

MINUTES

Technology Roadmap for Small Air Transport Mode Workshop SAT-Rdmp, CSA-SA, FP7

What: MINUTES of the Technology Roadmap for Small Air Transport Mode Workshop

Who: See Attendance List

When: 20th July 2012

Where: Regione Campania, Brussels

Why: Discuss with representatives of the SAT Community, EC, Regulators, Operators about the Technology Roadmap implementing the Vision in the European practice.

AGENDA

Technology Roadmap for Small Air Transport Mode Workshop

Date: 20th July 2012 (Friday)

Location:

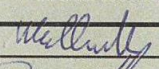
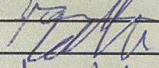
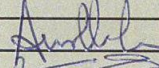
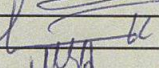
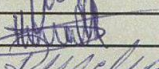
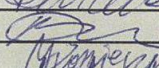
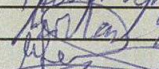

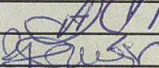
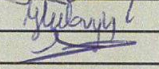
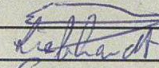
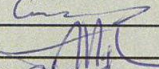
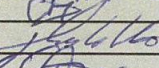
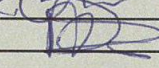
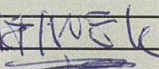
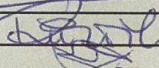
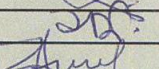
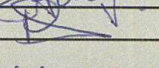
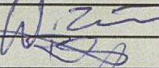
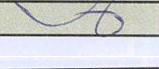
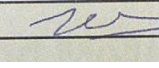




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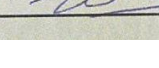
8:30	Registration	
9:00	Welcome	Krzysztof PIWEK (IoA)
9:15	Main conclusions on the Common Vision for Small Aircraft Transport (SAT) mode for inter-regional mobility responding to Flight Path 2050 challenges (90% d2d 4 h)	Marcello AMATO (CIRA)
9:45	Main conclusions on the demand for SAT mode, business model simulation and possible scenarios	Stefaan GHIJS (Aeolus) Daniel ROHACS (BUTE)
10:15	Technology Roadmap for SAT mode,	Adriaan de GRAAFF (Ad Cuenta)
10:45	Discussion	
<i>11:00 – 11:20 Coffee break</i>		
11:20	Main conclusions on the assessment of capabilities and industry master plan	Mariusz KUBRYN (PZL M)
11:40	Main conclusions on the missing/needed capabilities	Catalin NAE (INCAS)
12:00	The Small Air Transport needs – view of an operator	Mauro CALVANO (M. Ludi Aviation)
12:20	Discussion	
<i>12:30 – 13:30 Lunch</i>		
13:30	Next steps discussion: <ul style="list-style-type: none"> • EC point of view on the role of Small Air Transport in FP 2050 goals, and its place in SRIA and also in Horizon 2020, • Clean Sky 2 status of creation and also point of view on role of Small Air Transport in CS2 goals, • Small Aircraft Big Challenge – the need for RTD and demonstration • Cooperating within the sector – EGAMA, SESAR • Cooperating within the sector – how to involve others 	Pablo PEREZ-ILLANA (EC DG R&I) Eric DAUTRIAT (Clean Sky) Aniello Cozzolino (Piaggio) Krzysztof Piwek (IoA) Jaroslav RUZICKA (Evektor) Adriaan de GRAAFF (Ad Cuenta)
15:00	End of the meeting	

Attendance List

Technology Roadmap for Small Aircraft Transport Mode, Brussels, 20th July 2012

ATTENDANCE LIST

item	Name	Country	Organisation	SIGNATURE
1	AMATO Marcello	IT	CIRA	
2	BARON Alfred	PL	IoA	
3	CALVANO Mauro	IT	Magister Ludi Aviation	
4	COCCHIERE Ignazio	IT	ADIE	
5	COZZOLINO Aniello	IT	Piaggio	
6	CZINCZENHEIM Claude	FR	DASSAULT AVIATION	
7	de GRAAFF Adriaan	NL	AD CUENTA	
8	DAUTRIAT Eric	EU	Clean SKY	
9	DENOLF Harald	BE	Skylegs	
10	DENIKA Joanna	PL	BPTLPil Sp. Z o.o.	
11	DZIUGIEŁ Bartosz	PL	IoA	
12	DZIUGIEŁ Malwina	PL	IoA	
13	ERB Michael	DE	IAOPA - Director	
14	FARIOLI Mario	IT	CIRA	
15	GHIJS Stefaan	BE	Fly Aeolus	
16	GORAJ Zdobysław	PL	WUT	
17	IWANIUK Andrzej	PL	IoA	
18	KOŚMIDER Tomasz	PL	Fundacja Technology Partners	
19	KUBRYN Mariusz	PL	PZL M	
20	LAPLACE Isabelle	FR	M3S	
21	Le TALLEC Claude	FR	ONERA	
22	LIEBHARDT Bernd	DE	DLR	
23	KLEIN LEBBINK Gerben	NL	NL Agency	
24	MAĆZKA Zbigniew	PL	Polish Civil Aviation Office	
25	MICHAUT Christiane	FR	ONERA	
26	NAE Catalin	RO	INCAS	
27	OVENDEN Chris	UK	GE	
28	PEREZ-ILLANA Pablo	EU	EC-DG R&I-Aeronautics	
29	PIERSANTINI Mariella	IT	Clean SKY	
30	PIWEK Krzysztof	PL	IoA	
31	ROHACS Daniel	HU	BUTE	
32	RUZICKA Jaroslav	CZ	EVEKTOR	
33	SCHELFHOUT Maxim	BE	Skylegs	
34	TABORDA Joao Pedro	FR	EMBRAER	
35	TUREK Zbigniew	PL	NCP	
36	van SCHAIK Frans J.	NL	NLR	
37	WOŁĘJSZA Zbigniew	PL	IoA	
38	ZAŁĘSKI Witold	PL	BPTLPil Sp. Z o.o.	
39	ZOHACS J.	PL	IoA	
40	NIKOLAY NIKIFOROV	RF	ULYANOVSK	

41	LECOMTE Eric	BE	European Commission	
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Welcome:

Mr. Krzysztof Piwek, as SAT-Rdmp Project Coordinator, welcomed all Workshop participants. He expressed hope that the workshop would be a step forward to build synergy in the European aviation community. He reminded crucial transport goals of Flight Path 2050 and potential of Small Aircraft Transport Mode as a component of European customer-oriented air transport system. The main objective of the Workshop was discussion with representatives of the SAT Community (Industry, Research, Academia, SMEs), EC, Regulators and Operators to create and develop shared vision of Small Aircraft Transportation System.

Main Subject:

1. Main conclusions on the Common Vision for Small Aircraft Transport (SAT) mode for inter-regional mobility responding to Flight Path 2050 challenges (90% d2d 4 h)

– **Marcello AMATO (CIRA)**

Mr. Marcello Amato presented “Common Vision for the development of Small Aircraft Transport System”. He also reminded everybody the key issues of the Small Aircraft Transport System:

- SAT system would offer increased mobility with a highly customer oriented approach.
- The SAT system would add a new modality within the Air Transport System and complement international and regional transport.
- The SAT System would be highly customer oriented (affordable, accessible, predictable, dependable and comfortable), environmentally friendly, interconnected, safe and secure.
- SAT system would exploit small airports, aerodromes, heliports, seaplane aerodromes, thus answering to the growing and segmented demand for air transport and will increase the accessibility to transport.
- The system would be based on small aircraft and rotorcraft, with 4 to 19 seats, including amphibious aircraft, operating scheduled and unscheduled flights in an integrated and intelligent transport management system.

There were no questions.

2. Main conclusions on the demand for SAT mode, business model simulation and possible scenarios – **Stefaan GHIJS (Aeolus)/Daniel ROHACS (BUTE)**

Mr. Stefaan Ghijs presented “Demand for SAT mode, business model simulation and possible scenarios”. Mr. Eric Dautriat suggested that Mr. Ghijs should add to his model estimated data about high speed railways future development. According to him it would be much more complex analysis. Mr. Adriaan de Graaff assured that build of high speed railways was very expensive and it had (usually) been building to connect the big cities. He doubted if it would ever connect towns and small airports which are the main point of SAT Roadmap system.

3. Technology Roadmap for SAT mode – **Adriaan de GRAAFF (AD CUENTA)**

Mr. Adriaan de Graaff presented “The SAT Roadmap” and after that he asked all workshop guests the following question: would they provide some inputs and comments to the SAT Roadmap

document and (would they) participate in the discussions at the Conference “Small Aircraft Transportation in the Future” at ILA on 13th September 2012. He added that the whole European Small Aircraft Community should take the premeditated joint activity to protect their businesses from the competition of the Chinese General Aviation companies. Mr. Zbigniew Turek agreed and added that market replaces the needs and the European small aircraft industry had to act quickly. Mr. Michael Erb claimed that there was danger of underestimating the competition and the existing restrictions. Mr. Adriaan de Graaff agreed and suggested to do as much as possible to convince the Community and the European Commission to SAT-Roadmap vision. Mr. Michael Erb invited everybody to the “4. European General Aviation Conference des Dachverbandes der Allgemeinen, Regionalen und Geschäftsluftfahrt (DARL)” which would take place in Berlin ILA on 10th September 2012.

4. Main conclusions on the assessment of capabilities and industry master plan

– Mariusz KUBRYN (PZL M)

Mr. Mariusz Kubryn presented “Main conclusion of D4.1 Assessment of existing capabilities in Europe and D4.3 Master Plan for development of aircraft for Small Air Transport”. He mentioned the main difficulties of aircraft development for Small Air Transport:

- Adaptation of European legislation to SAT demand,
- Ratio of the certification costs vs. the final price of customer’s aircraft,
- Bureaucratic barriers related to fees,
- Needed support of European Union and European Commission.

There were no questions.

5. Main conclusions on the missing/needed capabilities – Catalin NAE (INCAS)

Mr. Catalin Nae presented “Identification of missing capabilities in Europe”. The presentation was followed by a discussion about improvement of small aircraft safety. Mr. Zdobyslaw Goraj noted that safety usually depends on many parameters and needed to be combine these parameters in one aircraft. Mr. Krzysztof Piwek noted that safety problems were related to certification standards and EASA established the requirements which must be met by small aircraft but opportunity to higher this level had existed.

6. The Small Air Transport needs – view of an operator – Mauro CALVANO (Magister Ludi Aviation)

Mr. Mauro Calvano presented “An operator point of view - For the development of an effective Business Model”. He said that there were three main constrains for SAT-Roadmap: linked to regulatory, operational and financial issue. Mr. Witold Załęski claimed that the main problem related to aircraft was too much time spent on waiting at airports and traveling by public surface transport from airports to the city center. He added that many small airports would be disappearing because of the high land prices and competition with developers. Mr. Stefaan Ghijs said that the problem described by Mr. Załęski was not related to regional airports in small town but was linked to the big hubs which were usually near big cities. He added that 90% of European population lived within distance of 15 minutes from the nearest small airports so the travel time to airport could be

significantly shorter. Mr. Zbigniew Mączka said that Small Aircraft Transport was mode of transport devoted to the small intensity roads where land prices were low and the value of this land is directly linked with the value of the local airports. Mr. Mauro Calvano pointed at possible intermodality of SAT-Roadmap system.

Mr. Zdobyslaw Goraj asked Mr. Mauro Calvano what he thought about using natural rivers as runways instead of concrete ones. He added that in Poland, there were a lot of lakes and their potential was not used. Mr. Calvano answered that it was good idea and there was such a solution in Glasgow downtown. He noted also that certification and permissions gaining process were very difficult. Mr. Calvano added that seaplanes much less affected the natural environment than boats.

7. Next steps discussion

a) EC point of view on the role of Small Air Transport in FP 2050 goals, and its place in SRIA and also in Horizon 2020 – Pablo PEREZ-ILLANA (EC DG R&I)

Mr. Pablo Perez-Illana presented European Commission point of view on the role of Small Air Transport in Flight Path 2050, its place in SRIA and in Horizon 2020.

- He said that the EC concentrated at technology side of the future project research and mentioned on-going project which could bring benefits for SAT-Roadmap community (i.e. P-Plane, ESPOSA, SAFAR).
- He said about the last calls for proposals, about one of the few topics related to Small Aircraft Transport - safety aspects and proposed to look for some synergy with commercial aircraft transport projects.
- He informed that SAT-Roadmap proposal to Horizon 2020 was currently under discussion in the Commission and he suggested to be active and sent the message that it wanted to fully meet the needs of wholly segments not only of a big aircraft companies but also of small aircraft manufacturers.
- He mentioned 3 different areas where small aircraft community might be active: demonstration project public private partnership like Clean Sky, SESAR and Collaborative research. He asked the SAT-Roadmap consortium where they thought his project fit better.

b) Clean Sky 2 status of creation and also point of view on role of Small Air Transport in CS2 goals – Eric DAUTRIAT (Clean Sky)

Mr. Eric Dautriat said more about Clean Sky 2 which main target were environmental issues (lower emissions and noise in Horizon 2020). He added that the CS2 team would like to get a wide vision of aircraft technologies and their consequences - environmental impact. Other issues raised by Mr. Dautriat were as follow:

- The leaders and the main beneficiaries of CS2 were not designated yet so the competition was open. All right technological proposals would welcome.
- The structure of CS2 was different than CS1, it was need for greater integration - built the platform which integrate the different systems.
- The preliminary program outline had sent to the EC. Impact assessment would last the end of September.
- The public meeting of Clean Sky team would be: "Consultation on Clean Sky 2" on 12th September at ILA in Berlin. SAT-Roadmap project consortium was welcome.

- CS2 was consisted from the big aircraft companies, but there was place for small aircraft industry too.
- On 26th July there would be a meeting CS with some of SAT-Roadmap partners and other small aircraft industry companies.

Mr. Adriaan de Graaff persuaded that participation of the SAT-Roadmap consortium in CS2 was very crucial for the idea surviving. He stressed that the Community must be active. Mr. Krzysztof Piwek asked industry representative for comment. Mr. Jaroslav Ruzicka noted that participation of companies in CS2 depended on funds. All companies in project were too small so CS1 was almost closed for them because it was created for big players. Mr. Dautriat agreed but also added that there were 500 participants in CS1 so there was room for small companies too. Mr. Adriaan de Graaff commented that small aircraft community was not integrated. Mr. Chris Ovenden asked how they could involve in that discussion. Mr. Amato answered that General Aviation Community could come at the meeting and say about the ideas and willingness of participating in the project (in CS2). He added that it would be the unique opportunity which whole industry would be interested in. He also expressed concern why some participants said that everything was closed. Mr. Aniello Cozzolino said that he was ready to step forward. He added that it was last opportunity for the community to bring together the technology need for this project, and then would see how many companies survive.

c) Cooperating within the sector – EGAMA, SESAR – Jaroslav RUZICKA (Evektor)

Mr. Krzysztof Piwek asked Mr. Jaroslav Ruzicka for comment concerning cooperating within the sector. Mr. Ruzicka said that in European Union lobbying was important - strong group could make a big pressure. Before the EGAMA meeting he asked Mr. Michael Standar, Chief of Strategies and International Relations from SESAR JU some questions. The first was if he could tell how the small aircraft system should be implemented to community airplanes. He could imagine that AIRBUS could afford to have type of equipment which cost 2-3 million Euros to start and land in many hubs. The Second question was how it would be functioning because SESAR was restricted to the European Union territory. He continued that it meant that for instance airplane from Ukraine to EU would have to have two different equipment types or it would be special airplane which would be double certified. How SESAR would solve these problems? Mr. Ruzicka said that Mr. Standar's answer was as that probably there would be 2 level of airports in Europe. Mr. Ruzicka commented that EASA was devoted to AIRBUS. It forgot about GA. Mr. Zbigniew Mączka added that he agreed that EASA was designed for AIRBUS – big aircraft, but small aircraft need something like that too. He additionally noted that all countries including Russia were members of ICAO and therefore the Ukrainian planes could land in Europe with no problem, because they were in ICAO common system. The situation was the same in the case small aircraft. Only restriction was not being at the black list. Some of Ukrainian airlines (due to level of safety, security) were there but Russian not – mostly due to political reasons. Mr. Adriaan de Graaff commented that it was the typical SESAR approach. He added that the answer should be that they would develop the equipment at 150 thousand of Euro with the same capabilities flying in the sky and connected to the SWIM Datalink.

d) Small Aircraft Big Challenge – the need for RTD and demonstration – Aniello COZZOLINO (Piaggio), Krzysztof PIWEK (IoA)

Mr. Aniello Cozzolino presented “Small Aircraft Big Challenge”: During the presentation he stressed that the process was expensive but it had already started and if they want to exist in European market they would like to decrease the direct operating cost and deliver appropriate aircraft. There was a need for new propulsion system and low cost airframe development as well as improvement in safety. He added that SESAR was not something against the Consortium interest. It was only necessary to be active in presenting the needs.

e) Cooperating within the sector – how to involve others – Adriaan de GRAAFF (AD CUENTA)

Mr. Adriaan de Graaff did presentation titled “How to involve others”. He said that united approach was absolutely necessary to save from oblivion the small aircraft industry. According to him it was important especially to create a new transport mode system. He proposed actions:

- SAT roadmap to provide inputs to Horizon 2020
- Take EGAMA as a starting point
- Prepare a charter for the association
- Invite relevant stakeholders to the ILA - SAT workshop on September 13, 2012
- Invite relevant organizations to a meeting at ILA after the workshop
- Create a network soon after the ILA
- Use EGAMA/ ASD secretariat as a start

Everybody agreed that the community of small aircraft shouldn't fight with each other because the competition exists in China and in the USA.

The community should join forces to create united actions. Mr. Stefaan Ghijs suggested that each project participant might find some small aircraft operators from his country and invite 5-6 of them to the ILA - SAT workshop on September 13, 2012.

Mr. Piwek asked Mr. Ruzicka if EGAMA was interested in organizing the forum to discuss small aircraft transportation community matters. Mr. Ruzicka answered that he had to consider it. Mr. de Graaff claimed that it was up to EGAMA as a sector representative to organize something, also after the finish of SAT-Roadmap project in September.

Mr. Krzysztof Piwek thanked everybody for attending the Workshop and invited all to ILA SAT-Roadmap project conference.

Attachments:

Meeting presentations:

- Attachment 1: [Welcome and Short Introduction to the SAT- Roadmap Project - K. Piwek \(IoA\)](#)
- Attachment 2: [Common Vision for the development of Small Aircraft Transport System - M. Amato \(CIRA\)](#)
- Attachment 3: [Demand for SAT mode, business model simulation and possible scenarios - S. Ghijs \(Fly Aeolus\), D. Rohacs \(BUTE\)](#)
- Attachment 4: [THE SAT Roadmap - A. de Graaff \(Ad Cuenta\)](#)
- Attachment 5: [Main conclusions on the assessment of capabilities and industry - M. Kubryn \(PZL M\)](#)
- Attachment 6: [Identification of missing capabilities in Europe - C. Nae \(INCAS\)](#)
- Attachment 7: [An operator point of view - For the development of an effective, Business Model - M. Calvano \(Magister Ludi Aviation\)](#)
- Attachment 8: [Small Aircraft Big Challenge - A. Cozzolino \(Piaggio Aero\)](#)
- Attachment 9: [Integrated Technology Demonstrator for Small Aircraft Transport Mode in the framework of CS 2 Green Regional Aircraft - K. Piwek \(IoA\)](#)
- Attachment 10: [How to involve others - A de Graaff \(Ad Cuenta\)](#)
- Attachment 11: [Report on Ongoing or Planned Research D3.2 - B. Dziugiel \(IoA\)](#)

All Attachments you can find on the project website:

<http://www.sat-rdmp.eu/Events/roadmapworkshop.htm>