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Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council establishing the European Border Surveillance System (EUROSUR)

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Accompanying document to the
**PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF
THE COUNCIL ON**

Establishing the European Border Surveillance System (EUROSUR)

ANNEXES

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EUROSUR documentation

This annex provides an overview and short summaries of the most relevant EUROSUR documents, starting with horizontal documents and then followed by documents relevant for Steps 1 to 7 of the 2008 EUROSUR roadmap.

ANNEX 1.1: **Horizontal documents**

1. Legislation

Title	Schengen Borders Code
Full title	<i>Regulation (EC) No 562/2006 of the European Parliament and of the Council of 15 March 2006 establishing a Community Code on the rules governing the movement of persons across borders, OJ L 105 of 13.4.2006, 1.</i>
Excerpt	<p><i>Article 12 Border surveillance</i></p> <p>1. The main purpose of border surveillance shall be to prevent unauthorised border crossings, to counter cross-border criminality and to take measures against persons who have crossed the border illegally.</p> <p>2. The border guards shall use stationary or mobile units to carry out border surveillance. That surveillance shall be carried out in such a way as to prevent and discourage persons from circumventing the checks at border crossing points.</p> <p>3. Surveillance between border crossing points shall be carried out by border guards whose numbers and methods shall be adapted to existing or foreseen risks and threats. It shall involve frequent and sudden changes to surveillance periods, so that unauthorised border crossings are always at risk of being detected.</p> <p>4. Surveillance shall be carried out by stationary or mobile units which perform their duties by patrolling or stationing themselves at places known or perceived to be sensitive, the aim of such surveillance being to apprehend individuals crossing the border illegally. Surveillance may also be carried out by technical means, including electronic means.</p> <p>5. Additional rules governing surveillance may be adopted in accordance with the procedure referred to in Article 33(2).</p>

Title	Updated EU Schengen Catalogue on External borders control, Return and readmission	
Reference	<i>Council document 7864/09 SCH-EVAL 48 FRONT 21 COMIX 252 of 16.3.2009</i>	
	RECOMMENDATIONS	BEST PRACTICES
	4. Border surveillance	
	4.1 Generally	
	Border surveillance should be implemented in accordance with the Schengen Border Code (SBC) and Schengen Handbook.	Officers carrying out border surveillance have suitable uniforms made of materials adapted to the weather and climate conditions and sign or badges which identify them as border guards.
	Border surveillance should be assessed using two key parameters which are situational awareness and	The border is kept under constant monitoring.

<p>reaction capability.</p> <ul style="list-style-type: none"> - Situational awareness measures the level at which the units can detect ongoing or already accomplished unlawful border crossings (or smuggling activities) throughout the relevant planning period. This shows the requirements at tactical level (monitoring times and areas, detection rate, identification methods and profiling of targets). Also, the number and direction of patrols along blue and green borders is relevant. - Reaction capability measures the level at which the units are able to react by apprehending and searching any persons detected or investigating suspected illegal activity throughout the planning period. This shows the requirements at tactical level (density and equipment of patrols, density and readiness of special intervention units, availability of aircraft and helicopters etc). <p>Based on risk analysis, suitably equipped patrols (land, sea, airborne) should be kept in readiness for pursuit, apprehension and/or control of detected movements and arriving or departing transportations.</p>	<p>Tactical surveillance centres active 24/7, monitoring the border or sea area through surveillance equipment and patrols. The centre actively refers information on movements to intelligence officers (risk indicators, registers) and analyses the nature of movements in order to discover anomalies. Random controls are also carried out.</p> <p>Constant readiness of patrols. The tactical surveillance centre is competent to send out patrols immediately.</p>
<p>Functional communications between patrols, vessels, aircraft and command/control centres.</p>	<p>Use of TETRA standard radios or other encrypted ways of communication.</p>
<p>Activities in the area of responsibility are supported by mobile control equipment.</p>	<p>Mobile patrols/vessels have on-line access to databases and examples of travel documents (visas, border stamps information, etc)</p> <p>Mobile patrols/vessels have some equipment to check travel documents (UV, magnifying glass at least 10 x or mono microscope with variable zoom).</p>
<p><i>4.2. Land borders</i></p>	
<p>Illegal immigrants crossing the border should be detected with adequate efficiency.</p> <p>Border surveillance and apprehension of illegal immigrants should be carried out with mobile and fixed patrols supported by technical means:</p> <ul style="list-style-type: none"> - patrols moving by car, motorcycles, snow scooters, all-terrain vehicles, horses etc. - night vision devises and thermal cameras - fixed camera and sensor alarm systems - portable infrared alarm/camera and other sensor systems - sniffer dogs in forest areas - motor boats at lakes and rivers 	<p>Helicopters and fixed wing aircrafts carry out surveillance and support patrols on the ground.</p>
<p>Surveillance resources should be concentrated in high-risk areas in accordance with risk analysis.</p>	<p>Border area is divided into sectors/sections. The period of surveillance of each sector depends on risk analysis.</p>
<p>Border near the BCPs should be kept under supervision in order to detect person attempting to skirt around the BCP.</p>	<p>Border close to BCP is monitored by cameras and/or an alarm system.</p>
<p>The response times required to start tracing illegal border crossers in each border sector should be defined (based on risk analysis).</p>	<p>Mobile units, fast response teams, helicopters, motor boats, sniffer dogs etc.</p> <p>Plans drafted in advance, including manned points, for tracing illegal border crossers in different border sectors/sections.</p>
<p>Cooperation of border guards with the local</p>	<p>Constant contacts with local population and relevant</p>

population.	authorities. During their shifts; border patrols and leaders keep up regular contacts with local residents.
Collection of all relevant evidence to prove illegal crossing of the State border in order to readmit third-country nationals.	Fixed practices of gathering evidence regarding illegal border crossing, in accordance with bilateral or EC Readmission Agreements.
4.3. Maritime borders	
There should be coastal surveillance system backed up by a network of coastguard stations in readiness for rapid reaction. The system should be supported by an offshore element; offshore patrol vessels, helicopters, fixed wing aircraft and other means.	Integrated surveillance system and common maritime situation picture with all relevant authorities (border guard, naval authorities, navy, coastguard etc.). All data are recorded and stored for at appropriate time. Situation is monitored in adequate number of command/control centres. Situation picture is composed of information from radars, offshore patrol vessels (OPV), camera surveillance systems, helicopters and fixed wing aircraft.
All vessels coming into territorial waters should be detected and identified. Identifications (names of vessels) should be checked against background information on risk vessels.	Use of AIS (Automatic Identification System), VTMS (Community Vessel Traffic Management System), VMS (Vessel Monitoring System for fisheries), V-RMTC (Virtual Regional Maritime Traffic Centre) and SSN (SafeSeaNet).
Arriving vessels should be assessed in accordance with risk analysis.	Assessment is carried out in regional/tactical command/coordination centres by crime intelligence officers.
If necessary, checked vessels should be intercepted by border guards at sea. Necessary coercive measures are carried out.	OPVs, coastal patrol vessels (CPV) or patrol boats (CPB) from coastguard stations.
There should be necessary measures to prevent unauthorized access to the port facility, ships moored, and to restricted areas.	

Title	Frontex guidelines on sea border operations
Full title	<i>Council Decision 2010/252/EU of 26 April 2010 supplementing the Schengen Borders Code as regards the surveillance of the sea external borders in the context of operational cooperation coordinated by the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union, OJ L 111 of 4 May 2010, 20.</i>
Abstract	<p>Council Decision 2010/252/EU establishes rules for the surveillance of sea borders (Part I of Annex - binding) and it sets out guidelines for search and rescue situations and for disembarkation (Part II of Annex – non-binding) within the context of sea border operations coordinated by Frontex.</p> <p>According to Article 1 of this Council Decision both the rules and the non-binding guidelines should form part of the operational plan for each sea border operation coordinated by Frontex.</p> <p>Part I of the Annex contains general principles including the protection of fundamental rights and the principle of <i>non-refoulement</i>. It also lays down rules on the interception measures which may be taken with regard to ships suspected of carrying irregular migrants.</p> <p>Part II sets out the duty under international maritime law to render assistance to persons in distress at sea and it contains guidelines as to how this duty may be implemented during a sea border operation coordinated by Frontex. Part II of the Annex also sets out modalities of disembarkation which need to be included in the operational plan.</p>

Title:	Frontex Amendment
Full title	<i>(Draft) Regulation of the European Parliament and the Council amending Council Regulation (EC) No 2007/2004 establishing FRONTEX</i>
Abstract	<p><i>The agreed compromise text can be summarised as following:</i></p> <p>Creation of European border guard teams</p> <p>The provisions on the Rapid Border Intervention Teams and the joint support teams (joint operations, pilot projects) are becoming part of one set of provisions under the heading: European Border Guard Teams. The European Border Guard Teams will consist of national border guards assigned or even seconded by Member States to the agency for joint operations, rapid interventions and pilot projects.</p> <p>Fundamental rights</p> <p>The visibility of fundamental rights obligations and references to various international law instruments is increased:</p> <ul style="list-style-type: none"> - In case of a breach of human rights, Frontex missions shall be suspended or terminated in whole or in part. - The office of a Fundamental Rights Officer will be created in the Agency to assist in matters having implications for fundamental rights. - A Consultative Forum on Fundamental Rights will be created also involving relevant international organisations and NGOs. - A Code of Conduct will be established to guarantee respect for fundamental rights. - Frontex-funded return operations will be monitored observing objective and transparent criteria. The Commission shall draw up an annual report on the monitoring. - The tasks of the Agency will include possible assistance to Member States in situations that may involve humanitarian emergencies and rescue at sea - Fundamental rights are included in the training curricula of Frontex personnel and border guards participating in Frontex operations. <p>Strengthening of the operational capacity</p> <p>The putting at the disposal of the Agency of human and technical resources is further developed, as well as the creation of the possibility for the Agency to acquire or lease its own technical equipment. This is achieved by:</p> <ul style="list-style-type: none"> - a quasi compulsory mechanism for technical and human resources i.e. once Member States agree on assigning their national border guards or even seconding them to the Agency or put technical equipment in the pool at the disposal of the Agency, they will be legally bound to honour their commitments. - the agreed change that Frontex may purchase, lease, own and co-own its own technical assets. <p>Frontex will also have the mandate to process personal data obtained during operations to use them in the fight against criminality, human trafficking and irregular immigration. Data may also be transmitted to Europol, albeit, on a case-by-case basis. The cooperation with relevant authorities of third countries is enhanced. The basis remains the conclusion of a working arrangement with the competent authorities regarding border control of a third country. The Agency will have the possibility to provide technical assistance to relevant third countries to increase the level of cooperation.</p> <p>Regarding training, an Erasmus-style exchange programme for national border guards will be created.</p>

2. Commission

Title	2008 EUROSUR roadmap
Full title	<i>Communication examining the creation of a European Border Surveillance System (EUROSUR), COM(2008)68 final of 13 February 2008 (12 pages).</i>
Abstract	Proposal of the Commission to establish EUROSUR in 3 phases, consisting of 8 separate, but interlinked steps, ranging from the setting up of national coordination centres to the creation of a common information sharing environment for the EU maritime domain. The document identifies the 3 main objectives (reducing irregular migration and loss of migrants at sea; combating cross-border crime). Then it presents a general concept how to improve situational awareness and reaction capability of border control authorities, followed by a detailed presentation of the different steps. A preliminary timetable for making EUROSUR operational by 2013 is annexed.

Title	2008 EUROSUR impact assessment
Full title	<i>Impact assessment accompanying the Communication examining the creation of EUROSUR, SEC(2008)151 of 13.2.2008 (97 pages).</i>
Abstract	In the impact assessment the following policy options had been identified: <ol style="list-style-type: none"> 1) A status quo policy option involving no new actions. 2) This option includes four different actions focusing on interlinking and streamlining existing surveillance systems and mechanisms at Member States level. 3) This option comprises the actions listed in option 2 plus four additional actions, which promote the development and implementation of common tools and applications for border surveillance at EU level. 4) This option consists of all actions listed in options 2 and 3 plus one additional action, aiming at the creation of a common information sharing environment for the maritime domain. <p>It was concluded that the preferred policy actions are steps 1 to 7 as proposed under policy options 2, 3 and 4, forming a roadmap for the development of EUROSUR.</p>

Title	2009 EUROSUR progress report
Full title	<i>Report on progress made in developing EUROSUR, Commission staff working paper, SEC(2009)1265 final of 24 September 2009 (11 pages).</i>
Abstract	This document summarizes the progress made in developing EUROSUR from February 2008 until July 2009. For each step identified in the 2008 EUROSUR roadmap, it lists the objectives and measures taking during the reporting period (e.g. programming of External Borders Fund and FP7 for EUROSUR, establishment of expert groups, implementation of EUROSUR technical study) and identifies the next measures to be taken (Frontex' assessments, pilot project for the EUROSUR network).

Title	2010 EUROSUR progress report
Full title	<i>Commission staff working paper determining the technical and operational framework of EUROSUR and the actions to be taken for its establishment, SEC(2011)145 final of 28 January 2011 (11 pages).</i>
Abstract	Like in the 2009 progress report, this document summarizes the progress made under each of the 8 steps of the 2008 EUROSUR roadmap between August 2009 and October 2010. In addition, it identifies the technical and operational framework of EUROSUR and the short-term and long-term actions to be taken for its establishment, including the Commission's intention to table a legislative proposal at the end of 2011.

3. Council

Title	Council Conclusions of 5-6 June 2008
Full title	<i>Council Conclusions on the management of the external borders of the member states of the European Union; 2873rd Justice and Home Affairs Council meeting; Luxembourg, 5 and 6 June 2008.</i>
Excerpts	<p>The Council [...] Regarding EUROSUR</p> <p>21. Welcomes the progress made on the development of the European Patrols Network based on the MEDSEA and BORTEC studies undertaken by FRONTEX.</p> <p>22. Welcomes the Commission's intention to launch, in 2008, the work on elaborating guidelines, together with the Member States, for the tasks of and the cooperation between the national coordination centres and FRONTEX.</p> <p>23. Encourages the Commission to launch immediately a study concerning the key components of the EUROSUR concept, and to analyse concepts of the common application of the surveillance tools and satellites on reliable basis, financial consequences for the introduction of such a system and an assessment to the border surveillance infrastructure in selected third countries on the basis of an evaluation to be carried out by FRONTEX.</p> <p>24. Invites the Commission to give priority in the programming of the 7th Framework Programme for research and development (security and space themes) to improving the performance and use of surveillance tools.</p> <p>25. Requests FRONTEX to participate in the development of the EUROSUR concept, within its existing mandate, including by taking forward the studies referred to in the Commission's Communication on examining the creation of EUROSUR.</p> <p>26. Requests the Commission to report back to the Council in the first half of 2009 on progress made in developing EUROSUR on the basis of the preparatory works carried out, in close cooperation with the Member States and FRONTEX, including with regard to the study to be launched by the Commission concerning the key components of the EUROSUR concept.</p>

Title	Stockholm Programme
Full title	<i>The Stockholm Programme- An open and secure Europe serving and protecting citizens (2010/C 115/01 of 4.5.2010). Compare also Commission Communication titled "Delivering an area of freedom, security and justice for Europe's citizens – Action Plan implementing the Stockholm Programme" (COM(2010)171final of 20.4.2010)</i>
Excerpt	<p>The European Council looks forward to the continued phased development of the European Border Surveillance System (Eurosir) in the Southern and Eastern borders, with a view to putting in place a system using modern technologies and supporting Member States, promoting interoperability and uniform border surveillance standards and to ensuring that the necessary cooperation is established between the Member States and with Frontex to share necessary surveillance data without delay. This development should take into account the work in other relevant areas of the Integrated Maritime Policy for the European Union as well as being able in the medium term to allow for cooperation with third countries. The European Council invites the Commission to make the necessary proposals to achieve these objectives.</p>

Title	Council Conclusions of 25-26 February 2010
Full title	<i>Council Conclusions on 29 measures for reinforcing the protection of the external borders and combating illegal immigration; Justice and Home Affairs meeting, 25-26 February 2010</i>
Excerpts	<p>The Council has agreed:</p> <p>4. To improve operational cooperation with third countries of origin and transit, in order to improve joint patrolling on land and at sea, upon consent of the Member State concerned, return, and collection and exchange of relevant information within the applicable legal framework, and other effective preventive measures in the field of border management and illegal immigration.</p> <p>10. To call on the Member States to implement the phases and steps laid down for the development of EUROSUR as soon as possible, in order to reinforce cooperation and Member States' border surveillance capabilities. The Council invites the European Commission to report on EUROSUR progress on mid-2010.</p> <p>11. To urge relevant Member States to establish or further develop a single national border surveillance system and a single national Coordination Centre. A network of national Coordination Centres, compatible with the FRONTEX Information System, and available on a 24/7 basis in real time, should be fully operational on a pilot basis as of 2011, involving as many Member States of the southern and eastern external borders as possible. The Commission is invited to present legislative proposals if necessary to consolidate the network of Member States by 2013.</p> <p>12. To create a Common pre-frontier intelligence picture in order to provide the Coordination Centres with pre-frontier information provided by Member States, Frontex and third countries. To this end, the Council invites Frontex, in close cooperation with the Commission and the Member States to take the necessary measures to implement the study carried out by the Commission in 2009.</p> <p>13. To encourage cooperation by neighbouring third countries in border surveillance. It is essential that within the territorial scope of EUROSUR and in the current financial framework, financial and logistic support from the European Union and its Member States be made available to the third countries whose cooperation could significantly contribute to controlling illegal immigration flows, in order to improve their capacity to manage their own borders.</p> <p>14. To invite the Commission to report before the end of 2010 on how the conclusions of the Global Monitoring for Environment and Security (GMES) border surveillance group on common application of surveillance tools, such as satellites, could be implemented in the EU land and sea borders.</p> <p>17. To request Frontex and the Member States concerned to further develop the European Patrols Network (EPN) in order to generalize bilateral joint maritime patrols, in particular between neighbouring Member States at the southern and eastern maritime borders, taking into account the experience gained on joint police patrols in the context of the Prüm Decision, and to ensure the full integration of the EPN in the EUROSUR network.</p> <p>18. To encourage Member States to optimise the use of the European External Borders Fund annual programmes for the period 2007-2013 to improve the capabilities of their border guards and the development of EUROSUR, including through the creation and development of the single national coordination centres, and considering the specific situation of the Member States.</p>

Title	Council conclusions of June 2011
Full title	<i>European Council conclusions of 23 and 24 June 2011</i>
Excerpts	Responsibility for the control and surveillance of the external borders lies with the Member States which, in performing this function, are also acting in the common interest of all Member States. In order to ensure that Europe's external borders are effectively managed and that the same standards apply everywhere, all relevant instruments must be used in an optimal manner and be adapted where necessary. The <i>European Border Surveillance System</i> will be further developed as a matter of priority in order to become operational by 2013 and allow Member States' authorities carrying out border surveillance activities to share operational information and improve cooperation.

4. Frontex

Title	MEDSEA study
Full title	<i>MEDSEA feasibility study of 14 July 2006 on the Mediterranean Coastal Patrols Network; prepared by Frontex (99 pages). EU Restricted.</i>
Abstract	The MEDSEA study on the reinforcement of monitoring and surveillance of the southern maritime borders of Member States examines the facilitation of a unified and cost effective cooperation between Member States and third countries, and the possibility of establishing national coordination centres and a network for cooperation and coordination between authorities involved in sea border surveillance.

Title	BORTEC study
Full title	<i>Study on technical feasibility of establishing a surveillance system (European Surveillance System), Warsaw, presented by FRONTEX on 12 January 2007 (106 pages). EU Confidential.</i>
Abstract	The BORTEC study, which examines the technical viability of establishing a surveillance system covering the whole southern maritime border of Member States, describes the maritime areas which need to be covered, the targets and threats to be detected and the systems, technologies and tools to carry out the surveillance.

ANNEX 1.2: National coordination centres (Step 1)

1. Legislation

Title	EBF Strategic Guidelines
Full title	<i>Decision of 27.8.2007 implementing Decision No 574/2007/EC of the European Parliament and of the Council as regards the adoption of strategic guidelines for the External Borders Fund for 2007 to 2013, OJ L233/3 of 5.9.2007.</i>
Excerpt	<p><i>PRIORITY 2: support for the development and implementation of the national components of a European Surveillance System for the external borders and of a permanent European Patrol Network at the southern maritime borders of the EU Member States¹</i></p> <p>This could also include upgrading surveillance systems to locate and identify vehicles, boats and aircrafts correctly.</p> <p>Within this priority, the Community contribution may be increased to 75 % for projects addressing the following specific priorities:</p> <p>(1) investments in establishing or upgrading a single <i>national coordination centre</i>, which coordinates 24/7 the activities of all national authorities carrying out external border control tasks (detection, identification, and intervention) and which is able to exchange information with the national coordination centres in other Member States;</p> <p>(2) investments in establishing or upgrading a single <i>national surveillance system</i>, which covers all or selected parts of the external border and enables the dissemination of information 24/7 between all authorities involved in external border control;</p> <p>(3) purchase and/or upgrading of <i>equipment</i> for detection, identification and intervention at the borders (e.g. vehicles, vessels, aircraft, helicopters, sensors, cameras, etc.), provided the need for this equipment has been clearly identified at European level.</p>

2. Commission

Title:	Summary of Member States' replies to 2008 questionnaire
Full title:	<i>Summary of Member States' replies to questionnaires concerning Steps 1 and 2, REV2, 18.11.2008 (37 pages). Document presented/discussed in EUROSUR Member States' expert group. EU government use only.</i>
Abstract:	<p>Based on detailed Commission questionnaires, 23 Member States provided replies on national border surveillance infrastructure, communication systems and the use of surveillance tools (EUROSUR Steps 1, 2 and 5), including</p> <ul style="list-style-type: none"> ○ description of main scenarios and tasks of border control authorities, ○ National land/maritime border surveillance – status quo and plans; ○ Positions on what is being/should be done by NCCs; ○ Collection, fusion, analysis and dissemination of information in operational pictures. <p>The summary document provides an overview of the status quo in the Member States with regard to border surveillance and planning until 2013. The main findings are:</p> <ul style="list-style-type: none"> ○ While land border surveillance is carried out by border guards, many different authorities (e.g. navies) are involved in maritime border surveillance.

¹

A 2010 internal evaluation of the 2007-2009 annual programmes has shown that about 45% of the EBF funding is being spent for Priority 2.

	<ul style="list-style-type: none"> ○ All 18 MS concerned will upgrade/extent their border surveillance systems until 2013, with considerable investments. ○ NCC needs no detailed information, but only generic picture. ○ Currently big differences between NCCs on extent of information collection. ○ Whenever NCCs do data analysis, they also include intelligence. ○ Currently, only a few NCCs have a common situational picture. ○ All NCCs coordinate surveillance activities, but only a few have C2 functions. ○ Majority of MS think NCCs should have ISR and NEC functions. <p>The main findings concerning Step 2 (EUROSUR network) are:</p> <ul style="list-style-type: none"> ○ Member States have secured their national communication systems, but communication channels with 3rd countries are in an early phase. ○ Input on which information should be exchanged between neighbouring NCCs, all NCCs as well as with Frontex (compare EUROSUR guidelines).
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Title:	2010 EUROSUR guidelines
Full title:	<i>REV1 version of 23.11.2010 with 69 recommendations (17 pages). Elaborated on the basis of the "Discussion paper on tasks of and the cooperation between NCCs" (REV2, 10.3.2009). Document /presented/discussed in EUROSUR Member States' expert group.</i>
Abstract:	<p>The guidelines, which serve as a tool to consult Member States on the main elements of the 2011 legislative proposal , are structured as follows:</p> <ul style="list-style-type: none"> ○ <i>Objective and scope</i> of EUROSUR ○ <i>Technical framework</i>: Definitions and requirements for national coordination centres, national border surveillance system, Frontex and the EUROSUR network ○ <i>Operational framework</i> <ul style="list-style-type: none"> ✓ <i>Situational awareness</i>: Definitions of the national and European situational pictures and the common pre-frontier intelligence picture ✓ <i>Information management</i>: General principles and definition of information exchange categories between neighbouring and all national coordination centres as well as with FRONTEX. ✓ <i>Reaction capability</i> ○ <i>Common provisions</i> on role of local, regional and other centres and on information exchange with neighbouring third countries

Title:	EUROSUR Management concept
Full title:	<i>Prepared by an external contractor as part of the EUROSUR technical study.² ESG doc. 1JLS-BT-0012, 19.1.2010, Version 03.03 of 18.2.2010 (133 pages). Document presented/discussed in EUROSUR Member States' expert group.</i>
Abstract:	<p>This concept contains a model for the overall management of border surveillance activities and information, covering situational awareness, reaction capability and effect measurement at tactical, operational and strategic level. It interlinks the different tools developed under <u>Steps 1, 2 and 6</u> (NCCs, network, CPIP) and contains a detailed definition of the local situational</p>

² Technical study on developing concepts for border surveillance infrastructure, a secure communication network and a pre-frontier intelligence picture within the framework of a EUROSUR (EUROSUR technical study). Main contractor: ESG. Subcontractors: EADS, SELEX, Thales. Consultants: SECUNET, University of the German Federal Army. Budget: M€1, 8. The study was funded under the External Borders Fund.

	<p>picture/SP (LCC), the national SP (NCC), the European SP and the CPIP (Frontex). It contains a thorough description of roles and tasks of LCCs and NCCs, including how NCCs should attribute 3 impact (threat) levels to border sections (green – low impact, orange – medium impact, red – high impact). It also contains a description for the reaction capability management model. The concept serves as a major input for the revised EUROSUR guidelines.</p>
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Title:	EUROSUR technical concepts for national surveillance systems and NCCs
Reference:	<i>Prepared by an external contractor as part of the EUROSUR technical study. ESG doc. IJLS-BT-0011, 19.1.2010, Version 01.01 (230 pages). Document presented/discussed in the EUROSUR Member States' expert group. Partly for EU government use only.</i>
Abstract:	<p>The technical concepts should serve as cost-effective and manufacturer independent design tool respectively as minimum/optimum requirements for Member States when extending/upgrading their national border surveillance systems and setting up their NCCs. In particular, they should enable a national planning authority to divide its border area into <i>phenotypical border segments</i>, evaluate the types of system segments needed, select the available modules from the library and tailor them to its needs before tendering (<i>tool box</i>).</p> <p>For this purpose, 33 relevant border segments – a part of the border with similar terrain conditions - have been identified and the basic technical details and cost estimates elaborated.</p> <p>Discussions in the EUROSUR Member States' expert group have shown that the technical concepts developed by the external contractor (industry) are not specific enough to be used as binding technical requirements for border surveillance.</p>

Title:	Summary of Member States' comments to EUROSUR concepts
Reference:	<i>Summary of comments from Member States on the different concepts for Steps 1, 2, 5 and 6 of the EUROSUR roadmap, 30.10.2009 (31 pages). Document presented/discussed in EUROSUR Member States' expert group. For EU government use only.</i>
Abstract:	<p>Document lists in its five annexes detailed comments from Member States and Frontex with regard to:</p> <ul style="list-style-type: none"> • Annex 1 – General comments • Annex 2 – Comments on the technical border surveillance concepts (Step 1) • Annex 3 – Comments on the EUROSUR network (Step 2) • Annex 4 – Comments on the GMES concept paper (Step 5) • Annex 5 – Comments on the CPIP (Step 6)

3. Frontex

Title:	Frontex situation centre (FSC) business concept
Full title:	<i>22 April 2008, 46 pages. For internal use only.</i>
Abstract:	The business concept describes the legal and security framework of the FSC, defines its mission, business functions, objectives, tasks, products, services and roles and identifies potential customers and suppliers, including information flows and business processes.

Title:	Assessment of the EU external borders in light of EUROSUR
Full title:	<i>Frontex, Assessment of the EU external borders of the Member States in the light of EUROSUR development, October 2009 (36 pages). Document presented/discussed in EUROSUR Member States' expert group. EU Restricted.</i>
Abstract:	<p><i>Risk assessment</i> determining those parts of the external borders to be covered by a (stationary) surveillance system, including a comparison of this assessment with the plans presented by the Member States in the context of the EBF.</p> <p>As outcome of the risk assessment, six Member States with maritime borders (Greece, Italy, Spain, Malta, Cyprus, Bulgaria) and seven Member States with land borders (Greece, Bulgaria, Spain, Hungary, Poland, Slovakia, Romania) would benefit from setting up permanent surveillance systems in certain areas. These areas include:</p> <ul style="list-style-type: none"> ○ <i>Maritime borders:</i> Greek maritime borders in Aegean and Mediterranean Sea, Italian islands of Sicily, Sardinia and Pelagic Islands (Lampedusa, Linosa and Lampione), Spanish coast between Alicante and Cadiz, Canary Islands, entire coast of Malta, southern coast of Cyprus, entire Black Sea coast of Bulgaria and Romania. ○ <i>Land borders:</i> Greek land borders with Albania, FYROM and Turkey; land border between Bulgaria and Turkey; Hungarian land border with Serbia; all MS land borders with Ukraine (Poland, Hungary, Romania and Slovakia). <p>A (brief) <i>analysis of the MS plans</i> for the EBF has shown that they match to a very large extent with the risk assessment. A few border sections have been identified (e.g. northern maritime border between Greece and Turkey) with would benefit from further improvements.</p> <p>Furthermore, border sections have been identified for which MS have implemented or plan surveillance systems not needed according to the risk assessment (at least as far as illegal migration is concerned; however, surveillance might be needed for other purposes, e.g. narcotics trafficking).</p>

ANNEX 1.3: EUROSUR network (Step 2)

1. Commission

Title:	EUROSUR network architecture
Reference:	<i>Prepared by an external contractor as part of the EUROSUR technical study. ESG doc. 1JLS-BT-0021, 19.1.2010, Version 2.0 (78 pages). Document presented/discussed in the EUROSUR Member States' expert group. Partly for EU government use only.</i>
Abstract:	<p>The EUROSUR network architecture foresees that connecting the NCCs can be started with minimum effort and investments and extended in increments, i.e. after basic installation steps the network can be extended to further NCCs, higher security levels etc. The information exchange requirements (IER) between different NCC types and FRONTEX have been defined.</p> <p>The following requirements have been covered: 24/7 close-to-real time communication, audio and video conference channels, secure handling of classified information, bilateral and multilateral information dissemination.</p> <p>Thus the network will provide four major functionalities: Communication, information sharing, coordination, exchange of situational pictures.</p> <p>While the concept was initially based on using S-TESTA as the transportation layer, following the failure of negotiations with the S-TESTA framework contractor it has been adapted to the internet solution with encryption devices.</p>

Title:	EUROSUR network IT Security Framework
Reference:	<i>Prepared by an external contractor as part of the EUROSUR technical study. ESG doc. 1JLS-BT-0021, 19.1.2010, Version 2.0 (78 pages). Document presented/discussed in the EUROSUR Member States' expert group. Partly for EU government use only.</i>
Abstract:	<p>This concept shows aspects to be considered when upgrading the EUROSUR network to a classification level higher than EU RESTRICTED.</p> <p>Frontex must be able to obtain for the ESP and CPIP researchable overviews of information managed by the NCCs in the NSPs without directly receiving specific details and while guaranteeing national security regulations of the NCCs. Detailed security-relevant information must be made accessible while ensuring that data is separated and securely verified (need-to-share requirement).</p> <p>The requirements described in this document represent the minimum requirements that all NCCs and Frontex must fulfil so that information can be exchanged in the network. It includes only the basic design guidelines for creating secure procedures for exchanging and verifying information.</p> <p>A detailed specification of the actual architecture, processes and security components is carried in the Frontex-led pilot project for the EUROSUR network (see below).</p>

Title:	Specifications for and results of "mini-pilot" on EUROSUR network
Reference:	<i>Prepared by an external contractor as part of the EUROSUR technical study. Specifications: ESG doc. IJLS-SK-0032, 12.11.2009 Version 1.3 (28 pages). Summary of results: ESG, 9.12.2009 Version 1.0 (185 pages). Documents presented/discussed in EUROSUR Member States' expert group. Partly for EU government use only.</i>
Abstract:	<p>During the EUROSUR technical study, a “mini-pilot” was carried out with Finland, Poland and Slovakia (for land borders) as well as with France, Italy and Spain (for maritime borders) in November 2009 to test in test beds provided by industry possible applications for the EUROSUR network and the CPIP. Another 9 MS followed the demo. The following scenarios elaborated by MS were tested in test beds provided by industry in Warsaw/Frontex (ESG), Rome (SELEX) and Toulouse (THALES):</p> <ol style="list-style-type: none"> 1) Cross-border crime across the green border (terrorist strike) 2) Irregular migration across the green border (Chechen woman) 3) Irregular migration and search & rescue across the maritime domain (Central Mediterranean)

2. Frontex

Title:	Specifications for "big-pilot" on EUROSUR network
Full title:	<i>Frontex, EUROSUR pilot project – Terms of reference (Annex II, 24 pages). Document presented/discussed in EUROSUR pilot subgroup.</i>
Abstract:	<p>Coordinated and funded by Frontex, the same six Member States participating in the "mini-pilot" were preparing in the <i>EUROSUR pilot subgroup</i> the “big pilot” launched in November 2010. The “big pilot” will be extended from 6 to 18 Member States in 2012. The pilot project consists of four phases:</p> <ol style="list-style-type: none"> 1. Firm <i>Phase I</i> consists of the establishment of ‘information trade’ agreements and the drafting of information exchange models to materialize those exchanges. Information to be exchanged and preliminary ideas on data exchange structures will be defined by the EUROSUR pilot project subgroup. These initial ideas should be enhanced and extended by the contractor and used to define the SOA Architecture, the Service Bus and its supporting Security Schema. 2. Optional <i>Phase II</i> consisting of the definition, implementation, and validation of a First core EUROSUR node. The node should be set up in Frontex premises and should include basic Geographic Information System to present and exploit the information contained in the node database. 3. Optional <i>Phase III</i> consisting of the replication of the already validated First Node in each of the participant NCCs (ES, FI, FR, IT, PL, SK), the deployment of the Service Bus with its corresponding security schema, and the deployment and testing of the Web Services Interface. 4. Optional <i>Phase IV</i> consisting of the enhancement and extension of the SOA and Visualization interfaces to cope with new users’ requirements which may be agreed until the end of the contracting period.

Title:	EUROSUR data model
Full title:	<i>Frontex, Incident/Event Catalogue and some aspects of the visualisation policy for the EUROSUR big pilot project. Working draft of 1.10.2010 (21 pages). Document presented/discussed in EUROSUR pilot subgroup.</i>
Abstract:	<p>In order to support extensible ‘information trade’ between NCCs and Frontex in the pilot project on the EUROSUR network, a basic Geographical Information System (GIS) will be put in place in each node, which supports: (a) storing, (b) managing, (c) sharing, (d) searching, and (e) visually representing geographically referenced information. This document presents a draft proposal of incident/event types and their description, which are related to border security and on which the participating nodes could share information.</p> <p>In Section 2 an event type hierarchy accompanied by corresponding icons for visualization is presented. Subsequently, Section 3 includes some details regarding incident/event description templates. Finally, in Section 4 some aspects of visualization policy relevant in the context of implementing the basic Geographical Information System are addressed.</p>

ANNEX 1.4: Cooperation with neighbouring third countries (Step 3)

Title:	Assessment of third countries in the light of the EUROSUR
Full title:	<i>Frontex, Assessment of third countries in the light of the EUROSUR development, November 2009 (72 pages). Document presented/discussed in EUROSUR Member States' expert group. EU Restricted.</i>
Abstract:	<p>In 2009, Frontex missions took place to Senegal and Moldova, whereas Tunisia declined a on-the-spot visit.</p> <ul style="list-style-type: none"> ○ In <i>Senegal</i>, existing equipment for border surveillance is basic and border controls are hampered by lack of technical infrastructure and lack of funding for maintenance and running costs. The most needed equipment is for the maritime surveillance sector, including a patrol boat on the model of the Spanish boat deployed in Senegal in the framework of SEAHORSE. ○ In <i>Tunisia</i>, various types of equipment for maritime and land border surveillance are needed. ○ Substantial assistance has already been delivered to the border guards of <i>Moldova</i> through the EUBAM programme. A specific need concerns surveillance towers along the border with Romania that would facilitate detections. Moldova also expressed need for equipment at border crossing points where most of illegal migration to the EU takes place.

ANNEX 1.5: Research and Development (Step 4)

The 7th Framework Programme for Research and Technological Development (FP7; B€50,5 for 2007-2013) consists of five *specific programmes* (cooperation, ideas, people, capacities, nuclear research). The *cooperation* represents 2/3 of the budget (B€32,4) and is carried out in ten key thematic areas, of which two (*space* and *security* themes) are relevant for EUROSUR.

The *Security Theme* (B€ 1,4) has an exclusively civil application focus with four *security missions* (security of citizens, security of infrastructures and utilities, *intelligent surveillance and border security*, restoring security in case of crisis) and three *cross-cutting missions* (security systems integration, interconnectivity and interoperability; security and society; security research coordination and structuring). Research is done via *capability* (2-4 years, FP7 funding up to M€3,5), *integration* (4 years, over M€3,5) and *demonstration projects* (5 years, over M€ 20). With the exception of demonstration projects, FP7 funding can be increased from usually 50% to up to 75% in cases with "very limited market size and a risk of market failure, and for accelerated equipment development in response to new threats".

A number of border surveillance projects such as AMASS, GLOBE, OPERAMAR, TALOS and WIMASS started to deliver first results which shall be taken into account when developing EUROSUR. Further relevant projects have been launched just recently, such as OPARUS, and specifically on maritime border surveillance SEABILLA, I2C and PERSEUS.

AMASS stands for "Autonomous MARitime Surveillance System", proposing an array of autonomous, automated surveillance platforms with sensors. The project started on 1 March 2008 and lasts for 42 months. It has a budget of M€4, 9.

GLOBE stands for "GLOBAL Border Environment", proposing a comprehensive framework for integrated border management. The project started on 1 July 2008 and lasted one year. It had a budget of almost M€1.

OPERAMAR stands for "An interoperable approach to EU maritime security management", addressing the interoperability of European and national assets in maritime security. The project started on 1 March 2008 and lasted for 15 months. It had of budget of EUR 669 000.

TALOS stands for "Transportable autonomous patrol for land border surveillance", proposing the use of unmanned ground and air vehicles. The project started on 1 June 2008 and runs for 4 years. It has a budget of M€19,9.

WIMASS stands for "Wide maritime area airborne surveillance", aiming in particular at preparing the use of unmanned aerial vehicles. The project started on 1 December 2008 and runs for 36 months. It has a budget of M€3,9.

OPARUS stands for "OPen ARchitecture for Unmanned Aerial Vehicle-based Surveillance system", proposing an open architecture for unmanned border surveillance platforms. The project started on 1 September 2010 and runs for 18 months. It has a budget of M€1,18.

SEABILLA stands for "Sea border surveillance"., aiming at defining the architecture for systems integrating space, land, sea and air assets. The project started on 1 June 2010 and will run for 45 months. It has a budget of M€15,5.

I2C stands for "Integrated System for interoperable sensors and information sources for common abnormal vessel behaviour detection and collaborative identification of threat". The project started on 1 September 2010 and will run for 4 years. It has a budget of M€15,9.

PERSEUS stands for "Protection of European seas and borders through the intelligent use of surveillance". It aims at implementing a large scale demonstration of a surveillance system of systems, integrating existing platforms and enhancing them with innovative capabilities. The project started on 1 January 2011 and will run for 54 months. It has a budget of M€43,6.

Representatives (industry) from selected projects are regularly participating in the Frontex-chaired *FP7 implementation group on maritime border surveillance*.

ANNEX 1.6: Common application of surveillance tools (Step 5)

GMES (Global Monitoring for Environment and Security) is a joint initiative of the European Commission and the European Space Agency (ESA), which aims at achieving an autonomous and operational Earth observation (EO) capacity. The objective is to rationalize the use of multiple-sources data to get a timely and quality information, services and knowledge, and to provide autonomous access to information in relation to environment and security.

Following a seminar on the Security dimension of GMES in March 2007, support to border surveillance, maritime surveillance and to EU external actions have been identified as priorities. The *GMES border surveillance group* prepared the following two documents:

Title:	GMES concept in support to EUROSUR
Full title:	<i>Report of the GMES border surveillance group: Support to EUROSUR/border surveillance, V1.0 of 3.12.2009, 95 pages. Document presented/discussed in the EUROSUR Member States' expert group. For EU government use only.</i>
Abstract:	This concept focuses on the use of satellites and other surveillance tools for the tracking of vessels over high seas and the punctual monitoring of neighbouring third country ports and coasts, which are known as departure points for irregular migration and narcotics trafficking. It also includes a technical overview of surveillance sensors, capabilities and platforms, including unmanned aerial vehicles (UAVs) and satellites, as well as on the applicability of technology to different operational scenarios.

Title:	GMES CONOPS for EUROSUR
Full title:	<i>GMES Concept of Operations for the common application of surveillance tools at EU level in the context of EUROSUR. Version 2.3 of 29.6.2011 (62 pages). Document presented/discussed in the EUROSUR Member States' expert group. For EU government use only.</i>
Abstract:	<p>The purpose of the CONOPS is to provide a <i>high level conceptual description</i> of possible <i>services</i> for the <i>common applications of surveillance tools at EU level</i> (satellites, UAVs, aerostats, etc), allowing Frontex to provide NCCs via the EUROSUR network with surveillance information on their external borders and the pre-frontier area on a frequent, reliable and cost-efficient basis. These services should be established gradually.</p> <p>The different land and maritime surveillance phases identified in the 2009 concept have been used to structure the different possible <i>services</i> to be provided to the strategic, operational and tactical level. Frontex should act as a <i>facilitator</i>, taking advantage of systems and capabilities already set up by the European Maritime Safety Agency (EMSA) and the EU Satellite Centre (EUSC).</p> <p>The present version of the CONOPS is "work in progress" and will still be further developed by the <i>GMES border surveillance group</i>. Besides testing the CONOPS between Frontex, EMSA and the EUSC, FP7 projects (e.g. SIMITSYS, DOLPHIN, NEREIDS) will be used for testing selected components.</p>

ANNEX 1.7: Common Pre-frontier Intelligence Picture (Step 6)

Title:	EUROSUR CPIP concept
Full title:	<i>Prepared by an external contractor as part of the EUROSUR technical study. ESG doc. 1JLS-BT-0031, 19.01.2010, Version 2.0 (136 pages). Document presented/discussed in the EUROSUR Member States' expert group. For EU government use only.</i>
Abstract:	<p>This concept provides a definition of the CPIP, including an analysis of relevant source data and software components. It divides the CPIP into <i>4 components</i>:</p> <ul style="list-style-type: none"> • <i>Operational information</i>: E.g. detected targets and movements. • <i>Strategic key information</i>: E.g. factors for illegal migration, trends, routes, methods. • <i>Knowledge base</i>: Formalised description of vocabulary and methods, such as categorisation of vessel types including size, speed; description of typical scenarios etc. • <i>Basic geodata</i>: E.g. topographic/thematic maps, digital elevation model, nautical charts. <p>The document proposes to generate the CPIP in <i>7 processing steps</i>:</p> <ol style="list-style-type: none"> 1) <i>Consistency check</i> (automatic check of consistency and completeness during/after user input before being sent to Frontex); 2) <i>Content evaluation, consistency and plausibility check</i> (by Frontex); 3) <i>Data fusion, integration and analysis</i> (combining data from multiple sources into a common data model to detect patterns/anomalies and test hypotheses); 4) <i>Knowledge based processing</i> (analysis with support of concepts and methods described in the knowledge base); 5) <i>Knowledge discovery</i> (e.g. tactics not yet described in knowledge base); 6) <i>CPIP generation and visualisation</i> (situational picture, 2D and 3D) 7) <i>Tasking functions</i> (in case data is missing, to confirm unreliable data) <p>The CPIP generated by Frontex is then disseminated on a need-to-know basis via the EUROSUR network to the NCCs.</p> <p>The concept also contains a <i>reference architecture</i> (RA) for intelligence systems and applications interoperability, technical standards and common infrastructure elements and furthermore specifies the HW/SW components and their functionalities.</p>

Title:	Concept for the management and generation of the CPIP
Full title:	<i>Frontex internal document, version 1.0 of August 2011 (11 pages).</i>
Abstract:	The document provides an operational overview of the EUROSUR Common Pre-Frontier Intelligence Picture (CPIP) as well as the steps of their generation process along with human resources requirements and cost estimates for hardware and software. According to this document, the CPIP shall be set up as described in the table below.

Layer	Sublayers	Provided as of	Managed by
Event layer	Irregular migration (Illegal border crossing, incidents related to facilitators)	2012	Frontex Situation Centre (FSC)
	Related cross-border crime	2012	
	Crisis	2012	
Operational layer	Joint Operation - Area of operations	2012	
	Own assets	2013	
	Environmental Information (Weather, currents, wave height)	2013	
Analysis layer	Information	2013	Frontex Risk Analysis Unit (RAU)
	Analytical	2013/ 2015	
	Intelligence Picture	2013	
	Imagery and geo-data	2013/2015	

ANNEX 1.8: Common information sharing environment for internal security purposes covering the southern maritime borders (Step 7)

Title:	Internal Security Strategy Communication
Full title:	<i>Communication on the EU Internal Security Strategy in Action: Five steps towards a safer Europe, COM(2010)673 final of 22 November 2010.</i>
Excerpt	Reference to Step 7 is made on page 12: In recent years, two major initiatives on operational cooperation at the maritime borders have been launched – one on human trafficking and human smuggling under the umbrella of Frontex and the second on drugs smuggling in the framework of MAOC-N ³ and CeCLADM ⁴ . As part of the development of integrated and operational action at the EU’s maritime border, the EU will launch in 2011 a pilot project at its southern or south-western border, involving those two centres, the Commission, Frontex and Europol. This pilot project will explore synergies on risk analysis and surveillance data in common areas of interest concerning different types of threats, such as drugs and people smuggling. ⁵

Title	Joint Operation INDALO
Reference	<i>Frontex Joint Operation implemented from 9 May until 31 October 2011.</i>
Abstract	Hosted by Spain, Frontex and selected Member States are carrying a pilot project with EUROPOL, CeClad-M and EMSA. EMSA will provide analyzed satellite images in order to discover targets of interest in the areas used by criminal networks on their voyages towards EU as well as the pictures of pollution. Europol cooperates through the exchange of information and intelligence. CeClad-M provides its updated “vessel of interest” list.

³ MAOC-N - Maritime Analysis and Operations Centre – Narcotics.

⁴ CeCLAD-M - Centre de Coordination pour la lutte antidrogue en Méditerranée.

⁵ This project will complement the other integrated maritime surveillance projects such as BlueMassMed and Marsuno, which aim to optimise the efficiency of maritime surveillance in the Mediterranean Sea, Atlantic and the northern European sea basins.

EUROSUR technical expert groups

Step	Component	Name of expert group	Chaired by	Experts from	Established /started in	No. of meetings	Main results
1	National coordination centres	EUROSUR Member States' expert group	HOME	Member States, Frontex.	June 2008	13	Coordination of all steps. EUROSUR guidelines.
2	EUROSUR network	EUROSUR pilot expert group	Frontex	Member States, Commission.	November 2009	12	EUROSUR data model. Specifications for & establishment of EUROSUR network.
3	Cooperation with third countries	COSI measure 4 working group	Spain	Selected Member States, Commission.	November 2010	3	Specifications for the establishment of the SEAHORSE Mediterraneo network.
4	Research & development (FP7)	FP7 Implementation group on maritime border surveillance	Frontex	Industry, Commission.	September 2010	5	Coordination of the use of selected FP7 projects for testing and validating EUROSUR components.
5	Common application of surveillance tools	GMES border surveillance group	ENTR/ HOME	Frontex, EMSA, EUSC, ESA, EDA.	February 2008	12	2009 GMES concept in support to EUROSUR 2011 Concept of Operations for the common application of surveillance tools
6	Common pre-frontier-intelligence picture	COSI measure 12 working group Frontex Risk Analysis Network	Poland Frontex	Member States, Commission	In context of FRAN June 2010	- 3	Development of CPIP components.

EUROSUR In scope	EUROSUR Out of scope
<ul style="list-style-type: none"> • Border surveillance 	<ul style="list-style-type: none"> • Border checks at border crossing points
<ul style="list-style-type: none"> • External borders of Schengen countries • Geographical area beyond the territory/external border of Schengen countries (pre-frontier area) with main focus on neighbouring third countries 	<ul style="list-style-type: none"> • Internal borders; Green line (Cyprus) • Territory of EU Member States and associated countries
<ul style="list-style-type: none"> • Collection of data and information relevant for the prevention of irregular migration and cross-border crime at EU external borders 	<ul style="list-style-type: none"> • Collection of data and information relevant for the prevention of irregular migration and cross-border crime inside the territory of EU Member States
<ul style="list-style-type: none"> • Surveillance of land borders 	<ul style="list-style-type: none"> • Surveillance of air borders
<ul style="list-style-type: none"> • Surveillance of maritime borders 	<ul style="list-style-type: none"> • Underwater surveillance (defence)
<ul style="list-style-type: none"> • Border surveillance in neighbouring third countries 	<ul style="list-style-type: none"> • Border surveillance in third countries with no impact on EU external borders (e.g. Australia)
<ul style="list-style-type: none"> • Eastern and southern Schengen external borders 	<ul style="list-style-type: none"> • Northern Schengen external borders (at later stage) • External borders of UK and Ireland
<ul style="list-style-type: none"> • Monitoring, detection, identification, tracking & interception of targets 	<ul style="list-style-type: none"> • Asylum • Readmission; Return
<ul style="list-style-type: none"> • Protect and save lives at the external borders 	<ul style="list-style-type: none"> • Search and Rescue; Defence

Responsibilities and competences of national coordination centres (September 2011)⁶

Country	Year of operation	Surveillance				Coordination					Command and control	Policy option
		Maritime	Air	Land	Border checks	Other national authorities	3rd countries	LCCs/RCCs	Other NCCs	FX		
Belgium	2007	Y	N	N/A	N	Y	Y	N	Y	Y	N	PO1.1
Bulgaria	2010	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	PO1.3
Cyprus	2010 ⁷	Y	N	N/A	N	P	N	N	P	P	Y	PO1.2
Germany	2008	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	PO1.3
Denmark	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Estonia	2009	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	PO1.3
Greece	2013	P	P	P	N	P	P	N	P	P	P	PO1.2
Spain	2009	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	PO1.2
Finland	2005	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	PO1.3
France	2010	Y	N	N	Y	Y	N	Y	Y	N	N	PO1.1
Hungary	2011	N/A	P	Y	Y	Y	P	Y	P	P	Y	PO1.2
Iceland	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Italy	2011	Y	Y	N	Y	Y	P	P	Y	Y	N	PO1.1
Lithuania	2011	P	P	P	P	P	P	P	P	P	P	PO1.3
Latvia	2007 ⁸	Y	P	Y	Y	Y	Y	N	Y	Y	Y	PO1.3
Malta	2008	Y	N	N	N	Y	Y	Y	Y	Y	Y	PO1.2
Netherlands	2011	Y	N	N	Y	Y	N	Y	N	N	N	PO1.1

⁶ Key to coding: NR = No response; P=Planned; Y=Yes; N=No; N/A = Not applicable

⁷ Planned to be fully operational from 2011.

⁸ Planned to be fully operational from 2011.

Country	Year of operation	Surveillance				Border checks	Coordination					Command and control	Policy option
		Maritime	Air	Land	Other national authorities		3rd countries	LCCs/RCCs	Other NCCs	FX			
Norway	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Poland	2010	P	P	P	P	Y	Y	Y	Y	Y	N		PO1.1
Portugal	2009	P	P	P	Y	Y	Y	Y	Y	Y	P		PO1.3
Romania	2010	Y	N	N	N	Y	Y	Y	Y	Y	Y		PO1.2
Sweden	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Slovenia	2007	Y	N	N/A	Y	Y	Y*	Y	N	N	Y		PO1.2
Slovakia	2007	N/A	N	Y	Y	Y	Y	Y	P	P	Y		PO1.2

* Although the Slovenian reply to the NCC questionnaire indicates that it does not coordinate with other NCCs, it does coordinate with the Italian LCC in Trieste.

Overview of coordination of the NCCs with other national authorities and third countries⁹

Country	Responsible authority for the NCC	Coordination at national level					Coordination with third countries
		Ministry of interior / Police / Border Guards	Maritime authorities	Ministry of Defence / military bodies	Ministry of economics and customs	Others	
Belgium	MIK – coast guards	FPS interior Maritime and river police; Federal police	VLOOT - Fleet	Ministry of Defence; Navy	FPS Economy; FPS Finance, Customs	FPS foreign affairs; International environment policy; Sea Fisheries service; FPS Mobility and transport; FPS Public Health, Food Chain Safety and Environment; FPS Sustainable Development; FPS Science policy	all European EU-countries via MOC
Bulgaria	Ministry of Interior, Chief Directorate Border Police	Police	N	Armed forces	Customs	Veterinary Services	Serbia, FYROM, Turkey, Ukraine, Russia, Georgia
Cyprus	Cyprus Police - (Port and Marine Police Unit)	Different Police Units, Marine Police, Airwings, Aliens Department	N	N	N	N	N
Denmark	NR	NR	NR	NR	NR	NR	NR
Estonia	Police and Border Guard Board authorities	Y	Maritime administration	N	Tax and Customs Board;	Environmental Board	Russian Federation
Finland	Finnish Border Guard	Police	Maritime Authorities	Defence Forces	Customs,	Other ministries	Y

⁹ Key to coding: NR = No response; P=Planned; Y=Yes; N=No; N/A = Not applicable

Country	Responsible authority for the NCC	Coordination at national level					Coordination with third countries
		Ministry of interior / Police / Border Guards	Maritime authorities	Ministry of Defence / military bodies	Ministry of economics and customs	Others	
France	General Secretary of the Sea Service du Premier Ministre)	Border Police, Gendarmerie,	Affaires maritimes, Gendarmerie maritime,	Navy	Customs,	Civil protection, Préfectures Maritimes.	N
Greece	Ministry of Citizen Protection	Coast Guard	NR	NR	NR	NR	Albania, FYROM, Turkey, Egypt
Hungary	Police	Police	N	N	Customs	N	Ukraine, Serbia
Germany	Federal Police (Bundespolizei)	Federal Criminal Office (BKA), State Police Authorities, Domestic Intelligence Service (BfV)	NR	Armed Forces.	Customs,	Foreign Intelligence Service (BND), etc.	N
Iceland	NR	NR	NR	NR	NR	NR	NR
Italy	Ministry of Interior	Carabinieri, Coast Guard	N	Navy,	Guardia di Finanza	N	North African Countries
Latvia	State Border Guard	State Police, State	N	Ministry of defence/ MRCC centre	Custom	Fire & Rescue Service	Russian Federation, Republic of Belarus
Lithuania	State Border Guard Service	Police	N	Navy	Customs	N	Russian Federation, Republic of Belarus
Malta	Armed Forces of Malta	Police	N	N	N	Transport authorities	Worldwide
Netherlands	Min. of Home affairs and Kingdom relations	Royal Marechaussee (border police), Police (Sea Port Police)	N	N	Customs	Other (enforcement) agencies regarding SAR, environment, routing, health/food	N
Norway	NR	NR	NR	NR	NR	NR	NR

Country	Responsible authority for the NCC	Coordination at national level					Coordination with third countries
		Ministry of interior / Police / Border Guards	Maritime authorities	Ministry of Defence / military bodies	Ministry of economics and customs	Others	
Poland	Chief of Polish Border Guards	Police, Internal security agency	N	Army	Custom,	Phyto-sanitary service	Mainly Russia, Belarus & Ukraine
Portugal	SEF	NR	NR	NR	NR	NR	YES (Undetermined)
Romania	Romanian Border Headquarters	Police, other structures within the Ministry of Administration and Interior	Romanian Naval Authority (Harbour Master, MRCC, VTS), Port administration,	Naval Forces,	Customs	National Agency for Fishing and Aquaculture,	Turkey, Georgia, Russian Federation, Ukraine
Sweden	NR	NR	NR	NR	NR	NR	NR
Slovakia	Presidium of police force	Y	N	N	Customs	N	Ukraine
Slovenia	Ministry of Interior - Police	Y	Maritime Administration, Port of Koper authorities	Navy,	Customs,	Environmental Agency,	Italian LCC (Trieste) within FRONTEX EPN
Spain	Guardia Civil	Police	SASEMAR	Navy	Customs	N	Morocco, Mauritania, Senegal, Cape Verde, Gambia, G. Bissau, Algeria

Classification level of information shared in NCCs

Member State	Currently shared (Sept 2011)	Planned to be shared
Belgium	Up to 'Top Secret'	Up to 'Top Secret'
Bulgaria	Protected, but unclassified	Up to 'Confidential'
Cyprus	Protected, but unclassified	Up to 'Restricted'
Germany	Up to 'Restricted'	Up to 'Top secret'
Denmark	—	—
Estonia	Up to 'Restricted'	Up to 'Confidential'
Greece	Up to 'Top secret'	Up to 'Top secret'
Spain	Up to 'Secret'	Up to 'Secret'
Finland	Up to 'Secret'	Up to 'Secret'
France	Protected, but unclassified	Protected, but unclassified
Hungary	Up to 'Restricted'	Up to 'Confidential'
Iceland	—	—
Italy	Only unclassified	Up to 'Restricted'
Lithuania	Protected, but unclassified	Up to 'Confidential'
Latvia	Protected, but unclassified	Up to 'Restricted'
Malta	Only unclassified	Up to 'Restricted'
Netherlands	Up to 'Restricted'	Up to 'Restricted'
Norway	—	—
Poland	Up to 'Restricted'	Up to 'Restricted'
Portugal	Up to 'Secret'	Up to 'Secret'
Romania	Only unclassified	Up to 'Restricted'
Sweden	—	—
Slovenia	Protected, but unclassified	Up to 'Confidential'
Slovakia	Up to 'Confidential'	Up to 'Confidential'

Data handling practices of NCCs with respect to personal data¹⁰

Country	Does NCC handle personal data for border surveillance		Does NCC handle personal data for purposes other than border surveillance	
	Currently	Planned	Currently	Planned
Belgium	NR	NR	NR	NR
Bulgaria	Y	NR	Y	NR
Cyprus	Y	NR	Y	NR
Germany	Y	NR	Y	NR
Denmark	Y	N/A	Y	N/A
Estonia	Y	N/A	Y	N/A
Greece	N	NR	N	NR
Spain	Y	N/A	Y	N/A
Finland	NR	NR	NR	NR
France	N	NR	N	NR
Hungary	N	Y	N	Y
Iceland	NR	NR	NR	NR
Italy	N	NR	N	NR
Lithuania	N	N	N	NR
Latvia	NR	NR	NR	NR
Malta	N	N	N	N
Netherlands	NR	NR	NR	NR
Norway	NR	NR	NR	NR
Poland	NR	NR	NR	NR

¹⁰ Key to coding: NR = No response; Y=Yes; N=No; N/A = Not applicable

Country	Does NCC handle personal data for border surveillance		Does NCC handle personal data for purposes other than border surveillance	
	Currently	Planned	Currently	Planned
Portugal	NR	NR	NR	NR
Romania	Y	N/A	Y	N/A
Sweden	NR	NR	NR	NR
Slovenia	Y	N/A	Y	N/A
Slovakia	Y	N/A	Y	N/A

Costs of setting up, upgrading and maintaining NCCs and FSC (2007-2010)

Member State	When NCC became operational	Total NCC costs 2007-2010
Belgium	2007	€1,170,000
Bulgaria	2010	€500,000
Cyprus	2010	€320,000
Germany	2008	No data provided
Denmark	No data provided	No data provided
Estonia	2009	€292,304
Greece	2013	€0
Spain	2009	€3,084,768
Finland	2005	€6,638,798
France	2010	€597,000
Hungary	2011	€0
Iceland	No data provided	No data provided
Italy	2011	^a
Lithuania	2011	€0
Latvia	2007	€605,453
Malta	2008	€7,528,588
Netherlands	2011	€0
Norway	No data provided	No data provided
Poland	2010	€201,006
Portugal	2009	No data provided
Romania	2010	€2,514
Sweden	No data provided	No data provided
Slovenia	2007	€200,000
Slovakia	2007	€18,894,418
NCCs TOTAL 2007-2010:		€40,054,849
FSC	2008	€2,238,499

^a The costs provided by Italy were in the region of 32,540k€ but it included more than just the costs associated with Italy's NCC and so have been excluded from this table.

Annual staff in NCCs and FSC (2007-2010)

Member State	When NCC became operational	<u>Staff figures</u>			
		2007	2008	2009	2010
Belgium	2007	9	9	9	9
Bulgaria	2010	—	—	—	42
Cyprus	2010	—	—	—	28
Germany	2008	—	—	—	—
Denmark	—	—	—	—	—
Estonia	2009	—	—	4	13
Greece	2013	—	—	—	—
Spain	2009	—	—	19	19
Finland	2005	12	12	12	12
France	2010	—	—	—	11
Hungary	2011	—	—	—	—
Iceland	—	—	—	—	—
Italy	2011	—	—	4	3
Lithuania	2011	—	—	—	—
Latvia	2007	11	11	11	11
Malta	2008	50	50	50	50
Netherlands	2011	—	—	—	—
Norway	—	—	—	—	—
Poland	2010	—	—	—	12
Portugal	2009	—	—	2	6
Romania	2010	—	—	—	—
Sweden	—	—	—	—	—
Slovenia	2007	—	—	—	—
Slovakia	2007	20	23	28	30
AVERAGE ANNUAL STAFF:		20	21	15	19
FSC	2008	—	—	0.5	2

Estimates from Member States for costs of setting up, upgrading and maintaining NCCs (2011-2016)

Country	2011	2012	2013	2014	2015	2016	Total
NO	€ -	€ -	€ -	€ -	€ -	€ -	€ -
BE	€ 400,000	€ 400,000	€ 400,000	€ 400,000	€ 400,000	€ 400,000	€ 2,400,000
BG	€ 100,000	€ 112,500	€ 125,000	€ 137,500	€ 150,000	€ 162,500	€ 787,500
CY	€ 955,000	€ 1,015,000	€ 1,115,000	€ 1,120,000	€ 1,130,000	€ 1,150,000	€ 6,485,000
DK	€ -	€ -	€ -	€ -	€ -	€ -	€ -
EE	€ 140,000	€ 200,000	€ 250,000	€ 250,000	€ 275,000	€ 275,000	€ 1,390,000
FI	€ 1,825,530	€ 1,916,807	€ 2,000,000	€ 2,113,279	€ 2,812,343	€ 2,952,960	€ 13,620,919
FR	€ 438,100	€ 430,000	€ 430,000	€ 430,000	€ 430,000	€ 430,000	€ 2,588,100
DE	€ -	€ -	€ -	€ -	€ -	€ -	€ -
EL	€ -	€ 1,350,000	€ 6,600,000	€ 2,400,000	€ 2,400,000	€ 2,950,000	€ 15,700,000
HU	€ 81,971	€ 120,610	€ 113,709	€ 113,709	€ 113,709	€ 113,709	€ 657,418
IT	€ 15,338,670	€ 13,741,769	€ 13,531,769	€ 13,531,769	€ 13,131,769	€ 12,993,360	€ 82,269,106
LT	€ 263,297	€ 263,297	€ 263,297	€ 254,609	€ 254,609	€ 254,609	€ 1,553,718
LV	€ 87,763	€ 1,501,240	€ 1,275,697	€ 773,504	€ 773,504	€ 773,504	€ 5,185,212
MT	€ 1,107,000	€ 5,960,000	€ 4,050,000	€ 3,550,000	€ 2,054,000	€ 2,054,000	€ 18,775,000
NL	€ 607,000	€ 607,000	€ 607,000	€ 607,000	€ 607,000	€ 607,000	€ 3,642,000
PO	€ 228,931	€ 228,931	€ 228,931	€ 228,931	€ 228,931	€ 228,931	€ 1,373,585
PT	€ -	€ -	€ -	€ -	€ -	€ -	€ -
RO	€ 3,250,000	€ 1,750,000	€ 750,000	€ 1,750,000	€ 750,000	€ 750,000	€ 9,000,000
SI	€ 120,000	€ 220,000	€ 670,000	€ 570,000	€ 230,000	€ 180,000	€ 1,990,000
SK	€ 928,600	€ 942,800	€ 1,036,460	€ 1,597,006	€ 1,200,687	€ 1,169,775	€ 6,875,328
ES	€ 2,512,090	€ 11,764,842	€ 1,325,537	€ 1,303,729	€ 1,339,390	€ 1,376,100	€ 19,621,688
SE	€ -	€ -	€ -	€ -	€ -	€ -	€ -
Total	€ 28,383,951	€ 42,524,795	€ 34,772,400	€ 31,131,036	€ 28,280,942	€ 28,821,448	€ 193,914,573

Cost estimates for NCCs in line with Policy Options 1.1, 1.2 and 1.3 (2011-2020)

Approach used to estimate costs of policy options for NCCs

In response to our data collection exercise for national coordination centres, four Member States (Norway, Iceland, Sweden and Denmark) did not provide a response. A further two Member States (Germany and Portugal) provided some descriptive information for their NCCs, but no cost data.

Among those Member States that provided NCC cost data, the completeness and comparability of that data varied to a large extent, as illustrated in Annex 4.6. Consequently, it became clear that comparing the costs of different NCCs would prove difficult despite the standard data collection template and guidelines issued to Member States at the beginning of the study.

As a result, it was decided to identify ‘reference’ Member State(s) for each policy option which would be used to scale up the estimated total costs of establishing NCCs in all 24 Member States under each policy option. These ‘reference’ Member States have been based on the Member State(s) in each policy option ‘grouping’ that display a consistent and comparable approach to estimating their NCC costs. For the purposes of this report, these Member States are:

- **Policy option 1.1 – Belgium** (total NCC costs of 2,400k€ for 2011-2016 and 4,000k€ for 2011-2020) and **France** (2,588k€ for 2011-2016 and 4,308k€ for 2011-2020);
- **Policy option 1.2 – Slovakia** (6,875k€ for 2011-2016 and 11,554k€ for 2011-2020) and **Cyprus** (6,485k€ for 2011-2016 and 11,085k€ for 2011-2020); and
- **Policy option 1.3 – Finland** (13,620k€ for 2011-2016 and 25,432k€ for 2011-2020).

In the analysis that follows below, the NCC costs for these Member States are used to provide a total cost estimate for establishing NCCs in all 24 Member States under each policy option. For policy option 1.1, we use the average of the Belgian and French NCC costs for the period 2011-2020 (4,154k€) and scale this up for all 24 Member States. For policy option 1.2, we use the average of the Slovakian and Cypriot NCC costs for the period 2011-2020 (11,319k€) and scale this up for all 24 Member States. Finally, for policy option 1.3, we use the Finnish NCC costs for the period 2011-2020 (25,432k€).

Policy Option 1.1. Annual costs of the Belgian and French NCCs and the FSC for the coordination of the surveillance of at least land and maritime surveillance (where applicable), 2011-2020, Euros (€)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Belgium¹	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	4,000,000
France²	438,100	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	4,308,000
FSC³	2,764,078	7,374,251	9,688,796	11,315,951	12,163,809	10,456,827	10,456,827	10,456,827	10,456,827	10,456,827	95,591,020

¹ Belgian NCC costs excluded one-off costs (building and infrastructure costs and operating and IT equipment costs) in all years as well as recurring communications and maintenance costs, but included recurring personnel costs and the costs of operational applications. These cost estimates are expected to increase once the NCC will be upgraded/extended. However, detailed cost estimates in this regard could not be provided for the time being

² French NCC costs only included recurring personnel costs.

³ For FSC cost estimates see Annex 4.8.

Policy Option 1.2. Annual costs of the Slovakian and Cypriot NCCs and the FSC for command and control competencies for at least land and maritime surveillance (where applicable), 2011-2020, Euros (€)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Slovakia¹	928,600	942,800	1,036,460	1,597,006	1,200,687	1,169,775	1,169,775	1,169,775	1,169,775	1,169,775	11,554,429
Cyprus²	955,000	1,015,000	1,115,000	1,120,000	1,130,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	11,085,000
FSC³	2,764,078	10,245,431	13,434,832	16,249,067	16,491,469	14,127,935	14,127,935	14,127,935	14,127,935	14,127,935	129,824,552

¹ Slovakian NCC costs excluded one-off costs (building and infrastructure costs and operating and IT equipment costs) in all years with the exception of 2012, which included building and infrastructure costs. In addition, all recurring personnel costs, communications and maintenance costs and the costs of operational applications were included for all years with the exception of 2011 which excluded the costs of operational applications.

² Cypriot NCC costs excluded one-off building and infrastructure costs but included one-off operating and IT equipment costs. In addition, all recurring personnel costs, communications and maintenance costs and the costs of operational applications were included for all years.

³ For FSC cost estimates see Annex 4.8.

Policy Option 1.3 Annual costs of the Finnish NCC and the FSC for command and control competencies for the surveillance of land borders, maritime borders, air borders and border checks, 2011-2020, Euros (€)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Finland¹	1,825,530	1,916,807	2,000,000	2,113,279	2,812,343	2,952,960	2,952,960	2,952,960	2,952,960	2,952,960	25,432,759
FSC²	2,764,078	10,245,431	13,580,356	17,089,365	17,705,589	15,119,805	15,119,805	15,119,805	15,119,805	15,119,805	136,983,844

¹ Finnish NCC costs included all one-off and recurring costs (building and infrastructure, operating and IT equipment, personnel, communications and maintenance and the costs of operational applications). The figure of 2,000k€ in 2013 is an estimate based on an assumption that a new NCC will not need to be established in this year. Should a new NCC be established in 2013, the cost in that year will rise to 8,722k€

² For FSC cost estimates see Annex 4.8.

Cost comparison between policy options, 2011-2020. Euros (€) and per cent (%)

	Baseline (2007-2010)	Policy Option 1.1: Decentralised Option (2011-2020)	Policy Option 1.2: Comprehensive option (2011-2020)	Policy option 1.3: Centralised option (2011-2020)
Total costs	NCC €40,054,849	€99,697,200	€271,673,160	€610,386,216
Total costs	FSC €2,238,499	€5,591,020	€129,824,552	€136,983,844
TOTAL COSTS	€42,293,348	€195,288,220	€401,497,712	€747,370,060
MS share (%)	95%	51%	68%	82%
FSC share (%)	5%	49%	32%	18%

Policy option 1.1 costs

Annual costs of the Belgian NCC, 2011-2016, Euros (€)

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	€ 400,000	€ 400,000	€ 400,000	€ 400,000	€ 400,000	€ 400,000	€ 2,400,000
Individual cost items included in total cost							
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	No	No	No	No	No	No	
Operating & IT equipment	No	No	No	No	No	No	
Recurring costs (generally categorised as capital expenditure - OPEX)							
Personnel	Yes	Yes	Yes	Yes	Yes	Yes	
Communications & maintenance	No	No	No	No	No	No	
Operational applications	Yes	Yes	Yes	Yes	Yes	Yes	
- Specify type of application software							
Explanation to estimates							
Total cost breakdown by type of financial source							
National	100%	100%	100%	100%	100%	100%	
EBF							
EU other							
- Explain 'EU other'							
Explanation to estimates							

Annual costs of the French NCC, 2011-2016, Euros (€)

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	€ 438,100	€ 430,000	€ 430,000	€ 430,000	€ 430,000	€ 430,000	€ 2,588,100
Individual cost items included in total cost							
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	No	No	No	No	No	No	
Operating & IT equipment	No	No	No	No	No	No	
Recurring costs (generally categorised as capital expenditure - OPEX)							
Personnel	Yes	Yes	Yes	Yes	Yes	Yes	
Communications & maintenance	No	No	No	No	No	No	
Operational applications	No	No	No	No	No	No	
- Specify type of application software							
Explanation to estimates							
Total cost breakdown by type of financial source							
National							
EBF							
EU other							
- Explain 'EU other'							
Explanation to estimates							

Policy option 1.2 costs

Annual costs of the Slovakian NCC , 2011-2016, Euros (€)

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	€ 928,600	€ 942,800	€ 1,036,460	€ 1,597,006	€ 1,200,687	€ 1,169,775	€ 6,875,328
Individual cost items included in total cost							
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	No	Yes	No	No	No	No	
Operating & IT equipment	No	No	No	No	No	No	
Recurring costs (generally categorised as capital expenditure - OPEX)							
Personnel	Yes	Yes	Yes	Yes	Yes	Yes	
Communications & maintenance	Yes	Yes	Yes	Yes	Yes	Yes	
Operational applications	No	Yes	Yes	Yes	Yes	Yes	
- Specify type of application software	No	geodata service	geodata service	geodata service	geodata service	geodata services for GIS	
Explanation to estimates							
Total cost breakdown by type of financial source							
National	€ 1,976,600	€ 2,120,800	€ 2,309,260	€ 2,989,486	€ 2,758,915	€ 2,856,126	
EBF	€ 32,000	€ 10,000	€ 34,000	€ 45,000	€ 23,000	€ 53,000	
EU other	€ -	€ -	€ -	€ -	€ -	€ -	
- Explain 'EU other'							
Explanation to estimates		100 000 EUR for geoservice annually					

Annual costs of the Cypriot NCC, 2011-2016, Euros (€)

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	€ 955,000	€ 1,015,000	€ 1,115,000	€ 1,120,000	€ 1,130,000	€ 1,150,000	€ 6,485,000
Individual cost items included in total cost							
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	No	No	No	No	No	No	
Operating & IT equipment	Yes	Yes	Yes	Yes	Yes	Yes	
Recurring costs (generally categorised as capital expenditure - OPEX)							
Personnel	Yes	Yes	Yes	Yes	Yes	Yes	
Communications & maintenance	Yes	Yes	Yes	Yes	Yes	Yes	
Operational applications	Yes	Yes	Yes	Yes	Yes	Yes	
- Specify type of application software	Com Applicati	Com Applicati	Com Applicati	Com Applicati	Com Applicati	Com Applications	
Explanation to estimates	*	*	*	*	*	*	
Total cost breakdown by type of financial source							
National	€ 955,000	€ 950,500	€ 1,023,000	€ 1,120,000	€ 1,130,000	€ 1,150,000	
EBF		€ 64,500	€ 92,000				
EU other	€ -	€ -	€ -	€ -	€ -		
- Explain 'EU other'							
Explanation to estimates							

* Cost estimates include upgrading of existing (and purchase of new) equipment at the NCC to facilitate the effective command and control functions on police mobile maritime & air units.

Policy option 1.3 costs

Annual costs of the Finnish NCC, 2011-2016, Euros (€)

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	€ 1,825,530	€ 1,916,807	€ 2,000,000	€ 2,113,279	€ 2,812,343	€ 2,952,960	€ 13,620,919
Individual cost items included in total cost							
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	Yes	Yes	Yes	Yes	Yes	Yes	
Operating & IT equipment	Yes	Yes	Yes	Yes	Yes	Yes	
Recurring costs (generally categorised as capital expenditure - OPEX)							
Personnel	Yes	Yes	Yes	Yes	Yes	Yes	
Communications & maintenance	Yes	Yes	Yes	Yes	Yes	Yes	
Operational applications	Yes	Yes	Yes	Yes	Yes	Yes	
- Specify type of application software							
Explanation to estimates			*				
Total cost breakdown by type of financial source							
National	All	All	All	All	All	All	
EBF							
EU other							
- Explain 'EU other'							
Explanation to estimates							

* If a new NCC is required to be established in 2013, the cost in 2013 will increase to €8,722,000.

Cost estimates for FSC in line with Policy Options 1.1, 1.2 and 1.3 (2011-2020)¹¹

Policy Option 1.1 Annual costs of the FSC for the coordination of the surveillance of at least land and maritime surveillance (where applicable), 2011-2016, Euros (€)*

	2011	2012	2013	2014	2015	2016	Total
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	€ 41,715	€ 82,371	€ 120,021	€ 2,563,510	€ 2,548,654	€ 62,004	€ 5,418,275
Building construction	€ -	€ -	€ 20,000	€ 2,500,000	€ 2,500,000	€ 20,000	€ 5,040,000
Gigabit Ethernet infrastructure	€ 24,000	€ 54,000	€ 60,000	€ 30,000	€ 18,000	€ 12,000	€ 198,000
Building security	€ 13,615	€ 18,521	€ 18,521	€ 9,260	€ 3,704	€ 3,704	€ 67,325
Furniture	€ 4,100	€ 9,850	€ 21,500	€ 24,250	€ 26,950	€ 26,300	€ 112,950
Operating & IT equipment	€ 1,511,240	€ 4,225,290	€ 4,528,100	€ 2,514,050	€ 2,508,430	€ 2,505,620	€ 17,792,730
IT hardware	€ 11,240	€ 225,290	€ 528,100	€ 514,050	€ 508,430	€ 505,620	€ 2,292,730
IT software	€ 1,500,000	€ 4,000,000	€ 4,000,000	€ 2,000,000	€ 2,000,000	€ 2,000,000	€ 15,500,000
Explanation to estimates (open text)							
Recurring costs (generally categorised as operating expenditure - OPEX)							
Personnel	€ 532,672	€ 1,304,972	€ 2,138,868	€ 2,541,968	€ 2,707,504	€ 2,863,104	€ 12,089,088
Staff costs for Senior Duty Officer	€ -	€ 256,800	€ 428,000	€ 513,600	€ 513,600	€ 513,600	€ 2,225,600
Staff costs for Duty Officer	€ 225,600	€ 435,600	€ 645,600	€ 785,600	€ 785,600	€ 785,600	€ 3,663,600
Staff costs for Project, Product & Change Management Personnel	€ 249,072	€ 496,572	€ 805,668	€ 805,668	€ 971,204	€ 1,041,204	€ 4,369,388
Staff costs for Information Exchange Personnel	€ -	€ 58,000	€ 143,600	€ 201,600	€ 201,600	€ 287,200	€ 892,000
Staff costs for all other managerial and administrative support staff	€ 58,000	€ 58,000	€ 116,000	€ 235,500	€ 235,500	€ 235,500	€ 938,500
Communications & maintenance	€ 378,451	€ 661,618	€ 1,001,807	€ 1,396,423	€ 1,699,221	€ 1,926,099	€ 7,063,619
Communications & IT	€ 201,778	€ 348,774	€ 541,200	€ 781,088	€ 952,342	€ 1,059,268	€ 3,884,450
Maintenance	€ 176,673	€ 312,844	€ 460,607	€ 615,335	€ 746,879	€ 866,831	€ 3,179,169
Operational applications	€ 300,000	€ 1,100,000	€ 1,900,000	€ 2,300,000	€ 2,700,000	€ 3,100,000	€ 11,400,000
Decision support applications, resource information and management applications, etc. - Specify type of application software	€ 300,000	€ 1,100,000	€ 1,900,000	€ 2,300,000	€ 2,700,000	€ 3,100,000	€ 11,400,000
Explanation to estimates (open text)							
Total	€ 2,764,078	€ 7,374,251	€ 9,688,796	€ 11,315,951	€ 12,163,809	€ 10,456,827	€ 53,763,712

* Approximately 60 per cent of the FSC costs relate to the generation and/or use of CPIP products and services.

¹¹ Costs estimates have been provided by Frontex and validated by GHK.

Policy Option 1.2. Annual costs of the FSC for command and control competencies for at least land and maritime surveillance (where applicable), 2011-2016, Euros (€)*

	2011	2012	2013	2014	2015	2016	Total
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	€ 41,715	€ 107,375	€ 175,527	€ 4,131,016	€ 3,624,160	€ 146,012	€ 8,225,805
Building construction	€ -	€ -	€ 20,000	€ 4,000,000	€ 3,500,000	€ 20,000	€ 7,540,000
Gigabit Ethernet infrastructure	€ 24,000	€ 66,000	€ 78,000	€ 48,000	€ 36,000	€ 36,000	€ 288,000
Building security	€ 13,615	€ 22,225	€ 24,077	€ 14,816	€ 9,260	€ 11,112	€ 95,105
Furniture	€ 4,100	€ 19,150	€ 53,450	€ 68,200	€ 78,900	€ 78,900	€ 302,700
Operating & IT equipment	€ 1,511,240	€ 6,380,910	€ 6,786,530	€ 4,772,480	€ 4,293,860	€ 4,266,860	€ 28,011,880
IT hardware	€ 11,240	€ 380,910	€ 786,530	€ 772,480	€ 793,860	€ 766,860	€ 3,511,880
IT software	€ 1,500,000	€ 6,000,000	€ 6,000,000	€ 4,000,000	€ 3,500,000	€ 3,500,000	€ 24,500,000
Explanation to estimates (open text)							
Recurring costs (generally categorised as operating expenditure - OPEX)							
Personnel	€ 532,672	€ 1,444,972	€ 2,488,868	€ 3,115,504	€ 3,479,040	€ 3,820,640	€ 14,881,696
Staff costs for Senior Duty Officer	€ -	€ 256,800	€ 428,000	€ 513,600	€ 513,600	€ 513,600	€ 2,225,600
Staff costs for Duty Officer	€ 225,600	€ 575,600	€ 995,600	€ 1,205,600	€ 1,275,600	€ 1,345,600	€ 5,623,600
Staff costs for Project, Product & Change Management Personnel	€ 249,072	€ 496,572	€ 805,668	€ 901,204	€ 1,194,740	€ 1,322,740	€ 4,969,996
Staff costs for Information Exchange Personnel	€ -	€ 58,000	€ 143,600	€ 201,600	€ 201,600	€ 287,200	€ 892,000
Staff costs for all other managerial and administrative support staff	€ 58,000	€ 58,000	€ 116,000	€ 293,500	€ 293,500	€ 351,500	€ 1,170,500
Communications & maintenance	€ 378,451	€ 812,174	€ 1,283,907	€ 1,810,067	€ 2,244,409	€ 2,614,423	€ 9,143,431
Communications & IT	€ 201,778	€ 348,774	€ 541,200	€ 781,088	€ 952,342	€ 1,059,268	€ 3,884,450
Maintenance	€ 176,673	€ 463,400	€ 742,707	€ 1,028,979	€ 1,292,067	€ 1,555,155	€ 5,258,981
Operational applications	€ 300,000	€ 1,500,000	€ 2,700,000	€ 2,420,000	€ 2,850,000	€ 3,280,000	€ 13,050,000
Decision support applications, resource information and management applications, etc. - Specify type of application software	€ 300,000	€ 1,500,000	€ 2,700,000	€ 2,420,000	€ 2,850,000	€ 3,280,000	€ 13,050,000
Explanation to estimates (open text)							
Total	€ 2,764,078	€ 10,245,431	€ 13,434,832	€ 16,249,067	€ 16,491,469	€ 14,127,935	€ 73,312,812

* Approximately 60 per cent of the FSC costs relate to the generation and/or use of CPIP products and services.

Policy Option 1.3 Annual costs of the FSC for command and control competencies for the surveillance of land borders, maritime borders, air borders and border checks, 2011-2016, Euros (€)*

	2011	2012	2013	2014	2015	2016	Total
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure	€ 41,715	€ 107,375	€ 184,029	€ 4,139,518	€ 3,649,666	€ 146,012	€ 8,268,315
Building construction	€ -	€ -	€ 20,000	€ 4,000,000	€ 3,500,000	€ 20,000	€ 7,540,000
Gigabit Ethernet infrastructure	€ 24,000	€ 66,000	€ 84,000	€ 54,000	€ 54,000	€ 36,000	€ 318,000
Building security	€ 13,615	€ 22,225	€ 25,929	€ 16,668	€ 14,816	€ 11,112	€ 104,365
Furniture	€ 4,100	€ 19,150	€ 54,100	€ 68,850	€ 80,850	€ 78,900	€ 305,950
Operating & IT equipment	€ 1,511,240	€ 6,380,910	€ 6,839,340	€ 5,325,290	€ 4,852,290	€ 4,566,860	€ 29,475,930
IT hardware	€ 11,240	€ 380,910	€ 839,340	€ 825,290	€ 852,290	€ 816,860	€ 3,725,930
IT software	€ 1,500,000	€ 6,000,000	€ 6,000,000	€ 4,500,000	€ 4,000,000	€ 3,750,000	€ 25,750,000
Explanation to estimates (open text)							
Recurring costs (generally categorised as operating expenditure - OPEX)							
Personnel	€ 532,672	€ 1,444,972	€ 2,558,868	€ 3,255,504	€ 3,817,040	€ 4,158,640	€ 15,767,696
Staff costs for Senior Duty Officer	€ -	€ 256,800	€ 428,000	€ 513,600	€ 513,600	€ 513,600	€ 2,225,600
Staff costs for Duty Officer	€ 225,600	€ 575,600	€ 1,065,600	€ 1,345,600	€ 1,485,600	€ 1,555,600	€ 6,253,600
Staff costs for Project, Product & Change Management Personnel	€ 249,072	€ 496,572	€ 805,668	€ 901,204	€ 1,264,740	€ 1,392,740	€ 5,109,996
Staff costs for Information Exchange Personnel	€ -	€ 58,000	€ 143,600	€ 201,600	€ 201,600	€ 287,200	€ 892,000
Staff costs for all other managerial and administrative support staff	€ 58,000	€ 58,000	€ 116,000	€ 293,500	€ 351,500	€ 409,500	€ 1,286,500
Communications & maintenance	€ 378,451	€ 812,174	€ 1,298,119	€ 1,849,053	€ 2,336,593	€ 2,718,293	€ 9,392,683
Communications & IT	€ 201,778	€ 348,774	€ 543,820	€ 796,890	€ 986,566	€ 1,105,178	€ 3,983,006
Maintenance	€ 176,673	€ 463,400	€ 754,299	€ 1,052,163	€ 1,350,027	€ 1,613,115	€ 5,409,677
Operational applications	€ 300,000	€ 1,500,000	€ 2,700,000	€ 2,520,000	€ 3,050,000	€ 3,530,000	€ 13,600,000
Decision support applications, resource information and management applications, etc. - Specify type of application software	€ 300,000	€ 1,500,000	€ 2,700,000	€ 2,520,000	€ 3,050,000	€ 3,530,000	€ 13,600,000
Explanation to estimates (open text)							
Total	€ 2,764,078	€ 10,245,431	€ 13,580,356	€ 17,089,365	€ 17,705,589	€ 15,119,805	€ 76,504,624

* Approximately 60 per cent of the FSC costs relate to the generation and/or use of CPIP products and services.

Cost estimates for the EUROSUR network in line with Policy Options 2.1, 2.2 and 2.3 (2011-2020)¹²

Extension of the EUROSUR network over the 2011-2020 period

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
No of NCCs	6	18	18	24	24	24	24	24	24	24	24
No of Agencies	1	5	7	7	7	7	7	7	7	7	7

Cost Estimates (2011-2020)

	Policy Option 2.1	Policy Option 2.2:	Policy Option 2.3:
Network related costs	€12,401k	€16,743k	€19,321k
RAU CPIP costs	€0k	€29,290k	€29,290k
Total costs	€12,401k	€46,033k	€48,611k

It is important to notice that these costs provided are based on the expected volume of data transfer as defined in the EUROSUR technical study. If the volume of data transfer is higher than expected, these costs reported could be underestimated.

¹² Cost estimates have been provided by Frontex and validated by GHK.

PO2.1 costs

1. Extension: Estimating the set-up and upgrade costs for extending EUROSUR network

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	1852	2120	2990	1660	520	520	9662
Individual cost items included in total cost							
Hardware & Software	Yes	Yes	Yes	Yes	Yes	Yes	
Frontex personnel	Yes	Yes	Yes	Yes	Yes	Yes	Programme Management and ICT personnel
Contractor services	Yes	Yes	Yes	Yes	Yes	Yes	
Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	
Training	No	No	No	No	No	No	no training included
(other) Redundancy	No	No	Yes	Yes	Yes	Yes	redundancy from 2013

2. Running costs: Estimating the operation, maintenance and annual recurring costs of the network

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	96	1798	3373	3628	3628	3628	16149
Individual cost items included in total cost							
Hardware & Software	Yes	Yes	Yes	Yes	Yes	Yes	
Frontex personnel	No	No	No	No	No	No	this concept is included in the maintenance rows below
Contractor services	Yes	Yes	Yes	Yes	Yes	Yes	limited after 2013
Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	
Training	No	No	No	No	No	No	no training included
(other) 8hours /5 days maintenance	No	Yes	Yes	Yes	Yes	Yes	8/5 from 2012
(other) 24hours /7 days maintenance	No	No	Yes	Yes	Yes	Yes	24/7 from 2013

PO2.2 costs

3. Extension: Estimating the set-up and upgrade costs for extending EUROSUR network to include the two additional capabilities: (i) Exchange of information concerning cross border crime and (ii) Exchange of classified information via internet with encryption tools

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	1852	2120	3788	1976	520	520	10776
Individual cost items included in total cost							
Hardware & Software	Yes	Yes	Yes	Yes	Yes	Yes	
Frontex personnel	Yes	Yes	Yes	Yes	Yes	Yes	programme management and ICT personnel
Contractor services	Yes	Yes	Yes	Yes	Yes	Yes	
Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	
Training	No	No	No	No	No	No	no training included
(other) Redundancy	No	No	Yes	Yes	Yes	Yes	redundancy from 2013
(other) EU-RESTRICTED setup	No	No	Yes	Yes	Yes	Yes	EU-RESTRICTED from 2013

4. Running costs: Estimating the operation, maintenance and annual recurring costs for extending the EUROSUR network to include the two additional capabilities: (i) Exchange of information concerning border crime and (ii) Exchange of classified information via internet with encryption tools

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	96	1798	4020	3993	3997	3997	17900
Individual cost items included in total cost							
Hardware & Software	Yes	Yes	Yes	Yes	Yes	Yes	
Frontex personnel	No	No	No	No	No	No	this concept is included in the maintenance rows below
Contractor services	Yes	Yes	Yes	Yes	Yes	Yes	limited after 2013
Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	
Training	No	No	No	No	No	No	no training included
(other) 8hours /5 days maintenance	No	Yes	Yes	Yes	Yes	Yes	8/5 from 2012
(other) 24hours /7 days maintenance	No	No	Yes	Yes	Yes	Yes	24/7 from 2013
(other) EU-RESTRICTED Operation	No	No	Yes	Yes	Yes	Yes	EU-RESTRICTED from 2013

PO2.3 costs

5. Extension: Estimating the set-up and upgrade costs for extending to a fully centralised version of Option 2.2 of the EUROSUR network

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	2318	2870	2448	1766	670	670	10742
Individual cost items included in total cost							
Hardware & Software	Yes	Yes	Yes	Yes	Yes	Yes	
Frontex personnel	Yes	Yes	Yes	Yes	Yes	Yes	programme management and ICT personnel
Contractor services	Yes	Yes	Yes	Yes	Yes	Yes	
Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	
Training	No	No	No	No	No	No	no training included
(other) Redundancy	No	No	Yes	Yes	Yes	Yes	redundancy from 2013
(other) EU-RESTRICTED setup	No	No	Yes	Yes	Yes	Yes	EU-RESTRICTED from 2013

6. Running costs: Estimating the operation, maintenance and annual recurring costs to a fully centralised version of Option 2.2 of the network

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	96	1918	4575	4184	4188	4188	19148
Individual cost items included in total cost							
Hardware & Software	Yes	Yes	Yes	Yes	Yes	Yes	
Frontex personnel	No	No	No	No	No	No	this concept is included in the maintenance rows below
Contractor services	Yes	Yes	Yes	Yes	Yes	Yes	limited after 2013
Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	
Training	No	No	No	No	No	No	no training included
(other) 8hours /5 days maintenance	No	Yes	Yes	Yes	Yes	Yes	8/5 from 2012
(other) 24hours /7 days maintenance	No	No	Yes	Yes	Yes	Yes	24/7 from 2013
(other) EU-RESTRICTED Operation	No	No	Yes	Yes	Yes	Yes	EU-RESTRICTED from 2013

Cost estimates for the Common Pre-frontier Intelligence Picture/CPIP (2011-2020)

CPIP - FSC related costs *	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total COSTS FSC - CPIP	0	€ 6,573,906	€ 7,069,278	€ 5,186,848	€ 4,741,676	€ 4,767,476	€ 282,816	€ 282,816	€ 282,816	€ 282,816
PO2.2 (60% of PO1.2 for the following items below)										
IT hardware	€ -	€ 228,546	€ 471,918	€ 463,488	€ 476,316	€ 460,116	€ -	€ -	€ -	€ -
IT software	€ -	€ 6,000,000	€ 6,000,000	€ 4,000,000	€ 3,500,000	€ 3,500,000	€ -	€ -	€ -	€ -
Staff costs for Duty Officer	€ -	€ 345,360	€ 597,360	€ 723,360	€ 765,360	€ 807,360	€ 282,816	€ 282,816	€ 282,816	€ 282,816

* Costs already taken into account in FSC SP1 - PO1.2 costs (60% of IT HW and SW and duty officer costs) - and excluded from the calculation of

RAU CPIP costs	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
One-off costs (generally categorised as capital expenditure - CAPEX)										
Building & infrastructure	0	102,020	81,740	35,190	35,190	35,190	35,190	35,190	35,190	35,190
Building construction	0	0	0	0	0	0	0	0	0	0
Gigabit Ethernet infrastructure	0	72,000	42,000	0	0	0	0	0	0	0
Building security	0	22,220	35,190	35,190	35,190	35,190	35,190	35,190	35,190	35,190
Furniture	0	7,800	4,550	0	0	0	0	0	0	0
Operating & IT equipment	0	240,260	32,510	11,440	11,440	11,440	11,440	11,440	11,440	11,440
IT hardware	0	40,460	30,350	10,680	10,680	10,680	10,680	10,680	10,680	10,680
IT software	0	199,800	2,160	760	760	760	760	760	760	760
Explanation to estimates (open text)										
Recurring costs (generally categorised as operating expenditure - OPEX)										
Personnel	0	964,620	1,496,620	1,496,620	1,496,620	1,496,620	1,496,620	1,496,620	1,496,620	1,496,620
Staff costs for Management staff	0	192,380	261,420	261,420	261,420	261,420	261,420	261,420	261,420	261,420
Staff costs for Analytical staff	0	634,160	959,040	959,040	959,040	959,040	959,040	959,040	959,040	959,040
Staff costs for Operational Staff	0	138,080	276,160	276,160	276,160	276,160	276,160	276,160	276,160	276,160
Communications & maintenance	0	165,740	282,580	282,580	282,580	282,580	282,580	282,580	282,580	282,580
Communications & IT	0	26,640	62,330	62,330	62,330	62,330	62,330	62,330	62,330	62,330
Maintenance	0	139,100	220,250	220,250	220,250	220,250	220,250	220,250	220,250	220,250
Intelligence	0	322,000	590,000	590,000	590,000	590,000	590,000	590,000	590,000	590,000
Intelligence subscriptions / services	0	95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000
Reports / Regional Studies / Profiles	0	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Regular global polls/surveys	0	50,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Translations	0	27,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000
Geo-data	0	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000
Geo-data	0	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000
Explanation to estimates (open text)	0									
Total	0	2,694,640	3,383,450	3,315,830	3,315,830	3,315,830	3,315,830	3,315,830	3,315,830	3,315,830

Additional information on regional networks with third countries**1) SEAHORSE**

SEAHORSE is a regional network between Western African countries, Spain and Portugal. It aims at reinforcing the cooperation with African countries and improve of their capacities to fight against irregular migration and provide support to maritime operations (e.g. Frontex' HERA operations). It is led by Spain (Guardia Civil) and was financed by the EU (AENEAS Programme). The development of the SEAHORSE Project was concluded in 2010. It consists of a network of ten national cooperation centres set up in Mauritania (2), Morocco (1), Senegal (1), Gambia (1), Guinea Bissau (1), Cape Verde (1), Portugal (1) and Spain (2) interlinked via a communication network for the coordination and permanent exchange of information via a secure satellite link.

The SEAHORSE network allows the distribution of information about migration flows, location of suspicious vessels, coordination of rescue operations and interception of vessels. By providing operative information in real-time, it allows the effective decision on controlling any irregular activity in the area.

In addition, the SEAHORSE Network encourages the inter-regional cooperation between Sub-Saharan Africa and the Maghreb in the management of the migratory flows by migration authorities, thereby supporting border management. The conception of the solution as a modular system allows it to be extended to other African Countries and even to expand to other Regional Centres in the European domain.

2) Baltic Sea Region Border Control Cooperation (BSRBCC) and COASTNET

BSRBCC is seen as a regional tool for daily inter-agency (police, customs, coast guard and border guards) interaction in the Baltic Sea to combat cross-border crime and environmental protection of the maritime areas, able to adjust with time and changing conditions. Participating Member States and third countries are Estonia, Denmark, Finland, Germany, Latvia, Lithuania, Poland, Sweden as well as Norway and Russia. Iceland holds an observer status.

National Coordination Centres (NCC) which are connected 24/7 have been built up in all participating States. Moreover, the BSRBCC is the frame for carrying out operations, training and regular meetings, also under observation and strategic participation from Frontex. The NCCs are exchanging relevant information via a dedicated network called COASTNET. It is a needs-based reporting system where daily communication occurs via an encrypted system.

3) Black Sea Littoral States Border/Coast Guard Cooperation Forum (BSCF) and Black Sea Border Coordination and Information Centre (BBCIC)

The BSCF is a cooperation agreement between border/coast guard agencies of the Black Sea Littoral States. One of its tasks is to enhance interactions among border/coast guard agencies in order to prevent irregular migration and illegal activities; as well as strengthening the safety and security of navigation in the Black Sea. Participating countries are Bulgaria, Romania, Ukraine, Russia, Georgia and Turkey. Information exchanges with regard to illegal activities in the Black Sea take place via the *Black Sea Border Coordination and Information Centre* (BBCIC) at Burgas in Bulgaria. The information is shared through an on-line computer network, enabling rapid information flow and enhancing cooperation between the BSCF countries.

Current competencies of the Regional Centres / Networks

Competencies	BSCF-BBCIC	SEAHORSE	BSRBCC - COASTNET
Member States' participation	BG, RO	PT, ES	FI, ET, DK, FI, DE, LT, LI, PL, SE
Coordination with national authorities	Maritime Administration, Executive Agency of Fishery and Aquaculture, the Navy	Police, Customs, Navy, SASEMAR	Police, Customs, Defence Forces, Aviation authorities, Maritime Safety authorities, at the areal level
Coordination with third countries NCCs	Ukraine, Russia, Turkey and Georgia	Morocco, Mauritania, Senegal, Cape Verde, Gambia, G. Bissau	Russia, Norway, Iceland (observer status only)
Coordination with Sub-national coordination centres	Yes	Yes	Yes
Coordination with FRONTEX	No	Yes	Yes
Command and Control (C2)	No	Yes	Yes

Current responsibilities of the Regional Centres / Networks

Surveillance responsibilities	BSCF-BBCIC	SEAHORSE	BSRBCC - COASTNET
Maritime	Yes	Yes	Yes
Air	No	Yes	Yes
Land	No	No	Yes
Border Checks	No	No	Yes

All the three regional networks are connected to their respective national NCCs. The types of information exchanged through the networks are summarised in the table below.

Type of information exchanged through the networks

	BSCF-BBCIC	SEAHORSE	BSRBCC - COASTNET
Classification level	Protected but unclassified	Up to "EU Secret"	Up to "Confidential"
Description of the information exchanged	Data of suspicious ships, actions undertaken and results thereof.	Intelligence reports, irregular border crossing reports, daily reports, monthly reports, assets situation in a daily basis and in an national and international operational environment	Incidents and alerts, not personal data

Overall costs for setting up, upgrading and maintaining the technical infrastructure of the three regional cooperation centres over the 2007-2010 period

Total	BSCF-BBCIC	SEAHORSE	BSRBCC - COASTNET
€77,055k	€36,163k	€4,827k	€36,065k

Cost breakdown by type of financial source for setting up, upgrading and maintaining the technical infrastructure of the three regional cooperation centres over the 2007-2010 period

Financial source	BSCF-BBCIC	SEAHORSE	BSRBCC - COASTNET
National funding	€9,163k	€971k	€36,065k
European Border Fund (EBF)	-	-	-
DCI - Thematic Programme Migration and Asylum	-	€1,857k	-
AENEAS Programme	-	€1,999k	-
Other EU funding	€27,000k	-	-

Number of FTE employed in each Regional Centre / Network over the 2007-2010 period

Year	Total	BSCF-BBCIC	SEAHORSE	BSRBCC - COASTNET
2007	89	26	28	35
2008	89	26	28	35
2009	90	27	28	35
2010	158	95	28	35

	PO3_baseline (2007-2010)	PO3.1 (2011-2020)	PO3.2 (2011-2020)	PO3.3 (2011-2020)
BSCF-BBCIC	€36,100k	0	0	N/A
SEAHORSE	€4,800k	0	€5,377k	N/A
BSRBCC - COASTNET	€36,000k	0	0	N/A
TOTAL	€77,000k	0	€5,377k	€25,299k
TOTAL cumulative costs (2011-2020)	0	0	€5,377k	€25,299k

Baseline costs for regional networks with third countries

BSCF-BBIC (Black Sea)

2. Financial amounts spent in setting up, upgrading and maintaining the technical infrastructure of the regional cooperation centre

	2007	2008	2009	2010	Total
Total cost incurred	106000	17500	39000	36,000,000	36162500
Individual cost items included in total cost					
One-off costs (generally categorised as capital expenditure - CAPEX)					
Building & infrastructure	yes	yes	yes	yes	
Operating & IT equipment	yes	yes	yes	yes	
Recurring costs (generally categorised as capital expenditure - OPEX)					
Personnel	yes	yes	yes	yes	
Communications & maintenance	yes	yes	yes	yes	
Operational applications	yes	yes	yes	yes	
- Specify type of application software					
Total cost breakdown by type of financial source					
National funding	106000	17500	39000	9,000,000	
European Border Fund (EBF)	0	0	0		
DCI - Thematic Programme Migration and Asylum	0	0	0		
AENAS Programme	0	0	0		
Other EU funding	0	0	0	27,000,000	
- Explain 'Other EU funding'					

SEAHORSE (Atlantic/Western Africa)

2. Financial amounts spent in setting up, upgrading and maintaining the technical infrastructure of the regional network including the regional cooperation centre

	2007	2008	2009	2010	Total
Total cost incurred		1,967,685.55	534,872.13	2,324,656.25	4,827,213.93
Individual cost items included in total cost					
One-off costs (generally categorised as capital expenditure - CAPEX)					
Building & infrastructure		yes	yes	yes	
Operating & IT equipment		yes	yes	yes	
Recurring costs (generally categorised as capital expenditure - OPEX)					
Personnel		yes	yes	yes	
Communications & maintenance		yes	yes	yes	
Operational applications		yes	yes	yes	
- Specify type of application software		GIS,IT	GIS,IT		
Total cost breakdown by type of financial source					
National funding		395,898.33	107,616.27	467,488.37	
European Border Fund (EBF)					
DCI - Thematic Programme Migration and Asylum				1,857,167.88	
AENAS Programme		1,571,787.22	427,255.85		
Other EU funding					
- Explain 'Other EU funding'		From 2008 to 2010 was set up a SEAHORSE extension in Morocco, G. Bissau and Gambia called "Seahorse Cooperation Centres"			

BSRBCC – COASTNET (Baltic Sea)

2. Financial amounts spent in setting up, upgrading and maintaining the technical infrastructure of the regional cooperation centre

	2007	2008	2009	2010	Total
Total cost incurred	8676948.516	8899434.375	9127625	9361666.667	36,065,674.56
Individual cost items included in total cost					
One-off costs (generally categorised as capital expenditure - CAPEX)					
Building & infrastructure	yes	yes	yes	yes	
Operating & IT equipment	yes	yes	yes	yes	
Recurring costs (generally categorised as capital expenditure - OPEX)					
Personnel	yes	yes	yes	yes	
Communications & maintenance	yes	yes	yes	yes	
Operational applications	yes	yes	yes	yes	
- Specify type of application software	Finnish Border Guard Information systems				
Total cost breakdown by type of financial source					
National funding	8,676,948.52	8,899,434.38	9,127,625.00	9,361,666.67	
European Border Fund (EBF)	0	0	0	0	
DCI - Thematic Programme Migration and Asylum	0	0	0	0	
AENAS Programme	0	0	0	0	
Other EU funding	0	0	0	0	
- Explain 'Other EU funding'	All means that all funding for the RCC:s comes from the budget of Finnish Border Guard.				

Cost estimates for Policy Options 3.2 and 3.3

Policy Option 3.2: SEAHORSE Mediterraneo

7. Estimates of the financial costs for setting up and maintaining the SEAHORSE Mediterraneo network in three selected neighbouring countries, including the costs for the Regional Coordination Centre in Maltese NCC and the back-up centre in the Italian NCC (funded from DCI-Thematic Programme for Asylum & Migration)

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred			3,226,544.80	0	0	0	3226544.8
Individual cost items included in total cost							
One-off costs (generally categorised as capital expenditure - CAPEX)							
Building & infrastructure			yes				
Operating & IT equipment			yes	yes	yes	yes	
Recurring costs (generally categorised as capital expenditure - OPEX)							
Personnel			yes				
Communications & maintenance			yes	yes	yes	yes	
Operational applications			yes				
- Specify type of application software			GIS,IT				
Explanation to estimates			The implementation of the "Seahorse Mediterraneo project" will be in 2013, and for the next three years (from 2014 to 2016) we expect to have an operational and maintenance guarantee, that is why we will not incur in communication and maintenance costs. About your second question, 2013 is because of actual plans, the project is still in progress.				

Policy Option 3.3: Connecting 15 third countries directly to the EUROSUR network

	2011	2012	2013	2014	2015	2016	Total
Total cost estimated to be incurred	0	0	3896	7851.5	2258.5	2258.5	16,264.50
Set up and upgrade costs	0	0	1986	2882	260	260	5,388.00
Recurring costs	0	0	947	4006.5	1998.5	1998.5	8,950.50
Decommissioning costs	0	0	963	963	0	0	1,926.00

Cost estimates for Policy Option 4.1

Summary of costs by policy option (€ 000's)

Cost	Option 4.1	Option 4.2	Option 4.3
Staff	32,784	12,909	17,664
Procurement	47,699	49,142	44,615
Total	€80.5 million	€62.1 million	€62.3 million

Estimated total costs for Policy Option 4.1 (€'000)

Year	EMSA	JRC	FRONTEX	EUSC	NCCs	TOTAL
2012	586	60	60	408	527	1,641
2013	1,148	120	60	1,172	879	3,379
2014	2,739	120	60	2,098	2,019	7,035
2015	5,361	120	60	2,710	3,173	11,424
2016	5,338	120	60	2,710	3,173	11,401
2017	5,338	120	60	2,710	3,173	11,401
2018	5,338	120	60	2,710	3,173	11,401
2019	5,338	120	60	2,710	3,173	11,401
2020	5,338	120	60	2,710	3,173	11,401
Total						€80.5 million

Staff costs (€)

Year	EMSA	JRC	FRONTEX	EUSC	NCCs	TOTAL
2012	234,128	60,000	59,504	91,725	527,446	972,803
2013	203,685	120,000	59,504	309,781	879,076	1,572,047
2014	466,246	120,000	59,504	553,687	2,019,164	3,218,601
2015	525,664	120,000	59,504	644,359	3,172,972	4,522,500
2016	502,828	120,000	59,504	644,359	3,172,972	4,499,664
2017	502,828	120,000	59,504	644,359	3,172,972	4,499,664
2018	502,828	120,000	59,504	644,359	3,172,972	4,499,664
2019	502,828	120,000	59,504	644,359	3,172,972	4,499,664
2020	502,828	120,000	59,504	644,359	3,172,972	4,499,664
						32,784,268

Procurement costs (€)

Year	EMSA	JRC	FRONTEX	EUSC	NCCs	Total
2012	352,000	-	-	315,920	-	667,920
2013	944,460	-	-	862,510	-	1,806,970
2014	2,272,380	-	-	1,544,180	-	3,816,560
2015	4,835,600	-	-	2,065,580	-	6,901,180
2016	4,835,600	-	-	2,065,580	-	6,901,180
2017	4,835,600	-	-	2,065,580	-	6,901,180
2018	4,835,600	-	-	2,065,580	-	6,901,180
2019	4,835,600	-	-	2,065,580	-	6,901,180
2020	4,835,600	-	-	2,065,580	-	6,901,180
						47,698,530

Cost estimates for Policy Option 4.2

Table 1.1 Estimated total costs for policy option 4.2 (€)

Year	EMSA	JRC	FRONTEX	EUSC	TOTAL
2012	554	60	534	379	1,527
2013	1,062	120	832,473	1,094	3,109
2014	2,532	120	1,077	1,957	5,686
2015	4,922	120	1,077	2,522	8,641
2016	4,899	120	1,077	2,522	8,618
2017	4,899	120	1,077	2,522	8,618
2018	4,899	120	1,077	2,522	8,618
2019	4,899	120	1,077	2,522	8,618
2020	4,899	120	1,077	2,522	8,618
Total					€62.1 million

Staff costs (€)

Year	EMSA	JRC	FRONTEX	EUSC	TOTAL
2012	234,128	60,000	182,464	91,725	568,316
2013	203,685	120,000	358,960	309,781	992,426
2014	466,246	120,000	368,878	553,687	1,508,810
2015	525,664	120,000	368,878	644,359	1,658,901
2016	502,828	120,000	368,878	644,359	1,636,065
2017	502,828	120,000	368,878	644,359	1,636,065
2018	502,828	120,000	368,878	644,359	1,636,065
2019	502,828	120,000	368,878	644,359	1,636,065
2020	502,828	120,000	368,878	644,359	1,636,065
					12,908,778

Procurement costs (€)

Year	EMSA	JRC	FRONTEX	EUSC	Total
2012	320,000	-	351,552	287,200	958,752
2013	858,600	-	473,513	784,100	2,116,213

2014	2,065,800	-	707,841	1,403,800	4,177,441
2015	4,396,000	-	707,841	1,877,800	6,981,641
2016	4,396,000	-	707,841	1,877,800	6,981,641
2017	4,396,000	-	707,841	1,877,800	6,981,641
2018	4,396,000	-	707,841	1,877,800	6,981,641
2019	4,396,000	-	707,841	1,877,800	6,981,641
2020	4,396,000	-	707,841	1,877,800	6,981,641
					49,142,252

Division of workload in option 4.2 (%)

Year	EMSA		EUSC	
	Industry	In-house	Industry	In-house
2012	58%	42%	76%	24%
2013	81%	19%	87%	13%
2014	82%	18%	86%	14%
2015	89%	11%	89%	11%
2016	90%	10%	89%	11%
2017	90%	10%	89%	11%
2018	90%	10%	89%	11%
2019	90%	10%	89%	11%
2020	90%	10%	89%	11%

Cost estimates for Policy Option 4.3

Estimated total costs for policy option 4.3 (€'000)

Year	EMSA	JRC	FRONTEX	EUSC	TOTAL
2012	-	60	1,586	-	1,646
2013	-	120	3,152	-	3,272
2014	-	120	5,754	-	5,874
2015	-	120	8,488	-	8,608
2016	-	120	8,456	-	8,576
2017	-	120	8,456	-	8,576
2018	-	120	8,456	-	8,576
2019	-	120	8,456	-	8,576
2020	-	120	8,456	-	8,576
Total					€62.3 million

Staff costs (€)

Year	EMSA	JRC	FRONTEX	EUSC	TOTAL
2012	-	60,000	711,643	-	771,643
2013	-	120,000	1,221,397	-	1,341,397
2014	-	120,000	1,944,334	-	2,064,334
2015	-	120,000	2,154,461	-	2,274,461
2016	-	120,000	2,122,491	-	2,242,491
2017	-	120,000	2,122,491	-	2,242,491
2018	-	120,000	2,122,491	-	2,242,491
2019	-	120,000	2,122,491	-	2,242,491
2020	-	120,000	2,122,491	-	2,242,491
					17,664,290

Procurement costs (€)

Year	EMSA	JRC	FRONTEX	EUSC	Total
2012	320,000	-	351,552	287,200	958,752
2013	858,600	-	473,513	784,100	2,116,213
2014	2,065,800	-	707,841	1,403,800	4,177,441
2015	4,396,000	-	707,841	1,877,800	6,981,641
2016	4,396,000	-	707,841	1,877,800	6,981,641
2017	4,396,000	-	707,841	1,877,800	6,981,641
2018	4,396,000	-	707,841	1,877,800	6,981,641
2019	4,396,000	-	707,841	1,877,800	6,981,641
2020	4,396,000	-	707,841	1,877,800	6,981,641
					49,142,251

List of abbreviations

ANNEX 8

Abbreviation	Glossary
AIS	Automatic Identification System (vessels)
C2	Command & Control
CIRAM	Common Integrated Risk Analysis Model (Frontex)
CeCLAD-M	Centre de Coordination pour la lutte antidrogue en Méditerranée
COI	Community of Interest
CONOPS	Concept of Operations
COSI	Standing Committee for Operational Cooperation on Internal Security
CPIP	Common Pre-Frontier Intelligence Picture
CRATE	Centralised Record of Available Technical Equipment (Frontex)
DG HOME	Directorate-General Home Affairs (Commission)
EBF	External Borders Fund
EDA	European Defence Agency
EMSA	European Maritime Safety Agency
EO	Earth-Observation
EPN	European Patrols Network (Frontex)
ESG	Elektroniksystem- und Logistik-GmbH (EUROSUR study contractor)
ESP	European Situational Picture
ESRIF	European Security Research and Innovation Forum
EU	European Union
EURODAC	European fingerprint database for asylum seekers and irregular border-crossers
EUROPOL	European Police Office
EUROSUR	European Border Surveillance System
EUSC	European Union Satellite Centre
FSC	Frontex Situation Centre
FRONTEX	European Border Management Agency
GMES	Global Monitoring for Environment and Security
HUMINT	Human Intelligence
IER	Information Exchange Requirement
ISR	Intelligence, Surveillance and Reconnaissance
LCC	Local Coordination Centre
LRIT	Long Range Identification and Tracking System (vessels)
LSP	Local Situational Picture
IMINT	Imagery Intelligence
ILO	Immigration Liaison Officer
JO	Joint Operation (Frontex)
MAOC-N	Maritime Analysis and Operations Centre – Narcotics
MS	Member State
NATO	North Atlantic Treaty Organization
NEC	Network Enabled Capabilities
NCC	National Coordination Centre
NSP	National Situational Picture
OSINT	Open Source Intelligence
R&D	Research & Development
RA	Risk Analysis
RAU	Risk Analysis Unit (Frontex)
RCC	Regional Coordination Centre
SAR	Search and Rescue / Synthetic Aperture Radar (sensor)
SIGINT	Signals Intelligence
SOA	Service Oriented Architecture
S-TESTA	Trans European Services for Telematics between Administrations
UAS, UAV	Unmanned Aerial System, Unmanned Aerial Vehicle
VMS	Vessel Monitoring System (fishing vessels)
VTS	Vessel Tracking System