



ICAO PARIS | UNITING AVIATION

# B1-AMET implementation - IWXXM

EUR Data Management Group

**Interregional APAC/EUR/MID Workshop on 'service  
improvement through integration of AIM, MET and ATM  
information'**

*EUROCONTROL, 2-4 October 2017*





## Regional activities



- ***Workshop on Implementing the ICAO Meteorological Information Exchange Model IWXXM for the exchange of OPMET data*** (EANPG C57/23 refers – for OPMET exchange centres)
  - 31 May to 2 June 2016, Paris
  - 11 of 14 OPMET exchange hubs from AFI, EUR, MID, APAC attended
  - Implementation issues discussed and harmonization of method of notification on exchange in IWXXM as well as implementation survey
  - High level implementation plans and potential testing between centres developed



## Regional activities



- ***ICAO Meteorological Information Exchange Model (IWXXM) Implementation Workshop*** (EANPG C57/23 refers – for States)
  - 17 to 18 May 2017, Paris
  - 56 participants, 23 States, 2 industries, ICAO and WMO
  - Topics of information exchange included:
    - » Global developments (e.g. WG-MIE, WMO IWXXM schema)
    - » Overview of *Guidelines for the Implementation of OPMET Data Exchange using IWXXM in the EUR Region* (EUR Doc 033)...



## Regional activities

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- » Steps on IWXXM implementation
- » Bilateral testing
- » AMHS Profile for OPMET IWXXM data exchange (new App H to AMHS Manual – EUR Doc 020)
- » Extended AMHS implementation
- » IWXXM implementation challenges and potential solutions
- » Translation agreements
- » Industry perspective on IWXXM implementation



## Regional activities

- ***ICAO Meteorological Information Exchange Model (IWXXM) Implementation Workshop***
  - Outcomes included:
    - » States and industry exchanged information on the implementation of IWXXM in the EUR Region
    - » Developed list of outstanding IWXXM implementation issues forwarded to WG-MIE by direct membership
    - » Developed roadmap of various supporting documents
    - » Agreed to recirculate 2015 IWXXM implementation survey
    - » Agreed to provide summary of outcomes to this workshop
    - » Agreed to conduct another IWXXM implementation workshop Q4 2018 subject to IWXXM schema version 3.1 release



## IWXXM Roadmap – Annex 3

What	When	Details
Annex 3, Amendment 77	Nov 2016	Recommended practice that METAR and SPECI, TAF, SIGMET, AIRMET, TCA, VAA exchanged using XML/GML
Annex 3, Amendment 78	Nov 2018 (applicable Nov 2020)	Requirement that METAR and SPECI, TAF, SIGMET, AIRMET, TCA, VAA, SPACE WX exchanged using XML/GML



## IWXXM Roadmap – IWXXM schema

What	When	Details
IWXXM 3.0 schema	Sep 2017	Last opportunity for change requests
IWXXM 3.0 schema	Dec 2017	Test version of IWXXM 3.0 schema available
IWXXM 3.0 schema	Mar 2018	IWXXM 3.0 schema available for draft amendments to Manual on Codes
IWXXM 3.0 schema	May 2018	Formal approval procedure initiated
IWXXM 3.0 schema	Sep 2018	Conclusion of formal approval procedure
IWXXM <b>3.1</b> schema	Nov 2018	Amendment comes into force



## IWXXM Roadmap – Regional Docs

What	When	Details
<b>File Transfer Body Part Testing Document</b> (App 5.2.2N to MIDANPIRG/16 Report)	Feb 2017	MIDANPIRG/16 endorsed document developed by MIDAMC STG/3 for States to participate in trials on use of extended services
<b>EUR Doc 020</b> – EUR AMHS Manual	Jun 2017	Appendix H that includes the AMHS profile for IWXXM as well as testing to be published
<b>EUR Doc 033</b> – <i>Guidelines for the Implementation of OPMET Data Exchange using IWXXM in the EUR Region</i>	Nov 2017	To include link to AIXM for aeronautical information (depending on WG-MIE) To include reference to AMHS Manual





## IWXXM Roadmap – Regional Docs

What	When	Details
Guidelines for IWXXM Validation Statistics to be gathered by ROCs and RODBs	2018	Being developed by WG-MIE and expected to be included in the <i>Guidelines for the Implementation of OPMET data exchange using IWXXM</i> for regional consideration (e.g. updates to <b>EUR Doc 033</b> )
Guidelines for Translation Centre Operations – including draft Letter of Agreement	2018	
Guidelines on the use of Operational and Non-operational Status Indicators in IWXXM messages	2018	
IWXXM exchange testing	2018	



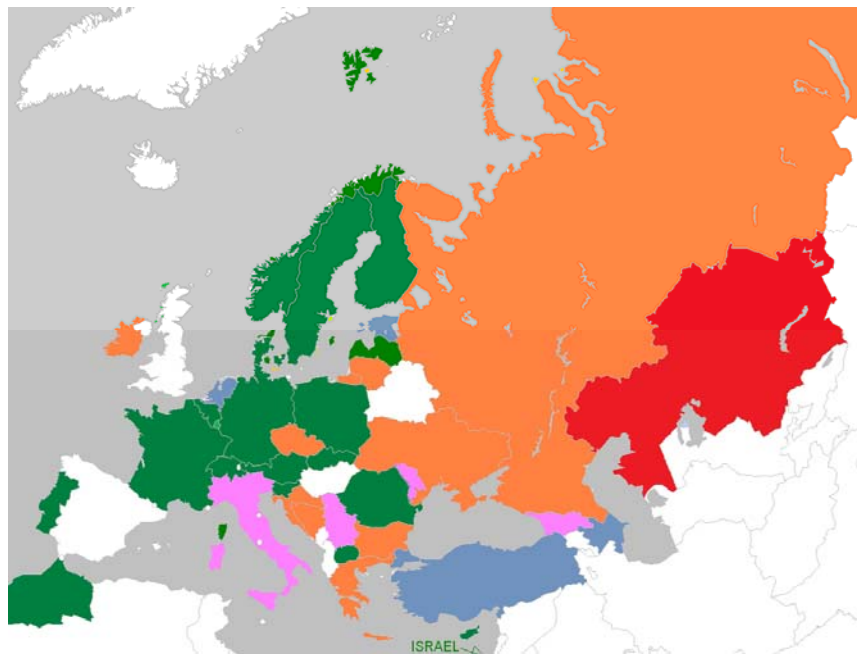
## IWXXM Roadmap – Future Events

What	When & Where	Purpose
Interregional APAC/EUR/MID Workshop on <i>'service improvement through integration of AIM, MET and ATM information'</i>	2-4 Oct 2017; Eurocontrol, Brussels, Belgium	Facilitate implementation – APAC/EUR/MID Regions
IWXXM Implementation Workshop	10-12 Oct 2017; Hong Kong, China	Facilitate implementation – APAC Region
Workshop on ROC/IWXXM Implementation	12-13 Nov 2017; Cairo, Egypt	Facilitate implementation – MID Region
Workshop on IWXXM Implementation	Q4 2018; Paris, France	Facilitate implementation – EUR Region



## EUR IWXXM survey results – AFS COM-Centre implementation of ATSMHS including FTBP

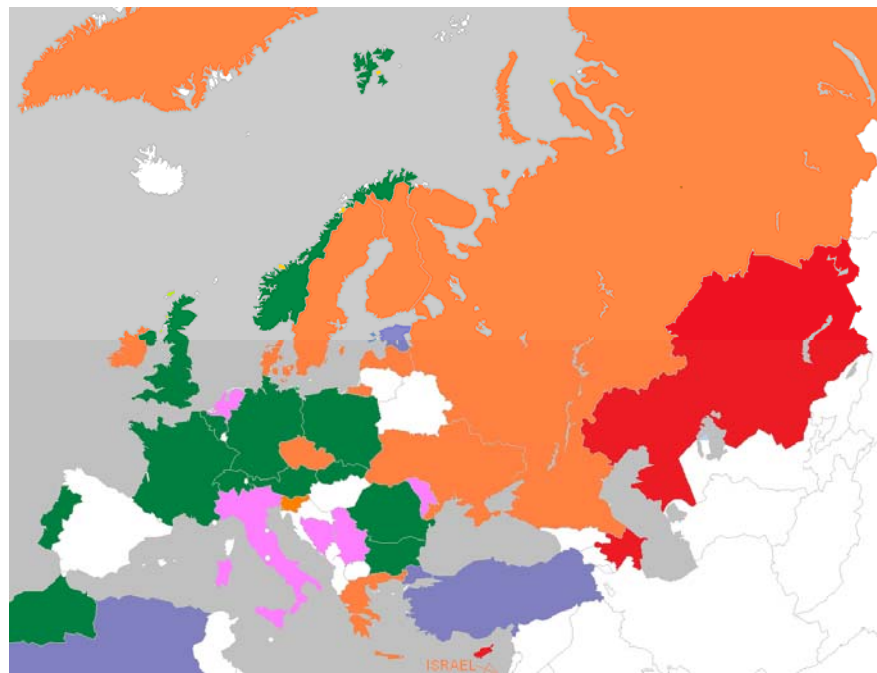
- Green by end of 2017 (37%)
- Orange by end of 2018 (17%)
- Pink by end of 2019 (8%)
- Red no plan (2%)
- Grey no date provided (8%)
- White no response (29%)





## EUR IWXXM survey – MET-Switch system support exchange of IWXXM MET messages by means of extended ATSMHS including FTBP

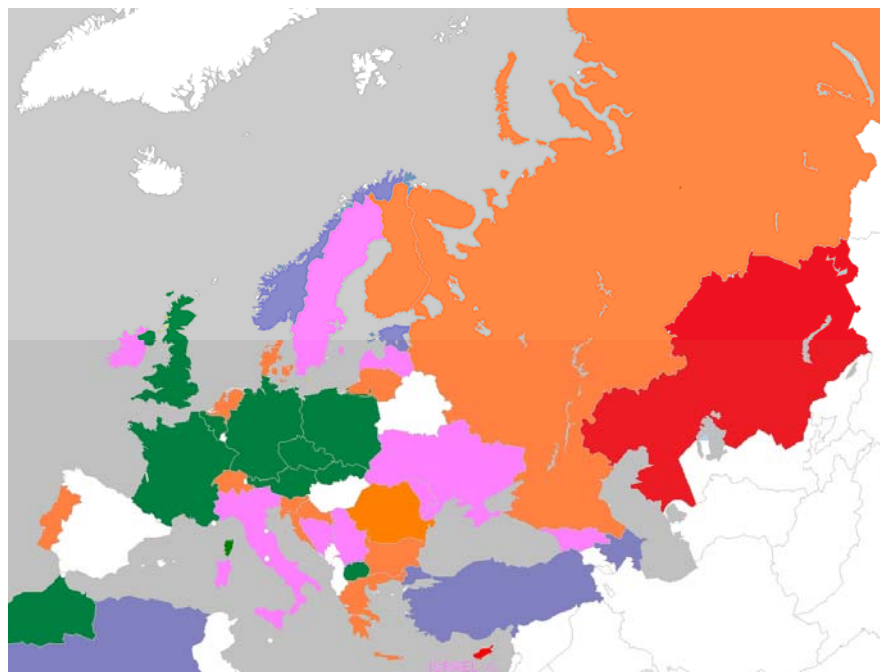
- Green by end of 2017 (25%)
- Orange by end of 2018 (21%)
- Pink by end of 2019 (10%)
- Red no plan (6%)
- Grey no date provided (6%)
- White no response (33%)





## EUR IWXXM survey results – METAR in IWXXM

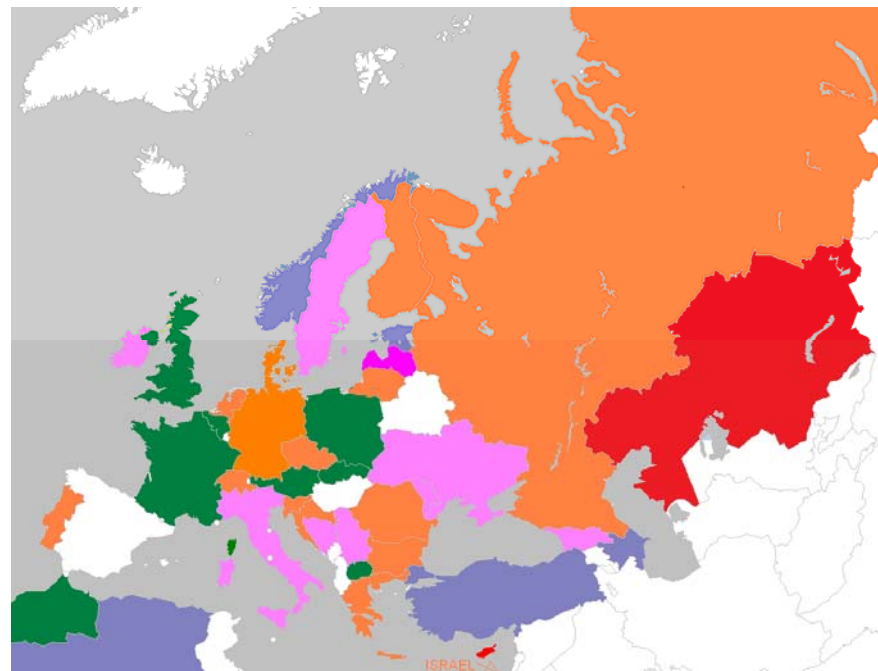
- Green by end of 2017 (29%)
- Orange by end of 2018 (23%)
- Pink by end of 2019 (19%)
- Red no plan (4%)
- Grey no date provided (10%)
- White no response (25%)





## EUR IWXXM survey results – TAF in IWXXM

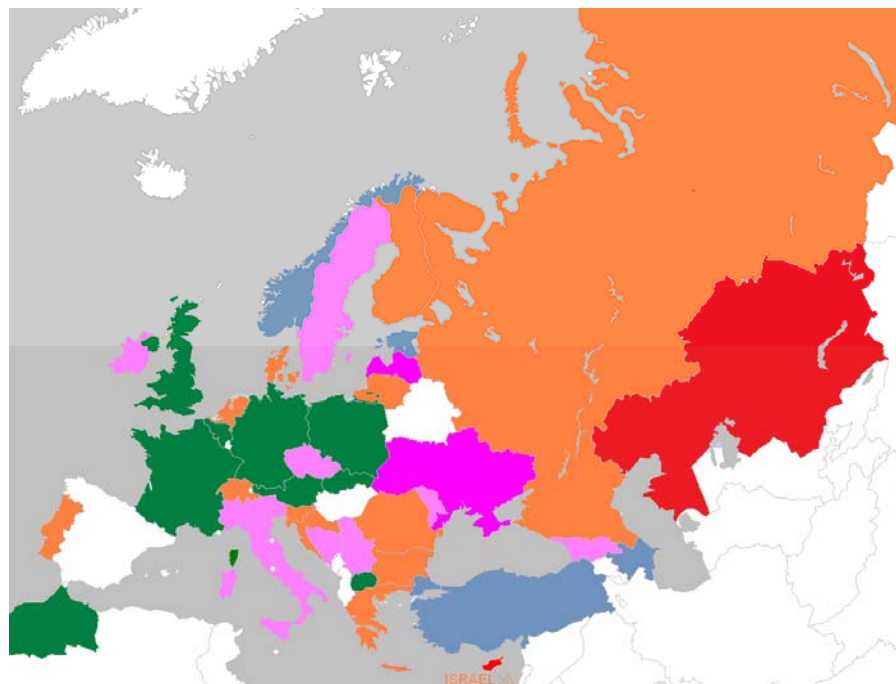
- Green by end of 2017 (15%)
- Orange by end of 2018 (29%)
- Pink by end of 2019 (15%)
- Dark pink by end of 2020 (2%)
- Red no plan (4%)
- Grey no date provided (10%)
- White no response (25%)





## EUR IWXXM survey results – SIGMET in IWXXM

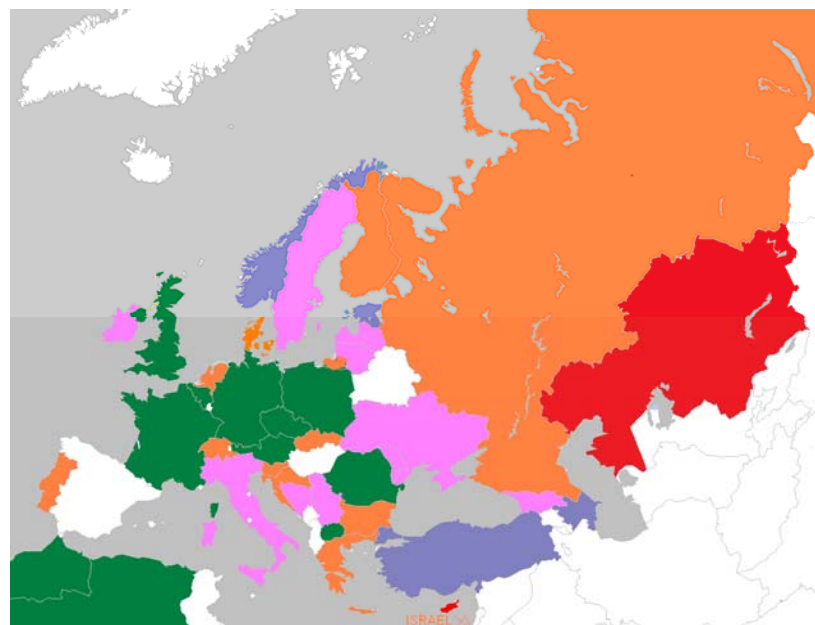
- Green by end of 2017 (17%)
- Orange by end of 2018 (23%)
- Pink by end of 2019 (15%)
- Dark pink by end of 2020 (4%)
- Red no plan (4%)
- Grey no date provided (8%)
- White no response (29%)





## EUR IWXXM survey results – receive OPMET data in IWXXM format

- Green by end of 2017 (21%)
- Orange by end of 2018 (25%)
- Pink by end of 2019 (17%)
- Red no plan (4%)
- Grey no date provided (8%)
- White no response (25%)







## IWXXM implementation – RODBs

- Regional OPMET Data Banks (RODBs)
  - Brussels (for AoR ROC London), support requests for IWXXM data beginning July 2017
  - Vienna – Q3/Q4 2017
  - Toulouse – Q3/Q4 2017



## IWXXM implementation – ROCs

- Regional OPMET Centres (ROCs)
  - Vienna – Nov 2016
    - » Also note that Vienna MET-switch has SWIM interface
      - Currently for internal use only
  - Toulouse – Q3/Q4 2017
  - London – Nov 2018
    - Established mechanism to exchange IWXXM intra- & inter-regionally while it implements its IWXXM and AMHS capability



## Activities planned in MID Region

- ROC/IWXXM Implementation Workshop (Cairo, 12-13 Nov 2017) & MID MET SG/7 (Cairo, 14-16 Nov 2017)
  - Consider global template – *Guidelines for the Implementation of OPMET Data Exchange using IWXXM* – as regional guidance
  - Consider possible future translation agreements
  - Provide status of implementation (using survey developed by EUR DMG)



## IWXXM implementation – challenges identified

- SIGMET TAC to IWXXM ambiguities
  - Preference to provide TAC SIGMET as polygon – no ambiguity
- Coordination with MET and COM
  - Some States will have to coordinate with different Ministry for upgrade to MET and COM switch
- IWXXM translation
  - Results can be different – testing recommended to harmonize results
- WMO and ICAO documentation
  - Need harmonized release of documentation and endorsement by both WMO and ICAO
- Outstanding implementation issues addressed by WG-MIE
  - Many issues such as compression type need to be addressed at global level



## IWXXM implementation – the way forward

- Disseminate information on WG-MIE decisions (e.g. compression) to MET groups and CNS groups
- WMO and ICAO documentation releases harmonized
- Update regional documentation in light of global developments
- Provide States option for translation from TAC to IWXXM
- Update implementation plans by States routinely
- Conduct workshops when necessary
- Work together – MET, COM – understand overall picture (AIXM, FIXM, IWXXM – SWIM)





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## ICAO

North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



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