### 2017 CEF Transport SESAR Call -SDM Workshop on Financing Mechanisms

5<sup>th</sup> of December 2017 Brussels





### **Welcome and Introduction**

#### **Nicolas Warinsko** Deputy Managing Director - Director Technical & Operations





### Agenda

- Policy context
- EIB's support to Aerospace sector
- Financing mechanisms + Q&A
- Candidate projects + Q&A
- Submission process + Q&A
- Conclusion





### **Policy Context**





#### Legal framework





#### Types of actions supported

- Studies, works and telematics applications systems and services - with the provisions of Article 10(2) of the CEF Regulation N° 1316/2013 on funding rates.
- Pilot activities of a study may include development of a certain type of infrastructure or technology but:
  - limited scale
  - reasonable price
  - for testing and validating innovative actions for future roll out.
- Research activities <u>not</u> covered by this Call.
- 2 categories of Projects: Common Projects and Other Projects



#### 11 priority families in Common Projects (PCP)

- **AF1** Extended arrival management and performance based navigation in the high density terminal manoeuvring areas
  - 1.1.2 AMAN upgrade to include Extended Horizon function
  - 1.2.1 RNP APCH with vertical auidance
- AF2 Airport integration throughput
  - 2.1.4 Airport Operations Plan (AOP)
- AF3 Flexible airspace management and free route
  - **3.1.3** Full rolling ASM: ATFCM process and ASM information sharing
- AF4 Network Collaborative Management
  - 4.2.4 AOP/NOP information sharing
- AF5 Initial System Wide Information Management
  - 5.1.3 Common SWIM infrastructure components
  - 5.1.4 Common SWIM PKI and cyber security
  - 5.2.2 Stakeholders' SWIM Infrastructures Components
  - 5.2.3 Stakeholders' SWIM PKI and cyber security
- AF6 Initial Trajectory Information Sharing
  - **6.1.3** Air/Ground and Ground/Ground Multi-Frequency Datalink Network in defined European Service Areas
  - **6.1.4** ATN B1 capability in Multi Frequency environment in aircraft domain



#### 4 priority functionalities in "other projects"

- Use of Satellite Based Augmentation System (SBAS), in particular EGNOS for Performance Based Navigation (PBN)
- Design and use of 3 Dimensional approach procedures (Required Navigation Performance Approach, fixed wing and rotorcraft) including Localizer Performance with Vertical Navigation (LPV) and Lateral Navigation (LNAV) and Vertical Navigation (VNAV) minima . PBN implementation at airports outside of the Pilot Common Project (COM IR 716/2014).
  - Decommissioning plan required
  - Grant ceiling: €25,000 per approach
  - Priority for proposals covering several runways and/or airports
  - Equipping existing aircraft with 8.33 KHz radios
    - Applicants falling under Regulations EC 1265/2007 -1079/2012
    - Grant limit: 20% (including equipment procurement and installation costs).
  - Implementation of Automatic-Dependent Surveillance-Broadcast (ADS-B) Out - Regulation 1207/2011 on SES requirements for performance and interoperability of surveillance
    - Priority: EGNOS capable receivers and/or addressing more demanding use cases.



#### Budget available

2017 MAP Call - General	€ 290 million
a) Common Projects	<b>80%</b>
b) Other Projects	<b>20%</b>



#### Initial SESAR envelope is spent after Call 2017

Initial envelope:3 billion EUREFSI (Junker):-0.5Financing mechanisms:-0.5Cohesion:-0.4Updated envelope:1.6 billion EUR

Call 2014/2015/2016 PCP: Outside PCP: Total

1.2 billion EUR 0.2 1.4 billion EUR

Call 2017 PCP: Outside PCP: Total

230 million EUR 60 290 million EUR



#### The future of CEF: grants + financial instruments



EC has requested the SDM to work out financing mechanisms to supplement grants :

- Financial instruments are an integral part of the CEF Regulation (EU) 1316/2013 in particular Art 14.2 & 15.4
- Grants may well reduce in the future (ref Brexit, security threats)
- The Blending Call 2017 was oversubscribed (X2) in areas such as Core Network Corridors (1450 M€ requested), Rail (400 M€), Innovation and New Technologies (200 M€)
- On the contrary SESAR produced 2 projects (out of 68) for 18 M€ of grants (out of 40 M€). Only one was awarded (ENAIRE).

Consequently, SESAR Call 2017 now pushes for the use of financial instruments specifically designed for ATM:

"Moreover, the European Investment Bank (EIB) is collaborating closely with the SESAR Deployment Manager to support the deployment of Common Projects. Applicants are encouraged to explore through this collaboration the possibilities offered by EIB to provide tailored financing products to all aviation stakeholders. "



### **EIB support to European ATM**









## EIB's Financing Opportunities for Aerospace Projects

**Pierre-Emmanuel Noel** 

Senior Banker | EIB Representative for Financing Operations in Belgium noelpe@eib.org



European Investment Bank Group

#### THE EIB AT A GLANCE

#### **Investing in Europe's growth**

- Natural financing partner for the EU institutions since 1958
- Around 90% of lending is within the EU
- Shareholders: 28 EU Member States
- Headquartered in Luxembourg and has 40 local offices

#### Largest multilateral lender and borrower in the world

- We raise our funds on the international capital markets
- We pass on favourable borrowing conditions to clients

#### Some 450 projects each year in over 160 countries

Offers loans, guarantees, microfinance and equity investments, as well as blended products (combining EIB and EU funds) and provides advisory services.



### **EIB Private Sector Loans**





# **Direct loans for large projects**





# Cooperation with financial intermediaries





#### **EIB Lending to Aerospace Industry**

Lending to Aircraft/Space Manufacturing industry: EUR 4.4 bn Timeframe: 2000-2015 EU Priority: Knowledge Economy / Innovation & Skills

#### Example

Loan: € 800 m Promoter: Airbus Group

**Project:** This project aims to promote the development of innovative products in order to reduce the aviation industry's environmental impact, and to improve the competitiveness of the EU industry.

**Objective:** Implement new technologies, improving the energy efficiency of the aircraft, which includes reduced fuel consumption and enhanced aerodynamics, and to lower the operating costs, aiming to increase acceptance in the aircraft market. Technologies will also be focused on a friendlier passenger and crew life on board, as well as on the enhanced aircraft operational safety.



### EIB backs KLM regional fleet renewal



)ec-1/

Last week, the Bank confirmed its agreement to lend up to 250 million euro to Dutch airline KLM, part of Air France-KLM, for the puchase of new, more fuel-efficient planes.

An iniitial tranche of 75 million euro has been made available via Crédit Agricole-CIB's aviation group business.

It is the first aviation transaction for the EIB for the last 10 years and follows a Board decision to modify the transport lending policy.

In total KLM Cityhopper will buy 10 new aircraft (Embraer 175 and

190's), which will use a third less fuel than the aircraft (Fokker 70) they are replacing, making them more environmentally friendly.

Following the signature last July, VP van Ballekom, responsible for transport said: "The new aircraft are more energy efficient and environmentally friendly than the aircraft being replaced, thus justifying the EIB's potential financing of the project. Regional connectivity is of major importance to the European economy, and as the EU Bank the EIB stands ready to finance transportation projects where it contributes to these goals, especially when we can partner up with other financiers to close a financing gap."



#### **Innovfin Large Projects**

#### Example

**Loan**: € 119 m

**Promoter:** Industria de Turbo Propulsores ITP

**Project:** Development and implementation of new technologies and support the development of lighter turbines, with a direct impact on fuel consumption and  $CO_2$  emissions.

**Objective**: Enhance the efficiency and reduce the fuel burn of gas turbines in commercial aircraft and improve their acoustic footprint.

Timeframe: 2014-2017





### Many thanks for your attention!

#### Contact: Pierre-Emmanuel Noel

Senior Banker | EIB Representative for Operations in Belgium noelpe@eib.org



This Presentation is incomplete without reference to, and should be viewed solely in conjunction with, the oral briefing provided by the European Investment Bank ("EIB"). The terms and conditions are intended as an outline for discussion purposes only and made on an indicative basis. All figures set forth in this Presentation are subject to change, to a satisfactory due diligence and to all necessary internal approvals of EIB (in particular of its credit committees). The information in this Presentation reflects the prevailing conditions and the view of EIB as of this date and are accordingly subject to change and based on carefully selected sources believed to be reliable. EIB has not independently verified this information and does not make any representation or will be liable that such information is accurate, valid, timely and complete. This Presentation is provided without any liability whatsoever by EIB and shall not constitute any obligation of EIB to extend credit facilities to the Company or to carry out a due diligence review of the aspects relevant for the financing of the Project. Neither this presentation nor any of its contents may be duplicated, published or used for any other purposes without the prior written consent of EIB.





#### European Investment Bank Group

### Financing mechanisms under CEF Call 2017





#### CEF Call 2017 : a Test Case dedicated to Airspace Users

#### Why Airspace Users ?

- Under PCP, airspace users have not so far benefitted much from grants. The next Common Projects shall be more "airborne oriented"
- Some SESAR applications recently emerged that produce the critical mass required and are natural candidate for innovative financing (with grace period to bridge between operational benefits - when ground investments are achieved and repayments)
- On the longer term, significant amounts of investment are at stake: possibly EUR 3 billion by 2035 (Source ATM Master Plan ed. 2015)

#### **Benefits for Airspace Users**

- Airspace Users are limited to 20% funding by grants: financial instruments can bring additional financing up to 100%, with grace period
- SDM will support Airspace Users (including small operators) to team up and reach critical mass
- SDM role as a coordinator will facilitate the complexity of the INEA grant mechanisms



#### **Pre-conditions and expectations**

#### **Pre-conditions**

- Minimum amount for a direct EIB loan: EUR 25 million
- EIB's contribution is limited to a maximum of 50% of the project value
- EU grants plus EIB financing is limited to a certain percentage of the project (70% in best case)

#### **Expectations**

- Obtain flexible and customised reimbursement profiles ("Grace Delay")
- Secure attractive interest rates
- Despite EIB limitation, reach 100% project financing
- Ideal target for Test Case : around EUR 100 million of investment



#### Key characteristics of the financing (1): Structure

Contrary to more complex schemes past discussed with EIB, SDM promotes a straightforward structure, avoiding any overdue administrative burden, costs, risks of any nature





# Key characteristics of the financing (2): high level contents

- I00% financing e.g. 20% grant / 50% EIB / 30% private banks
- A natural match with the development of ground functionalities: bullet over 3 to 5 years (optimum duration to determine for each application, based on maturity/mandate/financial cost...)
- Attractive rates
- No collateral
- Incentives to first movers



#### Market size requirements

EIB's internal guidance limit individual loans to single borrowers to a minimum of approx. €25M. The right size would be reached when clustering projects into one single and applying a single financial framework to all.

This is a challenge to reach by SESAR avionics.

Technical project (s) that may contribute to reaching the critical mass and be supported by financial mechanisms under Call 2017 and immediate years thereafter:

- ATNB1 / B2: \$160K/aircraft
- ADS B OUT: \$60K/aircraft
- SBAS: \$60K/aircraft
- SATCOM: \$180K/aircraft

Applied to the large number of EU registered aircraft



#### Market size estimate

Functionality	N° of A/C	Action	Duration	Amount
ATNB1 / B2	300 / year	Forward fit	3	€ 125 million
SBAS	350 / year	Retrofit	3	€ 55 million
ADS B OUT	1000 / year	Retrofit	3	€ 150 million
SATCOM	100 / year	Forward fit	3	€ 45 million

Each of those projects potentially reaches the required critical mass



### **Questions & Answers**





European Union

### **Candidate projects**





#### Candidate functionalities for Airspace Users

Criteria to be looked after for Airborne projects :

- Maturity
- Mandate for deployment
- Airborne vs. ground time match
- Critical mass

Under such criteria :

• ADS-B OUT is most promising candidate, however not part of the PCP

Other functionalities potentially <u>meeting the required criteria</u> <u>and included in PCP</u> :

- ATN B1 (retrofit) and ATN B2 (forward fit)

- SBAS (part of AF1 family)
- Functionalities better coming under future Calls (maturity issue) :
  - SATCOM to support ATN
  - GBAS Cat. 2/3



#### **ATN B1/B2**

Regulation (EC) 29/2009 amended by (EU) 2015/310 makes ATNB1 mandatory by February 2020.

Most of the aircraft operating in Europe are already equipped with avionics.

About 300 aircraft eligible to financing mechanisms are still unequipped.

All new aircraft delivered for use in the European airspace must be fitted. This represents a market of several hundred aircraft over the PCP to equip as soon as possible, maximizing the capacity benefits and paving the way to business trajectory, the backbone of SESAR operational concept, through the ADS-C EPP application.

ATNB1 / B2 is de facto part of the PCP, recorded under Family 6.1.4 and 6.1.5

The total cost of retrofitting or forward fitting an aircraft exceeds €150K.

It is a natural candidate for CEF Call 2017 (retrofit and forward fit).



SBAS is one of the enablers of vertical approach in support of APV (RNP APCH with vertical guidance) of Family 1.2.1 of the PCP

SBAS can provide the on-board performance monitoring required for the performance of RNP1 operations in high density areas of Family 1.2.4.

SBAS is also a cost effective alternative to the expensive conventional ILS CAT1.

Whereas most new aircraft will be delivered with the equipment as standard, the transition to reach significant levels of equipage will be long without incentives to retrofit.

The total cost of retrofitting or forward fitting an aircraft exceeds €60K.

It is a candidate for CEF Call 2017 and thereafter.



#### **ADS B OUT**

All aircraft operating in Europe (with a few exceptions) are expected to be equipped with transponders meeting regulation (EC) 1207/2011 (DO 260 B) amended by (EU) 1028 / 2014 postponing mandated equipage to 7 June 2020.

Note: There are discussions about one more extension of such deadline.

Almost no aircraft have been retrofitted so far. For such reason ADS B OUT is a natural candidate for financing mechanisms.

Cost depends on the basic aircraft equipment, from a low  $\in$ 40K to possibly  $\in$ 100K. New aircraft will be delivered with the functionality as part of the basic specification.

ADS B OUT is not part of the PCP but is part of the Master Plan (and CP2 proposal).

It is a prime candidate under Category 2 of "Other Projects".



### **Questions & Answers**





European Union

### **Submission process**





#### Process for the submission of the proposals

In order to properly elaborate the proposals to the 2017 CEF Transport SESAR Call for **Proposals**, each Applicant shall provide SDM with all technical and financial information and all administrative documents requested for the proposals submission.

**SDM acts as "coordinator" of all Applicants'** and it is in charge to finalize all the proposals documentation (Part A; Part B; Part C and Part D), required by INEA, on the basis of the information provided by each Applicant.





#### **Process and Roadmap**

Technical and Financial Roadmap



#### How to apply with regards to financing mechanisms

**Key principles:** 

- Candidate projects will be proposed to INEA in a <u>"business as usual"</u> manner
- Candidate projects will <u>first have to be awarded for grants</u> by INEA (Sep. 2018)
- If awarded by INEA, then possibility for the airline to <u>confirm interest</u> for Financing Mechanism, or on the contrary to <u>pull-back</u>
- If for any reason (lack of interest from the airline, critical mass not reached, impossibility to conclude financial agreement...) the FM is eventually not activated : <u>this does not disqualify the application for what concerns the grants</u> <u>part of the application</u>



#### Key considerations in applying

- 1) Application form / Part D :
- Wording will be worked-out very accurately by SDM (in order to make clear to INEA that FM is a riskless option on top of "business as usual" application)
- Meeting SDM/INEA would be organized to fully explain and support the application
- EC promotes the use of financial instruments and will consider very positively projects proposed as test cases
- 2) Flexibility (id needed by some airlines)
- Airlines could organize their IP description in <u>work packages</u> in order to facilitate <u>potential resizing</u> of the project if needed
- There is also the possibility to adapt the profile of investment during the SGA preparation phase (September to November 2018), especially because Call 2017 allows investments to be made until 2023.



# Application form/ Part D: sections to be worked-out by SDM

#### 4.1 Information on funding sources of the proposed Action (state budget(s), regional / local budget(s), applicant's own resources, EIB loan(s), other loan(s)), other sources)

For each funding source listed in the tables in Application Form part A, describe the nature and legal status of the funds. Specify the relevant legal basis, the modalities of budget allocation and the timing of the funds' availability. Specify if the financing is secured and, for any sources which are not fully secured, describe in detail the current status. If a specific financing scheme exists, describe its modalities and in which way it is compatible with state aid rules.

#### 4.2 Envisaged financing model:

If the information is available, indicate if the proposed Action is expected to be financed through any of the following financing models (or a combination thereof):

- Recourse financial structure using the applicant's own resources (i.e. any financial resources of the applicant and/or that it could obtain or borrow from external provider of funds on a recourse basis meaning with a repayment obligation that is irrespective of the revenues generated by the Action or global project).
- Non-recourse financial structure (whether or not involving a Special Purpose Vehicle, such as Project finance) where the repayment obligation is limited to the level of the revenues generated by the Action or global project.

Please explain what considerations lead to the choice (or rejection) of any of the financing model above or if the decision is still pending.

#### 4.3 Information on the potential for private sector financing (including Public-Private Partnerships) that could enable the use of EU financial instruments

If private sector financing through the use of Public-Private Partnership, concession or other financing mechanism has been or are being explored, describe it in detail. If not, explain why these mechanisms have not been explored or were not relevant for the proposal in question. If the proposed Action will only receive public financing, describe the underlying reasons. In case PPPs and/or financial instruments were considered and finally rejected, explain why.

#### 4.4 Information on the expected private sector financing (including Public-Private Partnerships) which could enable the use of EU financial instruments, possibly in combination with CEF grant funding

If the exploratory phase described in question 4.10 has been concluded and the outcome is negative or if such exploratory phase has not been conducted (as explained in question 4.9), this section should be filled in as 'Not applicable'.

If the exploratory phase described in question 4.10 has been concluded and the outcome is positive, provide more information on nature of private sector financing and how it will contribute to implementation of the proposed Action.



#### Roadmap

	ост	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC
Call publication				GC	/NOG	þ									
First draft IP descriptions				<b>(</b> 0)		NG)									
Second draft IP descriptions															
Preparation / finalization of the final proposal					Ň										
Submission to Member States			<b>♠</b>												
Submission to EC															
Evaluation of proposals			dou												
Selection decision			l S S												
Preparation of SGAs			Wor												
Signature of loan agreement (Max date = +12 months)			Ļ										1		
High level Business Case												G		<b>30</b>	
Identification of carriers												(0	or RESI	ZING)	
First design & pricing															
Final design & pricing															



### **Questions & Answers**





European Union