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PRODUCTINFO

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Z_trenddatabase

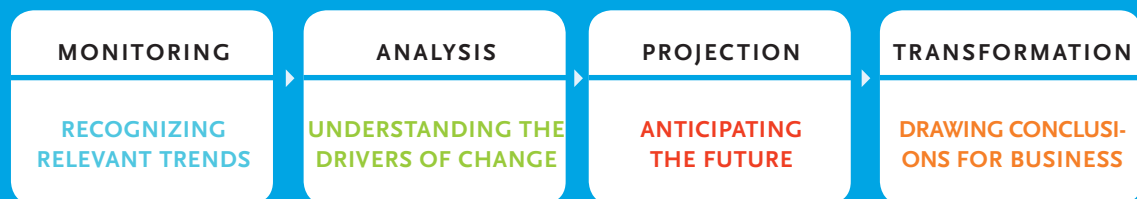
An Essential Tool for Strategy and Future Work in Companies

Updated September 2007

Since 1997, we at Z_punkt have been supporting international enterprises and institutions with our analyses of trends as well as customer-specific scenario, innovation, and strategy processes.

punkt The Foresight Company

Z_punkt is a **Foresight Partner** for strategy and innovation: Whether it is trend monitoring or scenario processes. A **Content Provider** of strategic future knowledge: Consumers, industry environment, technologies. **Think Tank** for sophisticated creative and innovative processes. **Service Provider** for the systematic translation of Corporate Foresight into corporate practice.



International Networking Partnerships with other Foresight-institutions in Europe, the United States, Asia, Central America, and Africa have given Z_punkt comprehensive insight into the developments on the world's crucial markets.

References Our customers are leaders in innovation in the technology, service, consumer, and media industry. They include, e.g., Deutsche Telekom, Siemens, BASF, RWE, Volkswagen, Henkel, SAP, SK Telecom, Mazda, Philips, and the European Commission.

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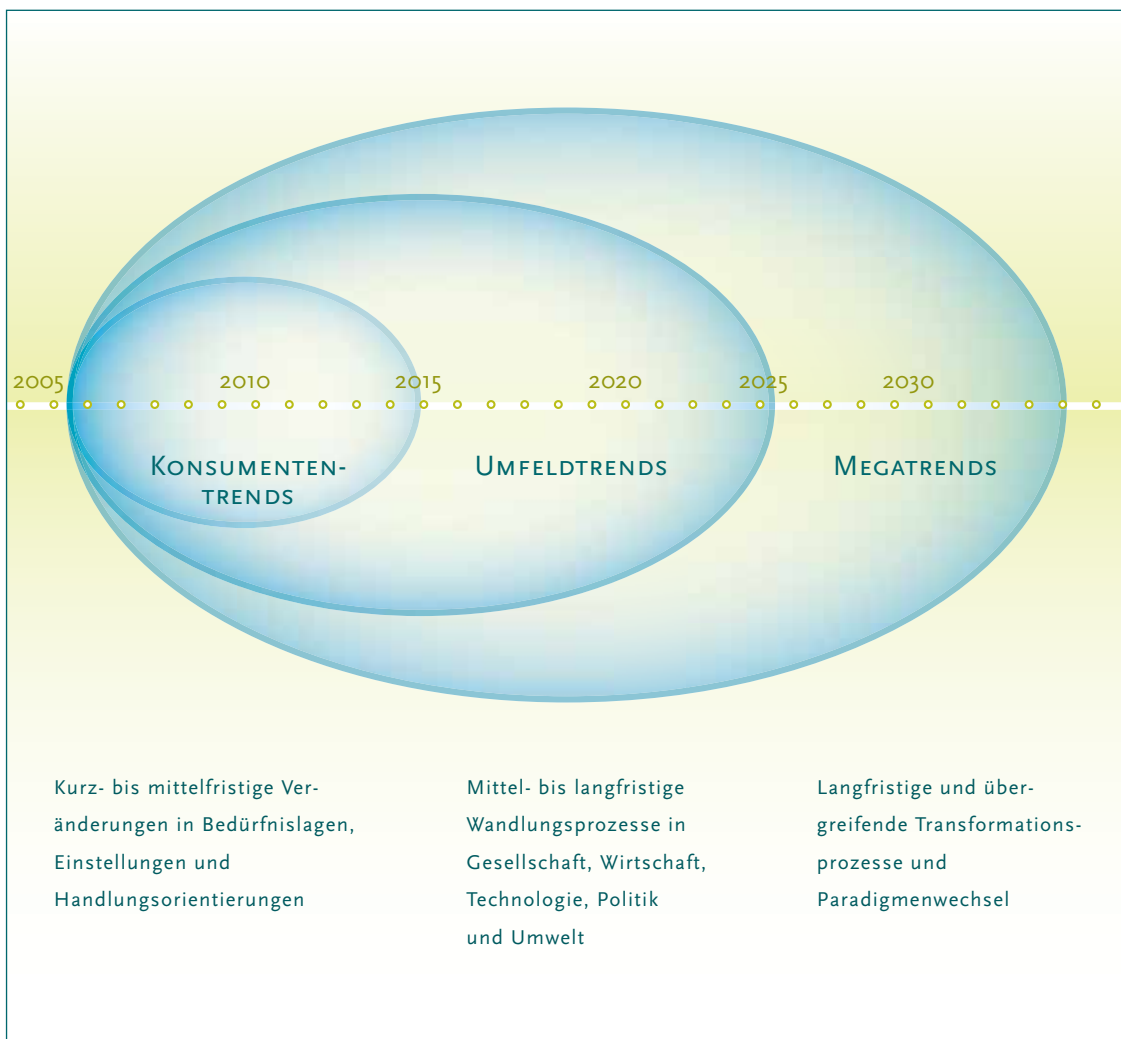


Figure 1: Trend Systematology

1 Introduction

(A) The **Z_trenddatabase** is an extremely useful, innovative knowledge tool for the business community developed by Z_punkt. It integrates crucial, mid- to long-term developments in society, culture, economy, technology, politics, law, and ecology into a hypertext based database.

(B) The **Z_trenddatabase** offers topical knowledge about formative developments, based on scientific data. It identifies and focuses on the driving forces of social, technological, and economic change. Its data are based on continual environmental monitoring, detailed Internet research, literature surveys, and secondary analysis.

(C) The **Z_trenddatabase** constitutes a well-structured basis for a wide range of uses in your company. It can be used for the early recognition of market trends, assessment of the opportunities and risks offered by existing and emergent products and business areas, and scenario-based development of possible futures and deduction of strategic options.

(D) The **Z_trenddatabase** is a must-have instrument for anyone concerned with the future and strategic planning.

2 General Features of the Z_trenddatabase

Within the framework of in-house knowledge management, the **Z_trenddatabase** is a vital tool. Its basic features are: (*) Well-structured layout, with the content arranged according to subject in five subsystems, trend clusters (summarizing descriptors), and detailed descriptions of individual trends (*) Highly practical presentation and synopsis of a multitude of international sources and surveys (*) Comprehensive range of illustrations and tables with the latest figures and forecasts (*) Regular updates of data and evaluation by an external panel of experts (*) Customer-specific grouping of trends according to focal regions (EU, US, Asia) (*) Available in German and English (*) Database is html-based.

3 Structure and Content of the Z_trenddatabase

Level 1 subdivides our macrocosm into five relevant subsystems – society and individual, economy and business, technology and innovation, politics and law, and environment – thus guarantying a close monitoring of markets and their environs.

On **Level 2**, we find the descriptors. They combine trends based on their content, e.g. in the mobility sector, on the topic of changes in values and lifestyles, or demographic changes. Descriptors are static in nature, i.e., their descriptions or definitions pertain to clearly delimited subjects.

Individual trends compose **Level 3**. Examples would be „Increasing Influence of the Media on Life“ or „Economic Growth Shifts to Asia“. The trends' titles emphasise their dynamic nature. As trends are subject to short-term changes or termination, they need to be re-evaluated frequently.

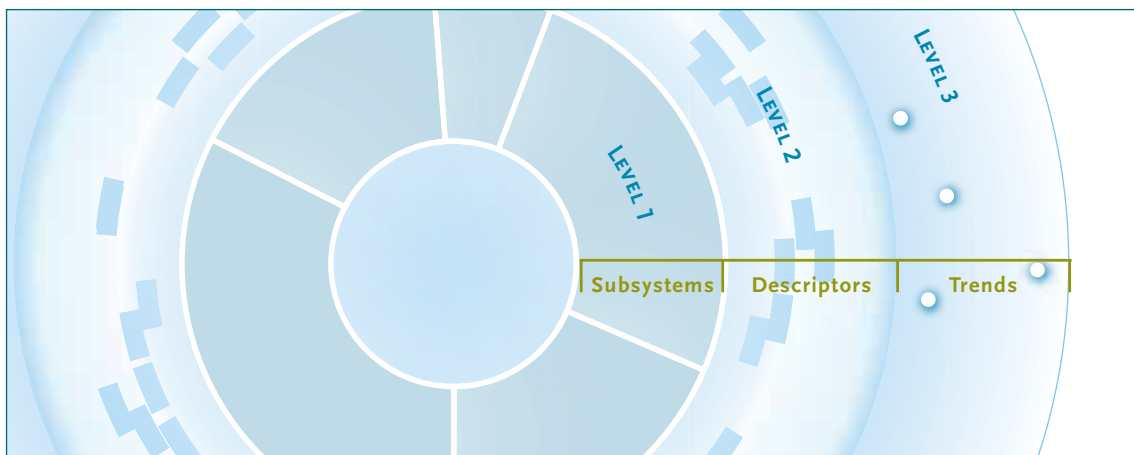
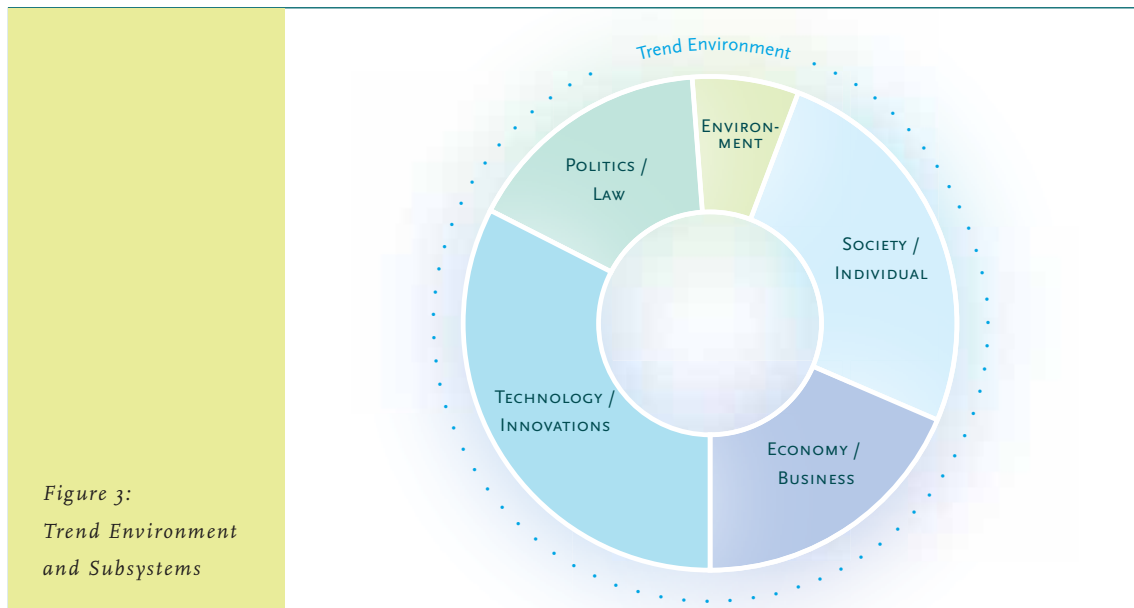


Figure 2: The Structural Layout of the Z_trenddatabase

3-A The Trend Environment in 5 Subsystems

The hierarchic structure of the database is modelled on basic human activities (commercial, social, political, technical). It encompasses both anthropogenic and natural conditions (infrastructure, environment) and their consequences for each subsystem.



The Subsystems in Detail

Society and Individual The Subsystem „Society and Individual“ includes every socio-structural and cultural aspect: demographic and social change, individual standard of living, organisation of one’s leisure time, and systems of value. Also part of this subsystem are socio-economic conditions (households and their incomes with the resulting purchasing power), as these aspects form the basis of all further socio-cultural factors. The Subsystem „Society and Individual“ concentrates in particular on issues of individual behaviour and their structural characteristics (headwords: leisure time, ways of life, consumption). Developments in this subsystem are essential for the detection of potentials for future businesses and market.

Economy and Business Included in the Subsystem „Economy and Business“ are all aspects of economic activity, be it on a global level, macro level (national economies), or micro level (management of businesses, companies, including questions of corporate culture and business organisation). Also featured are issues concerning „work and employment“, both with regard to its importance for national economies and concerning the changes in work relationships (legal and organisational aspects). Furthermore, essential aspects of structural changes in consumer behaviour are taken into account in this subsystem. Not covered are national business regulations (these can be found in „Politics and Law“).

Businesses will find that the presented information on and analyses of trends in their core environment offers them a range of knowledge beyond their immediate markets or trades, giving scope for strategic and organisational orientation.

Technology and Innovation In the Subsystem „Technology and Innovation“, two kinds of technological aspects come to the fore: on the one hand those which, from today's perspective, can be considered the driving technologies of change in business and society for the next five to ten years, and on the other hand, those which have a special significance for the customer's area of business. In principle, most of these trends could have gone under the heading of „Commerce and Industry“, but this would have meant neglecting the interrelation between innovations and their contexts (research, technological realisation, and application). Therefore, the Subsystem „Technology and Innovation“ not only deals with technology on the product level (technical systems) but also includes all research or innovation activities contributing to these products.

This subsystem offers the crucial information businesses depend on for the well-timed integration of imminent substitution effects or convergence processes into their strategic focus.

Politics and Law The Subsystem „Politics and Law“ is increasingly dominated by international developments and interconnections, an assessment evidenced by the composition of descriptors and trends. Relevant supranational and international political factors predominate (European Union and other supranational organisations, systems based on treaties and agreements etc.). Also part of this subsystem are those processes of globalisation, which are not exclusively economic in nature. Furthermore, national factors (pertaining to specific countries) have some influence, but these remain less important.

Even in a time when economic criteria reign supreme, political and legal surveys remain compulsory for the assessment of relevant market developments.

Environment The Subsystem „Environment“ includes all natural locational factors: physical-geographical conditions, ecosystems, and resources. In particular, we pay meticulous attention to the development of national and global ecological damages and to the consumption of resources and energy. Another central theme are the effects on the environment as a result of human mobility, town and environmental planning.

Future economies will be increasingly dominated by the interdependency of economic growth efforts and ecological sensitivity. Accordingly, strategic business decisions will have to factor in ecological issues.

3-B Descriptors and Trends

Descriptor Descriptor is a collective term for significant, interconnected developments. They are used to give subsystems a more detailed structure. Therefore, trends are allocated to descriptors not according to formal considerations, but rather according to content. As trends often represent complex phenomena, multiple allocations would be possible. For reasons of simplicity and transparency, we have not done so within the framework of the trenddatabase.

Trends The term „trend“ describes a constant, sustained and for the most part continuous development – in contrast to cyclical changes, erratic fluctuations or genuine evolution (the emergence of something fundamentally new). The term „trend,“ originating from market research and economical statistics, is primarily phenomenological: it describes a change without making a judgment on its causality. As long as we know little about its causes, extrapolating a trend into the future remains problematic. Variables are opposite developments („countertrends“) or trend-internal saturation effects; even sudden stops (due to external influences) are possible. Future studies classify trends according to continuity. There are, however, no uniform definitions. Within the framework of this database, we distinguish between: (*) Short-term Trends: any trend continuing for a maximum of three more years (*) Medium-term Trends: trends continuing for at least three and up to approx. 10 years (*) Long-term Trends: any trend continuing for longer than 10 years.

Trends below the short-term definition turn into fashions, while developments beyond long-term trends are often called „Megatrends“ (extremely long-term trends).

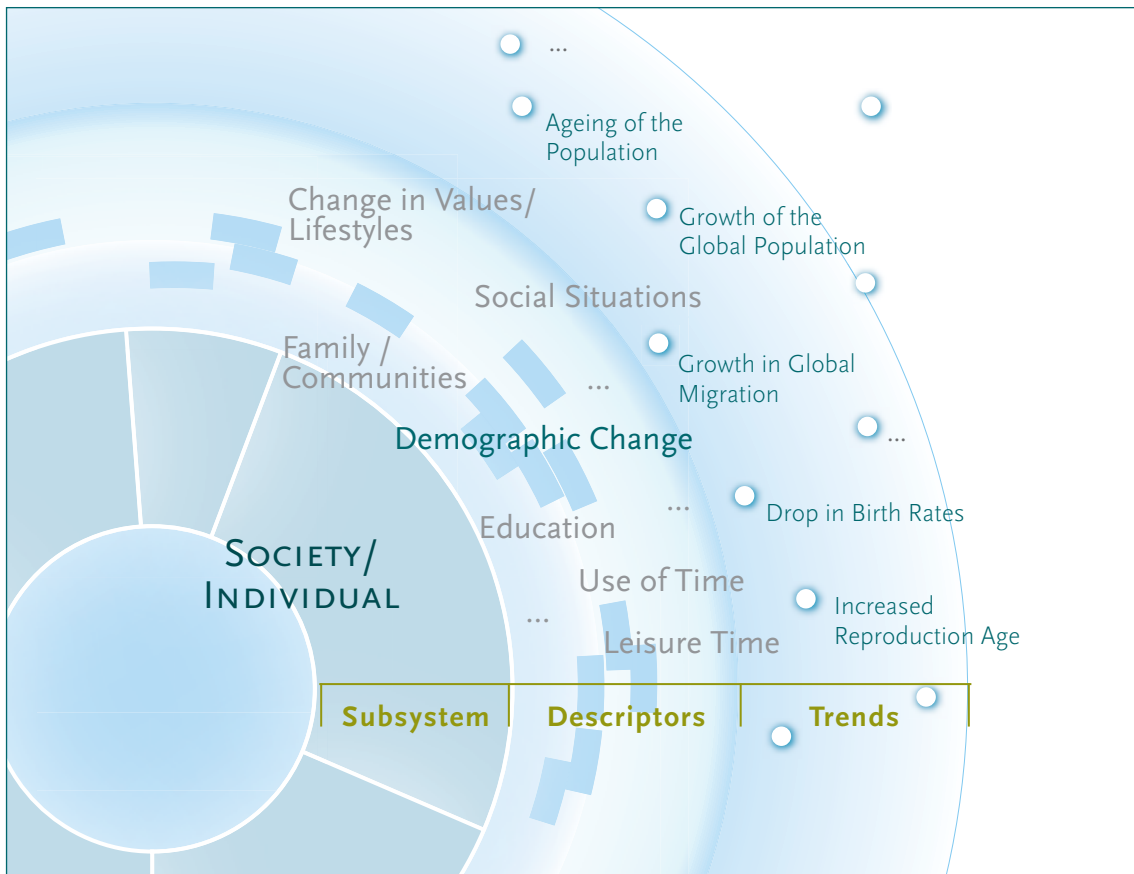


Figure 4: Descriptors and Trends

Naturally, the classification of trends according to their timeframe is primarily concerned with their pasts, i.e. for how long a particular trend has already been observed or has been stable. Trends are assumed to continue into the future for a similar length of time, if there are no indicators to the contrary, i.e. no quantitative data from trend extrapolations or simulation models, counter trends, or other indicators for sudden stops. In this sense, classifying trends as „long-term“ implies that they are forecast to last for at least the next 10 years. Please keep in mind that long-term trends go beyond the average forecast horizon of the majority of future studies.

Trends have either a quantitative or a qualitative character. As far as possible, we have included quantitative indicators in the database. With some trends, however, quantification is either precluded or highly problematic due to a lack of appropriate indicators or insufficient measurability.

It is often uncertain how trends will develop. These „imponderables“ may be the result of insufficient data, contradictory sources, lacking or unsatisfactory quantifiability, major fluctuations within the trend, existence of counter trends, or the trend's dependency on human actions (especially exertion of political influence). In the extreme, imponderability may lead to assumptions on imminent trend stops. In the context of trend descriptions, we explicitly mark these uncertainties.

4 Trend Descriptions in the Base Module

For every trend in the base module, we have collected and prepared the following information (see also illustration below): (*) An abstract of the trend giving a one-look overview of the trend's main statements (*) An analysis of the trend's most significant implications for trade and commerce (*) Extensive facts and figures , trend history, and, forecasts for future development (*) Assessments concerning the trend's timeframe (duration), its impact and continuity (*) A reference to the trend's regional manifestation (degree of the trend in different regions or countries) (*) An indication of trend imponderables (e.g., lack of data, uncertainties as a result of possible political influence) (*) One or several charts, if applicable (*) Comprehensive references (*) Internal links to trends with related content

Your company logo

Level 1:
Macrocism in five subsystems

Level 2:
Summarising descriptors

Level 3:
Individual trends

Internal links to related trends and comprehensive references

The screenshot displays a web browser window with the title 'Shorter Innovation Cycles'. The page header includes the 'zpunkt The Foresight Company' logo and navigation links: Home, Search, Clarity, Impact, English, Deutsch. The main content is organized into several sections:

- Society and Individual Economy and Business Technology and Innovation:** This section contains a list of innovation dynamics, including 'Sustained Innovation Dynamics', 'Shorter Innovation Cycles', 'From Information and Communication Technologies to Biotechnology', and 'Birth of New Global Innovation Centres in Asia'.
- Research System:** This section lists various fields of innovation such as Information Technology, Communication Technology, Transport, New Materials, Life Sciences, Nanotechnology, Artificial Intelligence and Robotics, Medical Technology, Environmental Technology, Energy, and Food and Agriculture.
- Politics and Law Environment:** This section is currently empty.

The central part of the page features a detailed trend description for 'Shorter Innovation Cycles'. It includes a table with columns for 'Region', 'Start', 'End', 'Impact', and 'Continuity'. Below the table is a 'Charts' section with a small chart titled 'Exploring of Product Life in Selected Sectors'. The text describes how innovation cycles have shortened since the 1990s and discusses the 'Business Implications' for high-technology sectors, noting that R&D expenditure is high and timing is crucial.

At the bottom of the page, there are sections for 'Links' (listing 'Increasing Acceleration and Simultaneity', 'Increased Interlinking of Basic and Applied Research', etc.) and 'References' (listing 'Backhaus 1999', 'Gronmoore 1997', 'Schoff 1995', 'Schulmacher 2003').

HTML-based, usable with your standard browser in the intranet

Clear trend assessments according to regions, timeframe, impact, and continuity

Charts can be clicked and exported

Trend Abstract: one-look overview of main statements

One-click connection to the article with all relevant details and forecasts

Figure 5: Trend Descriptions in the Z_trenddatabase

5 Supplementary Options

The following content is coordinated with the customer in the run-up and offered as customer-specific supplements:

- (1) **Exclusive trends and technology fields** which have specific relevance for the customer's trade or business interests
- (2) **Customer-specific trend assessments**
- (3) **Specification of trends as regards to particular countries** /country groupings
- (4) **Industry-specific wild cards** for the analysis of strategic risk potentials

Z_punkt offers additional, market-oriented research and advisory services in connection with the **Z_trenddatabase**. These range from short spotlights on particular topics to the design of comprehensive scenarios or innovation processes. Rely on our specialist knowledge, collected in a multitude of practically oriented future projects!

6 Possible Uses for the Z_trenddatabase in Your Company

The **Z_trenddatabase** offers essential, expertly collected information for mid- to long-term future work. Its impact on work in research and strategy, however, depends on the degree of its integration into relevant practices. Examples would be:

Environmental Monitoring Which general developments will influence events in our markets? **Scenario Processes** Which alternative developments do we take into consideration for the next three, five, or 10 years? **Business Planning** What are our strategic options? Which strategy will we opt for? **Strategic Marketing** Which new needs and challenges will determine our customers' future demands? **Innovation Management** Which innovative products and services will we be successful on tomorrow's markets?

A large number of consultation projects in companies have given Z_punkt comprehensive competence in the areas listed above. We would like to illustrate the use of the **Z_trenddatabase** in the following two examples:

Example 1

Scenario Processes: Early Recognition of Strategic Alternatives How will specific markets and their surroundings develop over the next five, 10, or 20 years? How will this affect the strategic options for our business? Which strategic vision should I adopt for my branch or organisation?

Scenarios are coherent "pictures of the future" extrapolated from existing trends and specific objectives. Scenarios are used to research business environments systematically, to recognise alternative options early, and to optimise strategic decision-making processes.

Finally, yet importantly, scenarios are an excellent tool for the communication of visions of the future within and outside the company.

The raw material for your scenarios – the relevant facts and figures – comes from the **Z_trenddatabase**. Let Z_punkt be your guide: From trends and information on your environment to the drawing of conclusions and the formulation of options for your business.

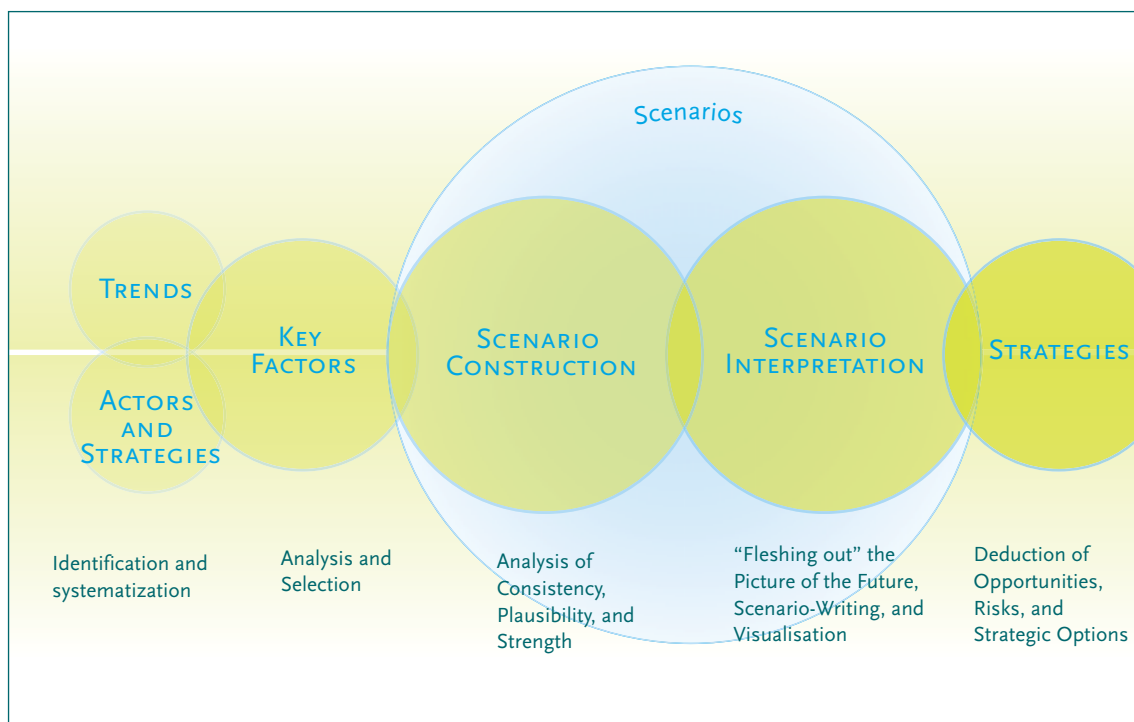


Figure 7: Trend-Based Scenario Process

Example 2

Innovation Management: Inventing and Creating the Markets of Tomorrow

How can you use the results of trend and future research in innovation processes and strategic product planning? How can you align your R&D-activities to the actual demands of tomorrow's markets? Where can you get expert input and ideas for new products and services?

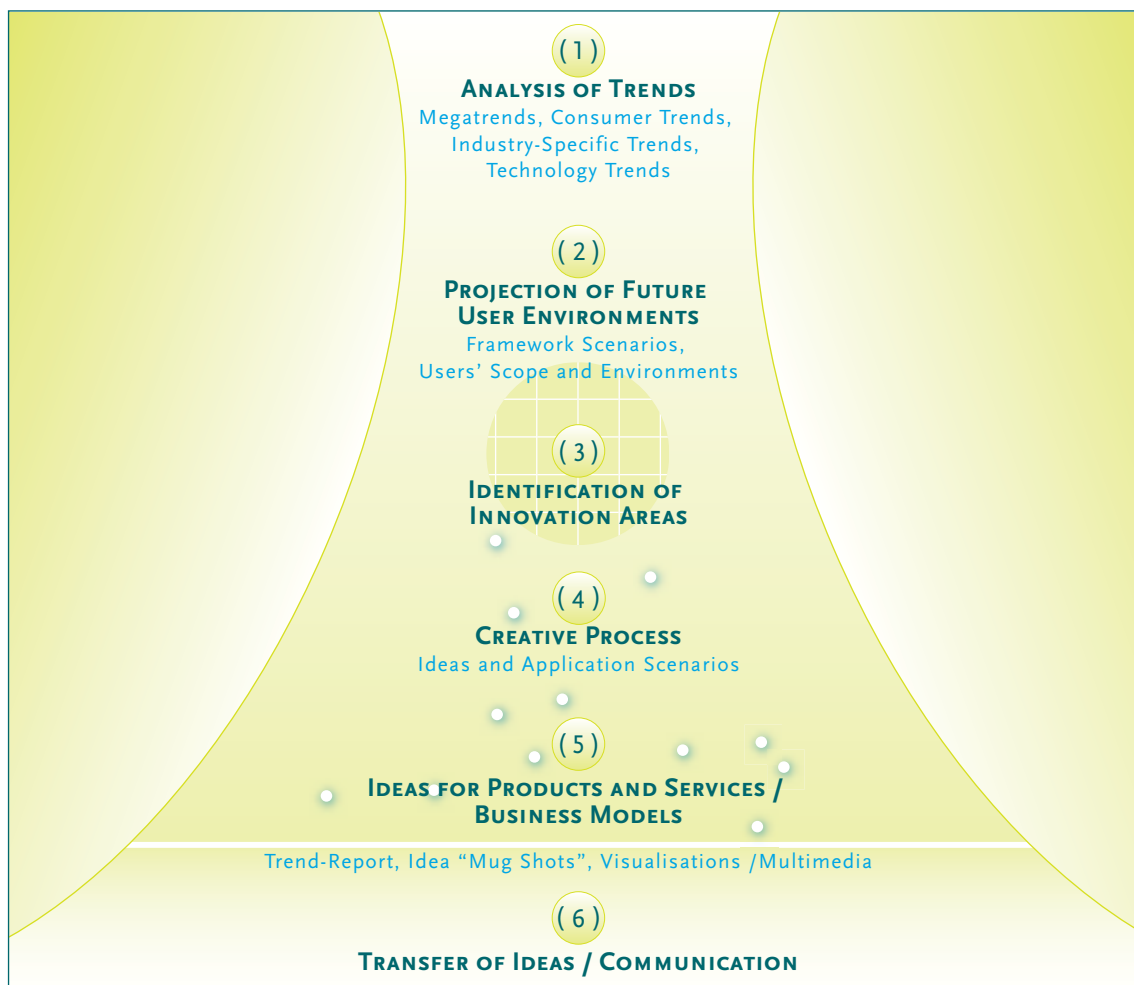
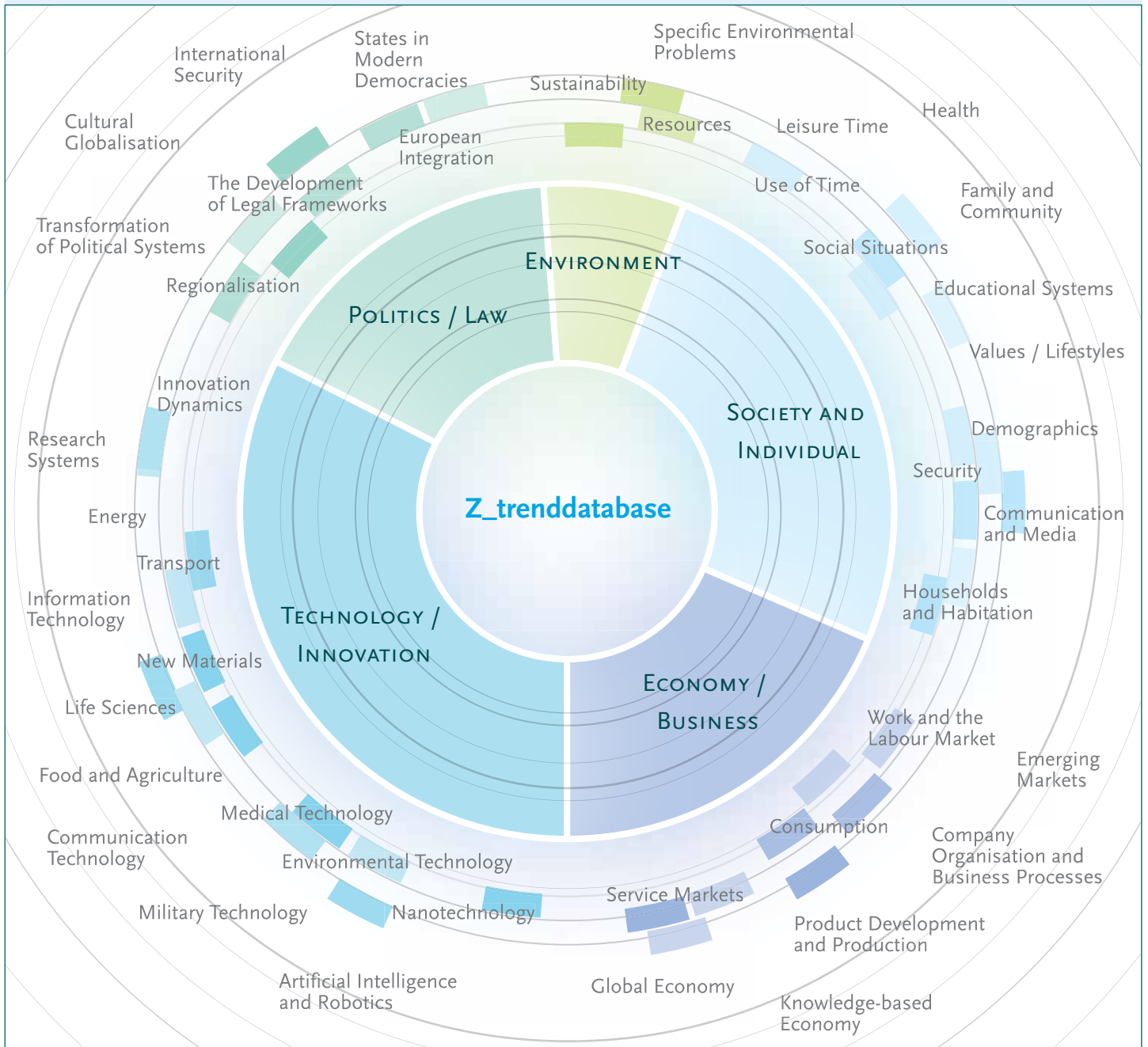


Figure 8: Trend-Based Innovation Process

Purely technology-driven innovations all too often overlook the actual demands of customers and markets. Z_punkt's approach to mid- to long-term oriented innovation processes begins with analysing changes in the broader context of the lives of future customers – their socio-economic environment. The requisite information for this trend analysis comes from the Z_trenddatabase. Based on environmental trends, a systematic innovation process assesses new developments in technology, analyses potential customer demands relevant for your trade, and constantly checks the results. Let Z_punkt design your process: From environmental developments to innovation-based scenarios to definite product ideas and business models.

7 Overview of Subsystems and Descriptors





(1) Starting Page of the z_trenddatabase

(3) Level 2: Descriptor



(2) Level 1: Subsystem



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