

***Framework Service Contract for the Procurement of
Studies and other Supporting Services on Commission
Impact Assessments and Evaluations***

***Ex-post Evaluation of the
Preparatory Action on Security
Research (PASR)***

***Interim Evaluation of FP7 Security
Research***

Executive Summary

January 2011



Centre for
**Strategy & Evaluation
Services**

P O Box 159
Sevenoaks
Kent TN14 5WT
United Kingdom
www.cses.co.uk

Executive Summary

1. Introduction and evaluation aims

This Executive Summary presents an overview of the findings from the *Ex-post Evaluation of the Preparatory Action for Security Research (PASR)* and the *Interim Evaluation of FP7 Security Research*. The independent evaluations were carried out by the *Centre for Strategy & Evaluation Services (CSES)* for *DG Enterprise and Industry* ('DG ENTR') between January and December 2010.

The purpose of these evaluations was to assess the achievements of the European Security Research Programme (ESRP) to date. In addition to meeting accountability requirements, the evaluation provided an opportunity to take stock of progress to date through the ESRP, and to draw conclusions and make recommendations to improve its future effectiveness. The evaluation scope included PASR and the first two calls in FP7 Security Research (FP7-SEC-2007-1, FP7-SEC-2009-1 and the joint ICT call (Objective ICT-2007.1.4).

About the Preparatory Action for Security Research (PASR) 2004-2006

The 'PASR' Preparatory Action supported 5 themes: a) Improving situation awareness b) Optimising security and the protection of networked systems c) Protecting citizens from terrorist attacks with CBRN and energetic substances (d) Enhancing crisis management and (e) Achieving interoperability between EU security organisations. PASR had a budget of €45m divided over 3 calls for proposals, each with a budget of €15m.

FP7 Security Research 2007-2013

FP7 Security is a programme within the Cooperation objective of FP7 and fosters collaborative research across the EU and in FP7 associated countries. The objectives of EU Security Research in FP7 are to: make Europe more secure for its citizens; strengthen industrial competitiveness; promote research excellence and state-of-the-art; support the (re)structuring of the European security sector; and to prevent the fragmentation of research efforts and strengthen critical mass in particular areas of security research. FP7 Security Research has a budget of €1.4bn.

The programme is mission-based¹ and has adopted an incremental building block approach to the development of security capabilities and the closure of gaps.

2. Evaluation methodology

The evaluation was carried out using a robust methodology that combined different research methods and involved wide stakeholder consultation. This was supported by tailored research tools (interview checklists, questionnaire-based surveys).

An interview programme of 140 discussions was carried out with key stakeholders. The focus was on assessing research results to date of both PASR and FP7 Security Research. The majority of discussions were therefore undertaken with beneficiaries (e.g. industry, SMEs, research institutes, universities) and public user organisations. Discussions were also held with officials from the European Commission's DG Enterprise and Industry and the Research Executive Agency (REA) involved in programme management and implementation, National Contact Points, selected members of the

¹ Four **security 'missions'** were defined: i) Security of EU citizens ii) Security of infrastructure and utilities iii) Intelligent surveillance and border security; and iv) Restoring security and safety in case of crisis. These are supported by three **cross-cutting missions**: i) Security systems integration, interconnectivity and interoperability ii) Security and society and iii) Research coordination and structuring

Executive Summary

Programme Security Committee and Security Advisory Group, and wider representatives from national authorities and representatives of other EU institutions and organisations (e.g. the JRC, European Defence Agency).

Wider stakeholders interviewed include participants in ESRI (which established a strategic agenda for security research) and security industry associations. Prospective participants and users were also interviewed so as to obtain external perceptions about the programme. With regard to country coverage, discussions were carried out face to face in a representative sample of 14 EU countries. These include Austria, Belgium, the Czech Republic, Denmark, France, Germany, Greece, Italy, Lithuania, the Netherlands, Norway, Spain, Sweden, and the UK. An overview of the interview programme is provided below:

Table 1: Interview programme overview – Security Research evaluation

<i>Interview category</i>	<i>Interviews completed</i>
European Commission and REA officials – programme management	11
Commission officials with responsibility for different security policies e.g. counter-terrorism, CBRN, aviation	9
Relevant officials from other EU-level organisations (e.g. JRC, CEN/ CENELEC, EDA)	4
National contact points	6
National authorities and members of Programme Security Committee	10
Representatives from security industry associations	3
Representatives from EU committees and expert advisory groups, e.g. ESRI, Security Advisory Group	4
Beneficiaries FP7 Sec and PASR (SMEs, industry, research institutes, universities)	46
End-users FP7 SEC and PASR and prospective users	43
Total	136

Two online surveys were carried out with beneficiaries and users respectively. The survey obtained 72 responses (representing a high proportion of projects funded through ESRI) and the survey of users attracted 58 responses. It was challenging to obtain feedback through surveys from users, but the results made a valuable contribution to the evaluation. Desk research was carried out to complement the field research. This included a review of project statistics in the CORDA database, an assessment of the annual Work Programmes and Calls for Proposals and their thematic evolution, and an examination of a representative sample of project materials (periodic and final monitoring reports).

The deliverables produced through the research include: a final report and 4 thematic case studies on selected themes within EU Security Research: aviation security, maritime surveillance, crisis management and emergency response and CBRNE (chemical, biological, radiological, nuclear and explosives). A horizontal case study was also prepared on the participation of small and medium enterprises (SME) in FP7 Security.

3. Key evaluation findings

The findings are grouped together under headings: financial implementation, programme management, research results and wider outcomes. A distinction is made between conclusions that relate to PASR, and those pertaining to FP7 Security Research.

Executive Summary

3.1 Statistics on participation and financial aspects

There was strong demand to take part in PASR, with each call approximately 11 times oversubscribed. 39 projects were supported during PASR, of which 22 were research projects and 17 supporting activities. The PASR funding allocation of €45m was fully absorbed.

There continues to be strong demand to participate in FP7 Security. Across the first three security calls and the joint ICT and Security Call, 131 projects have been supported to date. 50 projects were supported through FP7 SEC in the first 2007 call, 9 in the joint ICT and Security Call (2007) and 32 projects in the 2nd 2009 SEC call. 40 projects were supported in the 3rd SEC call in 2010.

Approximately €520m has been committed across the first 3 Calls for Proposals in FP7 SEC and through the Joint Call. A further €221m is expected to be committed in the 4th call. Funding is weighted towards the 2nd half of the programming period. Large-scale demonstrators will consume considerable resources from the 4th call onwards. Total financial commitments are expected to be close to €750m (53.6%) by summer 2011 once 4th call projects have been selected. Overall, FP7 Security appears to be on track to achieve a high level of funding absorption.

At 20.2%, the proportion of funds supporting SMEs in FP7 SEC is the highest within the Cooperation Programme, and well above the 15% target for FP7 overall. In terms of numbers of SMEs, according to statistics from the CORDA database, in April 2010, 18.7% of organisations signing Grant Agreements were SMEs. There are however issues as to whether in the 2010 SEC call, the statistics on SMEs are accurate, with some research institutes seemingly included in the statistics.

3.2 Programme management and implementation

DG ENTR managed the implementation of PASR and FP7 Security Research from 2007 to mid 2009. Responsibility for day to day management and project monitoring was handed over to the REA in June 2010 (with the exception of larger demonstrators and classified projects). DG ENTR played an effective role in programme management in the initial implementation period.

The handover process from DG ENTR to the REA in 2009 and the transition of responsibility for day to day programme management has been well managed. Interviewees were broadly positive about both the Commission and REA's handling of technical and administrative aspects relating to programme management and the way in which Calls for Proposals have been managed.

A small number of projects (<5) mentioned challenges linked to the change in project officer midway through project implementation, but given that the organisational handover to the REA took place midway through the programme, this was unavoidable, and needs to be kept in perspective. The Executive Agency has made substantial progress in developing the resource capabilities to manage programme implementation. REA Technical Project Officers (POs) were found to be highly qualified with a strong scientific background and relevant technical expertise. Moreover, many POs previously worked for the European Commission in project managing research projects. Monitoring is arranged in such a way that Technical POs are able to specialise in project monitoring in areas that are appropriate to their background and experience. The combination of Technical POs, Legal and Financial Officers working together within the same unit was found to be efficient.

Executive Summary

From a cost-effectiveness perspective, the administrative costs of implementing FP7 SEC were below 6% of programme expenditure, the budget ceiling within FP7. Human resources for implementing the ESRP were modest in relation to the programme's size (1.4bn EUR). In December 2010, 43 staff within the Commission and the REA were involved in programme management and implementation (including administrative staff). Moreover, additional recruitment at the REA's Security Unit S3 is already planned and underway.

The network of National Contact Points (NCPs) has played a positive role in promoting awareness about, and providing information on the programme. However, while in some countries, the NCPs have played an active role, in others, the role has been relatively passive.

There were concerns about the duration of Time to Grant (TtG), currently an average of 530 days in FP7 Security. While this problem is common to several themes within FP7 Cooperation, it is higher in the security theme than in other areas. Negative implications of long lead-times include difficulties in resource planning, challenges in securing user engagement and a risk of partner withdrawal from bids, the longer the selection and contract negotiation process goes on.

Among the factors specific to FP7 Security include i) the security scrutiny procedure for sensitive projects that incorporate classified information, and ii) ethical screening (although applied across FP7 overall, there are particular issues in security, such as dual use considerations). Although an effort is made to carry out these processes in parallel rather than sequentially, the scrutiny procedure can add 2-5 months to TtG. It should also be stressed that the REA, DG ENTR and all other research DGs must respect the rules and procedures laid out in the EU Financial Regulation. The administrative and financial validation of all partners, while necessary, is time consuming. There is an inherent tension between the need to ensure sound financial management of EU funds and to reduce TtG on the other.

Shortening contracting lead times was seen as an important issue for programme stakeholders, and has become an increasing priority for the Commission and REA. While there is scope to shorten lead times, through further improvements in ICT systems underpinning the contracting and negotiation phase, it does not appear that the process can be significantly shortened.

3.3 Research results – PASR and FP7 Security Research

Progress was made through the implementation of **PASR** projects towards the strategic development of the future ESRP and structuring the security industry, with support actions playing a key role.

Examples of key PASR achievements include: the identification of capability gaps, the completion of RTD roadmapping exercises, demonstration of proof of concept, the development of preindustrial prototypes, and assessments of the feasibility of new technologies. Among the most common research outcomes include: the development of knowledge, data, information tools, and initial progress towards the development of new technologies, services and products.

Given that PASR was a Preparatory Action, most R&D projects involved research at a relatively early stage in technological development, with follow-up needed in FP7 SEC to develop commercial potential and to adapt technologies to meet user needs. The average project size was also significantly smaller than in FP7 SEC.

Executive Summary

PASR achieved initial progress in promoting the development of pre-standards and common approaches to the testing and certification of equipment. PASR has also made a positive contribution to promoting the interoperability of networks and ICT systems and wireless communications.

While positive results were achieved through PASR, such as demonstration of proof of concept of technological solutions, R&D activities were often at a relatively early stage and it is therefore difficult to assess the likely extent of take up by users at this point in time. Nevertheless, some research results have been utilised both by users and through follow-up by FP7 SEC projects.

Among the soft outcomes achieved through PASR were the promotion of networking and increased cooperation between security research actors, the creation of new networks and strengthened coordination in particular thematic areas, e.g. aviation security, maritime surveillance, CBRN, interoperability and networked systems, etc.

There are constraints in assessing results and impacts in any at interim programme evaluation. This is especially the case in **FP7 Security** since it is a new programme. There are moreover long lead-times before research results will materialise in some R&D projects and in particular thematic areas, such as maritime surveillance. Notwithstanding, the initial research results appear promising, with evidence of progress towards 'state of the art'. Among the examples include portable and stand-off security (detection devices, situation awareness), advanced detection-screening technologies, multi-purpose screening devices and nanotechnologies (reactive fabrics for use in personal protective equipment).

FP7 SEC has promoted the development of new and the adaptation of existing technologies². It has also encouraged the harnessing of legacy technologies, including those with 'dual use' potential from defence for civil security purposes.

There has also been progress in structuring the security industry, with CSAs playing a key role in promoting the strategic development of the ESRP and in overcoming industry fragmentation.

Interoperability has also been promoted through investment in system of systems integration, communications equipment, and thanks to the development of common processes, procedures and guidelines. This remains an ongoing challenge for the programme.

There has been useful progress in the promotion of harmonisation and standardisation. Further mapping is required through the issuing of a Standards Mandate from the European Commission to the European Standards Organisations to ascertain which areas offer scope for further activities. Achieving progress in the standardisation area will require a long-term commitment.

The programme has led to the development of pre-operational products and services (e.g. next generation monitoring and surveillance systems, services for security planning at major events). Progress has also been made in improving data collection and information and data sharing between security actors in areas such as industrial accidents, deadly pathogens, microbes in water supply, etc.

² Examples of technologies include the development of a portable spectrometer, a prototype device for first responders to improve the accuracy of human detection in crisis situations, new carbon-producing technologies and the development of a robot that can monitor rail track to check for any suspicious devices

Executive Summary

FP7 SEC has also realised other important achievements, such as: addressing knowledge gaps and security vulnerabilities, strengthening strategic foresight and horizon scanning capabilities; sharing information and good practices (e.g. security planning for major events, preparedness among first responders for CBRN incidents); knowledge strengthening in particular areas, such as the environmental and economic aspects of security, human factors (e.g. interaction of people, processes, technologies).

A number of projects developed and registered patents and other forms of IP. Other projects have made use of existing IP, such as the use of proprietary IT platforms belonging to one partner by other partners. With regard to the sustainability of project outcomes, most projects had a clear view as to how project activities should be followed-up in future, in order to ensure that the research outcomes were sustainable, although in a small number of cases, there was limited sustainability.

Among the main soft outcomes identified include: improved networking and coordination between security research actors; strengthened cooperation and supply chain between SMEs and large firms; and improved information sharing and good practice exchange between security research actors. FP7 SEC has also promoted technology transfer between publicly funded research and the private sector.

3.4 End-user involvement in FP7 SEC and take-up of research results

About three-quarters of projects involved end-users directly. The most common role played by users was to develop, test and validate user requirements. Users have been involved both directly and indirectly in projects, for example, through their participation in advisory panels. Users have also attended events at key junctures in project implementation (e.g. workshops, demonstrations, simulation activities to develop scenario models). Their role has also sometimes been to ensure that the societal and ethical aspects of Security Research were appropriately taken into account.

While many projects have been successful in engaging with users, others have experienced difficulties in securing end-user engagement. Among the obstacles to getting users involved in projects identified include limited human resources and the busy schedule of users, and a lack of interest in engaging directly in security research projects unless research was 'near to market'. A number of projects developed end-user engagement strategies to overcome such challenges.

Beneficiaries in security research projects identified value added in being able to engage with users through projects. Among the benefits include developing their reputation in particular areas of civil security, validating the quality of research and testing the usability from a user perspective.

It is too early to assess take-up by end-users of new technologies, products and services, approaches and knowledge in the case of some FP7 SEC projects. The extent of user take-up can only be fully assessed over a long-term time horizon.

Notwithstanding, some good examples were identified of the take-up of results by users and of the use of research outcomes through follow-up projects supported in PASR and FP7 SEC respectively (e.g. industrial taxonomy of the security industry, methodology for security planning at major events, European Technology Watch (ETW), the use of information contained in databases developed through FP7 SEC specific areas, and the use of foresight studies to inform scenario modelling).

Executive Summary

3.5 Dissemination of research results

While some dissemination activities have been undertaken by DG ENTR to publicise PASR research results, more could be done, for example, by developing a compendium about project achievements.

There was a more limited project web presence for PASR compared with FP7 SEC projects. Ensuring the sustainability of project results and wide dissemination may require results to be publicised through a central web portal. While the CORDIS website already provides project records with basic information, this was found to be difficult to navigate and not user-friendly.

With regard to the dissemination of research results, communication has been stepped up by the European Commission through the organisation of thematic workshops during 2010 on topics such as aviation security, CBRN, maritime security, the societal and ethical dimension in security research, and Interoperable communications for Safety and Security. DG ENTR has also produced publications to promote FP7 SEC projects such as a project Compendium in 2010 'Investing into security research for the benefits of European citizens', and the Security Research in Focus magazine (August 2010).

Project beneficiaries are already required to produce a publishable summary of their project's achievements and potential impact in future. While this is useful, sometimes, the approach adopted to describing project achievements was not always clear and could be further standardised. There is also a need to disseminate these summaries more widely.

Individual projects are also required to make provision for dissemination as a core element of project activities (many have dedicated work packages on dissemination). Promotional activities have been relatively successful in promoting networking and in developing a community of producers and users.

4. Conclusions

4.1 Conclusions - Preparatory Action for Security Research (2004-2006)

1. Overall, PASR was found to have played a central role in laying the basis for a full European Security Research Programme in FP7 SEC within the Cooperation Programme. PASR was successfully implemented and served as a useful testing ground for developing knowledge about what types of projects are most useful and future topics for support in FP7 SEC calls.
2. PASR strengthened the Commission's institutional capacity to implement security research.
3. PASR attracted project applications from high quality, well-known organisations from the public and private sectors.
4. The Preparatory Action contributed significantly to preparing for FP7 SEC with continuity between many partners and consortia.
5. PASR helped to achieve hard outcomes, such as the development of industrial prototypes and testing of proof of concept. There is evidence of follow-up funding at the research topic level in calls funded under FP7 SEC, and some results have been incorporated into new projects, in accordance with the 'building block' approach to developing mission-oriented capabilities.

Executive Summary

6. PASR achieved positive soft outcomes, such as the promotion of networking between security research actors, the creation of new networks and strengthened coordination.
7. However, the research outcomes achieved through PASR projects have not as yet been that effectively disseminated.

4.2 Conclusions – Interim evaluation of FP7 SEC

It should be noted that these conclusions relate to the evaluation of the implementation of the first two Calls for Proposals within FP7 SEC.

FP7 SEC demonstrates strong coherence with key EU policies, including strengthening industrial competitiveness, promoting research excellence, and reinforcing the European Research Area.

1. The thematic focus of EU Security Research has been progressively strengthened over successive calls. Since FP7 was adopted, a more coherent EU policy framework has evolved in various areas in which security research projects were being supported (e.g. adoption of the CBRN Action Plan, policy communications on crisis management).
2. Since many Member States do not yet have their own national civil security research programme, there is a clear Community Added Value to FP7 SEC.
3. FP7 Security has had a positive effect in structuring security research in strengthening the sector's industrial structure and in enhancing Europe's competitiveness in this domain.
4. Good progress has been made in implementing FP7 SEC to date in terms of the expenditure profile against target. The financial weighting is geared towards the second half of the programming period.
5. The higher level of participation by SMEs in FP7 SEC (>18.7%% compared to 16% for overall FP7) by SMEs and a high SME share of funding are significant achievements. SMEs face high market entry barriers in some areas of the security industry. FP7 SEC represents an important route to market for SMEs, in the face of fragmented market conditions.
6. There is strong interest in security research activities and initial outcomes from users in technologies that are relatively near to market (e.g. SUBITO, iDetect for All, Samurai).
7. The integration of existing security capabilities is essential (fragmented responsibilities in some Member States, for example, CBRNE UK). Testing and exercises are also crucial to ensure the take-off of results by end users.
8. FP7 SEC is making a significant impact in bringing suppliers of security solutions, products and services together with users (e.g. EUSECII, IMSK, future PERSEUS, SGL for USAR).
9. It is important to involve users at all stages in project implementation, from design and structuring through to testing user requirements and the dissemination of research results.
10. Given that competition for funding is becoming increasingly intense, applicants are becoming ever-more aware of the importance of incorporating users (and SMEs) into proposals.

Executive Summary

11. The ethical and societal dimension in EU Security Research has been strengthened between PASR and FP7 SEC. This is necessary to effectively address the security needs of European citizens and society, while at the same time respecting fundamental rights principles, and ensuring due consideration of privacy issues and the effective scrutiny of dual use potential.
12. Further research is needed on ethical and societal aspects in order to meet accountability requirements in implementing the programme. It is vital to ensure public acceptance of the deployment of new technologies to strengthen the security of citizens, e.g. body scanners
13. An improved measurement framework is needed to assess what has been achieved through the implementation of EU Security Research. While project monitoring activities are rigorous, it would be useful to develop an indicator system as part of the overall monitoring framework to better enable the Commission to report on the programme's key achievements.

5. Recommendations

5.1 Recommendations – FP7 Security

A number of recommendations were identified through the evaluation research. These mainly apply to the Commission's DG ENTR and to the REA. It should be noted that some recommendations apply specifically to FP7 Security, whereas to make improvements to the programme, others would require changes at the level of FP7 Cooperation overall. Additional thematic recommendations are provided in the case studies, and these are set out in detail in standalone documents.

Programme management (negotiation and contracting phase, financial reporting)

1. Close the annual call for proposals earlier than December in order to avoid lengthening Time to Grant due to the summer period following call closure, which can delay the finalisation of the contract negotiation process (FP7 overall).
2. Further adapt existing IT systems to support staff in carrying out the negotiation and contracting phase in order to help reduce 'Time to Grant' (FP7 overall).
3. Explore whether there are any additional ways to reduce bottlenecks (while at the same time respecting the EU Financial Regulation and the specific features of security research, notably the security scrutiny procedure)
4. Ensure that the administrative and financial validation process of project partners begins as early as possible following the finalisation of projects selected and the commencement of the negotiation process.
5. Expenditure data on programme administration costs should in future be made available in relation to FP7 Security on a disaggregated basis within the European Commission's DG ENTR Directorate H in order to check the position in respect of the 6% maximum target more easily.

SME participation

6. Further encouragement should be provided to SMEs willing to lead project consortia. There is already a financial incentive in terms of increased co-financing, but explicit mention could be made in annual calls that 'applications led by SMEs will be especially welcomed'.

Executive Summary

7. Give consideration to the concept of an ‘apprentice’ status within projects for SMEs. The learning function can be important within FP7 projects (FP7 overall).

User involvement

8. Give consideration to the simplification of application procedures for end-users (FP7 overall).
9. Require all project consortia to involve public end-users more systematically in the implementation of EU Security Research project from the outset.

Assessing research excellence / quality

10. An indicator system should be introduced in FP7 SEC in order to improve the basis for assessing research quality. This needs to go beyond conventional measurement of research excellence (e.g. citations and bibliographic excellence).
11. The expected outcomes from research projects should be benchmarked in so far as possible against existing security products, services and solutions already available on the market. Appropriate benchmarks should be developed against which research quality can be assessed.
12. Elements of peer review between projects could be encouraged in particular thematic areas of Security Research to provide an additional mechanism for assessing research quality. An alternative (or additional) option would be to subject clusters of projects to detailed cross-comparative review by external experts.

Evaluation and monitoring

13. A performance monitoring system should be introduced, supported by quantitative indicators. This should take into account the need to report both on project achievements (especially research outcomes) and on a smaller set of indicators for management reporting purposes.

Cooperation between the European Commission and national authorities

14. Ensure that there is more effective cooperation between national authorities and the Commission in implementing security research programmes so as to further reduce the danger of double funding of similar projects (verification is needed for potential duplication in both national civilian and military security research programmes).

Dissemination of research results

Since the REA now has responsibility for most project monitoring activities, DG ENTR will need to turn its attention to disseminating research results and to utilising these to feed into policy development processes in different fields of EU security research. In particular, the Commission should:

15. Improve the dissemination of PASR research results through the development of a single web portal, and a project compendium outlining the achievements of PASR project.
16. Consider the scope for standardising information presented in the publishable ‘fiche’ that projects are required to produce at the end of their term explaining what has been achieved and setting out more clearly the opportunities for end-users to make use of research results

Executive Summary

17. Ensure together with the REA that the publishable summary of project achievements is disseminated more effectively
18. The Commission should closely monitor the effectiveness, utility and results achieved through Phase 2 demonstrator projects, since these have strong potential to become 'flagship' projects which showcase the potential usefulness of research results to users and the wider public.

Other issues

19. Ongoing commitment is needed to strengthening the treatment of the ethical and societal aspects of EU security research in order to meet accountability requirements. This will be vital for example to help ensure public acceptance of the deployment of new technologies to strengthen the security of EU citizens.

5.2 Recommendations – FP8

Various relevant EU-level legal and policy developments have taken place since the FP7 Programme Decision was adopted in 2006. The adoption of the Lisbon Treaty in particular has implications for planning FP8 since it opens up various possibilities for the new programme, such as strengthening the external dimension of EU security research, including energy security as a research topic, etc.

Programme planning (intervention logic and thematic scope)

1. In preparing for FP8, a clearer distinction should be made in the definition of aims and objectives between global, general and specific (operational) objectives.

Consideration should be given to broadening the scope of ESRP activities to incorporate some of the new possibilities resulting from the adoption of the Lisbon Treaty in December 2009. In particular:

2. The external EU dimension of the Security Research Programme should be strengthened.
3. Project results should be integrated more effectively with the work of EU agencies operating in the context of EU external actions, especially in areas such as crisis management, humanitarian assistance, monitoring the impact of climate change and border surveillance.
4. Cooperation should be further promoted through the ESRP between the EU and international organisations, notably the UN.

Steps should be taken to implement more of the recommendations made in the ESRIF final report³ (December 2009). In particular:

5. The role of pre-procurement and procurement in stimulating demand for security products and services should be strengthened in FP8. This will require close joint cooperation between the Commission and the Member States.
6. Demand-side initiatives should be supported that encourage users of research to refine user definition requirements in a way that takes full account of currently available technologies and the need for interoperability.

³ www.esrif.eu/documents/esrif_final_report.pdf

Executive Summary

7. Consider setting a target to increase SME participation in FP7 Security to 25%.

While a diverse range of organisations are already represented in projects, many proposals received include the largest industry players, and there remains scope to further increase the participation of 'knowledge-intensive SMEs in transnational cooperation'.

Communication activities and dissemination of research results

8. Consider giving the REA responsibility for communication activities in future, since over time, given their role in project monitoring, the REA should be in a position to accumulate knowledge about good practices and to identify 'showcase' examples of research excellence.

Cooperation with other EU bodies and international organisations

9. The ESRP should remain exclusively focused on civil security research. Notwithstanding, closer cooperation should be pursued with the ESA and the EDA through the existing Cooperation Framework mechanism in particular areas where there is scope for research synergies e.g. CBRN, crisis management and humanitarian assistance, maritime and border surveillance.
10. Further efforts should be made to strengthen existing partnerships with national authorities in third countries (e.g. US' Department of Homeland Security) to ensure that synergies from funding and cooperation (e.g. on standardisation, interoperability) are maximised.