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# GERMANY AS AN IT LOCATION AND THE CHANCES FOR A SUSTAINABLE INTERNATIONALISATION

Documentation of the results of the 3<sup>rd</sup> expert forum  
of the Export IT project  
on March 8<sup>th</sup> 2008 at the CeBIT

Working paper

of the Export It project

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## Don't copy – innovate! Success factors of sustainable internationalisation concepts in the global competition

Speech by the Export IT research team on March 8th 2008 at the CeBIT

In the course of this event, Dr. Jan Grasshoff (SAP) and Peter Forscht (ABAS Software AG) have presented best practices with which to meet the challenges of globalisation by means of innovative concepts.

We will continue this train of thought and in the following we will go into the central success factors of sustainable internationalisation concepts in the global competition in a generalised way, on the basis of our research. A completely new strategic attitude is required with regard to this development. However, it is of no use to simply copy the concepts of successful Indian or American businesses.

Our recommendation, therefore, is: Don't copy – innovate!

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Success factors of sustainable internationalisation and the exportability of IT services



Andreas Boes, Tobias Kämpf, Kira Marrs, Katrin Trinks

## Don't copy – innovate!

Success factors of sustainable internationalisation concepts in the face of global competition

CeBIT event

Germany as an IT location and the chances of sustainable internationalisation

Hannover, 8. March 2008

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### Introduction: Globalisation is a challenge for Germany as an IT location

We are currently experiencing the outset of a new phase of internationalisation. While formerly the classic industries used to be at the centre of this development, now the

focus has also shifted to other service sectors which are increasingly drawn into the pull of globalisation.

It is the IT sector that is at the centre of this development. For the industrial and service companies it has become the “enabler” for new, global business models. This is what constitutes its strategic importance for the economic development.

Due to this importance in the macroeconomic context, IT companies are foremost profiteers from this new phase of globalisation. Forecasts for exceptional growth in this sector also result from the success of businesses overseas.

If you therefore ask anyone working in the IT sector about the effects of this new phase of internationalisation for Germany as an IT location, you are bound to hear many success stories and that the chances outweigh the risks regarding future developments.

However, this is merely one side. For, when you listen more closely, this image turns darker and the accounts of our dialogue partners become more pessimistic. Business and Association representatives of the 2006 IT summit in Berlin, for example, said that with regard to the future of Germany as an IT location there were definite concerns and pointed out a number of problems.

This means: “The globalisation and the competitive pressure on international ICT markets force all areas of the ICT industry to react: Large parts of the hardware production with the exception of microelectronics have already been outsourced. The share of German companies on the global software market is also rather low with 7%. The IT service industry is increasingly dominated by the US and developing countries such as China and India.” (AG 1)

How does all this fit together?

Our analyses show: Both are correct. Many companies manage to exploit the chances of this new phase of globalisation. These positive examples, however, stand in contrast with many IT companies for which the new phase of globalisation has turned into a problem. And then there is a third group of IT companies. These companies simply take cover and wait for the ghost of globalisation to disappear in the cupboards with the other outdated management methods again.

In brief, the chances and risks of this development lie very closely together. You can observe very different, sometimes even contradictory trends.

In the following, let us try to shed some light into this ominous situation and answer the question: What are the chances for Germany as an IT location with regard to the challenges of globalisation really? What are its strengths and what are its weaknesses? And above all: What are the success factors of effective internationalisation strategies?

Our article is divided into the following steps:

First, we would like to get you acquainted with the empirical background of our research results and briefly introduce the Export IT project.

In the second step, we will try to explore the change of the strategic peripheral conditions for the development of the IT industry.

In the third step, we will present our diagnosis of the strengths and weaknesses of Germany in the global competitive field.

And finally, we will present the central success factors of sustainable internationalisation concepts on the basis of our dialogue with successful companies.

Let us begin with some important information on the Export IT research project.

## **1 The Export IT research project and its network of partners**

The "Export IT" project is really called "success factors of the internationalisation of IT services". It was started in mid 2005 and will end in autumn 2008.

The project aims at identifying the success factors of sustainable internationalisation strategies in the areas of software and IT services in Germany.

The basis of our recommendations is provided by empirical surveys which we have implemented in cooperation with our partners in the IT industry. We are relying on qualitative case studies which have been conducted with numerous IT companies in important locations throughout the global IT industry.

The following surveys provide the basis for the analysis:

- In Germany, we have conducted a survey with 15 companies and we have carried out over 150 interviews.
- In India we have conducted a survey of nine companies in the end of 2006, four of which were leading Indian IT service providers, and we have carried out over 50 interviews.
- In the second half of 2007 we have analysed five companies in Eastern Europe and we have carried out 35 interviews.
- And in March 2008 we will be going to the US for our final survey in Silicon Valley.

The central success factor of the Export IT project is its network of partners. In a manner which is probably unique in the German IT sector, it unites the key players on behalf of the German IT companies with generous support by the German Federal Ministry of Education and Research; namely SAP, T-Systems, IDS Scheer, Software AG and inosoft AG as representative of the smaller companies.

And on the part of our transfer partners, we have by our side the relevant associations BITKOM, VDMA and ZVEI and the two key trade unions IG Metall and Verdi.

## Export IT project network



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Our joint goal is to support sustainable internationalisation strategies for global competition.

In the following we will present our initial thoughts on the changes of the strategic peripheral conditions. We are talking about the IT industry as avant-garde sector in a new phase of economic internationalisation.

## 2 The changes of the strategic peripheral conditions

### 2.1 Basis for a new phase of internationalisation: creation of a world-wide information area

It is assumed that we are now witnessing the beginning of a new phase of internationalisation. What is new is the concept that through the creation of an "information area" new possibilities will arise to work all over the globe and to control locations distributed world-wide from one single place.

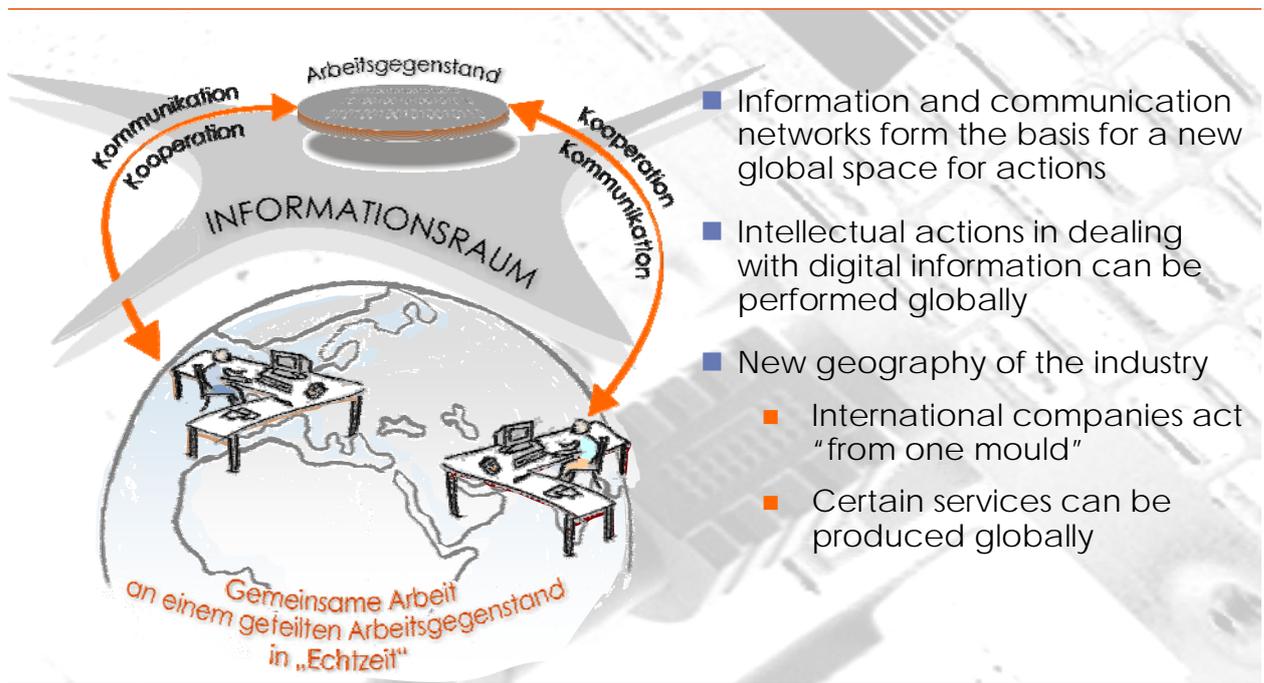
The basis for this new phase of internationalisation is provided by the leap in productive capacity for which the IT industry is mainly responsible. Information and communication networks and especially the internet have laid the foundation for the development of a world-wide accessible "information area" in the last couple of years. This "information

area" constitutes a new kind of global area of action and creates new possibilities, especially for the economy.

The "information area" creates new possibilities to unite various types of intellectual work distributed around the world. This work includes those fields in which the objects of labour can be delivered in the form of digital information, such as the work of software developers, design engineers, radiologists, controllers or tax counsellors.

Basis of the new phase of internationalisation:  
the creation of a world-wide information space

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Geographically, this rearranges the entire global economy. This brings up the question: What really needs to be done in a specific place and what can be done in the "information area"?

Two far-reaching consequences can be observed: Large companies act monolithically from a tangle of locations distributed throughout the globe. They increase their degree of globalisation vastly and more and more they require this from their medium-sized suppliers, too. And services which mainly have something to do with digitalised information are now possible to be produced globally.

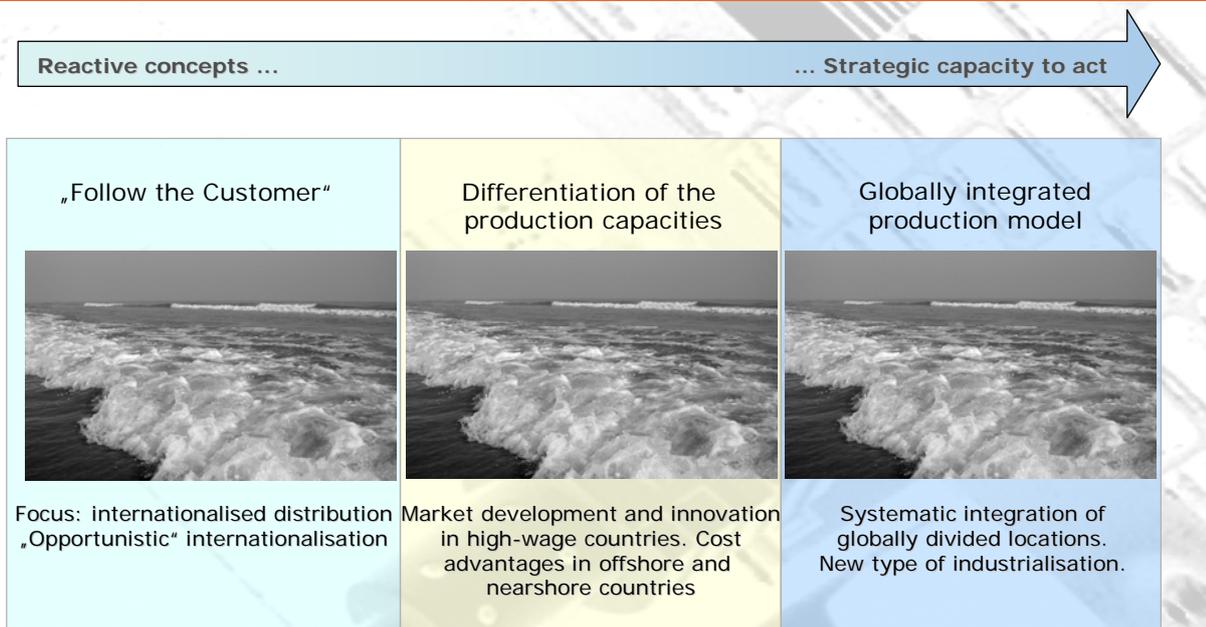
Software and IT service companies are at the heart of this development.

## 2.2 Development steps for the internationalisation of software and IT services

The software and IT service companies have acquired this strategic key position throughout a longer historic process. While large hardware producers have already sold and produced their products internationally at a very early stage, companies in the areas of software and IT services have remained on their home markets for a long time. Historically, their internationalisation has developed in three stages.

### Stages of development of the internationalisation of software and IT services

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The starting point of the internationalisation is nearly always determined by the customers. They expect their service providers to be present internationally or offer them new possibilities on foreign markets. “Follow the customer” is therefore the motto of this “opportunistic” internationalisation. In this case, the most important subject of the internationalisation is sales.

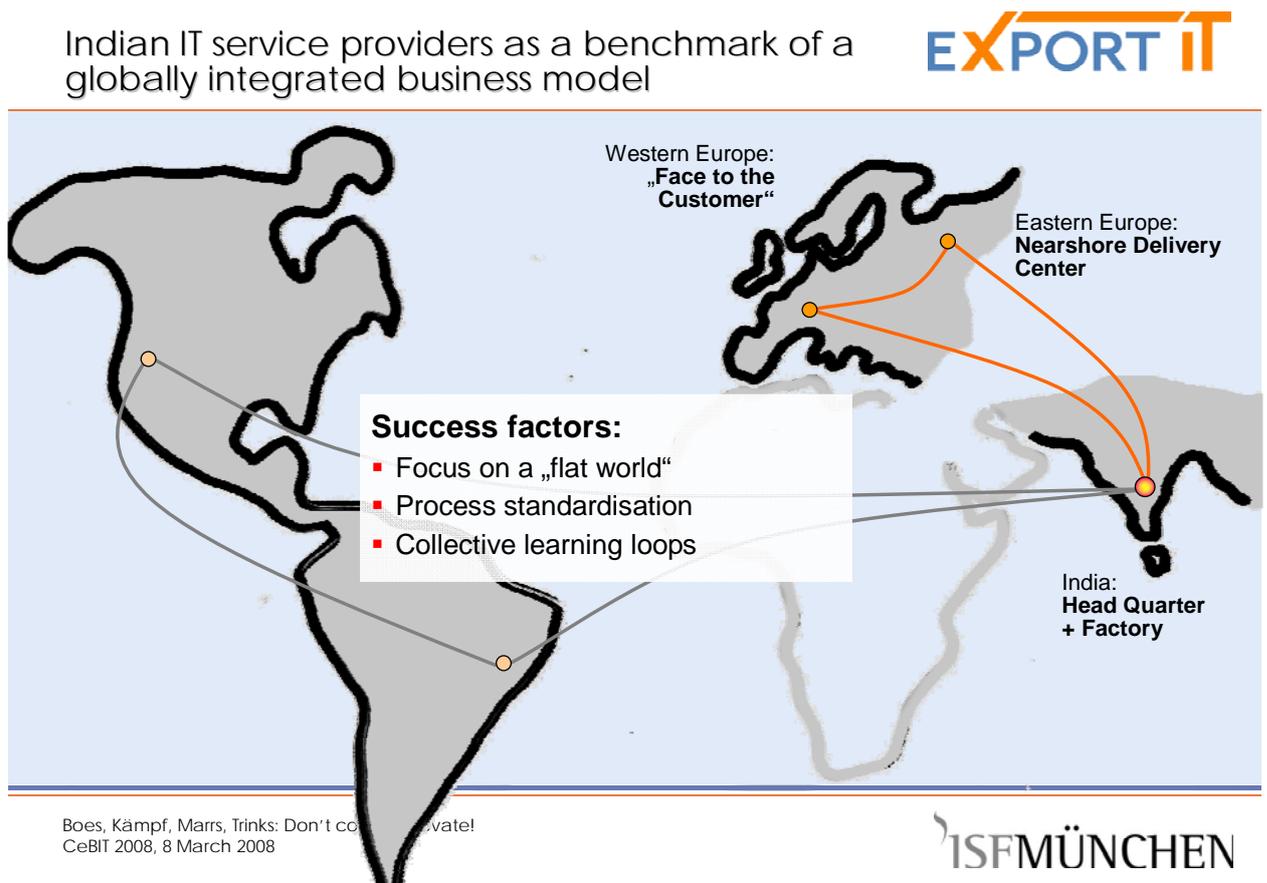
In the 90ies a group of companies has started to exceed this reactive strategy pattern and began differentiating product capacities strategically. In this context their efforts initially focused on opening up new markets and creating impulses for innovation in high-wage countries, especially the in US. And in about the end of the 90ies, production sites in offshore and nearshore regions were increasingly built up, in order to achieve cost advantages. The dominating cooperation concept in this approach was the “extended workbench”.

For some years now, the most progressive companies have been trying to reach a new development stage. In this stage the focus lies on strategically establishing a globally integrated production model. On the basis of standardisation of products and processes and a new type of industrialisation, the formerly differentiated locations are merged into one integrated system. The different locations fulfil different subtasks as nodal points of a network in the context of complex, highly differentiated business processes which cooperate systemically.

### 2.3 Indian IT service providers as benchmark for a globally integrated business model

The large Indian IT service providers are considered as the benchmark for a globally integrated business model. Throughout various stages, they have build up global production capacities and brought them together as one globally efficient model on the basis of a new type of innovative business model.

Schematically this business model works as follows:



The headquarters of a company is located in India whereas the so-called “factory”, i.e. the majority of the IT specialists employed, fulfil most of their tasks “offsite”.

A second unit is positioned “face to the customer”. This establishes the necessary customer relations and transfers orders to the production network.

Simultaneously a nearshore delivery centre is built up at a low-cost location within the same time zone, for functions which are critical in time and for tasks which require a certain cultural closeness to the customer.

This network of production locations is focused on the different target markets all over the world according to the same pattern. In our example these target markets are Western Europe and of course the US.

We have explored the success factors of this business model very thoroughly.

The Indian companies were the first to understand the new phase of globalisation. Therefore, their strategic focus does not lie on their home market, but on a "flat world". Their main efforts are targeted at the global players of the individual national economies.

The Indian business models are based on a strict standardisation of processes. In this context, certification according to CMMI-level 5 is an indispensable basic requirement. It is much more important, however, that all projects are in line with process models which are defined from the point of view of content, so that the projects are implemented according to a standardised process model. In addition, the process models constitute the basis for the direction of training and further education activities within the companies as regards content.

The process models enable the companies to establish collective learning loops in the constant development of their business model. Because these process models combine the essential experiences with how a project can be managed in a certain way and which qualifications are required in order to do so. Therefore, they are the central axes along which the joint learning processes of the companies are organised. In this way, Indian companies learn much more quickly to adapt to new conditions.

The described development has changed the strategic peripheral conditions within the IT industry. The question remains, how have German IT companies prepared for this challenge.

In the following step, we will sum up the results of our analyses on the development status of Germany as an IT location. In this context, the main keywords of our diagnosis – "ostrich" and "innovation trap" – need to be explained.

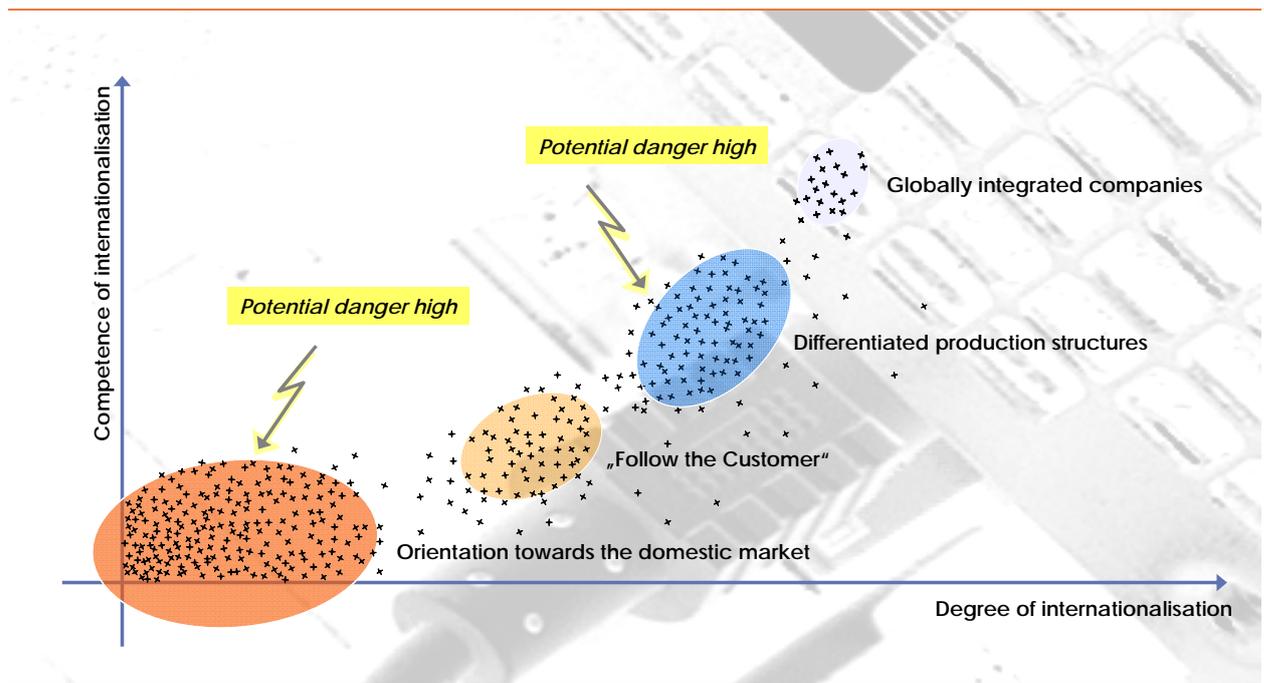
### 3 Germany as an IT location and the challenges of globalisation

#### 3.1 Development status and strategy patterns of IT companies in Germany

Where are the German IT companies positioned with regard to the challenge of a new phase of globalisation?

The following figure sums up the results of our analyses. We are focusing on two key aspects: The degree of internationalisation which expresses the foreign sales volume and the degree of the international differentiation of a company as well as the internationalisation competence which focuses on the strategic capacity of a company when coping with the challenges of a new phase of globalisation.

#### Germany as an IT location and the challenges of globalisation



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These two criteria assist us in differentiating four typical development stages of IT companies in Germany.

For the largest group of companies, up to now, internationalisation has been something that happens mainly in newspapers. They read about it but do not have an international business and therefore concentrate on the national, often even the regional markets. This pattern of "focusing on the internal market" is characteristic mainly of small to medium-sized businesses.

A second group has been tempted by important customers to take first steps abroad. Therefore, they have mainly followed the customers' requirements reactively and have not followed an independent internationalisation strategy. They display a certain foreign sales volume and sometimes have company subsidiaries abroad. This pattern of "follow the customer" is characteristic mainly of small to medium-sized businesses.

The third group has internationally differentiated sales and production structures and partnerships abroad and realises a relevant proportion of its sales volume there. They are eager to tackle the topic of internationalisation with an independent strategy. In this effort they are looking for new sales prospects abroad, but they do not have an international profile yet. Their efforts are determined by the reduction of costs by means of offshoring and nearshoring and the connection of locations along the lines of the extended workbench.

The fourth group is on its way to becoming a "globally integrated company". These companies realise the bulk of their sales volume abroad and are globally positioned with sales and production locations. They strictly focus on the new phase of globalisation. The internationally positioned large-scale enterprises are currently combining the network of locations to become one integrated system. The medium-sized businesses displaying this pattern compensate for their lack of presence abroad by targeted partner concepts.

The different strategy patterns enable companies to prepare for the new challenges, to a varying degree of success. While we consider the "follow the customer" pattern to be quite stable, the "focus on the internal market" pattern will sooner or later become a problem for many companies in this group. This means that in the medium term, there is a high risk potential. We also consider the strategy pattern of the "globally integrated company" to be stable, whereas we regard the "differentiated product structures" pattern as a pattern with a high risk potential.

The tragedy of this ascertainment lies in the fact that up to 75% of the employees in the IT sector in Germany work in companies which display the two threatened strategy patterns.

### **3.2 Diagnosis: "ostrich" and the innovation trap**

In the face of this stage of the development in which IT companies are facing the challenges of a new phase of globalisation, there are many positive examples but despite these we have nevertheless determined two key dangers for Germany as an IT location.

The first danger is that companies and decision makers in associations and politics behave according to the method of the "ostrich" and simply try to blank out the new challenge. This implies that the prevailing notion exists that globalisation is merely a

management trend which will soon pass. They are hoping that the big "backshift trend" will soon set in.

Closely related to this, there is a second argument according to which IT is only regarded as a commodity anyway, which in turn means that IT potentials are not considered to be of strategic importance.

The second danger is that IT companies in Germany, in their attempt to avoid an alleged cost trap, fall into an innovation trap.

For most European IT companies internationalisation is something that takes place "under pressure". Their processes are not very well suited for a global business model and the costs are often higher than those of the competitors.

The "natural" reflex to try and save the company by lowering costs and outsourcing alone do not solve the problem. This is exactly what endangers the strengths of the German business model: a close bond with the customers and the creative potential of the middle management and the employees.

## Diagnosis: ostrich and innovation trap

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### ■ Danger no. 1

The challenge: "globalisation" is ignored

- Hope for a wave of relocation back
- The importance of independent IT potentials is underestimated

### ■ Danger no. 2

From the cost trap into the innovation trap

- "Internationalisation under pressure" as the dominant theme
- Cost-cutting and outsourcing at the focus of strategies
- The bottom is knocked out of strategic re-orientation if the commitment to customers, to mid-management and employees is lost

Hereby, a strategic readjustment towards the challenges of a new phase of globalisation is nullified and the attempts all lead into a dead end.

“Don’t copy – innovate!” is therefore the motto of our final remarks on the success factors of sustainable internationalisation concepts.

#### 4 Central success factors of a sustainable internationalisation strategy

Our research has shown: Successful internationalisation is based on a number of individual factors which vary from company to company. However, the one thing that is common to all of them is that they will only become success factors when they are founded upon a sustainable internationalisation strategy. This is determined by the effort of a long-term use of the varied potentials of a “flat world” (Friedman).

The general orientation of the strategies is substantiated by five success factors which we consider vital for the strategic response to the new phase of internationalisation.

1. In order to be able to face the challenges of internationalisation, many companies urgently require a dramatic process of readjustment to the conditions of this new phase. Instead of finding reactive strategies with which to adapt, bolder strategies are necessary which make use of the individual strengths of the companies so as to create an individual approach towards internationalisation.
2. Successful international provision of IT services relies on an intelligent standardisation of products and services. This is not targeted alone on economies of scale, but also on the establishment of a “stable identity” of business activities. Intelligent standardisation is very different from the conventional standardisation and industrialisation paradigm. It is the goal not to force everything into line by means of “rigid” standards like it was formerly practiced, but to make the knowledge of the entire organisation usable in a targeted and systematic way by means of “vivid standards”. This makes intelligent standardisation a key for continuous innovation of the product and service range.
3. Internationally successful businesses rely on a strict process orientation. This is not simply targeted at formalisation of processes and methods, but also serves as a basis for continuous learning loops within the business. Joint learning loops rely on the principle of “intelligent standardisation”. By connecting intelligent standards with a modern process orientation it can be achieved that learning experiences consistently influence the defined processes and can be generalised as innovations within the organisation. Joint learning loops, therefore, constitute a major success factor in the process of creating an innovative readjustment of the company towards the strategic challenges.
4. A major aspect in a successful internationalisation strategy is the creation of international partner relationships. These are valuable in opening up new markets as well as in building up international production capacities. This applies specifically for small to medium-sized businesses but this also creates new chances for large-scale enter-

prises abroad. The basis for stable partner relationships is not only provided by sound contractual relations, but especially by mutual respect and trust.

5. A sustainable internationalisation strategy relies on the competences and the motivation of the employees. Because only when the staff has the required qualification and motivation to support the internationalisation processes of the company actively and to continuously improve them, can the internationalisation really be successful. A basic requirement for this is an organisational culture which is based on mutual acceptance and appreciation. This also includes that the company needs to display transparency and stability with regard to the internationalisation strategy and the personal as well as the location-specific development perspective. Ultimately, it is vital that a sustainable internationalisation is targeted at cooperation and not at an atmosphere of competition between the employees and locations.

### Success factors of sustainable internationalisation

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- Acceptance of globalisation as a strategic challenge
- Intelligent standardisation of products and services
- Consistent process orientation as the basis for continual learning loops
- Partnerships abroad – stable and “at eye level”
- Focus on employees as the mainstay of successful internationalisation strategies



## Success factors of a sustainable internationalisation

### Five point paper by the Export IT research project from March 8<sup>th</sup> 2008

*The IT sector is the pioneer and the enabler for the internationalisation of the service sector. Especially in the areas of software development and IT services, there has already been considerable experience and success in providing services. The Export IT research project which is supported by BMBF has been able to identify best practices and determine key success factors of the internationalisation on the basis of the analysis of the innovative concepts within this sector.*

*The results of this research show: The basis of a successful internationalisation is a sustainable internationalisation strategy which relies on the long-term use of the multifaceted potentials of a "flat world" (Friedman). This includes a respectful attitude towards one another and the sensitivity to respect cultural differences and is focused on establishing relationships between international partners and actively supporting employees.*

#### 1 Accept globalisation as a strategic challenge

A new phase of internationalisation in the IT sector has begun: IT service providers and software companies find themselves in a situation of increased global competition, new locations are built up in offshore and nearshore regions and India has now turned into a further "strategic location" of the global IT industry. These developments change the basic conditions for German IT companies drastically. In order to be prepared to face the challenges of internationalisation, a dramatic process of strategic readjustment towards the conditions of this new phase is absolutely vital. Only those companies which accept globalisation as a strategic challenge and also provide the necessary resources for it will be able to effectively use the opportunities connected with it. Instead of developing reactive adaptation strategies, they are required to develop systematic strategies which aim ahead, in order to make their own strengths the basis for their individual approach to internationalisation. Niche strategies and the orientation towards the internal market still remain legitimate, however, their conceptions have to be directed towards the conditions of a global IT world more than ever.

#### 2 Intelligent standardisation of products and services

Successful international provision of IT services is based on the intelligent standardisation of products and services. This is not solely targeted at economies of scale, but also on the development of a "stable identity" of the service range. This applies for the technological basis as well as for the way the services are provided. This makes it possible to create consistent quality standards and to reproduce products and services all around the globe. Intelligent standardisation is way different from the conventional standardisation and industrialisation paradigm in the classic industries. It is the goal not to force

everything into line by means of “rigid” standards like it was formerly practiced, but to make the knowledge of the entire organisation usable in a targeted and systematic way by means of vivid standards. This is why intelligent standardisation relies on vivid standards which make best practices useable in the business worldwide as a kind of “coagulated knowledge” – and by repetitively applying this, they will simultaneously become the basis for permanent improvement and optimisation of existing standards. This means, intelligent standardisation is the key to continuous innovation of the products and service range.

### **3 Strict process orientation as a basis for continuous learning loops**

Internationally successful businesses rely on strict process orientation. The provision of services and the development of software are, therefore, always a result of systematised and clearly defined processes. The management and controlling of international service provision as well as the complementary human resource development concepts and qualification strategies rely on these process models. In this context, a strict process orientation does not aim at simply formalising processes and methods, but serves as a basis for continuous learning loops within the company. Joint learning loops specifically have to take place on an international scale and are based on the inclusion of all persons involved. They are based on the principle of “intelligent standardisation”. This means that on the one hand standards constitute a defined and backed-up basis for learning processes. On the other hand, vivid standard is what allows the learning experience to flow back into the defined processes consistently and to become rooted and generalised as innovations within the organisation.

### **4 International partnerships – stable and “at eye level”**

A central aspect of a successful internationalisation strategy is the creation of international partnerships. These are very valuable in opening up new markets and also in building up international production capacities. They create opportunities abroad especially for small to medium-sized companies, but also for large-scale enterprises. Without locally rooted know-how – which partners at the location can provide – there are occasionally immense problems when building up new locations abroad, even for internationally experienced companies. The basis for a stable partnership is not only a sound contractual relationship, but specifically also mutual esteem and trust. In order to ensure the stability of the cooperation in the long-term, it is, therefore, important to make sure that the relationships are built up in such a way that both sides are able to keep up their own identity. Only when both partners profit from the partnership can the establishment of a stable relationship between international partners work “at eye level”.

## 5 Put employees at the centre of successful internationalisation strategies

A sustainable internationalisation strategy is based on the competences and the motivation of the employees. Because only when the employees have the necessary qualification and motivation to actively support and continuously improve the internationalisation processes of the company, can the internationalisation ultimately be successful. What is essential for this is a business culture which is based on appreciation and esteem. This implies on the one hand that the company has to display transparency and stability with regard to its internationalisation strategy and to the personal and location-specific development perspectives. But on the other hand, this also means that the employees must have the time and the possibility to acquire competences which are relevant to internationalisation and to be able to define an individual and viable role in this process. Ultimately, it is vital that a sustainable internationalisation should aim at cooperation and not at competition between the employees and the locations: Only then is it possible to imagine a participation and a sustained integration of the employees in the internationalisation process.

