**Aeronautics** 

Status: 22/12/2011

## **International Workshop on High-Speed Air Transport**

### "Towards a Global Approach on Environment Friendly High-Speed Air Transport"

Venue: European Commission, Brussels, Buildings J-79 and CDMA 26<sup>th</sup> - 27<sup>th</sup> January 2012

### Background to the Workshop

After pioneering ideas in the last 50 years, first promising concepts for hypersonic transport and for single-stage-to-orbit were developed in the 80ties in the frame of projects such as Saenger, HOTOL or NASP; however the needed readiness level of key technologies was not yet available by then.

Meanwhile technologies have progressed significantly in key areas for high-speed transportation such as aerodynamics, materials, propulsion and numerical simulations. Experimental and in-flight tests demonstrated the readiness of several technologies creating a unique opportunity on pursuing self-sustained flight at high speed.

In 2004 the European Space Agency ESA and the European Commission agreed on first technology projects addressing aspects of future civil high-speed transport. Joint projects within the Research Framework Programme of the European Union such as LAPCAT, ATLLAS or FAST20XX achieved significant progress in essential technologies.

World-wide progress in hypersonic technologies has been achieved by technology activities and even flight demonstrations up to Mach 10 in several countries such as Australia, Japan, USA, Russia and others.

The intrinsic nature of any high-speed civil transport calls for a global, international approach. Moreover, the enormous technological challenges and the associated high costs will require an international cooperation and co-ordination in high-speed research. Joint efforts will boost the technical progress and set up a 'win-win' perspective for all parties.

#### Workshop Objectives

The aim of this international workshop is to exchange information on the progress achieved and to identify areas, synergies and mechanisms for possible future coordination and joint research activities. In addition, discussions on potential working modalities, first concrete co-operation steps can be identified and discussed.

#### Addressees

The Workshop addresses senior programme and project leaders in high-speed technologies as well as representatives of Government Ministries and agencies supporting high-speed initiatives.

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# Draft Agenda - Day 1

Day 1 - Technical Sessions

Venue: European Commission, Rue Joseph II 79 (J-79), 1040 Brussels				
09:00-09:30	Registration and gathering			
10:00- 10:45	Welcome and Introduction Session			
	Welcome by the Host	Tiit Jurimae, Head of DG R&I H.3 Aeronautics		
	<ul> <li>General Objectives for 'Green' High- Speed Air Transport</li> </ul>	N. N., Aerospace Industry		
	<ul> <li>Opportunities for International Co- operation within the EU Framework Programmes</li> </ul>	Commission or others		
10:45-11:15	Coffee Break			
11:15-13:00	Technical Session 1:	Chairperson: Australia/ Japan/ Russia		
	Available Technologies of Interest for High- Speed Flight Experiments within Europe.	Nussia		
	<ul> <li>Technology Developments within EC- Projects on High-Speed Air Transport</li> </ul>	Johan Steelant, ESA-ESTEC		
	• High-Speed Technology Developments in France	François Falempin MBDA/ Marco Prampolini, Astrium		
		Laurent Serre, ONERA		
	High-Speed Technology Developments in Germany	Thino Eggers, DLR		
	High-Speed Technology Developments in Italy	Salvatore Borrelli, CIRA		
13:00-14:00	Sandwich Lunch			
14:00-15:00	Technical Session 2:	Chairperson: EU		
	Available Technologies of Interest for High- Speed Flight Experiments outside Europe.	Champerson. EO		
	<ul> <li>High-Speed Technologies in Russia of interest for Flight Testing</li> </ul>	N.N., TsAGI or MAI		
	<ul> <li>High-Speed Technologies in Japan of interest for Flight Testing</li> </ul>	Maita Masataka, JAXA		
	High-Speed Technologies in Australia of interest for Flight Testing	Russell Boyce, Univ. Queensland		

15:00-15:30	Coffee Break	
15:30-17:00	Round-Table Discussion:	Chairpersons: EC/ Int. countries
	Possibilities for International Cooperation on High-Speed Technologies of interest for a Common Flight Testing Programme	
19:30	Workshop Dinner	Place t. b. d.

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## Draft Agenda - Day 2

Friday,	<b>27</b> <sup>th</sup>	January	2012
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## Day 2 - Outlook to the Future of High-speed Transport

Venue: European Commission, Rue du Champ de Mars 21 (CDMA), 1050 Brussels

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09:30-10:00	Registration and gathering	
10:00-10:30	Welcome Addresses and Introduction	Chairman: András Siegler, Director, DG R&I-H Transport
		Senior level representatives of European Commission, European Space Agency, Russia, Japan, Australia
10:30–11:00	Keynote Speech Working Title: "High-speed Transport – an Innovation Driver with a Long-term Vision"	Jean Botti, CTO EADS
10:30–10:45	Scene Setter: Concepts for a Joint Step Ahead	ESA/ Commission
11:00-11:30	Coffee Break	
11:30-13:00	Session 1:	Chairperson: Guy Gallic, EADS-IW
	State-of-the-art of Technologies for Civil High-Speed Air Transport	
	High-Speed Air Transport Projects in Europe	Johan Steelant, ESA-ESTEC
	• High-Speed Air Transport Projects in Russia	N.N., TsAGI
	• High-Speed Air Transport Projects in Japan	Maita Masataka, JAXA
	• High-Speed Air Transport Projects in Australia	Russell Boyce, Univ. Queensland
13:00 -14:00	Buffet Lunch	

14:00-15:00	Session 2:	Chairperson: Tbd.
	Towards Co-ordination and Co-operation on High-Speed Transport Research	
	Proposal for a Follow-up Project based upon Roadmap of on-going EC-projects and Outcome of Technical Workshop	Johan Steelant, ESA-ESTEC
	Opportunities within the EU Framework     Programme and Co-ordination Aspects	European Commission
	Implementation Aspects of International Co-operation	European Commission
	Collaboration Potential by International Partners	Australia/ Japan/ Russia
15:00-15:20	Coffee Break	
15:20-16:30	Panel Discussion:	Moderator: Europ. Commission
	Perspectives for Future Collaboration in High-Speed Civil Transport	Panel participants from EU Member States, ESA, Australia, Japan, Russia (tbd.)
16:30	Closing Statement	European Commission