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**COMMISSION STAFF WORKING PAPER**

**REPORT ON PROGRESS MADE IN DEVELOPING THE EUROPEAN BORDER  
SURVEILLANCE SYSTEM (EUROSUR)**

## 1. INTRODUCTION

On 13 February 2008, the Commission presented the Communication on examining the creation of a European Border Surveillance System (EUROSUR).<sup>1</sup>

EUROSUR should provide a *common technical framework* to support Member States' authorities in reaching full situational awareness at the southern and eastern EU external borders and increase the reaction capability of their border control authorities. Therefore, a decentralised *system of (existing) systems* should be established gradually in three phases, consisting in total of eight interlinked, but separate steps, which also limits the risk in case one of the steps is delayed. In brief, the three phases consist of

Reinforcing the border surveillance capacity of Member States, and fostering cooperation between them;

Developing new tools and concepts at EU level to be put at the disposal of the Member States; and

Integrating the needs and tools of all aspects of maritime surveillance in one common information sharing environment.

During 2008, all concerned Member States welcomed this approach chosen by the Commission for the development of EUROSUR, leading to Council conclusions on the external borders of the EU Member States in June 2008.<sup>2</sup>

In these conclusions, the Council requested the Commission to report back to the Council in the first half of 2009 on progress made in developing EUROSUR on the basis of preparatory works carried out, in close cooperation with Member States and FRONTEX, including the technical study on key steps of EUROSUR.<sup>3</sup>

Following the adoption of these conclusions the Commission has given priority to Phases 1 and 2 of EUROSUR, in order to meet the pressing operational needs facing the Union in particular at the southern maritime borders of the Schengen area. FRONTEX has been providing technical expertise throughout the process. Three principal instruments have been used for the further technical preparations:

(1) During 2008, all Member States concerned have programmed relevant measures under the *External Borders Fund* (EBF) and the *Cash-Flow and Schengen Facility* in line with Priority 2 of the EBF strategic guidelines which foresees Community funding of up to 75% for:<sup>4</sup>

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<sup>1</sup> COM(2008)69 final.

<sup>2</sup> Conclusions of the 2873<sup>rd</sup> Justice and Home Affairs Council meeting, 5-6 June 2008.

<sup>3</sup> Ibid, point 26.

<sup>4</sup> Commission 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 2007 to 2013, OJ L233/3 of 5.9.2007. Some Member States have programmed relevant activities under Priority 1.

- Investments in establishing or upgrading a single *national coordination centre*, which coordinates 24/7 the activities of all national authorities carrying out external border control tasks (detection, identification, tracking, interception) and which is able to exchange information with the centres in other Member States;
- Investments in establishing or upgrading a single *national surveillance system*, which covers all or – based on risk analysis – selected parts of the external border and enables the dissemination of information 24/7 between all authorities involved in external border control.

Several Member States have started with the implementation under the 2008 and 2009 EBF programmes; others are planning to gradually set up the relevant infrastructure until the end of 2013.

(2) An informal expert group of Member States' representatives and experts (in the following: *expert group*) has been set up by the Commission, in which FRONTEX has also participated. This group has met so far at seven occasions.

(3) In December 2008, the contract for the technical study on developing concepts for border surveillance infrastructure, a secure communication network and a pre-frontier intelligence picture within the framework of EUROSUR (in the following: *technical study*) has been signed.<sup>5</sup> The study is being implemented between January 2009 and January 2010. The objective of the study is to develop in 3 subprojects technical concepts, system architectures and technical specifications with regard to Steps 1, 2 and 6 of the EUROSUR:

*Subproject 1:* In line with step 1 of the EUROSUR Communication, technical and management concepts shall be elaborated which can be used by Member States when extending or upgrading their national infrastructures for border surveillance.

*Subproject 2:* In line with step 2, the system architecture and technical specifications for a secure communication network between the national coordination centres including FRONTEX shall be developed.

*Subproject 3:* In line with step 6, the system architecture and technical specifications for a common pre-frontier intelligence picture shall be elaborated.

This report covers the time period from the presentation of the EUROSUR Communication (February 2008) until July 2009.

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<sup>5</sup> Cf. point 23 of the conclusions of the 2873<sup>rd</sup> Justice and Home Affairs Council meeting, 5-6 June 2008.

## 2. PRESENTATION OF THE PROGRESS MADE UNDER THE DIFFERENT PHASES AND STEPS

### 2.1. **PHASE 1: Interlinking and streamlining existing surveillance systems and mechanisms at Member States level**

#### 2.1.1. *Step 1: Providing the essential border surveillance infrastructure at national level*

##### 2.1.1.1. *Objective*

The objective is the setting up of a single *national coordination centre* and of a single *national border surveillance system* in each of the Member States and Schengen associated countries which are located at the eastern land and the southern maritime external borders of the European Union.<sup>6</sup>

##### 2.1.1.2. *Measures taken during the reporting period*

In 2008, Member States have replied to *questionnaires* from the Commission on existing and planned national border surveillance infrastructure, communication and information exchange systems and on the use of surveillance tools such as satellites. This information served for the development of the following steps.

Draft *guidelines for the tasks of and the cooperation between the national coordination centres as well as on the role of FRONTEX* were prepared in view of clarifying the following responsibilities and duties for national coordination centres:

Provide *situational awareness 24/7* with regard to either all the external borders (land, maritime, air) or with regard to the external land and maritime borders;

*Co-ordinate* the activities of all national authorities carrying out external border surveillance and interlink these activities in a *common situational picture*;

Attribute *threat levels* to each of the external border sections and ensure an adequate *reaction capability*;

Be the single point of contact for *information exchange*;

Determination of information categories to be exchanged between neighbouring national coordination centres, all centres as well as with FRONTEX;

Possibility for national coordination centres to delegate selected tasks to regional and local centres.

In relation to *Subproject 1* of the technical study, the contractor is working on an approach which should enable a national planning authority to divide its border area into phenotypical *border segments*, evaluate the types of system segments needed and select the corresponding modules as pre-defined in the technical concepts, resulting into a cost-effective and manufacturer-independent planning and design of national border surveillance systems.

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<sup>6</sup> Portugal, Spain, France, Italy, Malta, Slovenia, Greece, Cyprus, Bulgaria, Romania, Hungary, Slovakia, Poland, Lithuania, Latvia, Estonia, Finland, Norway.

### *2.1.1.3. Next measures to be taken*

During the 2<sup>nd</sup> half of 2009, FRONTEX will present the risk assessment determining those parts of the external borders of the Member States which should be covered by a national surveillance system, including a comparison of this assessment with the plans presented by the Member States in the context of the External Borders Fund.

At the same time, the different technical concepts for the surveillance of external land and maritime borders elaborated by the contractor of the technical study will be presented to the Member States, which will then evaluate these concepts. On the basis of the comments given by Member States' experts and of the FRONTEX assessment, the contractor will finalise the concepts including a detailed estimate of financial costs of the different components until the beginning of 2010.

In the 1<sup>st</sup> half of 2010, these concepts will be combined with the guidelines for the tasks of and cooperation between national coordination centres. Furthermore, the EBF strategic guidelines will be revised on the basis of these concepts and Member States will be invited to adapt their annual programmes for 2011-2013 if necessary.

The Commission will consider, in consultation with the Member States whether these concepts and the guidelines could become minimum technical requirements to promote interoperability and uniform border surveillance standards, with the possibility for a legislative proposal to be tabled in 2011.

### *2.1.2. Step 2: Communication network between the national coordination centres including FRONTEX*

#### *2.1.2.1. Objective*

The objective is to set up a secured communication system in order to coordinate activities between the national coordination centres (notably between neighbouring Member States) as well as with FRONTEX. In full compatibility with the FRONTEX Information System, the network shall provide communication tools and enable electronic data exchange in order to send, receive and process non-classified and classified information 24/7 close to real-time.

#### *2.1.2.2. Measures taken during the reporting period*

During the 1<sup>st</sup> half of 2009, and based on the first interim results from the study, possible configurations of the network were considered, which should be set up gradually by, to the greatest possible extent, using and customising existing EU wide area networks and commercial of the shelf products.

### *2.1.2.3. Next measures to be taken*

In the 2<sup>nd</sup> half of 2009, the system architecture for the network elaborated by the contractor for the technical study will be presented to the Member States. Furthermore, certain Member States will participate in a pilot project by testing selected applications in a test bed provided by the contractor.

Based on the comments received from the Member States and on the experiences gained during the pilot project, the contractor will revise the system architecture and elaborate the technical specifications for tendering, including a detailed estimate of the financial costs for the setting up and maintenance of the different components of the network, until the beginning of 2010.

From the 2<sup>nd</sup> half of 2010 onwards, a second pilot project may be launched to test the network system architecture in daily practice between selected national coordination centres and FRONTEX, after which the network should be gradually established between all national coordination centres as of 2011.

### *2.1.3. Step 3: Support to neighbouring third countries for the setting up of border surveillance infrastructure*

#### *2.1.3.1. Objective*

The aim is to provide increased financial and logistical support from the European Community and the EU Member States (infrastructure, equipment, and training) to selected neighbouring third countries to enhance their capacity to manage their own borders, to fight cross-border crime and to fulfil their responsibilities as regards search and rescue. In order to facilitate the daily cooperation between Member States and neighbouring third countries, the technical concepts developed under Step 1 should be applied when providing Community funding.

#### *2.1.3.2. Measures taken during the reporting period*

The context for this step is set by the overall external dimension of migration as defined by the global approach, and will therefore follow the cooperation with third countries and the instruments available in that context. Bearing in mind the limited Community funding available under the current financial perspective for setting up the needed border surveillance in neighbouring third countries, a preliminary analysis of existing Community programmes has shown that these programmes are only of limited value for setting up a comparable border surveillance infrastructure.

However, a concrete example how such support, leading to a closer cooperation, could be given is the SEAHORSE network currently being set up between Spain, Portugal, Mauritania, Senegal and Cap Verde, and financed via the AENEAS programme.

#### *2.1.3.3. Next measures to be taken*

In the 2<sup>nd</sup> half of 2009, FRONTEX will present the report on the existing and needed surveillance infrastructure in Senegal, Tunisia and Moldova. This report will also be taken into account by the contractor for the technical study when revising the technical concepts for border surveillance under Step 1.

In 2010, on the basis of the FRONTEX report, the Commission will make, as appropriate, use of this assessment in the programming of relevant financial programmes in the external relations domain, taking into account the means available in the context of the current financial perspectives.

## **2.2. PHASE 2: Development and implementation of common tools and applications for border surveillance at EU level**

### *2.2.1. Step 4: Research and development to improve the performance of surveillance tools*

#### *2.2.1.1. Objective*

The intention of this step is to promote the use of the 6<sup>th</sup> and 7<sup>th</sup> Framework Programmes (FP6 and FP7) for research and development to improve the performance and use of surveillance tools in order to increase the area covered, the number of suspicious activities detected as well as to improve the identification and tracking of potentially suspicious targets and the access to high resolution observation satellite data.

#### *2.2.1.2. Measures taken during the reporting period*

In 2008, FRONTEX has been fully involved in the implementation of FP6 projects relevant for border surveillance such as Land and Sea Integrated Monitoring for European Security (LIMES) and European Maritime Security Services (MARISS).

A number of FP7 projects programmed under the 2007 and 2008 annual programmes such as "An InterOPERABLE Approach to European Union MARitime Security Management (OPERAMAR)" and "European Global Border Environment (GLOBE)" have been implemented for the further development of EUROSUR.

In addition, the needs identified under the different steps of EUROSUR have been made a clear priority under the FP7 2009 annual work programme (security theme).

Finally, in the framework of the European Security Research and Innovation Forum (ESRIF) long-term research needs for border surveillance are being considered in the working group on border security which is chaired by FRONTEX.

#### *2.2.1.3. Next measures to be taken*

The 2010 FP7 annual work programme foresees a series of integration and demonstration projects, aiming in particular at improving the technical ability to detect, identify and track small boats used for illegal migration and related cross-border crime.

### *2.2.2. Step 5: Common application of surveillance tools*

#### *2.2.2.1. Objective*

The purpose of this step is the development and setting up of common applications of surveillance tools to provide national coordination centres with surveillance information on their external borders and on the pre-frontier area on a more frequent, reliable and cost-efficient basis.

FRONTEX could act as a facilitator in this regard, e.g. via the procurement of satellite imagery on behalf of Member States and co-ordinating the sharing of surveillance equipment such as unmanned aerial vehicles (UAV).

#### *2.2.2.2. Measures taken during the reporting period*

In June 2009, the GMES<sup>7</sup> border surveillance group, consisting of experts from the Commission, interested Member States, FRONTEX, ESA<sup>8</sup>, EUSC<sup>9</sup> and EDA<sup>10</sup>, has finalised its work on a concept for the common application of tools for border surveillance, in which it identified the

Main user scenarios and requirements for land and maritime border surveillance;

State-of-the-art technology to meet these requirements (e.g. airborne and space based surveillance platforms) and applicability of this technology to the different user scenarios.

#### *2.2.2.3. Next measures to be taken*

During the 2<sup>nd</sup> half of 2009, this concept will be presented to the Member States for evaluation and Member States will be invited to identify those scenarios to which priority should be given. In 2010, under the FP7 2011 work programme (space theme), a number of projects will be programmed to demonstrate the technical feasibility of the scenarios chosen.

### *2.2.3. Step 6: Common pre-frontier intelligence picture (CPIP)*

#### *2.2.3.1. Objective*

The CPIP should provide the national coordination centres in a frequent, reliable and cost-efficient manner with effective, accurate and timely intelligence on the pre-frontier area, which is of relevance for the prevention of illegal immigration and related cross-border crime. The objective of the CPIP is to support the national coordination centres in improving their situational awareness of what is going on in the pre-frontier area and to provide them with additional time for reacting adequately. The CPIP should be managed by FRONTEX on behalf of the Member States.

#### *2.2.3.2. Measures taken during the reporting period*

Within the context of the EUROSUR technical study, the contractor has developed a draft concept for the system architecture, in which possible components and the scope of the CPIP have been defined and methods for the collection, processing, analysing and dissemination of information have been described. The draft concept is currently under discussion.

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<sup>7</sup> Global Monitoring for Environment and Security.

<sup>8</sup> European Space Agency.

<sup>9</sup> EU Satellite Centre.

<sup>10</sup> European Defence Agency.



### 2.2.3.3. *Next measures to be taken*

In the 2<sup>nd</sup> half of 2009, Member States will evaluate the draft system architecture and select applications which shall be tested in autumn 2009 in a test bed provided by the contractor.

The contractor will subsequently revise the system architecture and elaborate the technical specifications for the CPIP until the beginning of 2010.

From the 2<sup>nd</sup> half of 2010 onwards, selected components of the CPIP could be tested among selected national coordination centres in the second pilot project mentioned under Step 2 (communication network), which then should be complemented later on by the research projects mentioned under Step 5 (common application of surveillance tools).

The CPIP could then gradually be set up from 2012 onwards.

## 2.3. **PHASE 3: Creation of a common information sharing environment for the EU maritime domain**

### 2.3.1. *Step 7: Creation of a common information sharing environment for border control and internal security purposes covering the Mediterranean Sea, the southern Atlantic Ocean (Canary Islands) and the Black Sea*

#### 2.3.1.1. *Objective*

In the last years, routes and methods for illegal migration in the Mediterranean Sea and its Atlantic approaches continued to change permanently, with offenders always looking for the weakest link in the control chain.

Therefore the swift implementation of the steps mentioned under Phases 1 and 2 is a key issue for this region, with the urgent need of fully established national coordination centres and FRONTEX serving as hubs for a close-to-real time information and intelligence exchange and for the coordination of activities between all the Member States' authorities responsible for maritime border surveillance. Selected neighbouring third country authorities should be involved gradually into such a structured and permanent cooperation.

As envisaged under the EU integrated border management model, this should moreover lead to a closer interagency cooperation between Member States' authorities and EU agencies with security interests, leading to a *common intelligence picture* for this region.

In order to improve their capability to detect, identify and track small boats used for illegal migration and related cross-border crime, the national coordination centres and FRONTEX are depending also on information collected by other user communities. This requires that in the framework of the EU integrated maritime policy the security community pursues a coordinated and coherent approach with the other user communities and actors, leading in the long-term to a *common information sharing environment* as outlined in Step 8.

### 2.3.1.2. Measures taken during the reporting period

In 2008, a call for proposals for a pilot project on the integration of maritime surveillance in the Mediterranean Sea and its Atlantic approaches has been published.<sup>11</sup> The purpose of this 2-years project is to test in daily practice the capacity of six Member States in this region to exchange surveillance information relating to internal security (border control, combating of narco-trafficking, fighting terrorism), but also to other tasks such as combating the smuggling of illegal goods and preventing marine pollution. The project is expected to start at the beginning of 2010.

### 2.3.1.3. Next measures to be taken

On 30 July 2009, the European Commission published<sup>12</sup> under the FP7 2010 work programme (Security Theme) a call for proposals for a demonstration project aiming at large scale integration, validation and demonstration of a systems-of-systems solution for maritime border surveillance which goes significantly beyond the state of art. The main issues to be covered by this project shall be the detection of small craft, fusion of information in order to detect anomalies, interoperability and affordability. The solution shall be tested in a selected area of the external maritime border, showing – from a technical point of view - the way forward for the development of a common information sharing environment as planned under Step 8.

### 2.3.2. *Step 8: Creation of a common information sharing environment for the whole EU maritime domain*

#### 2.3.2.1. Objective

Maritime surveillance plays a significant role also for several other user communities with interests in the EU maritime domain, in particular concerning maritime safety and security, protection of the marine environment, fisheries control and defence.

Forming part of the EU integrated maritime policy, the long-term objective of this step is to establish a common information sharing environment covering the whole EU maritime domain in which information can be shared between the different user communities.

#### 2.3.2.2. Measures taken during the reporting period

In 2008, within the framework of the EU integrated maritime policy a series of legal and technical studies and a non-paper have been published, providing an overview on the different sectoral initiatives on maritime surveillance and identifying a number of challenges for the way ahead.<sup>13</sup>

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<sup>11</sup> For details see [http://ec.europa.eu/fisheries/tenders\\_proposals/mare\\_2008\\_13\\_en.htm](http://ec.europa.eu/fisheries/tenders_proposals/mare_2008_13_en.htm).

<sup>12</sup> [http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.FP7DetailsCallPage&call\\_id=275&act\\_code=SEC&ID\\_ACTIVITY=10](http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.FP7DetailsCallPage&call_id=275&act_code=SEC&ID_ACTIVITY=10)

<sup>13</sup> Commission non-paper on maritime surveillance, 13.10.2008. See also working document I on offshore activities of coastal EU Member States, working document II on maritime cross-border cooperation between littoral Member States, working document III on maritime surveillance and the study on legal

In spring 2009, a call for proposals has been published for another 2-years pilot project on the integration of maritime surveillance in the Northern European Sea basins<sup>14</sup> with similar objectives as for the pilot project for the Mediterranean Sea.

In 2008, the European Commission and ESA started a set of joint initiatives aiming at investigating the possibility of picking up and distributing Automated Identification System (AIS) signals from space. The conclusions of the projects will feed into recommendations for possible next steps towards a common space-borne AIS service by the end of 2010.

#### *2.3.2.3. Next measures to be taken*

By the end of 2009, the Commission will adopt a Communication on the integration of maritime surveillance in the European Union. The objective is to outline how the situational awareness of the Member States' authorities can be considerably improved by participating and cooperating in a common information sharing environment for the EU maritime domain, and to launch a process towards its achievement. Its implementation will fulfil Step 8 of EUROSUR.

### **3. CONCLUSION**

In the 2<sup>nd</sup> quarter of 2010, the Commission will assess together with the Member States the next measures based on the final results of the technical study and taking into account the progress made under the different steps of EUROSUR.

Member States are invited to gradually implement Phase 1 (Steps 1 and 2) from 2011 onwards, starting first with a core group of interested Member States, with the other Member States, whenever ready, joining one after the other until the end of 2013. Concepts and tools developed under Phase 2 (in particular steps 5 and 6) shall be first tested and then progressively inserted into the EUROSUR framework from 2012 onwards.

The next report on the progress made in developing EUROSUR will be submitted to the Council in mid-2010.

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aspects of maritime monitoring and surveillance data. For further details see <http://ec.europa.eu/maritimeaffairs>.

<sup>14</sup> [http://ec.europa.eu/fisheries/tenders\\_proposals/mare\\_2009\\_04\\_en.htm](http://ec.europa.eu/fisheries/tenders_proposals/mare_2009_04_en.htm)