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# OLDI data exchange implementation report 2017

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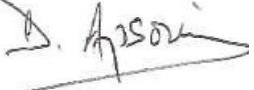
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Contact Person: Ivan Pendacanski	Tel: 00 32 2 729 4647	Organisation: EUROCONTROL
Email: Ivan.pendatchanski@eurocontrol.int	Fax: N.A	Address: Rue de la Fusée, 96 1130 Bruxelles Belgium

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## AUTHORS & APPROVAL

	Name	Date
Prepared	Panagiotis Karydas, EUROCONTROL	 12.06.2017
	Ivan Pendacanski, EUROCONTROL	 12.06.2017
Reviewed	Dimitris Aprouris, EUROCONTROL	 12.06.2017
Approved	OLDI specification review group	Approved by the OLDI specification review group meeting #3 MOM

## DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the document.

## **Table of content**

<b>1. PURPOSE AND SCOPE OF THE DOCUMENT</b>	<b>6</b>
<b>2. OLDI DATA EXCHANGE IMPLEMENTATION PROCESS</b>	<b>7</b>
<b>3. SPECIFIC ASSESSMENT OF OLDI DATA EXCHANGES</b>	<b>17</b>
<b>4. SUMMARY</b>	<b>18</b>
<b>5. RECOMMENDATIONS</b>	<b>19</b>

## 1. Purpose and scope of the document

OLDI was the first EUROCONTROL standard to come in effect in 1994. It was developed to replace the verbal coordination process between Air Traffic Service Units (ATSUs) and automate the notifications, co-ordinations and transfer of the flight between ATSUs through data message exchanges. The OLDI specification Edition 4.2 is recognised by the European Commission as a SES Community specification for the coordination and transfer implementing rule (COTR) (Regulation (EC) Nos 1032/2006 and 030/2009).

The OLDI Specification has not been maintained since the publication of Edition 4.2 in 2010. NETOPS/16 agreed with the need to review/update the OLDI specification and requested the EUROCONTROL Network Manager to establish a working group to undertake the necessary work within a limited timeframe. In that respect, Stakeholders have been asked to nominate the Point of Contact (POC) in respect of the review of the OLDI specification. 31 ANSPs and 3 ground system manufacturers nominated their POCs for the OLDI specification review.

One of the tasks for this group was to assess the present level of compliance with the OLDI standard, using the available data (NOP, LSSIP, IDSG reports) and additional mechanism if required. In that respect, an OLDI deployment questionnaire has been developed and provided to all participating ANSPs on 21 January 2017. 28 ANSPs responded to the questionnaire providing their OLDI deployment details; This report contains the main findings from the responses received as well as the recommendations for further actions/next steps.

## 2. OLDI data exchange implementation process

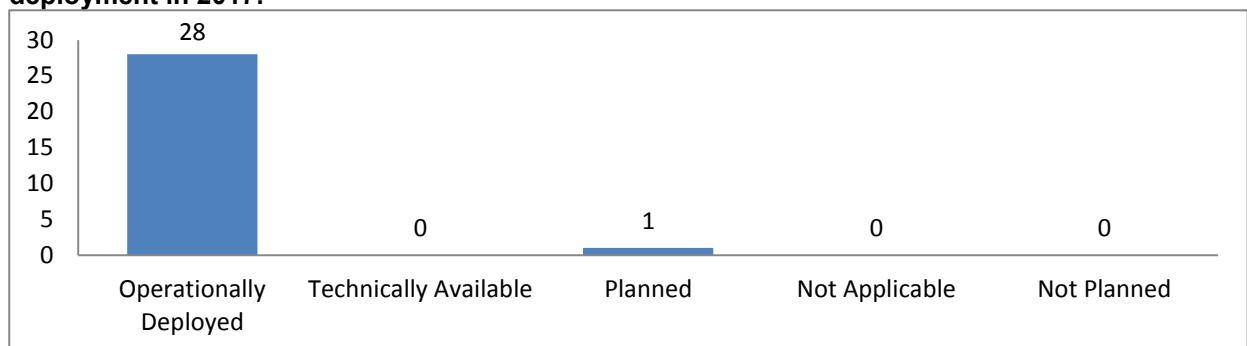
The OLDI deployment questionnaire addresses the deployment of 39 OLDI message contained in edition 4.2. The deployment of each message was assessed using 5 pre-defined statuses as:

- Operationally deployed ( the message and relevant interfaces are procured, installed, integrated and data exchange with adjacent unit(s) established)
- Technically available (the message and relevant interfaces are procured, installed, integrated, but the data are still not exchanges with adjacent unit(s))
- Planned ( the message is planned with 5 years implementation horizon)
- Not planned ( the message and relevant interfaces are not planned at all)
- Not applicable ( mostly for the messages covered by EC regulation, for States outside the applicability area)

The main findings per each OLDI message are presented below:

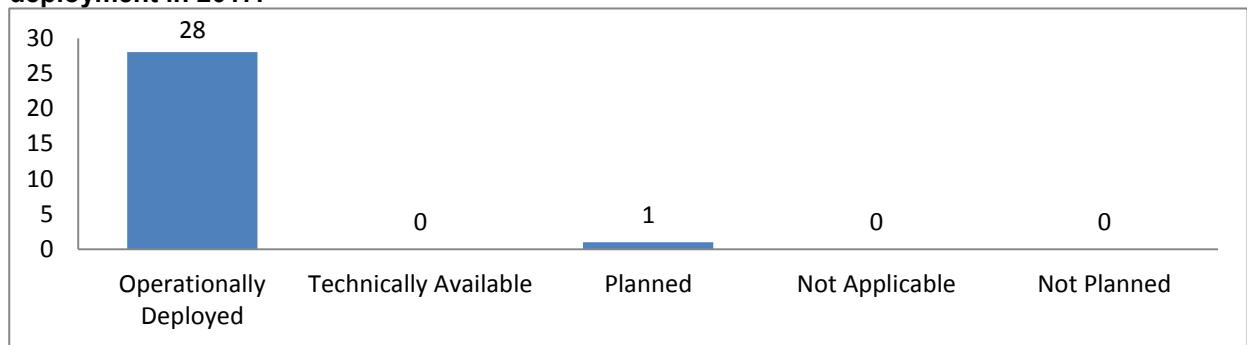
### ABI

**This message is the Community Specification for the mandatory process defined by the EC regulation 1032/2006. It is widely deployed by all ANSPs except ARMATS that plans ABI deployment in 2017.**



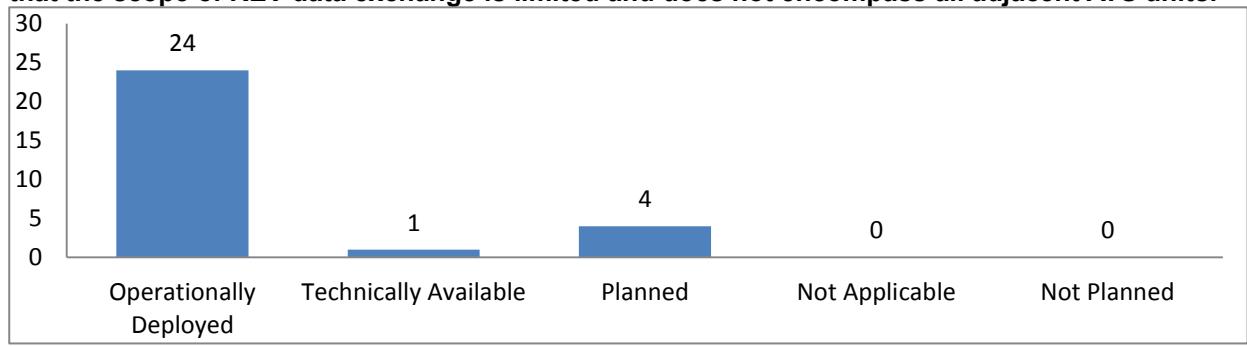
### ACT

**This message is the Community Specification the mandatory process defined by the EC regulation 1032/2006. It is widely deployed by all ANSPs except ARMATS that plans ACT deployment in 2017.**



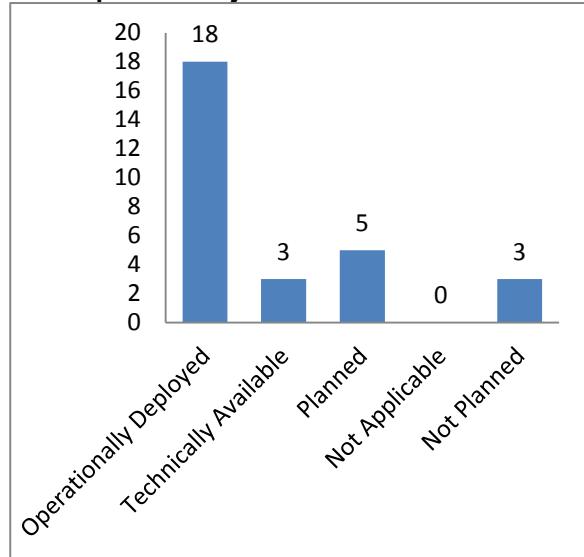
### REV

**This message is the Community Specification the mandatory process defined by the EC regulation 1032/2006. It is widely deployed by 24 ANSPs, and it is technically available (BHANSA) or planned (SMATSA, MATS, ARMATS, NAV-POR) by the remaining 5 ANSPs. It should be noted that the scope of REV data exchange is limited and does not encompass all adjacent ATS units.**

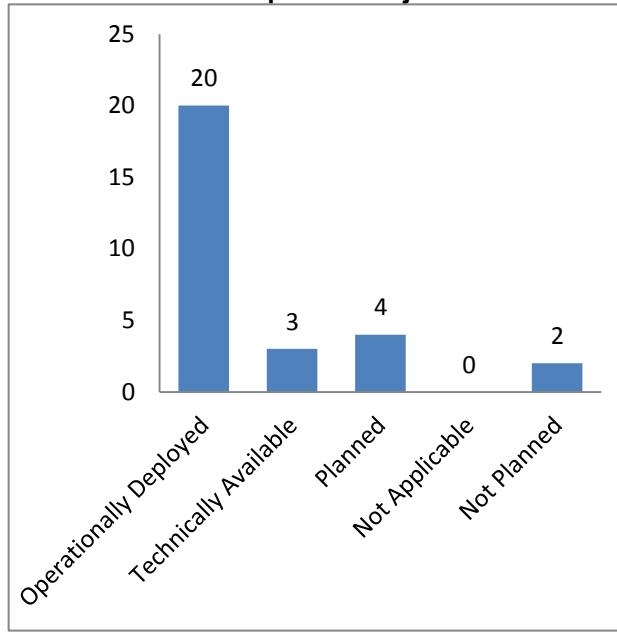


**PAC**

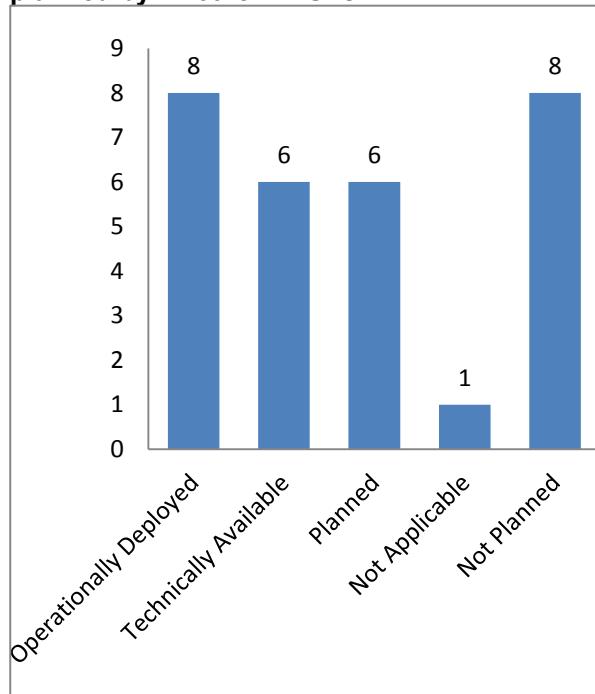
This message is the Community Specification for the mandatory process defined by the EC regulation 1032/2006. It is widely deployed by 18 ANSPs and it is technically available or planned by 8 other ANSPs. This message is not planned only by CroControl, SMATSA and NATS. It should be noted that the scope of PAC data exchange is limited and does not encompass all adjacent ATS units.

**MAC**

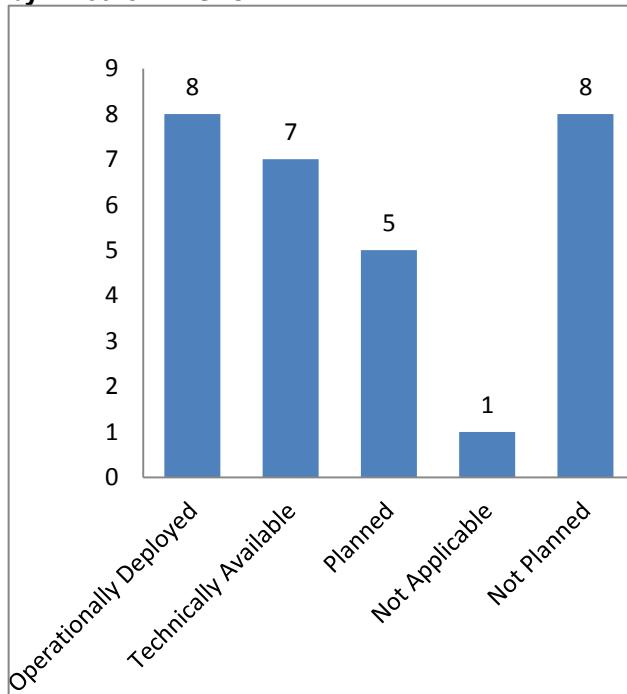
This message is the Community Specification for the mandatory process defined by the EC regulation 1032/2006. It is widely deployed by 20 ANSPs and it is technically available or planned by 7 other ANSPs. This message is not planned only by CroControl, and LPS. It should be noted that the scope of MAC data exchange is limited and does not encompass all adjacent ATS units.

**BFD**

This message is the Community Specification for the mandatory process defined by the EC regulation 1032/2006. It is already deployed by 8 ANSPs and it is technically available or planned by 12 other ANSPs.

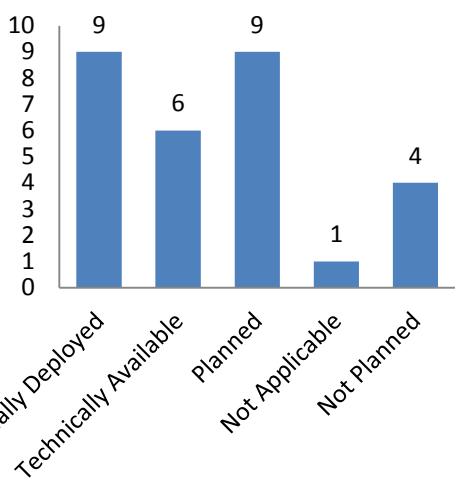
**CFD**

This message is the Community Specification for the mandatory process defined by the EC regulation 1032/2006. It is already deployed by 8 ANSPs and it is technically available or planned by 12 other ANSPs.



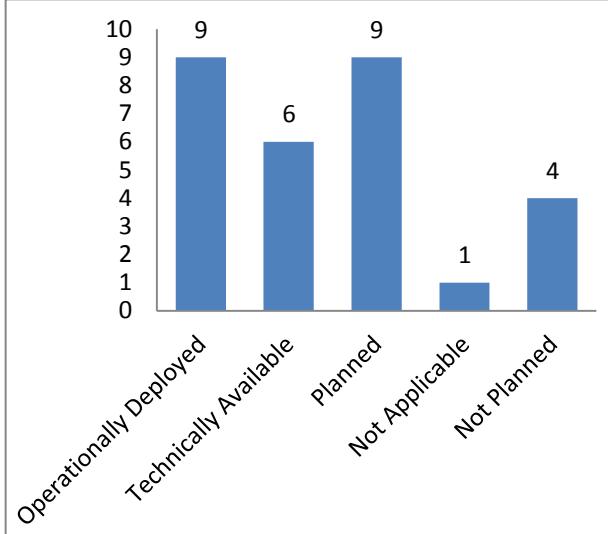
#### LOF

This message is the Community Specification for the mandatory process defined by the EC regulation 30/2009. It is already deployed by 9 ANSPs and it is technically available or planned by 15 other ANSPs. This message is not planned only by ANSPs outside of the EC regulation applicability area (DHMI, ALBCONTROL, BHANSA, UkSATSE and ARMATS. It is part of ATM Master Plan level 3 (ITY-AGDL-ASP05).



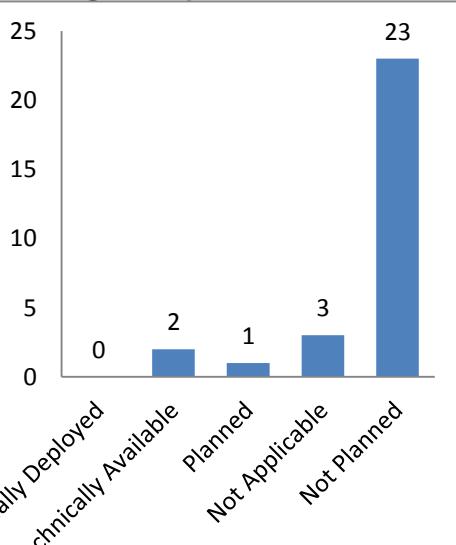
#### NAN

This message is the Community Specification for the mandatory process defined by the EC regulation 30/2009. It is already deployed by 9 ANSPs and it is technically available or planned by 15 other ANSPs. This message is not planned only by ANSPs outside of the EC regulation applicability area (DHMI, ALBCONTROL, BHANSA, UkSATSE and ARMATS. It is part of ATM Master Plan level 3 (ITY-AGDL-ASP06).



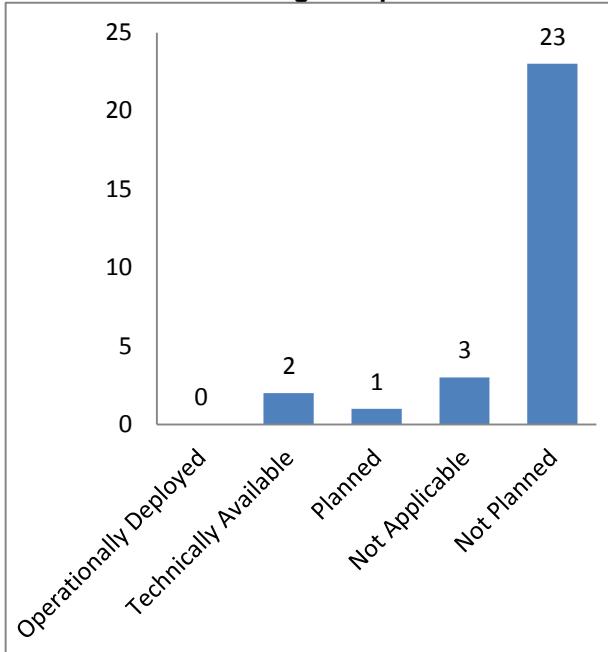
#### XIN

This message is the Community Specification for the optional process defined by the EC regulation 1032/2006. XIN is not yet operationally deployed by any ANSP, and it is technically available by ROMATSA and UkSATSE and planned by NAV-POR. The operational needs for this message within the OOLDI 4.3 might require to be reviewed.



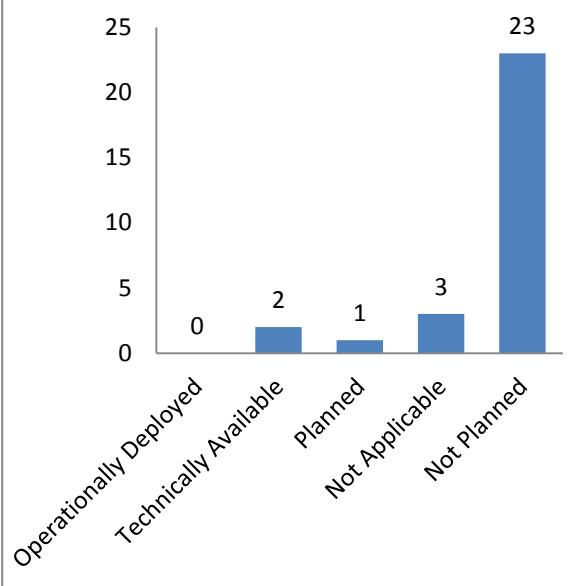
#### XRQ

This message is the Community Specification for the optional process defined by the EC regulation 1032/2006. XRQ is not yet operationally deployed by any ANSP, and it is technically available by ROMATSA and UkSATSE and planned by NAV-POR. The operational needs for this message within the OOLDI 4.3 might require to be reviewed.

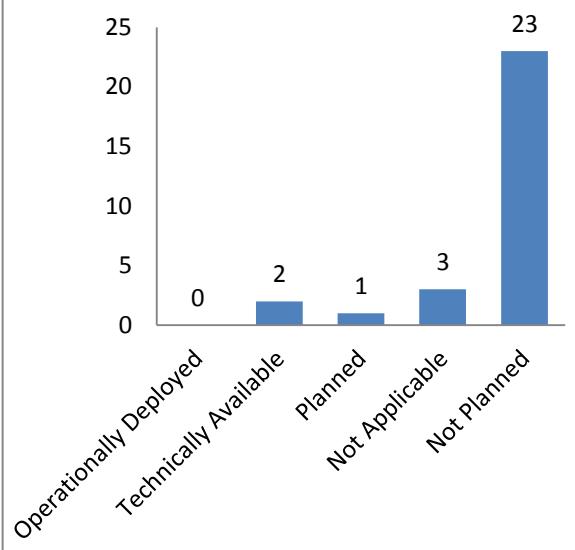


**XAP**

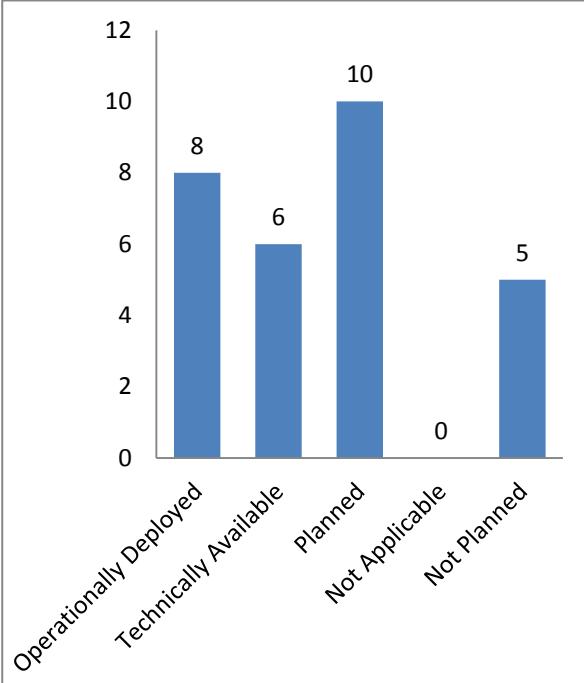
This message is the Community Specification for the optional process defined by the EC regulation 1032/2006. XAP is not yet operationally deployed by any ANSP, and it is technically available by ROMATSA and UkSATSE and planned by NAV-POR. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

**XCM**

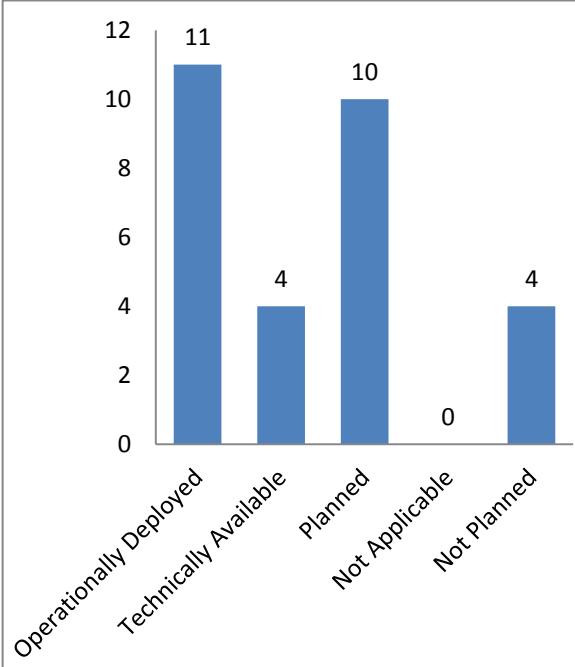
This message is the Community Specification for the optional process defined by the EC regulation 1032/2006. XCM is not yet operationally deployed by any ANSP, and it is technically available by ROMATSA and UkSATSE and planned by NAV-POR. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

**ROF**

This message is the Community Specification for the optional process defined by the EC regulation 1032/2006. ROF is deployed by 8 ANSPs, and it is technically available or planned by 16 other ANSPs. It is part of ATM Master Plan level 3 (ATC17-ASP03).

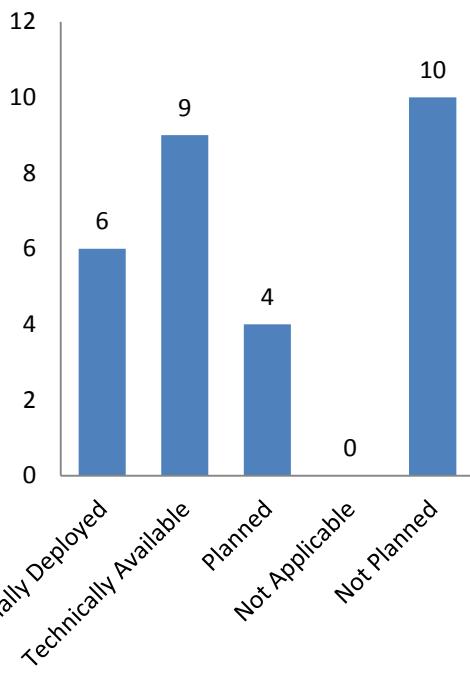
**MAS**

This message is the Community Specification for the optional process defined by the EC regulation 1032/2006. MAS is deployed by 11 ANSPs, and it is technically available or planned by 14 other ANSPs. It is part of ATM Master Plan level 3 (ATC17-ASP03).

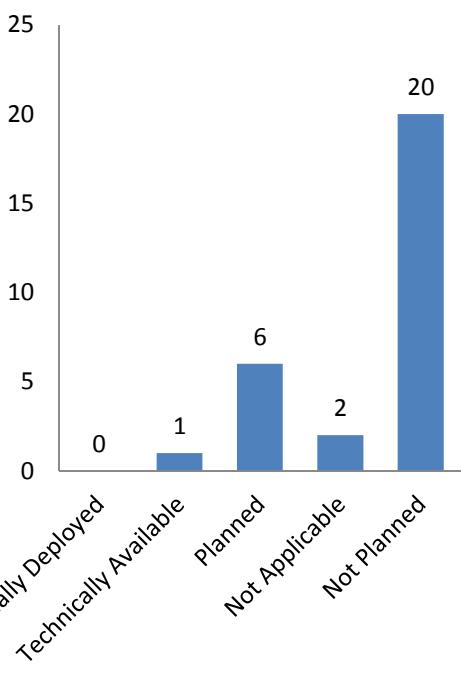


**COD**

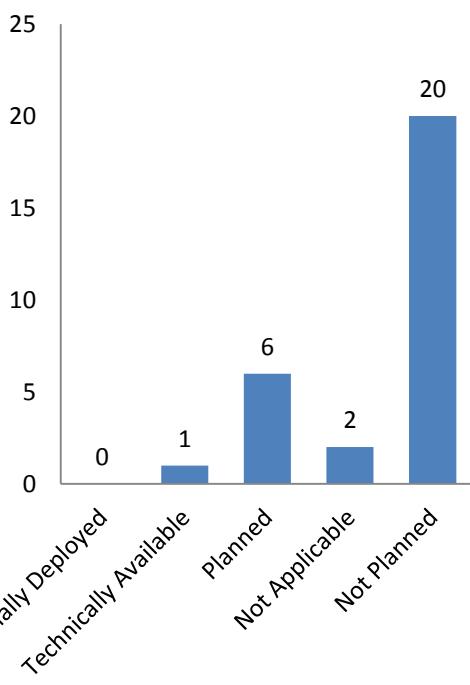
This message is operationally deployed by 6 ANSPs, and it is technically available or planned by 13 other ANSPs. It is part of ATM Master Plan level 3 ( ATC17-ASP02)

**SCO**

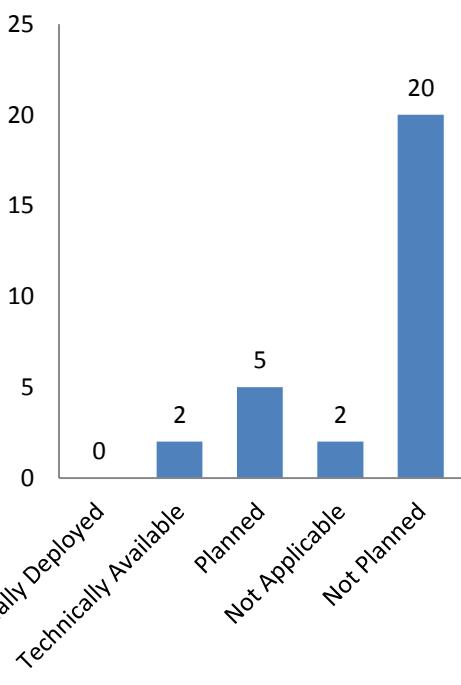
This message is technically available by ROMATSA, 6 other ANSPs plan to deploy RRQ message.

**SKC**

This message is technically available by ROMATSA, 6 other ANSPs plan to deploy RRQ message.

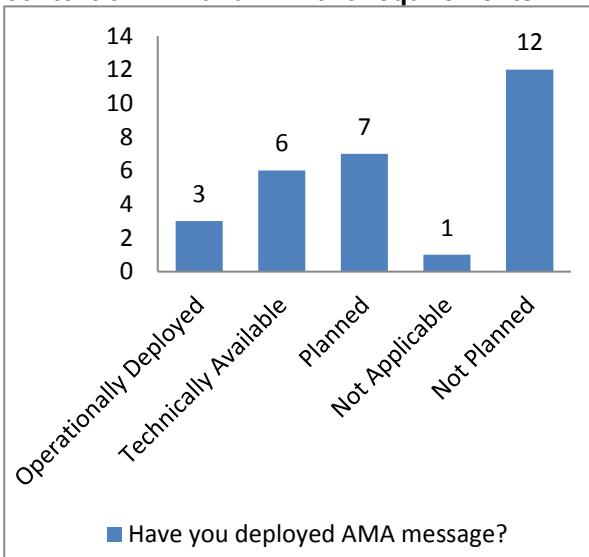
**PNT**

This message is technically available by ROMATSA and MUAC, 5 other ANSPs plan to deploy RRQ message.

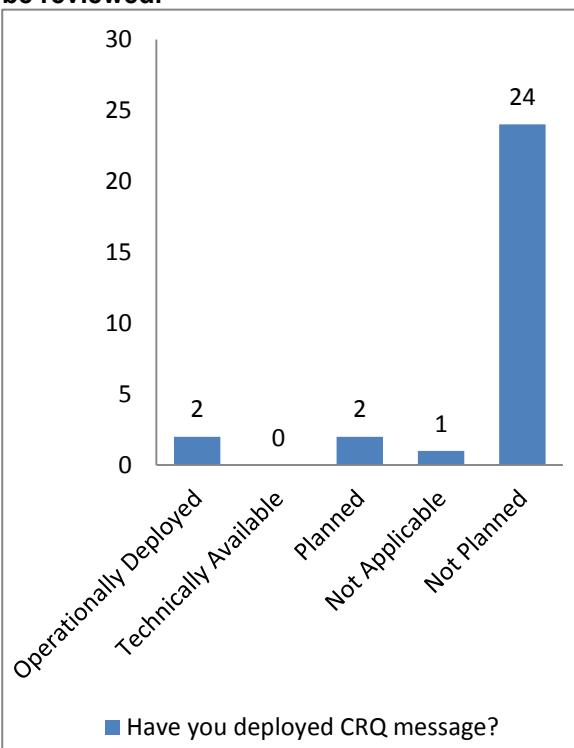


**AMA**

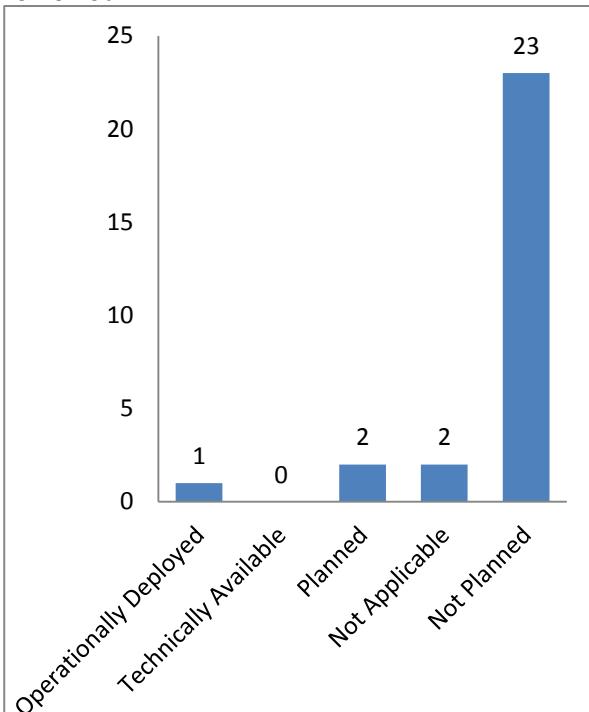
AMA message is part of the PCP IR, DP 2016 and ATM Master Plan level 3 (ATC 15.1). It is required to be deployed by the TMAs and the en-route sectors feeding the traffic to 25 busiest airports in Europe. It is deployed by AUSTROCONTROL, DFS and MUAC and it is technically available or planned by 13 other ANSPs. As aside comment during F2F meeting, MUAC stated that LVNL also deployed AMA message. Some ANSPs might need to reconsider the implementation of AMA in the context of PCP and DP 2016 requirements.

**CRQ**

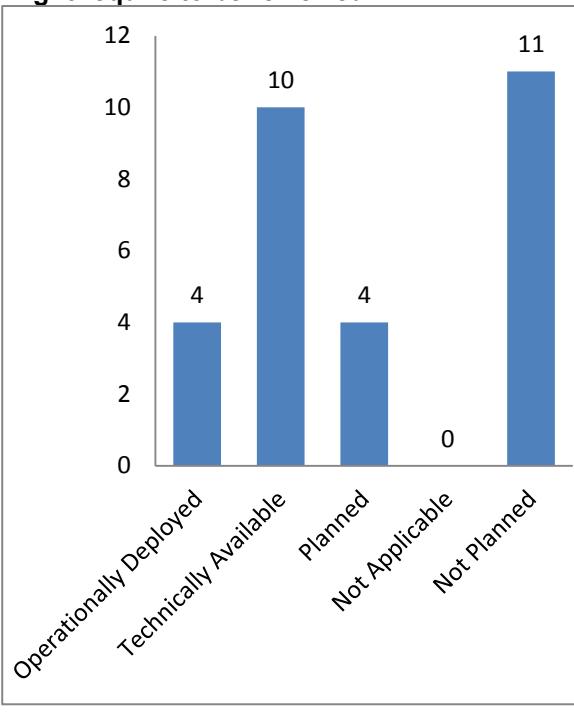
This message is operationally deployed by ROMATSA and MUAC. It is planned by ENAIRE and NAV-POR. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

**CRP**

This message is operationally deployed by ROMATSA and planned by ENAIRE and NAV-POR. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

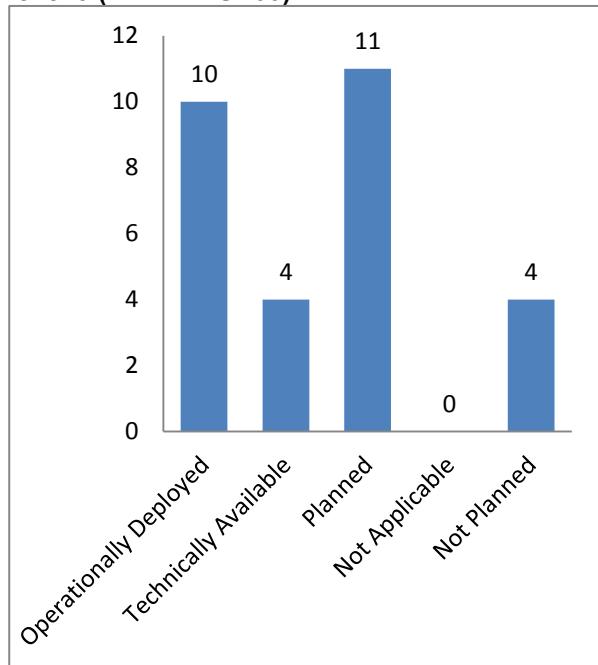
**INF**

This message is operationally deployed by 4 ANSPs, and it is technically available or planned by 14 other ANSPs. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

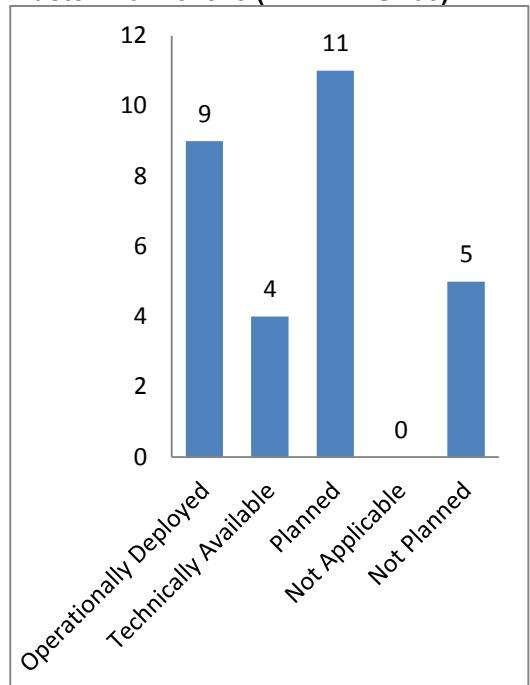


**COF**

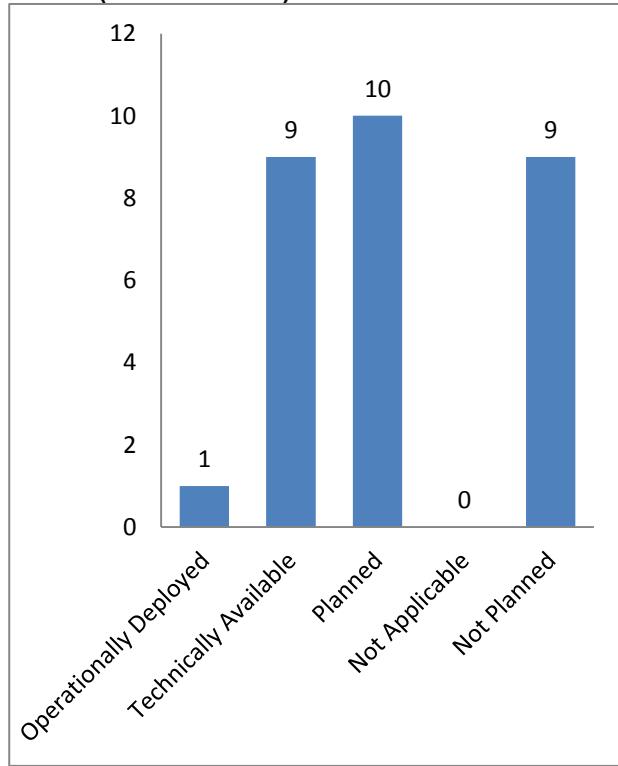
This message is operationally deployed by 10 ANSPs, and it is technically available or planned by 15 other ANSPs. It is part of ATM Master Plan level 3 (ATC17-ASP03).

**TIM**

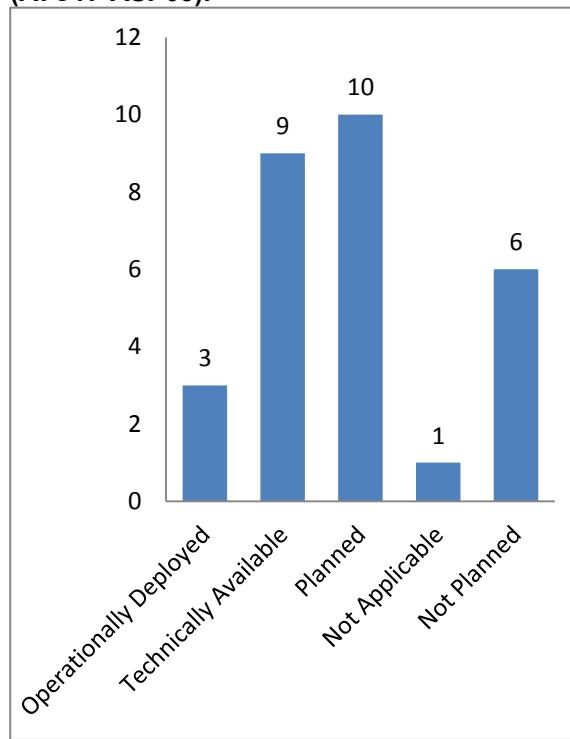
Similar situation to the COF message, the only major difference is that DSNA does not plan the TIM message. It is part of ATM Master Plan level 3 (ATC17-ASP03).

**HOP**

This message is operationally deployed by DHMI, and it is technically available or planned by 19 other ANSPs. It is part of ATM Master Plan level 3 (ATC17-ASP03).

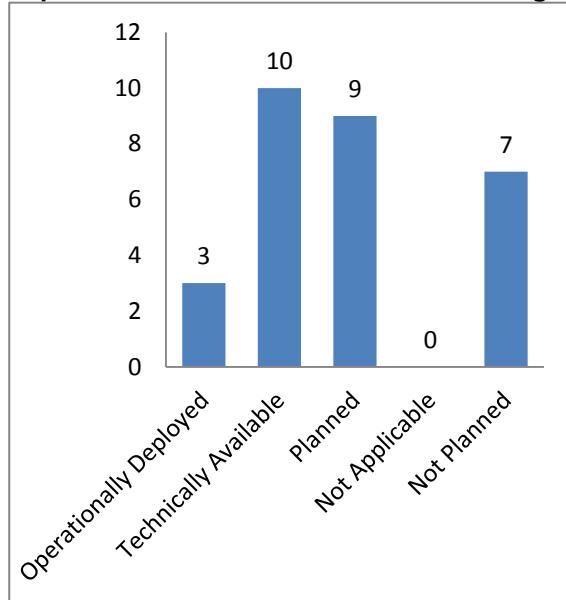
**SDM**

This message is operationally deployed by DHMI, FINAVIA and EANS, and it is technically available or planned by 19 other ANSPs. It is part of ATM Master Plan level 3 (ATC17-ASP03).

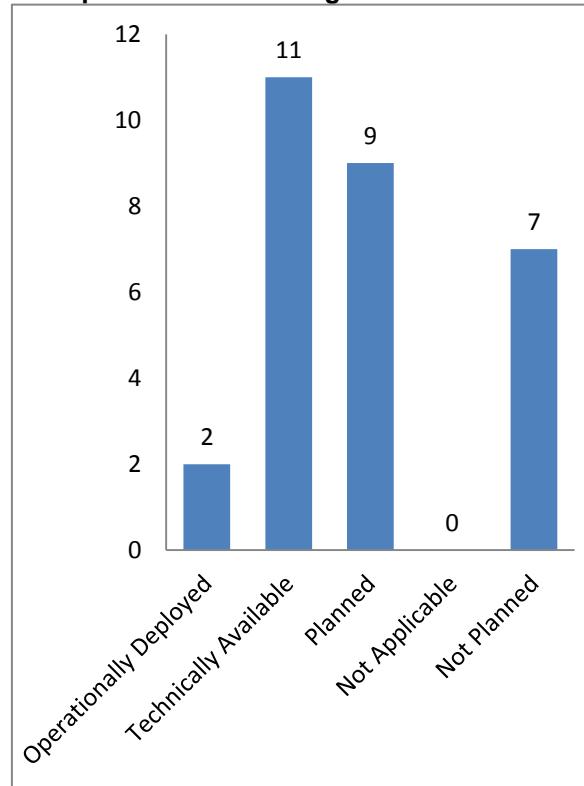


**RAP**

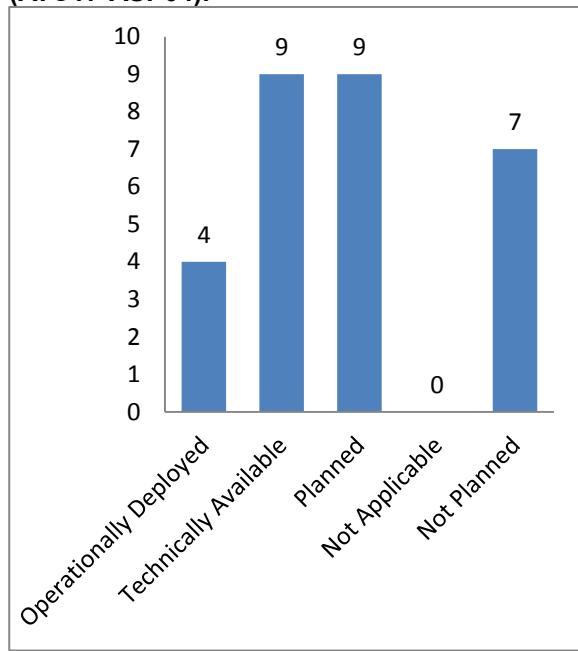
This message is operationally deployed by ROMATSA, EANS and DHMI, and it is technically available or planned by 19 other ANSPs. Part of ATM Master Plan level 3 (ATC17-ASP04). It should be noted that the RAP data exchange is exclusively deployed for an internal coordination, as RAP has not been implemented for inter-centre data exchanges.

**RRV**

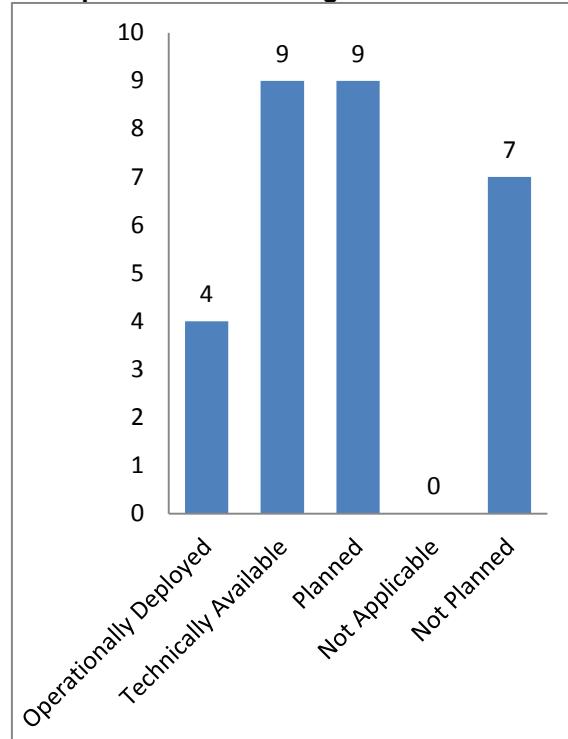
The same deployment, planning and strategic fit as per the RAP message.

**ACP**

This message is operationally deployed by FINAVIA, EANS, ROMATSA and DHMI, and it is technically available or planned by 18 other ANSPs. Part of ATM Master Plan level 3 (ATC17-ASP04).

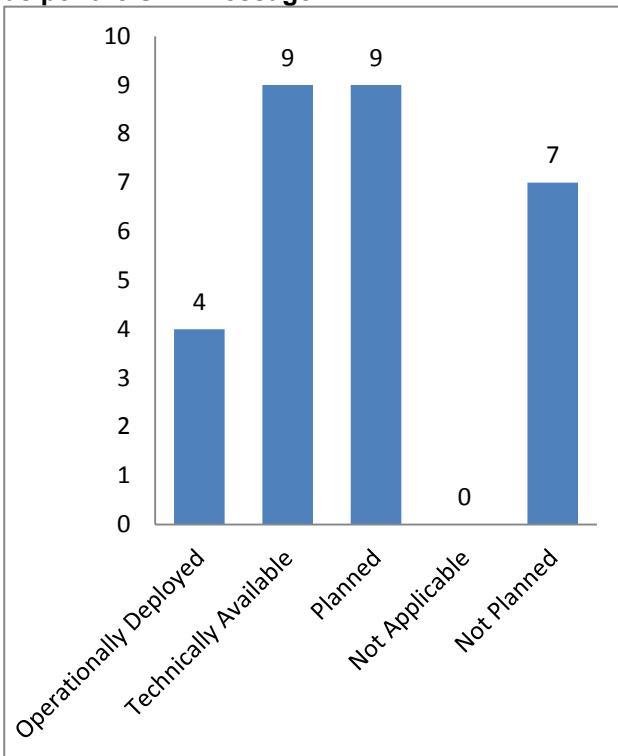
**SBY**

The same deployment, planning and strategic fit as per the SBY message.

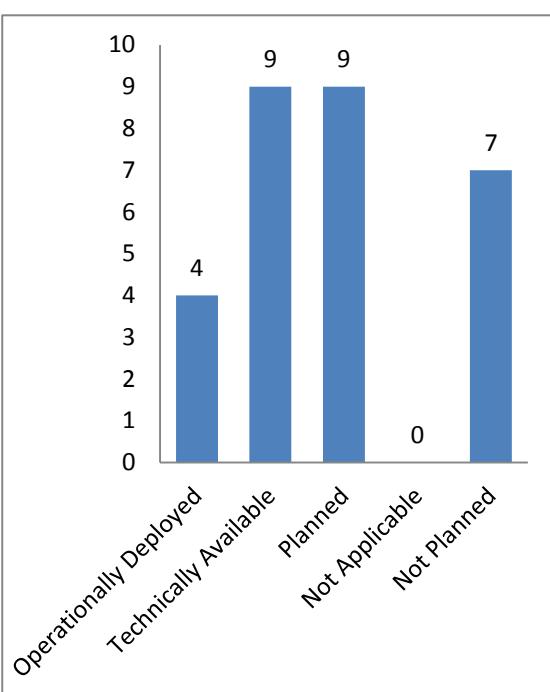


**CDN**

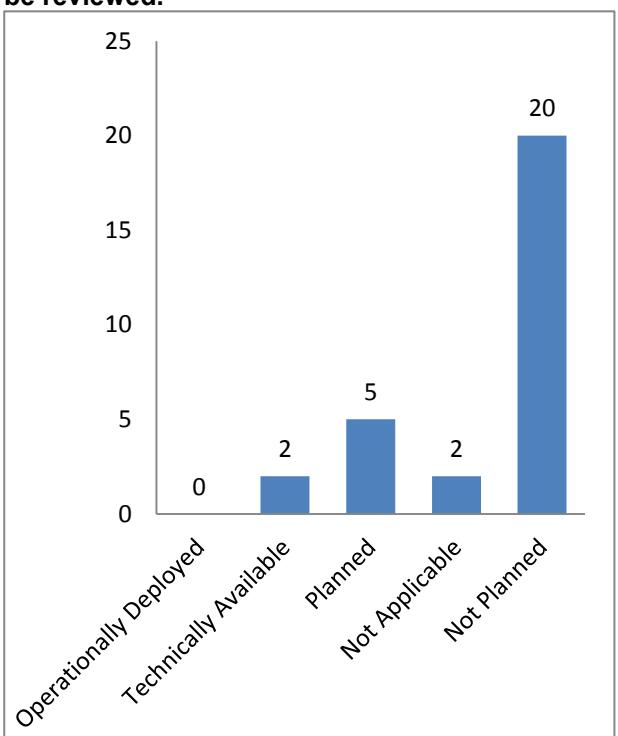
**The same deployment, planning and strategic fit as per the SBY message.**

**RJC**

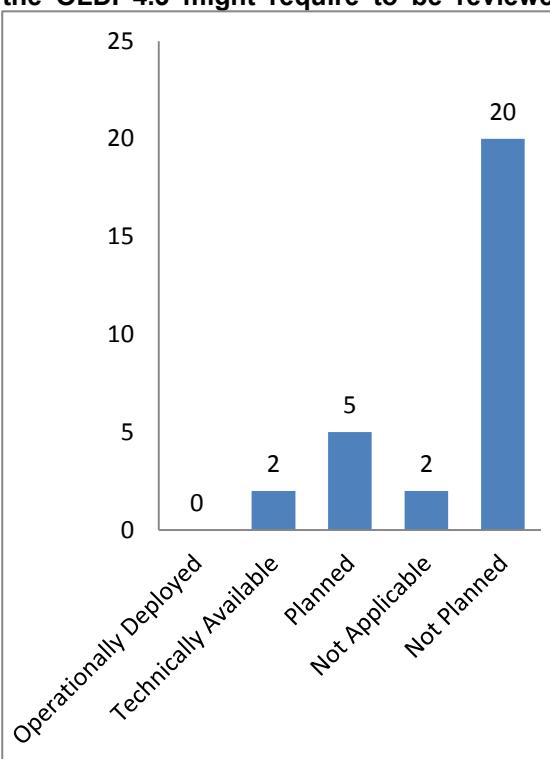
**The same deployment, planning and strategic fit as per the SBY message**

**RRQ**

This message is technically available by ROMATSA and UkSATSE, 5 other ANSPs plan to deploy RRQ message. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

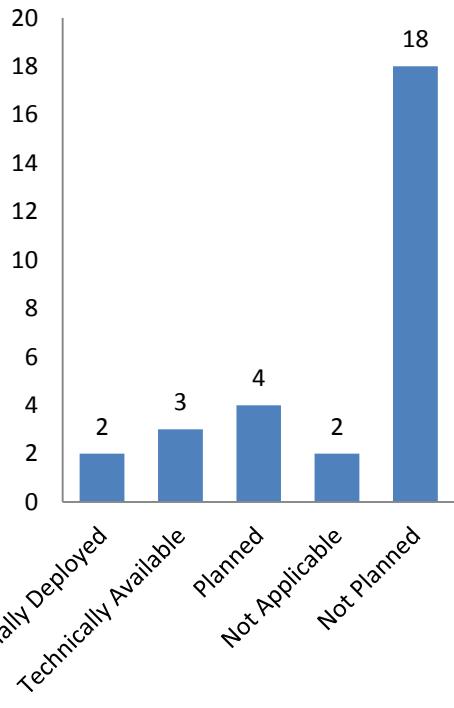
**RLS**

This message is technically available by ROMATSA and UkSATSE, 5 other ANSPs plan to deploy RLS message. The operational needs for this message within the OLDI 4.3 might require to be reviewed.

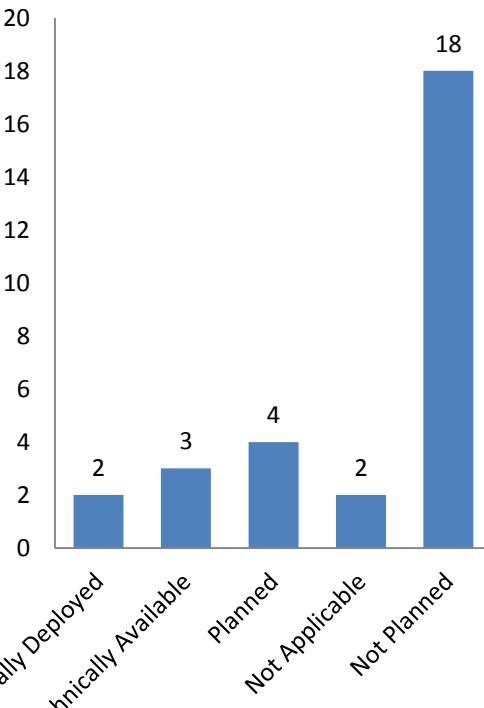


**RTI**

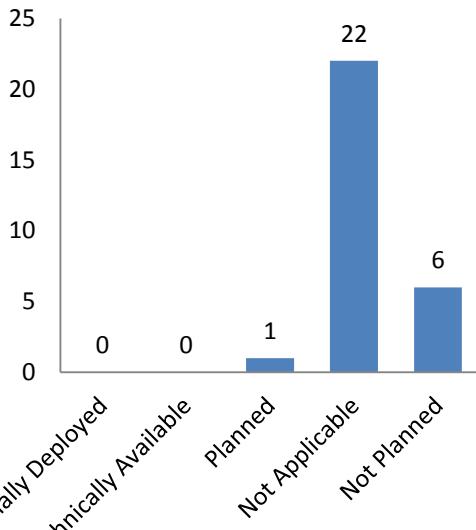
This message has been deployed by FINAVIA and EANS, it is technically available or planned by 7 other ANSPs. It is proposed to be kept within the OLDI 4.3

**TIP**

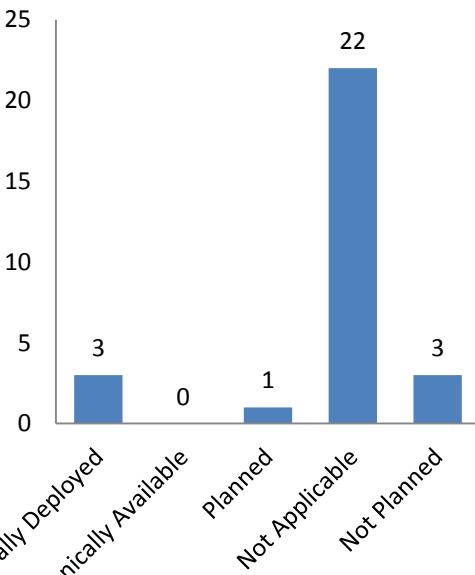
This message has been deployed by FINAVIA and EANS, it is technically available or planned by 7 other ANSPs. It is proposed to be kept within the OLDI 4.3

**ROC**

This message is not yet deployed, it is only planned by NAV-Portugal for 2020. As the OLDI specification edition 4.3 should address the OLDI data exchanges from the wider perspective, the need of this message within the OLDI 4.3 is deemed inappropriate.

**OCM**

This message has been deployed by DSNA, NATS and ENAIRE and it is only planned by NAV-Portugal for 2020. The operational needs for this message within the OLDI 4.3 might require to be reviewed.



### 3. Specific assessment of OLDI data exchanges

ABI and ACT messages are widely deployed with minor exceptions in terms of data exchanges with adjacent ATS units.

REV, MAC and MAV are also deployed by most of ANSPs, but with broader limitations in terms of adjacent ATS units.

The transfer of communication messages are operationally deployed by several ANSPs, in some cases for intra-centre transfers. The inter-centre implementation of transfer of communication messages are implemented for:

- ROMATSA-BULATSA interface
- ROMATSA-HUNGAROCONTROL interface
- Between LFV ATS units
- LFV- NAVIAIR interface
- LFV-Finavia interface
- Finavia-EANS interface
- LFV-EANS interface
- DFS-ANS CR interface
- Between DSNA ATS units using stripless environment (i.e. Brest ACC, Bordeaux ACC)

The coordination dialogue messages (RAP, RRV, CDN, ACP, RJC and SBY) are operationally deployed by 3 ANSPs for internal co-ordination. There are no inter-centre deployments of co-ordination dialogue messages. 10 additional ANSPs procured and integrated these messages, but the operational deployment is still pending; there are several examples of available OLDI dialogue messages that were not put into operations for several years for a variety of reasons (e.g. unavailability of partners, lack of interoperability, inadequate message visualisation and HMI). The technical availability of an OLDI message capability in a FDPS does not imply its operational use. The operational needs and benefits of some coordination dialogue messages are not clearly identified by some ANSPs. It should be noted that DFS and MUAC are planning to deploy the co-ordination dialogue exchanges in early 2019.

The EC regulation 716/2014 mandates the implementation of extended AMAN by the concerned ATS units within 180-200 NM from the arrival airport (within the PCP list of 25 busiest ones). This extension of AMAN horizon implies involvement of many en-route ATS units that need to exchange the extended AMAN info in order to absorb the airport /TMA delays within the en-route sectors. The extended AMAN data is standardised by the OLDI specification (AMA message), although some initial steps have been taken for B2B data exchanges. Taking into account the PCP requirements, ANSPs might need to reconsider their implantation plans for AMA message as this extension of AMAN horizon requires the involvement of additional ATS units.

## 4. Summary

Taking into account the current OLDI implementation, the OLDI data exchange planning and applicable EC regulation, the following items need to be emphasised as:

- The magnitude of changes pertinent to the OLDI messages (ABI, ACT, REV, MAC, BFD, CFD, LOF and NAN) that are the Community Specification for the mandatory processes defined by the EC regulations 1032/2006 and 30/2009 should be kept to a minimum (clarifications and optional requirements).
- Changes pertinent to OLDI messages (PAC, ROF and MAS) that are the Community Specification for the optional processes defined by the EC regulations 1032/2006 and 30/2009 need to be carefully considered.
- The OLDI messages related to the transfer of communication and co-ordination dialogue need to be adapted to the Stakeholder needs without a complete overhaul of the operational concept. Behind these messages and the basic requirements and message behaviour that have been defined in the previous editions of the OLDI specification shall remain.
- The operational, technical and business needs for the CRQ, CRP, RRQ, RLS and OCM messages might need to be reviewed in the light of poor implementation and planning evidence received. It should be noted the OLDI specification might not need to include the OLDI messages that are of interest of particular Stakeholder or group of Stakeholders. These individual implementations might not need to be specified by the OLDI specification.
- It is clear that the implementation record for civil-military coordination messages (XIN, XRQ, XAP and XCM) is extremely poor and their planning is similar. They could be candidates for removal from the OLDI specification edition 4.3, but the constraining factor is that they are the Community Specification for the optional processes of EC regulation 1032/2006.
- As the OLDI specification edition 4.3 should address the OLDI data exchanges from a wider perspective, the need of ROC with the OLDI 4.3 is deemed inappropriate (planned by 1 ANSP), and therefore the removal of ROC message from the OLDI specification edition 4.3 might be considered.

The implementation of OLDI messages related to the transfer of communication and dialogue coordination is lagging behind and it is very unlikely that the Final Operational Capability (FOC) date of December 2018, as defined by ATM Master Plan level 3, will be achieved. ANSPs may need to review their implementation plans to foster a more synchronized and planned implementation of OLDI messages with adjacent ATS units and to determine which OLDI messages provide operational benefits and be operationally introduced in a synchronised way.

An additional item that need to be highlighted is the implementation of the AMA message in the context of the PCP which might require some ANSPs to reconsider the AMA implementation or a suitable B2B solution. This concerns basically all ANSPs whose Area of Responsibility (AoR) is located within the 180-200 NM radius around airports listed in PCP applicability area.

## 5. Recommendations

The OLDI specification review group recommends:

- ROC message does not need to be included in the future editions of OLDI specifications.
- Despite the slow implementation of CRQ, CRP, RRQ, RLS and OCM messages and poor planning for these messages, these messages should be kept within the future OLDI specification.
- Similar considerations are applied for XIN, XRQ, XAP and XCM messages, as these messages are constrained by the optional processes of EC regulation 1032/2006.
- The Operational Stakeholders should review their implementation plans to foster a more synchronized implementation of the transfer of communication and co-ordination dialogue message OLDI messages.
- In the context of FABs and/or with neighbouring ATS units, the Operational Stakeholders should identify which OLDI messages (emphasis to be given to the transfer of communication and co-ordination dialogue message) provide operational benefits and should be operationally introduced in a synchronised way.
- The Operational Stakeholders should consider the deployment of AMA message or suitable B2B solution in the context of PCP AF1 (Extended AMAN and PBN in high density TMAs). This concerns basically all ATS units whose AoR are located within the 200 NM circle around the airports listed in applicability area of PCP AF1.