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Horizons 2020 – Mapping the Future of Society, Economy & Government

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Purpose

The report “Horizon 2020 – A thought-provoking look at the future” is a dialogue invitation rather than an attempt to provide another “traditional” strategic scenario very often aiming to lay out a roadmap for a predetermined outcome. The report in question differs from this approach in three respects. First, it aims at creating a basis for dialogue with the public at large. Second, it addresses a broad range of topics covering political, social, economical, environmental and technological issues. Third, the report offers two scenarios on the basis of an expert survey.

Making the Future Part of the Present

Essentially, the future might become part of the present in two ways. “Horizons 2020 – A thought-provoking look at the future” comprises both.

Extrapolation & Technology Roadmaps

The first approach is based on a combination of extrapolating the future from today’s world and “retropolating” the present from tomorrow’s world. In other words: a future state of affairs is described by applying trends, visions etc., i.e., by extending past and current developments into the future. Respective strategies can then be designed and put into practice in order to accomplish the self-set mission or to achieve the goals laid out in the forecasts. Overall, these scenarios or forecasts are the means to provide a roadmap towards a specified goal. The second part of “Horizons 2020” includes such an approach

as “Technology Reports”. Prepared on behalf of Siemens, these Technology Reports provide overviews on possible developments in major technology areas. They describe the most likely paths to be taken by production and automation technology, power engineering, healthcare, information and communications, biometrics, materials and nanotechnology, as well as transportation. They are mostly based on trend analysis. The Siemens groups and their research departments use this method to identify future developments and trends that affect Siemens’ businesses.

The Technology Reports are based on “Pictures of the Future”, a methodology developed by Siemens’ Corporate Technology Department. Even though the results and key statements have been included in “Horizons 2020”, the full texts of the reports have also been added on account of the additional information provided.

Socially Embedded Technology

Changes do not solely occur because of technological or product innovation. On the contrary, innovations and technological



shifts are deeply embedded in a culturally, socially and politically shaped environment. Consequently, future changes can also gain current relevance in another way. This second approach has been coined the “**communicative scenario**”. This type of scenario is not a means to extrapolate a possible or likely future from current developments, but rather a tool that can trigger a public debate about what kind of future we want to live in. Consequently, a communicative scenario differs from classical approaches in three respects:

1. It aims at creating a basis for dialogue with the public at large.
2. It addresses not only technological issues but a broad range of topics, including political, social, economic and environmental issues.
3. It offers two scenarios based on an expert survey.

Siemens contracted TNS infratest Wirtschaftsforschung, Munich, to develop such a communicative scenario. In order to develop and implement long-term strategies, the Siemens Groups also have to take other aspects than economic or technological ones into account. (The brief will be limited to the second approach and thus not address issues dealt with in the Technology Reports.)

Environmental Scenarios and Expert Surveys – Setting Up a Communication Scenario

“Horizons 2020” breaks new ground by combining environmental scenarios with a quantitative expert survey. Methodologically, the research team met the major challenge of qualifying descriptors considered as relevant to describing the future. The process of selecting and qualifying these descriptors included a number of steps and was supervised by an advisory board.

The Expert Survey

Initially, the research defined five important life areas regarded as most important and that were expected to drive changes in the next 16 years (2005-2020). These areas were the political arena, society (values, demography etc.), the economy (economic development, labour market etc.), the environment (environmental awareness, food etc.), and technology (technological developments, power engineering).

Based on this framework, the research team selected 200 descriptors as pivotal to describing these areas. The descriptors were then discussed with the advisory board and split up into three groups (1) ten mega trends, i.e., key developments considered inevitable; (2) non-critical descriptors considered insignificant for future developments; (3) 108 critical descriptors considered decisive in the future by the research team and the advisory board. 116 experts (of 671 originally contacted) then agreed to take part in a survey, which reduced the number of

critical descriptors by another 32, leaving 76 critical descriptors in the end.

The Scenarios: Dividing Europe into Four Regions

Geographically, the scenarios focus on Europe divided into four areas. The extents of these areas follow socioeconomic criteria rather than national boundaries. **Europe’s economic heartland** consists of Germany, Benelux, Austria, Switzerland, eastern and central France, England (but not Wales or Scotland), the western part of Czech Republic, the north of Italy, and the area around Barcelona. **Northern Europe** consists of the Scandinavian countries, Iceland, Ireland, Great Britain (excluding the southeast of England) and the west of France. **Southern Europe** comprises the Iberian Peninsula (but not Barcelona), central and southern Italy, Greece, Cyprus, Malta, and the European part of Turkey. Finally, **Eastern Europe** consists of the new EU member states (except for Cyprus and Malta), the eastern part of the Czech Republic, the Balkans, and the other countries in Eastern Europe.

The time span covered by the scenarios is 16 years, starting in 2005. On the one hand, this horizon seems short enough to relate a possible future state of affairs to today’s world. On the other hand, 16 years seem long enough to also picture the yet undiscovered or, indeed, hardly imaginable.

In accordance with the methodological premises, the two scenarios address similar issues: the role of government and the economy, changes in social values, demographics, health and education systems, and technological changes. Furthermore, both scenarios are rather complex and include a number of variables. Both stress possibilities and opportunities but do not leave out risks and possible dangers. The reason for this is to avoid a simple black and white picture not corresponding to the complexity of the real world.

Life in 2020: Big Government Scenario Modest Society – Regulated Economy

In this scenario, big government, a slow-paced, modest society and a regulated market are the crucial pillars.

According to this scenario, **big government, equal opportunities** and **individual freedom** will guarantee security. This will be underpinned by strong intermediary institutions, i.e., parties and interest groups. Even though some radical left-wing and nationalist parties will establish themselves, parties and party systems will support the state in performing its duties. At the same time, trade unions will adjust to these changes. In cooperation with industry associations, they will be pivotal in regulating work conditions. In addition, strong nation-states – at the national level and through international cooperation – will be able to mitigate crime and terrorism and guarantee security.

The most important changes will take place in the system of **social values**. Two aspects are crucial in this respect. Work will become less, leisure more important. In addition, individualism and competition will be replaced by **communitarian values** and **solidarity**. More importantly, people will trade lower income for social values and a more relaxed social life. The kind of social responsibility accompanying this value shift will also be found at the international level, as the richer EU member states will support countries in Southern Europe.

Changes of values will be accompanied by an **altered age structure** of societies. The high proportion of elderly people will trigger economic changes, leading to new products and markets. At the same time, an infrastructure for lifelong learning must be set up, and the health care industry will take care of the needs of the elderly. Accordingly, the medical and health care sector will expand. But this will be partly organized on a private basis by neighbourhood health schemes, citizen self-help initiatives etc.

Structurally, the economies in the heartland of Europe will turn into **retail and service economies**, while the manufacturing industry will move to Eastern Europe. Legal regulations and strong political leadership will keep a check on the economy and the corporate sector. Like the society as a whole, the economy will commit itself to active social responsibilities and to community initiatives.

Labour markets will be more flexible, even though a high degree of regulation will still be in effect. Despite the fact that people will accept a **lower standard of living, decreasing incomes** and an **increased tax burden**, it will be impossible for households to live on one income alone.

As far as environment is concerned, the state, the corporate sector and individuals will seek to conserve the environment and maintain a high-quality infrastructure. Overall, corporations, governments and private individuals will give long-term effects priority. Sustainability will be given precedence over short-term profits and considerations.

Life in 2020: Globalized Economy Scenario Lean Government – Venturesome Society

The markets and global competition in scenario 2 take over the role played by the government in scenario 1.

The **corporate sector** and the “laws” of the **global economy** are the driving forces in this scenario. Constraints on free market forces will largely be done away with, and government will avoid intervening in the advanced state of **globalized** markets. The **labour market is extremely flexible** and fluid in order to allow companies to adapt to changing market needs as quickly as possible. **Managing constant change** will leave no room for long-term strategies or non-economic considerations.

Politics and government will play an auxiliary or supporting role. Basically, they are to sustain the proper economic framework for business. **Lean government** and **weak nation-states**, however, will not be able to effectively fight terrorism or crime, giving private security services the opportunity to rise and spread. Also, political parties and trade unions will be

weakened by their notorious inability to integrate an increasingly heterogeneous society.

Government will not have the resources to provide an infrastructure going beyond basic needs. That holds for education and health care as well as for unemployment and pensions. Society will be divided into those belonging and those who do not, into those who can afford and enjoy better and more expensive services, and those who cannot. This will divide society into two distinct classes: the haves and the have-nots.

Nonetheless, society will be generally willing to embrace change and take greater risks. People will enjoy the positive sides of individual liberty, the ability to shape one’s life and thus achieve self-fulfilment.

Due to economic and social changes, traditional forms of social life (e.g., family, friends etc.) will be replaced by **personal networks**. These kinds of relationships offer greater variety but are less binding.

Communicative Scenarios Need a Dialogue Framework

Essentially, “Horizon 2020” lays out a choice between two options. We can either strive for “big government” (scenario 1) or for “markets and global competition” (scenario 2). Hence, “Horizons 2020” describes possible realms of action.

Concrete policy recommendations are not and cannot be part of “Horizon 2020”. As the report did not include a precise forecast, specific policy recommendations would have contradicted the primary goal of “Horizons 2020”, which was to trigger a debate with the public at large on the way we picture our future. The understanding that a scenario is not a roadmap to design a predetermined future gives politics, society, and the economy leeway to shape the future.

Nonetheless, the report has two major shortcomings. First, even though the content of the report has been discussed with executives from the Siemens Group represented in the advisory board, there is no indication whatsoever if and how the contents of the report have been disseminated and have become part of a public debate. The report does not show that actors, other than those with a mandate in the advisory board, have been approached. As a matter of fact, the report fails to address the question as to how this debate should be organized and who should participate in it. Consequently, the report might affect decisions of the Siemens Group, but will hardly leave any traces in public debate. Second, the report is not very specific about the way in which the scenarios might apply to the different regions. All in all, it seems that the scenarios presented provide exclusive options for Europe’s economic heartland rather than for the four regions, which without doubt will experience very different changes. Hence, it might well be that Europe’s heartland pursue the path towards scenario 1, while Eastern and Southern Europe strive towards scenario 2. Nonetheless, the report does not give any details on this issue.

Sources and References

- Horizons 2020. A thought-provoking look at the future. A study report of TNS Infratest Wirtschaftsforschung, Munich, at: http://w3.siemens.de/horizons2020/pdf/inhalt/presse/Horizons2020_szenarioreport_e.pdf
- www.tns-infratest.com

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