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Identifying DG SANCO's Future Challenges
2009-2014

Final Report

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Prepared for Unit 02 of the European Commission's Health and Consumer Protection Directorate-General
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Preface

In 2006, the European Commission’s Directorate-General for Health and Consumer Protection (DG SANCO) embarked on a series of activities to consider the challenges it will face in 2009–2014. RAND Europe was asked to support this Future Challenges project by developing three scenarios for Europe to be set in the period 2009 to 2014, testing these scenarios in case study workshops, and identifying the issues and challenges arising from the project. This Technical Report covers the work RAND Europe carried out in relation to the project, including: a scenario briefing, a scenario development meeting, actual scenario development, a case study workshop report, and the challenges identified by the project. It may be read in conjunction with DG SANCO’s Future Challenges Paper 2009–2014.1

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The members of the RAND Europe team would like to express their appreciation to the staff of DG SANCO Unit 02, in particular Cécile Billaux and Petra Cadova.
Executive summary

DG SANCO’s ‘Future Challenges 2009–2014’ project

The European Commission’s Directorate-General for Health and Consumer Protection (DG SANCO) aims to “ensure food and consumer goods sold in the EU are safe, that the EU’s internal market works for the benefit of consumers and that Europe helps protect and improve its citizens’ health”. In 2006, DG SANCO embarked on a series of activities to consider the challenges it will face in the period 2009 to 2014. RAND Europe was asked to support this future challenges project by developing and testing three scenarios for Europe in the near future. Scenario thinking aims to identify new options which might otherwise have been missed; previously unnoticed risks to be managed; and foster insight into which organizations and processes need to be influenced. Scenarios are not intended to predict the future, but rather to provide a set of plausible yet intellectually challenging “futures” that can aid strategic thinking and creative discussions within and between organizations.

The process of creating the scenarios for DG SANCO involved gathering data on major trends and key uncertainties around four areas identified by DG SANCO: governance, confidence, changing society and globalization. This information informed an internal DG SANCO workshop that identified eight key uncertainties that could affect DG SANCO in 2009-2014. Following this meeting, RAND Europe developed three scenarios: Galapagos, Coral Reef and Wave. These scenarios were then tested and fine-tuned in four case study workshops, each of which focused on a particular element that could affect the future environment in which DG SANCO operates: nanotechnology; consumer behaviour; ethical food consumption; and health equity. The scenario development process is outlined in detail in Chapters Two to Six. The remainder of this Executive Summary focuses on the questions, challenges and recommendations that emerged from the process.

Knowledge, skills, influence and risk: areas for further consideration

DG SANCO was closely involved in every stage of the scenario development and testing process, and in October 2007 produced its DG SANCO Future Challenges Paper: 2009–2014. This paper has been widely circulated, both inside and outside the Commission,


with the aim that it will enrich, validate and improve DG SANCO’s vision. Below we present issues which emerged from the case study workshops that DG SANCO will need to consider as it continues to further develop the Future Challenges project. The issues are structured around four key questions:

1. What will DG SANCO need to know?
2. What skills will DG SANCO need to develop?
3. Who will DG SANCO need to influence?
4. What risks will DG SANCO need to manage?

For the sake of clarity the issues are phrased as actions that DG SANCO will need to undertake. Although scenarios do provide indications of robust conclusions and insight into the development of policy options, they are not predictions of the future. Therefore, these statements should be read as reflecting the opinions of informed participants, rather than representing predictions made by RAND Europe.

**What will DG SANCO need to know?**

- In the futures discussed, a better understanding of consumers’ preferences, attitudes and behaviour will be crucial to the success of DG SANCO’s policies.
- DG SANCO will need a comprehensive set of international comparable data on key areas relating to its competencies.
- DG SANCO may need effective monitoring of what is happening ‘on the ground’ with regards to compliance with regulations, rather than using instrument-based reporting on regulation.
- DG SANCO will require solid in-house scientific expertise (or at least ready access to such expertise) to adequately address the problems in policy fields where new technologies will play a major role in the coming years, such as the regulation of nanotechnology or pushing health technology to improve equity.
- Future environments will be increasingly complex in important areas of DG SANCO’s action, requiring a better understanding of cause–effect relationships in important policy fields, for example in the field of health equity or on-line consumer behaviours. It is important to note that complexity confuses causal links and increases the risks incurred when taking action.
- Intensifying international trade will have increasing implications for how DG SANCO delivers its aims; and therefore access to expertise in this area will be needed. It will be particularly important to understand how China, India and Russia will deploy their increasing influence in the arena of global regulations and standards.
What skills will DG SANCO need to develop?

- DG SANCO has to become better at prioritizing its work: each scenario (in different ways) would require a clear focus on the unique contribution DG SANCO could make.

- DG SANCO will need to develop its communication skills further. The scenario work suggested that social change, and the development of new communications media, will require a rapidly evolving communications strategy. In these futures, DG SANCO should especially learn how to use new communication channels effectively.

- DG SANCO needs to think how it “sells” its policies because in the emerging environment successful organizations will require a “license to operate” beyond their formal or legal powers. This will require strategic skills to understand the attitude of actors, coupled with the ability to select exactly the right communication method.

- Analytical skills will become increasingly important for DG SANCO’s work, in order to locate, filter and analyse large amounts of information into knowledge that is useful to the organization.

- To promote rapid learning and feedback, it will be necessary to evaluate policies and projects; the necessary skills must be developed within DG SANCO so its staff can either conduct evaluations themselves or become knowledgeable commissioners of external evaluations.

- Understanding the complexities of some regulatory fields (including the possibilities and varieties of soft and hard regulation) will require further analysis.

- To be successful in the European multi-actor governance system, DG SANCO will need networking skills and strong cooperation and consensus-building skills.

Who will DG SANCO need to influence?

- The most important actors to be influenced will be the Member States, their governments and particular authorities within them.

- Cooperation with international organizations such as World Health Organization and World Trade Organization will be of increased importance to DG SANCO, who should attempt to influence the agendas (and decisions) of these organizations more strongly.

- Politicians will remain in charge of DG SANCO and therefore it will be important to provide them with the evidence and arguments they can best use. Given that there may be a considerable period between initiating and realizing actions, politicians need to prioritize and maintain their support for an issue.

- Other Directorates-General (and the wider institutions of the EU) will continue to be closely linked to DG SANCO’s activities and thus remain important actors to
influence. It is vital that DG SANCO is recognized as a “credible operator” within the European Commission.

- DG SANCO should focus more on the local (sub-Member State) level. By aligning itself with trusted local authorities and actors, DG SANCO may increase its credibility and trustworthiness. Engaging with local grassroots organizations and citizens might also be a way to improve the delivery of DG SANCO’s aims.

- Every four years, DG SANCO should take an action, such as tackling mobile phone roaming tariffs, which is widely popular and is publicized as a European Union intervention.

- Although the group of relevant institutional actors to influence will remain rather stable over time, DG SANCO should become more strategic in developing:
  - key targeted stakeholders, rather than addressing all – providing that this targeting is made clear and linked to DG SANCO’s remit
  - strong alliances for specific policy issues.

What risks will DG SANCO need to manage?

- External shocks, originating from the global economy, other global actors or global disasters and disease outbreaks, may have to be managed by DG SANCO at some point. While local or regional threats might be dealt with at a lower level, DG SANCO will need to be prepared to address global, external shocks.

- DG SANCO needs to ensure that it has high quality information on the issues it is addressing, and will need to back up its decisions with a more exacting burden of proof, fit its activities to the information it has available, or adopt more adaptive recommendations.

- The future development of the EU institutions, whether in the direction of more or less integration, constitutes a major risk to be managed by DG SANCO.

- DG SANCO will need to guard against the danger of overreaching its capacity to deliver. DG SANCO will come under pressure to deliver across a range of areas but adopting too many goals, or setting these goals too high, might lead to failure and public frustration.

- DG SANCO has to manage the risk of being held responsible for problems which lie outside its competencies, but which may be attributed to DG SANCO.

- Across all the scenarios there was a perceived risk that DG SANCO may become crisis-driven rather than strategic in its behaviour.
Complex strategic problems for DG SANCO to address

Using the material generated by workshop participants, RAND Europe has identified six complex strategic problems that DG SANCO will need to address. These are issues where DG SANCO must select from a wide variety of mutually exclusive decisions; prioritize and make trade-offs between its various responsibilities; or develop a sophisticated response to multi-faceted and mercurial problems.

- DG SANCO could find itself gradually doing more and increasingly diverse things. Should it aim to excel in diverse fields or deliver benefits where it has a unique advantage? Is it possible to develop a coherent policy portfolio that balances growth and maintaining delivery for existing areas?

- DG SANCO is likely to occupy a more complex regulatory environment. Should it aim to set the standards to be met by self- and external regulation or should it take action to regulate?

- It is very likely that the quantity and complexity of information generated inside and outside DG SANCO will increase. This increase will present challenges of communication and coordination for DG SANCO both inside and outside the organization. How will DG SANCO establish efficient coordination and communications practices?

- Consumers’ needs and desires are both rapidly changing and becoming more heterogeneous, which implies that a light-footed and responsive process is needed. How will this be squared with the Commission-wide requirements of probity, fairness and so forth?

- Is DG SANCO prepared for a further globalization of activities that may produce more change in the next ten years than in the past thirty?

- The possible changes identified through the Future Challenges workshops might overwhelm any organization’s capacity to change whilst maintaining delivery of core services. How could this be avoided?

Recommendations on taking the Future Challenges project further

RAND Europe has provided recommendations on how DG SANCO can further develop the knowledge and awareness generated by the Future Challenges 2009–2014 project. These recommendations are focused around: how to use scenarios in organizations; the use of workshops; new ways of thinking about Impact Assessments.

Using scenarios

Scenarios can help to communicate the uncertainty that organizations face, provide a shared reference point for assessing an organization’s options, and support risk assessments and policy options. Given this range of applications, it is important for the organization to be clear about the effects it intends to induce. Possibilities include:
• informing specific decisions
• providing input to decision-making frameworks
• supporting indirect decision-making, such as clarifying an issue’s importance or framing a decision agenda
• engendering cultural change, for example by shaking up habitual thinking and stimulating creativity
• creating a ‘safer space’ in which to engage stakeholders in a strategic debate.

Nevertheless, significant gaps exist between much current scenario practice and the potential contributions of scenarios. Public sector organizations also face particular constraints relating to accountability arrangements and political responsibilities (Ling, 2002). Their successful use therefore requires clarity of purpose, effective facilitation, and sensitivity to the wider architecture of accountability and political responsibility. More specifically, DG SANCO should be aware of the following challenges.

• Participants in a scenario exercise may not always agree on the interpretation of their scenarios.
• Scenarios must be presented in a way that engages with the particular needs of specific decision-makers and makes clear their relation to the world of practical action.
• It may be difficult to establish what future decisions will be within and what ones beyond the control of DG SANCO.
• The most important uncertainties affecting a decision have to do with the effects (both foreseen and unforeseen) of various proposed policy actions, which is itself uncertain.
• After an interesting "strategic conversation", members of an organization may return to “business as usual”.

The use of workshops
Holding further creative scenario workshops would help to embed strategic thinking deeper into DG SANCO’s processes. They could help to develop an understanding that strategic thinking is an iterative process in which the needs and priorities of stakeholders, the vision and goals of the organization, and the implications of external changes are held in balance to inform decisions. Workshops could also allow participants to take a fresh look at DG SANCO’s vision and the expectations of its stakeholders.

Workshops can explore vertical strategy (for example, policy areas); horizontal strategy (for example, cross-cutting issues like communications); generate new policy ideas; or test existing strategies. Section 7.7.2 provides more details on how the workshops could be structured according to their purposes.
Impact Assessments

The current Commission-wide approach to Impact Assessments focuses on examining a variety of options in a single (hypothetical) future. In this approach, consideration of uncertainty focuses on the policy options rather than on the future. An *ex ante* evaluation informed by futures methodology would tend to reverse this and examine the impact of a single option in a range of plausible futures. By introducing futures thinking in this way to *ex ante* evaluation, it would be possible to institutionalize scenarios within a Directorate-General as part of the Impact Assessment process. Naturally, any such scenarios would need to consider elements that reflect the entire range of a Directorate-General’s activities.
DG SANCO faces a complex and rapidly changing environment and it has a continuing commitment to promoting deeper understanding of the strategic options in its area of responsibility. As part of this commitment, in 2006, DG SANCO embarked on a project to identify and examine the possible challenges it may face in the period 2009–2014. This project drew upon an approach known variously as ‘scenario planning’, futures thinking or ‘scenario thinking’, whose development was initiated by the RAND Corporation in the post-war period.

Scenario thinking can accomplish many tasks, including: identifying new options which might otherwise have been missed, and previously unnoticed risks to be managed; identifying whether uncertainties are critical; checking the robustness of decisions in different possible futures; providing insight into which organizations and processes need to be influenced; and providing a framework for combining different types of evidence (quantitative, conceptual, qualitative, subjective), analysis and narrative style. Scenario thinking is therefore not a decision-making mechanism, but it is a means to stimulate more informed and deeper conversations about how to deliver the things that matter most to an organization. As part of this process (and not as an end in itself) scenario thinking involves the creation of, typically, between two and five possible futures. These are often based on a thorough analysis of trend data but should also show creatively how current uncertainties could lead to different, equally plausible futures. The more creative and compelling these scenarios are, the easier it is to engage with them. They should stretch credibility in order to challenge the belief that the future will simply resemble the present (or a particular desired future), but they should not become unbelievable. The scenarios can then be used to test the robustness of existing strategies; or to stimulate new ideas about how to deliver an existing vision in the face of different futures.

RAND Europe was asked to support this future challenges project by developing and testing three scenarios for Europe in the period 2009 to 2014. Figure 1 gives an overview of RAND Europe’s actions in support of the Future Challenges project. The first step in creating the scenarios was to create a scenario briefing that gathered information on major trends and key uncertainties around four areas identified by DG SANCO: governance, confidence, changing society and globalization (Chapter Two). This scenario briefing was used to inform a scenario development meeting attended by members of DG SANCO, which identified eight key uncertainties that could affect DG SANCO in 2009-2014 (Chapter Three). Following this meeting, RAND Europe developed three scenarios, titled Galapagos, Coral Reef and Wave (Chapters Four and Five). These scenarios were then
tested and fine-tuned in four case study workshops, each of which focused on a particular element that could affect the future environment in which DG SANCO operates (Chapter Six). As well as testing the scenarios, the case study workshops raised challenging questions regarding DG SANCO’s approach to the following issues:

- “How will DG SANCO help deliver the benefits of nanotechnology to European citizens?” (February 28th 2007)
- “So you think you know the consumer… the triggers for now and the future” (March 13th 2007)
- “Beyond just eating food – the role of ethics in influencing what we eat” (March 21st 2007)
- “Defining Health Equity in our Future Society” (April 18th 2007).

Chapter Seven summarizes information and insights generated by the scenarios and workshops into four key questions for DG SANCO to consider:

1. What will DG SANCO need to know?
2. What skills will DG SANCO need to develop?
3. Who will DG SANCO need to influence?
4. What risks will DG SANCO need to manage?

Finally, RAND Europe gives recommendations on how to further develop and implement the knowledge and awareness generated by the Future Challenges 2009–2014 project. These recommendations focus mainly on how scenarios have been used in organizations and the lessons that can be drawn from such usage. They offer suggestions about how DG SANCO could further increase awareness and understanding through workshops and touch on the question of applying scenarios to Impact Assessments. Since they are intended to provide useful and practical advice, the conclusions and recommendations focus mainly on actions within DG SANCO’s control. They are not intended to provide a full consideration of the various wide-ranging factors that may affect the future situation of Europe.
Figure 1: Timeline of RAND Europe’s involvement in the DG SANCO Future Challenges project
2.1 Introduction

RAND Europe was asked to produce a ‘scenario briefing’ background document for a meeting taking place on the 22nd January 2007 to identify key uncertainties for the future of DG SANCO over the period 2009–2014. DG SANCO asked RAND Europe to investigate the major trends and key uncertainties around four areas of concern for DG SANCO: governance, confidence, changing society, and globalization.

Within each of these areas, RAND Europe brought together what was widely known about the key trends and key uncertainties in Europe. The purpose of this document was not to provide a comprehensive and systematic review, but rather to provide a reminder of what is known about the past and to stimulate creative thinking about the future.

Firstly, preliminary research on each of the four areas identified by DG SANCO allowed the RAND Europe team to identify three to five “sub-areas” within each area that were relevant to DG SANCO’s environment. This was an iterative process of repeated comparison of observations of the area in question against DG SANCO’s remit, to ensure the identification of “sub-areas” that were both substantively important and of significance to DG SANCO. The “sub-areas” identified for each area are shown in Table 1.
Governance
1. The institutional framework
2. Legitimacy and input
3. Regulation
4. Output and delivery

Confidence
1. Confidence in institutions and individuals
2. Confidence in product and service quality
3. Confidence in technology and science
4. Confidence in stability of the environment
5. Citizens’ self-confidence (in their personal agency)

Changing society
1. Demographic trends
2. Changing values
3. Informed society with privacy concerns

Globalization
1. Internationalized and interdependent economy
2. Mobility and communication
3. Global governance
4. Global environmental changes and vulnerability to disasters

Table 1: Areas and sub-areas for data-gathering

The next step was to gather data on the existing trends relating to each sub-theme. The current state and trends were then analysed to establish their underlying drivers and identify those that might reasonably be expected to continue to drive trends in the future. For example, declining birth rates might be driven by females’ wish to delay childbirth because of career considerations. Following established principles of scenario planning, we used these underlying drivers as the building blocks of scenarios.5

After identifying the drivers for each sub-theme, we classify these drivers as either having low or high uncertainty of occurring. For example, it is very uncertain as to what specific products and services will be produced by technological progress, although there is little uncertainty that there will be consumer demand for technological devices that significantly improve quality of life. The next step is to assess the relevance of each of these drivers to DG SANCO. For this scenario work, we are concerned with factors of high and low uncertainty and high relevance to DG SANCO. Figure 2 illustrates how the various drivers could fit together in a matrix.

5 See, for example, Kahn and Weiner (1967); Deweer (1973); Schwarz (1996); Van der Heijden (1996).
For this exercise, we were concerned with factors of relevance to DG SANCO, organized into those with high and low uncertainty.

The scenario briefing did not provide a comprehensive and systematic review of all the relevant data. Rather, it examined trends and drivers that strongly affect the environment of DG SANCO. Its purpose was to provide a reminder of what is known about the past and to stimulate creative thinking about the future. In addition, since the four areas identified by DG SANCO were disparate in both scope and content, this document could not claim to offer a coherent overview of the main issues facing Europe now. On the other hand, since many of the issues we discuss cut across the four main areas, some overlapping did occur – although we attempted to minimize such overlapping.

The original scenario briefing presented the data in a series of slides. For ease of reference, this Final Report condenses the information into four summary tables, one for each topic area. Naturally, this means that much of the underlying research is implicit rather than stated; nevertheless, we have provided all the sources that contributed to the full scenario briefing in the References section.
### 2.2 Governance

<table>
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<tr>
<th>Trend</th>
<th>Evidence of trend</th>
<th>Importance for DG SANCO</th>
<th>Certainties</th>
<th>Uncertainties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional framework</td>
<td>Enlarged EU</td>
<td>Defines responsibilities and competences</td>
<td>No absolute certainties, but federalist vision of EU highly unlikely</td>
<td>Institutional reform and further development of constitutional debate and treaty</td>
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<td>Legitimacy &amp; input</td>
<td>Rejection of Treaty, no major institutional reforms</td>
<td>Perception of democratic deficit and low popular participation in EU policy making</td>
<td>Legitimacy and support is of key importance for new policy areas</td>
<td>Contested nature of democratic legitimacy of EU</td>
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<td></td>
<td>Perception of democratic deficit and low popular participation in EU policy making</td>
<td>Legitimacy and support is of key importance for new policy areas</td>
<td>Contested nature of democratic legitimacy of EU</td>
<td>Salience of democratic deficit</td>
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<td>Regulation</td>
<td>Critique of traditional approach to regulation</td>
<td>New modes of regulation of key importance for DG SANCO</td>
<td>New modes of regulation of key importance for DG SANCO</td>
<td>Diversification of policy/regulatory tools</td>
</tr>
<tr>
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<td>Increasing reliance on new modes of regulation</td>
<td>Need to comply with better regulation rules</td>
<td>Need to comply with better regulation rules</td>
<td>Impact assessment and measurement of administrative costs as standard procedures</td>
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<tr>
<td></td>
<td>Adoption of better regulation tools across EU Member States and EC</td>
<td>Balance costs and benefits of regulations</td>
<td>Balance costs and benefits of regulations</td>
<td>Effectiveness of better regulation tools and their impact on policy design</td>
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<td>Output and delivery</td>
<td>Persistence of transposition problem</td>
<td>Pure transposition problem limited, but general implementation problem as a key challenge</td>
<td>Pure transposition problem limited, but general implementation problem as a key challenge</td>
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<td>Uneven compliance of member states</td>
<td>Uneven compliance of member states</td>
<td>Uneven compliance of member states</td>
<td>Scope of transposition, compliance and enforcement problem in enlarged EU</td>
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## 2.3 Confidence

<table>
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<th>Trend</th>
<th>Evidence of trend</th>
<th>Importance for DG SANCO</th>
<th>Certainties</th>
<th>Uncertainties</th>
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<tbody>
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<td></td>
<td>More stakeholders involved on different levels: situation more complex</td>
<td>Confidence in the different stakeholders involved in public health can mean that citizens and consumers support or oppose their activities</td>
<td>Competition between providers of services and goods will increase, and with this the individual choice and responsibility as a consumer and a patient</td>
<td>How will these multiple relationships be dealt with?</td>
</tr>
<tr>
<td></td>
<td>Trust in education and health care systems higher than trust in individual institutions</td>
<td>Confidence in DG SANCO as a stakeholder has a strong impact on the success of its activities</td>
<td>A high number of stakeholders will be involved in the public health arena</td>
<td>Will competition strengthen quality as well as efficiency?</td>
</tr>
<tr>
<td></td>
<td>Trust in parliaments and civil servants rather low</td>
<td>“Halo” effect of certain institutions</td>
<td>There will be more information than ever, but the identification of authoritative, high quality information will be challenging for the patient and the consumer</td>
<td>If and how high-quality information can be made easily accessible to the individual</td>
</tr>
<tr>
<td></td>
<td>Trust in European Commission stable</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Confidence in institutions and individuals</th>
<th>Confidence in product and service quality</th>
<th>A key issue for the individual “purchase decision”</th>
<th>DG SANCO’s objective is to empower consumers to feel more confident in the enlarged internal market</th>
<th>Range of products and services will increase (allowing targeting of specific user groups)</th>
<th>Success in collaboration with third countries to safeguard food safety</th>
<th>Success of prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Halo” effect: consumer’s</td>
<td></td>
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<tr>
<td>Confidence in technology and science</td>
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<td>confidence in the producer or service provider</td>
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<tr>
<td>Positive or negative attitude to science and technology, animal testing, low-wage labour countries and so on may influence the consumer perception of an individual product</td>
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<td>Decision-making support is flourishing</td>
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<td>Converging technologies</td>
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<tr>
<td>Increasing importance of science and technology in daily life</td>
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<tr>
<td>Data exchange speeds up and facilitates health care system / data protection issues</td>
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<td>Remote diagnostics</td>
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<td>Differing attitudes between</td>
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<tr>
<td>Particular relevance for DG SANCO in respect of health care services and the priority issue of food safety</td>
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<tr>
<td>EU citizens expect their food to be safe and their governments to safeguard this</td>
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<tr>
<td>The EU will stay one of the largest food importers</td>
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<tr>
<td>Significant public spending goes into the health care sector</td>
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<tr>
<td>Confidence in new technologies and scientific innovations for public health affects their uptake</td>
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<tr>
<td>DG SANCO’s role in risk management and risk assessment should harmful effects become discovered</td>
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<tr>
<td>Information Technology developments will allow to be “always connected”</td>
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<tr>
<td>Converging technologies will introduce a range of new services</td>
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<tr>
<td>Ongoing advances in IT, nanotechnologies, biogenetics etc will offer potential applications that can influence public health, consumer behaviour and</td>
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<tr>
<td>initiatives in strengthening public health</td>
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<tr>
<td>Introduction of trusted, user-friendly labelling schemes, and their influence on consumer behaviour</td>
<td></td>
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<tr>
<td>Attractiveness of cross-border health care services</td>
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<tr>
<td>Specific applications entering the market</td>
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<tr>
<td>Public attitude and risk perception of different S&amp;T developments, which will foster or hinder the uptake</td>
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<tr>
<td>Use and design of information channels</td>
<td></td>
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<tr>
<td>US and Europe</td>
<td>Confidence in stability of the environment (external threats, economic stability, political stability)</td>
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<td>-------------------------------------------------------------------------------</td>
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<tr>
<td>Current generations faced with relatively fast-changing environment</td>
<td>Frames the mindset of citizens (what they expect their socio-economical and geopolitical future to look like)</td>
<td></td>
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<tr>
<td>Significant advances in science and technology (eg global spread of viruses)</td>
<td>In particular, the perception of certain risks that are partly within DG SANCO’s risk management role and may require a public health response</td>
<td></td>
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<tr>
<td>Individual has several jobs over his lifespan – lifelong learning required</td>
<td>Low levels of confidence in “European Project” may increase difficulty of DG SANCO’s role</td>
<td></td>
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<tr>
<td>Experienced or observed catastrophes can have significant impact on individual risk perception</td>
<td>Exiting or observed catastrophes can have significant impact on individual risk perception</td>
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<tr>
<td>Confidence levels change drastically in response to terrorist attacks and disasters</td>
<td>Confidence levels change drastically in response to terrorist attacks and disasters</td>
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<tr>
<td>Important to mitigate and manage fading levels of confidence and increasing levels of fear</td>
<td>Important to mitigate and manage fading levels of confidence and increasing levels of fear</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>consumer protection</th>
<th>Expansion of markets into traditionally welfare state roles; uptake of this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social welfare systems safeguarding citizens against adverse situations (eg unemployment) limited</td>
<td>Adaptation of education system to new requirements</td>
</tr>
<tr>
<td>Regular job changes are the rule not the exception</td>
<td>Success of further cohesion between Member States</td>
</tr>
<tr>
<td>Lifelong learning is important</td>
<td>Further expansion of the EU beyond 27 Member States</td>
</tr>
<tr>
<td>Catastrophes will occur</td>
<td>When and what kind of catastrophe will occur?</td>
</tr>
<tr>
<td>Confidence in individual ability to actively influence the future and respond to external challenges</td>
<td>Crucial element for behaviour patterns (e.g., smoking, eating habits, sports)</td>
</tr>
<tr>
<td>Propensity for obesity is linked to low self-esteem and low socio-economic status</td>
<td></td>
</tr>
<tr>
<td>Further isolation can lead to vicious circle</td>
<td></td>
</tr>
<tr>
<td>Also linked to “confidence in institutions” and “confidence in stability of environment”</td>
<td></td>
</tr>
</tbody>
</table>

| People who are not confident in their future tend not to see the need to stop a negative behaviour or adopt a positive one |
| Potential impact on DG SANCO’s initiatives to combat obesity, or communicate the dangers of certain activities (e.g., smoking) |

| Socio-economic status will affect individuals’ confidence in their abilities |
| Mass media influence will remain pervasive and powerful |

| Warning against particular health risks may result in active self-critical attitude or passive self-defeating attitude |
| Role of media (“education” versus “couch potato”) |
| Mass media versus fragmentation of channels |
| Influence of internet and “virtual world” culture |
### 2.4 Changing society

<table>
<thead>
<tr>
<th>Trend</th>
<th>Evidence of trend</th>
<th>Importance for DG SANCO</th>
<th>Certainties</th>
<th>Uncertainties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic trends</td>
<td>Europe is ageing</td>
<td>Affordability of public services</td>
<td>Slowly increasing life expectancy</td>
<td>Combining work and family</td>
</tr>
<tr>
<td></td>
<td>Parenthood is for thirty-somethings</td>
<td>Care for the elderly</td>
<td>Mothers will not become younger</td>
<td>Economic progress</td>
</tr>
<tr>
<td></td>
<td>Changing household structures</td>
<td>Generational inequalities</td>
<td>Increasing divorce rates</td>
<td>Willingness to pay for ageing</td>
</tr>
<tr>
<td></td>
<td>Increasing intra-EU migration</td>
<td>Increased health risks and decreasing fecundity with age</td>
<td>Decreasing nuptiality</td>
<td>Pandemics, natural disasters, armed conflicts</td>
</tr>
<tr>
<td>Changing values</td>
<td>Support for lone parents and their children</td>
<td>Compatibility of EU health insurances</td>
<td></td>
<td>Impact of environmental threat</td>
</tr>
<tr>
<td></td>
<td>Solidarity with personal responsibility</td>
<td>Willingness to pay for public services</td>
<td>Affordability of welfare state at stake</td>
<td>Family values</td>
</tr>
<tr>
<td></td>
<td>Ethics and biomedical progress</td>
<td>Targeted care for minorities</td>
<td>Ageing driving individualism</td>
<td>Migration policy</td>
</tr>
<tr>
<td></td>
<td>Post-secular society</td>
<td>Regulation for biotechnology</td>
<td>Increasing EU migration</td>
<td>Developments in origin countries</td>
</tr>
<tr>
<td></td>
<td>Increasing importance of animal rights</td>
<td>Attitude to euthanasia, etc</td>
<td>Environmental pressure</td>
<td>Economic growth and tolerance</td>
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<td></td>
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<td></td>
<td>Democratization or civic detachment?</td>
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<td>Citizenship</td>
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<td></td>
<td>Corporate social responsibility</td>
</tr>
<tr>
<td>Trend</td>
<td>Evidence of trend</td>
<td>Importance for DG SANCO</td>
<td>Certainties</td>
<td>Uncertainties</td>
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<tr>
<td><strong>Informed society &amp; privacy concerns</strong></td>
<td>Increased access to information</td>
<td>Religion and public health trade-off</td>
<td>Main causes of mortality</td>
<td>Scientific discoveries</td>
</tr>
<tr>
<td></td>
<td>Technology is increasingly intrusive</td>
<td>Animal tests</td>
<td>Animal testing will remain important</td>
<td>Other urgencies may shift priorities</td>
</tr>
<tr>
<td></td>
<td>Automation and personalisation</td>
<td>Regulation for animal rights</td>
<td>Medical and technological progress</td>
<td></td>
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<td></td>
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<td>Flow of people and goods</td>
<td></td>
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<td></td>
<td></td>
<td>Continuing individualisation</td>
<td></td>
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<td></td>
<td></td>
<td>Impact on doctor–patient relationship</td>
<td>Access to medical information</td>
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<td></td>
<td></td>
<td>Information overload</td>
<td>Transparency of markets</td>
<td></td>
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<td></td>
<td></td>
<td>Responsibilities for information provision</td>
<td>Information security technologies</td>
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<td></td>
<td></td>
<td>Improved patient care</td>
<td>Remote, personalized and automated care</td>
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<td></td>
<td></td>
<td>Privacy enhancing technologies for consumer protection</td>
<td>Increasing individual choice</td>
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<td></td>
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<td>Privacy concerns</td>
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<td>Future of the medical record</td>
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## 2.5 Globalization

<table>
<thead>
<tr>
<th>Trend</th>
<th>Evidence of trend</th>
<th>Importance for DG SANCO</th>
<th>Certainties</th>
<th>Uncertainties</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Trade and Foreign Direct investment growth</td>
<td>Income distribution and public health</td>
<td>Further integration of the world economy</td>
<td>Will growth be stable or will there be major shocks to the world economy?</td>
</tr>
<tr>
<td></td>
<td>Growing inequalities</td>
<td>International trade in harmful and dangerous substances</td>
<td>Liberalisation covering even wider sectors of the economy, like food production and services</td>
<td>Will there be new technologies substantially changing our economies, like the internet and modern Information and Communications Technology?</td>
</tr>
<tr>
<td></td>
<td>Trade in services</td>
<td>Trade-related infections</td>
<td>Growing inequalities within countries</td>
<td>Will communication technology be able to replace substantial parts of business travel in the future?</td>
</tr>
<tr>
<td></td>
<td>Internationalized and interdependent economy</td>
<td>Trade in health-related services</td>
<td>Growing inequalities between countries</td>
<td>Will growing migration pressures lead to relaxed migration regimes in the west or a tightening of migration regimes?</td>
</tr>
<tr>
<td></td>
<td>Internet and mobile phone use increases, prices for communication fall</td>
<td>Property rights issues in pharmaceutical research</td>
<td>Business travel and tourism across border and continents will increase</td>
<td></td>
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<tr>
<td></td>
<td>Travel and tourism increased despite global shocks</td>
<td>Spread of infectious diseases and antagonistic diseases like tuberculosis</td>
<td>Growing migration pressures on the rich countries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Migration flows increased in recent decade</td>
<td>Challenges on national health services in the EU</td>
<td>New information technology will be even more important</td>
<td></td>
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<tr>
<td></td>
<td>Mobility and communication</td>
<td>Dissemination of information and communication</td>
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<tr>
<td>Trend</td>
<td>Evidence of trend</td>
<td>Importance for DG SANCO</td>
<td>Certainties</td>
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<tr>
<td>Global governance</td>
<td>Pressure on regulatory regimes to cope with internationalized economy</td>
<td>Limited scope for national/European regulation</td>
<td>Global governance will become more complex</td>
<td>Race-to-the-bottom or race-to-the-top in regulation?</td>
</tr>
<tr>
<td></td>
<td>Issue linkages of public health regulation</td>
<td>Global governance increasingly important</td>
<td>Shrinking scope for national and unilateral regulation</td>
<td>Unilateralism, bilateralism or multilateralism in governing global public health?</td>
</tr>
<tr>
<td></td>
<td>Growing importance of non-state actors in public health issues</td>
<td>Global governance arrangements are highly malleable by DG SANCO and the member states</td>
<td>New actors in the global public health scene</td>
<td>Can the World Health Organization play a vital role?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective regulation increasingly dependent on international cooperation</td>
<td>Which role will private charities, companies and Non-Governmental Organisations play?</td>
</tr>
<tr>
<td>Global warming and cross-border environmental problems</td>
<td></td>
<td>Health impacts of extreme weather events</td>
<td>The impacts of global warming will become more visible</td>
<td>When, where and how hard will future disasters hit?</td>
</tr>
<tr>
<td>Increased likelihood of extreme weather events</td>
<td></td>
<td>Other global or cross-border environmental problems (like depletion of the ozone layer, air and water pollution), are linked to certain health problems like skin cancer etc</td>
<td>Increasing number of severe weather events worldwide</td>
<td>Will states adapt and prepare for climate change?</td>
</tr>
<tr>
<td>Disasters have an increasingly global impact</td>
<td></td>
<td>Increasing global impact of disasters</td>
<td>Growing vulnerability to natural and manmade disasters</td>
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<tr>
<td>Global environmental changes and vulnerability to disasters</td>
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CHAPTER 3  The scenario development meeting

3.1 Introduction

As noted in Chapter Two, the scenario briefing was used to inform a meeting involving participants from DG SANCO that took place on 22nd January 2007. The meeting was facilitated by RAND Europe and focused on identifying key trends and critical uncertainties of relevance to DG SANCO’s future environment.

3.2 Identifying key themes

During a plenary session, the participants identified 48 key themes that will affect the future of DG SANCO. Each participant was asked to offer one of their key themes, which was summarized and written onto a hexagonal-shaped sticker. After every participant had responded, the exercise was repeated until no more themes could be identified. This process produced the 48 key themes listed in Appendix A. The participants were then asked to consider how these key themes interrelated. Using the hexagonal stickers, the group used argument and analysis to group the 48 themes into six clusters.

3.3 The six clusters of the issues map

After the issues identified by participants had been grouped into six interrelated clusters, participants were asked to consider how each of these clusters might be categorized. Many useful comments were received, which fed into an analysis of the issues map conducted by representatives from RAND Europe and Unit 02 during the workshop lunch break. Table 2 shows how this analysis summarized the clusters.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Governance</td>
<td>Accountability with delivery in a multi-level world</td>
</tr>
<tr>
<td>Creating confidence</td>
<td>Communicating knowledge, risk and science to citizens</td>
</tr>
<tr>
<td>Social change and inequalities</td>
<td>Better understanding of changing attitudes, well-being, and access to services, goods, and information sources</td>
</tr>
<tr>
<td>Products</td>
<td>Complex goods and services accessed in new ways</td>
</tr>
</tbody>
</table>
The “big picture”  Changes in politics, markets and the natural environment

Globalization  How the specific context and processes of globalization will affect the EU

Table 2: Thematic clusters from scenario development meeting

Figure 3 is a graphical representation of the cluster arrangement that uses colour-coding and labelling to demonstrate which areas of the issues map are under each of these five categories. The numbers here represent numbers assigned to the key themes during the discussion. A larger version of this diagram can be found in Appendix B.

3.4 Eight crucial uncertainties

The workshop participants then split into four groups. Each group was assigned one of the four key drivers identified in RAND Europe’s scenario briefing: governance for a new Europe; confidence in an uncertain world; changing society; globalization. The groups
were reminded of RAND Europe’s selection of key trends that were highly certain to continue in the future and those whose future development was highly uncertain.

The groups were set two tasks: firstly, to make any alterations to RAND Europe’s key trends that they felt necessary; secondly, to select two uncertainties that would be crucial to the environment of DG SANCO. The eight key uncertainties identified by the groups were as follows.

**Governance**

1. What will be the outcome of the EU institutional reform debate?
2. How to assess the impact of EU legislation, once adopted, on “real life”?

**Confidence**

3. What are the roles and responsibilities of DG SANCO versus those of markets?
4. What is DG SANCO’s role in building confidence? For example, will it be an active or passive role? How reactive will DG SANCO be to new technological developments?

**Changing society**

5. Will the healthy life expectancy increase further and how will society adapt? What role will DG SANCO have with regards to informing and coordinating Member States?
6. How will consumer attitudes evolve with regards to Corporate Social Responsibility / ethical consumption / environmentally friendly production? DG SANCO’s role in promoting responsible business practices?

**Globalization**

7. Who will set global standards? At what level will these standards be set?
8. How prepared will DG SANCO be for predictable disasters (eg climate change, natural resources etc.) and unpredictable crisis (pandemics, natural disasters)?

### 3.5 Other comments made during the construction of the issues map

It was noted that all the themes put on hexagons were predicated on the assumption of continued peace and security in the EU. These themes would clearly be disrupted in a climate of war or massive threats to security.

Another factor that will have a profound influence on all considerations of DG SANCO’s future actions is the distribution of skills required for such actions. For example, if DG SANCO considers that communication with citizens will be an important priority in the future, it needs to decide whether it will have the internal capabilities to meet that challenge (and, if it does not, what actions need to be taken).

A recurrent observation was that DG SANCO needs to be active in its attempts to address citizens’ lack of confidence in institutions (such as the EU).
It was claimed that currently much of DG SANCO’s time and resources are taken up by dealing with crises or emergencies. Clearly, it needs to deal with the “big shocks” that occur. However, it is worth considering whether DG SANCO can insulate its core business to ensure that it can deal with these crises without allowing them to overwhelm its everyday functions.

3.6 “Wildcards”

The proceedings of the Scenario Meeting up to this point had been based on the principle of following a logical path from evidence of trends through to possible future developments. However, RAND Europe also wished to address the fact that certain events that occur are totally discontinuous from what has gone before, yet have a massive impact. These events are often called “wildcards” and serve as a perturbation to expose underlying structures (e.g. of belief or reasoning) and to test prioritization and framing. Therefore, during the scenario meeting participants were asked to split into pairs and consider what the nature of such shocks might be. Their suggestions were intended to serve as a future stimulus to creative scenario thinking, and are presented below.

1. Society rejects science and goes back to nature and traditional practices.
2. Some Member States reject the European Union, which returns to a six-member organization.
3. A meteorite strikes the European continent.
4. The polar ice caps melt in a very short time frame, leading to mass flooding.
5. A major disease, such as malaria, returns to the EU.
6. There is an intensive wave of immigration into Europe.
7. A bioterrorist attack occurs.
8. The safety of a major drug, such as aspirin, is undermined and suddenly begins to react with other chemicals. Or a widespread medical invention is revealed to be dangerous.
9. There is “consumer overload” – consumers just want to be told what to do, rather than being provided with information.
10. The EU is entirely dismantled.
11. There is a massive exodus from Russia to the EU.
12. There is a human-influenced pandemic, which cannot be tackled by a unilateral policy.
13. China’s system of government undergoes a sudden and radical change.
14. Historically, each generation has been healthier than the next – but this trend ends with this generation.
CHAPTER 4  Creating the scenarios

4.1  Introduction

Creating the “DG SANCO scenarios” involved three main steps: exploring the dimensions of the eight key uncertainties identified by the scenario development workshop; using these dimensions as ‘building blocks’ to form scenarios; and testing these scenarios in case study workshops. Section 4.2 details how RAND Europe explored the dimensions of the key uncertainties, while Section 4.3 explains how these dimensions were used to form the scenarios. The case study workshops are dealt with in Chapter Six.

4.2  The dimensions of key uncertainties

After the scenario development meeting, RAND Europe considered two opposing visions of how each of the eight crucial uncertainties might develop. To take a very basic example, one might consider that the level of EU integration might be a crucial uncertainty. In one possible future one might imagine a Europe which has increasingly weak ties between countries, more mutual suspicion, the reintroduction of de facto trade barriers, and far less ability to work together to tackle issues. On the other hand, one could consider a possible future wherein the Member States become increasingly tight-knit, increase the intra-flow of services and people, and perhaps even move towards the adoption of a European constitution.

It is important to note that these two alternate futures are opposing outcomes of the same uncertainty; in other words, they can be represented as opposing ends of the same axis, as in Figures 4-8. Therefore, for each of the uncertainties, we represent the alternate futures as opposite ends of a single dimension. This approach is broadly in line with the popular ‘scenario-axes’ method, although, as shown in Section 4.3, the actual construction of the scenarios differed from this method. The following subsections detail how RAND Europe explored the dimensions of uncertainty.

4.2.1  Governance

The first two key uncertainties concerned governance arrangements. We envisaged that the institutional context within which DG SANCO operates could be one of hierarchical

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institutions that are efficiently run but horizontally isolated, or it could be a more complex, multi-level Commission with considerable inter-agency cooperation and good networking with stakeholders. In the former situation, there are problems to overcome that are caused by narrowly-focused organizations failing to collaborate for mutual gain. There are also risks of “gaming” and inter-organizational rivalry to manage. In the latter situation, the difficulties include: inertia, the need to secure wide agreement before taking action, and a difficulty in responding swiftly to new problems. Further, there are risks that stakeholders could play self-interested games and decisions could be based on what is politically feasible rather than technically desirable.

The second governance uncertainty concerns the relationships between the Commission and the Member States. At one end of the dimension, there is a flexible set of arrangements, varying from one policy arena to another, in which regulation and actions are ‘co-produced’ with Member States. This results in considerable variation in practices across the EU, but high levels of acceptability and some good local practice which others could learn from. At the other end of the dimension, the EU is more focused on a smaller number of activities, yet in these areas it enjoys legitimacy and has the capacity to take effective action – even where some individual Member States are not entirely convinced of its need to do so.

Figure 4: Dimensions of uncertainty for governance

4.2.2 Confidence
The second area of uncertainty highlighted by the workshop was confidence. Two crucial areas for DG SANCO concern confidence in the market to deliver information the public trusts and the confidence that European citizens have in different sources of information. In order to function, all markets generate large amounts of information. Two key questions for the environment of DG SANCO are: firstly, whether the public has a high
level of confidence in the information made available by markets; and, secondly, whether regulatory authorities believe that the information the markets produce is adequate to ensure that it can be used as a basis for regulation and inspection. On the one hand there are considerable mutual benefits in not having to duplicate the information systems of markets. On the other hand, there is the suspicion that markets create information asymmetries and incentives to pursue private interests at the expense of public gain.

Alongside confidence in the market to deliver accurate and trusted information sits the question of whether sources of information are trusted. This dimension of uncertainty ranges from a situation where there are a small number of highly trusted sources to one where there are multiple sources of overlapping and often conflicting sources of information. The former is often characterized by scientific expertise and authoritative commentators enjoying a high level of confidence among users of information. The latter is often characterized by consumers and organizations actively seeking out information and testing them against their own, individual criteria. In this latter situation, there is equivalence amongst sources of information, so that, for example, medical science ranks alongside alternative therapies, and religious fundamentalism takes its place alongside secular chat-rooms. It should not be assumed, however, that more sources of information mean better decisions.

Figure 5: Dimensions of uncertainty for confidence

### 4.2.3 Changing society

In the first key uncertainty of changing society, it is acknowledged that there will be an ageing society. However, this could have significantly uncertain consequences both for older people and for society at large. One possible consequence of this is that older people are left to achieve whatever lifestyle their pensions, savings and post-retirement employment opportunities offer. For many, this would mean social exclusion and low
social status. An alternative consequence is that older people remain socially and economically active, and part of the fabric of society. This outcome is an uncertainty rather than an aspiration because the challenges of achieving this condition are considerable. It would require not only a capacity to redistribute income from the working population to the non-working population but also an ability to create support networks (or social capital) capable of bonding communities together and bridging between diverse communities.

The second key uncertainty (‘who drives social responsibility?’) is based on the certainty that markets will increasingly offer goods and services that are ethical or sustainable and which accord with the standards of corporate social responsibility. The uncertainty concerns how this will happen. In one situation, the providers of goods and services compete to support the public interest and become good corporate citizens. In an alternative outcome, markets require more steering and supporting by non-market actors to ensure that they produce these desirable outcomes. The problem with this latter situation is that non-market players (including the EC, Member States and NGOs) often lack the information necessary to take effective action, and may fail to understand how well-intended actions might lead to unintended outcomes. This includes the risk that excessive regulation of markets results in economic weakness. The former situation faces a different set of problems. Although the need to overcome information asymmetries is avoided, there is a heavy dependency on economic self-regulation and the danger that the incentives facing producers may be misaligned with wider interests. There is the additional risk that self-regulation tends to become focused on managing short-term risks and other, longer term, but possibly greater, risks are given a lower priority.
Globalization
The fourth pair of key uncertainties concerns globalization. The first dimension of uncertainty ranges from a situation where globalization results in a ‘race to the bottom’ in regulation and standards; to one in which it sparks a ‘race to the top’. In the former race, growing economic competition results in global regions with fewer and lower-level regulations out-competing more regulated economies, which results in a search for new, effective forms of regulation. When this search proves fruitless, there is a competitive dismantling of regulatory standards. In the latter race, it is assumed that effective regulation supports the production of high quality goods and services and these goods gain a competitive edge in the global marketplace. Each region or country competes to become the ‘gold-standard’ of certification. Consequently a high standard of intelligent regulation becomes an important part of how global regions such as Europe compete.

The second dimension is that globalization also brings with it new risks and that the global reach of these risks demands growing attention. The uncertainty explored is between a response which sees risk management focused on catastrophic events on the one hand, and risk management focusing on the increasing level of routine risk on the other. This is the equivalent of building defences to counter a swamp which one knows is rising and therefore will be dangerous, versus building defences to combat a giant wave that is less likely but potentially far more devastating.

Technology and privacy
There were two additional uncertainties that were implicitly raised during the scenario development meeting and which we believed deserved to be explored in this context. The
first is that, although technological progress is relatively certain, there is an important uncertainty about whether this will be driven by ‘big science’ (ie very large scientific programmes focused on a single group of significant scientific outcomes) or on small innovative players forming interdisciplinary teams and arriving at creative solutions through effective communication and a fleet-footed, solution-oriented cadre of scientists. The second uncertainty is whether current anxieties about the balance between privacy and security will be resolved in one direction or the other. On the one hand, there could be an ‘identiphobia’ where citizens only provide personal information under very constrained circumstances, and these circumstances are carefully guarded in law. On the other hand, the need for security might be seen to override the need for privacy in a growing number of cases, resulting in personal information being much more readily available to public authorities.

Figure 8: Dimensions of uncertainty for technology and privacy

4.3 Developing the scenarios

Our intention was to produce scenarios that covered a range of the possible outcomes of these key uncertainties. Since these scenarios were intended to challenge members of DG SANCO, we decided to incorporate many elements into the scenarios that reflected the opposing ends of the dimensions of uncertainty. This method of creating scenarios, through combining differing outcomes from a variety of dimensions that reflect elements of society, is akin to futures techniques broadly labelled morphological analysis or field anomaly relaxation.7

7 Bishop et al (2007); Coyle (2003); Duczynski (2000).
Equally, however, we wished our scenarios to be internally consistent and compelling. An additional concern was time pressure, since scenarios had to be created from the key uncertainties within four weeks to accommodate the project schedule. Therefore, the RAND Europe team started to develop possible storylines and visions of Europe that would challenge workshop participants and present truly different environments for DG SANCO. In addition, the team wished the scenarios to incorporate both ‘fixed state’ and ‘narrative-based’ scenarios, since the latter could provide a ‘before and after’ transition that could encourage participants to think about how DG SANCO would react to sudden challenges, without having time to adapt gradually.

This process produced three basic scenario ideas:

1. A fragmented and heterogeneous Europe in danger of collapse;
2. A relatively cohesive Europe which has a strong identity but is gradually developing internal divisions;
3. A post-crisis Europe in which confidence is extremely low and DG SANCO has been given great freedom to act.

These basic scenario ideas were elaborated and fleshed out by incorporating elements from the different points along the various dimensions of uncertainty. This was a difficult process, since the scenarios had to be both varied and internally consistent. The distribution of the scenarios along the various dimensions of uncertainty is given in Appendix C.

These scenarios were not developed as predictions of the future of Europe, but were intended to provide a set of plausible yet intellectually challenging futures that could aid strategic thinking and creative discussions about DG SANCO and its operations. As noted, the scenarios were originally developed for testing and usage in the case study workshops. Each of these workshops was intended to modify and improve the scenarios, and therefore for the sake of clarity this Final Report does not provide the scenarios as they existed before the nanotechnology workshop. The final versions of the scenarios are presented in Chapter Five.
CHAPTER 5 The final DG SANCO scenarios

5.1 The evolution of the scenarios

As explained in Chapter Four, the three scenarios were initially created using the outcomes of the scenario development meeting. Subsequently, these scenarios were used in four case study workshops that focused on a particular issue that might have a significant future impact on the environment in which DG SANCO operates:

- “How will DG SANCO help deliver the benefits of nanotechnology to European citizens?” (February 28th 2007)
- “So you think you know the consumer… the triggers for now and the future” (March 13th 2007)
- “Beyond just eating food – the role of ethics in influencing what we eat” (March 21st 2007)
- “Defining Health Equity in our Future Society” (April 18th 2007).

The purpose of using the scenarios in these workshops was to stimulate creative discussions while allowing the scenarios to be tested in a practical situation and modified by the input of workshop participants. Fine-tuning the scenarios in this way meant that inconsistencies were identified and resolved, the internal dynamics of the scenarios made more sophisticated, and the scenario paths made more divergent and challenging. The following sections present the final versions of the scenarios, after the workshop modifications had been made. A summary overview of the scenario is provided, followed by a full narrative account.
5.2 The Galapagos scenario

The Galapagos consist of 13 major islands (ranging in area from 5.4 to 1,771 square miles), 6 smaller islands, and scores of islets and rocks… Because of subsequent evolutionary adaptations, an amazing range of subspecies are found on the islands today.\(^8\)

5.2.1 Overview

- There is a great variety of organizations and traditions in Europe, linked together weakly. Key differences are based on geography, culture and demography.

- The EU is facing an unparalleled crisis. The Commission cannot coordinate and reconcile the many different interests of Member States and other organizations. The Commission is having problems in delivering even its most basic commitments and is constantly having to respond to crises of authority. Secessionist movements have gained popular support in many countries, and in one Member State a referendum on membership has been arranged. Alternative mechanisms for cooperation between European countries are being discussed. There are fears that the EU may collapse.

- There is a higher level of confidence in local products and information, than in those delivered by global providers. Local organizations, such as NGOs and pressure groups, have increased their power.

- Multiple overlapping and conflicting communication systems exist alongside one another. Information is often distorted when transferred from one to another. Many citizens access these various communications systems through a personal information and entertainment device called the MIU ("me-you").

- European society includes various value systems and different standards of living, and offers unequal opportunities: where you come from largely determines how your life develops. Inequalities have increased within and between Member States. This had led to debates about who is responsible for defining and meeting public interests.

- Health costs have continued to rise and it has proved impossible to establish a European consensus about the funding of health services. Many believe that the pursuit of equity has suffered in the name of maintaining diversity, leading to variation in health care equities across Europe.

- The multiplicity of views in Europe has left it weak and divided on the world stage. It has been unable to impose high regulatory standards and is struggling to prevent a ‘race to the bottom’.

\(^8\) 'Galapagos Islands' in *Encyclopedia Britannica* (2008a).
• Routine risks (such as obesity) are calculated and managed locally, which means that DG SANCO focuses on the risk of major catastrophes.

• Scientific progress mainly consists of small-scale, innovative projects, but scientific breakthroughs are often not translated into public benefits because of poor communication and weak overall coordination of research and development.

• Anxieties over privacy have led to widespread ‘identiphobia’, where individuals go to great lengths to limit what public bodies and corporations know about their personal choices and movements.

• There are varying standards of what constitutes the acceptable treatment of animals, mostly based on traditions. There is controversy over standards for food production from both animal and vegetable sources.

5.2.2 Narrative

In the Galapagos scenario, Europe consists of diverse “islands” and “eco-systems”. The information needs, capacities and incentives on each ‘island’ differ, sometimes in fundamental ways. Each island is responsive to changes in its own environment, which gives Galapagos great flexibility and variety. However, it is very difficult to communicate information across such diverse settings and to coordinate a coherent European position.

In Galapagos, the institutions of the European Union have had to adapt to meet the expectations and values of different “islands”. Furthermore, in order to deliver better services, delivery mechanisms have had to be tailored to local circumstances. There is a growing view within the institutions of the EC that some regions are experiencing an “information deficit” that is as important as the “democratic deficit” of the previous decade. However, a greater concern is that increasing amounts of information were not creating usable knowledge. Managing the large amount of dense information flowing through its various regional and sectoral subcommittees is threatening to overwhelm decision-making in the Commission. Communicating apparently simple priorities through these labyrinthine structures has become a major challenge.

In fact, the viability of the entire European project is under threat as the different islands move increasingly far apart. Member States jealously guard their own interests and, particularly during election years, relationships between the EC and the Member States are becoming increasingly strained. The Commission is starting to find it impossible to translate its initiatives into real benefits for citizens and stakeholders. This lack of impact has led to increasing criticism of the Commission and questions about what the European Union can now be trusted to deliver. Secessionist movements have gained significant popular support in a majority of Member States and a referendum on EU membership has been arranged in one Member State. Some in the European media are even predicting that the EU will have fewer than 15 members by 2022.

Another challenge to the EU is the fact that alternative mechanisms for cooperation are growing up between those Member States who feel they can work better together outside the architecture of the European Union. These new agreements, which may also be set up
between sub-national regions, are proving effective and appear to offer a future alternative to the unwieldy EU. In short, the EU is facing an unparalleled crisis.

Levels of confidence in Galapagos change considerably from one setting to another, and also vary over time. There is a high degree of confidence in local providers: local farmers’ markets (both online and real) have become popular at weekends. Local networks for swapping skills and work also became very popular, until tax authorities started to tax these exchanges. They are, however, still widespread and constitute a part of the growing ‘hidden economy’ that many regard as legitimate. Confidence in global providers has been eroded by scandals concerning imports from beyond Europe’s borders.

One consumer product in particular has had a major impact on society: the MIU (“me-you”), which is widely considered to be the most significant personal entertainment and information device since the (now historic) iPod. The MIU is based around creating individualized networks between groups of friends, families and those with common interests. Users can share multimedia content they have created, such as high-quality videos and images, within (and between) networks of MIUs; the advances in videoconferencing have meant that MIUs can provide a constant virtual link with one’s contacts. This has lead to fierce debate about whether MIUs cement friendship networks or ossify them, since citizens are increasingly “locked into” virtual networks, and increasingly ignore the wider social exchanges that surround them. The MIU has helped to cement and bond relationships within groups, but it can be a barrier to linkages between social groups. In particular, some government authorities are becoming increasingly concerned about ‘hidden communities’ of radicalized individuals who are separating themselves off from mainstream society through MIU networks.

The advent of the MIU almost totally eradicated the mass media, which have been replaced by highly diverse and segmented information channels. Entertainment and news for the MIU is selected for the individual user from an extensive library of programmes and music stored on various different European servers. The continued fragmentation of the media has reinforced a tendency for citizens to make their own minds up about which sources of information to trust. They choose to do so often on idiosyncratic grounds. They also show a willingness to frequently change their “information source of choice”, although there are concerns that some individuals are developing a distorted or extreme view of events by relying on specialist news sources. Increasingly, public relations firms and European communications bodies are decentralizing from Brussels and creating more local, regional and sectoral offices. In its attempts to maintain its relevance to this changing Europe, the EU has also decentralized many of its ‘public-facing’ functions.

Living standards and levels of inequality vary greatly within the Member States: for example, older people have become socially excluded in some countries. Companies take their Corporate Social Responsibilities with varying degrees of seriousness: the most striking example of this is the failure to take concerted action on climate change, despite successful local demonstration projects showing what could be done.

This question and others prompted debates about who is responsible for defining and meeting public interests. On the one hand, public bodies have legal powers and organizational capacities to do so. On the other hand, NGOs and community organizations are often seen to be ‘closer to the people’. Even those companies that take
their Corporate Social Responsibilities seriously are seen to be closer to their own consumers than to the general public interest. Consequently, the public have adopted a pragmatic response, pursing public interests through whatever channel is seen to work.

Decades-old drivers of rising health costs (an ageing population, consumerism, rising costs of institutional care) have all continued in Galapagos. It has proved impossible to establish a European consensus for health services about what should be funded out of taxation, what should be funded through insurance, and what should be purchased in the market by individuals making personal choices. Many believe that the pursuit of equity has suffered in the name of maintaining diversity. This variation in health care equities across Europe has resulted in rising demand for cross-border health care because people denied their treatment of choice in their own country wished to receive treatment in other EU countries. However, attempts to create fully-fledged cross-border health care have largely been frustrated by the great differences between Member States. Despite European Court rulings asserting the rights of patients to claim back health costs from their own national system, administrative and practical barriers have remained considerable.

Globalization has been disruptive for the Europe of Galapagos. The inability to forge a single coherent voice from a multiplicity of views has left Europe weak in international forums such as WHO, World Bank and the UN (the WTO having collapsed in 2011). This weakness, combined with the political crisis in China and conflicts over energy supplies, has led to international inability to maintain high standards in a whole range of issues from food labelling and content through to quality assurance standards in manufactured goods. In some cases, market mechanisms have helped to remove the worst offenders but in general, for global goods and services, there has been a ‘race to the bottom’ in regulatory and quality standards. Even where quality standards are met, consumers face a bewildering number of Quality Assurance schemes that make informed choice difficult and encourage a reliance on personal experience.

In Galapagos, the Commission lacks the information and capacity needed to manage routine risks such as smoking and obesity effectively. There are still efforts to promote measures that combat such risks through weak networks of influence, but the Commission has had to focus its public protection role on preventing major crises and catastrophes. As demonstrated in the effective recent containment of Mexican ‘flu, these mechanisms have proved successful.

In science and technology, many scientific discoveries have been made. However in many cases, technological applications have not emerged because of the information deficit or absence of exchange between scientific and technological communities. Europe has done better than expected in this regard, since it has made some breakthroughs. In general, these successes have emerged from highly specific areas of science, sometimes at the edges of major scientific programmes, and have involved a willingness to innovate and experiment around a research agenda. It is widely thought that a more highly prioritized, rationalized and regulated science sector might not have delivered such gains. However there have been considerable anxieties that, too often, scientific advances have not been translated into public benefit.

There have been heated debates within many communities about the safety and privacy implications of nanotechnologies; the weaknesses in post-marketing surveillance for
pharmacogenetic tests; and the ethics of the use of pigs’ organs in xenotransplantation. Anxieties over privacy and nanotechnology have prompted even wider examples of ‘identiphobia’, where individuals go to elaborate lengths to limit what public bodies and corporations know about their personal choices and movements – whilst being relatively unconcerned about personal information they share with members of their own communities. There are growing concerns, for example, about the extent of the personal data that could be mined from the details of an individual’s MIU usage, should attempts be made to gather such data.

In Galapagos, there are varying standards of what constitutes the acceptable treatment of animals, mostly based on traditions. This means that live exports of animals are limited because they would need to cross several different regulatory regimes, and thus would need to comply with the regime with the highest standards. Citizens from countries with high standards of treatment of animals are wary about the origin of the meat they consume. They are prepared to boycott products they perceive to be derived from cruel processes, especially if encouraged to do so by a media campaign, or by the lobbying groups that frequently form around single issues. As a consequence, the countries with higher standards are demanding more stringent food production regulations and clearer labels to indicate how food has been produced.

Across Europe, there are various methods of food production ongoing in different countries. Some regions, for example, are growing GMO corn, which has led to concerns over possible cross-pollination and friction between Member States. Organic farming has become the dominant means of production in many countries because consumers are often suspicious of the food modification techniques used by large, centralized “agri-businesses”.

5.3 The Coral Reef scenario

“A coral reef is actually a complex of features, only part of which is a living coral or algal framework, although the other associated features result from this live segment… Different organisms have different reef-building roles. Some, especially the corals, provide the main structural framework of the growing reef… Other organisms, especially algae and protozoans, bind and cement everything together with sheet-like growth… The whole structure is attacked by waves and by organisms seeking shelter and food”.

5.3.1 Overview

- Europe is considered to be like a “living organism” that functions well internally. On the surface, there is a relatively strong “European identity and values”.

- However, within the Reef there is a major divide between a small powerful “metropolitan elite” who fully support and guide the European project and a large group of “disenchanted citizens” who are disengaged from Europe.

The elderly are included in this division, since they are not universally excluded from mainstream society.

- The way in which Europe negotiates its place in the processes of globalization will affect how this tension evolves. A focus on meeting the needs of the disenchanted would risk alienating key and powerful supporters of the European project. Conversely, a focus on the needs of the metropolitan elite would risk wholesale political disaffection and societal unrest.

- For the metropolitan elite, the Commission is respected as a forum for ensuring that all voices are heard and that discussions are inclusive. For the disenchanted, the Commission is seen as an irritant that must be tolerated reluctantly. The Commission's arbitration and facilitation skills mean that relations between Member States are relatively harmonious.

- Citizens generally do not challenge the information coming from sources such as NGOs, corporations and public bodies. However, this is because the "metropolitan elite" actively trusts the information being provided, while the "disenchanted citizens" are becoming disengaged.

- Access to information is shared widely through a relatively small and well-known set of channels. The mass media still has great power, and there are few alternative information sources.

- Although soft regulation is widely used, the consensus in Coral Reef is that there are limits to voluntary cooperation, and so formal regulations and targeted tax rises are accepted as effective tools to produce desired social outcomes.

- The EU has a cohesive voice in international forums (people know “what Europe stands for”), but is not a driving force on the world stage: power has become more evenly distributed throughout the world, and therefore Europe’s relative importance has diminished.

- Science and technology research has been effective but largely focused on safe investments and large projects (“conservative, Big Science”). Europe has led the world in a few scientific areas, such as nanotechnology and robotics. Some are concerned that the focus on large safe projects means that the most innovative scientific developments are taking place outside Europe.

- Risks that are internal to the EU are being managed. However, the real threats in this scenario lie outside of the Reef: environmental degradation, declining economic competitiveness, and an insularity that is cutting off Europe from the leading edge of science and culture. The dilemma is how to meet these external challenges while maintaining a European consensus and equity.

- There is a political consensus that animals should be treated in a decent manner. The EU has managed to create consistent animal welfare standards.
• A coordinated European response has managed health costs effectively, and the use of new technologies has raised underlying health standards. However, there are concerns around health equities and over-medicalisation.

5.3.2 Narrative

In the Coral reef scenario, Europe itself is considered to be like a coral reef: a living organism or community that supports a variety of organizations which work well together, while each occupies its own niche. These mutually supportive relationships have given Europe an enviable image in the world and it has made many incremental adaptations to a changing global marketplace. However, beneath the apparently happy and stable appearance of the Coral Reef, a major divide in European society has emerged between a “metropolitan elite” and a growing band of “disenchanted citizens”. These two groups have very different views of life in Europe, and in particular the role and power of the EU and its Commission.

The “metropolitan elite” lead the European agenda and derive many advantages from being European citizens – they are polyglots who travel widely throughout the Member States on business, and have developed a network of contacts across Europe, with whom they regularly meet in a variety of locations. The members of this metropolitan elite often reside in vibrant city centres that display the best aspects of “Europeanisation”. They have a great appetite for “high-tech” luxury. In contrast, the “disenchanted citizens” now question what advantages they gain from the European project. These citizens come from a range of socio-economic backgrounds, but generally they have less exotic lifestyles than the elite: they have fewer opportunities for travel, they work for national or local (rather than international) organizations and have few contacts outside their home country. Often they reside in suburbs, banlieues or commuter towns and have limited direct contact with other cultural groups. Disenchanted citizens are starting to believe that they are suffering negative effects from European membership (these fears often focus on economic migrants), without gaining many benefits. However, these citizens do not embrace nationalism or a love of local life in opposition to “Europe” (unlike the Galapagos scenario); rather, they are unhappy with their current location and situation, and are becoming disengaged from politics, both at national and European levels. Increasingly, the disenchanted are questioning whether the European Union has become too closely entwined with the ‘metropolitan elite’. There are fears that if the concerns of ‘disenchanted citizens’ are not addressed, the result may be a catastrophic ‘explosion’ of discontent in society that will have prolonged negative effects.

The governance arrangements on the Reef have largely been concerned with managing the different views within Europe and steering conclusions towards areas of perceived common interest. The Commission has developed considerable skills as an arbitrator and facilitator above its strategic, administrative and managerial skills. This has contributed to relations between Member States being relatively harmonious. Since the system is largely meeting the interests of Member States, NGOs and the metropolitan elite, it has been possible to slowly expand the role of soft regulation and use transparency and persuasion more often than legislation. However, on the rare occasions when the Commission depends upon
legislation and hard regulation the impacts are measurable and widely supported. There is relatively little open dissent in the policymaking processes of Europe.

Similarly, citizens rarely challenge the information coming from sources such as NGOs, corporations and public bodies. For example, it is understood that some supermarkets trade on the accuracy and completeness of the health and nutritional advice they offer, whilst others provide a cheaper alternative with limited information. There is no expectation that market mechanisms alone will deliver sufficient reliable information but neither is it believed that adequate information can be provided without providers of goods and services making information available to customers. However, there are concerns that although the ‘metropolitan elite’ actively trusts the information being provided, the ‘disenchanted citizens’ are simply becoming disengaged: they do not trust information, but neither do they challenge it. These groups are very hard to reach with consumer or health messages.

In the Coral Reef, news and information is distributed through a relatively small number of well-established and stable communications channels. These channels tend not to vary over time and have allowed close relationships to evolve between EC institutions and sectoral and local organizations. One such organized group is older people, who have formed a pan-European alliance and play a regular part in Commission deliberations. More widely, older people enjoy a high level of integration into European society. In return for a degree of economic security and a significant political voice, older people provide a large amount of the childcare, the skills to run civic associations, and contributors to arts and culture groups.

Although soft regulation is widely used, it is also recognized that there are limits to voluntary cooperation. In particular, it was understood almost a decade ago that there was a substantial gap between people’s beliefs and their actions. For example, whilst everyone agreed that there should be reduced air travel to limit rises in CO₂ emissions, it took hefty European tax rises to change behaviour. Similarly, Member State governments and the EU took the lead in promoting healthy eating through an increasing dependence upon formal regulation and these measures enjoyed widespread legitimacy.

This approach to regulation was echoed at the global level where there were generally fewer regulations but they were better enforced. This facilitated a “race to the top” in global standards, where Europe was able to gain a strong position in some key growth areas by applying highly skilled labour and sophisticated technologies. Amongst consumers, the metropolitan elite have a particular interest in ensuring the quality, reliability and origin of products. Others consumers tend to make purchase decisions based on price and are less interested in a high standard of regulation. Europe had supported strict global regulatory standards and possesses a cohesive voice in international forums. However, Europe is not a driving force on the world stage: power has become more evenly distributed throughout the world, and therefore Europe’s relative importance has diminished.

Science on the Reef has focused on large-scale, conservative programmes and the results have been efficiently disseminated to technologists and other users. This has continued to fuel a modest growth in the European economy. Europe has led the world in a few scientific areas, such as nanotechnology. For example, a Cambridge-based company has connected nano-wires to individual neurons, creating “artificial synapses” similar to the
links brain cells naturally form between each other. The development has proved to be a major step towards creating advanced neural prosthetics – devices that allow people to control a computer or robotic limb with their thoughts. Another major development is the advances in robot technology, which was identified as a key opportunity to translate research into practice. The first robots built to carry out domestic tasks (of European design but constructed in Asia) are just entering the market. They are proving extremely popular with the metropolitan elite, who dislike dedicating time to domestic duties. Despite these solid advances in nanotechnology and robotics, there is a concern that the most innovative, paradigm-shifting science is taking place outside Europe and that Europe is getting left behind in the next generation of technologies.

Nevertheless, despite six years of relative European success, with expansion and economic growth coinciding with institutional stability, there has been growing disquiet. Although the EU deals with both “routine” risks and catastrophes, there are increasing concerns that neither public authorities nor private corporations are addressing the major global threats that are “external” to Europe. Just as coral reefs in the real world face major threats from wider environmental drivers (sea temperature, tourism and pollution) so too, it is said, does the European coral reef face threats from the rest of the world which it is ill-equipped to meet. These include: the threats of environmental degradation, increasing economic competition, and scientific and cultural isolation. For example, global environmental degradation has continued and efforts to slow down Europe’s contribution to this have enjoyed minimal success. Pressures of global migration have intensified as millions sought to avoid the insecurity of life in the emerging mega-cities; where they had been driven by poverty, war and environmental crises. Major trading partners (China in particular) are experiencing internal political instabilities that threaten future growth. And, above all, Europe has done little to divert the economy and society away from using sources of energy that are rapidly disappearing.

In the Coral Reef, there is a political consensus that animals should be treated in a decent manner. The EU has managed to create consistent animal welfare standards, although this has proved to be more difficult in newer Member States, who are suggesting that this initiative was being driven by the EU-15. This has pushed up the cost of food, which has affected the “disenchanted” consumers, who do not buy into the dominant European view. These consumers are annoyed that such standards are being forced upon them.

Cost pressures on health in the Coral Reef have been intense (linked to the long-standing drivers of demographics, new technologies, consumerism and rising costs of providing institutional care). However, these pressures have been managed with some success through initiatives such as: a Europe-wide delimitation of what should be funded from taxation; economies of scale in training clinicians; and improved purchasing of pharmaceuticals and medical devices. Above all, the support for “big science” has led to steady improvements in health technologies, which have contributed to a rise in underlying health standards. Notable successes have been in nanotechnology, pharmacogenetics, genetic testing, and aggressive early management of obesity targeting hunger and metabolic pathways.

However, although increases in aggregate health care costs have been managed, important issues of equity have emerged. The metropolitan elite receive a growing proportion of their
health care needs through the various European mutual and private health insurance schemes that are available. Nevertheless, this elite have some commitment to ideals of social justice, and therefore they are willing to support political parties who promise to expand publicly provided health care. These issues of equity have also been reflected in the debates surrounding many other policy areas, not just healthcare.

There is also a perceived problem that the metropolitan elite are often over-medicalizing their health difficulties and physicians over-prescribing. This trend has been fuelled by the elite’s extensive use of internet-based information sources to self-diagnose. Problems such as anxiety, stress, and personal relationships are often self-defined as a medical problem. Diagnostic and predictive tests are sought even where there is a high chance of false negatives or false positives, or where treatments have a low chance of success. For some on the Coral Reef, it is said that trust in medical science has become a cause of ill health. For this group, even vacations are organized around finding pleasant places to access health care, and accordingly cross-border “health tourism” has increased massively, supported by the easy translation between Member State health systems.

5.4 **The Wave Scenario**

"each crest becomes steeper and mightier, and makes its final display of power by breaking … the breaking commences by the wave overturning and forming a forward moving sheet of water which plunges down into the water in front"\(^{10}\)

5.4.1 **Outline**

- In this scenario, European regulation became increasingly complex and dependent on agreement, until two major crises in 2012 ("the breaking wave") meant that a radical simplification of regulation was demanded. In the public perception, both crises were related to a combination of climate change, “big” farming and, most of all, regulatory breakdown.

- Following this, the Commission abandoned its consensual approach based on stakeholder consultation, and instead developed a proactive “neo-regulation” approach, in which it introduced lean, transparent, strict and targeted regulations. Although this approach was adopted in response to consumer demands, the Commission effectively acted alone and is therefore held to be accountable for this new approach.

- Although the crisis had its origins in regulation, the consequences are felt throughout the work of the Commission. The credibility of the Commission hinged on its ability to address the task of building confidence in food.

- There is a new determination to find a pragmatic way forward for Europe in the “post-wave world”. Deals have been established with the private sector, key NGOs and Member States in order to find practical solutions.

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\(^{10}\) Mei and Lui (1993); Banner (1993).
• Europe’s standing in the world has been damaged. It cannot enforce its quality standards because its negotiating power was weakened through the crises it experienced.

• Consumers have become more risk-averse when selecting products and services. Consumer behaviour has become much more unpredictable and irrational as a consequence of the crisis.

• Citizens’ confidence in diverse information sources has been severely damaged and replaced by suspicion. After the crises, there was a consolidation of information channels, so most consumers get their information through a few, relatively trusted sources.

• In the effort to tackle Europe’s overriding problems, the needs of some vulnerable groups (such as the elderly), and those of animals, are receiving less attention and support.

• In the era of “neo-regulation”, DG SANCO has become active in attempts to address routine risks affecting European citizens, such as obesity.

• Scientific progress in Europe has been dramatically slowed following the post-wave lack of certainty in the regulatory environment. Major corporate research programmes have relocated to China and India. There is some hope that this situation is now improving.

• Prior to the crises, Europe was an attractive place to conduct research and development in health technologies. The breaking wave led to a re-assessment of how health care systems should operate – technology was no longer seen as the solution to inequities, and affordability became the dominant consideration.

5.4.2 Narrative

Just as when a wave breaking causes a gradual build-up of energy to change into another form, so in the Wave scenario a period of incremental changes is supplanted by rapid change. In this scenario, a major public health crisis reveals that the complex, consensus-based European regulatory system that had developed over many years can no longer protect citizens effectively. After the “breaking wave” of this crisis, Europe emerges into an era of “neo-regulation”, in which a proactive Commission introduces targeted, strict regulations with very little stakeholder consultation.

In the years preceding the “breaking wave” crisis, institutional reform had involved finding more effective ways to engage stakeholders, asking them to carry out more tasks in the interests of European citizens, and expecting them to be transparent in their dealings with the Commission and other European players. A distinctive feature was the power this gave to stakeholder groups. The Commission became dependent on them to deliver many of its actions. With the benefit of hindsight it is now believed that this was inevitably storing up problems.

The precipitating cause of the “breaking wave” crisis came with a catastrophic collapse in grain production following the arrival in Europe of a mutated form of grey leaf spot.
(Cercospora zeae-maydis), which cut corn production by 75% in 2012. By chance, it seems, in the same year Fusarium head blight destroyed a significant section of the wheat production in Europe. In both cases the lack of genetic variety was blamed for the extent of the impact. The psychological impact of this apparent lack of food security was in many ways greater than the real threat to food security. Consequently, as global grain prices soared, Europe became heavily dependent on grain production from regions that were spared from the crisis. Bilateral trade negotiations proved difficult as the newly exporting countries refused to adhere to the (once ‘gold-standard’) Europe quality standards. Europe’s global export position deteriorated following these diplomatic and prestige problems, and not just in food markets.

Later the same year, there was a less devastating case of a species-jumping virus brought about by a weakly-regulated programme of xenotransplantation. Immunoprotected porcine hepatic cells were used to treat hepatic failure, resulting in a viral infection that initially spread but was successfully managed. Prior to the virus outbreak, numerous biotechnology companies around the world offered porcine xeno-products over the internet. Following the outbreak, the European Commission heavily clamped down on this vibrant worldwide market as far as it was able, but the perception was of another failure to regulate on the public’s behalf. By 2014, only two European institutes had been granted licences to produce xenotransplantation products. Both the xenotransplantation crises and the grain crisis were related in the public mind to a combination of climate change, big farming and regulatory breakdown - but most of all, to regulatory breakdown.

The outcome was a public demand for more effective regulation, not only in the areas of food production and research facilities. If this could happen in food and public health, it was argued, what was to stop a regulatory breakdown occurring elsewhere? The whole European regulatory landscape shifted into an era of so-called “neo-regulation” (a term coined by the German media). Neo-regulation combined the principles of hierarchical regulation with features such as risk-based regulation and support for “whistle-blowers”. In the wake of the crisis, the Commission grew assertive and started to introduce targeted regulatory measures, such as strict guidelines on the marketing of food products and the nutrition information provided by industry to consumers. The “pre-wave”, complex and consensual system that involved many stakeholders was abandoned and the Commission felt that it had a license to act independently.

The first focus of the new regulatory system was on food, since this was the focus of the crisis and confidence needed to be restored. The credibility of the Commission hinged on its ability to address the task of building confidence in food. The Commission had the opportunity to become the main actor in this area, and therefore hostile lobbying by once-powerful stakeholders had little effect. This presented opportunities, but also dangers, since the Commission was effectively acting alone and was therefore exposed.

The main hurdle was that food producers said they cannot afford to adhere to the new tough standards because the sector is still recovering from the crisis. The collapse of food production chains meant that food prices increased greatly, but producers faced paying significant initial re-start-up costs to recommence certified production. This was a major conflict, especially because food shortages occurred in some less-developed Member States. There were concerns that the Commission may have been doing more harm than good by
not being more flexible in its approach. However, consumer opinion is still on the Commission’s side because consumers are anxious that companies should now adopt higher standards of food production.

Despite these problems, the response to the crisis did not identify the corporate sector as “the enemy” of public interests. Rather, the Commission wished to re-engage the private sector, but only as a means of increasing the impact of its regulations (rather than creating a new system of consultation). For example, DG SANCO has begun to urge private companies to adopt corporate social responsibility practices based on mechanisms of public regulation. It is clear that DG SANCO is attempting to assert its authority through regulation, rather than reverting to the more consensus-based approach of the past.

In general terms, consumers have become more risk-averse when selecting products and services. Consumer behaviour has become much more unpredictable and irrational as a consequence of the crisis. Consumers can suddenly become suspicious of new technologies and products for no apparent reason. On the other hand, they may decide that certain brands and goods are “trusted” and safe, even if the evidence presented by authorities indicates otherwise. The development of these attitudes is totally unpredictable: the trust in a particular product may suddenly collapse into suspicion, or a groundless prejudice against another product may last for years. The post-wave world of this scenario represents difficult and turbulent times.

Confidence in information coming out of markets had been badly shaken by the crises. The initial response from the Commission was to replace this information with its own information, but almost immediately this was seen to be an impossible task. Consequently, the Commission took a more active role in challenging information provided by markets, although providers remained the primary source of information about goods and services. More generally, the number of trusted sources of information declined dramatically. For example, whilst the numbers using the internet to find health information continued to rise, the number of different sites consulted fell by 40%, which indicates that visitors increasingly concentrated on a reduced number of trusted information sources. These trusted sources are mainly those offered by NGOs, public health officials, independent third parties and the EU.

The turbulence caused by the crisis meant that European politics became focused on its main priority of “getting Europe back on its feet again” and restoring economic confidence. This meant that the poor, the elderly and other vulnerable social groups received much less attention than previously, as did the welfare of animals. The price for certified high-quality food has rocketed because of increased demand – consumers want to be sure that they are eating safe produce. This has hit vulnerable groups, who are already suffering, particularly hard; they have to rely on “second-tier” food, possibly from black market sources and therefore not compliant with the EU’s tough new standards. Amongst other consequences, this lack of attention led to a large number of indirect deaths of older people, who also become largely excluded from the discussions around the new circumstances and marginalized in the decisions taken.

Risk management has also changed in important ways. Rather than waiting for a crisis and then responding to it, the new approach was to “routinize” regulation in an effort to prevent crises arising again. The Commission’s “neo-regulation” approach means that it is
becoming active in addressing “slow-burning” risks whose effects are continually experienced (as opposed to sudden, catastrophic events). This means that DG SANCO has become increasingly proactive in creating stringent regulations to address the contribution of food manufacturers and providers to Europe’s continuing problems with obesity and its associated co-morbidities.

“Neo-regulation” has meant that scientific progress in Europe has dramatically slowed because of the lack of certainty in this emerging regulatory environment. The higher tolerance that had previously been shown to unregulated scientific research was ended and research was consolidated within larger, publicly managed research programmes. The more stringent regulations meant that many major corporate research programmes relocated to China and India in order to pursue the latest scientific advances. There is hope that such programmes may be starting to return to Europe as the new regulatory regime becomes clearer. Perhaps unsurprisingly in this environment, the tension between civil rights to privacy and the need for security was resolved largely in favour of the latter.

In the years preceding the breaking wave, health care policy-makers found it difficult to prioritize the many new health technologies that emerged. It was believed that bringing new technologies to the clinic was important, and it was believed that there should be equal access to these technologies across Europe. Since European health care systems were early adopters of new technologies, Europe became an attractive place to conduct research and development in health technologies. However, the increased use of specialist technologies led to increasingly complex performance management processes, new patient demands for information, and new strains on the need for professionals to develop their skills. Further, the Commission had begun to provide information on health care providers across Europe, in order to ensure equal rights of access to health care for European citizens and support cross-border health care. Thus, the production, management and distribution of health care information grew increasingly large and unwieldy.

The public health crises of 2012 led to a reassessment of how health care systems should operate and what role the Commission should have. Since the health technology-friendly environment had been replaced with a much less supportive regulatory situation, health care systems became once again relatively slow adopters of new technology. Consequently, much of the R&D capacity moved away from Europe and science-led growth ceased. Technology was no longer viewed as the solution to inequities, and the debate around health care access moved from one of rights and opportunities to one of affordability.

5.5 The scenarios matrix

The RAND Europe team wished to give a visual representation of how the three scenarios interrelate. As noted in Chapter Four, many scenario-development approaches use a “scenario axes” method, which uses two crucial uncertainties in order to generate four related but distinct scenarios. The matrix (Figure 9) was developed later, as an explanatory tool rather than a developmental tool. This means that the axes do not fully explain the methodology used to create the scenarios, although they do closely reflect a selection of the eight dimensions of uncertainty explored in Section 4.2.
Systematic intervention for routine risks

Centralisation

Fragmentation

Crisis intervention for public protection

Low confidence

High confidence in information produced by markets

Figure 9: The DG SANCO scenarios matrix
CHAPTER 6  Case study workshops

6.1  Introduction
As noted in Chapter 5, DG SANCO hosted four issue-specific case study workshops in Brussels:

- “How will DG SANCO help deliver the benefits of nanotechnology to European citizens?” (February 28th 2007).
- “So you think you know the consumer… the triggers for now and the future” (March 13th 2007).
- “Beyond just eating food – the role of ethics in influencing what we eat” (March 21st 2007).
- “Defining Health Equity in our Future Society” (April 18th 2007).

Afterwards, RAND Europe prepared a scenario report for each workshop, highlighting the main challenges for DG SANCO arising from the issue-specific workshop. This chapter provides a summary of the main challenges or emerging questions identified through the case study workshops, grouped around four drivers of change identified by DG SANCO: governance, consumer confidence, changing society and globalization. This chapter also incorporates comments made by members of DG SANCO at a meeting on May 8th 2007 that considered the major themes emerging from the scenario workshops.

6.2  Governance

6.2.1  Questions emerging from workshops
Figure 10 provides a visual representation of a synthesis of the issues raised by the four case study workshops related to governance.
Figure 10: Governance issues raised by case study workshops
6.2.2 Workshop discussions around Governance issues

Perceptions of DG SANCO as a "credible operator"

To deliver its aims in the emerging environment, DG SANCO needs to be recognized as a "credible operator". Its impact on the new environment might depend less upon rule setting and compliance and more on the provision of information and influencing motivation. This is complicated by the differences between the distinct roles of DG SANCO in relation to public health, consumer confidence and food safety. Both the perceptions of other parts of the Commission and wider stakeholders matter in this respect. It may be that other Directorates-General perceive DG SANCO as being powerful. More effort should be made to work with individual Directorates-General because many topics today cannot be dealt with by one Directorate-General working alone – common themes and cooperation have become more important. DG SANCO needs to demonstrate how it can add value to other services and to society at large. As consumerism, health and food become increasingly relevant to the activities of other Directorates-General, the expertise and capacity of DG SANCO should become more helpful to other Directorates-General.

Being a “credible operator” strengthens the capacity of DG SANCO to deliver. To be seen to be a “credible operator” will require DG SANCO to secure and develop new skills. It is crucial for DG SANCO to understand its audiences, while at the same time ensuring that its activities are visible.

Measuring and creating impact

DG SANCO as a whole is legislating less and is moving away from an instrument-based approach to regulation (since it has reached its natural limits) to an approach driven by effective monitoring and tracking of what happens in practice.

Knowing the impact of legislation in advance (before regulating) is key, while at the same time the margin for political judgement is shrinking. DG SANCO may need to revisit ex ante assessment once the measures have been in place for three to four years, in order to create a basis for further evaluation; and to repeat this on a cyclical basis.

DG SANCO needs to think how to better sell its policies in an environment where motivation and the provision of information become increasingly important. Inevitably this will require continued consideration of the use of impact assessments and their relevance to key stakeholders if DG SANCO is to be accountable for its actions and evidence-based in its decisions.

Although the Commission is increasingly being held to account for its impact, its methodologies for measuring impact are still under development and there is little consensus about how to weigh different impacts. DG SANCO will have a key role in supporting thinking about these issues and in providing political decision-makers with the information and evidence that they need.

The political dimension and the ability to select/prioritize where DG SANCO acts
DG SANCO’s ability to act is further complicated by the political decision-making cycle, which limits the number of themes a Commissioner can prioritize and provides only limited windows of opportunity for decisive action. There is a need to select two to three key themes per mandate.

It will remain important to focus on where DG SANCO can achieve the greatest benefits. It was suggested that building a DG SANCO “component” to the big political themes (e.g., climate change) could help this process.

*Coherence within the formal system in which DG SANCO operates*

There are hundreds of texts relevant to the work of DG SANCO and these may or may not cohere (especially in the food safety area). Coherence in the system, consistency between texts and the usefulness of certain texts need to be taken into account. The role of the FVO should be more strategic. It is also likely that the challenges DG SANCO faces in each of its key activities will vary.

Expansion coupled with the growing importance of consumerism and health will most probably lead to DG SANCO taking on more complex responsibilities.
6.3 Consumer confidence

6.3.1 Questions emerging from workshops

Figure 11 provides a visual representation of a synthesis of the issues raised by the four case study workshops related to consumer confidence.

![Figure 11: Consumer confidence issues raised by case study workshops](image)
6.3.2 Workshop discussions around issues of consumer confidence

The increasing complexity of markets and communications

Factors such as the increasing sophistication of e-commerce, the rise of more varied market niches, and the globalization of supply chains are making markets increasingly complex. Such complexity, combined with rapid change in the communications world, stretches consumers’ ability to understand the market and to select the appropriate products. Consequently, consumers face more frequent, more complex and more rapidly changing choices. Different groups of consumers may require tailored messages.

Furthermore, it appears that although consumers face more confusing choices, in navigating these choices there is a risk that they increasingly trust government institutions. Many consumers may go to uncertified electronic resources, such as weblogs, for advice, yet still have the expectation that they will be protected in their transactions. Cynics might argue that consumers do not trust government until they need its protection, although this is debatable. Thus, DG SANCO’s position may become even more difficult and interventions more problematic; it must deal with the risk that it will become a scapegoat. It may in the future wish to help consumers to articulate their own responsibilities relative to those of public authorities.

In addition, these complexities may lead to more uncertainties for consumers (e.g., the energy market supply) and DG SANCO should be ready to react and guide consumers.

Emerging types of consumers

It is becoming clearer that the rational model of consumer behaviour may miss important factors. However, DG SANCO might be viewed as having an approach to regulation that is based on a conception that consumers behave rationally.

At the same time, there are new domains in which consumers are acting. For example, the growth of “Second Life” (an internet-based virtual world) has created a new dimension that allows people to be consumers in ways that were previously impossible. DG SANCO needs to be capable of responding to the growing importance of such new consumer behaviour.

“Consumerisation” of other DG SANCO areas

More areas of social life are becoming mediated through the prism of the marketplace. There is a growing view that “health” is a product that can be bought, rather than just hospital treatment (for example). This view may soon become prevalent amongst consumers. This “consumerisation” of health may suggest that DG SANCO’s areas are coming together (but DG SANCO’s public health tools are more limited than those for consumer protection).
6.4 Changing society

6.4.1 Questions emerging from workshops

Figure 12 provides a visual representation of a synthesis of the issues raised by the four case study workshops related to changing society.

Figure 12: Changing society issues raised by case study workshops
6.4.2 Workshop discussions around changing society issues

Multiple divides

There is growing social diversity in Europe. This can be both a legitimate expression of diversity and a consequence of exclusion. Each of these poses different challenges for DG SANCO and they are manifested in very different ways such as the “digital divide”, education levels, and income inequalities.

Focusing on the ‘average’ or ‘vulnerable’ consumer

DG SANCO might focus on the average or on the most vulnerable consumers. Serving these different groups requires distinct, or even conflicting, actions.

Marketisation elevates the importance of Corporate Social Responsibility

As, for example, children become significant consumers, the responsible marketing of products to children becomes more significant. As health outcomes become more influenced by choices in the marketplace (for example, alcohol, tobacco, obesity) there is a public interest in influence and shaping these choices. This engages DG SANCO in a complex matrix of questions about which aspects of the market to choose, and whose interests to support.

Future challenges

As many analysts have predicted, demographic factors will create major challenges for Europe (and DG SANCO in particular) in the future, although the effects felt before 2014 may be limited. Fertility rates have fallen below replacement levels in all EU countries, and 55 of the 211 regions in the EU-15 are already seeing a population decline. As a result, estimates are that one in three Europeans will be over 65 years old by 2050. Clearly, this will place increased strain on public health facilities, while simultaneously reducing the tax revenues available to fund such facilities.

Another key challenge will stem from the impact of intra-EU migration. Given the free flow of EU citizens, there is likely to be increasing migration from new Member States and accession countries into Western Europe. This may increase the pressure on DG SANCO to develop an EU-wide response to migration pressures, and to ensure that equal access to health and consumer services is available to all.

There is likely to be continuing or expanding diversity between social groups (eg low-income and well-off, religious and secular), combined with an increasing trend for rational solidarity (raised personal responsibility in public heath and unwillingness to pay for unhealthy behaviour of others). This may reduce citizens’ willingness to fund public health and consumer information, and could mean that DG SANCO has to take action to preserve targeted care for minority groups.

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11 These challenges were not raised at the May 8th meeting. They derive from the scenario briefing paper produced by RAND Europe.
6.5 **Globalization**

6.5.1 **Questions emerging from workshops**

Figure 13 provides a visual representation of a synthesis of the issues raised by the four case study workshops related to globalization.

![Diagram of Globalization issues](image)

- **"Economic/market trends consequences"**
  - If goods consumed in the EU are increasingly produced outside the EU, what will be the consequences for the Single Market? Would there be a world market?
  - Can SANCO attempt to protect consumers from the effects of environmental change and lack of natural resources?
  - Will globalisation mean that the EU can export its standards around the world?
  - What are the limits of SANCO’s remit in upholding standards in the global marketplace?

- **"Risks from the outside"**
  - How will SANCO manage risks from outside the EU and what type of risks should it focus on (predictable/unpredictable)?
  - Whose regulatory standards will prevail on a global level: EU, US, or an emergent India / China bloc?

- **"Coherence and Standard setting"**
  - How can SANCO increase international co-operation and knowledge sharing on new technology?
  - How can SANCO collate, disseminate and apply lessons learnt from the variety of initiatives taking place outside Europe?
  - How can we further promote our model in the international context?

Figure 13: Globalization issues raised by case study workshops
6.5.2 Workshop discussions around Globalization issues

Globalization may affect DG SANCO’s regulatory challenge

The internal market will remain the main focus of DG SANCO. However, if the vast majority of goods consumed in the EU are produced outside the EU-27, regulating the internal market as a part of the global market may bring with it additional challenges for DG SANCO.

Global regulatory standards

Will globalization allow Europe to export its standards to the rest of the world, or will it mean that global standards fall to a lower level? Provisional evidence from the field of food safety suggests that global manufacturers and retailers often adopt European standards wholesale because they wish to export to Europe (the world’s largest food importer).

To what extent are powerful global companies setting their own standards? When such companies do create standards, it is mostly in response to niche requirements (such as organic food or ethical consumption in general). The number of companies setting their own standards will increase, but this will have most impact within the industry in question. Nevertheless, the “bottom line” is that regulatory standards exist.

The EU is the main competitor to the US in establishing global regulatory standards; whose regulatory standards, if any, will prevail? The EU may be ahead because it attaches higher importance to consumer protection; it has also been more open and transparent in working with supplier countries: DG SANCO is spending more and more time in meetings with non-EU countries discussing regulatory standards.

At what point will China, India and Russia move from being net exporters to net importers? Will China and India start to establish a third set of regulatory standards, as an alternative to the EU and US? What will Russia do with the massive reserves its government has been building up – will it attempt to exercise its will by deploying these reserves, or will it (for example) join CODEX?

When considering this issue, it is important to consider the multilateral and bilateral contexts separately. For example, China is already imposing bilateral agreements with Africa, which the EU refused because the African countries could not guarantee to respect their standards. There could be a scenario where China respects different standards for multilateral and bilateral engagements.

Globalization and fraud

The internet will be a crucial factor in the future, since many products bought online may need to be imported from outside the EU-27. Fraud will present a particular challenge in this context, since e-commerce may encourage exporters to supply fraudulent, possibly dangerous, imports. The EU does not currently have a full strategy for dealing with this, since it could be understood as a criminal law issue, in which case it would fall under the administration of Member States. However, there may be public pressure for the EC to act to address this problem.
Will the EU’s fraud prevention network function globally? To perceive fraud, resources are needed on the ground in the country under investigation.

It is crucial for standards to be enforced and upheld, especially in a global market where audits can be falsified. But what are the limits of DG SANCO’s remit? Should DG SANCO become involved if the same factory is producing both “superior” and 'standard' goods? Unless such a situation was raising safety issues, DG SANCO would have to get involved in the vast issue of intellectual property rights.

*The environment*

The environment will be a major issue. Can DG SANCO try to protect consumers from the effects of a changing environment, which may be felt in the way that food is produced (for example) or in the way these changes may affect citizens’ health? DG SANCO may have to work at the intersection of ethical consumption and environmental issues.
CHAPTER 7 Questions and recommendations

7.1 Introduction
RAND Europe has synthesized suggested action areas identified across the scenarios and workshops into four key questions:

1. What will DG SANCO need to know?
2. What skills will DG SANCO need to develop?
3. Who will DG SANCO need to influence?
4. What risks will DG SANCO need to manage?

A summary of the findings is provided in Figure 14. In Sections 7.2 to 7.5 we list the issues concerning these key questions that arose during the workshop process. Section 7.6 gives RAND Europe’s concluding remarks on the issues and ideas generated from the workshop phase.

Finally, Section 7.7 gives RAND Europe’s recommendations on how to further develop and implement the knowledge and awareness generated by the Future Challenges 2009–2014 project. These recommendations focus mainly on how scenarios have been used in organizations and the lessons that can be drawn from such usage. They offer suggestions about how DG SANCO could further increase awareness and understanding through workshops and touch on the question of applying scenarios to Impact Assessments. Since they are intended to provide useful and practical advice, the conclusions and recommendations focus mainly on actions within DG SANCO’s control. They are not intended to provide a full consideration of the various wide-ranging factors that may affect the future situation of Europe.

7.2 What will DG SANCO need to know?

- In the workshops, it was frequently emphasized that consumers stand at the centre of DG SANCO’s information needs. In the futures discussed, a better understanding of consumers’ preferences, attitudes and behaviour is crucial to the success of DG SANCO’s policies. DG SANCO also needs to know who consumers trust and where they go for trusted information sources if they are to make information available in an accessible and trusted way. DG SANCO also needs to
better understand the differences between certain types of consumers and mechanisms that can help create trust.

- Having available a comprehensive set of international comparable data, on key areas covered by DG SANCO, emerged in the discussions as a key information need. This is so as to deliver on an agenda of improving and delivering equitable services within Europe; to benchmark and learn from experiences elsewhere; and demonstrate the effectiveness of DG SANCO’s policies and practices abroad.

- It was noted that reporting on regulation has so far been instrument based, and that this approach may have reached its natural limit because it does not deal with what is actually happening ‘on the ground’, but is too focused on checking off the articles in directives. Instead, what may be needed is an approach that is driven by effective monitoring of what is happening, and which can react to these events.

- It was anticipated that DG SANCO would require solid in-house scientific expertise (or at least ready access to such expertise) to adequately address the problems in a number of policy fields where new technologies will play a major role in the coming years, such as the regulation of nanotechnology or pushing health technology to improve equity.

- Future environments were anticipated to be increasingly complex in important areas of DG SANCO’s action, requiring a better understanding of cause–effect relationships in important policy fields, for example in the field of health equity or on-line consumer behaviours. It is important to note that complexity confuses causal links and increases the risks incurred when taking action.

- Intensifying international trade was expected to have increasing implications for how DG SANCO delivered its aims; and therefore access to expertise in this area would be needed. It will be particularly important to understand how China, India and Russia will deploy their increasing influence in the arena of global regulations and standards.

### 7.3 What skills will DG SANCO need to develop?

- Across the scenarios, it was suggested that DG SANCO has to become better at prioritizing its work: each scenario (in different ways) would require a clear focus on the unique contribution DG SANCO could make.

- Communication skills were frequently mentioned as skills DG SANCO needs to develop further. The scenario work suggested that social change, and the development of new communications media, will require a rapidly evolving communications strategy. This includes communicating with the general public as well as the bilateral communication with stakeholders or Member States. It was suggested that, in these futures, DG SANCO should especially learn how to use new communication channels, including unconventional methods such as “viral
marketing” (exploiting existing social or virtual relationships to support a “viral” spread of messages and information through a deliberate strategy).

- **DG SANCO** needs to think how it “sells” its policies because in the emerging environment successful organizations require a “license to operate” beyond their formal or legal powers. Even if a particular policy is beneficial for citizens, if it deals with the “wrong” area (e.g. public health), it may have a negative reception. On the other hand, initiatives are more welcome in the consumer area. Therefore, a policy needs to be “sold” in the best area, to make it appear in the best light. This will require strategic skills to understand the attitude of actors, coupled with the ability to select exactly the right communication method.

- Analytical skills will become increasingly important for DG SANCO’s work, in order to locate, filter and analyse large amounts of information into knowledge that is useful to the organization.

- To promote rapid learning and feedback, it will be necessary to evaluate policies and projects and a requisite skill set must be developed within the organization so its staff can either conduct evaluations themselves or can become knowledgeable commissioners of external evaluations.

- Understanding the complexities of some regulatory fields (including the possibilities of soft and hard regulation) will require further analysis.

- To be successful in the European multi-actor governance system, DG SANCO will need networking skills and strong cooperation and consensus building skills.

### 7.4 Who will DG SANCO need to influence?

- Despite the differences between the scenarios and the workshop topics, there was an expectation that the most important actors to be influenced would be the Member States, their governments and particular authorities within them.

- Cooperation with international organizations such as World Health Organization and World Trade Organization will be of increased importance to DG SANCO, who should attempt to influence the agendas (and decisions) of these organizations more strongly.

- Politicians will remain in charge of DG SANCO and therefore it will be important to provide them with the evidence and arguments they can best use. Given that there may be a considerable period between initiating and realizing actions, politicians need to prioritize and maintain their support for an issue. If everything is a priority and politicians’ focus changes every six months, then little will be accomplished and democratic power will be squandered.

- Other Directorates-General (and the wider institutions of the EU) will continue to be closely linked to DG SANCO’s activities and thus remain important actors to
influence. It is important that DG SANCO is recognized as a “credible operator” within the European Commission. DG SANCO can add value to other European Commission initiatives if its attempts to do so are skillful and appropriate. It can build itself into perceptions and processes surrounding various Commission competencies.

- DG SANCO should focus more on the local (sub-Member State) level. By aligning itself with trusted local authorities and actors, DG SANCO may increase its credibility and trustworthiness. Engaging with local grassroots organizations and citizens might also be a way to improve the delivery of DG SANCO’s aims.

- Every four years, DG SANCO should take an action, such as tackling mobile phone roaming tariffs, which is popular and is publicized as an EU intervention. DG SANCO needs to periodically “pick a winner” and capture the public’s imagination, since sometimes it does not get full credit for its initiatives; often, the public thinks these initiatives originated from Member States instead.

- Although the group of relevant institutional actors to influence will remain rather stable over time, DG SANCO should become more strategic in developing:
  - key targeted stakeholders, rather than addressing all
  - strong alliances for specific policy issues.

7.5 What risks will DG SANCO need to manage?

- External shocks, originating from the global economy, other global actors or through global disasters and disease outbreaks, will have to be managed by DG SANCO at some point. While local or regional threats might be dealt with at a lower level, DG SANCO will need to be prepared to address global, external shocks.

- DG SANCO needs to ensure that it has high quality information on the issue it is addressing, and will need to back up its decisions with a more exacting burden of proof. DG SANCO will need to collate all existing information, which will require increased interaction with academia. The need to collect this extent of information presents a practical difficulty, since DG SANCO may not be able to go into depth for every issue. Impact Assessment boards will ask DG SANCO to prove that information requirements are necessary.

- The future development of the EU institutions, whether in the direction of more or less integration, constitutes a major risk to be managed by DG SANCO.

- DG SANCO will need to guard against the danger of overreaching its capacity to deliver. DG SANCO will come under pressure to deliver across a range of areas but too many goals, or goals set too high, might lead to failure and public. For example, DG SANCO will need to consider carefully the limits of the actions it is prepared to take in order to enforce its regulatory standards.
- DG SANCO has to manage the risk of being held responsible for problems which lie outside the realm and the competencies of DG SANCO, but which are attributed to DG SANCO.

- Across all the scenarios there was a perceived risk that DG SANCO may become crisis-driven rather than strategic in its behaviour.

### 7.6 Concluding remarks on workshops

Using the material generated by workshop participants, RAND Europe has identified six complex strategic problems that DG SANCO will need to address. These are issues where DG SANCO must select from a wide variety of mutually exclusive decisions; prioritize and make trade-offs between its various responsibilities; or develop a sophisticated response to multi-faceted and mercurial problems.

- DG SANCO could find itself incrementally doing more and increasingly diverse things. Should it aim to excel in diverse fields or deliver benefits where it has a unique advantage?

- DG SANCO is likely to occupy a more complex regulatory environment. Should it aim to set the standards to be met by self and external regulation or should it take action to regulate?

- It is very likely that the quantity and complexity of information coming from inside and outside DG SANCO will increase. This increase will present challenges of communication and coordination for DG SANCO both inside and outside the organization. How will DG SANCO establish efficient coordination and communications practices?

- Consumers’ needs and desires are both rapidly changing and becoming more heterogeneous, which implies that a light-footed and responsive process is needed. How will this be squared with the Commission-wide requirements of probity, fairness and so forth?

- Is DG SANCO prepared for a further globalization of activities that may produce more change in the next ten years than in the past thirty?

- The possible changes identified through the Future Challenges workshops might overwhelm any organization’s capacity to change whilst maintaining delivery of core services. How could this be avoided?
What will SANCO need to know?
- Consumer behaviour, preferences, attitudes and differences.
- Comprehensive economic, social and public health data.
- Scientific knowledge about regulatory fields
- Effective monitoring of events on the ground
- A better understanding of cause-effect relationship in important policy fields.
- Examples of good and best practice from outside the EU.
- International trade and economic implications of SANCO’s actions.

What risks will SANCO need to manage?
- External shocks coming from the global economy, global actors or global disasters.
- Ensure that quality of information on its policy issues is of a high quality.
- The future development of the EU and its institutions, be it in the direction of further integration or disintegration.
- Losing legitimacy and the trust of the public.
- Being over-ambitious.
- Being “scapegoated” by the public for problems beyond the reach of DG SANCO.
- Being crisis driven.

What skills will SANCO need to develop?
- Prioritising areas of actions, information sources and key stakeholders.
- Communication skills: communicating policy effectively to the public.
- Ability to sell SANCO’s policies effectively.
- Analytical skills to understand data and to assess third party information and research.
- Evaluation skills to assess own policies and be a better commissioner of external evaluations.
- Develop a scientific knowledge in certain policy fields.
- Cooperation and consensus building skills.

Who will SANCO need to influence?
- Member States and national governments (reinforced cooperation mechanisms).
- Cooperation with international organisations.
- EU-level politicians.
- Cooperation with other DGs.
- Increased focus on the local level (authorities and stakeholders).
- Influence public through high-profile actions.
- Increase strategic abilities in identifying and interacting with key stakeholders.
- Build strong alliances within policy fields.
- Influence public opinion through trusted sources of communication and multipliers.

Figure 14: Suggested action areas for strategic challenges
7.7 Recommendations on taking the Future Challenges project further

7.7.1 The use of scenarios

Scenarios help communicate the uncertainty of external developments that may impact on the ability of DG SANCO to deliver its aims and objectives. They provide a shared reference point for assessments of options, and, used judiciously, support risk assessments and policy choices (Groves and Lempert 2007). Given that scenarios can serve many purposes, it is important that their intended effects are clear to those using them. Scenarios can help inform specific decisions, or can provide inputs to decision-making frameworks, such as guidelines, assessments and models, that may benefit from a more sophisticated understanding of potential future conditions. They can also provide various forms of indirect decision support, such as clarifying an issue’s importance, framing a decision agenda, exploring points of agreement and disagreement, or providing a structure for analysis of potential future decisions (Parson et al., 2007). The use of scenarios can also lead to cultural changes in an organization by shaking up habitual thinking, stimulating creativity, and engaging participants. Stakeholders can also be engaged in a strategic debate where the very fact that the futures are hypothetical can create a ‘safer space’ within which to discuss mutual interests and tensions.

Despite this potential, significant gaps exist between much current scenario practice and potential contributions of scenarios (Parson et al., 2007). DG SANCO should be prepared to address these challenges in taking the Future Challenges project forward. Public sector organizations also face particular constraints relating to accountability arrangements and political responsibilities (Ling, 2002). The successful use of scenarios therefore requires clarity of purpose, effective facilitation, and sensitivity to the wider architecture of accountability and political responsibility.

DG SANCO will face a number of obstacles as it uses the Future Challenges scenarios. Firstly, van’t Klooster and van Asselt (2006) note that participants in a scenario exercise do not always agree on the interpretation of their scenarios. This risk can be managed through high quality engagement with the scenario themes during workshops (see Section 7.7.2). Furthermore, care must be taken to present the scenarios in a way that’s tailored to the particular needs of specific decision makers. Decision makers should engage in a workshop process once they have completed some preparatory work in which they focus on the kinds of problems they hope the scenario workshop will assist. These may include: the skills they may need to develop, the partnerships they may wish to establish, or the developments they hope to influence.

A further issue is how to represent choices and decisions within scenarios. Certain decisions in the scenarios for DG SANCO could either be thought of as exogenous to the scenarios (and beyond the control of DG SANCO) or thought of as being shaped by the decisions of DG SANCO. Another complicating issue is that often the most important uncertainties affecting a decision have to do with the effectiveness of various proposed policy actions. In this case, further work needs to be done within the Future Challenges process to identify the likelihood of a policy being unsuccessfully implemented (and this can often be a difficult process).
Consequently, the process of taking the Future Challenges project forward in the coming months itself faces challenges. Taking futures methods and applying them to long-term thinking and planning has long been acknowledged to be difficult. On the one hand, there is the opportunity to stimulate high quality conversations within the organization about a range of possible futures. This has potentially dispersed benefits creating a more engaged and open culture (van der Heijden, 1996). However, its benefits may be hard to measure and there is the danger that, after an interesting “strategic conversation”, everyone returns to “business as usual”. Alternatively, the scenarios can be more hard-wired into decision-making and change. In this case, care should be taken to use the scenarios to test existing strategies or to generate new ideas to be developed more fully. These options are discussed below.

7.7.2 The use of workshops
Given that the Future Challenges project has been driven by the values and concerns of DG SANCO, and because many decision makers have been involved in the process, DG SANCO is well placed to guard against the risks that the project is seen to be irrelevant, not based on the institution’s own values, or incredible. One way of building on this success and embedding strategic thinking deeper into DG SANCO’s processes is to hold further creative scenario workshops. These workshops would help to develop the understanding that strategic thinking is an iterative process in which the needs and priorities of stakeholders, the vision and goals of the organization, and the implications of external changes are held in balance to inform decisions. They allow understanding of key uncertainties to be combined with an awareness of the vision of DG SANCO and the expectations of stakeholders. Furthermore, workshops can allow participants to take a fresh look at the organization’s vision or at stakeholders’ expectations.

Strategies can be thought of as operating at various levels within DG SANCO. These might be vertical (for example, defined by the policy areas) or horizontal (for example, cross-cutting issues such as communications, Impact Assessments, stakeholder engagement, human resource management). Workshops should be planned carefully so it is clear which aspect of strategic thinking is being explored. Continuity and leadership may be needed to align these activities within the organization but they can be used to explore both “high level” and “low level” decision making.

Two potential types of workshops for decision makers founded on the scenarios could be: a) one which generates policy ideas; and b) one which tests existing strategies. In the first type of workshop, intended to generate new ideas, the typical workshop would include the following steps.

- **Engagement with scenarios (imagine yourself in 2014)**
- **What are the opportunities and threats facing DG SANCO?**
- **What would DG SANCO need to have done to maximize the opportunities and minimize the risks?**
- **By “backcasting” from 2014 to the present day, what would need to be done, when would decisions need to be taken, and who would need to take them?**
The second type of workshop, one intended to test existing policies, would have rather different stages, but start at the same point.

- Engagement with scenarios
- How would key policies succeed in each imagined future?
- Which policies appear to thrive in most futures (and therefore are the most “robust”)?
- Which policies only thrive in one unlikely future?
- What additional supports would be needed to make the policies work?
- By “forecasting” from the present day to 2014, at what stage would policies cease to be effective or require significant additional support?

Both these workshops could be managed in the course of a day, but providing more time would allow the issues to be explored in more depth. Both workshops would typically involve external facilitators.

7.7.3 Impact Assessments
The current Commission-wide approach to Impact Assessments focuses on examining a variety of options in a single (hypothetical) future. In this approach, consideration of uncertainty focuses on the policy options rather than on the future. An *ex ante* evaluation informed by futures methodology would tend to reverse this and examine the impact of a single option in a range of plausible futures. By introducing futures thinking in this way to *ex ante* evaluation, it would be possible to institutionalize scenarios within a Directorate-General as part of the Impact Assessment process. Naturally, any such scenarios would need to consider elements that reflect the entire range of a Directorate-General’s activities.
References by chapter

Executive Summary

Chapter One: Introduction

Chapter Two: The scenario briefing

Introduction


Governance


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**Globalization**


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**Chapter Three: The scenario development meeting**

**Chapter Four: Creating the scenarios**


**Chapter Five: The final DG SANCO scenarios**


**Chapter Six: Case study workshops**

**Chapter Seven: Challenges and recommendations**

Recommendations


### Appendix A: Key themes generated by scenario development meeting

<table>
<thead>
<tr>
<th>Sticker number</th>
<th>Key theme</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Politics</td>
<td>Politics has been and will be a driving force of future decision-making. Politics may be opposed to more evidence-based, fact-based decision-making.</td>
</tr>
<tr>
<td>2</td>
<td>Ideology (Markets)</td>
<td>Ideology will drive the decisions of European Commission, European Parliament, Member States (MS) and citizens. The belief in markets may be seen as driving the Commission over the last few decades.</td>
</tr>
<tr>
<td>3</td>
<td>Increasing social diversity</td>
<td>Societies will become more diverse (this has occurred through enlargement and migration).</td>
</tr>
<tr>
<td>4</td>
<td>Science perception and communication</td>
<td>Difficulties in handling risks related to scientific and technological advances might lead to general suspicion and rejection of science. A breakdown of effective communication of what science achieves might lead to a gap between what it actually achieves and how it is seen by the general population.</td>
</tr>
<tr>
<td>5</td>
<td>Problematic legitimacy (science)</td>
<td>Trend towards increasing importance of, and increasing difficulties in, communicating science might challenge the legitimacy of science in our society (see number 4).</td>
</tr>
<tr>
<td>6</td>
<td>Ethical consumption</td>
<td>Ethical consumption will become of increasing importance, including factors such as organic food, carbon footprints, and child-labour free products.</td>
</tr>
<tr>
<td>7</td>
<td>Legitimacy of governance structures</td>
<td>There will be a growing importance in applying the subsidiarity principle to inspections, in order to increase the legitimacy of the governance structures. The vision should be a “network of networks”.</td>
</tr>
<tr>
<td>8</td>
<td>Need to be outward looking</td>
<td>There will be a growing need to be outward looking in the near future. This</td>
</tr>
</tbody>
</table>
could be realised in two ways:
- learning what other countries/regions in the world do better than Europe
- benchmarking what Europe does well.

**Increased appetite for information**
The appetite for information will grow, with citizens demanding access to high quality information.

**Increased technological complexity of food production**
Innovation in food production leads to growing complexity in food production technology.

**Increased pressure for DG SANCO to deliver**
There is a growing pressure for DG SANCO to deliver, to create European politics which matter to the citizens and the relevant stakeholders.

**Information: personalized diets**
With an increasing understanding of individual needs in food production, personalized diets and even food engineered for individuals will become more important.

**Fragmentation of knowledge sources**
The trend of increasing fragmentation of information sources and knowledge, brought about by the internet, will continue in the future.

**Search for new forms of regulation**
Governance, ie softer innovative tools of regulation and government, will replace hard, traditional regulation.

**Important relationship: global structures – EU governance**
The World Trade Organization (WTO) and international trade will increasingly influence EU policies, eg towards Genetically Modified Organisms. Global governance, linking Europe to the WTO and the world, will become more important. The scope for unilateral EU action will shrink.

**Need to improve citizens’ confidence**
DG SANCO and the Commission need to improve the confidence in their work to remain legitimate.

**Increased role for DG SANCO – citizens’ confidence**
DG SANCO will have to play a greater role in spreading confidence to citizens in the future.

**Increased need to communicate with citizens**
To increase the visibility of DG SANCO to the wider public, DG SANCO needs to communicate more with citizens, pointing to the role it plays in ensuring food safety, consumer protection etc.

**Need to actively win consent for institutions**
The lack of citizens’ confidence in institutions is important; DG SANCO has to actively try to win confidence through communication and delivery.

**Globalization of food production**
In an increasingly global food production market it becomes more difficult to “sell” EU standards and to make sure that food imported into the EU meets these standards.

**Increased competition for natural resources**
Scarcity of natural resources and an increasing demand for them will lead to increased competition for natural resources and make access to them more difficult.

22 Increased desire for privacy
Citizens will have a growing desire for privacy in response to an increasing (data-gathering) intrusion into private life.

23 DG SANCO: stable or declining resources?
DG SANCO will face organizational challenges. Downward pressure on the organization will lead to a situation in which wider functions and tasks have to be met with fewer financial and staff resources.

24 Enlargement – increased governance problems
The last round of EU enlargement and potential further rounds render internal governance of the European Union more difficult, with the relationship between the EC and the Member States becoming more difficult.

25 Geopolitics: Relationships between the EU and the rest of the world
How will Geopolitics and the "geo-economy" develop in the future? What will be the impact of the rise of new economic and political powers?

26 EU-27: Increased difficulty in relationships between EC, MS and citizens
The EU has increasing difficulties in connecting to its citizens as well as to the member states. Currently the relationship is on a downswing in a cyclical relationship.

27 Increased importance of Non-Governmental Organizations (NGOs)
Different types of NGOs (industry, consumer stakeholders etc) will play a more important role in the future.

28 Increased pace of technological change
While technology changes increasingly quickly, the reaction to these changes is slow, and has become slower with the enlargement of the EU.

29 Chemical modification of mood and mind
Advances in life sciences may lead to an increasing number of “wellness drugs”, which need to be regulated.

30 Increased need to defend the internal market
With a drive towards protectionist and nationalist policies in some MS, policing or even extending the internal market becomes a major challenge for the EC and DG SANCO.

31 Not allocated.12

32 Increasing tension between harmonization and subsidiarity
The desire of member states for “subsidiarity” jeopardises harmonization in the internal market.

33 Impact of reducing administrative burden (better regulation)
The increasingly important better regulation and administrative simplification agenda will have a growing impact on the way European

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12 This was owing to an error in numbering the stickers. The same applies to number 37.
policies are developed.

34 Globalization – tension between low cost and quality
Globalization will change the range of products available. By putting pressure on mid-range products, the tension to choose between quality and price will grow.

35 Increased need to comply with global standards
In a global economy, compliance with international standards becomes more important; however this creates tensions with the member states, who prefer to regulate themselves.

36 Need for better understanding of consumer behaviour
To better target policies and to see in which areas there is a need for further action and where there is not.

37 Not allocated.

38 Accountability: transparency-effect on efficiency
There is a growing trade-off between the requirements of being open, responsive and consultative and the requirements of efficient and quick decision-making.

39 Over-accountability
It was argued that the effects of accountability (number 38) may have led to a situation of “over-accountability” where the unchecked pursuit of accountability conflicts with other desirable aims (such as flexibility and responsiveness).

40 Increased fragmentation of quality standards
Private regulation and standardization, driven by large companies and multinationals, becomes increasingly important and leads to a fragmentation of quality standards.

41 Increased pressure on risk assessment procedure
Motives other than food safety increasingly shape the regulatory agenda, leading to pressures on the risk assessment regime.

42 Increased need to assess the impact of legislation
So far there exists little knowledge about the actual impact, effectiveness or efficiency of European policies. This would be necessary to improve legislation in the future.

43 Increased importance of climate change
Climate change will have substantial impacts on food production, food consumption and mobility.

44 Increased regulation, which has less effect “on the ground”
The trend towards more regulation and the reduction of staff in implementing and control activities, as a reaction to fiscal problems of MS, reduces the effectiveness of regulation.

45 Growing complexity of products
The growing complexity of food and non-food creates difficulties in controlling and supervision.

46 Increased difficulties of product regulation
The volume of sealed cargo arriving at ports (for example Rotterdam) presents a challenge of regulation.
Increased variance in Member States’ priorities
The enlargement of the EU has led to a much more heterogeneous structure of priorities and interest. The need for prioritizing only a few policies on EU level is increasing.

Increased pressure for cross-cutting task force in EC
Increasingly, Europe faces problems which cut across several policy fields and need a coordinated response.

New ways of accessing personalized goods
The internet allows for the sale of personalized goods to consumers.

Demographic changes – ageing / complexity
Demographic change will lead to a diversification of demands and needs; and requires adequate regulation covering different needs for different people.
Appendix B: Thematic clusters from the scenario development meeting
Appendix C: Distribution of scenarios along dimensions of uncertainty

**Governance**

- Unified EU – “stovepipe”
- Multi-level EU – horizontal co-ordination
- Impact of EU legislation
- Fewer, but clearer, statutes – EU as enforcer
- ‘Facilitator’ EU – co-regulation

Institutional Reform
Confidence

Non-market driven: market interference / support

Role of the markets

Market driven: information provision, safety standards

Certified channels for information – ‘trust your doctor’

Building confidence - communication

Lots of information – ‘informed patient’

Changing society

Elderly considered a burden – social exclusion

Increase in healthy life expectancy

Elderly considered to be contributors – social inclusion

Who drives social responsibility?

Government intervenes in markets to drive social responsibility

Markets drive towards CSR/environmentally-friendly products
Globalisation

“Race to the bottom” — Global standards — “Race to the top”

“Routine” risk - obesity — The nature of risk — Catastrophic risk – avian influenza

Technology and privacy

“Big science” — Galileo, CERN, human genome — Technological progress — Small, innovative players – SKYPE, tom tom

Orwellian surveillance – need for security — Privacy — Freedom/ vulnerability – ‘Identiphobia’