

EGNOS looking to the east of Europe: SHERPA Project

“Support ad-Hoc to Eastern Region with Pre-operational Actions in GNSS”

EU Space Solutions

London, 4th December 2012

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1. Project Motivation:

Existing barriers for LPV implementation

- ❑ **Availability of approach procedures** → required by operators prior to get equipped vs ANSPs waiting for equipped airlines to publish...
- ❑ **Equipage/certification costs** → impacting Airlines / Operators
- ❑ **Aviation community awareness** → Existing need for support and guidance to implement EGNOS based operations (as revealed by ESSP user consultation 2011)
- ❑ **Need for a positive business case** → Need for funding programmes and implementation initiatives.

1. Project Motivation: Eastern European countries scenario

- Increasing interest on GNSS based operations from Eastern European countries.**
- Limited ground nav aids' infrastructure.**
- Growing traffic figures.**
- Delays on PBN Implementation Plans definition.**
- Lack of awareness on PBN / APV implementation & concerns with regards to EGNOS SoL coverage.**

1. Project Motivation: Drivers for LPV implementation

- ❑ **ICAO Assembly resolutions 36-23 and 37-11 on APVs** (PBN Imp. plans)
- ❑ **EGNOS key enabler for APVs** (accessibility, reducing delays and diversions, providing high safety levels and enabling a minima potentially down to 200ft)
- ❑ **EGNOS is free of charge** allowing for savings in maintenance costs associated. GSA and Eurocontrol's cost-benefit analyses indicate positive results from implementing APVs.
- ❑ **GNSS Market report (GSA):**
 - ❑ GNSS penetration in the global aviation market is $\approx 90\%$, mainly driven by GA.
 - ❑ Penetration of GNSS in commercial aviation has increased and it is expected to reach from 70% to 90% by 2020.
- ❑ **EGNOS SoL SERVICE ROADMAP** : ESSP has recently published the EGNOS Services Roadmap documents (available at http://www.essp-sas.eu/printed_documents).
- ❑ **Existing funding programmes:** FP7, SESAR, TENT-T, etc.
- ❑ **Existing and incoming guidance material:** Eurocontrol, ICAO, EASA, etc.

2. SHERPA Project overview

SHERPA proposes a **regional collaborative approach** in support to European Eastern countries, **towards the implementation of GNSS enabled operations**, and specifically enhanced by EGNOS.

- ❑ Guiding the participant States in **defining their PBN strategy** and **mapping the implementation of EGNOS** into it
- ❑ It is a “**collaborative project**”
 - ❑ aiming to gather all national key stakeholders by the definition of “National Teams” (ANSP, NSA and airlines/users)
 - ❑ through a set of technical working groups each regional partner will undertake different pre-operational actions on a selected national scenario: an airport and a potential aircraft operator.
- ❑ **Aligned with ICAO Assembly recommendations and following Eurocontrol’s guidelines** in support to the implementation of APV procedures.
- ❑ Proposing a **harmonized approach** to all participating countries **with the support of key actors**: ESSP, Eurocontrol, EASA, European ANSPs

3. SHERPA KEY ASSET: *National Teams*

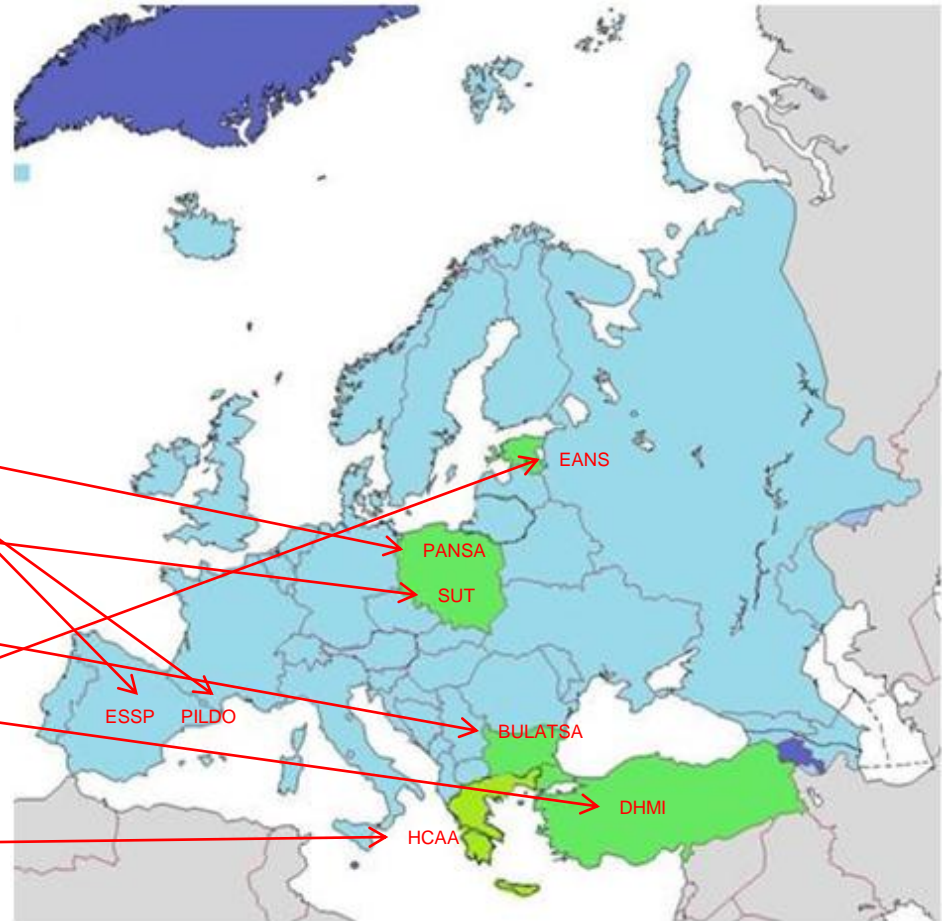
- ❑ States **PBN strategy definition** requires the participation of all concerned actors.
- ❑ A key aspect of SHERPA's proposed approach is the **composition of the different Stakeholder teams**.



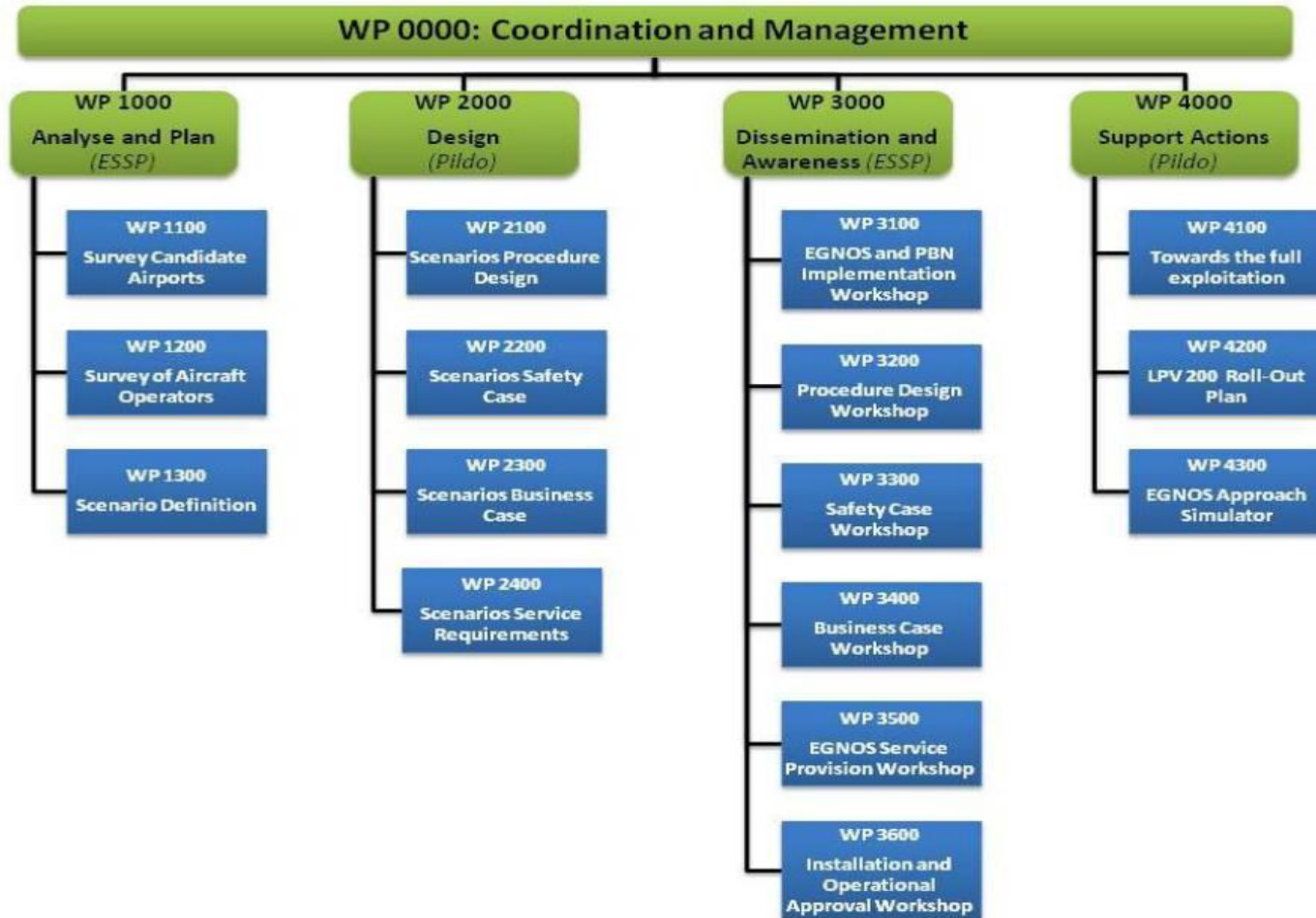
4. SHERPA Consortium members

CONSORTIUM

Beneficiary Number	Beneficiary name	Beneficiary short name
1(coord)	European Satellite Services Provider SAS	ESSP
2	Pildo Consulting S.L	PLD
3	Polish Air Navigation Services	PAN
4	Silesian University of Technology (Politechnika Slaska)	SUT
5	Bulgarian Air Traffic Services Authority	BUL
6	General Directorate of State Airports Authority	DHMI
7	Estonian Air Navigation Services	EANS
8	Hellenic Civil Aviation Authority	HCAA



5. Project organisation and plan: WBS



6. Current status: *Initial results*

- ❑ Each D11XX “**EGNOS National Market Analysis**” completed
- ❑ The D1200 “**EGNOS Regional Market Analysis**” already drafted
- ❑ **WP2000 activities launched**: Procedure design and Safety Assessments
- ❑ **Workshop#1** “PBN Implementation” held in Sofia on 22nd May 2012
- ❑ **Workshop#2** “Procedure Design” held in Tallinn on 13th Sept 2012
- ❑ **Workshop#3** “Safety Case” in Istanbul on 13th November 2012
- ❑ **Workshop#4**: planned in Gliwice (Poland) 30th-31st January 2013

<i>STATE</i>	<i>AIRPORT</i>	<i>AIRCRAFT OPERATOR</i>
<i>POLAND</i>	<i>KATOWICE-PYRZOWICE (EPKT)</i>	AIRCOM
<i>BULGARIA</i>	<i>BURGAS (LBBG)</i>	BULGARIA AIR
<i>TURKEY</i>	<i>BALIKESİR KOCA SEYİT (LTFD)</i>	BORAJET
<i>ESTONIA</i>	<i>KURESSAARE (EEKE)</i>	AVIES
<i>GREECE</i>	<i>KERKIRA (LGKR)</i>	AEGEAN AIRLINES

Final Scenarios per State (outcome of WP1000)

7. SHERPA WEBSITE:



HOME BACKGROUND OBJECTIVES EXPECTED RESULTS DOCUMENTATION THE TEAM NEWS CONTACTS SHERPA LINKS

Welcome

Aligned with ICAO recommendations regarding the implementation of APV procedures, SHERPA presents an important asset in support to the implementation of LPV procedures in Europe, by contributing to the dissemination of the harmonized methodology for EGNOS based operations implementation in the aviation community.

SHERPA "Safety Case"

Workshop in Istanbul

Submitted by admin on Tue,
11/20/2012 - 10:17

SHERPA Management

Meeting #1

Submitted by admin on Thu,
11/15/2012 - 11:39

Safety Case workshop

Submitted by admin on Thu,
10/25/2012 - 12:06

The **third SHERPA Workshop** took

The first management meeting of

The **SHERPA** consortium is pleased to announce that the **third SHFRPA**

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VISIT US AT: <http://sherpa.essp-sas.eu/>

QUESTIONS?



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