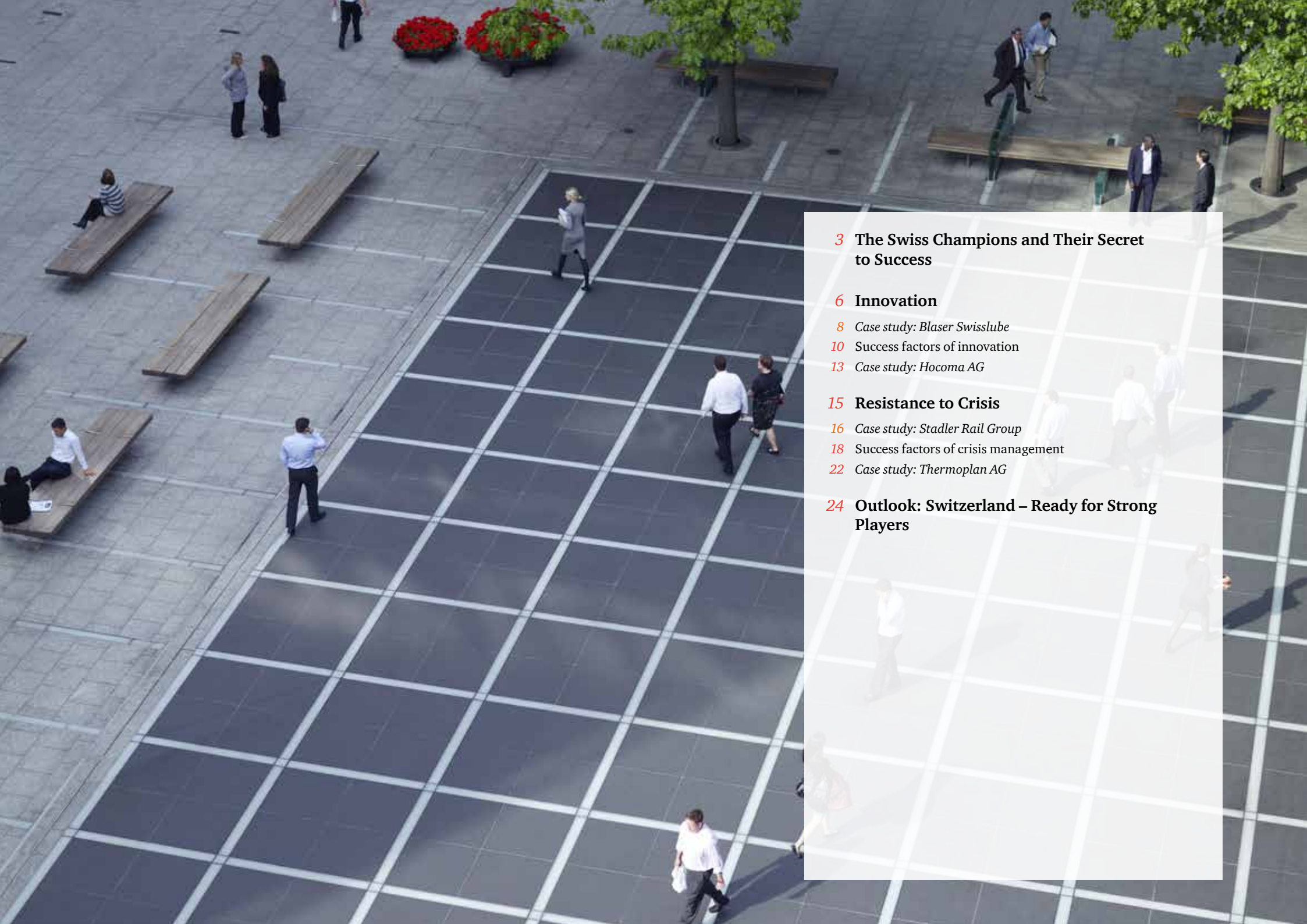


PwC study

Swiss Champions 2016



Agile, innovative and resistant to crisis



3 The Swiss Champions and Their Secret to Success

6 Innovation

8 Case study: Blaser Swisslube

10 Success factors of innovation

13 Case study: Hocoma AG

15 Resistance to Crisis

16 Case study: Stadler Rail Group

18 Success factors of crisis management

22 Case study: Thermoplan AG

24 Outlook: Switzerland – Ready for Strong Players

The secret to the success of Swiss world market leaders: they are agile, innovative and resistant to crises.

Although often not in the limelight of public attention, they occupy a prominent position in their industry. Their products and services are successful on a worldwide scale; they are managed by their founders, by family members or by external organisations, and with their innovation, solid financing structures and long-term visions, they bring stability and progress to the Swiss economy.

Having advanced to world market leaders in their field, these medium-sized enterprises are able to persist in the international competitive environment despite markedly higher costs at their production sites in Switzerland. This is why we call them “Swiss Champions”.

In 2015, we published our first study on the factors of their success, crystallising a kind of DNA of the Swiss Champions.



Norbert Kühnis
Leader Family Businesses and SMEs
PwC Switzerland

In this study, we focused on the core competencies of these enterprises, on the people who manage and thus shape them, as well as on crisis management and globalisation.

This is our second study, in which we follow up on the insight already gained by concentrating in more depth on two specific aspects: the Swiss Champions’ capacity for innovation and their way of managing crisis. For the purpose of our analysis, we have identified 130 companies in various industries throughout Switzerland and conducted around 30 interviews with CEOs and business owners.

Today’s markets are subject to rapid change. Globalisation and digitalisation present an enormous challenge for companies – also for Swiss Champions. It is key to be prepared and to respond to technological



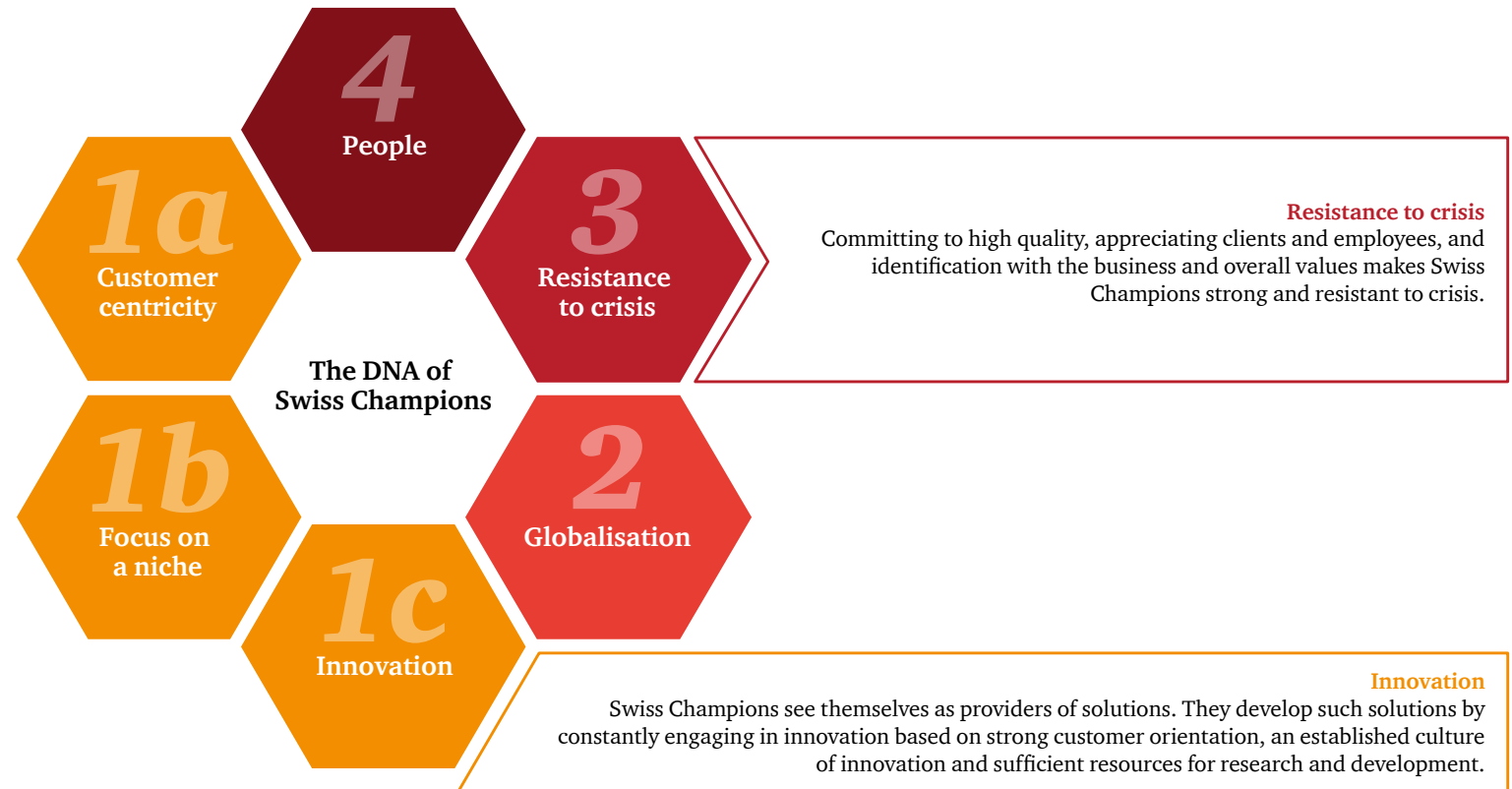
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developments as well as changing environments and conditions on a permanent basis. Moreover, they are forced to handle abrupt currency fluctuations and dramatic shifts in prices.

If Swiss Champions don’t cry for governmental support in times of crisis, it is because they possess an exceptional reactivity. By engaging in continuous innovation, they are capable of maintaining and expanding their position as global leaders.

The various responses to the appreciation of the Swiss franc in January 2015 show that Swiss Champions will compensate for currency disadvantages with unconventional measures and hard work, with an exemplary corporate culture and staff’s full commitment.

The DNA of Swiss Champions



Swiss Champions that have reached globally leading market and technology positions in their industries all share particular characteristics. We have examined them in detail in our first study published in 2015.

In it, we focused on four main corporate characteristics:

- core competencies, such as clients, niches and innovation
- outstanding, influential leadership personalities
- progressing globalisation and
- the ability to manage crises successfully.

In our second study on Swiss Champions, we have put two particular aspects under our scrutiny: their capacity for innovation and their management of crisis.

Innovation

Swiss Champions don't see themselves as ordinary suppliers to their clients. Rather, they are offering solutions. And they devise these solutions by being innovative on an on-going basis. This way, they continuously expand the core competencies that brought them to their leading position, and they also include new areas.

This is based on three success factors:

- a distinct customer orientation
- a well-established innovation culture and
- sufficient freedom and resources for research and development (R&D).

Resistance to crisis

The courage to realise unconventional ideas even in challenging times, to expand and annex new business areas, coupled with the ability to correctly and realistically assess a situation, the market environment and their own capabilities all make Swiss Champions emerge from crises stronger than before.

There are three success factors that make Swiss Champions strong and resilient in crises of all kinds:

- commitment to top quality
- a solid financial basis
- employees' strong identification with the company and corporate values.

Who qualifies as a Swiss Champion?

We have identified Swiss SMEs that meet the following three key criteria:

1. Swissness.

The company's head office is domiciled in Switzerland. Swiss values are part of the company's articles of incorporation and crucial for its success.

2. Small and mid-sized companies.

A Swiss Champion's revenue amounts to a maximum of 3bn CHF per annum. More than half of the companies we identified generate revenues of up to 250m CHF, and all the others range from 250m CHF to 3bn CHF.

3. Market leadership.

A Swiss Champion is considered a market leader on at least one continent or is amongst the world's best in its specific industry. It is a technology leader, sets standards in terms of innovation and quality and is thus able to continuously expand its leading position on the market.



World champion in innovation

A number of companies in Switzerland are amongst the most innovative in the world. Internationally active groups, such as in the chemicals and pharmaceuticals industry, have their head offices and centres for research and development in Switzerland. It is a fertile ground for start-ups and university spin-offs. And time and again, small and mid-sized enterprises achieve global technology and market leader status in their specific fields by introducing ground-breaking novelties and by being generally innovative on a continuous basis.

There are rankings that corroborate this: the current Global Innovation Index, for example, which is established by INSEAD, the Cornell University and the World Intellectual Property Organization, ranked Switzerland no. 1 before 140 other assessed countries, both in 2014 and 2015. In terms of the number of registered patents vis-à-vis the number of inhabitants, Switzerland comes first in comparison with all other OECD countries. And in terms of the R&D rate comparing R&D expenses with the gross national product, Switzerland is far ahead of everyone else. Approximately one third of these expenses are borne by companies.

Switzerland's prominent position in this respect is the result of a number of success factors that come into play. For example, there are the relatively corporate-friendly conditions. And Switzerland's education system forms a crucial basis for recruiting a highly skilled workforce. Especially colleges and universities, working closely with the private sector themselves, produce highly qualified specialists that take up employment with companies. Many organisations know how to use this to their advantage and release an innovative force on the market that goes well beyond the country's borders.

“For us, process, product and social innovation is absolutely key.” –
Adrian Pfenniger, CEO Trisa AG

Going beyond product innovation

This innovative force is particularly evident in the companies we examined for the purposes of this study and identified as Swiss Champions. By building up long-term know-how and ensuring continuity of processes and products, they create on-going innovation, and this allows them to maintain and even expand their leading position in their own area of expertise.

When optimising processes, these companies focus on systematic cost savings, improving quality and intensifying client relationships. In particular, offering only top quality products and services enables them to introduce and establish new products on the market and charge comparably higher prices. Another factor in the equation is that these companies entertain a corporate culture that encourages innovation amongst employees by giving them the necessary amount of freedom, by being tolerant of errors and by offering incentives.

More than mere suppliers

Swiss Champions don't see themselves as mere suppliers of products or services. Rather, they offer solutions to their clients. They gain competitive edge by delivering added value that is both distinct and measurable, and by focusing on quality that is better than that of other competitors. Swiss companies cannot enter a price war due to their very expensive location. As a result, they have to justify their comparatively high prices with added value and better quality.

The 130 Swiss Champions we chose to look at for our study all have a number of special features: they see innovation management as a core business activity aiming at adding value to the company. Many of them also perceive innovation as a plannable, continuous activity. Moreover, they distinguish themselves through strong customer orientation, strategic thinking, a high degree of expertise and an active innovation culture. They are also renowned for their reliability and credibility and have access to efficient distribution channels and savvy marketing.

“It is not enough to perform outstanding innovation. You also have to be able to sell it to the right people at the right time.” – Annette Heimlicher, CEO Contrinex S.A.

BLASER SWISSLUBE



“We are more than just suppliers of lubricants. We offer our clients liquid tools. Our goal is to help them make their operations more productive and efficient”, says Marc Blaser. He is a business economist and has been Blaser Swisslube’s CEO for six years – the third generation in his family. The 80-year old family enterprise from Hasle-Rüegsau in the Emmen valley has made cooling lubricants for metal processing its core business.

Marc Blaser tells us of the significantly shorter processing times and of savings in the millions Blaser Swisslube has been able to provide its industrial customers by giving expert advice and sharing their extensive know-how of machining. The reward: long-standing customer relationships that go well beyond providing manufacturing products.

Guiding customers towards innovation in their production processes again and again is part

of the company’s DNA. Blaser Swisslube carries out fundamental research and runs the largest research and development laboratory in its industry. This includes Blaser Swisslube’s own technology centre in which it operates state-of-the art processing machines. This isn’t only to test the latest cooling lubricants, but also to have an actual-practice replication of the processes and working situation of its clients and partners.

The company offers its clients lower production costs and greater profitability as part of their collaboration. In turn, it is legitimate to charge higher fees than its competitors. “We provide our business partners with added value that is measurable”, says Blaser. The results of productivity studies are ample proof of the amount of savings Blaser Swisslube has enabled its clients to realise.

Conducting research and development of new cooling lubricants is key.

Some of the special equipment and analysing devices have been developed and built especially for Blaser Swisslube. This makes the company a technology leader.

But innovation is also driven from the outside: by Blaser Swisslube’s own customers and suppliers, the competition, and the manufacturers of the machines and equipment in which the cooling lubricants are used. On the basis of approximately 300 different standard formulae, the company produces industrial lubricants and client-specific mixes. New products are tested intensively and optimised before they are launched on the market. This effort pays off: the products in the blue-and-white barrels are used successfully all over the world.

“Our assets are our credibility, reliability and continuity.”



Marc Blaser, CEO Blaser Swisslube

Blaser Swisslube has been able to position itself as a leader in many markets. How did you achieve this, and how does one maintain such a position?

Marc Blaser: By pushing our know-how and relentlessly researching for even better solutions in the area of cooling lubricants, we have worked hard towards becoming the leading innovators. We also work closely together with renowned manufacturers of tool machines and tools.

Your company has an unorthodox method of gaining new customers. What is this special approach all about?

We have defined four key steps for acquiring new clients: Firstly, we listen very closely. We analyse their situation and strive to understand the processes involved and to identify our clients' needs. From this, we deduce a value offer, our promise. We then define what the customer can expect from working with us. In the next phase, we conduct tests at the clients' and explain in detail what benefits they can expect. If we convince the client, we can realise the added value.

If you want to secure your clients' respect, you need them to trust you before they even know you. How do you achieve this?

We look into our clients' production processes in depth, but also contribute extensive know-how from our side, and we always sign a confidentiality statement. Our solution-orientated approach allows our clients to make considerable cost savings. Credibility, reliability, trust, and continuity in our relationship with clients are our most important assets. These basic values are firmly incorporated in our company, and our staff put them into practice on a daily basis.

What is the importance of having your production in Switzerland?

I firmly believe in Switzerland as a place of production. Switzerland is where we have our roots, where the heart of our business lies. I appreciate local strengths such as openness to innovation and the hardworking mentality, the focus on productivity and quality, the high level of education and the know-how of employees, as well as the political and legal stability.

Blaser Swisslube is domiciled in Hasle-Rüegsau in the Canton of Berne and produces cooling lubricants. The chemicals company was founded in 1936 by Willy Blaser and has been present in over 60 countries for more than 40 years. It exports over 80% of its products. In 2010, Marc Blaser succeeded his father Peter Blaser as the CEO of the Group. He is his family's third generation to head the company of over 600 employees worldwide.

Blaser Swisslube is even visible up in the sky in many places in the world due to its involvement in hot air ballooning – why balloons?

Primarily it is to carry our name out there into the world. And then flying a balloon can be compared to managing a company. Wind is a similar thing to the market; you can't influence it directly, but with the right intuition and experience, you can use it to your advantage. Up in the air, you have to optimise your navigation to reach your destination. The same applies for a company.

Success factors of innovation

In the course of conducting our surveys, interviews and analyses for this study, three aspects of innovation crystallised out as particularly prevalent in Swiss Champions' repertoires: client orientation, an active culture of innovation, and research and development.

Success factor 1 Client orientation

The commercial saying “the customer is always right” may well be an open secret. However, Swiss Champions distinguish themselves by going well beyond this and have made customer orientation a fundamental characteristic of their business. All the companies examined by us are continuously striving to adapt their products as closely as possible to the needs of their customers. As a consequence, they offer tailor-made solutions.

Innovation is driven by a targeted trial and error procedure, often in close collaboration with a client. And: true innovation isn't achieved simply by developing a new product or service, but always includes a clear focus on market entry and success.

“It is imperative for us to actively encourage innovation also at our clients', so that their products will not be replaced by others on the market.” – Eugen Elmiger, CEO Maxon Motor AG

Efficient, focused and flexible

Whenever a client need is expressed or recognised, a process of innovation can begin. Swiss Champions will engage in a particular form of collaboration to ensure that their products will be introduced into their clients' systems. The purpose of this: clients and suppliers learn about each other by being partners in this process.

Frequently, clients are highly specialised themselves. They need tailored products and services, often in particular combinations. This is where Swiss Champions are ideal suppliers, as they offer the necessary client orientation and flexibility, and the dedicated staff to meet these requirements.

Solution suppliers and partners

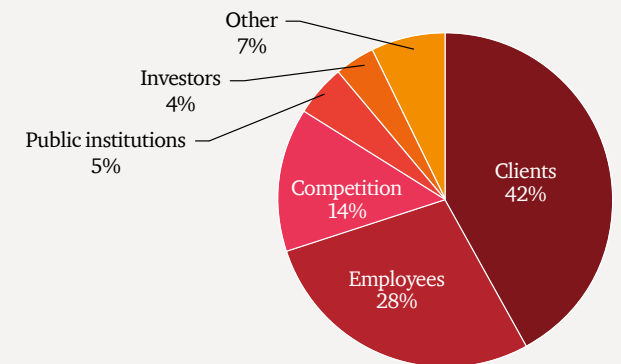
Swiss Champions will always set themselves the standard to go beyond being mere suppliers of products. Their goal is to provide solutions and to be a technology partner. And they walk that talk. For them, it is implicit that they offer tangible added value to their clients, and that working with the client is a symbiosis in which they can act and grow successfully.

This attitude doesn't only work to retain and deepen existing partnerships. It also helps to find new clients and markets. Moreover, it enables a company to create a better bond with its own suppliers and to include them in its innovation and client orientation processes.



Drivers of innovation

Source: PwC survey 2016





Success factor 2 Innovation culture

Conceiving an idea and then realising it in the shortest amount of time possible, or turning a sketch into a high-end, unique product requires specialist knowledge and experience. However, the following is equally crucial: in order to generate innovation, a company needs to have a distinct innovation culture in place.

Highly qualified and motivated

Swiss Champions employ highly qualified, motivated staff and provide them with sufficient breathing space and resources. Staff are familiar with the production processes, they are on the pulse with state-of-the-art technology, and they adapt their work continuously to meet customer specifications. Moreover, they set goals jointly, and identify strongly with their company – all of this produces the right results. Such committed, forward-thinking employees are the secret to innovation.

However: a good innovation culture won't simply emerge all by itself. There have to be people who set and implement the good examples. A company's management is responsible for consciously nurturing and developing this culture. They have to determine strong basic values that are adopted by all employees, encourage innovation and give the company its unique character.

Looking after innovation culture

The Swiss Champions we looked at have a variety of ways to encourage innovation: platforms for generating ideas, innovation circles and specific incentives for creative thinking, as well as competitions and awards. They value flat hierarchy, shortcuts and interdepartmental collaboration.

Beyond this, innovation culture also rests on competences coming together on various management levels. Generating innovation requires a combination of extraordinary technical expertise and business skills. Typically, this important skillset will also be present in Swiss Champions' executive committees.

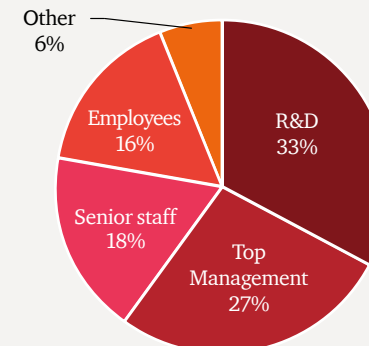
Commercial and technical competences

Frequently, the CEOs of the companies we looked at have a dual education, such as engineers with an additional MBA, or economists with a second degree in natural sciences. This way, they are able to tackle both technological and business issues. In other cases, individual members of management will bring specific skills to the table and complement each other with their various fields of expertise. In other companies, still, chief engineers are closely linked to the executive committee and will thus ensure exchange of technical know-how and commercial knowledge.

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The most important innovation sources within Swiss Champions

Source: PwC survey 2016



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Success factor 3 Research and development

Swiss Champions consciously seek out innovation leadership in their own markets. They tend to invest above-average amounts in R&D. They entertain close partnerships with universities and research institutions and by doing so facilitate the transfer of technology and recruitment of highly trained talents, thus also nurturing processes in their own organisation. This enables them to strengthen their innovative power.

In this context, it isn't always a company's size and how well the R&D department is designed that will win the game, but much more how well this is embedded in the organisation. Client orientation already plays a role in the development phase. Sales and marketing anticipate the clients' needs and pass this information on to R&D. Developing engineers enter into direct contact with clients. Their fundamental research targets the development of new procedures that won't only advance the company itself but also that of the client.

Multiple Innovation

Product innovation is usually driven by the benefits clients will get from the improved products and services. Process innovation, on the other hand, is propelled by a desire to increase productivity and quality. Both of these aspects are a characteristic of Swiss Champions.

They achieve innovation in processes and products in small but effective steps. We call this "multiple innovation". This allows a company to expand the core competences that brought them to their leading position and access areas they have not tapped into before.

There will be companies amongst the Swiss Champions that have segments or product groups which, at first, have hardly anything in common. Frequently, they are technological processes that can be applied to a number of areas. These companies build secondary competences around their core competences, with which they are successful on new markets. For example, Maxon Motor in the Canton of Obwalden develops engines for use in aerospace, but, amongst other products, they also build drivetrains for electronic bicycles and components for insulin pumps. This is efficient innovation.

"In order to have satisfied customers, you need to have happy employees. This is why they are by far the most important assets. It's a real shame this cannot be recorded in the balance sheet." – Adrian Pfenniger, CEO Trisa AG

HOCOMA AG



Never stop completely – get up and going again as quickly as possible. Move, push boundaries, exercise, train your body: this is the goal of many patients whose locomotory system has been severely impacted through illness or an accident. Their doctors and physiotherapists will support them in their efforts to get well again. And then there is a very small robot that may contribute greatly to recovery: the Lokomat, manufactured by Hocoma.

Hocoma was founded 20 years ago by three university friends, Peter Hostettler (Ho), Gery Colombo (co), and Mattias Jörg (ma) – a spin-off venture of Balgrist hospital of the University of Zurich. Today, it is a global leader in robotic and sensor-based physiotherapy. The company develops technical therapy solutions that support the treatment of patients with neurological movement disorders.

The company's bestselling product is the "Lokomat", a training device developed for gait therapy and rehabilitation. It is used around

the globe to treat people who have suffered a stroke, spinal cord or craniocerebral injury, multiple sclerosis, or other neurological illnesses.

Hocoma's innovation goal is to make therapy more efficient by objectifying the progress of a recovery and by intensifying training. "We work towards creating relief for the health sector and in particular the individual therapists, and towards significantly increasing therapy results and thus also the quality of life patients can have through the use of our specialist training units", says the CEO, Gery Colombo. Exercise therapy with state-of-the-art technology complementing the work of physiotherapists – this is at the heart of the research that has made Hocoma so big and successful.

The three founders started the company as a typical start-up, experimenting and tweaking their work for nights on end, until their first prototypes became evidence of a functioning technology. Their basic mindset has remained the same: "I'm

a tinkerer. I enjoy developing new products", says Colombo. Today, the company employs 150 experts worldwide. Engineers, researchers and therapists from 30 different countries work alongside each other in interdisciplinary teams, all developing products with which Hocoma intends to revolutionise rehabilitation therapy.

More affordable devices are intended to encourage patients with back problems to also train at home next to the exercise in the rehabilitation centres. Simply for the reason that, the more often patients also do the exercises by themselves, the more effective the results in their pain treatment will be, and the quicker they will recover. A really helpful factor in the success of patients training on their own is the realtime feedback available with most Hocoma products. It motivates the patients and guides them through the therapy in a more playful manner. This way, training your back can even be fun.

“Choosing new paths also means being open to new things.”



Dr. Gery Colombo, CEO Hocoma

“As soon as an idea starts to take shape, the production and the research and development departments will work closely together and support each other. This will shorten the time until market introduction.” – Dr. Gery Colombo, CEO Hocoma AG

How did project Hocoma begin?

Gery Colombo: At first, it was just a hobby. We were the three of us, we had an idea and great fun playing around with the project. The fact that our friendship ended up forming a globally active enterprise is pretty incredible and not something we expected.

All of you three founders are still at the head of the company. How do you divide up your roles?

We are each other's perfect complements: Peter Hostettler studied economics – in hindsight, this was a lucky coincidence. He has a firm hand on our finances and the commercial side. Matthias Jörg is an excellent engineer. Whenever he builds something, it will work. And I'm more of an innovator and tinkerer. We had these roles right from the beginning, and we are all happy with this division. This is also why we don't have any issues internally.

Hocoma's innovations have had a decisive impact on exercise therapy. At the beginning, you were the only ones on the market. In the meantime, competition has formed. How do you deal with this?

It is mainly in China that we see similar products being introduced in the market. Some manufacturers even copy our products directly. This is difficult for us, as entering litigation procedures is always very time and energy-consuming and expensive. However, we distinguish ourselves from our competitors by covering the entire value chain. We do everything, from research to training staff. None of our peers do this.

How do you manage to recruit all your highly qualified staff?

Our employees know what they work towards. And it works to our advantage that we develop and build attractive new products that have revolutionary character. They have the power to change people's lives. This is what motivates me, too.

Hocoma is the global leader in products for functional exercise therapy. The company was incorporated in 1996 and is domiciled in Volketswil near Zurich. It has branch offices in the USA, Singapore and Slovenia and manufactures robotic and sensor-based medicinal equipment. Exporting 97% of its products, it generates annual revenue of around 30m CHF. It is co-owned by its three founders, members of management and a number of private individuals. Dr. Gery Colombo is one of the founders and the CEO of Hocoma AG, and in charge of a total of 150 employees.

And how do you transfer your motivation to your employees?

When you choose new paths, you must be open to what comes your way. And in order to be innovative, effective and enthusiastic about your work, you must have a specific corporate culture in place. We motivate our employees by trying out new things constantly and by striving to find improvements. This enables us to get close to the market fast with our innovations.

Showing strength and agility in times of crisis

Crises may come and go, sometimes they are short and intense, and sometimes they develop slowly and last for a long time. They may be of a national scope or affect economies on a global scale. Or they only affect individual sectors, industries or regions. They are often made worse by media coverage spreading fear and sparking off frantic crisis management measures on various levels. There are many examples for this in more recent times: the financial crisis, the waves of refugees, the euro and the Swiss franc crisis – all of them generated a plethora of headlines and caused political decisions of momentous proportions.

Companies of all sizes and types face crises on a regular basis. It is one of the tasks of management to anticipate them and respond accordingly, as well as to make the necessary decisions. Crisis management in this context means conscious planning, steering and control of processes designed to help a company overcome critical situations.

Swiss Champions are particularly resistant to crisis. Most of them will already have mastered a number of crises in the past. And often, they emerged from them even stronger. Our analysis shows that one of the distinct strengths of these companies is

their calm, analytical yet prompt response to changed conditions.

Internal and external crises

Depending on the reasons for which a company is faced with difficulty and crisis, and depending on the crisis itself, different measures are needed to remedy the situation. Internal crises, for example, are often brought about by ill-advised strategic decisions, a lack of leadership and competence, or friction and disagreement between the owners and management, which may have a considerable impact on employees. In our study, there are hardly any Swiss

Champions who showed any of these shortcomings when facing a crisis. On the contrary, they distinguish themselves by long-term planning, levelheaded actions and often also have a participatory structure.

By far the greater challenge is that of external crises. Such disruption may grip an entire industry. For example, financial crises and volatile currencies can neither be anticipated easily, nor can they be influenced by a single company. Which means that by and large, no enterprise can avoid being exposed to the vicissitudes of external conditions.

Emerging from a crisis stronger than before

This is what sets Swiss Champions apart: they know they can use crises to their advantage, they are ready to act when there is a wind of change, and their response is an anti-cyclical investment approach. It is also of particular importance to ensure continuity in these circumstances. Hardly any of the companies we studied had strayed from the strategy they had chosen at the beginning. Moreover, due to the fact that they mostly have a flat hierarchy, they are able to take swift, effective and sometimes unconventional measures that help maintain competitiveness and ensure that, at the end of a crisis, they again have a headstart on their peers.

Having a shareholder structure – which in our study is predominantly in the form of family businesses and companies managed by their owners – will favour continuity also from a personnel point of view. Success in these companies is less measured in terms of the next quarterly results but rather by considering long-term goals and increasing the company value. Much in the same vein, they maintain a long-term finance plan that

is often coupled with high liquidity. Accordingly, Swiss Champions are able to engage in anti-cyclical investments.

In good times, Swiss Champions will create reserves to bolster their financial cushion and build resilience. Such a system cannot be introduced from one day to the next; it takes years to establish. It allows Swiss Champions to retain the necessary flexibility and scope for development in order to respond adequately to changes. They operate in the awareness that markets, external conditions and the economy may change at any moment.

“Much like a hot air balloon ride, you can’t influence the wind. But you can use it to your advantage. The wind is the economy, and the balloon is your company.”
– Marc Blaser, CEO Blaser Swisslube

“You should prepare for a crisis on a continuous basis. This is a question of philosophy.” – Philipp Mosimann, Chairman of the Board, Bucher Industries AG

STADLER RAIL GROUP



Flexibility, reliability, experience and swift decision-making – these virtues have given Stadler the ability to prevail against its competition in the manufacture of railway rolling stock. They are a formula that helps face recurring crises in the industry while becoming better each time.

Peter Spuhler, who took on managing the company with 18 employees in 1989, was a witness to the big change in the railway industry after the Cold War, when the number of suppliers dropped dramatically. It made him learn how to cope with crisis, and in the last 27 years, the company has been able to grow continuously: today, Stadler Rail Group employs almost 7,000 staff at eleven production sites and more than ten maintenance workshops, of which 3,000 work in Switzerland and more than 1,000 in Germany.

In 2011, Stadler suffered a severe setback due to the first euro crisis. There was a considerable drop in

orders, and at the same time, Stadler Rail had to meet the impact of the sudden appreciation of the Swiss franc. Spuhler decided on a forward strategy: Taking on the manufacture of new products such as metro carriages and high-speed trains, Stadler entered new markets and market segments.

In January 2015, there was another currency shock. The price of Stadler's rolling stock, manufactured in Switzerland, quickly rose by 20% in the eurozone, the company's main market. When the Swiss National Bank decided to unpeg the Swiss franc from its cap against the euro, Spuhler, as Stadler's CEO, decided to act. This included talking with the trade unions, with which he managed to agree on a temporary extension of working hours.

At the same time, management once more curbed cost dramatically and shifted some of the company's purchase volumes to the Eurozone.

Stadler had always pursued a very focused market strategy. Due to the two currency crises, however, this strategy had to be slightly adapted in 2015. The changes included adopting a more diverse range of products, thus entering new market segments such as high-speed and metro trains, and locomotives. They also included the launch of new products and entering entirely new markets. And the strategy changes were successful: the Swiss national rail company, SBB, ordered high-speed trains, and Metro Berlin ordered carriages for their urban network. Furthermore, Stadler was able to acquire Vossloh's locomotive manufacture in Valencia.

Stadler also expanded its operations in the USA and incorporated a new local manufacture, and with its entry into the UK and the Australian markets, it has now mostly completed its strategic repositioning. But Spuhler knows: there will always be the next challenge.

“We have to get faster and better everywhere.”



Peter Spuhler, CEO Stadler Rail

How do you cope with returning crises?

Peter Spuhler: I have been Stadler's CEO for 27 years now; you get rather thick-skinned and broadshouldered over time. And because we have accumulated all this experience, and some of the problems have been there before, I have also become a lot more levelheaded and calm. Still, you need courage and stamina, and sufficient passion, in order to master all these challenges again and again.

Getting commissioned with the new Gotthard trains is a truly prestigious win for Stadler. How important is this for Switzerland as a place of business?

In Switzerland, we continue to employ 3,000 of a total of 7,000 employees. We export over 50% of our production. Despite the two currency shocks, we managed to keep jobs in Switzerland and even increase their number. And we were able to expand our competitive advantage by further differentiating our production and manufacturing strategy: the production of simple diesel drivetrains is now mostly done in Poland, whereas high-tech units such as high-speed and double-decker trains are manufactured in Switzerland.

You lost a number of important assignments to your competition. What have you learnt from that?

When Bombardier won the bid for SBB's long-distance double-decker drivetrain in 2010, it was also a big loss for us on an emotional level. Losing a tender in your own country is hard. However, it made us review the organisation of our distribution, our engineering, and our tendering process. We are now much more flexible and faster in terms of product development and the subsequent practical realisation of complete trains. If we want to defend Switzerland as a location for production – and this doesn't just apply to our own industry – we have to compensate cost and currency disadvantages with technology excellence, flexibility and client focus. In this vein, we have made the development of products a top-level priority – the division reports directly to me.

Peter Spuhler (57) has been Stadler Rail Group's owner and CEO since 1989. The company was incorporated as an engineering office in 1942 but today has a holding structure and subsidiaries domiciled in 10 countries. Peter Spuhler has been the key shareholder since 1989. The company has 7,000 employees, of which 3,000 work in Switzerland, either in Bussnang, Altenrhein or Winterthur.

Stadler is active in a number of countries. How do you tackle crises across the borders?

Our structure is highly decentralised as a result of our corporate strategy. There are clear responsibilities in place, and at every location, the site managers must have access to the necessary functions and resources in order to be able to build complete trains autonomously on site. At our head office in Bussnang, we only employ 60-70 staff, including most of our distribution department.

Success factors of crisis management

In the surveys, interviews and analyses we conducted for this study, we noted three aspects of resistance to crisis that made Swiss Champions stand out in particular: quality, appreciation and identification.

Success factor 1 Quality

It is always the outstanding quality of products and services that distinguishes leading market players, and this is particularly true for the Swiss Champions. They retain their customers by producing the same high quality on a constant basis. This makes them stand out from their peers, avoid the price war and sell their products at adequate rates. Such differentiation from the crowd also helps to level out the existing disadvantages in terms of cost compared to suppliers in other countries.

Security with quality

If a company's quality characteristics are unmistakable and hard to copy, it will make clients loyal to that company. Clients often depend on specific product features, top-quality level and complementary services, and substituting these with similar products or services by another provider is more difficult. This advantage is of particular importance in a situation of crisis. Focusing on quality offers Swiss Champions a certain amount of security.

Seeing themselves as suppliers of quality products and services also strengthens Swiss Champions from within. Many of the companies we looked at have a clear value system and everyone practises those values with confidence. Our survey showed that management and staff both have a comparatively optimistic view of

the future and are convinced of being on the right path, of their presence and of their products. Being market leaders and a foremost niche player gives them self-confidence.

Unconventionally successful

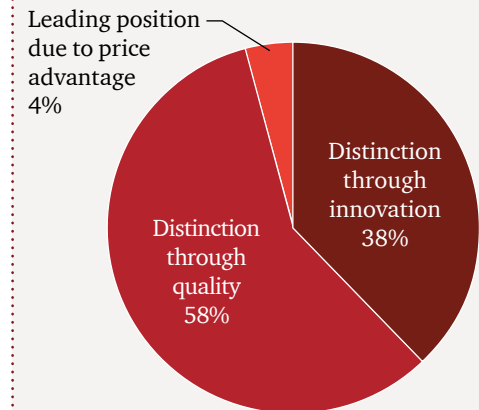
Swiss Champions have the courage to put unconventional ideas into practice and to expand and enter new business fields even in challenging times. At the same time, they are able to make realistic assessments of their situation, the market environment and their own abilities and capabilities. This self-image is an important factor in Swiss Champions often emerging from crises stronger than their peers.

Many of these companies have many years of experience. They know the cycles and have learnt their lessons from previous crises. They know what measures to take and have mastered the basic aspects of crisis management. Accordingly, Swiss Champions will on average have a more positive view of their own future than the rest of their industry.

1

Standing out from the competition

Source: PwC survey 2016



“We can’t be cheaper than the competition, but we have to be better at anything to do with technology.” – Peter Spuhler, founder, owner and CEO of Stadler Rail Group



Success factor 2 Appreciation

2

Swiss Champions work very closely with their clients, and their business relationship is usually a long-term one. This creates mutual appreciation. The clients can rely on their suppliers even in times of crisis – and vice versa. Mutual trust, open communication and tailor-made solutions are great contributors to a company's resilience in terms of a crisis.

Positive dependence

Customer orientation, as mentioned in the chapter on innovation, and the ability to develop and produce extraordinary products

and services create mutual dependence in a very positive sense: client and supplier know and understand each other, and they support and help each other out. Moreover, they can rely on each other in trying times. And because clients know how crucial their suppliers are to them, they will remain faithful even in difficult times.

Financial cushion

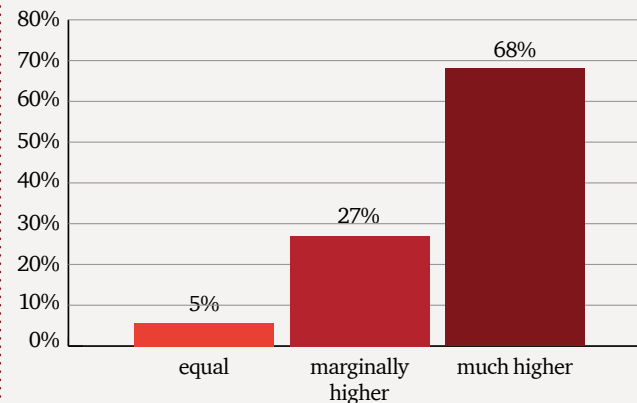
Appreciation, however, is also something Swiss Champions give to their own resources, i.e. their employees and the financial

reserves. On average, Swiss Champions generate higher revenue margins.

They are thus in a position to reinvest more means and increase their equity ratio. In good times, they create reserves and thus have a cushion in times of less affluence. And in times of crisis, these reserves help them to remain independent in their actions and responses. Moreover, these funds are available for anti-cyclical investments, such as acquisitions.

Equity in comparison with the competition

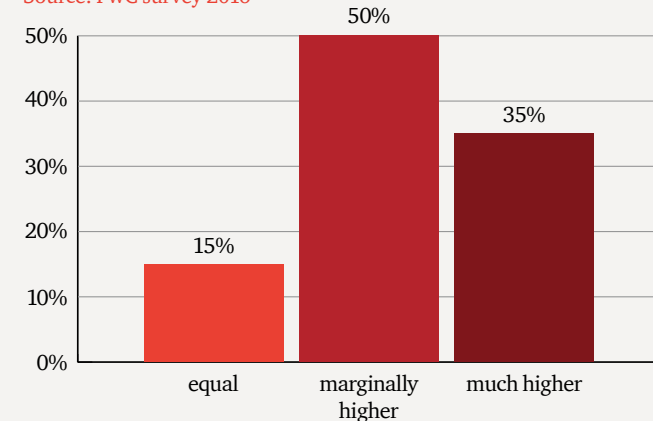
Source: PwC survey 2016



In general, Swiss Champions have a markedly higher equity ratio than their competitors

Sales margin compared to the competition

Source: PwC survey 2016



Thanks to their high-end products, Swiss Champions are able to generate a much higher sales margin than comparable companies and thus increase their equity ratio.



Success factor 3 Identification

Swiss Champions are often of a manageable size and have a family-type atmosphere. Their employees strongly identify with the company. The organisational hierarchy is flat, and employees are deliberately given more freedom than in other companies. Frequently, members of management will still be involved in the day-to-day practical business and know all members of staff by name. This kind of atmosphere makes staff feel more part of the business and they also identify much more with the company's values. And in times of crisis, when a company most needs a workforce that commits but also understands, this will pay off.

“Continuity at management level is important. Having a personal horizon of only three years as a CEO will not generate long-term success.” – Philipp Mosimann, Chairman of the Board, Bucher Industries AG

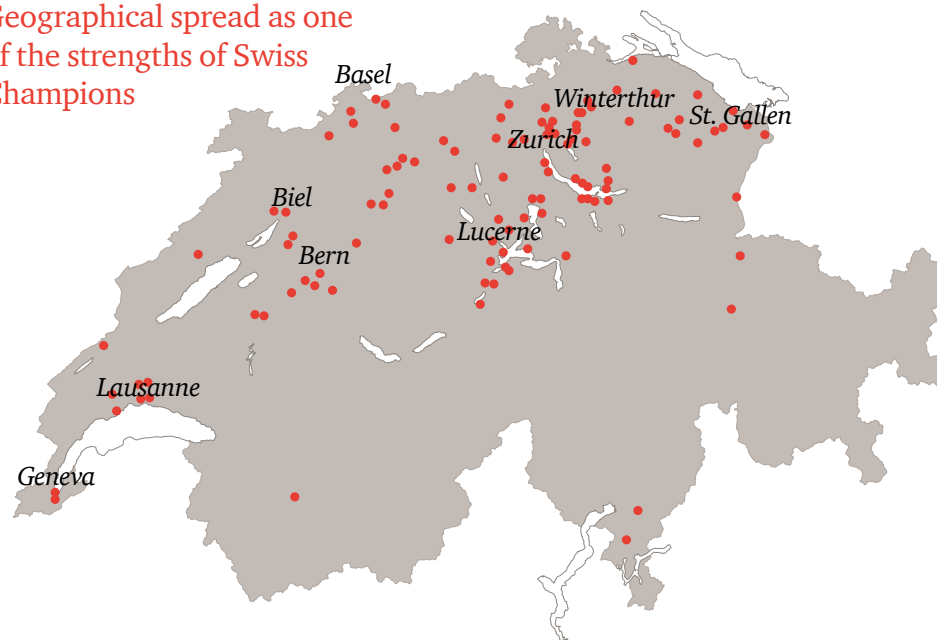
3

Decentralised organisation and continuity

Swiss Champions also benefit from a geographical spread. Their locations are often a little away from big business centres, in areas where the population traditionally identifies with local businesses. Their good reputation makes them suppliers in high demand. They are in a position to hire highly qualified specialists and experts, but also train their own young talents. The knowledge accumulated by all these experts helps to manage and weather crises better.

Loyalty and continuity at managerial level are further characteristics of Swiss Champions: in the companies we examined, CEOs remain in their position for an average of 12 years, and staff are retained for an average of 11 years. This is a continuity that will benefit the accumulation and transfer of knowledge and is in line with the principles of long-term planning so typical for these companies.

Geographical spread as one of the strengths of Swiss Champions



How Swiss Champions mastered the Swiss franc crisis in 2015

The Swiss economy wasn't at all prepared when the Swiss National Bank (SNB) decided to lift the cap of a minimum exchange rate for the euro on 15 January 2015. Companies had to react, and quickly, particularly exporting companies such as our Swiss Champions. Specific measures to increase efficiency were on the agendas of almost all of the companies we studied.

The fact that Swiss Champions were again able to weather this crisis remarkably well is the result of the following factors: customer and employee loyalty, a pro-active approach and niche focus.

For example, the companies we looked at managed to raise their prices and adapt working hours or have their employees claim their holiday balances early, because they maintain a social partnership with both their employees and their clients. This is where it truly pays to have loyal employees and maintain partnerships with clients.

Swiss Champions make long-term plans. The above event would be a shock to any company's system, but it won't stop Swiss Champions from focusing on

their long-term goals. In their planning, crises are simply one of many possible scenarios. And in many cases, a forward strategy was chosen and implemented, with which new sales markets in non-EU states were accessed or a new business area was entered. This is how Swiss Champions create that comparative advantage against possible competitors and how they are able to develop further also when there is a crisis. It is not without reason that they have been able to emerge from a crisis stronger than before at other times in the past.

It is also a fact that being in a particular niche can trigger a protective mechanism. Alternative solutions for clients are limited, and as long as the Swiss Champions manufacture products at such a high quality level, it will be hard to avoid buying from them in the short term.

In hindsight, Swiss Champions have managed to weather the Swiss franc crisis better than other midsized enterprises. The crisis markedly accelerated the ongoing transformation process, but the long-term consequences of the Swiss franc crisis are not yet clear.

THERMOPLAN AG



For Thermoplan AG, a manufacturer of coffee machines for commercial use domiciled in central Switzerland, it came as a complete shock: their biggest customer by far and also the largest coffee retail chain world-wide, had been hit by the financial crisis in 2008 whilst in an expansion phase. Instead of opening hundreds of new branches as planned, about 1,000 branches had to be closed. They had ordered several ten thousand machines with Thermoplan. At the end of 2008, they cancelled the entire order.

“In such an unfortunate constellation, there is no point in sugar-coating anything”, Thermoplan’s boss Adrian Steiner told himself, and decided to speak to his entire workforce. By communicating openly, explaining the reasons for the unexpected situation, and telling them of the emergency measures and next steps he planned, he gained his employees’ trust. And they showed the same flexibility that

is a characteristic of the company as a whole. Staff compensated overtime, claimed holidays and promised to work more once the order situation would require it again. “This allowed us to get through with reduced working hours and without having to dismiss anyone”, says Steiner.

At a meeting with the group management of the client at their head office in the USA, it was all or nothing. The CEO himself was present, and of the opinion that no crisis would last forever. “He really wanted to keep Thermoplan as their business partner, and asked us how many machines we would need to be able to sell in order to survive”, Adrian Steiner remembers. The client subsequently placed a new order, and Thermoplan and its suppliers were able to get through the crisis. What also helped the Swiss family business was their excellence at a technology level – namely their high-end modular

machines producing a particularly good combination of coffee and milk froth – and their outstanding service including the briefest of response times.

As hoped for, the market recovered in the following year, and orders started coming in again. Steiner and his management team contemplated the lessons learnt from the crisis: they invested in research and development, incorporated new applications, and expanded their client base. “We have learnt quite a lot, and we have come out the other end stronger than before”, Adrian Steiner is convinced. In recent years, Thermoplan has been able to expand considerably. The number of employees has risen to approximately 250, and the company now has a global presence with subsidiaries and partners.

“Anticipate the needs of your clients.”



Adrian Steiner, CEO Thermoplan AG

Mr. Steiner, you took over as head of Thermoplan in a time of difficulty for the company. How did you manage to emerge stronger from this crisis?

We saw the situation at that time as an opportunity; it was something like a wakeup call. We concentrated on our strengths, launched new products on our own market and entered new markets, and we intensified existing partnerships. This allowed us to overcome this very trying phase relatively quickly. The commitment and trust of our loyal employees also helped us greatly.

Manufacturing under the strong Swiss franc makes Swiss products expensive. What is your formula for approaching the currency issue?

With our production in central Switzerland, we have to position ourselves as high-end manufacturers. This is the only way we can persist alongside the cheaper competition abroad. At the beginning of 2015, when the National Bank lifted the cap on the Swiss franc rate, we offered our clients a discount of 5%.

What role do your own suppliers play?

Of course we have tried to obtain rebates from our own suppliers. However, it is much more important to integrate them as our partners in our own manufacturing processes. We are going that extra mile for our clients, and our suppliers should do the same. We need this close collaboration with them. Two of our partners, a manufacturer of plastic parts and a packaging company, have relocated their production to Weggis, very close to our own site.

A capacity for innovation is considered one of the key factors for companies to be able to resist crises. How do you ensure this at Thermoplan?

Innovation is created at a point where the market and technology meet. In order to find out what will help our clients develop, we need to work closely with them and ensure mutual trust. Today, our major clients don't see us as mere product suppliers anymore. They consider us to be partners in the development of solutions. At Thermoplan, we have launched a new project called “Fit for the future”, and it is designed to gear the development process towards exactly that.

Adrian Steiner has been the CEO at Thermoplan AG in Weggis LU since 2009. The company was founded in 1974 by the current Chairman of the Board, Domenic Steiner. It initially specialised in cream and milk frothing machines but today is considered a leading manufacturer of fully automated coffee machines for the catering sector. Adrian Steiner, who is not related to the chairman, manages approximately 250 employees. Exporting 97% of its products abroad, the company generates an annual sales revenue of more than 135m CHF.

You need highly skilled employees for this.

It is important to look to the future together and anticipate what the needs of our clients will be. Motivating our own people for this is one of the key management tasks. Moreover, they need to have the relevant skills. We therefore invest actively in training and further education, offer work experiences at our distribution partners and – as an anti-cyclical investment – we have set aside considerable funds for research and development. In Weggis, we now have 40 specialists working solely in this division.



Outlook: Switzerland – Ready for Strong Players

The formula for success that characterises the way Swiss Champions operate is easy to understand but difficult to copy: as niche suppliers with comparatively high production costs in one of the most expensive countries in the world, they are only able to survive on the global market if their products are of the absolute best quality. These companies must therefore be agile and highly innovative. And they must never lose sight of their customers and their needs.

The basis for success rests heavily on the favourable conditions in Switzerland, and to a large part on the masterminds who head these companies. It is therefore all the more understandable that managers are worried about losing competitive edge due to protectionist and anticorporate measures being introduced on a political level. In order to achieve outstanding results, companies, and Switzerland as an overall production location, rely on specific political and economic conditions, without which they would not survive in the international competition. For example,

it is necessary to implement corporate tax reform III, that the political structure remains consent-orientated and that borders remain open. This also includes letting go of unnecessary bureaucratic regulations, such as for the recording of working hours.

Other external factors are an additional challenge, such as the strong Swiss franc, the weakened economy in the eurozone or the price wars waged by aggressive, global competitors – the Swiss Champions will have to face these also in the future.

We remain with the assessment we made in our first study in 2015: Swiss Champions are well equipped for the future. Their financing is rock-solid and sustainable. Their employees, partners and clients have grown and developed with them over the years. Above all, however, their high-end quality products – developed with relentless innovation – are and will be a force to be reckoned with.

Nevertheless, not even Swiss Champions will be untouched by crises. However, much more than others, these businesses seem to be able to see a crisis as an opportunity, to question old habits and to shape and reshape their future. Forward-thinking managers and flexible measures allow them to find the way back onto the road to success much more quickly than their competitors. Often, this can be achieved by revisiting what brought the Swiss Champions to the top in the first place: unconditional client orientation, and excellence in the core competences.

Conclusive notes on the methodology

We would like to thank all the people and companies amongst the Swiss Champions that have supported this study in the form of an interview and/or by participating in the survey.

For our first study on Swiss Champions in 2015, a panel of Swiss SME experts identified a group of around 250 Swiss SMEs as possible “Champions”. Research and analysis reduced this group to 123 market leaders, on which detailed analyses were conducted. We had more in-depth discussions with 15 Swiss Champions. And this showed that all of these companies have clear basic patterns of success. However, they all have their own individual culture characterised and shaped by history and people – mostly the founders. They incorporate and represent their company’s individual values and give their brand and products a distinct “face”. They define the DNA of their entrepreneurial operation and successfully set their own very specific footprint in highly competitive markets.

Following up on our first study, we expanded the group of Swiss market leader SMEs to approximately 130 companies, after stringent examination. The insights for our 2016 study are based on a number of sources and expert opinions:

- PwC conducts intensive and practical research on SMEs and family businesses and develops perspectives for a number of industries, from which we were able to gain new insight and knowledge. This includes the annual Global CEO Survey and publications such as “Auswirkungen der Erbschaftssteuer-Initiative” [Effects of the inheritance tax initiative] (2015) and “Schweizer Familienunternehmen 2014” [Swiss family businesses 2014], as well as our know-how of the success factors for Swiss Champions contributed by selected SME experts in the PwC network.
- A proprietary database for Swiss Champions, complemented by additional data from a survey.
- A collection of interviews with more than 30 Swiss Champions.

For any questions and further information, please do not hesitate to contact:



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