CHAPTER 4.4

Futures Reaesrch and Gaps around the World

study conducted in 2009-2010

Millennium Project Nodes (at the time the study was conducted)

1. Introduction

By definition, foresight and futures research are activities that have to look beyond their immediate environments. Very few subjects in truly long-term oriented research or strategy projects can be researched without closely examining relevant international perspectives. This principle has been at the heart of the Millennium Project's work since its inception, and has found expression in its trans-institutional global structure.

In recent years, the agenda of futures thinking in other parts of the globe has become even more important. This heightened need for supranational dialogue is evident in, e.g., projects such as the European Foresight Monitoring Network and Platform (EFMN / EFP). Funded by the European Commission, the EFMN aims to map foresight activities.

Major trends such as the globalization of labour, trade, finance flows, and cultures, as well as the increasing importance of supra-national policy-making show that attempts at grasping what the future holds in store will fail if limited to regional or national perspectives. It is this very basic, yet fundamental insight which not only raised the share of global reflections within foresight projects, but also the need for and the interest in a dialogue within the global futures research community as such.

The Nodes of the Millennium Project are a unique, and truly global, group of Future Studies institutions – both their work and their perspectives on key issues represent a considerable share of global Future Studies.

The German Node[1] set out to conduct a qualitative survey amongst its peers with the intention of learning about what they consider key issues and underestimated topics, to find out what governs the minds and work of global futures research. There were 34 Nodes in early 2010 (at the time of the survey), and 32 responded with complete answers.

One major insight from the analysis was that almost all Nodes consider cultural and social issues to be underestimated. Yet these are precisely the topics which are least represented in the Nodes' portfolios. While this is hardly surprising, the call for what is referred to as 'soft issues' is becoming louder in the Foresight community. One of our colleagues summed it up as "It is 'peopleware' which is crucial to any sustainable shift in consciousness necessary to finding a new path for humanity".
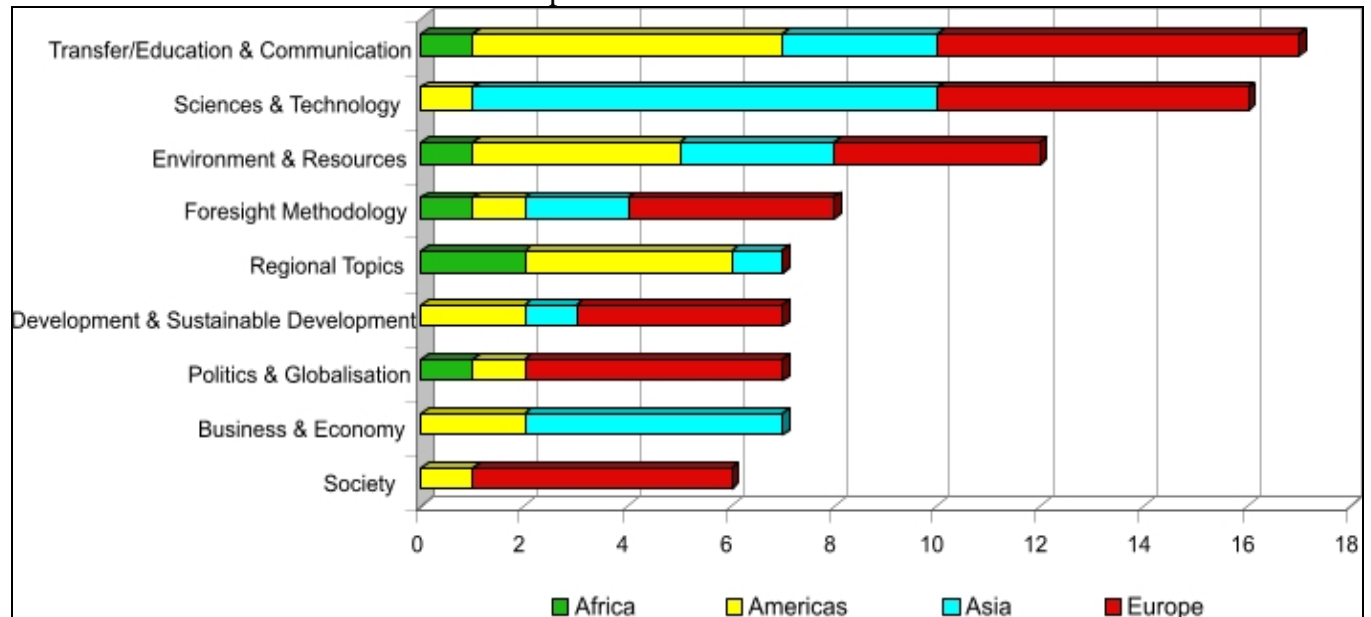
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[1] Z_punkt The Foresight Company (www.z-punkt.de) became the German Node in March 2003. Z_punkt is a consulting firm focusing on strategic future issues and is strongly involved in the German Future Study Field and also in the European context. The German Node website on the Millennium Project (in German) is www.stateofthefuture.de.

The following overview summarizes the survey's key results and offers an insight into the agenda of Futures Studies – without making a claim to be representative.[2] The analysis takes a qualitative and interpretative view of the Nodes' work and their perspective on crucial topics. Furthermore, some regional distinctions are highlighted which emerge between the regions[3] Africa, Asia (including Australia), Americas (US, Canada and Latin America) and Europe. We will begin by looking at current and completed projects – issues the Nodes are working or have worked on. In a second step, we will present the topics which Nodes consider to be underrepresented in current future studies.

In the replies, more than 130 different topics (usable answers) were named. We clustered these into nine categories: Society, Sciences / Technology; Politics / Globalization; Environment / Resources; Foresight Methodology; Business / Economy; Transfer / Education; Sustainable Development; and, finally, Regional Topics.

2. Current Activities of the Nodes of the Millennium Project

Current activities: distribution of future topics

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[2] It should be emphasized that the survey is not a complete and statistically grounded study of global futures research, but that only the actors present in the Millennium Project were surveyed. Also, it should be noted that all stated topics were roughly clustered in the listed categories. Interdisciplinary approaches and complex issues, however, meant that there were overlaps and interfaces between the issues. In this case, the projects were categorized according to the most prominent issue.

[3] Regional distinctions were made between the continents Africa, Asia (including Australia), Americas (US, Canada and Latin America) and Europe.

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1. Transfer/Education & Communication

When it comes to the Nodes' current activities, the category "Transfer/Education and Communication" tops their working agendas. Overall, 17 different projects focus on educational subjects, scientific and research communication, and knowledge transfer, e.g. student projects such as the Global Millennium Prize in several European and American countries, IT-based tutorial and collaborative research platforms, and collaborations with colleges and universities. Most educational activities are located in Europe (7), closely followed by America (6). Asian nodes are currently working on three educational projects. Educational and transfer activities address both non-professionals such as students and professionals such as consultants. Projects for the professional target group are primarily focused on developing a common level of knowledge on subjects relevant for the future, and on ensuring access to this knowledge through the use of databases. Competitions for students aim at creating a broader perspective for future-oriented discourse, in particular with regard to the views of younger generations, and to raise awareness of and increase interest in all things future among non-professionals.

2. Sciences & Technology

The second category, "Sciences & Technology", is also strongly reflected in the Nodes' projects all over the world. This cluster refers to future relevant technological and scientific topics. Asian Nodes list a total of nine projects, more than any other region. The projects focus on specific technologies, fields of application, potential, and possible risks. European Nodes are working on six technology-related projects with an emphasis on framework conditions for realizing future technologies, i.e. investment conditions, political regulation, and social acceptance. Here, rankings based on the relevance of various technologies play an important role.

Prominent among the individual technologies researched are Genetically Modified Food, Robotics, Nanotechnology, Ambient Intelligence, and Collective Intelligence (for early warning). Policy projects in turn focus on the transfer of technologies and innovations between regions as well as the development of a strategic policy for science and of strategies for technology investments. Other projects aim to identify relevant future technology fields and try to gauge their potentials.

3. Environment & Resources

Worldwide, there are 12 active projects in the category "Environment & Resources". Four each are located in Europe and the Americas, three in Asia, and one in Africa. Issues focus, among others, on Climate Change, Water Supply and Water Quality, Energy Supply and Energy Security. For emerging countries, in particular, the topic of water is highly relevant. Egypt and India, but also Bolivia and Argentina are working on water scenarios or are engaged in specific issues, e.g. water storage. The Russian Node is involved in water scenarios in the context of a UNESCO project. Most environmental projects have a regional focus. They examine, first and foremost, the impact of environmental changes on local and regional spaces. The Nodes in

Argentina, Finland, and Egypt, on the other hand, have a national perspective; Bolivia is looking at all of Latin America.

4. Foresight Methodology

Globally, eight projects aim to advance Foresight methodology. Here, the European Nodes are the main driving force with a total of four projects. The coordinating Node in Washington definitely holds a special position. By its very nature, its work focuses on knowledge transfer and methodology (e.g. in the case of the project's methods-CD). In all involved Nodes, methodology topics focus on Weak Signals, Wild Cards and Scenario Technique. Knowledge transfer on methodologies is achieved through papers or encyclopedic publications, e.g. the "Glossary of Future Concepts" of the Destrée Institute in Brussels or the Mexican Nodes "FUTURES. World Foresight Dictionary Encyclopedia".

5. Regional Topics

Topics with a specific regional focus can be primarily found at the Nodes in the Americas and in Africa. African Nodes, in particular, opt for a wide thematic and interdisciplinary approach to regional development. One example is the Egyptian Node's approach to the issue of energy in the project "Sustainable Energy for Egypt within 10 Years: Energizing the Future in Egypt". In Peru, there is also a Regional Foresight Project for a local province. European and Asian Nodes are less likely to have regional focus, but here, too, are projects such as, e.g., a workshop on the future of the Caucasus.
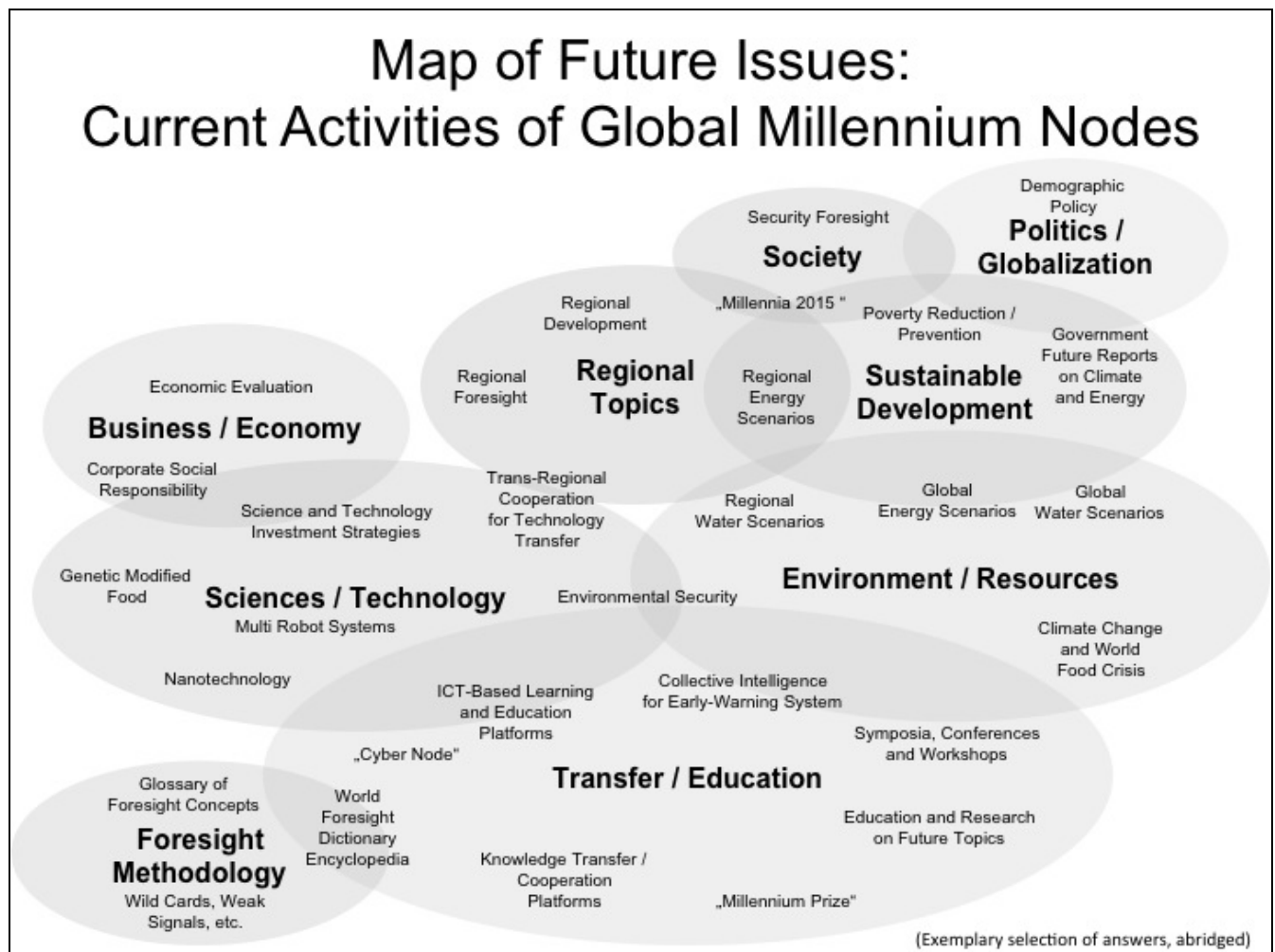
6. Development & Sustainable Development

The category "Sustainable Development" has its regional focus in Europe. Four projects are testament to its comparatively great popularity. Here, the spotlight is on transnational development cooperation, e.g. in the conceptual design of the Brussels Node's "Transborders Territorial Intelligence" or as the selected approach for the "Marshall Plan for Haiti" of the Central Europe Node. The Brazilian Node is involved in "Innovation and Sustainable Development" from a lifestyle or well-being perspective. The agenda of the Bolivian and Indian Nodes, however, lists traditional development issues such as Poverty and Food Scarcity.

7. Politics & Globalisation

With a global total of seven projects, the category "Politics and Globalization" remains a more marginal cluster. Projects and contributions, which look at this thematic area from a more general perspective, usually come from the European Nodes. They focus on cross-disciplinary concepts such as Globalization and Global Change. A more specific approach is evident in the Slovenian Node's project "Information Society Development and eGovernance", which looks at political participation in the information society. Among the American Nodes, and in particular

the US Nodes, this category is examined from a security perspective. Key words are Public Safety and Security Foresight as well as Human Security. The Egyptian Node addresses the issue of long-term population policy and related policy-making.

Map of Future Issues: Current Activities of Global Millennium Nodes

8. Business & Economy

Some seven projects explicitly belong to the category "Business and Economy", but many of the projects clustered in the other categories have large overlaps with economically relevant issues. Among Asian Nodes, explicitly economic projects enjoy a prominent position, with the Chinese Node involved in projects such as "China Genuine Progress Indicators" and "Measures of Progress", which focus on the development of indicator-based evaluation tools. The Brazilian Node is debating the connection between "Innovations and Sustainable Development". More business-oriented is a project of the Canadian Node which focuses on CSR (Corporate Social Responsibility).

9. Society

In the global Nodes current work, genuinely societal issues – i.e. topics which explicitly belong to social or cultural studies – are significantly under-represented. At the same time, however, social and cultural issues are present in a large number of other projects. With five out of six projects, the European Nodes are most active when it comes to societal projects, with topics ranging from Gender ("Millennia 2015. Women Actors of Development for the Global Challenges" of the Brussel Node) to youth ("Foresight and Youth" of the Parisian Nodes) to the importance of creative services ("Foresight and Creativity", also Parisian Node). The Slovakian Node is also involved in the connection between "Science and Culture".
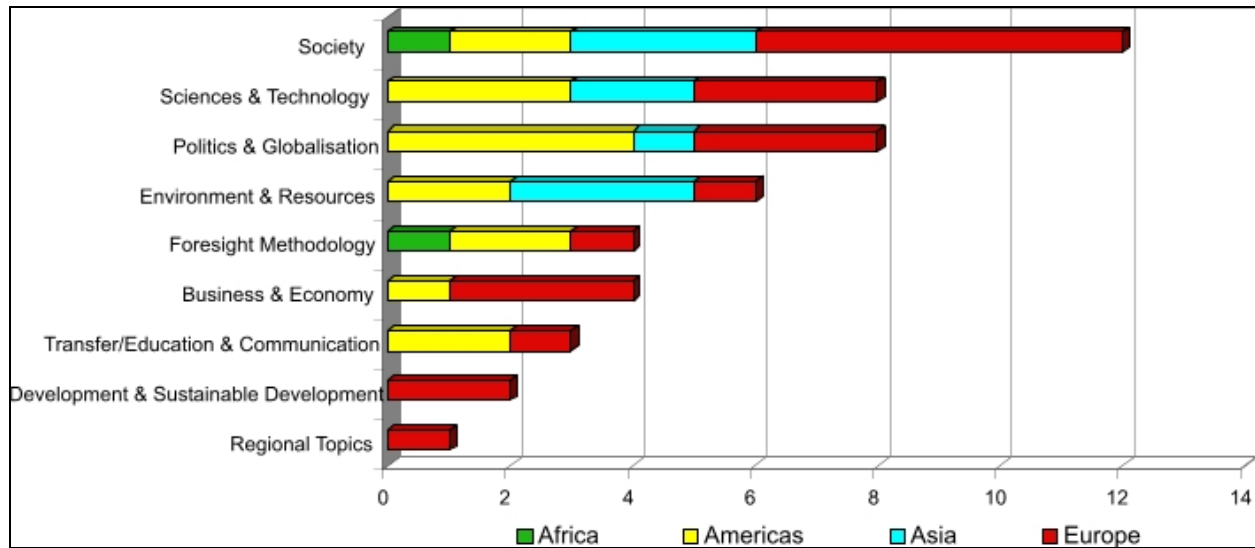
3. Future Interests and Under-represented Future Themes

In addition to the focus of their existing activities, the Nodes were also asked for issues which were relevant for the future, and which they considered both interesting and currently underrepresented. Their answers offer an insight into areas with a concrete need for Foresight. Furthermore, the Nodes' explanations offer clues concerning the direction into which the global agenda of Futures Studies might develop, both with regard to content and methodology.
By a wide margin, the most obvious discrepancy between the perceived importance of issues and the focus of the Nodes' work is in the category **Society**. All Nodes agree that societal issues are underrepresented, but at the same time, these topics have a subordinated position in their current work portfolios.

This is most evident for the European and Asian Nodes. In addition to purely societal aspects, they also want to see a stronger emphasis on the cultural characteristics of Futures Studies. This is a palpable expression of the topic of Society's cross-sectoral nature which influences many other categories. Here, the focus is on a change of perspectives or paradigms. The social aspect of other issues has to move into the spotlight. One example would be to consider technologies not primarily from the perspective of feasibility, but in particular from that of social acceptance and desirability.

A similar demand can be inferred from the statements of the Nodes in the emerging nations and the growth regions of Africa, Latin America, and Asia. They focus primarily on emphasizing specific regional cultural characteristics in the discourse on development cooperation and globalization, which is dominated by European and American voices. Examples are "Future of values, ethnocentrism, exclusion and inequality" or "access to resources and education". Other issues from social studies which were considered to be underestimated were "Acceleration of Global Change and Technological Progress", "Future of public attitudes to science and scientific/rational thinking", "Future of Family and Changing Family Structures" and "Spirituality and Religion".

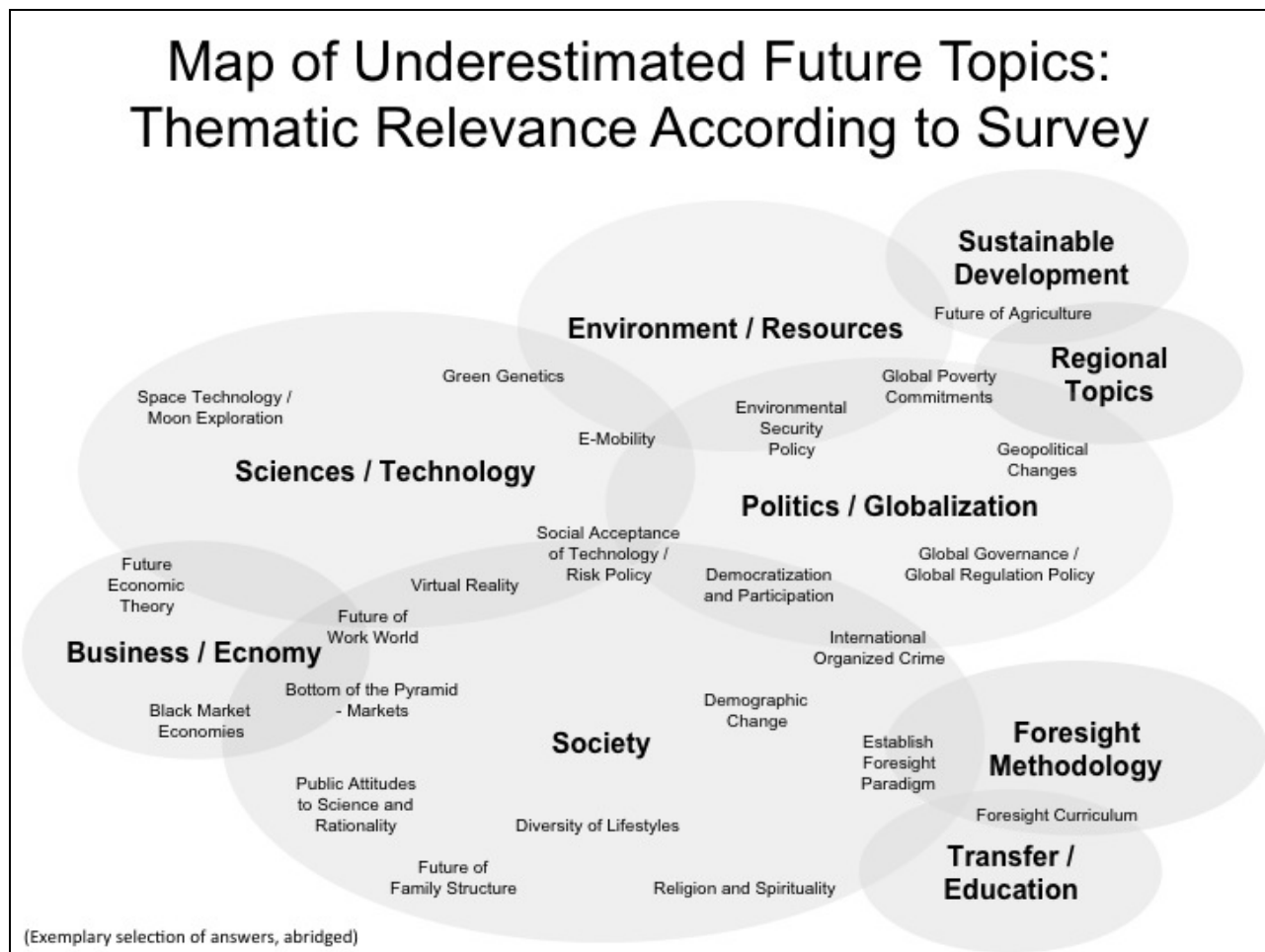Distribution of under-represented future topics

There are also calls for more future-oriented projects in **Politics and Globalization**. Here, in particular, it is the American Nodes which are offering suggestions. They consider subjects such as "Security Policy concerning Technological and Environmental Risk" or "Migration and Crime Prevention" to be underestimated. Across all Nodes worldwide, there is a range of suggestions for political issues relevant for the future: Next to democratization and participation, the topical complex "Global Governance" is considered to be highly relevant. Coordinated regulation of the financial markets also made it onto the agenda of underrepresented political topics, a result of the global financial crisis. A further issue with a global frame of reference which was often mentioned is the internationally coordinated fight against poverty.

Issues mentioned as underrepresented in the category **Business & Economy** are also dominated by globalization. Against the backdrop of an economy focused on short-term decision-making, some Nodes aim at developing an independent economic theory based on long-term thinking. Corporate Responsibility and sustainable economic activities were also among the underestimated economic futures issues mentioned. One interesting suggestion – at the intersection of economics and politics – is to research the political, economic, and social importance of international black markets: "Black Market Economies".

Its key presence in the Nodes current work notwithstanding, the category **Sciences & Technology** is considered to offer potential for future projects. Statements from Europe, but also Asia and the Americas point in this direction: Japan and Slovenia, e.g., consider space technologies and moon exploration to be largely underestimated as future issues. American Nodes would like to see a stronger focus on Gene Food, with technology risks contained by "corporate concentration und powerful corporate-controlled life sciences". The German Node lists technology fields in the environment of electro mobility as important and currently underestimated future technologies. Both the Mexican and the Iranian Node focus more on the conditions for technology exchange and knowledge transfer, expressing the wish for improved international collaboration in the area of science and technology.

Map of Underestimated Future Topics: Thematic Relevance According to Survey

(Exemplary selection of answers, abridged)

Outlook

Overall, the activities of the Millennium Project's Nodes cover a broad and comprehensive range of topics relevant for the future. Currently, their emphasis is on Transfer & Education, Technology, and Environment. The statements on underestimated future topics show that this focus could – or, from the Nodes' perspective, should – change in the future. Mentioned as underestimated were, in particular, the areas society and politics.

This emerging shift in perspectives is vital for the self-concept of foresight. For reasons of research policy and history, many foresight projects can be found in the area of technology foresight, technology-centered and economic perspectives dominate. If and how we manage to integrate the divergent discourses of different societies – some of them critical of technologies and futures research – will depend also on the methodologies used.

The comments in the categories Transfer & Education and Foresight Methodology are also a source of suggestions for the development of foresight practice and a better understanding of foresight thinking in society. One demand concerns the conflict between regional and global perspectives: Many inputs in this context said that regional conditions should play a greater role

in the development of global perspectives, and that the exchange of information between regional perspectives should be intensified.

The feeble roots of foresight in politics, the economy, education, and society overall were also seen critically. The Italian Node stated that people's daily lives are dominated by a very short-term horizon of no more than three to five years into the future, and several other replies emphasized the importance of lobbying for long-term thinking in all social areas. For many Nodes, the insufficient integration of foresight and future-oriented thinking into the curricula of universities remains a problem. One key demand of the Millennium Project's actors is that we need to address young people more, and that futures research has to become more involved in needs of consumers and citizens.

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APPEMDIX

**Futures Research and Future Gaps around the World
Survey Questionnaire**

Welcome to the MP Nodes Questionnaire!

This survey was developed by the German Node and has the objective to establish better knowledge among all MP Nodes of what other Nodes are working on and what is regarded as key future topics in the different regions they represent. The results of the survey will be made available for all Nodes. The survey takes approx. 20 minutes of your time. The deadline is the 25th of January 2010. If you have any questions or remarks please contact:

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And just to be clear, this is a survey for the Nodes only, not for other experts. Thank you and we are looking forward to your answers!

Kind Regards
The German Node

Information on the Node

- Which country / region does your node represent?
- My name is:
- Position
    - I am the chair / co-chair of the node
    - I am a node member

1. Future Issues: Current Activities of MP Nodes

Please, name up to 4 future topics, which your node or your institution has been working on in the last 3 years, for example in terms of a project or a scientific

publication!

- Future Topic
- Type of work (public or private project, publication, partnership etc.)
- Who worked on this topic?
- More information is available at... (if possible add a link, a source or a contact person)

2. Future Issues: Important and Interesting

Please, name up to 4 general and recent future projects/topics/publication from your area (country/region), which you find especially interesting and important.

- Future Topic
- Type of work (public or private project, publication, partnership etc.)
- More information is available at... (if possible add a link, a source or a contact person)

3. Underestimated Future Topics

- Which future topics are underestimated in your opinion? And why? Please, explain in 1-2 sentences.
- Which drivers (technological, political, environmental, societal, economical) do you see as relevant for the underestimated future topics listed above?

4. International Cooperation on Future Topics

Which international (supra-regional or bilateral) future topics have you been working on with futurists from other countries?

Please, name 1-2 projects or publications. You can also skip the questions, if it is not aplicable.

- Who worked on this topic?
    - The Node
    - One of the Node Members
    - If it was one of the node members, please name him/her or his/her institution!
- With which region did you cooperate? Which MP colleague/institution?

5. Favoured International Future Topics

Which topic would you like to work on with futurists from other countries?
Please, name your favoured future topic and your favoured international partner!