FRONTEX
EUROPEAN BORDER AND COAST GUARD AGENCY

Conclusions of the Technology Foresight Dialogue – 16 May 2019

Background and participation

The dialogue was opened by the [redacted] He emphasized the need for a closer cooperation between Frontex, industry and academia. He mentioned that the European Community is engaging more and more resources into future technologies and Frontex aims not only at reacting to technological needs of now, but looking further ahead to be prepared for future challenges in terms of capacity building. The goal is to be much more proactive in identifying the needs of the EBCG community and the research areas of the industry. The dialogue is the first step in becoming more proactive in managing different futures. The new Regulation is also a major challenge as the Agency will be restructured and the operation needs will also change.

[redacted] mentioned that it was intentional to set up a meeting in a form of a dialogue, as Frontex wanted to create a space for exchange of ideas and open debate. The focus of the dialogue is on technology foresight, on its methodology, definition and processes. Following this introduction, the participants introduced each other around the table. All the presentations as well as the minutes recorded during the meeting will be distributed to all participants of the dialogue.

Main discussion points and takeaways:

- Technology foresight is an integrated part of strategic management, need- and value-driven, and network-dominated process;
- In the last decade we witnessed acceleration of the technical changes (shortening the interval from knowledge production to commercialization);
- There is a wider understanding that not only technologies themselves, but also their cultural and social environment are important to get the required impact of policy measures. This fact draws attention to learning, knowledge creation and dissemination;
- Social framework for permanent communication among the interested communities is underdeveloped. Information gathered from the market and the network of research facilities, scientists, engineers and partnerships should be at the forefront of research and technology;
- Companies described their experience in using European funding for research. It was pointed out that sometimes it takes long time to build consortiums and the timeline is not always aligned with the business needs;
- Frontex informed the participants that in line with the new Frontex mandate, the Agency will support the EC in choosing topics dedicated to the border security domain under the Horizon Europe research and innovation framework;

- Industry expressed their interest to be involved especially in those projects or programmes where the continuity can be ensured;
- Security market is very complex and fragmented. In order to manage complexity the ultimate objective of forward-looking research in operational environment is not to predict the future but rather to appraise present courses of action and their consequences, and potentially alter them;
- Technological environment includes physical, informational, cognitive and social domains;
- It is important to have a deep understanding of the supply and demand side: a science/technology push should be balanced with a market pull. Whilst this is a rather crude way to think about the innovation process, the point is that technology foresight should not be dominated by technology alone. Attention also needs to be paid to socio-economic factors that are known to shape innovations;
- There is no research library with good practises, but also failures to avoid repetition – which research failed and is not worth relaunching;
- There should be a balance between two approaches to technology foresight. First one is looking at possible future needs, opportunities and threats and deciding what should be done now to make sure that we are ready for these challenges. The second one is identification of new pieces of science and looking how their development will impact the future;
- The output of technology foresight should be a clear mid-term and long terms vision, its directions and priorities, and in this context making current decisions and encouraging joint actions with industry;
- In the security domain there is a need of harmonization in the area of innovation and there should be a constant search for new models of governance that facilitate innovation, encourage a greater role for industry, and give coherence, synchronization and continuity to existing financial resources;
- Technology categorization into a number of streams and sub-streams is important, but should be general enough to allow some degree of flexibility;
- The basis of cooperation is mutual trust. The exchange of information, data, and experience should be done in a safe and secure environment and on a regular basis;
- Frontex will analyse the possibility to continue this dialogue via a framework/internal project with a clear objective and involve industry in the next endeavours related to technology foresight.

Partners in technology foresight:
European Defence Agency CapTech, Security mission information and innovation group (SMI2G), NATO's Research and Innovation Organization, National Armaments Directorates, European Space Industry Association, DRIVER+ community, H2020, PADR communities, EOS