The challenges facing the Swiss IT market

or, on average, yes, we're doing well.

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The challenges facing the Swiss IT market, field report from the dossiers of education, research and innovation

What I am going to tell you in the next few minutes is my personal estimation of the situation, and can therefore make no claim to scientific correctness. My theses are based upon 25 years of entrepreneurial experience and 10 years of political experience.

I have nothing more to offer to you today.

So that you can judge correctly what is said, I would first like to say something about myself.

Talking about myself means talking about myself as a businessman.

This is because it is probably my activity as an entrepreneur that has shaped me the most. But don't worry, I'm not going to tell you the entire history of our company!

Nevertheless, here are a few "hard facts" in advance:

The Noser Group consists of 5 companies. Together, these companies generated 84 million Euros of sales and substantially more than 5 million in EBIT last year. From 2001 to the present, we have on average grown by around 20 % every year. We now employ more than 450 IT engineers, only 40 of which are not in Switzerland.

These figures might impress one or two people but they say nothing about the nature of the Noser Group. Even further explanation about the products, or the fact that we make more than 50 % of our sales abroad, would not help you much to understand us as a company.

As a businessman, I am time and again astonished at how much importance is attached to these figures!
One compares turnover, profit and EBIT and is convinced that a company that generates a higher EBIT is better than a company with a smaller EBIT and that a bigger equity return is better than a deeper one.

These figures say nothing about how a firm handles unforeseen developments or how a firm passes on knowledge - to new employees and over generations. Neither do they reveal whether one has a culture that integrates new employees simply and quickly.

Because it is not the figures but the culture of the company that determines how good it is. As a "small" businessman, I can actually only freely determine two things:

Not our customers. Mostly, we have to take the customers that we can gain. Not the suppliers, choice is limited there too. Not the products we sell, nor the markets in which we are active, because that has mostly developed itself. A "small" businessman can firstly only pick the people with whom he wants to work, and secondly he can determine the culture that is prevalent in the company.

Culture and people, these will be the centre of my talk.

Anybody who believes too firmly in figures runs the risk of attaching more value to the figures than the culture. But a human being, whether an employee or a boss, cannot live on just the figures.

Culture changes over time, the following principles have applied with us almost right from the beginning. With these principles, I also want to show that culture is something very concrete and not just a so-called soft factor:

- Nobody who does not work with the company should have authority to make decisions. This is a clear rejection of outside third-party shareholders, outside administrative councils, but also of growth that is based too strongly on credit.

- Decisions are made by those who are knowledgeable. They should have as much competence and responsibility as possible and be as close as possible to the customers! This is especially important in information technology, where up-to-date knowledge is at least equally as important as experience.

- All of our employees have a leaving qualification from a technical college, university or the Swiss Federal Institute of Technology. As far as possible, we have no personnel that only do what they are directly told to do!

- The existing customer is the most important customer – even in times when the economy is booming!

- Brainware and our own software, but no hardware, we do not sell any third-party products or licences.

- We only do what belongs to out core competences. This is important, because we really only have the information technology culture in our company and are not starting to cultivate a big internal administration or logistics department!

- We improve the strengths of this concept and live with its weaknesses!

These admittedly sometimes very banal rules have a very great influence on the company culture. We want to operate an information technology company with the mentality of mechanical engineering!

Why mechanical engineering?

And with that, I am already leaving the subject of the company, and would like to reflect a little about our industry.

So why "mechanical engineering"?

Quite simple. Our machine industry is globally competitive! And that has to be our goal as well! We want to develop SW beyond Switzerland and be globally competitive. India and China should be sales markets for us and not just places from which I think about buying resources!

Like the machine industry, we must also be more innovative than our competitors, if we want to offer products and services at a high level of wages.

So what is innovation?

The innovation researchers have made this term so complicated that everyday business more or less demands that it be simplified again.

So here is a simple definition:

"A company is innovative if it manages, with the available know-how and financial options, to improve products in such a way that new customers are gained who are ready to pay for the improvements."

If one accepts this definition then one must ask oneself the question of what the benchmark for this looks like. How do I measure whether I am innovative or only average? Well, according to my definition an innovative firm has to grow, which means that the difference in growth, measured over several years, from companies which are active in the same industry could be an indicator of innovation!

Let us have a look at the last 20 years of the telecommunications industry: Nokia, Ericsson, Siemens, Lucent, Alcatel and Nortel. How have they developed and why has Cisco grown 40 times more than the industry average during the last 20 years? Was Cisco 40 times more innovative during the last 20 years than the industry average?

Is it at all possible to be 40 times more innovative than the competition?

According to my definition, yes it is possible!

Let us check this figure of 40!

Research studies on productivity have shown that motivated teams work 27 times better than de-motivated teams!

Just savour that number 27!

A motivated team does within two weeks what a demotivated team takes a whole year for! If you have a look around in your company and consider which projects have gone wrong, then you suddenly realise that even the number 27 is perhaps only an average value.

This means, still according to my derivation, that it is possible with innovation to be more productive than the average in the industry by a factor of 40.

So, what conclusions can be drawn from this for one's own organisation?

If you look at your operating figures, then you soon realise that they are nearly always percentages but never factors! Even if the subject is "offshore" business, the savings are only around 20 to 40 percent. After final costing, there is often only 10 percent of that left!

This means that cost approaches lead to savings of percentages, approaches via innovation and motivation lead to savings of factors and that is particularly so with brain jobs!

This means that if the Swiss IT industry has the know-how at its disposal and manages to motivate the teams properly, then we are extremely competitive!

Now you will perhaps object that, if I were right, then an SAP, an Oracle or a Google would have had to have arisen in Switzerland!

I am sure that we will have comparable companies in the future. Why in the future and not in the past?

Once more, I am going to fall back on experiences from my firm. The Noser Group has always had the biggest boosts in growth when information technology was experiencing a downturn. In past upturn phases, we have mostly more or less stagnated.

Now, for the first time, it looks as though we will also be able to grow if the economic situation is on an upward trend. The reason is quite simple, when the financial centre was looking for IT technicians then the market was swept empty straight away and when it no longer needed them then there was even unemployment.

Switzerland was not able to train more IT specialists than the existing industry required to get into the digital era.

This was shown indirectly by a survey that we made of the engineer's association, with over 10,000 engineers. We wanted to know whether several years of experience abroad lead to earning more money. When we did the analysis we saw that the IT engineers went abroad least, whereas as percentages construction and mechanical engineers went abroad much more often and stayed abroad for much longer.

To date, the Swiss IT industry has been a domestic industry.

This can also be seen in the fact that although we generate 8 % of the BIP, we have a foreign trade deficit of 6 billion.

Now we know that there is a big productivity difference between the domestic economy and the export industry, between trade and the machine industry!

The export industry is around twice as productive as the domestic economy, so about a factor of 2!

So, does the Swiss IT industry have the productivity of the domestic economy or the export industry?

You will perhaps quickly arrive at the conclusion that we are obviously as productive as the export industry.

I do not want to answer the question, but I would like to give you something to consider.

The domestic economy is not less productive because the people who work in it work less but because the game of supply and demand is played in such a way that innovative solutions cannot become established.

An example. For several years, we have had tax harmonisation in Switzerland. This means that what is recorded as taxable is the same in all cantons – only the rates are different. Everyone could use the same SW, if the cantons had a parameterisable rate module.

Since the new tax harmonisation law came into force, more than half of the cantons have commissioned new tax software. Every canton for itself. So that we now have more than 10 new individual solutions in Switzerland.

I will leave it to you to decide whether we have really used the productivity potential that would have been possible thanks to the tax harmonisation law.

Or what kind of an innovative company founding is it, actually, that consists of working for a few years, then going into business for yourself and continuing to work for your old employer on the basis of service contracts. Is that really innovative?

Imagine that the IT industry in Switzerland had the productivity of the internal economy and the potential of becoming more productive by a factor of 2, to get to the same level as the export industry.

The "offshore" discussion would go very differently.

I would here like to pose a further question. Do we have too few IT specialists or is it simply that too many are working on projects that are not optimally productive? At any rate, I have

never read of a tendered project not being realised because no company had bid for the project. Scarcity of supply should actually lead to the demand becoming more productive!

In 1999 a large firm had six different Internet portals under construction. Not because that was innovative but because the company had enough money. But – in 1999 it had too few engineers. That such parallel developments were not necessary was not decided by the IT field. Instead, the power of money made the decision in 2001, as budgets were reduced and 5 of these 6 projects were cancelled.

Although I cannot prove it here, I claim that the information technology market in Switzerland is not as productive as the engineering industry!

And I claim that more international competition will only lead to us having a more innovative and more successful IT industry. I am therefore glad that Google has come to Switzerland. The effects are already beginning to show themselves. After all, there are already now some Swiss software firms which have more than 250 employees and are exporting their products abroad. I am also certain that in five years time or less we will have an independent software company that has employed more than 1,000 IT specialists in Switzerland and that sells its products all over the world.

We will then, for the first time, have an employer for which software manufacture and software products are the core competence. The firms that until now have only used IT personnel as suppliers for other main products will be looking at a new labour market!

Thanks to freedom of movement - and here I am getting closer to politics - thanks to freedom of movement we have at our disposal, for the first time, a big labour market that gives the IT industry the opportunity to also really expand above the normal rate of economic growth.

In 2006, more new apprentices started an apprenticeship in Swissmem professions than finished one. With the IT specialists, on the other hand, the situation was the reverse. This means that the engineering industry can guarantee new blood but the IT industry cannot. This begs the question of how one can motivate young people to go into information technology.

One of the most important things that we are becoming aware of is that young people do not want to choose an occupation that only causes costs, but instead want to be proud of the work they have done. It is pointless for a CEO of a bank to call upon young people to become engineers if the same CEO then writes in the annual report that IT costs are too high. I have at any rate never read in an annual report of a Swiss bank that the bank is among the best in the world thanks to its outstanding information technology solutions. And I am claiming here that without the world's best IT solutions Switzerland would not have asserted itself as a leading banking centre. Young people want to be part of success and not to be portrayed as a cost factor.

We need beacons, personalities and companies that motivate young people with their success! Although a good private banker can certainly earn 27 times more than an average one, I have never heard of an excellent engineer earning even 5 times more than an average one in Switzerland.

There it was again – the word "motivate". Teams must be properly motivated, and our young people must be properly motivated to choose the right occupation.

What is "motivation" actually?

In my view one can clarify this word from a commercial and a social perspective. I do not want to look further into how you motivate employees properly in their work, but I would like to reflect, with you, upon how we can motivate people properly in our society.

I would first, once again, like to begin with a very personal starting point. One of the questions I am most frequently asked is "Why are you active in politics?"

Although the question "Why do you deal with social policy, instead of concentrating on business subjects?" is asked of me much less frequently, I do know that people wonder about it. The answer is simple.

I am convinced that business must become involved in social policy! We have an important contribution to make, towards enabling politics to solve the social problems that it faces. Because if politics does not solve the social problems they will be carried into the firm!

But I don't want that! I, we are reliant upon our employees having a clear head for their work and them being able to concentrate 100% on their job. Only then can we achieve optimum performance!

Imagine this. Your employee comes into the firm in the morning and does not know whether his children will have a teacher in the school. He does not know whether the bus really takes the children to school. Neither does he know whether his wife is safe, and he does not know that were a family member to have an accident an emergency doctor would be there straight away. There would be no invalidity insurance and no retirement provision. University for the children would cost virtually the entire annual salary of the employee. It would not even be certain that there would be electricity and water at home when he gets back.

Would this employee really be applying himself 100% for the company? Or 50 %? Or only 20 %? And – permit me the cheeky question – what does home look like for your offshore workers?

With this small example, I simply want to give a reminder of the banal fact – and it is unfortunately now necessary to do this – that our state is an important foundation for us in our country actually being able to achieve a high productivity.

This means that I advocate a lean and strong state. A lean state that is cautious about taking over tasks, but a strong state that has the aim of solving the tasks that it has taken over better than any other state. Only stability of the law can give that. Or could you imagine living in a state à la SVP, that calls for the resignation of federal judges because they have pocketed the tax from Obwalden, and calls for the resignation of the Bülach District Court and of the public prosecutors because the board members of Swissair were acquitted? That reminds me of lynch-mob justice in the Wild West! And if you also see it like this, allow me another impertinent question: why do you vote for this party then?

Switzerland has an unbroken liberal tradition going back to 1848. This liberal Switzerland was successful. This liberal Switzerland was once convinced that not only justice but also education should be organised as independently as possible from politics.

Liberal Switzerland was once convinced that one should solve problems pragmatically on an open field, and not from ideological trenches. Happy is a nation whose two biggest parties can win the election with minarets, the Rütli meadow, formula 1 and naturalisation!

The SVP scares people about the problems and the SP scares people about the solutions. But the innovativeness of the country is being ignored and our young people are thus being betrayed.

It makes me sad that over half of the Swiss let themselves be misled by such parties. And it makes me even sadder that many ask us to adopt such positions instead of pillorying the others. Everybody from business knows that if we only do things because they are popular then we will pay dearly for it in future. This also applies to Switzerland. Every economic crisis starts with opportunism and every political crisis also starts with opportunism. I do not want to list the ways in which Blocher, Schmid, Calmy Rey and Leuenberger have done active harm to our country, by representing ideologies in the Swiss Federal Council and not being able to fight for pragmatic solutions.

Instead, I would like to take up an old problem once again. Our relationship to the EU. We pay an enormously high price because we are not in it. Since 1992, we have been negotiating bilaterally and carrying out autonomous follow-up implementation. Although we decided in 2005 that the Schengen Visa is also valid for Switzerland, the agreement is still not yet in force. And – nobody can say when it will actually be put into force. Our tax sovereignty is not negotiable, but we will change the holding taxation quite competently in the sense intended by the EU.

And autonomous follow-up implementation is unpayably expensive! Autonomous follow-up implementation, what an awful expression! Imagine having autonomous follow-up implementation at your company. It would mean that everything that you do, you do later than your competitors, and not as well! Your company would soon be bust.

In 2007 Switzerland will celebrate 15 years of autonomous follow-up implementation! This has lead to us being at the back of Europe in all steps towards liberalisation. Telecommunication, SBB and post are state-owned. The postal service now even wants to become a state bank, despite the fact that our cantonal banks would already be illegal in the EU!

"Autonomous follow-up implementation" leads to us having to pay a second very high price. All the problems that we solve in Switzerland, we solve in dialogue with the cantons. There, the aim is to distribute everything equally. There, the aim is to carry out an enormous compensation between the regions. The transfer payments from rich people to poor people are much smaller in Switzerland than the transfer payments from rich regions to poor regions. If one were to make a financial statement for the canton Zurich of how much of the duties (social services, taxes, financial equalisation) leaves the canton and how much of it comes back (pensions, federal institutions that are in Zurich etc.) then the canton of Zurich alone has an outflow of funds of 3 to 4 billion per year. That is without even taking VAT and fuel duty into account.

These transfer payments are one of the best-guarded secrets in Switzerland. It is true that we are proud that in every local authority we can vote on the budget and the bill and that every cantonal parliament can decide on the budget and bill. But even the simple question of how much a first-grade pupil costs in one's own village compared with in the neighbouring village is almost impossible to answer.

Our federalism fears benchmarking like the Devil fears holy water. Out of the 26 cantons, 14 cantons have not allowed the results of the PISA study to be analysed by canton. Only 12 cantons have included themselves in an intercantonal comparison.

As long as Switzerland solves problems in dialogue, innovation and productivity will be far behind what they could be. The question in top medicine is not how do we get the best transplant clinic in Europe, but instead how divide the cake up between the cantons.

At the technical colleges, the question is not how big does my college have to be before it is really a college, but instead how does every region get an affiliated school. Here is another numerical example. In order to run a course professionally, one needs roughly 200 to 250 students. In order to ensure interdisciplinarity, one should offer approx. 6 to 10 courses at

one site. This means that an optimal technical college would have approx. 2,000 students at one educational site. Out of the 65 affiliated schools that we have in Switzerland precisely one of them fulfils this criterion! The overwhelming majority of them have less than 500 students!

We should follow what happens with the technical colleges very carefully, because even this is being subjected to creeping regionalisation. Up to 1969, there was one ETH or Swiss Federal Institute of Technology, now there are two. Back then, the canton Waadt handed over large parts of its college to the federal government and was thus freed of a financial obligation. Now we should all admit that it is already a very ambitious project to run two ETHs with the aim of being among the best colleges in the world. But this did not bother politicians much at all, they carried on distributing quite happily. Then Tessin was successful and won a computer centre for its region in 1992. Then, eight years ago, Basel lobbied successfully for an institute of biotechnology and in the latest message it says that ETH Lausanne has to take over the Institute for Microelectronics in Neuchâtel, but that it must continue to run it at its present location. Must, because nobody in the ETH field actually wants to take it over. It is just that the canton of Neuchâtel is reorganising its budget thanks to a deficit of 24 million sFr and is of course in favour of it.

While the information society has had a revolutionary effect in business, and has swept away whole organisational structures and hierarchies, Switzerland has always been structured in the same way for over 150 years and when something has changed it has done so in a way that has resulted in even more structures. The fact that every employee in the administration has a PC certainly does not mean that the state has arrived in the digital era.

The sealing-off against Europe and the world makes it simple for us not to notice any of this. A politician who says such things runs into absolute incomprehension in Bern and in the cantons.

For politicians, words such as "autonomous follow-up implementation" and "territorial federalism" are sacred cows. For me, however, these words are the opposite of innovation! When I conduct such discussions in politics, someone always comes out with the phrase "Yes, but on average we are doing well"!

This also applies to the opening up of telecommunication. Switzerland is at seventh place in the OECD statistics, behind Finland, Holland, Norway, Iceland, England and Luxemburg. And everybody is proud about it. Politics does not notice at all that the major regions of Zurich, Geneva and Basel are not capable of competing against Paris or Hamburg. Although Swisscom had long since been in a position to offer 15 Megabit Internet in these regions. But before it failed to open up at least 70% of Switzerland, it did not have the courage to launch a product! Swisscom is afraid of the cantons! This leads to a typically Swiss solution. The City of Zurich is now building its own network. Here, the City has not noticed that the region of Zurich actually has nothing to do with the city limits. The result will be that we are presumably building a very expensive, partially redundant infrastructure in Switzerland and will generate a very low productivity from these investments.

But we do not need to worry, because it will be enough just to be good on average!

You have now been listening to my critical analysis for a long time. Now comes the question of what to do so that Switzerland can continue to be among the top countries in innovation:

1) Create transparency in the political system. Benchmarks between the cantons and benchmarks between the countries and benchmarks between the world's important business regions.

2) Have problem analyses carried out not only by politicians but also by experts, if possible from abroad. The OECD studies are important in this connection. In my political career, I have never come across an expert report where the expert did not receive further orders from the same office before and afterwards. It is not for nothing that assessors sometimes have the reputation of first assessing who the client is and where their own best interests lie.

These two points have been for politicians!

For the social discussion:

3) Performance must be worthwhile. Fairness means that if somebody achieves more than somebody else, then at the end of the day he should also have more in his wallet than the other person. We need success stories. 80% of the 500 richest Americans were not born rich. 80% of the 300 richest on the ranking list of the balance sheet were already rich at birth and if not, then they emigrated for tax reasons! Young people read that, and that gives them an incentive, or does not give them an incentive at all.

4) Entrepreneurial activity must be worthwhile again! Let us play a little game with each other. There is a company division that makes 100 million in sales and generates an EBIT of 10 million. How much does the head of the division earn? Let us say he earns 500,000 Fr. Say he has about 300,000 Fr. after deduction of taxes. If the company also belongs to this divisional head and he also wants to earn 300,000 Fr. net, then he must pay out approx. 1.5 million Fr. so that these 300,000 Fr. remain for him, net. Of the 1.5 million Fr. he pays approx. 1.2 million francs in income and wealth tax.

5) This brings me to the next point. Direct democracy demands from the citizen that he studies the problems and the solutions and does not simply run after some campaign or other!

On education:

6) Giving the educational institutions as much autonomy as possible. In particular, one should be suspicious of what will happen in the new university and college act. Because the fringe regions in Switzerland have the majority, dealing with taxes and duplication often only means redistributing them regionally. One has to be critical when it is demanded that researchers work together with other researchers from Swiss colleges and universities – because research is global!

7) We need to spark off innovation in Switzerland, with the clear message to the world that if you have a good idea, come to Switzerland. We have room for you and also the best research institutes that will help you to work out the foundations that you need to realise your idea. Switzerland should become the best in Europe!

8) It should not be possible to be able to complete everything in one's own town, from elementary school to master's degree, without having to spend a year studying or training abroad.

9) Multilingualism is a Swiss myth! If not then every pupil finishing the twelfth grade would have to be proficient in at least two foreign languages and his own language, not just have attended the courses. I regard language ability as a decisive skill in an internationalised world, also for engineers.

10) The cantons should not be duty-bound to offer children 9 compulsory years of school, but instead to give the children basic competence in different areas. It is not accept-

able that 20% of 15-year-olds do not understand the articles in the daily paper, the Tagesanzeiger.

11) And finally, if all children born in Switzerland could understand and speak the national language when starting school, then we would have fewer problems during the whole schooling period. This means that more resources should be made available to the pre-schools and elementary schools, instead of fire-fighting exercises in puberty.

With these few and simple requests, I am trying to advocate that we have a society in our country that is more than capable of just being good on average.