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Based on the study of the previous chapter, this chapter analyses the identified three entrepreneurial tasks. The analysis starts from a managerial economics point of view and before getting to the body of the examination in this chapter, the setting of the three entrepreneurial tasks will be considered. According to Brickley et al (2004), the entrepreneurial organisation must, in particular, actively develop the interaction between the organisation and the environment and continuously adapt the internal organisation design in accordance with the strategic direction that emerges from this (see figure 84). The strategy and organisation design influence each other mutually and determine the framework conditions and the incentive structure of the organisation, which in turn steer entrepreneurial activities towards value creation. In addition, the following key questions have to be answered: Is the company strategy compatible with the business environment and the competencies of the company? What are the core elements of the current organisational architecture? Is the current organisational architecture compatible with the business environment and the strategy? Are the elements of the organisational architecture developed in a consistent way? Do the elements fit together?

![Figure 84: Organisation and environment according to Brickley (2004:286)](image-url)
The realisation of entrepreneurial principles and the entrepreneurial development of the interaction between the organisation and the environment sketch out the way for analysing the three key entrepreneurial tasks identified for an entrepreneurial organisation. In addition, the setting of the three entrepreneurial tasks should first be briefly described on the basis of the literature study and then analysed further.\(^{246}\)


\(^{246}\) Here, it becomes clear that the three central entrepreneurial tasks implicitly contain the nine design elements for intrapreneurship presented in chapter 3.1.5.


Increasing efficiency by division of labour (Smith 1982) and coordination (Abell 1993, Penrose 1995) is the first fundamental aspect in developing the entrepreneurial organisation culture. The second aspect is the implementation of innovation (Schumpeter 1950, 2006). To achieve both of these fundamental aspects, it is necessary to harmonise the interests of the organisation with the interests of the actors and to motivate the individual actors, and to target activities with long-term viability in mind (Schwab 1976, Oden 1997, Kuhn 2000, Trompenaars 2007, Maucher 2007, Joyce 2008).
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In terms of entrepreneurial organisation design, apart from the structure, an entrepreneurial culture also plays an important role (Schwab 1976, Drucker 1985, Baden-Fuller and Stopford 1994, Wunderer 2006, Trompenaars 2007, Kotter 2009, Kohlöffel and Rosche 2009). In order to develop such an entrepreneurial culture\(^{248}\), successful managers can, for example, be rewarded with important new projects as a reward for entrepreneurial performance (Block and MacMillan 1995).

Equally, entrepreneurial experiments can be carried out in order to promote shared learning from the experiments (Hamel and Prahaland 1994, Senge 2003, Sathe 2003, Kohlöffel and Rosche 2009). The various development elements of the organisation design must be shaped with the agreement of all if an entrepreneurial orientation as a whole is to be achieved (Covin and Slevin 1991).

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\(^{247}\) Kiechl (1990:30) names two fundamental structural design possibilities. New business can either be developed separately from operational systems or within a matrix organisation from vertical, more bureaucratic structures and horizontal, cooperative structures which support entrepreneurial activities.

\(^{248}\) Häfelfinger (1990) calls for a dynamic, innovation-oriented company culture on the basis of which entrepreneurial actors see changes in the business environment as opportunities and not threats. To strengthen the force of innovation, rules and conventions have to be scrutinised, ideas actively sought, experiments carried out and uncertainty, chaos and mistakes tolerated. Security for company development is then achieved by competent employees. He also introduces a process to strengthen innovation competencies: Establishment of a direction for innovation by company management (1st step); Creation of an innovation friendly climate (2nd step); Selection of entrepreneurial actors (3rd step); Training of intrapreneurs (4th step); Development of innovation friendly structures (5th step). Häfelfinger suggests separating the innovative unit from everyday operations.
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By using and coordinating resources and knowledge, the entrepreneurial organisation achieves synergies within and between organisational units (Hitt et al 2005, Joyce 2008). This takes place with a global dimension in order to realise internal and external entrepreneurial activities (Birkinshaw 2000). To coordinate decentralised activities, the entrepreneurial organisation can use internal markets and networks as an alternative to the hierarchical system (Abell 1993, Wunderer 2006). The operative system should be designed in such a way that it can be operated even in times of crisis (Weick and Sutcliffe 2007).

Following this brief description of the setting of the three entrepreneurial tasks, the next chapter presents a more detailed analysis of these tasks.

4.1 Entrepreneurial information gathering

In this chapter, the analysis will illustrate key aspects, dimensions, and activities of the entrepreneurial collection of meaningful information. It presents a definition of entrepreneurial information gathering and describes learning as dynamic component of this task. From the systematic analysis of the business environment, it is possible to show and evaluate alternative entrepreneurial actions. The analysis of the literature study relating to the role of intrapreneurship (see table 7) identifies four key aspects of entrepreneurial information gathering from the business environment:

1. Observation and analysis of the internal and external business environment;
2. Unearthing of existing and future opportunities and risks in the external and internal business environment;
3. Formation of expectations for the future and development of scenarios concerning changes in the business environment;
4. Development and adaptation of mutual mental models and learning about the internal and external business environment, as well as about networking of the organisation with the environment.

249 For the determination of search fields, situation analysis, finding ideas, selection and evaluation of ideas see e.g. Hartschen et al (2009:15-60).
250 For information gathering in general see for example Dillerup and Stoi (2008:601-647).
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### Table 7: Entrepreneurial information gathering as a task of the entrepreneurial organisation

<table>
<thead>
<tr>
<th>Task</th>
<th>References</th>
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<tbody>
<tr>
<td>and trends as well as development of scenarios to identify future</td>
<td></td>
</tr>
<tr>
<td>entrepreneurial opportunities</td>
<td></td>
</tr>
<tr>
<td>Sensing of existing entrepreneurial opportunities</td>
<td>(Kirzner 1973, Drucker 1985)</td>
</tr>
<tr>
<td>Use of employees with customer and supplier contact as an information</td>
<td>(Kanter 1983, 1989, Brandt 1986, Joyce 2008)</td>
</tr>
<tr>
<td>source and information sharing within the organisation: information</td>
<td></td>
</tr>
<tr>
<td>gathering as a community task</td>
<td></td>
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<tr>
<td>for networking of the organisation with the environment (thinking as</td>
<td>and Rosche 2009)</td>
</tr>
<tr>
<td>a dynamic process) for identification of entrepreneurial opportunities</td>
<td></td>
</tr>
<tr>
<td>and risks</td>
<td></td>
</tr>
<tr>
<td>Analysis of the life cycles and features of relevant sectors (dynamic,</td>
<td>(Covin and Slevin 1991, Lumpkin and Dess 1996, Hitt et al 2002, 2005,</td>
</tr>
<tr>
<td>uncertainty)</td>
<td>Weick and Sutcliffe 2007)</td>
</tr>
<tr>
<td>cultural context and in consideration of country-specific or regional</td>
<td></td>
</tr>
<tr>
<td>framework conditions</td>
<td></td>
</tr>
<tr>
<td>Systematic examination of needs and customer needs research</td>
<td>(Maucher 2007, Kohlöffel and Rosche 2009)</td>
</tr>
<tr>
<td>Observation of internal (as well as external) business environment</td>
<td>(Kotter 2009)</td>
</tr>
</tbody>
</table>

The framework for entrepreneurial information gathering can be derived from the business environment literature study (see chapter 3.2). Entrepreneurial organisations analyse the current business environment with a particular focus on opportunities, risks and resources. In doing this, it is necessary to consider four dimensions:

1. Character of the business environment: recognise uncertainty from complexity and dynamic, and define the necessary entrepreneurial intensity;

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251 Nonaka and Takeuchi (1997) describe the process of knowledge creation. Explicit and implicit knowledge is produced on the three levels of the individual actor, the group and the organisation. Knowledge is then transferred particularly via experiential learning in experiments and through learning from each other and thus becomes part of the knowledge base. There is then a conversion process and the knowledge base is used for innovation. In the process of knowledge creation, all employees and managers should work together with dynamic interaction to share the knowledge and to convert personal knowledge into company knowledge. For practical implementation, Nonaka and Takeuchi recommend a programme with seven steps: (1) Creation of a knowledge vision; (2) Development of a knowledge community; (3) Production of an energy-charged interaction field; (4) Knowledge creation based on development processes for new products; (5) Amalgamation of the vision with activity fields and product concepts through middle managers (middle-up-down-management); (6) Creation of a flexible organisation structure with the three complementary layers of business system for acquisition, collection and use of explicit knowledge, working groups for the development of and exchange of implicit knowledge, knowledge base for storing and design of implicit and explicit knowledge; (7) Establishment of a knowledge network with the outside world.

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2. Diversity of the business environment: analyse, consider and use culture specific context;

3. Examine and clarify geographical dimension of the operational field: global and local as well as world, economic area, country, region;

4. Recognise and develop interactive relationships within the organisation and between the organisation and the environment: Internal business environment (resources and competencies, formal and informal structures, activities in the value chain and operations, strategy, structure, culture, and development method optimisation and renewal), external micro and macro environment (with political-legal, economic, socio-cultural and techno-ecological framework conditions).

To understand entrepreneurial information gathering, it is helpful to take a quick look at the key activities and the process of entrepreneurial information gathering (chapter 4.1.1) in order to analyse the fundamental (chapter 4.1.2) and dynamic aspects like trends (chapter 4.1.3) or learning (chapter 4.1.4).

4.1.1 Key activities and process of entrepreneurial information gathering

As well as the present situation of the business environment, trends have to be analysed and scenarios developed and, additionally, a time dimension has to be considered in the process of entrepreneurial information gathering. Entrepreneurial decisions based on the collection of meaningful information always have a time dimension since they are always directed at the future (Graf 2005:325). Entrepreneurial information gathering must relate therefore to the present and future situation and also collect and analyse future-oriented information relating to the business environment.

Fahey and Narayanan (1986:36-43,46-57) distinguish four key activities in the process of information gathering:

1. Scanning: General observation of all environmental segments for early identification of changes;
(2) Monitoring: Selectively examine identified trends and events with a view to checking these in terms of their relevance for the company;

(3) Forecasting: Systematically describe future development templates and events (scenarios) with a view to generating information for decisions;

(4) Assessment: Evaluation information in order to grasp actual activities (action plans).

Entrepreneurial information gathering can take place with two integrated perspectives. With an outside-in approach, general developments in segments of the business environment can be analysed in a way that enables subsequent derivation of company specific implications. In the case of an inside-out approach, the analysis starts with a narrow focus on the company-specific situation. Both perspectives together bring the necessary focus on the entrepreneurial viewpoint without placing too narrow a focus on the business environment. Fahey and Narayanan also develop an analytical framework (see figure 85) for the analysis of environmental segments that are relevant for the industry and the organisation. It is particularly important to analyse the industry and task environment with a focus on the short-term. The general macro environment is to be observed with a middle to long-term focus. Larger companies have to use their resources in a way that puts a broad focus on all the relevant environment segments.

![Figure 85: Framework for entrepreneurial information gathering according to Fahey and Narayanan (1986:50)](image-url)
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Smaller companies have to limit themselves more to an analysis of the micro environment and individual segments of the macro environment, this being due to restricted resources. Long-term entrepreneurial activities should be prepared and accompanied by an analysis of environmental trends that is as comprehensive and recursive as possible.

According to Palmer and Hartley (2002:460-486), entrepreneurial information gathering, together with social interaction within the organisation, creates a common picture of the connection between the organisation and the environment. At the same time, it is necessary to share individual knowledge about the business environment and to develop organisational knowledge. They develop a process model for the transformation of individual knowledge into organisational knowledge as a basis for entrepreneurial decisions and activities (see figure 86).

In addition, a strong culture of trust has to be developed which, over time, creates an information culture that permanently supports the exchange of information within the organisation. Management can be supportive as models in the same way as information technology and defined information processes can. Mutual learning from the past and a holistic understanding of the business environment enable a better understanding and shaping of the future. Entrepreneurial information gathering thus requires a holistic focus.

![Figure 86: Model for information gathering according to Palmer and Hartley (2002:462)](image)

Palmer and Hartley (2002:470-484) describe various analytical techniques such as marketing audit, SWOT-analysis, trend extrapolation, asking experts, scenario techniques, influence diagrams, opportunity and risk profiles, industry and competition analysis.
4.1.2 Analysis of entrepreneurial information gathering

In the view of Parr Rud (2009:43-157,161-189), together with information processing, information gathering is the central task of business intelligence in a company. The application of systems thinking and use of five central competencies enable companies to recognise and exploit new entrepreneurial opportunities in a global economy. The five necessary competencies are communication\textsuperscript{254}, cooperation\textsuperscript{255}, innovation\textsuperscript{256}, adaptability\textsuperscript{257} and leadership\textsuperscript{258}. Adaptation of an organisation requires changes to current business as well as the implementation of new ideas. In addition, organisations must be flexible and mobile to be able to continuously redirect processes, structures and systems whilst at the same time efficiently carrying out current operations. In particular, new and global markets must be focused on.

Parr Rud (2009) calls for a change from hierarchical organisation structures to an integrative network structure with entrepreneurial managers and employees. This facilitates many opportunities for information gathering. Systematic information gathering, particularly via customers, suppliers, competitors, and markets is subsequently a key requirement and an entrepreneurial task for the achievement of competitiveness in a global economy. Organisations should continuously adapt to change in the business environment using innovation. In addition, it is necessary to achieve a continuous flow of ideas and entrepreneurial opportunities have to be pursued proactively. The collection, evaluation and distribution of information and knowledge is thus a task for the whole organisation.

\textsuperscript{254} Meetings, for example, can be systematically used for information collection. Communication should help to define and achieve common aims, share knowledge and to develop mutual understanding across all functions.

\textsuperscript{255} Cooperation when gathering information should in particular enable fast responses to changes in the business environment and heighten the perception of trends.

\textsuperscript{256} Exchange of creative ideas exploiting different cultures and talents has to be used for the entire organisation. Decentralisation is said first of all to be a good strategy for idea creation. In terms of implementation, the priority is to have a central focus via leadership.

\textsuperscript{257} Flexibility and resistance of the organisation have to be firmly established when developing the structure. In addition, organisations must be set up as a living organisation whose self organising units support the evolution of the whole organisation. Through networking with and openness towards the business environment, the organisation adjusts and remains in equilibrium.

\textsuperscript{258} The leadership role would be realised situationally by the employees in a change situation. Entrepreneurial managers would thus act at all levels of the organisation. This would require a business environment that would no longer permit micro management carried out by top management.
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The organisation structure must according to Parr Rud (2009) enable the necessary flexibility and resistance to allow the targeted and realised strategies for adaptation to business environment changes to be pursued. The company culture, and particularly the commonly held vision, then steer entrepreneurial activities and achieve a harmonisation of individual interests with those of the organisation. The strengthening of adaptability can be attained via the development of alternative future scenarios (see e.g. Graf 1999, Duin et al 2005) and the alternative company strategies arising, as well as via business units that, with their resources and abilities can pursue new entrepreneurial opportunities.

With this, the interdependence of the three key entrepreneurial tasks becomes clear. Entrepreneurial information gathering provides the basis for scenario and strategy development and thus for entrepreneurial shaping of the future which in turn steer the shaping of the entrepreneurial organisation and the development of resources and competencies of a company. The current resources and competencies determine, in turn, the current entrepreneurial activities.

Hidden influences and effects that are initially long-term can be identified by a holistic systems view when gathering information. Simulations and experiments make it possible to search for entrepreneurial ideas and evaluate their potential for success.

Formica (2007) analyses in laboratory experiments, for example, successful companies and the role of knowledge for the generation of new business. He examines how through the interaction of informed actors, individual knowledge can become part of the company’s knowledge. Explicit company knowledge develops particularly with horizontal and vertical communication and free interpersonal relations. Thereby, there are big differences between both large and small established companies. Whilst established companies would mostly concentrate within a hierarchical system on process optimisation and reduction of costs, in small companies the development and implementation of new ideas are key factors. He emphasises that managers must see themselves in the future and that there should not be too much focus on the past. For future company success, the building of management teams must be carried out strategically. The different actors complement each other. He sees a trend of companies being able to increasingly create new niches and this is through the use of existing knowledge in new markets. The hierarchical company would be replaced by an orchestra structure: New heros in management must motivate people and get them moving, achieve continuous improvement of the company’s situation together with implementation of the company targets and recognise new potential. They have to be creative, seek out the competition and recognise and pursue hidden, entrepreneurial opportunities. It is even possible to check out business ideas in laboratory experiments. Through this, time can be gained in conquering markets and important learning experiences can be collected and entrepreneurial experiences developed.
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According to Beer’s (1979,1995) viable system model, entrepreneurial information gathering is realised on two levels. The operational units active in the market pay attention to the environment that is relevant for their own operations. The environment for the whole organisation is analysed in the context of strategic management. Thus, the necessary adaptations to changes in the dynamic and complex business environment can be identified and the future potential for success of the entrepreneurial organisation can be defined with a large degree of autonomy for operational units.

Hoverstadt (2008) analyses entrepreneurial information gathering in line with the viable system model. This begins firstly on the level of the whole organisation to enable understanding of the business environment and recognition of existing and future opportunities and risks. The evaluation of information makes it possible to lay the basis for the required change and the discovery of worthwhile innovations in the future. However, this task is not a simple one because of the uncertainty around the future development of the business environment. Therefore, entrepreneurial organisations should try, for example, to anticipate technological developments and, within management teams, develop common models of future business environments. Entrepreneurial strategies that can be used in various future situations have to be developed on the basis of the information analysed. In the context of entrepreneurial information gathering, thinking in terms of scenarios is therefore an important factor when analysing the external business environment.

A very important factor for Hoverstadt (2008) is also what common mental model of the organisation itself prevails and whether this model, coupled with an understanding of the business environment, is suitable for controlling internal and external entrepreneurial activities. Internal and external information gathering makes it possible to gain feedback and learning in respect of the management team’s mental model. In this way, synergies within the organisation can be developed, organisation learning can be attained and any adjustments required for the mental model can be made. In this context, entrepreneurial information gathering means in effect sharing the information collected amongst the actors, interpreting it in a holistic way and developing common knowledge about the internal and external business environment within the organisation.
Espejo et al (1996:285-288) also refer to the relevance of entrepreneurial information gathering as an input for individual and community learning for the development of core competencies within the organisation. Thus, it is possible to research and communicate systematically relevant information about successful solutions to problems in an organisation so that similar problems can be solved now and in the future.

De Geus (2002) establishes that the viable entrepreneurial organisation must recognise the signals of a changing global business environment if it is going to be able to use the information gathered early enough by way of entrepreneurial activities and adjustments of internal structures (De Geus 2002:28-37)\textsuperscript{260}. Thus, the interdependence between entrepreneurial information gathering and shaping of the future and the organisation becomes a key factor. Holistic fulfilment of the three central tasks of an entrepreneurial organisation make it possible for opportunities and risks to be recognised, entrepreneurial activities to be selected and implemented, and internal structures to be adapted.

Entrepreneurial learning organisations are communities and develop a knowledge base that enables permanent change within the organisation. It becomes clear with entrepreneurial information gathering which adjustments are necessary in dealing with the market, in product portfolios, in production or within the structures in order to be able to live in harmony with the external business environment.

De Geus (2002) notes that the more images of the future that an organisation develops, the greater is its ability to filter signals from the business environment as being opportunities or risks. With this, he justified the great relevance of thinking in terms of options to make it possible to recognise relevant information and thus knowledge for opportunities and risks within the context of entrepreneurial information gathering (De Geus 2002:37)\textsuperscript{261}.

\textsuperscript{260} De Geus establishes that organisations rarely react to signals from the business environment but rather usually only become active if an actual crisis situation arises. Here, there is an advantage for older organisations which can recall earlier crises and therefore act earlier.

\textsuperscript{261} De Geus speaks of \textit{memory of the future}
In this process, it would be necessary to consider which entrepreneurial activity in each individual case should be applied to various possible events, which in the view of the organisation were possible scenarios (future stories). Thus, events in the external business environment could be observed and their relevance for one’s own sector and thus for the organisation itself examined. With such scenarios and analysis (Voros 2006), plausible alternative futures can be developed and the mental models of an organisation adapted. Organisations can then learn from entrepreneurial decisions.

Senge (2003:213-250) also believes mental models control action. These common images determine how the world is interpreted within the organisation. An important task is thus to develop common mental models for each situation and bring their fundamental assumptions to the surface. In this way, for example, mental models of the business environment or the competitive environment could be discussed within an organisation and on the basis of this, entrepreneurial information gathering could be realised. For Senge, it is precisely the connection of systems thinking and mental models that supports long-term orientation; furthermore, within the context of information gathering, interrelations and templates in the business environment can be detected.

Scharmer (2009) develops a concept for entrepreneurial information gathering from the inner source of inspiration (see figure 87). With this inner journey of teams and organisations, future entrepreneurial opportunities are uncovered and transferred into the present. Thus, the past is relinquished and there is a feeling of being in the future. An inner perception open to the future (individual and collective) should enable an exploration of entrepreneurial ideas and initiatives.

According to Tapscott and Williams (2009), the new internet offers new opportunities for entrepreneurial information gathering via mass cooperation. Entrepreneurial organisations can involve a whole range of networked actors in innovation, value creation and cooperation. At the same time, it is important to see the risks of global virtual networks for existing business. Customers or suppliers can be involved using information technology in the creation of ideas.
According to Tapscott and Williams (2009) the collective intelligence of external and internal self-organised partners would be used for entrepreneurial activities with openness, equality, sharing and global action. The decentralised virtual structures enable new forms of interaction and information gathering from global markets for ideas across the company.

Thereby, information gathering as a starting point for entrepreneurial activities in a global economy with participative platforms takes on even greater importance. Entrepreneurial information gathering provides the basis for entrepreneurial decisions and for both individual and collective entrepreneurial activities, which can, in turn, be learned from.
According to Checkland and Holwell (1998:86-109), this information process is classified into several phases. Firstly, data that is relevant for the organisation (capta) has to be selected from the facts of the world (data). The relevant data must then be connected with the context to be examined so that meaningful information (see also Nonaka 1988) for the entrepreneurial future and shaping of the organisation can be deduced. The process of entrepreneurial information gathering can be either collective or individual. A collection of structured facts is then developed from the information as knowledge or as a mental model, and then entrepreneurial activities can be realised by entrepreneurial actors on a sound basis (see figure 88). According to Checkland and Holwell (1998) in the process of entrepreneurial information gathering, it is necessary not only to uncover current data, but in particular future developments and trends as well. It is precisely changes in the business environment that are the source of opportunities and risks. Future expectations can help the development of future options. Entrepreneurial organisations have thus to analyse trends bearing in mind their relevance for current and future business. The following chapter gives an overview of information gathered from the development of global framework conditions.

Figure 88: Information gathering according to Checkland and Holwell (1998:102)
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4.1.3 Entrepreneurial information gathering from observing trends

The most important current trends and lines of development in the external business environment\(^{262}\) are described, amongst others, by Holzhauer (2007)\(^{263}\). As part of this, consumer trends, socio-cultural trends and central developments in the areas of business, technology, politics and demography are distinguished (see figure 89). Globalisation\(^{264}\) leads to even stronger networking in the global economy (see e. g. Böhmer et al 2007). Global companies make location decisions all over the world and must stand their ground in global competition. New technologies are experiencing global expansion. Cultural exchange, international capital streams and mobile workforces characterise the development. At the same time, one can increasingly detect local strategies and regional developments.

With modern information technology, work processes, interaction and communication with customers and partners are changing. Whilst old companies are developing in industrial countries, new companies are springing up in many developing countries. In any event, increasing individualisation is evident in developed companies which give rise to customised products and services. Decentralised networks are replacing hierarchical structures more and more for control of cooperation. Customers are included in product development\(^{265}\).

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\(^{262}\) See also analyses of professional service providers for order research e. g. the Prognos AG report on Germany (www.prognos.com).

\(^{263}\) Futurologists and market and opinion researchers attempt to derive trends and scenarios from surveys, media analyses or observations. Even if the future is not predictable it is possible to derive important findings for entrepreneurial information gathering from research into the future. Relevant developments, for example in alternative scenarios, can be condensed keeping the organisation in mind so that potential entrepreneurial activities can be defined.

\(^{264}\) Globalisation requires the company to make adjustments and offers opportunities and risks. According to Friedmann (2006) it is driven by ten forces: (1) Global expansion of the market economy leads to a global increase in productivity. (2) The internet enables global networking so that actors can communicate, cooperate and act globally. (3) Work-flow Software enables and eases digital international (internal and external) division of labour and knowledge and offers a new global platform for cooperation. (4) Uploading and blogging create and use new collective information sources, innovations and problem solutions inside and outside the organisation and result in decentralised mutual innovations. (5) Outsourcing uses overcapacity in the (virtual) world (without real migration). (6) Offshoring describes the transfer of production in other countries. (7) Supply Chaining uses global cooperation and optimisation and results in the best overall solution. (8) Insourcing offers entrepreneurial opportunities in a global economy. (9) In forming results from search machines and the internet as a (not uncritical) source of information for entrepreneurial information gathering. (10) Wireless internet access makes it possible to have connection and communication everywhere.

\(^{265}\) Information sources such as customer complaints, information from employees with customer contact or also customer demands research can be used systematically.
Health, fitness and sustainability are becoming ever more significant for potential customers (Holzhauer 2007) and have to be taken into account in terms of entrepreneurial activities. Consideration of the effects of mega trends on sectors (see figure 90) and the organisation within the context of entrepreneurial information gathering provides a start for the generation of entrepreneurial ideas and for systematic innovation processes.

The generation of ideas based on entrepreneurial information gathering can also be used as creativity techniques. For evaluation of ideas, it is possible, for example, to make use of benefit analysis. The implementation of ideas in entrepreneurial decisions and activities can be classified as being entrepreneurial creation of the future.

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266 The generation of ideas based on entrepreneurial information gathering can also be used as creativity techniques. For evaluation of ideas, it is possible, for example, to make use of benefit analysis. The implementation of ideas in entrepreneurial decisions and activities can be classified as being entrepreneurial creation of the future.
4. Analysis of the three central tasks of an entrepreneurial organisation

According to Holzhauer (2007:183-189)\(^\text{267}\), individual general trends that are relevant can firstly be systematised in accordance with the PEST analysis tool\(^\text{268}\) and then analysed in terms of how these trends can influence the company’s own product portfolio, customers and target groups currently and in the future. From observation of how well future products and services meet the future needs of customers, it is possible to derive gaps in the market and new business possibilities. As a result, there is great potential for the discovery of entrepreneurial opportunities from direct customer contact, analysis of other sectors and the search for analogous problem solutions for application to the company’s own markets. As well as identification and pursuit of opportunities, it is also possible to pursue the internal generation of entrepreneurial activities.

Thurow (2004) believes that it is more and more necessary to have a global perspective in entrepreneurial information gathering. Entrepreneurial organisations produce where costs are low and sell their products where high prices can be achieved. They decide continuously which components to make themselves and which to buy so that they can ensure the viability of the organisation. With this, the division of labour within the global company increases all the more. Central operation fields within global companies are particularly in the Triad economic area\(^\text{269}\). Companies have to pursue the key technological trends\(^\text{270}\) and derive entrepreneurial activities from them. Failures should be taken into account and learned from. Palmer and Hartley (2002:419-421) assert that in this process, the bringing together and interaction of knowledge and experience from various disciplines drive technological development (see figure 91).

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\(^{267}\) Holzhauer (2007) define for this entrepreneurial information processing four search fields: (1) Which trends have an influence on the company’s business? (2) What do customers want? (3) What can be learned from other sectors? (4) How can the future be shaped. Search fields (1) to (3) can be assigned to entrepreneurial information gathering. Search field (4) to entrepreneurial shaping of the future.

\(^{268}\) See Chapter 3.2.2.1

\(^{269}\) The economic regions of North America, European Union and Japan with some asiatic countries are described in the literature as the Triad (see chapter 3.2.2.6). Non-Triad economic regions are Central and Eastern Europe, Asia-Pacific and western Asia, Latin America and the Carribean as well as Africa. For a systematic illustration of global operation fields for entrepreneurial organisations see e. g. Dülfer and Jöstingmeier (2008). For a systematic market entry decision see e. g. Fuchs and Apfelthaler (2009).

\(^{270}\) Important technologies are said to be: Microelectronics, robotics, biotechnology, computers and telecommunication. Graf (2005:206-210) names health and life sciences, automatisation and robotics, materials technology, environmental technology, energy-related technology and information and communication technology as significant areas for future development.
Global entrepreneurial organisations must increasingly observe global organisation frameworks that define the global rules and regulations. The Regulation of the global economy is developing via cross-national cooperation, agreements and international organisations, particularly in the following five areas (Kruber et al 2008:57-60):

- International regulation of trade (e. g. World Trade Organisation);
- Global foreign exchange and capital markets: Systems and institutions (e. g. International Monetary Fund);
- Human rights, workers’ right and standards for health and safety (e. g. International Labour Organisation);
- Environmental protection and sustainable development (e. g. Kyoto Protocol on climate change);
- Social development: Programmes and projects (e. g. World Bank).

In order to be able to understand and use the technologies of the future and global developments, Thurow suggests installing a *Chief Knowledge Officer* in entrepreneurial organisations (Thurow 2004:123-162). The job of this person is to collect information about new technologies in interplay with economic and societal development and evaluate it in respect of entrepreneurial activities.
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According to Thurow (2004) the Chief Knowledge Officer also has to understand the life cycle of companies, markets and products so that he can establish when current business models have to be changed or given up or when new business models have to be modelled. A central entrepreneurial task for the Chief Knowledge Officer is thus to establish when to enter and exit markets.

According to Ohmae (Ohmae 2006), in a global economy, as well as there being a global view of markets and contexts, a regional view is also coming to the fore. Thus, entrepreneurial organisations must keep regional economic zones in mind in order to secure viability with alliances across countries. Within this process, the most important trends have to be recognised, the effects analysed and company strategies adjusted. Markets in different regions must be simultaneously processed and innovations continuously realised. In addition, human creativity potential for the generation of pathfinding ideas must be looked at in order to be able to use developments in the business environment. With information gathering, direct communication with customers is according to Ohmae (2006) the key success factor.

Because of the increasing complexity and dynamic of the global business environment and the often contradictory trends, Graf (2000:13-33,113-130,133-157) believes that entrepreneurial organisations have to think in alternative futures if they are to be able to identify opportunities and risks within a global economy and select entrepreneurial options. Additionally, the development of basic framework conditions can firstly be perpetuated into the future in a basic scenario and then the system can be specified by the relevant actors and variables. Bearing in mind the possible problems as well as developments that are awash with opportunity, the effects of possible environment developments can be analysed and potential plans for different futures can be developed.

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271 Graf (2000) describes global uncertainty areas and four long-term scenarios. In two basic scenarios, positive development trends from the globalisation process (in the basic scenario no.2 with accelerated societal and political adjustments) are perpetuated so that living standards are improved, poverty reduced, ecological sustainability improved and worldwide political stability strengthened. The other two alternative scenarios, soft world society (new life styles, local communities) and macro industrial society (global economies, far-reaching technological advance) assume a positive development with improved living quality and many new opportunities for entrepreneurial organisations.
The results identified from global scenarios that focused on alternative developments can then be used as information relevant for action in terms of the development of actual entrepreneurial strategies and decisions and thereby be combined with the targets, competencies and resources of the entrepreneurial organisation.

Short-term economic and market forecasts are an important source of information for entrepreneurial operational management. In so doing, Graf (1999) believes that short-term entrepreneurial decisions have to be taken with a mind to securing the long-term security of the organisation. Targetted processing of information in market forecasts provides important management information for entrepreneurial decisions. Thus, knowledge of various market developments in the total economic trade cycle enables early reactions and adjustments.

Naisbitt (2007) attempts with a systematic analysis of the present to obtain a picture of the future (see Duin 2007) which can then serve as an important source of information for entrepreneurial decisions. He establishes that the evaluation of information is the central entrepreneurial task. In order to discover something from the information, it is necessary to create connections between things that apparently have no connection. Meaningful information must be recognised and seized in a creative way. Naisbitt sees the global economy as internationally significant segments full with entrepreneurial opportunities for innovative decentralised organisations. This view must also lay the foundation when evaluating information.

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272 According to Beinhocker et al (2009), the recession in 2009 radically changed the global economy. Companies that use the opportunities in their sector quickly and shape the structure of the sector can, having achieved a huge choice, use the crisis for future development. Innovations would in this process become even more important and operational fields in Asia would become even more significant.
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4.1.4 Learning as part of entrepreneurial information gathering

Individual, community and organisational learning about the internal and external environment, as well as networking of the organisation with the environment, can be interpreted as dynamic components of information gathering. In turn, learning processes influence adaptation of the organisation to changes in the business environment in terms of the entrepreneurial future and shaping of the organisation. Learning in this context can also be described as an important development task for actors, groups and organisations (Decker 1995:364-416).

Systematic consideration of the dynamic and complex business environment is conducive for the individual ability of the actors to create new ideas and connections between ideas. Active entrepreneurial information gathering allows idea creation to be supported by the learning process. This particularly applies for teams as well. Through interaction between several actors, ideas can be created in interplay and by overlapping of various association templates and these ideas can only come from mutual awareness (Vester 2005:108-119).

Changes in the business environment require an immediate total change in the organisation. As part of this, actors as a group have to learn new ways of thinking and develop new mental models together. Individual and collective ability to gather and process information is a central development task. In an entrepreneurial learning organisation, the duality of the learning process becomes clear. On the one hand, learning can be considered as part of entrepreneurial information gathering and on the other hand, the ability of entrepreneurial information gathering has to be developed as part of the learning process. In turn, continuously learning in the organisation can be considered as part of the development of the knowledge-based organisation (Tajeddini 2009). Here, Decker distinguishes adaptive learning for overcoming risks and creative learning for creating new things (Decker 1995:371-375,400-416)\(^{273}\).

\(^{273}\) Decker establishes that it is important within change processes to recognise and question one’s own conduct and reflect on new experiences. For organisation development see e.g. Rothwell and Sullivan (2005).
Raelin (2008:63-81) calls for continuous career learning so that this can be used in the whole organisation to help make changes in the environment. Organisations can learn from entrepreneurial activities and develop learning fields and experiments. Continuous reflection on the effectiveness of entrepreneurial activities in the business environment and integration and feedback of this information into the common mental model makes it possible to achieve control of entrepreneurial decisions to ensure the viability of the organisation in the environment.

On each of the individual and collective levels, Raelin defines learning types that can be brought together in the specific context of the entrepreneurial organisation. On the level of individual learning, he distinguishes complementary learning types (Raelin 2008:70-76) which can be used in an integrated fashion for entrepreneurial information gathering via learning processes. Thus, theoretical knowledge for example, can easily be used for the resolution on new, previously unknown problems. Experiments could anchor theoretical knowledge. Know-how could, for example, support intuitive problem solving. The problem solving process can be made clear by using reflection.

At collective levels (see Raelin 2008:83-123), the findings of the sciences applied could be used as an information base for entrepreneurial activities and theoretical concepts of various actors implemented and reflected upon (action learning). Furthermore, it is possible with time to build learning teams into whole learning organisations that exhibit mutual experience, values and practices (communities of practice). Also, collective discourses can take place and as part of this, one can check, for example, how far what is actually done ties up with the current values and practices in the organisation, which mutual mental models there are and whether the values and practices within the organisation possibly have to be changed (action science)\(^\text{274}\).

\(^{274}\) For organisational learning and action science see e. g. Argyris (1999).
According to Argyris (1999:67-106,149-224), entrepreneurial organisations learn from the entrepreneurial activities of entrepreneurial agents and for new ventures (Hebel 2007) if these activities are judged in relation to the achievement of set targets (single loop learning). Within stable operational businesses, this appears to be effective. In dynamic and complex environments and in new businesses, the basic assumptions or mutual mental models also have to be checked and adjusted on the basis of entrepreneurial information gathered (double loop learning). The controlling variables for entrepreneurial activities can, where necessary, be once again adjusted (see also figure 92).

According to Block and MacMillan (1995:309-324), collection of information about entrepreneurial activities that have been achieved is taking on enormous significance within the framework of information gathering. Analysis and documentation of success and failure of entrepreneurial activities help to shape future entrepreneurial activities more successfully. Added to this, a lot of attention is focused on experiential learning when entrepreneurial activities begin so that relevant information can be systematically collected from entrepreneurial experiments.

Block and MacMillan (1995) establish that every company has a unique story and illustrates a highly individual collection of resources and competencies such that an analysis of success factors always has to be company-specific. Learning can then take place on three levels. On the first level, the actor responsible for entrepreneurial activities can draw up a report on possible improvements and what can be learned. On the second level, experiences should be exchanged in meetings with senior management.

![Figure 92: Single-loop and double-loop learning according to Argyris (1999:68)](image-url)
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On the third level, entrepreneurial organisations discuss particularly important entrepreneurial activities on the basis of documentation, analyses\(^{275}\) and conclusions\(^{276}\). The organisation can learn from this and also derive recommendations for action in future entrepreneurial projects and promptly document them.

Pedler et al (1997:92-99,143-163) call for a free flow of information within the organisation. The information system and human resources management should support individual and collective learning. By collecting and evaluating information for the discussion of new ideas, learning processes would be stimulated and a learning culture developed. Within this, constructive conflicts and differing views within the organisation are said to be an important source of learning. Entrepreneurial organisations would be able to learn with as well as from other organisations.

According to Checkland (2008:A9-A44), entrepreneurial information gathering in total can be organised as a learning system and in the process, the interaction relationship between the organisation and the environment are placed in the centre stage. He shifts the focus from a systems view of the world to the systems-based design of the information gathering process. Observation of the complex business environment can be conceived as a learning system in order to identify purposeful activities and to be able to reflect existing learning experience in entrepreneurial ideas. By way of permanent learning cycles, entrepreneurial activities can lead to the improvement of the situation of the organisation and to adaptation to changes in the external business environment.

\(^{275}\) Documentation of business ideas should contain the following points: Information about the start, checking concepts, market research, product development, development of business plans, authorisation of activities, organisation of activities and basic assumptions about the market, the macro environment, the competition, internal cooperation, product costs and sales process, technology, break-even point, ROI, regulations and distribution.

\(^{276}\) Within this there is an analysis of what done properly and incorrectly (single-loop learning) and why (double-loop learning). As areas to examine, Block and MacMillan (1995) name market, product, production, development, human resources, company resources and economic efficiency.
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4.1.5 Conclusion: Notes on entrepreneurial information gathering

To achieve the company’s success in a sustainable way, the company has to lay down the distribution of tasks within the organisation in relation to the maturation of entrepreneurial activities and treat the succession of task agents in the intrapreneurship system as a strategic task. Here, a key task of entrepreneurial knowledge management in a company results and this is the shaping of knowledge transfer within the entrepreneurial organisation. Task managers can, for example, pass on their strategic experiential knowledge by coaching the discharger of the task. Depending on the design of the individual intrapreneurship system, however, different transfer concepts must be developed. Thus, in a knowledge and experience-based economy in an entrepreneurial learning organisation, it is possible to secure values and to create the basis for future values \(^{277}\).

Entrepreneurial information gathering observes (signals for) change in the business environment and identifies opportunities and risks in the present and future \(^{278}\). To take account of future developments, entrepreneurial organisations have to identify and evaluate relevant trends and shape expectations for the future. Common mental models about the environment, the organisation and interaction between the organisation and the environment guide information gathering and are adjusted collectively on the basis of identified changes in the business environment and the assessment of the effectiveness of entrepreneurial activities. In this way, assumptions about the business environment are laid open.

Entrepreneurial information gathering is thus a joint task, leads to a holistic understanding of the business environment and helps an organisation to become more intrapreneurial (Antoncic 2007). Centralised and decentralised activities of information gathering and the mutual distribution of information help to develop a common knowledge base, to quickly uncover opportunities and risks and develop options for the future.

\(^{277}\) Leitl (2009) calls for the deployment of a new type of personnel manager to act as an entrepreneurial business partner of the company management. By recruitment (see for example Nohria 2009) and personnel development (see for example Cohn et al 2009) creative talent can be developed and supported by mentoring and networking for an increase in competitiveness.

\(^{278}\) Gilbert and Eyring (2010) recommend active risk management for entrepreneurial activities with the help of experiments and tests.
In this way, external sources and actors can also be involved and new information technologies for mass cooperation and information gathering can be used. Global trends are important sources for entrepreneurial information gathering and can define potential opportunities and risks. Individual and collective learning processes can be described as dynamic components of entrepreneurial information gathering. Learning from entrepreneurial activities and changes in the business environment also lead to adjustments of common mental models and increases in the adaptability of organisations.

The common knowledge base can be used to resolve unknown problems. The development of the knowledge base is done via an exchange of reports, an exchange of mutual personal experiences and collective discussion and formulation of recommendations for action in order to realise entrepreneurial activities. Entrepreneurial decisions about the future can be taken on the basis of entrepreneurial information gathering and scenarios developed on the basis of uncertain futures. Against this background, the following chapter contains an analysis how the future can be entrepreneurially shaped.

**Definition: Entrepreneurial information gathering**

Entrepreneurial information gathering enables the systematic observation of the current situation, the future development pattern and trends in the business environment together with the identification of (future) opportunities and risks so that real entrepreneurial strategies, decisions and activities can be determined. The development of scenarios and expectations for the future, common mental models, individual and collective learning are dynamic components of entrepreneurial information gathering.
4.2 Entrepreneurial shaping of the future

This chapter presents key entrepreneurial competencies, three entrepreneurial innovation areas, ten systems theory principles for interaction of the entrepreneurial organisation with the business environment, entrepreneurial decisions, the entrepreneurial and managerial mindset in the entrepreneurial organisation and a definition of entrepreneurial shaping of the future. In terms of entrepreneurial shaping of the future, entrepreneurial organisations can derive seven key entrepreneurial competencies from the literature (see chapter 3.1) in relation to the role of intrapreneurship (see also table 8):

1. Making decentralised and centralised entrepreneurial decisions in existing and new businesses on the basis of entrepreneurial information gathering;
2. Rapid action and reaction in order to shape opportunities and change in a focused way, as well as mastering risks and crises;
3. Rapid learning and developing resources, core competencies and competitive advantage;
4. Using cooperative intelligence;
5. Holistic thinking and action;
6. Pursuing a long-term orientation;
7. Using cultural differences.

In addition to these seven entrepreneurial competencies, it is also possible to identify three entrepreneurial innovation areas\textsuperscript{279} for shaping the future:

1. Market innovations for renewal and adaptation (new or improved products\textsuperscript{280}, new markets, use of new technologies and progress in science for product development and market development);
2. Innovations in the areas of operational processes for optimisation and adaptation (implementation of new technologies);

\textsuperscript{279} Hartschen (2009:9-11) distinguishes here between radical, improvement and routine innovations bearing in mind the degree of innovativeness. According to Duin (2006b:177) it is necessary to see the dynamics and time-horizons in four connected worlds (science, technology, products, markets). Duin et al (2006) present an evolutionary perspective on innovation, link changes in scientific insights, technological capabilities, product design, and market demand to describe dynamic innovation processes within networks.

\textsuperscript{280} According to Berkhout et al (2007) a smart business development strategy focuses on a balanced mix of Life Cycle Management (improving existing products and services) and Innovation Management (designing new products and services).
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The shaping of interactions between the organisation and the environment is a central point of entrepreneurial shaping of the future. In addition, ten systems theory principles will be presented in this unit (chapter 4.2.1) which formulate central aspects of interaction for proactive, reactive and future oriented adaptations of the organisation to changes (chapter 4.2.2), and which determine the key entrepreneurial decisions about the future in a global economy (chapter 4.2.3).

<table>
<thead>
<tr>
<th>Entrepreneurial shaping of the future</th>
<th>Adaptation of the organisation to changes in the business environment through proactive information processing (Kanter 1983,1989, Kuhn 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social responsibility as prerequisite for the viability of the organisation (Schwab 1976)</td>
<td>Strategic renewal (Guth and Ginsberg 1990, Hamel 2008)</td>
</tr>
<tr>
<td>Realisation of many small entrepreneurial activities (product, market, technology) and entrepreneurial (proactive, innovative, risk-taking) behaviour on all levels of an organisation (in autonomous units) to secure the viability of an organisation via an aggressive competitive orientation and the use, renewal and generation of competitive advantages (Peters and Waterman 1982, Covin and Slevin 1991, Block and MacMillan 1995, Lumpkin and Dess 1996, Morris and Kurratko 2002, Sathe 2003, Hitt et al 2005)</td>
<td>Rapid learning from success and failure of entrepreneurial activities – also for existing business as well as rapid implementation of entrepreneurial opportunities and reaction to risks and crises (Sathe 2003, Weick and Sutcliffe 2007, Kotter 2009)</td>
</tr>
<tr>
<td>Adaptation and resilience as a community task and result of cooperative intelligence (Joyce 2008)</td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Entrepreneurial shaping of the future as a task of the entrepreneurial organisation
4. Analysis of the three central tasks of an entrepreneurial organisation

4.2.1 Organisation, environment and shaping of the future

If one considers the literature concerning the shaping of interactions between the organisation and the environment in chapter 3.3, the latter is defined as being a central entrepreneurial task on several system levels. In terms of systems theories, the world is considered to be a whole with several systems levels on which an emphasis is placed upon communication and information for interaction between the organisation and the environment (Bertalanffy 1968). Changes in the environment require flexibility within the organisation (Katz and Kahn 1966).

Thus, entrepreneurial organisations do not only have to consider the dynamic in the environment, but also the increasing networking within the organisation and the environment (Emery and Trist 1965). Integration of the organisation as a whole and overall control in steady state equilibrium with the environment is then a task for company management, whilst local autonomous units are responsible for existing operational transactions (Beer 1979). Organisations grow for as long as they successfully achieve the necessary internal adjustments to changes in the environment and markets exhibit appropriate demand (Miller 1995).

Entrepreneurial organisations can achieve adaptations to changes in the environment that are based on their own values in an interplay between temporary stable structures and changes of structures for self-renewal; this can be done via learning and creativity from the organisation on the basis of a strong identity (Wheatley 1999).

The more complex the business environment is, the more successful is structural leadership via structures and self-organisation in the decentralised units (Ulrich and Probst 1991). These self-organisational processes in decentralised units must be complemented by centralised organisation so that important synergies and internal cooperation between the individual sub-systems of an organisation can be achieved (Bleicher 2004).
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In the interaction of the organisation and the understructures with the environment, indirect effects, relationship networks and time delays have to be considered, as do levers for systems control (Vester 2005). Entrepreneurial decisions are to be taken, if possible, where the necessary information is to be found, i.e. by decentralised self-organised entrepreneurial teams within constant structures (holographic organisation design) which are controlled, in turn, by visions, values and norms, and common mental models. Duplication and free capacities create freedom for entrepreneurial activities (Morgan 1998). Ten systems theory principles for interaction of the viable entrepreneurial organisation with the environment can be derived from the systems theories analysed (see chapter 3.3) through qualitative interpretation (Voss 2010:20):

1. Consideration of the world as a whole with sub-systems: the organisation interacts with the business environment above it (resources, goods and services, information). The organisation is defined by its own sub-systems and can shape the relationship with the environment by conscious entrepreneurial decisions.

2. Changes in the business environment demand flexibility (structures and incentive systems) and adaptation (opportunities and risks) within the organisation. For this, it is important to develop an idea about future environmental conditions.

3. Networking within the external environment, the organisation and between the organisation and the external environment must be taken into account in entrepreneurial decision-making. Levers for entrepreneurial activities have to be recognised and existing skills utilised.

4. Top management pursues the integration of the organisation as a whole and overall control in steady state with the environment. Local autonomous units are responsible in particular for existing operational business.

5. Organisations can grow in a demand-oriented way commensurate with the market situation if they create the necessary internal adjustments (metamorphoses) within the various sub-systems in response to changes in the environment. The company system must not be dependent on growth.

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281 With this, a longer term orientation and target-setting in the entrepreneurial organisation to secure viability is a key element.

282 The potential for growth results from existing customer demand and the company’s own competitiveness as against competitors.
(6) Creativity, innovation and learning from the organisation enable the necessary adjustments to changes in the business environment. As part of this, temporary stable structures alternate with structures in a state of change\textsuperscript{283}.

(7) Complex and dynamic environments require more decentralised self-organising entrepreneurial units (as stable environments).

(8) Central organisation complements decentralised structures and activities to achieve synergies and cooperation between the sub-systems and integration into a whole. Product, functions and structures are used several times.

(9) Interaction between the organisation and the environment arises on various system levels and must take time delays, indirect effects and relationship networks into account. The overall behaviour of the system is a result of all the reactions.

(10) Duplication with constant self-organising (recursive or holographic) structures and free capacities make it possible to deal with dynamic complexity and entrepreneurial activities which are controlled by the vision, values and norms, and common mental models.

Central standards for entrepreneurial shaping of the future can be derived from systems theory principles. The changes in the business environment identified by entrepreneurial information gathering must be analysed from a holistic perspective (see e.g. Wright 1989, Haines 1998, O’Connor and McDermott 2006) in order to be able to derive entrepreneurial strategies, decisions and activities for optimisation and renewal in existing and new business. The central (planned) and decentralised (emerging) strategies, decisions and activities in all functional areas\textsuperscript{284} must consider uncertain future developments in the business environment. In particular, discontinuities (Drucker 1978, Foster 2006) and disruptive innovation (Christensen 1997, Drew 2006) bring opportunities and risks. Therefore, it is necessary to develop some ideas about scenarios (see e.g. Fahey and Randall 1998a, Graf 1999, Fink et al 2001) of possible future environment situations and to use scenarios in innovation processes (Duin 2006a).

\textsuperscript{283} Conservation and perfection can be important factors in one business division, whilst at the same time in another product division there is a necessity for change. Order and freedom enable ordered organisation where there is local instability.

\textsuperscript{284} Slack et al (1995:8-11) cite typical functions alongside production as being product development, marketing, purchasing, personnel management, technical operations and accountancy and finance.
The development of proactive and reactive adaptations require creativity and innovation\textsuperscript{285}. For the implementation of entrepreneurial adaptation, it is necessary to stimulate and realize internal flexibility\textsuperscript{286} and in the context of entrepreneurial shaping of the organisation – particularly when shaping the entrepreneurial strategy, structure, culture, resources and competencies. The entrepreneurial shaping of the future is thus the future-oriented tie between entrepreneurial information gathering and entrepreneurial organisation design and determines the interaction between the organisation and the environment.

4.2.2 Reactive, proactive and future-oriented adaptations

Changes in the business environment, particularly in the technology and competition segments, make it necessary to have rapid implementation of entrepreneurial activities based on ideas about the future (Makridakis 2004). Entrepreneurial shaping of the future connects the past and the present with the future. Possible effects, opportunities and risks can be seen and adaptations can be planned with pictures and mental models of the future. Entrepreneurial actors and entrepreneurial organisations attempt to recognise development models in non-foreseeable and uncertain changes in the business environment before they become a recognisable trend (Tsoukas and Shepherd 2004). They have to develop a knowledge base so that they can better detect and process relevant future events and scenarios and design possible reactive adjustments to conceivable discontinuous events in the business environment (Ansoff 2007:155)\textsuperscript{287}. Ansoff (2007:29-43) describes, from a historical perspective, four central trends in the business environment:

- Changes in the (general) business environment increasingly have an unknown character;
- Within sectors, strategic intensity is increasing which means that for successful marketing of existing products and for successful product/market/technology/innovations, more money must be spent;
- Changes in the business environment are following with greater rapidity;
- The complexity of the business environment is growing.

\textsuperscript{285} For promoting creativity and innovation see for example De Bono (1989, 1995), Aerssen (2009).
\textsuperscript{286} For flexibility in the company see for example Kaluza and Blecker (2005).
\textsuperscript{287} Ansoff (2007) ascertains that reactive adjustments in turbulent environments delay events.
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These central trends\(^{288}\) have the effect that the environment in which entrepreneurial organisations move is tending to become more turbulent. Thus, the events in the business environment and the effects of companies’ own activities and those of competitors could become all the more difficult to predict. Ansoff establishes that the differing intensities of environmental turbulence require differing reactions and differing internal structures and cultures in the organisations in order to achieve successful adaptation of the organisation to its environment. He distinguishes change-resistant cultures and cultures that are open to change. Whilst organisations with a change-resistant orientation only react to changes in a turbulent environment, once effects in the company performance become visible, entrepreneurial organisations with cultures open to change attempt to achieve proactive adjustments even before the actual event in the business environment (Ansoff 2007:183-196)\(^{289}\). Which orientations lead to better performance depends on the turbulence of the environment in question.

Entrepreneurial organisations therefore have a performance drive and an entrepreneurial drive. Whether a stronger performance drive or a stronger entrepreneurial drive is more suitable for entrepreneurial success is dependent upon the turbulence of the environment. Whilst the current cultural orientation links adaptation in a particular situation and at a particular point in time, changes in the business environment may require additional strategic postponements (Ansoff 2007:193).

Changes in the strategic interaction of the organisation with the environment lead then to adjustments in the internal configuration, whereby Ansoff sees the adaptation of production and the internal transformation processes implicitly depicted by their influence on the strategic behaviour of the organisation (Ansoff 2007:12). Even when internal adjustments could also take place through internal shifts of power, Ansoff believes that external events are mostly responsible.

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\(^{288}\) Ansoff (2007:183) distinguishes individual discontinuities from cumulative events, which he describes as trends.  
\(^{289}\) Ansoff (2007) distinguishes organisations with change-friendly cultures in organisations with an anticipatory orientation, which seek ways forward on the basis of past experience or in organisations with a more creative orientation, which also take unknown paths.
Chandler (1962) already describes the logic of networking between the business environment, strategic behaviour and internal (decentralised) structure against the background of the historical development of organisation design. With regard to the internal cooperation of the entrepreneurial and operational activities, he defines the efficient performance of present business (operations) and involvement with future business to secure the long-term viability of the organisation as central entrepreneurial design tasks.

Important entrepreneurial activities, then, are the allocation and reallocation of resources. Changes in the business environment bring new opportunities and risks, which can be worked on with current and new resources and information and communication channels. If a changed strategy is to be implemented, the focus must not be too much on the securing of operational efficiency and preservation of existing structures. In addition, consideration of necessary internal structure adaptations so that external opportunities can be realised in the course of the various life-cycles of the organisation must be sharpened; it is also important to achieve effective coordination of the individual business areas. According to Chandler (1962:9-14), senior management have to define strategies and plans as part of their entrepreneurial design of the future and share resources amongst autonomous business areas which in turn, exist as functional business areas and are made up of sub-systems.

As well as adapting reactively to changes in the business environment, entrepreneurial organisations also realise proactive entrepreneurial activities (Morgan 1992). A proactive orientation requires that consideration is given to the current and future development of the business environment so as to achieve a future-orientated positioning of the organisation by realising entrepreneurial opportunities. The business environment is actively examined for entrepreneurial opportunities with an outside-in perspective and at a certain distance from current business.

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See Chandler (1962:17,385-396) identifying four phases: (1) Expansion and accumulation of resources; (2) Efficient use of resources and closer coordination of production and sales; (3) Expansion into new (international) markets to stabilise the efficient use of resources and development of new products; (4) Development of a new (decentralised) structure for efficient use of accumulated resources to take account of short-term market changes and, at the same time, use long-term market trends (for new entrepreneurial activities).
These opportunities can exist in new or existing business. Indeed, problems can also be the starting point for new opportunities. A company’s own strengths and weaknesses can be considered from the perspective of customers and competitors, and emerging technologies and other developments in the general business environment can be used to help reflect upon entrepreneurial activities. From such considerations, it is possible to derive which future competencies should be developed and which resources should be acquired in order to pursue future entrepreneurial strategies. As part of this, creativity and discipline have to be used in tandem to find entrepreneurial ideas and then implement them systematically (Morgan 1992:36).

For the entrepreneurial look into the future, Narayanan and Fahey (2004), present two options; the creative mode and the navigational mode. In the belief that one’s own future can be proactively shaped, entrepreneurial organisations in creative mode draft common mental models in order to be able to plan entrepreneurial opportunities deliberately in dynamic environments. For this, they generate systematic knowledge so that they can use future opportunities strategically. In navigational modus, entrepreneurial organisations learn quickly and adjust themselves with lots of small innovations to an emerging future in more stable environments. They use available knowledge and develop existing mental models further. Entrepreneurial organisations could, depending on the (perceived) situation, use alternative approaches.

Entrepreneurial organisations must also identify possible risks in the business environment and develop strategies for dealing with risks. The effects of possible disruptions on the entrepreneurial organisation and its task environment are to be minimised and the ability to recover after disruptions strengthened. In so doing, risks that probably appear less but would have a strong negative effect should be focused upon in particular (Sheffi 2007). It is indeed the supply chain of a global organisation that is prone to disruptions. Entrepreneurial organisations and their cooperation partners take account of flexibility in their dealings with change and cases of disruption with a robust supply chain, cooperative relationships and resilient company cultures.
By learning from disruptions, mistakes and accidents, it is possible to improve the handling of such events and to define the necessary flexibility and duplication within the entrepreneurial organisation. Reporting systems must be introduced and one has to evaluate signals detected in the process of shaping the future (Sheffi 2007:269-285).291

In order to identify future-oriented proactive and reactive adaptations in the process of shaping the future, it is necessary to look at alternative futures. Scenarios make it possible to consider and check entrepreneurial strategies (Fahey and Randall 1998c:22-38), decisions and activities in response to various business environment developments (Fahey and Randall 1998b:3-21). The findings of entrepreneurial information gathering and foreseeable trends and prognoses (Graf 1999), assisted by additional, logical assumptions and projections about the future, enable us to formulate plausible and alternative stories about the future. Thereby, it is possible, for example, to develop scenarios in respect of all segments of the macro and micro environment (Fahey 1998a:189-222, Fahey 1998b:223-245, Behravesh 1998, Graf 2000) so that opportunities and risks can be uncovered and tested systematically. Through common discussion of possible futures, how and why these can arise, common mental models of the future develop within the entrepreneurial organisation. Use of scenarios can help to recognise significant lines of development at an early stage and promote the activity of thinking in scenarios (Fink et al 2001).292 With scenarios, it is possible to scrutinise and reassess decisions – for example, which activities should be undertaken in which global operation fields (Fahey and Randall 1998b:12-14).

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291 Sheffi (2007) suggests the introduction of a chief risk management officer. This person can act as an agent of entrepreneurial shaping of the future and, within the activity of entrepreneurial information gathering analyse possible disruptions and their effects (also beyond organisation boundaries) and as part of entrepreneurial organisation design, improve the ability of the organisation to recover continuously as quickly as possible after disruptions (via learning processes) and also minimise the probability of disruptions by way of flexibility (in production processes) and duplication (with resources). In this way, it is also possible to check if an entrepreneurial opportunity can be made of a disruption.

292 Fink et al (2001) define four processes for strategic early recognition in entrepreneurial information gathering: (1) Perception of weak signals; (2) Cecking the relevance of weak signals for the organisation; (3) Observation of critical factors over time; (4) Forecast. In the process of entrepreneurial shaping of the future, scenarios help with planning of an entrepreneurial strategy and entrepreneurial decisions or activities.
4. Analysis of the three central tasks of an entrepreneurial organisation

4.2.3 Entrepreneurial decisions in a global economy

It is clear from the literature study on the business environment that as part of the entrepreneurial shaping of the future, the cultural context also has to be taken into account. The identification of opportunities and risks requires the organisation to have a strong outward orientation whilst the implementation of entrepreneurial activities is supported by a strong inward orientation. National cultures often strengthen one or the other fundamental orientation. If the cultural context supports a strong outward orientation so that entrepreneurial opportunities can be more easily identified, then where necessary, it is important firstly to develop or at least strengthen a strong entrepreneurial culture within the organisation. If the cultural context favours a strong inward entrepreneurial orientation within the organisation, systematic analysis of the external business environment must, where necessary, be learned or at least strengthened.

The cultural context therefore determines whether there should be a stronger focus on entrepreneurial information gathering or entrepreneurial organisation design to achieve overall a holistic entrepreneurial orientation within the organisation in the wake of entrepreneurial shaping of the future. This holistic approach of the three central tasks of an entrepreneurial organisation also offers an orientation framework for the design of an entrepreneurial organisation within differing basic cultural orientations. Against this background, the complementary relationship between national cultures and the organisation culture becomes clear.

Entrepreneurial decisions tend to be taken with an adaptive vision and a proactive vision (Garcia-Morales et al 2006) in functional areas in particular (see figure 93):

1. Where are external inputs to be bought in and how and where should they be implemented?
2. Which internal inputs are to be implemented and how and where?

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293 See chapter 3.2.1.3  
294 The determination of the central entrepreneurial questions for shaping the future are oriented towards the basic economic questions of an economy: what (how many, which new products), should be produced and how (which technologies) and for whom (see for example Forgang and Einolf 2007:17-19).
(3) What should be developed and produced, which products and services for which markets?

(4) What is to be developed and produced and how, which transformation processes are to be designed and implemented and how?

(5) How should support functions such as accountancy and finance be designed and where, what should be sold and how?

The design of exchange relationships between the organisation and the environment concerning entrepreneurial decisions is the central aspect of entrepreneurial shaping of the future and requires close networking with entrepreneurial information gathering and entrepreneurial organisation design in the process of realising entrepreneurial activities. This requires a holistic approach and an intellectual interplay between completeness and incompleteness for the identification and processing of opportunities from the business environment.

Holistic consideration of interactions and relationships in the overall system (external macro environment), between the business and the business environment (particularly with the external micro environment), as well as within the business (internal environment) occurs through an exchange between various levels of abstraction. In this way, it is possible to see wider contexts and add them to the total picture.

Figure 93: Entrepreneurial decisions and entrepreneurial shaping of the future for adaptation, efficiency and innovation
4. Analysis of the three central tasks of an entrepreneurial organisation

From a cybernetics viewpoint (Friedrich et al 2010), the organisation has to concentrate its energies at every level on the basic activities and key locations in order to be able to plan and implement a future-oriented strategy that ties in with the development of the company.

According to Mewes (2007b:8-13,2008:8-11) and Friedrich et al (2010:59-215), integration of the entrepreneurial organisation into the networked environment is at the centre of entrepreneurial shaping of the future. Focusing strategically on maximising utility of the selected target groups in the business environment makes it possible to achieve effective, indirect profit maximisation, which is said to be more important than a direct profit maximisation strategy. He defines seven steps that can be used to focus entrepreneurial shaping of the future in such a way that the entrepreneurial organisation can achieve optimal adjustment and development via concentration and specialisation in harmony with the business environment.

As a first step, the entrepreneurial organisation has to analyse its own individual peculiarities, features and strengths. As a second step, there comes the search for markets that can be developed for implementing good entrepreneurial ideas. Next comes the selection of actual target groups that can be developed for the new products and services (third step). As part of the fourth step, the most burning questions of the target group have to be discovered so that a better innovative solution can be found more quickly than the competitors. Resources and competencies that are lacking should be developed, bought in or integrated through cooperations (sixth step) and there should be a pursuit of long-term achievement of success by orientation of specialisation strategies towards long-term basic needs (seventh step). With this, Mewes basically turns Adam Smith’s (1982) invisible hand principle on its head: it is not the self-serving actors that provide a result that is good for society, but rather the organisation’s orientation towards environmental benefits that brings long-term viability via indirect profit maximisation.

295 This concept goes back to Mewes and is today still described as bottle-neck concentrated strategy (see Mewes 2007a:8-12 and Friedrich et al 2010). By specialising and concentrating on core activities as well as targeting the most effective point (removal of internal and external bottle-necks) a chain reaction can lead to resolution of the core problems of an organisation and bring about fast adaptations and innovations.
4. Analysis of the three central tasks of an entrepreneurial organisation

The seven steps can be used as a method for a synergetic design of the interaction between the organisation and the environment and also for strategic control of resources. The removal of the largest and most urgent internal and external bottlenecks and placing an emphasis on intangible resources for finding ideas, problem solving and innovation enable a tangible development of the entrepreneurial organisation (Mewes 2007c:9-13, Friedrich et al 2010:19-49).

An internal company business plan (Paxmann and Fuchs 2010) can be put in place as a further method for the systematic design of an entrepreneurial shaping of the future. The internal business plan records the opportunities and risks in a feasibility study, structures the planning process for the achievement of potential entrepreneurial activities and makes it possible to make well-founded entrepreneurial decisions. The drawing up of planning documentation as a basis for decisions enables a holistic approach to a business idea or learning process and forms the basis for implementation entrepreneurial activities.

4.2.4 Conclusion: Notes on entrepreneurial shaping of the future

Entrepreneurial shaping of the future requires entrepreneurial competencies in the organisation in order to achieve success in the sales, market and strategic innovation fields. Entrepreneurial organisations combine a managerial mindset with an entrepreneurial mindset297 (see table 9). At the centre of entrepreneurial shaping of the future is the design of the interaction between the organisation and the environment on the basis of entrepreneurial information gathering and core competencies and resources. Consideration of systems theory principles enables reactive, proactive and future-oriented adjustments to changes in the environment for the achievement of viability through indirect profit maximisation.

296 According to Friedrich et al (2010:36-39) the most important intangible values are (1) tensions between the actual vs target position as the driving force, (2) learning for the actors and the organisation from specialisation and for further development of the system and also (3) possession of target groups as the best problem solver in the special area.

297 This follows from the holistic perspective and research in this examination. According to Gartner (2001) entrepreneurship scholars held different beliefs about the nature of entrepreneurship. However, the presented holistic view distinguishes the managerial and entrepreneurial mindset from a theoretical perspective. In practice both mindsets should be used in an integrated way and at all levels of the company system. The balance of both perspectives and the entrepreneurial intensity (Morris et al 2008:89-72) to secure vitality depends on the character of the business environment.
Consideration of the cultural context enables a holistic design of the three central tasks of an entrepreneurial organisation and defines necessary learning fields and cultural adjustments in order to bring about opportunistic strengthening of entrepreneurial information gathering or entrepreneurial organisation design\(^{298}\). Fundamental centralised and decentralised entrepreneurial decisions in existing and new businesses are taken within the context of shaping the future in an entrepreneurial way. These decisions can steer strategic focus onto the benefit of the organisation for the environment and lead to an evolutionary development by the networking of synergies with the environment. With an entrepreneurial business plan it is possible to draw up, document and discuss feasibility studies in the context of entrepreneurial shaping of the future and at the same time, strengthen an entrepreneurial focus concerning learning processes and cultural development. Central and decentralised entrepreneurial decisions then link the entrepreneurial design of the organisation (Blenko 2010).

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline
\textbf{Orientation} & \textbf{Managerial mindset} & \textbf{Entrepreneurial mindset} \\
\hline
Performance drive & Entrepreneurial drive & \\
Navigating modus & Creative modus & \\
Reactive adaptation & Proactive adaptation & \\
Strategic thinking from “small picture” & Entrepreneurial thinking from “big picture” & \\
Task and controlling & Opportunity and vision & \\
Efficiency and improvements & Innovation and change & \\
Planned managerial strategy & Emergent entrepreneurial strategy & \\
Established business & New business & \\
\hline
\end{tabular}
\caption{Table 9: Entrepreneurial and managerial mindset, and dual perspective in the entrepreneurial organisation}
\end{table}

\textbf{Definition: Entrepreneurial shaping of the future}

Entrepreneurial shaping of the future means taking reactive, proactive and future-oriented entrepreneurial decisions centrally and decentrally in order to achieve the best possible use of resources and competencies during the interaction of the organisation with the global environment for the strengthening of viability. In this process, trends, scenarios and environmental characteristics, in particular the competitive situation, must be taken into account in order to be able to find and implement entrepreneurial ideas in new and existing business in the areas of products, market and technology.

\(^{298}\) See also Chowdury (2000), who sees adjustments in particular in the company structure, in the design of processes and in the management style. Managers must search for and implement the entrepreneurial dream, conquer global markets whilst adapting to local demands and pursue permanent innovations and creative processes.
4.3 Entrepreneurial shaping of the organisation

The main objective of chapter 4.3 is to describe the levers and internal action fields for entrepreneurial shaping of the organisation design. It focuses on a dual orientation and integration fields for the creation of cooperation and synergies. It also presents a definition of entrepreneurial shaping of the organisation. For entrepreneurial shaping of the organisation, four central levers (see figure 94) can be derived from the literature study (see also table 10) on the role of intrapreneurship in chapter 3.1 which can be used to secure viability of the entrepreneurial organisation. With a holistic and consistent design of strategy, structure, culture and resources and competencies, the entrepreneurial activities set out in the entrepreneurial shaping of the future can be steered into proactive, reactive and future-oriented adaptations to changes in the business environment.

The entrepreneurial strategy provides for the direction of the organisation and serves as a linking between entrepreneurial organisational design and the entrepreneurial shaping of the future. Central fields of action of entrepreneurial strategy are market, operational and strategic innovations. The entrepreneurial strategy must be designed taking into account current and future company resources and competencies. For adjustment of organisational competence and for competency needs analysis see inter alia Thurnes (2003).

Figure 94: Four central levers for entrepreneurial organisation design

299 For adjustment of organisational competence and for competency needs analysis see inter alia Thurnes (2003).
4. Analysis of the three central tasks of an entrepreneurial organisation

<table>
<thead>
<tr>
<th>Entrepreneurial organisation design</th>
<th>Managers design collective learning processes and entrepreneurial experiments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation by dynamic entrepreneurs (Schumpeter 1950)</td>
<td>Design of structures, systems, culture for promotion of entrepreneurial behaviour (Covin and Slevin 1991)</td>
</tr>
<tr>
<td>Use of internal resources and knowledge and coordination and adjustment of internal activities – synergy effects between and within organisational units (Abell 1993, Penrose 1995)</td>
<td>Transfer of meaningful tasks as a reward for entrepreneurial services and for the development of an entrepreneurial culture (Block and MacMillan 1995)</td>
</tr>
<tr>
<td>Design of incentive structures for skimming off of entrepreneurial profits by management (Kirzner 1973)</td>
<td>Internal markets and networks for the control of decentralised entrepreneurial activities (structural entrepreneurial management) by individual entrepreneurial managers and employees (Abell 1993, Wunderer 2006)</td>
</tr>
<tr>
<td>Employees as intellectual partners (self-monitoring) and development of short and long-term entrepreneurial strategies with a focus on long-term success (Schwab 1976, Maucher 2007)</td>
<td>Harmonisation of the interests of the organisation with the interests of employees (Trompenaars and Hampden-Turner 1998, Kuhn 2000, Trompenaars 2007, Joyce 2008)</td>
</tr>
<tr>
<td>Division of large organisations into small units led by entrepreneurial managers. Use of informal structures in production development and control of activities via communication and conducive incentives. (Peters and Waterman 1982)</td>
<td>Orientation of entrepreneurial managers and employees to the interests of the organisation (Oden 1997)</td>
</tr>
<tr>
<td>Cultural and structural design for promotion of entrepreneurial activities as a team performance. Innovation for new products and product improvements and for efficiency increases and cost decreases. Decentralisation of entrepreneurial responsibility and use of synergies by centralisation. (Kanter 1983, 1989, 1997)</td>
<td>Use of international locations for internal and external entrepreneurial activities for optimal resource allocation and achievement of synergies within the whole global company system as well for operation in local and global markets (Birkinshaw 2000)</td>
</tr>
<tr>
<td>Revitalisation of the organisation by the development of entrepreneurial management and by recruitment of new entrepreneurial employees and achievement of innovation by all employees (Drucker 1985, Brandt 1986, Thornberry 2006)</td>
<td>Stability in the realisation of operational tasks at normal times and in crisis situations (Weick and Sutcliffe 2007)</td>
</tr>
<tr>
<td>Entrepreneurial teams and networks outside of formal structures which bring voluntary innovation and which can build internal capital for future innovation projects from successful entrepreneurial activities (Pinchot 1988)</td>
<td>Synergies from entrepreneurial activities and use of knowledge from other departments for entrepreneurial activities (cooperative intelligence) (Hitt 2005, Joyce 2008)</td>
</tr>
<tr>
<td></td>
<td>Entrepreneurial managers and employees take on various roles and tasks as human capital entrepreneurs in various entrepreneurial teams (Kohlöffel and Rosche 2009)</td>
</tr>
</tbody>
</table>

Table 10: Entrepreneurial organisation design as a task of the entrepreneurial organisation
The structural components of the organisation coordinate the division of labour within the organisation. Decision rights must be allocated and the basic structure, procedures and process architecture established. Formal and informal information, communication, change and innovation processes need to be designed and, at the same time, compensation, integration and performance evaluations and control systems defined. Internal and external cross-boundary needs to be determined. The entrepreneurial company culture specifies a basic entrepreneurial direction, supports the coordination of decentralised entrepreneurial activities and the development of emergent entrepreneurial strategies. Entrepreneurial activities and learning from entrepreneurial experiments contribute to the development and unfolding of an entrepreneurial culture.

The starting point of the following analysis of entrepreneurial organisation design is the consideration of a dual orientation (see chapter 4.3.1.1) and change in the organisation (see chapter 4.3.1.2). On this basis, it is possible to define entrepreneurial strategies from the strategic alternatives bearing in mind current and future resources and competencies (see chapter 4.3.1.3). Afterwards, structural organisation design (see chapter 4.3.2.1), central integration fields with the entrepreneurial organisation (see chapter 4.3.2.2) and entrepreneurial culture (see chapter 4.3.2.3) can be considered bearing in mind the implementation of entrepreneurial strategy. With this, the central levers of entrepreneurial strategy, structure, culture and resources and competencies are examined more closely.

### 4.3.1 Framework conditions, organisation design and change

With the active and emergent development of entrepreneurial strategies, dual orientation (see chapter 4.3.1.1) must be considered and balanced in order to ensure the organisation’s viability. Changes in the environment highlight proactive and reactive entrepreneurial activities which reveal the entrepreneurial strategy (see 4.3.1.3) for designing internal and external change (see chapter 4.3.1.2). The entrepreneurial strategy controls the interaction of the organisation with the environment and thus also defines the necessary framework conditions for adaptation to and design of the organisational architecture. The following chapter 4.3.1 describes aspects of the strategy in the context of organisational architecture.
4. Analysis of the three central tasks of an entrepreneurial organisation

4.3.1.1 Dual orientation and internal action fields

From the literature study (see chapter 3), it is possible to identify five dualities (see figure 95) which need to be combined with a holistic design of the four levers for an entrepreneurial organisation (see figure 94). Entrepreneurial activities must be carried out bearing in mind the achievement of short and long term viability (De Geus 2002, Dess and Lumpkin 2003) and need to contribute to optimisation and renewal (Rüegg-Stürm 2004) in existing business, as well as the realisation of new business\(^{300}\). The operational performance processes must be designed as sturdily and panic-proof as possible and at the same time allow adaptations to changes in the business environment (see Weick and Sutcliffe 2007 together with Sheffi 2007, Slack et al 1995, Kaluza and Blecker 2005).

Decisions are taken centrally and decentrally with a global and local orientation. They should be taken where the necessary information is. Certain decision rights can be standardised, in certain decision situations, however, adaptive or emergent structures must be available and enable ad hoc decisions (see Child 2006 together with Brickley et al 2004). The interests of the actors must be balanced with the interests of the organisation (Argyris 1957)\(^{301}\).

![Figure 95: Dual orientation of the entrepreneurial organisation](image)

\(^{300}\) In this, the dual targets of efficiency and effectiveness are reflected.

\(^{301}\) The perspectives can also be extended to functions and all stakeholders.
4. Analysis of the three central tasks of an entrepreneurial organisation

The following eight elements can be defined from the literature study (see chapter 3) as internal entrepreneurial action fields for organisation design, bearing in mind the four levers and five dualities of an entrepreneurial organisation:

1. Dual strategies for the optimisation and renewal of business;
2. Organisation design for division of labour, cooperation, coordination, resource allocation, achievement of operational stability and flexibility and realisation of innovation and adaptation;
3. Incentive structures for the harmonisation of the individual interests of the actors and the entire organisation as well as short and long-term orientations;
4. Learning structures for individual and collective learning processes, entrepreneurial experiments and for the development of cooperative intelligence;
5. Maintenance and development of an entrepreneurial culture through active cultural development[^302];
6. Human resources management for providing and developing entrepreneurial managers, employees and teams;
7. Management of (tangible and intangible) company resources and provision of budgets from successful ventures for future ventures (Intracapital);
8. Maintenance and development of core competencies as a basis for entrepreneurial activities.

The objective of entrepreneurial organisation design is the implementation of the targets, strategies, decisions and activities laid down in the entrepreneurial shaping of the future, based on entrepreneurial information gathering. At the centre of this are the design of individual components and operations in the organisation and their interplay for the achievement of efficiency, adaptation and innovation in existing and new business, together with exchanges with the environment.

[^302]: From the literature study on the interaction between the organisation and the environment (see chapter 3.3), it is possible to derive from a systems theory view several cultural elements of an entrepreneurial organisation within the company culture. The following cultural areas can be defined: information and communication (Bertalanffy 1968, Morgan 1998), cooperation (Bleicher 2004) and use of diversity and intercultural cooperation (Vester 2005, Morgan 1998 and also from the literature study on the business environment in chapter 3.2, Dülfer 1997), innovation and learning (Wheatley 1999, Miller 1995, Ulrich and Probst 1991) and identification and motivation (Wheatley 1999).
4. Analysis of the three central tasks of an entrepreneurial organisation

In what follows, firstly some contexts and targets of organisation design are shown and an organisation framework is presented which outlines the networking and the dynamic interplay of individual organisational components into a holistic organisational system (Chapter 4.3.1.2). In this process, the interplay of organisational technical, political-strategic and cultural aspects of entrepreneurial organisation design will have to be very clearly taken into account. Against this background, the following section will firstly set out some static and dynamic aspects of entrepreneurial strategy bearing in mind the available and future resources and competencies (see Chapter 4.3.1.3). Subsequently, entrepreneurial structure (Chapter 4.3.2.1), integration fields (Chapter 4.3.2.2) and culture design (Chapter 4.3.2.3) is outlined. In this way, it is possible to specify holistic and dynamically determined central levers of entrepreneurial organisation design which take into account changes in the business environment.

4.3.1.2 Shaping the organisation and strategic change

Entrepreneurial organisational design must take into account the internal and external interdependencies. The relations between the components of the organisation and exchange relations between the organisation and the environment must be holistically shaped in order to be able to achieve efficiency, adaptation and innovation of the entrepreneurial organisation in dynamic environments and in existing and new businesses. Schein describes organisational efficiency as the ability of the organisational system to survive, adapt, maintain itself and to grow. In this process, the environmental situations that are relevant for the functioning of the organisation must be correctly interpreted, the organisational targets defined, communicated, be understood and accepted by the members of the organisation.

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303 For the implementation of systematic strategy development see for example Nagel (2007).
304 Schein (1980:156) gives a cycle with six individual steps from adaptation to discussion for the protection of efficiency: (1) Achievement of changes in the business environment; (2) Obtention of information for change and forwarding to the relative operational unit; (3) Creative change of the transformation process in accordance with environmental information (with understanding of the actors with the organisational goals, acceptance of change and commitment to the system as a whole and good communication and a trusting culture); (4) Stabilisation of internal changes; (5) Export of new products or services in the business environment which are more appropriate to the environmental changes than what was previously on offer; (6) Receipt of internal and external feedback about the success of the changes by further examination of the external environment and further integration within the organisation.
305 For an integrated management model to manage constant change in technology and engineering effectively see Winzker and Pretorius (2009).
4. Analysis of the three central tasks of an entrepreneurial organisation

Problems from the business environment have to be solved creatively and adjustments to the changing framework conditions achieved in a committed fashion. The aims of the actors, partial units and the organisation should not overlap or contradict each other in this process. The response to changes in the environment should be to modify operations and internal operations and activities should be designed sufficiently flexibly. The efficient conversion of factors of production into marketable goods and services while taking into account changes in the business environment is the core function of an organisation (Naylor 1996). Efficiency in the transformation process requires the design of new processes as well as continuous evaluation and improvement of existing production processes in order to increase input and output efficiency taking into account market signals (Heizer and Render 1999:16-21, Slack et al 1995:116-374, 728-762, Niess and Spandau 2005). Organisations can fundamentally separate the operative system from changes in the business environment and buffer it by stocking up and down and/or make production very flexible in order to be able to react to changes in the business environment (Slack et al 1995:23-26).

The target is to achieve an efficient use of resources in carrying out every activity. Production as well as other primary activities and supporting activities must carry out their specific roles as sub-systems (see e.g. Naylor 1996:15-19, 37-41) efficiently for the aims of the whole organisation and at the same time be brought together. The differentiation between units and functions must be supplemented by integration of the individual parts into one viable whole taking into account changes in the business environment (Lawrence and Lorsch 1986:6-13). The organisational context for the achievement of entrepreneurial activities is then determined by structure and process elements.

306 According to Naylor (1996:14) three decision areas must be taken into account: Planning the sequence, speed and times of operational activities, planning of capacity bearing in mind demand and planning of stock.
307 According to Slack et al (1995:22) all activities could also be described as operations, i.e. as transformation processes.
308 For example, the market side of things has also to be connected with the production function via product development and the design of production processes. With customer needs and basic research and development as a starting point, product ideas can be developed, implementation planned and achieved through production. Slack et al (1995:8-11) name marketing, product development and accountancy and finance alongside production as central functions in this context. Human resources, purchasing and engineering are described as support functions.
Khandwalla (1977:260-279) combines the structural and process variables of an organisation into an interdependent organisation design in order to make the strategic targets real. As part of this, various requirements have to be satisfied when designing the organisation. Thus, for example, adaptations have to be carried out taking into consideration the business environment, the age, the size and the type of business, the history of the organisation, the focus of top management and the actors and the culture of the fields of operation. A turbulent business environment requires, for example, flexibility in the formal structures and in production, as well as organic management with informal networks, free communication and information. The variables of the external environment and the demographic variables of the organisation are described by him as situative variables which influence the strategic and structural variables. The strategic variables equally have an effect on the structural variables which, in turn, have an effect on the behaviour of the actors.

For the achievement of innovation, Khandwalla (1977:551-564) believes two different processes are required. Firstly, the creative organisation has to find new solutions and ideas. In addition, open communication, creativity techniques, independent decentralised units for the development of ideas and for entrepreneurial experiments, heterogenous teams, slack resources, contacts with external sources as well as separation of the creative unit from the productive unit can all make a contribution. Implementation of ideas happens after successful evaluation of the ideas taking into account the current and future opportunities and risks in the business environment. For this, it is necessary to have an innovation process and the required resources. To support implementation by agents of change, political processes have to be designed and the change accompanying innovations has to be created and coalitions formed.

According to Tichy (1983), agents of change are also responsible for adjustments of the organisation to changes in the business environment; these agents of change shape changes in products and services, markets, organisation structures and humans resources.
He defines nine levers for change: (1) gathering information about changes in the environment, (2) the mission for orientation when making strategic decisions, (3) strategy with operational targets for implementation of the mission and strategy at all levels of the organisation, (4) strategy development process with the involvement of the relevant interest groups, (5) adjustment of the actors’ tasks and competencies and involvement of new technologies, (6) adjustment of communication and reporting networks, (7) agreement on decisions and conflict resolution in the organisation process, (8) motivation of the actors, (9) design of informal communication and networks.

As a first step, one can analyse which levers have to be adjusted so that one can then determine how the adjustment can take place. Organisation design has to happen from three different perspectives. The technical design problem is resolved by combining the factors of production to create the desired outputs. In this process, targets and strategies, and structures and systems are established. The political allocation problem is resolved by allocation of decision-making competencies and resources. The cultural commitment problem is resolved by the determination and communication of the desired common values and mental models. According to Tichy, the technical, political and cultural design problems should be combined with each other and thus, the strategic, structural and cultural aspects interwoven.

All three problems would be resolved permanently and agreed adjustments would be continuously required in all three areas. Through this, there would be three overlapping cycles of organisational change: phases with high uncertainty and high need for adjustment alternate with quiet, problem-free phases. Change is then triggered by entrepreneurial opportunities and threats from the internal or external business environment (see figure 96).

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309 Tichy (1983:10-14) uses a rope with three strands as a metaphor to describe the combination of the technical, political and cultural design problem.

310 Tichy (1983:18-19) cites change in strategy with diversification into new businesses and human resources with recruitment or personnel development as an internal source of change. As an external driver, he names in particular industry competition and economic and technological development.
The focus is then on the direction of the mission and strategy, with opportunities and threats as a starting point for adapting the organisation in response to changes in the business environment. The formal organisation structures and explicit organisation processes, the informal, unplanned networks and the qualifications and orientations of the actors integrate the three areas of design. The mission and strategy is implemented with the achievement of individual activities and tasks based on available technology and processes, where upon the division of labour between the individual actors and units have to be coordinated and integrated.\textsuperscript{312}

\textsuperscript{311} For a description of the components see Tichy (1983:74-94,96).

\textsuperscript{312} Tichy (1983:85-86) distinguishes three mechanisms for integration: (1) Simple mechanisms like rules and procedures; (2) Reduction of the necessity for coordination by strengthening the autonomy of units (also by slack resources); (3) Complex integration mechanisms like coordination units, trans-divisional task forces or matrix structures.
This happens with the support of organisation processes for information and communication. All components of entrepreneurial organisation design are intended to be designed coherently and build, in combination with each other, a functional whole with dynamic relationships so that technical, political and cultural problems can be resolved simultaneously (Tichy 1983:73) and the desired output targets met\(^{313}\). In so doing, the needs of the individual actors have to be taken into account.

As well as resources and the environment, Tichy also explicitly names company history\(^{314}\) as an input for organisation design. After the initial impulse of change in the organisation, according to Tichy, there follows a phase of adaptation up until the new temporary organisation equilibrium. Within the context of entrepreneurial organisation design, the current situations of the three design problems in the relevant cycle have to be clarified, a desired position has to be defined and the necessary change to the desired position engineered.

Tichy’s organisation framework gives a holistic impression of the multi-layered task of entrepreneurial organisation design that adapts the organisation\(^{315}\) to opportunities and threats from the business environment. This being understood, the four central levers of entrepreneurial organisation design identified in the literature study (see Chapter 3.1), taken together with the five dualities derived from them, can be further analysed and notionally integrated.

\(^{313}\) Tichy (1983:74,75) cites as criteria for output efficiency of the organisation, the achievement of the organisational targets, compatibility of the technical, political and cultural sub-systems together with the level of satisfaction of the actors with achieving personal targets by being members of the organisation.

\(^{314}\) According to Tichy (1983:76), the historical behaviour patterns of an organisation are relatively stable so that an analysis of the methods used in the past to resolve technical, political and cultural design problems can help to predict future behaviour of the organisation. These predictions are then an important input for entrepreneurial organisation design.

\(^{315}\) According to Vermeulen et al (2010), a permanent restructuring is a requirement for the promotion of the organisation’s adaptability, creativity and ability to innovate. With the restructuring, new informal networks would be set up over time and the curiosity of the employees is fostered. They define three areas of diagnosis that can give hints on a necessary organisation design: (1) Quality of communication and cooperation; (2) Adaptability; (3) Market balance between groups. The organisation design then follows in the three change areas (1) Structure (organisation according to functions, region, customer type or product); (2) Reward system (incentives for individual actors/teams/ the company, open versus confidential judgments, short-term control versus long-term development, turnover versus value creation) and (3) Processes (authority for decisions, central versus decentralised distribution, localisation of processes, emphases of the processes on customer versus product).
4. Analysis of the three central tasks of an entrepreneurial organisation

4.3.1.3 Resource-oriented entrepreneurial strategies in a changing environment

The starting point of entrepreneurial organisation design is the shaping of the internal division of labour\textsuperscript{316} for the attainment of efficiency gains and innovation\textsuperscript{317}. Entrepreneurial strategies relate thus to the efficient operation and development of existing business\textsuperscript{318} as well as to the selection and pursuit of new business and the implementation of innovation in the selected operational fields. In order for these dual strategies (Abell 1993) to be successful, there must be a renunciation of the primacy of total efficiency (Zahn et al 2005). Firstly, unused potential, duplication of resources and error tolerance are important prerequisites for the pursuit of renewal and must be taken into account within the context of entrepreneurial organisation design.

\textsuperscript{316} The productive forces of the division of labour have already been examined by Smith (1982:10-22). According to Smith, one has to take into account with the division of labour that the individual actors can improve their economic situation and social rank in making their contribution to the whole. Harmonisation of the interests of the actors with the interests of the whole entrepreneurial organisation can be defined as the design target and necessary condition for securing the viability of the organisation in turbulent environments. In place of the invisible hand of the market (this is how Smith described the price mechanism that achieved equilibrium of supply and demand in the market), there is within the entrepreneurial organisation, in the post-bureaucratic (Child 2005:ix) coordination mechanism, central (top management) and decentral (managers and employees) control together with control by the structuring strategies, structure, culture and resources and competencies of the entrepreneurial dynamic driven by the organisation.

\textsuperscript{317} Schumpeter (2006:103-180) distinguishes two types of economic action. As well as action and thinking in outmoded ways, which represent passive adjustment and drawing consequences from data, he sees in creative redesign the source for economic development. He describes the interdependence of events in the economy as an entanglement of effects with repercussions and reciprocal effects. Each development creates the prerequisites for subsequent developments. Energetic and dynamic actors with particular motivation for creative design assert themselves against resistance experience recognition through the achievement of their own goals. Entrepreneurial actors are thus a source of innovation and changes in the business world. New things arise through the way of applying existing means. Taking into consideration the current situation and production method, a relatively better situation can be achieved. Technical and commercial production can be improved to a practically unlimited degree. Just seeing new opportunities is not enough and the key is the implementation of new combinations. Schumpeter sees the ability to see new ideas via an emotional imagination as being only anchored in a few economic subjects and even fewer actors would have the necessary spirit and force of action. Entrepreneurial actors achieve correctly selected new combinations in that they change production and organisation processes, enter new markets or improve their competitive position by innovations such as new consumer goods. Schumpeter (1950:134-148,213-219) gives this dynamic development driven by permanent renewal the name of the process of creative destruction. The actual competition for existing business consists in renewals of the future. For the entrepreneurial organisation, one can derive that pure striving for efficiency should not always be at the forefront, but rather the best possible performance over a longer period (from 10 years, for example). In doing this, the organisation and the industries and markets worked in must always be considered within the eternal storm of creative destruction and thus, the reciprocal effect between the organisation and the environment must be considered when designing the entrepreneur function of the organisation.

\textsuperscript{318} Slack et al (1995:81-83) also refer to the necessity (in the context of scarce allocated resources) of giving up business areas where appropriate.
The strategy itself is also a matter for innovation in turbulent environments. Efficiency improvements and renewals of existing paths are not sufficient for adapting to dynamic developments in the business environment (Zahn et al 2005). Therefore, entrepreneurial organisations must also use new strategies, structures, resources and behaviour for the implementation of new business opportunities. They must anticipate and cope with discontinuity and change in the environment as well as initiate by innovation in the team (Drucker 1978:42-57), use resources productively and divert them in a targeted way; in so doing they have to balance the aims of the organisation with the needs and wishes of the effective actors (Drucker 1978:188-211). The evolution of strategy and strategic decisions (see Mitchell et al 2011) for adjusting to changes in the environment and for the pursuit of entrepreneurial aims comes about via the use of intentional and emergent strategies (Mintzberg 1991a, Burnes 2004). The emergent strategies arising from the decentralised entrepreneurial decisions and problem solutions strengthen the flexibility of the entrepreneurial organisation. The centralised and systematically planned strategies provide the necessary stability. Top management can promote renewal and guide entrepreneurial strategy development\footnote{For systems strategy development see e.g. Nagel (2007).} directly by allocation of resources and selection and indirectly by the design of the structure and culture.

Entrepreneurial adjustment to a permanently changing business environment with planned and emergent strategies requires learning processes for the actors and the organisation as a whole (Zahn 2005:80-81). With guided evolutionary strategy development, the necessary space for creative entrepreneurial actors can be guaranteed without having to abandon the overall view of the entrepreneurial organisation. With this, a strategic direction can be pursued and nonetheless, one can attain the necessary strategic flexibility for permanent renewal in the context of change in the environment. The entrepreneurial strategy guides the behaviour of the entire organisation and the entrepreneurial actors in the pursuit of entrepreneurial opportunities and threats. This occurs whilst taking into account changes in the environment – in particular in the industry and competition environment – and the current and future resources and competencies – particularly the strengths and weaknesses of the organisation in relation to competitors (see figure 97).
4. Analysis of the three central tasks of an entrepreneurial organisation

According to Porter (2004a), the entrepreneurial strategies have to support the organisation’s goals for interaction with the environment (see table 11). For the successful pursuit of opportunities and threats identified and selected in the business environment, the necessary resources and competencies must be available and the individual interests of the entrepreneurial actors must be in harmony with the company goals.

| **Internal Consistency** | Are the goals mutually achievable?  
| | Do the key operating policies address the goals?  
| | Do the key operating policies reinforce each other? |
| **Environmental Fit** | Do the goals and policies exploit industry opportunities?  
| | Do the goals and policies deal with industry threats (including the risk of competitive response) to the degree possible with available resources?  
| | Does the timing of the goals and policies reflect the ability of the environment to absorb the actions?  
| | Are the goals and policies responsive to broader societal concerns? |
| **Resource Fit** | Do the goals and policies match the resources available to the company relative to competitors?  
| | Does the timing of the goals and policies reflect the organization’s ability to change? |
| **Communication and Implementation** | Are the goals well understood by the key implementers?  
| | Is there enough congruence between the goals and policies and the values of the key implementers to insure commitment?  
| | Is there sufficient managerial capability to allow for effective implementation? |

Table 10: Checking the consistency of a competitive strategy according to Porter (2004a:xxvii)
4. Analysis of the three central tasks of an entrepreneurial organisation

In dynamic environments, entrepreneurial organisations must be able to use, reconfigure and develop their resources and competencies in a targeted fashion (Zahn et al 2005:85-87). For the use of strategic opportunity potential, knowledge that entrepreneurial actors have and collective action on the basis of common mental models are becoming more and more important. The design of contexts in which entrepreneurial strategies evolve and adapt as well as communication of key beliefs and business principles serve as a compass for decentralised creativity and initiative when exploiting of existing business and development of new business. The operation and renewal of business create a continuous cycle and thus in dynamic environments, a dynamic evolution of the entrepreneurial organisation (Zahn et al 2005:94,95). With such a flexible entrepreneurial strategy, organisations that are open to change could also use market opportunities that are not foreseeable.

Ireland et al (2009:19-46) name the entrepreneurial look forward and evaluation of future developments in the business environment by top management as central strategic resources for the identification and implementation of opportunities. Intangible resources such as contact, image and brand building which are not easily copied by competitors would also be very significant. They see entrepreneurial strategies as a specific strategy type that must not just be selected but whose components must be designed with the whole organisation in mind and be deep-rooted. At the top management level, an entrepreneurial strategic vision must be developed, communicated and exemplified. An entrepreneurial organisation architecture, entrepreneurial processes and the entrepreneurial behaviour of the individual actors must be applied consistently and become effective across the whole organisation. Entrepreneurial organisations would balance current opportunities and future opportunities. Because of this, they would frequently be operating on the limits of a state of chaos. Entrepreneurial strategy then defines itself as the continuous and purposeful identification and pursuit of entrepreneurial opportunities within the entire organisation. Triggers for the entrepreneurial orientation are changes in the business environment, the entrepreneurial vision of top management and the entrepreneurial orientation of the individual actors. Supported by a consistent entrepreneurial design and resource management, a continuous strategic repositioning and permanent competitiveness is achieved (see figure 98).
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The connection with organisation design, resources and competencies and change which adjusts the organisation to changes in the external environment has central significance for entrepreneurial strategy. These aspects will now be briefly examined in order to analyse, on the basis of this, the design of the structural components of the entrepreneurial organisation.

According to Roberts (2004:12-30), observation of alternative entrepreneurial opportunities creates the starting point for strategy formulation. The strategy for exploitation of the selected opportunities can be described by reference to four components. The first component is defined by the goal of the organisation. Then comes the establishment of business or businesses. Here, the central entrepreneurial questions have to be answered: Which products are to be produced with what technology and at which locations, and which customers the products are to be sold to?

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320 Haid (2004) examines corporate entrepreneurship as a strategic management concept for proactively dealing with change. In this process, entrepreneurial willingness and entrepreneurial feel in top management take on extreme significance.


322 Economic concepts for company strategy are also described by Besanko et al (2007) and Brickley et al (2004:188-224).

323 The securing of viability can be defined as the main goal for the concept of the entrepreneurial organisation developed here. Roberts (2004:13-22) names operational goals like profit or shareholder-value. He also refers to the possible wider concepts like pursuit of stakeholder interests. He names performance to satisfy human needs as a benchmark and then places a value maximisation strategy at the forefront which can be achieved with an organisation that is adapted to the environment.
4. Analysis of the three central tasks of an entrepreneurial organisation

The third component is defined by the sustainable competitive advantage of the organisation in relation to price and quality. The fourth component determines how the competitive advantage can be achieved. The strategy particularly determines which of the potential opportunities should not be realised. The implementation of the strategy occurs via the realisation of entrepreneurial activities in the value chain by entrepreneurial actors.324 The framework to this is created by the structure of the organisation with the organisation architecture and routines, as well as the organisation culture. The entrepreneurial activities thus reveal the entrepreneurial organisation’s planned or emergent strategies. Roberts asserts that managers at all levels have to work together on the whole organisation design if the entrepreneurial strategy is to be implemented and the required fit between the environment, strategy and the organisation. The entire organisation design thus helps the organisation to adapt to changes in the environment (see figure 99).

In turbulent environments, strategy and organisation design can no longer be developed sequentially (Roberts 2004 27-30). The entrepreneurial emergent strategy follows then from entrepreneurial decisions at the various levels of the organisation. In dynamic environments, top management can only give a basic strategic direction as a context for the emergent strategies. The role of the organisation designer is limited then to the design of the lethargic components of the organisation, the organisation culture and processes that enable good entrepreneurial decisions. Strategic information about the desired orientation can lead to additional control of decentralised decisions.

![Figure 99: Design problem of the entrepreneurial organisation according to Roberts (2004:19)](image)

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324 With this, strategic human resource management and the characteristics, values, targets and competencies of the individual actors become key (see also e.g. Harzing and Ruysseveldt 1995, Tyson 1995).
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Changes in external conditions and influences in the relevant industry, the economy as a whole, at the location, in the country or in the world, promote continuous monitoring by entrepreneurial organisations of their own businesses and strategies. Following identification of opportunities and threats in the business environment, according to Andrews (1987), the strategic alternatives must be filtered by the observation of internal restrictions. To this end, the strengths and weaknesses of the organisation must be considered in order to be able to achieve strategic positioning in the product-market environment. Possible strategies could also be developed from the combination of external market opportunities and internal skills and selected taking the intended development path into account.

Andrews (1987:41-45) presents five central questions for the identification of opportunities and risks:

1. Which central economic, technological and structural characteristics are exhibited by the industry in question?
2. What trends suggesting future change in economic and technical characteristics are apparent?
3. What is the nature of competition both within the industry and across industries?
4. What are the requirements for success in competition in the company’s industry?
5. Given the technical, economic, social, and political developments that most directly apply, what is the range of strategy available to any company in this industry?

Realisation of the identified strategic options requires resources and competencies. Thus, a strategic choice must be made from the options. The current and future strengths of an organisation, which can be described as the core competencies, must also be reflected in the strategic alternatives. Thus, the economic mission and strategic position in relation to the business environment can be determined by the selection of opportunities, taking into account the resources, competencies and values of an organisation (see figure 100).

According to Andrews (1987) in large companies this analysis should take place decentrally as the necessary knowledge relating to the market and technologies is situated in the decentral areas.
Figure 100: Development of an entrepreneurial strategy according to Andrews (1987:50)

The entrepreneurial strategy thus links the management of internal resources with the external relationships of the organisation, and with implementation of the strategy, taking into account the vision, mission and goals of an organisation, achieves value creation via internal operations (see also Lynch 1997:7-25). With this, the analysis of the environment and the internal company resources take on great significance during the continuous pursuit of emergent strategic initiatives to adjust to the environment. Lynch (1997:232-379) distinguishes three categories of company resources: Human resources, operating resources and financial resources (see Schwenker and Spremann 2008:123-153). It is especially essential when developing an emergent entrepreneurial strategy that the individual actors can deal with change and learn proactively from entrepreneurial activities and experiments. The ability to do this can be supported by the company culture and human resource management (see Jabbour and Santos 2008).
The ability of an organisation to use its resources for the achievement of goals is defined by Sanchez and Heene (2004) with the concept of organisational competence. Existing competencies arising from experience, e.g. in customer service, in production development, in flexible production or in innovation processes, should be used as much as possible for value creation and also for the creation of new competencies with new activities. The distinctive combination of resources and skills then define the core competencies as a source of competitive advantage.

Hitt et al (2005) note that the sustainability of competitive advantages arising from the core competencies is dependent on three factors. The quicker that changes in the environment destroy core competencies, the more there will be substitutes for core competencies and the more easily the core competencies of competitors can be imitated; the core competencies are then less sustainable (Dess and Lumpkin 2003). Thus, entrepreneurial organisations must continuously use current core competencies for entrepreneurial activities and develop new skills.

Added to this, tangible resources, such as production technologies, factories, coordination and reporting systems and financial means together with intangible resources (Ortiz 2009), such as knowledge and human resource skills, ideas or reputation must be used and combined strategically (Cholle 2012). The creative use of resources and core competencies, as well as learning processes, are thus the basis for securing competitive advantage and the renewal and transformation of the entrepreneurial organisation.

The entrepreneurial strategy guides resources, using internal competencies and external changes as a basis, towards achievement of the goals of the organisation through entrepreneurial activities. According to Quinn (1991), strategic decisions determine the effectiveness of the organisation whilst operations achieve the efficiency of resource utilisation. Mintzberg (1991a) distinguishes between intentionally realised and emergent strategies which together can determine the overall strategy of an organisation.
In turbulent environments, organisations must create permanent change and achieve a permanent fit between external opportunities, strategy and internal structure (Tushman et al 1991). In so doing, incremental change and fewer adaptations would have to be dealt with just as much as phases of greater discontinuity in the general business environment or in industries with strategy change and shifting of the product cycle. Internal dynamic, for example a change in top management, can also bring about a change in strategy.

Discontinuities could lead to a reform of the mission and values as well as the organisation structure. A more profound organisation change is necessary during elementary changes in the business environment and in crises and must be proactively created by top management. In this process, systematic observation and analysis of the business environment is a prerequisite for the identification of the necessary strategic change. A strong company culture can serve as an anchor in stormy times.

According to Stacey (1996), organisations in turbulent environments cannot easily be deliberately adapted to environmental changes in a stable and harmonious fashion. Organisations would have to react reasonably to unforeseen and surprising events even if their formal organisation design is not suitable for this. In uncertain, fast changing and competition-intensive environments, managers have to learn to deal with conflicts, inconsistencies, instability, lack of order and contradictory cultures and continuously adapt their mutual mental models. In addition, the networking and dynamic of the internal and external business environment have to be mutually understood as well as possible by the actors in order to be able to realise emergent innovative strategies within the entire organisation and at various levels.

According to Quinn (1991) this process can be controlled proactively, in that actors are selected and the themes and areas of the environment to be observed are allocated. The most important strategic themes and actions can be defined via the reporting process.

For dealing with crises see e.g. Starbuck (1991), Sheffi (2007), Stöger (2009).

From the viewpoint of systems thinking, the organisation is driven by the organisation goals. However, these goals can only be realised in harmony with the environment so that adjustment to the environment, according to Stacey (1996:265,266,279), can also be seen as a driving force. Management information and control systems, as well as a complementary company culture, must achieve harmonisation of the individual actors and integration into the internal business environment.

In this process, it is necessary to create the strategic feedback loop discover – choose – act.
4. Analysis of the three central tasks of an entrepreneurial organisation

The overall strategy should also pursue possible deliberate strategies alongside the emergent strategies so that stability and instability can be combined to secure viability. It is also necessary to establish a legitimate organisation system as well as an informal shadow system with its own organisation. The shadow system comes into being because of the inability of the formal system to adapt the organisation to changes in the complex environment. The necessary change and the necessary innovation come about in a process of creative destruction firstly in the shadow system so that it can then be implemented in new formal forms or integrated within the formal system.

According to Stacey (1996:378-389), the shadow system, with a process of spontaneous self-organisation, produces emergent new strategies via organisational learning which brings creative new directions and innovations. In this way, entrepreneurial actors change firstly their own mental model in order then to construct a common mental model in the group which they can use to control adaptation and innovation. The shadow system can be in place of formal structures or in addition to or in competition with formal structures. It takes on the function of a communication network and a community of practice, providing the organisation with the required flexibility.

A look at the interplay between strategy development, the formal system and the shadow system also shows the close connection between the strategy and the structure and the necessity to have a coordinated shaping of the organisation design for the realisation of purposeful and emergent strategies depending on changes in the environment. In the next chapter, the entrepreneurial organisation design is analysed against this background.

Stacey (1996:309-349) describes, using complexity theory, how the development of an organisation can take place in a completely emergent way – without a guiding vision. The strategic direction is determined by itself through group learning and political interaction without a central purpose. Intrapreneurship is based, then, on strong individual actors in groups. Self-organised networks with their own sub-culture are in conflict with the formal organisation structure and empower themselves contrary to teams that are responsible for themselves and which operate within the formal organisation and common culture. Top management has the task of helping the decentralised actors in terms of how to design the future of the organisation via entrepreneurial activities and spontaneous self-organisation. The organisation in a complex environment is then a learning community in which a complete emergent strategy is pursued.
4. Analysis of the three central tasks of an entrepreneurial organisation

4.3.2 Design and integration fields in the entrepreneurial organisation

For the support and development of entrepreneurial strategies and activities in the context of an environment-strategy-structure-culture-resources-fit, an entrepreneurial organisation design must be created (see chapter 4.3.2.1), an entrepreneurial culture developed and maintained (see chapter 4.3.2.3) and a harmonisation of the effective interests in the entrepreneurial processes (see chapter 4.3.2.2) must be achieved.

4.3.2.1 Structure, processes and entrepreneurial organisation design

The entrepreneurial design of the structural components of a viable entrepreneurial organisation in global competition happens in coordination with the design of the entrepreneurial strategy and culture and taking into account the five dualities already identified. To secure future company potential, community entrepreneurial action in the business must be a priority at every level of the organisation. Large companies must ensure a strong embodiment of entrepreneurial thinking and action within their organisation.

The individual entrepreneurial managers and employees have the knowledge and ability to take on a central role in securing future competitiveness in a complex world. They are close enough to the customers and to the operational tasks and thus to information relevant for decision-making to make a contribution towards market success. So that intrapreneurship can also be successfully practised, the necessary incentive structures must be created (see Manne 2011). Then, entrepreneurial achievers can develop and entrepreneurial structures can be developed.

331 Roberts (2004:17) names the following components of the organisational architecture; the vertical and horizontal borders of the organisation, the bundling of tasks in jobs, jobs in departments, business units and business divisions, reporting and decision structures, ownership and financing structures, networks, formal and informal routines and processes for information collection and communication, decision structures, resource allocation, performance measurement, control and remuneration systems, operations.

332 Block and MacMillan (1995:149-156,127-129) name in this context the location of intrapreneurship activities within the company and the incentive structure for intrapreneurs as important parameters.
In the following (Chapter 4.3.2.1), firstly the basic structural direction of the entrepreneurial organisation will be described, the key points of an economic arrangement of the organisation design and the central integration fields for harmonising the interests of the individual actors and the organisation as well as the achievement of synergies in cooperation will be detailed (Chapter 4.3.2.2).

According to Child (2005:377-399), the entrepreneurial shaping of the organisation should guide the collective execution of activities in accordance with the goals of the organisation. In doing this, a variety of organisation forms within the organisation can be selected. The individual organisation units must then, in turn, be integrated in order to achieve the strategic needs of efficiency, adaptation and innovation. The characteristics of the business environment in the various business areas determine the required intensity of the three strategic needs and thus the design of the organisation’s components.

Child (2005:379) describes efficiency as a permanent need of an organisation. In dynamic environments, product and process innovation together with adaptation of existing business to changes in the business environment are gaining in significance. Depending on the competitive situation, existing products and services would have to be continuously improved and/or new products and services for existing or newly developed markets would have to be realised. Quick adaptation (see Harford 2011) of the organisation to changing framework conditions enables the rapid implementation of entrepreneurial opportunities that have been identified within the existing product portfolio and promotes the extension of ranges via innovation. Whilst in stable environments the focus is on specialisation and performance monitoring for the achievement of efficiency, in dynamic and competition-intensive environments, the development and implementation of innovation (see Frese 1992:297-321) as well as the creation of flexibility and thus entrepreneurial orientation are of great importance.\[333\]

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\[333\] Child (2005:381-389) states that organisations, which because of the competitive situation do not need high investment, can be organised completely bureaucratically, even when they operate in a dynamic environment. They just have to achieve the necessary level of adaptability in existing business.
In addition, Child (2005:380) makes a few recommendations about the creation of this. Employees in the area of idea generation and research and development should be in close contact with the functional areas of existing businesses like production, marketing, customer service and finance. Added to this, the integration power of product champions or cross-departmental development teams can be deployed (Child 2005:79-108)\textsuperscript{334}.

Further design components (Child 2005:27-51) for strengthening the focus on innovation and the ability to adapt are open and fast communication in the distribution of new information, learning, decentralised initiatives and responsibility in smaller organic units and teams; other components are network structures, reward mechanisms that are subject to team success and strategic alliances when operating in global markets.

Goal setting and agreement of goals is particularly helped by fewer hierarchies and the formation of teams, relation-oriented processes, self-monitoring via culture and human resources management (see also Tyson 1995:41-58)\textsuperscript{335}. The roles and obligations of the actors should be formulated more generally and broadly to strengthen adaptability. Systems should enable change. Functions other than core competencies should be outsourced and global integration including local initiatives should be developed. Child asserts that every organisation has to establish strategic needs subject to its own positioning within the business environment and execute the corresponding development of the organisation’s components. Centralised, specialised and formal structures would have to supplemented by flexible and decentralised structures. He assigns thus high importance in particular to management and project teams in designing entrepreneurial organisation.

\textsuperscript{334} Ireland et al (2009:31) cite flexible rules and procedures and few formal structures as elements of such organic structures. Burns and Stalker (2001:96-125) distinguish organic systems from bureaucratic systems and how circumstances dictate which should be chosen. Organic types could be more of a help to solve problems in changing conditions and react to unforeseen demands. Elements of the organic structure are said to be permanent adjustments and redefinition of tasks in interaction with other actors; network structures in decision-making, control and communication; knowledge and information as the lead principle for the allocation of leadership competencies; commitment of the actors to the task; common mental models which can compensate for the lack of formal structure with the integration of individual activities and actors.

\textsuperscript{335} Tyson (1995) speaks of a culture network that guides the actions of the actors. This cultural network can in turn be influenced by active human resources management. Changes on the level of the general business environment would change the common mental models and value systems and thus be directly effective at the level of the organisation.
Block and MacMillan (1995:147-159) name various options for the location of a new entrepreneurial business. These range from complete integration into existing operations on the one hand and complete separation into its own unit on the other hand\(^{336}\). A sharper separation of existing business can help to achieve the necessary attention and resources in the start phase. A higher degree of integration into existing operations in turn enables easier access to existing systems, resources and markets in the growth phase. Accordingly, in the course of the evolution\(^{337}\) of entrepreneurial activity, the structural integration must be adapted and subsequent integration taken into account at an early stage as existing business.

Using entrepreneurial organisation design, production processes in particular have to be efficiently developed and continuously improved for the deployment of entrepreneurial strategies (Slack et al 1995). For efficient use of resources in all functional areas and in all transformation processes, the necessity for adaptation to changed environment situations in turbulent environments should nevertheless be taken into account (Kaluza and Blecker 2005).

By making production flexible, less of a cushion is required in the other functional areas to nevertheless achieve all other performance goals\(^{338}\) such as quality, cost, time and reliability. Changed framework conditions and in particular discontinuity in the development of the business environment require proactive and reactive adjustment by the entrepreneurial organisation. This, in turn, requires a high degree of adaptability and ability to change in the system configuration with decentralised decision-making structures within the organisation and the development of organisational slack in the context of cross-plant cooperation (Kaluza and Blecker 2005:6-12,16-18).

\(^{336}\) According to Floyd and Woodridge (1999) a parallel organisation can promote the development of an entrepreneurial idea within a specific initiative. However, later integration of the initiative in operational activities can lead to bigger problems such that they propose the positioning of intrapreneurship from the outset within the framework of all management activities and the strengthening of it through social relationships.

\(^{337}\) Block and MacMillan (1995:159) distinguishes four steps: Start-up phase, survival phase, expansion phase and maturing phase.

\(^{338}\) For concepts to make production and product development like mini factories more flexible, changeable factories, shared product development or customer-oriented production processes, see for example articles in Kaluza and Blecker (2005:137-291).
With active resource management, it is possible to achieve holistic coordination and development of the company resources and also to enable current and future entrepreneurial strategies and activities for adapting to changed general conditions (Kellermanns and Floyd 2005).

With reference to the innovative organisation, Mintzberg (1991c) specifies a structure for the entrepreneurial organisation which is driven by change in the business environment. Expert teams are the agents of intrapreneurship and thus of an emergent entrepreneurial strategy. An entrepreneurial organisation can be developed by the use of many entrepreneurial teams. Project teams, organic structures, flexibility, a low level of formality of cooperation, decentralisation of decision-making competencies in combination with specialist competencies are the specification for this structure. Top management is responsible in this process for the higher level relationship with the business environment. This organic and decentralised structure is suitable for dynamic and complex environments. The strategy of the organisation can then be guided by the creation of strategy processes.

Changes in the dynamic business environment and in the company strategy require that entrepreneurial organisations assess the organisation design in various environments and if necessary, are able undertake the necessary adaptations. Changes in the organisation design have an effect on the whole organisation and their effect must be analysed in advance. When monitoring the effects, Brickley et al (2004) believe that the economic behaviour model can help in that the actors behave in their own interests.

If a company gets bigger, the information within the business is asymmetrically distributed and the Chief Executive Officer, who is mostly not the owner of the business, does not have the necessary information for all decisions. The Chief Executive Officer can then make decisions without knowing all the information, can obtain all the necessary information, which is very expensive and time-consuming, or can delegate the decisions. With delegation to decentralised managers who in turn delegate decisions further, an organisation architecture develops where there are too many interventions giving coordination and incentive problems.
Brickley et al (2004) define a conceptual framework with three elements for the identification and resolution of organisational problems in adapting to changes in the business environment:

- **Element 1** defines the assignment of decision-making authority within the business. It is recommended that the power of decision is connected to the location where information for good decisions is available. After this course of action, decisions about centralisation versus decentralisation can be guided and taken in any situation;

- **Element 2** establishes the design of the reward system with the basic remuneration system and regulations for other rewards. The design is to be done in such a way that the effective incentive structure for managers and employees also steers self-interested actors to make decisions that increase the value of the company;

- **Element 3** determines the performance evaluation of business units, managers and employees. The design of the evaluation system must happen in such a way that it enables the assessment of reward on the basis of individual evaluation and/or performance evaluation of units.

The company-specific development of the three elements has to take place with them in harmony making the overall organisation design decisive for the adaptability and competitiveness of a business. Brickley et al (2004) compare the three design elements with the three legs of a stool, which must be in equilibrium (see figure 101). If a stool leg or even a design element is changed, the other legs or design elements must be examined and aligned.

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339 According to Roberts (2004:230-240), information is available about customer wishes, suppliers, competition behaviour and production possibilities for decentralised actors and units. Roberts sees information about the general business environment (for example, about political or legal developments, social trends, finance markets) and company politics as being located with corporate management. If decisions are taken where the information is, fast adaptation to changes in the business environment can be achieved.

340 Ireland et al (2009:32) see a powerful lever for strengthening entrepreneurial behaviour in the design of reward mechanisms within the context of entrepreneurial organisation design.

341 Brickley et al (2004:640) give the relevant focuses on the three elements for different management techniques. Whilst some techniques can be assigned directly to individual elements (e.g. target setting to performance evaluation, incentive systems to the reward system or empowerment to the definition of decision-making authority), others techniques can exhibit an overall focus (e.g. Total Quality Management or self-regulating teams to decision-making authority and performance evaluation).
The concept of entrepreneurial organisation with three central entrepreneurial tasks presented here (see chapter 4) is consistent with the concept of organisational architecture as outlined by Brickley et al (2004:280-486) and supplements their concept of organisation design. Entrepreneurial information gathering can be interpreted as a concept for endogenisation of the shared information status and for development of collective knowledge via information and learning processes. The design of the mutual activity relationships between the status of information and information gathering on the one hand, and the components of the organisational architecture on the other, can be interpreted as an element of entrepreneurial shaping of the future.

Drucker (1985:232-235) proposes that individual innovation performance is measured and that performance of managers is evaluated against this entrepreneurial performance. As a first step, the results of an entrepreneurial activity can be compared to expectations. This feedback enables the innovation project to be steered in the right direction. In the second step, all entrepreneurial activities bundled into a systematic control system and regularly checked (for example, annually). The third step is to measure and evaluate overall innovation performance of the organisation within the context of entrepreneurial management of innovation targets achieved, market performance and market position, as well as the overall profit situation. Every five years, management in the most important areas should be canvassed about contributions to the whole that have already been made and those planned for the future. For the total organisation, a key performance indicator for entrepreneurial success in established organisations could be whether a leading position in the area of innovation has been achieved or retained.
Block and MacMillan (1995:131-143) present components for the design of an incentive system for achieving a fit between entrepreneurial activity and the organisation. They name participation, bonus programmes and non-monetary reward mechanisms such as employee awards, greater freedom for creativity and attractive new tasks. Ebert (2006) also examines incentives targeted at innovation in order to directly influence innovative behaviour. As well as praise and censure, he names material instruments such as inventor premia, inventor bonuses and compensation related targets. He refers to the difficult task of determining the bases of evaluation for allocation and evaluation processes as well as the danger of misdirection of the actors' behaviour. Organisational and human resource management instruments such as scope for development and the transfer of decentralised responsibility together with support, training and development of competencies would indirectly increase the degree of innovation and improve the climate of innovation. If decision rights are assigned decentrally to actors or small units (empowerment), according to Roberts (2004:170), the reward system has to be adjusted in such a way that decentralised decisions are taken for the good of the whole organisation.

4.3.2.2 Integration and harmonisation of interests

From what has been discussed so far, it is clear that the design of integration fields, synergies and dualities are extremely significant for the entrepreneurial organisation. Within the context of designing the entrepreneurial future, the integration of the organisation and the turbulent external environment by proactive cultivation of interactive relationships is a key factor. Entrepreneurial shaping of the future must then be linked with the entrepreneurial shaping of the organisation. In this process, entrepreneurial strategies and decisions are transformed into entrepreneurial activities or a fit is attained between decentralised activities and the organisation's central goals.

Stiglitz (2010:265-269) sees an important role here for the State to regulate the system of company management in order to achieve harmonisation of the pursuit of social (taking into account the well-being of the whole community) and private (taking into account the use of ideas for increasing the value of a company) returns. He ascertains that advanced industrial nations should be fixed as innovative economies which support research intentions that are directed at the needs of the community.
Against this background, when designing the components of an entrepreneurial organisation attention first turns to the attainment of innovation, adaptation and efficiency through flexibility and change in synergy with the environment. When collectively implementing these strategic needs, attention is focused on the internal cooperation and internal synergies (see figure 102). In shaping the entrepreneurial organisation with decentralised entrepreneurial activities, the design of internal integration is therefore of key significance. Descriptions thus far of entrepreneurial organisation design and of the role of intrapreneurship have examined integration within and between functions and departments, taking resources and activities into account, and have also considered the five dualities identified earlier.

Schein (1980:28-30) notes that a lack of integration can often be attributed to psychological forces. Formal tasks are assigned through the division of labour. The actors are of course made up of real people with many attitudes, sensitivities and perceptions which cannot be planned for when designing the organisation or which sometimes do not fit in with the goals of the organisation.

![Figure 102: Integration fields for harmonisation of interests and for the creation of cooperation and synergies](image)

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343 See chapter 4.3.1.1. The entrepreneurial organisation exchanges with the business environment to secure short and long term viability, organises flexibility and operational stability, pursues optimisation and renewal in existing and new businesses, makes decisions centrally and decentralised with a global and local focus, pursues the interests of the business and the individual actors.
Against the background of these needs, actors resolve existing problems partly by informal relationships and coordination patterns. This is also because the problems often cannot be resolved with formal processes and rules. Loyalty to part units can arise from this and means that the goals of the whole organisation can only be achieved through a rational reordering of the formal structure, stronger communication for total understanding and a balancing of interests. According to Antoncic and Antoncic (2011), employee satisfaction may contribute to firm performance and growth. Integration between individual actors and the organisation (see Yaniv et al 2010) thus defines the core of entrepreneurial organisation design (see Salvatore 2004:11-13). In a further integration step, cooperation of actors in teams and organisational units as well as cooperation between (international) groups and units must be designed. These aspects are examined in the following sections.

For an analysis of the entrepreneurial organisation’s design, Argyris (1957) proposes a helpful regulation framework which makes clear a central problem area in the process of developing intrapreneurship: the necessity of harmonising the individual interests of the actors with the interests of the organisation. He defines four interconnected levels of analysis. Within this, the individual actors and the formal organisation are the two fundamental components. For Argyris, these two components together with the group dynamic informal organisation and the overall organisation determine the entrepreneurial behaviour of the organisation as a whole from the interaction of the components. At the level of the individual actors, an internal balance of the components of the individual personality and an external balance of the whole personality with the task and role realised within the business is decisive for behaviour. The individual actor attempts to maintain the internal and external balance when there are changes in his environment and to stabilise his personality by making adaptations (integration) with the formal organisation (Argyris 1957:20-53). The formal organisation is designed with consideration to the chosen company goals so that the structure reflects these goals (Argyris 1957:54-75). According to Argyris, incongruencies between what the formal organisation demands from the actors and the needs of the actors lead to conflict situations. This happens because of individual or collective adjustments such as, for example, work-to-rule until the point of actual denunciation or development of an informal organisation for the securing of lower work performance within a group.
This is then at the cost of individual and organisational productivity. Important implications arise for the design of an entrepreneurial organisation. The individual actors have to have the will and be able to realise or support entrepreneurial activities creatively and actively and take responsibility for this. This means that human resource management has the job of entrepreneurial recruitment and employee development. According to Argyris, many actors are willing to adopt an entrepreneurial focus. With such a focus there is more chance of achieving the personality balance with these individual actors than with a passive focus based purely on fulfilling tasks defined by others.

The formal organisation has to demand and support entrepreneurial behaviour. This results in the task of designing an entrepreneurial organisation that avoids the incongruencies of the personal focuses of individual actors. Creative and entrepreneurial actors do not then have to be compensated via additional monetary incentive systems as frustrating structures are avoided (see Wyk and Adonesi 2008). Consideration of the needs of the individual actors in fulfilling the goals of the whole organisation is thus a central design element of the entrepreneurial organisation: The individual actors use the organisation to fulfil their needs and the organisation at the same time uses the individual actors to secure the viability of the organisation.

Argyris (1957) therefore demands a more democratic, participative leadership style and more structured and less direct leadership from top management. Thus, the work fields of the actors can be set more broadly and their needs can be better considered (job enlargement). This then leads to a better fulfilment of the goals of the whole organisation. However, Argyris also states that such an approach is limited if the individual actors do not want to identify with the organisation, if they do not strive for any satisfaction at work or cannot derive any personal advantage from having more creative freedom and responsibility.

If one follows Frankl’s line of argument (2006), individual actors must see a sense for the organisation in entrepreneurial thinking and action. According to Stadler (2009), the company culture acting as a sense area, can support creativity and performance as well as collaboration agreements and cooperation. From this, the company culture can be adjudged to be an important lever for intrepreneurship (see also the following chapter 4.3.2.3). According to Argyris (1957:211), this fusion of actors and the organisation is attained through effective (structural) leadership and is a requirement for attainment of the goals of the organisation.
In the actual company situation a diagnosis of the organisational context must therefore follow which also includes the informal activities and thus analyses the organisation as a whole. Argyris’s organisation concept gives important indications for the integration between individual actors and the organisation.

According to Belbin (1996), teams can combine many complementary characteristics that cannot be found in individual actors. Therefore, management teams should guide the organisation as a stable alternative to individual helmsmen. Teams should be formed by actors with various skills. In this way, for example, teams with members who have strong implementation skills can exhibit deficits in terms of creativity and thus lose their effectiveness in dynamic environments (Belbin 1996:48-70). In turn, teams with lots of creators can lack the skills to implement their ideas. A combination of employees (Treven and Mulej 2007) usually attains the best entrepreneurial mix and orientation.

The creation of ideas is done by introverted idea innovators / inventors as well as by extroverted pathfinders / pointsmen who develop other people’s ideas further. The evaluator / observer checks and evaluates competing proposals. The implementor then pursues the activities selected in a disciplined way over a long period. Perfectionists see the activities initiated through to their conclusion. For the leadership of the team, Belbin defines two team roles which dominate at different points in time: the chairperson combines and takes care of the pursuit of common goals, the doer takes care of change and activity. Team workers promote cooperation in the team. Belbin’s eight team roles give important hints for the efficient development of entrepreneurial teams for the realisation of collective intrapreneurship. The combination of manager roles that are contradictory for individual actors within the entrepreneurial management team enables holistic action. Along with Sumanski et al (2007), acquiring new knowledge in small teams is a key element of success. Entrepreneurial organisations in global business environments must take into account the global context when developing synergies. According to Bartlett and Ghoshal (2002), the individual components of an organisation must be designed consistently and holistically. The formal macro structure defines the fundamental central and decentralised decision rights and responsibilities.
The context of the various decisions defines whether the decisions are to be taken centrally and on a global basis or whether a decentralised decision by local management is appropriate. Entrepreneurial organisations that have to assert themselves in dynamic environments should also use a micro structure with project teams for the strengthening of flexibility and adaptability. The targetted development of information and knowledge exchange (see Verbeke and Yuan 2007, Adenfelt and Lagerström 2008) in informal and formal systems and network structures supports the coordination within the global company system. The formal macro structure, the formal and informal micro structure as well as the company culture with common values together coordinate individual and collective activities. Strategic human resource management\textsuperscript{346} gains in significance for communicating the desired values and perspectives and offering opportunities for the creation of informal networks. Also, conflicts of interests within the organisation have to be resolved\textsuperscript{347}.

According to Bartlett and Ghoshal (2002), the global entrepreneurial organisation must firstly analyse the global trends within the industry in order to identify what forces speak for global integration of businesses, functions or activities and which forces require local adaptation. In addition, they have to see the world as a playground for learning and innovation so that a company network of connected and specialised operations can be developed. In so doing, every business, every function, every country and every activity must be considered and the internal division of labour in negotiating processes has to be established. The common culture then connects the autonomous local and decentralised entrepreneurial units. According to Bartlett and Ghosal (2002), the organisation can also be described as a combination of various manager roles. Global managers must identify global opportunities and threats, determine the global entrepreneurial strategy of the businesses, develop and coordinate the competencies and resources as well as control the internal exchange of information and products.

\textsuperscript{346} According to Bartlett and Ghoshal (2002) recruitment and personnel development for global and local challenges are important success factors.

\textsuperscript{347} Bartlett and Ghoshal (2002:301-348) give hints for the implementation of consistent entrepreneurial organisation design for the pursuit of global efficiency, national adaptability and about knowledge transfer within a transnational organisation. In addition, they define three central manager roles: (1) Global manager with a view of the whole organisation (global business manager); (2) Manager for international alignment of functions (worldwide functional managers); (3) Local managers who carry entrepreneurial responsibility in foreign branches (country/local managers).
4. Analysis of the three central tasks of an entrepreneurial organisation

Local managers must implement the entrepreneurial strategy locally, identify and implement entrepreneurial opportunities and make local experience available for the total company system. Functional managers must promote and implement learning and innovation with a global focus. Top managers link and integrate the three manager roles (global manager, local manager, functional manager), develop common values and visions and allocate resources. According to Vora et al (2007), a dual organizational identification of subsidiary managers with both the subsidiary and the whole organisation contribute to coordination, integration, and performance.

4.3.2.3 Entrepreneurial organisational culture

Schein (1992, 2003:137-162) examines the company culture in established organisations. Companies have to continuously unlearn and replace dysfunctional assumptions, patterns of thinking and values due to changes in the environment. The growth and development story cannot simply be carried forward on the basis of culture that was built on common experience. Strong sub-cultures must be integrated and only those cultural elements adapted for changed environmental conditions strengthened. Incriminating cultural assumptions must be destroyed.

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348 According to Schein (2003:31-39,44-72) the values, beliefs and assumptions learned as part of the history of the company and which are held to be necessary for the company’s success, are the essence of the company culture and determine the everyday behaviour of the actors. Assumptions exist about mission, strategy and goals in interaction with the environment, about the internal integration of interpersonal relationships in respect of language and common concepts, group boundaries and identity, the character of authority and relations, allocation of rewards and status as well as about the deeper assumptions of the national culture in respect of the relationship between man and nature, reality and truth, the human race, human relations, time and space. Roberts (2004:18), describes the company culture as a social motivation and control system. It contains the fundamental mutual values and sets of beliefs of why the organisation exists, the common mental models of how events are interpreted and the commonly held elementary behaviour norms. Mbigi (2005:18-22), asserts that for successful change in a networked world, existing knowledge, collective learning and cultural and spiritual renewal must be used on the basis of historical roots in organisations and in harmony with society. According to Rensburg (2007), global managers must exhibit a good knowledge of national cultural values in order to be able to not only tolerate various cultures but also to be able to learn from different world views and cultures and develop their own visions.

349 As the various areas of the company have to adapt to their respective environments, sub-cultures based on functions, geography, markets, products or roles also develop over time, parallel to the core culture. Opportunities for communication and dialogue can support understanding and agreement between sub-cultures. However, this is more difficult in large companies if bureaucratic processes increasingly replace personal contact.
4. Analysis of the three central tasks of an entrepreneurial organisation

To do this, a planned company-specific culture change\textsuperscript{350} has to be introduced by a systematic transformation process (see Schein 2003:115-135). Schein (2003) proposes for the transformation process\textsuperscript{351} that an internal steering committee drafts the necessary change processes as a parallel system for its own business field and defines the actual changes in work processes and with agents of change. The new culture then develops and stabilises with the repeated success of the new assumptions, norms, ways of working and thinking. According to Schein (2003:69-92), the starting point for the creation of an entrepreneurial culture is the drawing up of a culture balance sheet. In so doing, group surveys lead to collective assumptions. The identification of contradictions and conflicts between the behaviour and statements about vision and politics, as well as asking about the reasons for behaviour, lead to the deepest layers of the culture. The identified pattern of basic assumptions must then be evaluated against the achievement of the defined goals. For obstructive assumptions, a plan should be developed to change these cultural elements.

Kobi and Wüthrich (1986) see the compatibility of the company culture with the company strategy as a key area. Within this, a diagnosis, evaluation and shaping of the culture has to take place. An entrepreneurial culture can be founded through the cultural value system of the founders and managers and strengthened through entrepreneurial example. The company culture is formed from sub-cultures and can be adapted to changes in the business environment. At the same time, they can help to evaluate strategic options in the organisation for adapting to changed framework conditions. Individual actors can focus their activities on common cultural norms.

\textsuperscript{350} This is no simple proposition since, according to Schein (2003), culture in mature companies is also deeply anchored in the structures and processes.

\textsuperscript{351} Change processes require learning and unlearning. In this way, anxiety about learning amongst employees should be reduced by the strengthening of a psychological feeling of confidence. This is achieved through eight parallel steps: (1) The company management formulates and represents a positive vision; (2) Formal training follows new ways of thinking, new attitudes and new skills; (3) Contribution of students to the learning process; (4) Informal training of relevant groups; (5) Practice fields, coaching and feedback; (6) Observation of the desired new behaviour with positive role models; (7) Formation of support groups for dealing with problems; (8) Adaptation of organisation structures and reward systems for new ways of thinking and acting.
When diagnosing culture, Kobi and Wüthrich suggest taking cultural symptoms into consideration\(^{352}\) and using diagnosis instruments such as document analysis, tours of the company, surveys, observation and discussion. The evaluation of the culture should happen with reference to eight pillars: customer orientation, employee orientation, performance orientation, innovation orientation, cost orientation, the attitude of the actors to the organisation (company orientation), attitude to technology and supplier orientation. Depending on the desired entrepreneurial strategy, the target characteristics can be established in the eight areas and compared with the actual characteristics ascertained\(^{353}\).

From this, it is possible to derive some hints for the cultural development necessary or any adjustments to the entrepreneurial strategy. When developing the culture, attitudes have to become trusted, behaviour changed and then the new attitudes stabilised. Entrepreneurial managers can be role models (Deal and Kennedy 1982) for new or desired orientations. Since organisation structures influence the company culture and the culture characterises the organisation philosophy, the entrepreneurial culture and the entrepreneurial organisation design must be in harmony with each other (Kobi and Wüthrich 1986:201).

According to Sackmann (1991) many different concepts of company culture exist. Important tasks of the company culture are the integration of actors within the organisation, commitment of the actors to the organisation goals and the strengthening of adaptability\(^{354}\).

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\(^{352}\) According to Kobi and Wüthrich (1986), symptoms for an entrepreneurial orientation can be for example: Entrepreneurial management, promotion of entrepreneurial employees, forwarding of information beyond divisional boundaries, adjustment of strategies to changes in the business environment, decentralised decision-making structures, reward systems related to innovation.

\(^{353}\) In dynamic environments, a particularly strong innovative orientation is required. As elements and means for the promotion of a culture of innovation, Kobi and Wüthrich (1986:119-190) name openness to new ideas, the willingness to take risks, availability of time for entrepreneurial experiments, regular testing of new ideas in the markets, abandonment of penalties for failures and evaluation of learning processes, awards for champions of innovation, communication of successful entrepreneurial experiments, the employment, promotion and training of entrepreneurial employees.

\(^{354}\) Sackmann (2002) requires an adaptable culture in particular in a turbulent business environment and during the life cycle of an organisation. Necessary changes and challenges in the external environment should be recognised as early as possible so that adjustments can be implemented at the right time. In culture changes and culture design, managers as role models take on an important function: they personalise the (desired) company culture, give orientation for survival in the company, see (future) opportunities, exemplify priorities and set standards.
In this process, the company culture takes on a linking function between strategy and organisation processes\textsuperscript{355}. She describes three different cultural perspectives. The holistic perspectives define the cultural system as a value system with behaviour norms and ways of doing business within an organisation. This value system is thus the evolutionary result of historical activities and in turn itself guides future activities. With this perspective the company culture can be designed as a component of the organisation architecture. The variable perspective defines culture through collective activities, rituals, ceremonies, language, stories or legends.

According to the cognitive perspective, the company culture is described with collectively used ideas and theories, i.e. with mutual mental models of reality. Sackmann (2002:33-44) describes the company culture as the result of the collective construction of social reality and sees structural and dynamic aspects of the culture. For this, it develops a cultural concept with two building blocks. The common picture of reality (structural aspect) of a cultural group steers the perception, the thinking and feeling, as well as the action of the actors at a particular point in time. This common mental model can be shaped by social interaction and developed by cultural knowledge (dynamic aspect). Culture enables orientation, interpretation, stability and a reduction of complexity (Sackmann 2002:39).

Cultural knowledge\textsuperscript{356} is developed, for example, by mutual problem-solving or mutual experience from interaction with the environment. Individual solution proposals can become part of the company culture through communication processes and the assumptions of organisation members. Successes confirm cultural knowledge, failures lead to learning processes adjustment of common cultural knowledge. The company culture can then complement formal structures to support effective coordination within the organisation and help to overcome organisational deficits. It is precisely in complex environments that the company culture can contribute to a reduction in complexity and guide entrepreneurial decisions.

\textsuperscript{355} The company culture works as a collective thinking template in that the individual actors are the agents of the culture and it also has an influence of strategy development and the design of processes and structures.

\textsuperscript{356} Sackmann (1991) names for example mutual understanding of situations, terminology, interdependencies, procedures, beliefs.
Sackmann refers to the fact that there are various sub-cultures within the organisation and as such, as well as founders and top management, all other levels of the organisation have to be included in the examination and design of the company culture.

Because the company culture controls the behaviour of the actors, Davis (1984) believes that to implement the entrepreneurial strategy, it is necessary for the company culture to support the strategic goals and activities and to give the actors the necessary focus through common values and behaviour norms. Thus, the existing culture must be analysed and the connection with strategy systematically observed. He distinguishes the firmly-rooted guiding beliefs within an organisation from what he calls the daily culture. The guiding beliefs consist of universal external beliefs that are independent of the organisation and of internal beliefs relating to the organisation which together guide the daily culture as a company philosophy. According to Davis, the guiding beliefs determine strategy. The daily culture (company climate) is manifested in the rituals of experience and guide the implementation of strategies aimed at the future. The guiding beliefs would be determined by top management. In this way, culture can be used as a lever for strategy. National cultures can penetrate the company culture by different employees.

Understanding and design of the company culture is important for organisational design if the necessary change and required learning for adaptation to change in the business environment are to be achieved (Schein 1992). There are two outstandingly important aspects for the development of entrepreneurial culture:

1. Within the organisation, units with differing sub-cultures must be integrated into one consistent whole;
2. Taking into account the necessary adaptation in response to external change for securing viability, cultural-related resistance to change must be resolved by cultural change and an innovation and learning culture has to be developed.

Sackmann (1991) names sub-cultures with relation to hierarchies and functions. Since individual actors are also members of community, geographical, professional and other systems, forces are at work against a uniform organisation culture. Taking into account varying business environments in which different actors have to work, Sackmann also speaks of cultural groups. Sub-cultures can work independently from each other in a complementary or opposing fashion (see Sackmann 2002:56).
The company culture has to give focus in a turbulent environment and at the same time be adapted to changes in the business environment. The starting point for consideration of the company in terms of adapting to changes in the business environment is the common assumption concerning the mission and strategy to be fulfilled in the business environment. Basically, organisations must together define the collective task that they then use to define the exchange relationship with internal and external stakeholders. Subsequently, common assumptions about operational goals and the ways of pursuing the mutually held mission are developed. The consensus about the criteria for measuring success and the kind of strategic reaction to failure are, according to Schein, further elements of culture development in interaction with the environment. Reactions in times of crisis would lay open the deep cultural assumptions of an organisation. The reaction to crises hence offers a good opportunity for culture development and culture analysis.

The adjustment to the external environment requires strong internal integration within the organisation (Schein 1992:70-93). The organisation must develop a common language, clarify together situations and boundaries in the organisation, define rules, relationships and reward mechanisms in order to determine common assumptions. These assumptions about the necessary external adjustment and internal integration determine the company culture independently.

According to Schein, in turbulent environments, a learning and innovation culture can define a common pattern of thought according to which the organisation has to act as a proactive problem-solver so that it can fulfil its mission using the change and learning (Schein 1992:363-373). In this context, it is also possible to integrate the assumption that trustworthy communication and a free flow of information bring success. Learning managers must themselves first learn new assumptions and serve as examples in order to anchor adaptability in the company culture (Schein 1992:375-392).

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358 Schein (1992:53-56) defines owners and providers of capital, suppliers, managers and employees, society and politics, and customers as stakeholders in the business environment.
Kotter and Heskett\textsuperscript{359} speak of adaptable cultures which help organisations to adapt to environmental changes (often uncertain future ones) in order to ensure their viability\textsuperscript{360}. The actors and the entire organisation must help each other in detecting problems and be open for innovation. A trusting, target-oriented and high risk-taking orientation support entrepreneurship and thus adaptation to changes via the determination and exploitation of new opportunities. The necessary initiative at all levels is supported by an entrepreneurial culture\textsuperscript{361}.

This initiative for change is to be promoted by leadership and open communication. Adaptable cultures are successful, then, if you define and take account of the environments with the organisation’s most important reference groups (Kotter and Heskett 1993:68)\textsuperscript{362}. If reference groups are paid more attention, relevant changes and trends can be discovered more rapidly. The company culture supports readiness to change and is aligned through understanding by management that is conscious of adaptation to changed framework conditions in a way that values which support adaptation are strengthened by success (see figure 103). To strengthen the basic philosophy, suitable compensation systems and performance evaluation processes can be put in place.

Cameron and Quinn (2006) emphasise the relevance of the company culture for the sustainable success of organisations in that it reduces collective uncertainty and creates social order and stability.

\textsuperscript{359} Kotter and Heskett (1993) distinguish three basic company cultures: Strong cultures have mutual, consistent and very stable values and behaviour rules which hardly change (even if a new chief executive officer takes over); Strategically moderate cultures must be in line with the context, i.e. the strategic alignment of an organisation, of the relevant industry or the selected sector; Adaptable cultures help the organisation to anticipate environmental changes and adapt to them.

\textsuperscript{360} According to Stadler (2009:79-82), each individual employee must act entrepreneurially in a culture of change and the organisation must play a part in its own area of influence. The values of the individual actors must then be the same as the values of the organisation (see also chapter 4.3.2.2). In addition, it is necessary to have an intensive exchange between the actors, in particular in relation to questions of values.

\textsuperscript{361} Roolath (2006:92-110) ascertains that an entrepreneurial culture is strongly determined by the economic and technical environment and the competition environment. A strong individualistic culture can help innovation as a means of achieving entrepreneurial goals.

\textsuperscript{362} In a study, Kotter and Heskett (1993:68) identify that organisations with strong customer, shareholder and employee oriented cultures can be judged as strong performers. They conclude that the cultural ideal state in organisations with adaptable cultures is attained if all managers on all hierarchical levels take responsibility and initiative, choose or adapt strategies and tactics which give equal consideration to the interests of reference groups of customers, employees and shareholders.
At the same time, adjustments of the organisation to changes in the business environment must be accompanied by a change of the organisation culture in order to link the new strategies and structures with the basic goals, values and assumptions and to maintain them in the long-term. They specify a process for culture change (Cameron and Quinn 2006:85-104).

In an assessment of the current and desired future organisation culture (see Sackmann 2007), it is possible to draw up and discuss a diagnosis of the necessary culture change in response to changes in the environment. As a next step, examples of the desired cultural orientation is described in two to three stories. The messages mark the starting point for the change process with actual and visible activities and intensive communication about culture change. For the individual actors as agent of change, behaviour and competencies should be defined which reflect the new culture and thus support the culture change. Cameron and Quinn (2006) emphasise with this the connection between individual changes and culture change in the organisation. They define four fundamental culture types of an organisation (Cameron and Quinn 2006:33-45).
4. Analysis of the three central tasks of an entrepreneurial organisation

Depending on which phase of the life cycle an organisation finds itself in or which actual environmental situation and strategic direction prevails, usually one of the four types will dominate in terms of the effectiveness of an organisation. The success of an organisation then consolidates the existing cultural orientation or gives an indication of what culture change is needed. Cameron and Quinn define two dimensions for the determination of the four culture types. Some organisations assume that stability, order and control lead to effectiveness, others assume that the focus must be on flexibility, adaptation and dynamics. With the second dimension, there is a distinction between a strong internal orientation with a view to integration and a strong external orientation with a view to differentiation as criteria for effectiveness. The four culture types result then from the combination of the two dimensions and determine different corresponding mechanistic versus organic or integrated (central) versus differentiated (decentral) organisation forms.

Cameron and Quinn’s four central culture types are firstly a culture that is focused on innovation, adaptation and flexible use of resources (adhocracy culture), secondly one that is focused on competitiveness, market coordination and achievement of results (market culture), thirdly, one that is focused on efficiency, formal rules and hierarchy (hierarchy culture) and finally, one that is focused on participation, teamwork and loyalty between the organisation and the actors (clan culture). One or more culture types would dominate the cultural orientation of an organisation at a particular point in time. Keeping in mind the existing culture profile and the one desired for the future, alongside the culture development it is possible to have holistic coordination with the other elements of the organisation design based on the culture profile (Cameron and Quinn 2006:31-60).

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363 According to Cameron and Quinn (2006:53-54) an organisation in the start phase firstly has an adhocracy culture, then develops a clan culture in addition so that with maturity, the organisation can enter into a hierarchy culture phase. The market culture increases in significance which in turn leads to the formation of sub-cultures.

364 According to Cameron and Quinn (2006:48-49), different cultures define different criteria of effectiveness. In the hierarchy culture, efficiency and elimination of waste and duplication are important. In the market culture, market share, competitiveness and revenues are important. In the clan culture, community and teamwork, staff moral and job satisfaction (involvement, empowerment and commitment) are important. In the adhocracy culture, ideas for new markets and opportunities, innovation and problem-solving are factors which count.

365 For a brief illustration of the four culture profiles see Cameron and Quinn (2006:66).
Mintzberg (1991b) describes the company culture as an agent of harmonisation between the individual and organisational goals. The connecting culture takes care of the necessary integration and synergy within the organisation. For Mintzberg, the development of the organisation culture takes place in three phases. Firstly, a group of managers with a strong belief in the common mission is formed. Important events form traditions and stories which strengthen a common understanding and commitment to the company. In the third phase, the actors have developed strong identification and loyalty to the organisation. The living system has developed a company culture.

According to Ireland et al (2009:31,32), an entrepreneurial culture arises if a top management entrepreneurial strategic vision and an entrepreneurial organisation design lead to individual actors behaving entrepreneurially. In turn, an existing entrepreneurial culture promotes entrepreneurial behaviour amongst the individual actors. Over time, an entrepreneurial culture can be developed which helps with the continuous discovery and implementation of opportunities. The entrepreneurial culture can be described as the binding agent for the entrepreneurial organisation design and the entrepreneurial orientation of an organisation and the individual actors.

MacDonald (2008) gives advice on how an entrepreneurial culture (see also Franke 2004) can be developed in a bureaucratic world. The starting point for his thinking is that the individual actor wishes to practise entrepreneurial thinking and action as a personal life philosophy. MacDonald establishes that most organisation systems have a bureaucratic design but can, however, be combined with an entrepreneurial culture. This can be achieved through a personal entrepreneurial management style together with the building of a team in which the actors support each other in the pursuit of individual interests. An entrepreneurial philosophy can be learned and applied at all levels of the organisation.

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366 Stacey (1996:290) also describes the culture as a common reminder for the organisation of what has worked and not worked. From this, a recipe for the present and the future can be derived – the common mental model.

367 Ireland et al (2009) name as elements: emotional commitment, ability to implement, striving for recognition, consciousness of responsibility, desire for performance and high standards, mentoring, access to resources, autonomy, tolerance for errors, top management as an example, entrepreneurial thinking and action as a behaviour norm.
4. Analysis of the three central tasks of an entrepreneurial organisation

With the successful implementation of entrepreneurial activities, the entrepreneurial culture develops and strengthens itself. This process can be supported by developing mutual interests between the actors and the organisation and also within the units\(^{368}\); this can be done through the development of entrepreneurial ideas taking future developments into account\(^{369}\), through openness, empowerment, motivation and participation, trust, credibility (constant, consistent and concise) as well as through genuine and systematic communication and information, careful risk management, reward and reasonable payment commensurate with performance and the additional added value, as well as through prioritising and simplification\(^{370}\).

4.3.3 Conclusion: Notes on the entrepreneurial organisation design

Lynch (1997:620-649) examines the context between strategy, structure and culture. He refers to two alternative perspectives according to which the strategy determines the structure of an organisation or the strategy and structure have a mutual influence on each other. Thus, the existing organisation structures can evoke certain strategies and, in turn, prevent others. The experimental adaptation of the organisation to changes in the business environment links strategy development and structure adaptation. Such an emergent strategy process requires an open and less formal organisation structure so that decentralised innovation, adjustment and learning\(^{371}\) are promoted\(^{372}\). The adaptation of strategy and structure requires an adjustment of the culture as part of the total process (see also figure 104).

\(^{368}\) According to MacDonald (2008:45-50), this principle can also be practised beyond the boundaries of the organisation in that the organisation or the customer relations set themselves up in accordance with this principle. The key for successful implementation is to see the world as others see it and the will to realise mutual interests. The entrepreneurial spirit can then be captured with three questions: What are the available alternatives? What is the right thing to do? Is what we are doing in parallel?

\(^{369}\) For the visualised future, plans can then be developed as to how the entrepreneurial vision can be realised – see MacDonald (2008:53-66).

\(^{370}\) MacDonald (2008:31-186) calls these supporting aspects the eleven secrets for building an entrepreneurial culture in a bureaucratic world. He states that a completely entrepreneurial company can be developed within a bureaucratic organisation – although this is a difficult and frustrating task.

\(^{371}\) Entrepreneurial activities that are not particularly closely related to previous business and activities, could, according to Floyd and Woolbridge (1999), define important learning fields for the development of new competencies. They see middle management as drivers of entrepreneurial activities.

\(^{372}\) According to Lynch (1997:640-649) this requires from managers a new managerial understanding that permits emergent strategies and decentralised self-organisation.
4. Analysis of the three central tasks of an entrepreneurial organisation

The entrepreneurial information gathering and learning processes make it possible to define the goals of an entrepreneurial organisation in the context of shaping the entrepreneurial future. The entrepreneurial organisation design determines the order and structure as well as the processes for the implementation of entrepreneurial decisions and activities for the achievement of efficiency. It determines the flexible framework for the creation and implementation of ideas together with an efficient input-output transformation in the operational system.

For the fit hypothesis, see for example Bea and Göbel (2002:396-425). They distinguish external and internal (self-dynamic) causes of change and state that every serious change of the situation of an organisation makes organisational change necessary. The organisation structure must then be harmonised with the target system, strategy, manufacturing and information technology as well as the company culture (Intra-System-fit) in order to achieve with this a system that is environmentally fit. They require explicitly with this the involvement of aspects related with the past, such as the age and state of development of the organisation. Autonomous units can implement entrepreneurial strategies and work in clearly defined markets. The transfer of knowledge and cooperation strategy can be supported by the networking of decentralised, autonomous parts of the company. The organisation structure and organisation culture have a mutual effect on each other. According to Sachs (2000), the dynamic fit must be shaped in steady state equilibrium with a mixture of coincidence and intention. Zentes and Swoboda (1999:48-49), give a compact overview on literature about the intra-organisationally designed fit approach. Dhliwayo (2010:139-156) defines six organisational factors to ensure an entrepreneurial operational fit: (1) Entrepreneurial Politics; (2) Entrepreneurial Strategy; (3) Human Resources; (4) Structure; (5) Culture; (6) Management and Leadership. Brodbeck (2002) describes self-organising team structures to achieve organisational structural fit.
4. Analysis of the three central tasks of an entrepreneurial organisation

Change in the business environment determines change in the organisation. In particular, changes in the industrial and competition environment affect the opportunities and risks of the organisation and thus the development and implementation of the mission and strategy. Changes in the general macro environment have an effect on sectors as well as on the mental models of the actors and the organisation. They thus influence the entrepreneurial self dynamic in existing and new businesses. Controlled entrepreneurial strategy develops in a planned and emergent way and shows itself in the entrepreneurial activities realised. These activities are the result of reflecting current and future opportunities and threats against the current and future resources and competencies of the organisation.

Entrepreneurial organisation design (see Nayager and Vuuren 2005) enables the creation and implementation of ideas in cross-divisional teams. According to Bhardwaj (2011), the design of an appropriate reward structure should complement the vision of the entrepreneurial organisation. New business is firstly connected separately and loosely to the formal organisation and with growing maturity, becomes more strongly attached and integrated into the total organisation. Depending on the dynamic and complexity of the business environment and the maturity of the business, both central and decentralised and formal and informal structures are developed. Efficiency and flexibility are connected in the production process and use of resources. When analysing the effects and the development of the organisation design, the economic behaviour model can be used to allocate decision rights and to determine performance evaluation and reward mechanisms. In particular focus is the harmonisation of the interests of the individual actors, the units and the total organisation. Together with the structural design, the organisational culture is extremely important here (Deal and Kennedy 1982).

Dess et al (1999) ascertain that too tightly drawn boundaries hinders the necessary flexibility and adaptability of the organisational configuration. Striving for efficiency and effectiveness must be combined and complementary strategic combinations pursued. In so doing, various internal and external organisation types can be used: (1) The modular entrepreneurial organisation concentrates on core activities and cooperates with other entrepreneurial organisations; (2) The virtual entrepreneurial organisation uses complementary competencies within dynamic networks of independent organisations which pursue common goals - modular and virtual structures reduces boundaries between organisations; (3) With internal limits in mind, barrier-free entrepreneurial organisations can strengthen the entrepreneurial orientation via small entrepreneurial organisational units, process teams and interdisciplinary work groups.
The entrepreneurial culture and core values (see Collins and Porras 1995) can guide individual and decentralised activities in the direction of the total organisation. For this, the formation of parallel interests between actors and the organisation and the consideration of personal needs when designing the tasks and collaboration can make a contribution. An entrepreneurial culture in particular promotes adjustment and innovation within the organisation. Entrepreneurial thinking and action as a standard and common mental model via the entrepreneurial organisation and the environment are predominant features of the entrepreneurial culture. According to Vance et al (2008), linear (logic and analytic) and nonlinear (intuition, creativity, imagination) thinking can contribute to the development of an entrepreneurial culture. The realisation of successful entrepreneurial activities strengthens the entrepreneurial orientation of the actors and the organisation. Changes in the environment also demand adjustment to the entrepreneurial culture. In addition to this, it is possible to determine a present and target culture via a culture diagnosis, to develop culture change in a focused way and select a culture that is appropriate for the organisation and the environment. Individual entrepreneurial personalities can be used as culture agents. Overall, the entrepreneurial culture can act as a link between the entrepreneurial strategy and structure so that a holistic entrepreneurial orientation can be achieved.

**Definition: Entrepreneurial shaping of the organisation**

Keeping in mind the organisation’s mission and changes in the business environment, the entrepreneurial organisational design supports the dynamic environment – strategy – structure – culture – resources and competencies fit in order to strengthen the interaction between the organisation and the external business environment. The entrepreneurial organisation design strengthens the performance of the organisation to survive in a dynamic and complex environment and determines, together with entrepreneurial information gathering and entrepreneurial shaping of the future, the entrepreneurial orientation of the organisation.

The achievement of the three central tasks of an entrepreneurial organisation, based on the division of labour, must be specified company-specifically. For the organisation as a whole however, general roles can be defined which can specify the implementation of the three tasks and, in specific cases, steer them. In addition, in chapter 5 a role model is developed which can steer the entrepreneurial organisational design. The framework introduced in chapter 5.2 for the specification and analysis of the business environment can support entrepreneurial information gathering.
4. Analysis of the three central tasks of an entrepreneurial organisation

The qualitative systems model presented in chapter 5.3 describes the fundamental interaction between the entrepreneurial organisation and the environment for shaping the entrepreneurial future on aggregated levels. Together with the framework for the business environment and the systems model for interaction between the organisation and the environment in chapter 5 (see figure 105), the role model clarifies the role of intrapreneurship in a global, competitive business environment in permanent change that is impacted by technological developments.

Figure 105: Development process for a holistic intrapreneurship design concept