



EqIMG in Aviation Valley

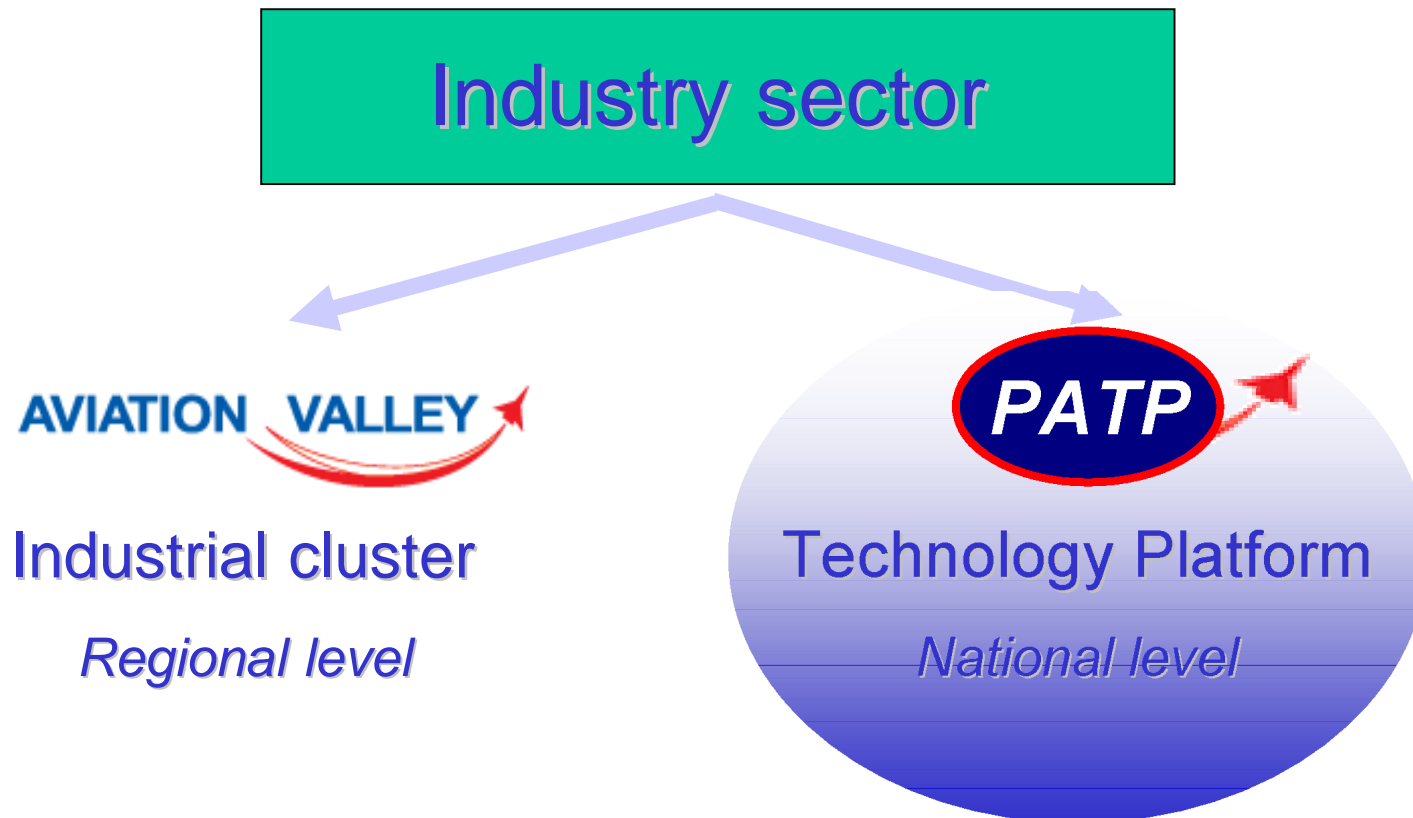
Rzeszów , 22-23.10.2008, Poland

Robert Haligowski – WSK PZL-Rzeszów

Polish Aerospace Technology Platform

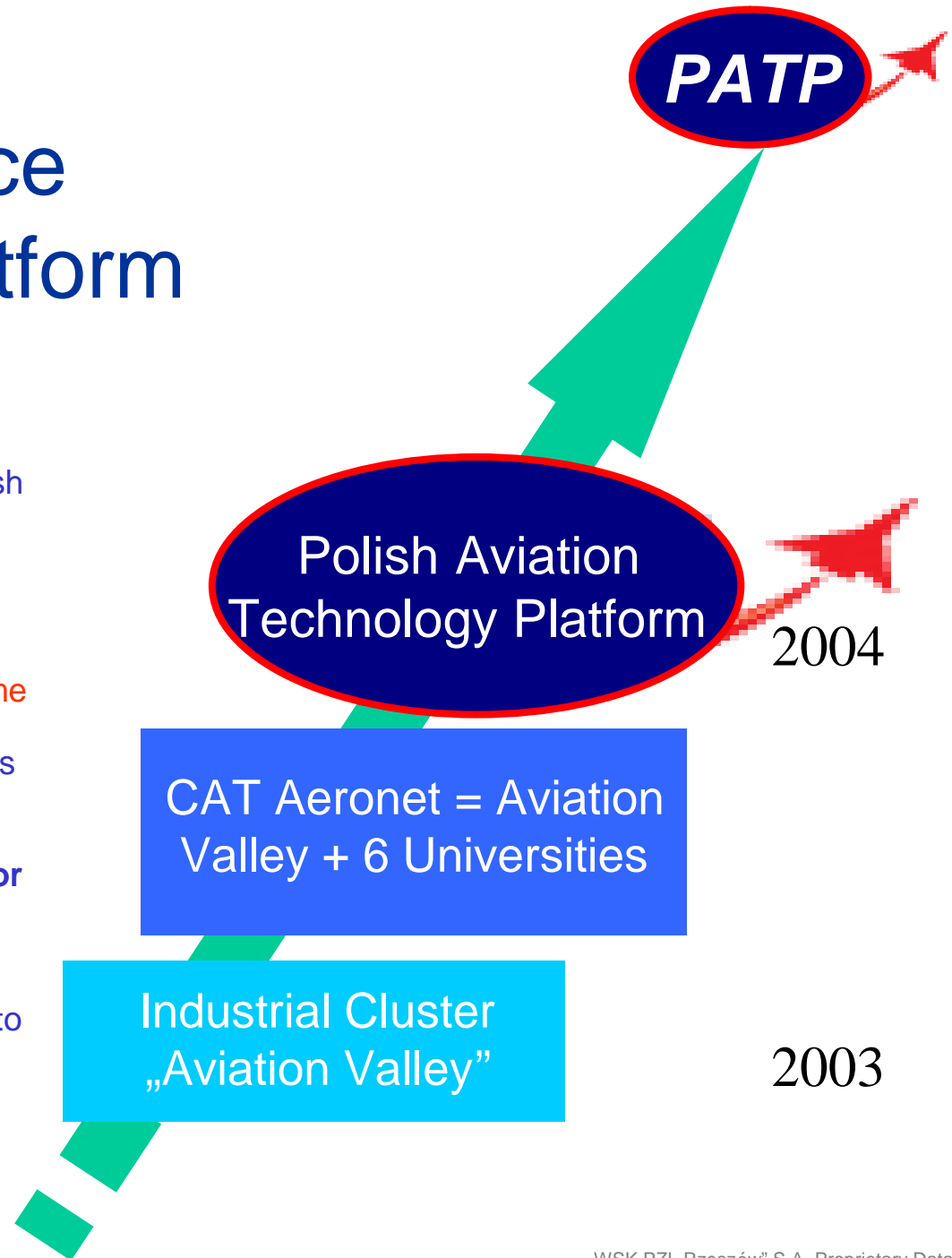


Two ways of innovative industry sector integration



Polish Aerospace Technology Platform

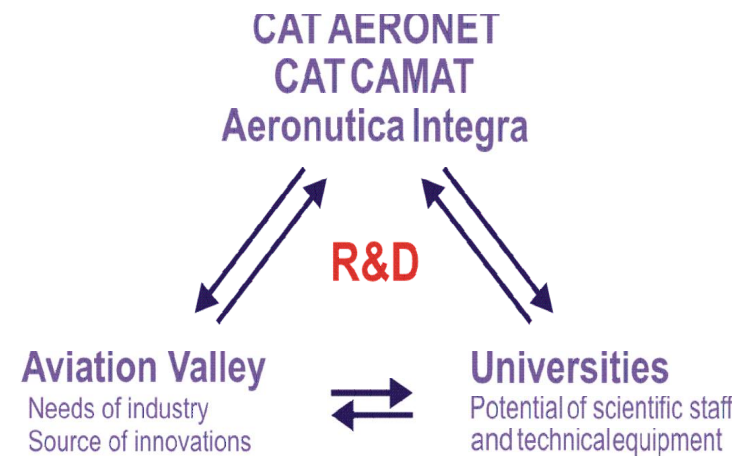
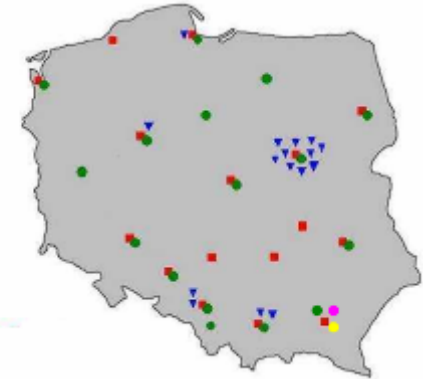
- Definition of the **strategy for Polish aviation**
- Active participation in establishing Polish and implementation of European SRA
- Active participation in **EU Frame Programs**
- Preparation of ambitious strategic national research program meeting the needs of the sector, which could become a part of **National SRA**
- Cooperation with other branch platforms
- **Integration** of key **industrial and science partners**
- **Consolidation of Polish aviation sector**
- Mobilization of significant private and public resources
- Efficient use of structural funds (NPR 2004-2006, NPR 2007-2013), in order to **increase economy competitiveness**,
- **Promotion and lobbying** of aviation development



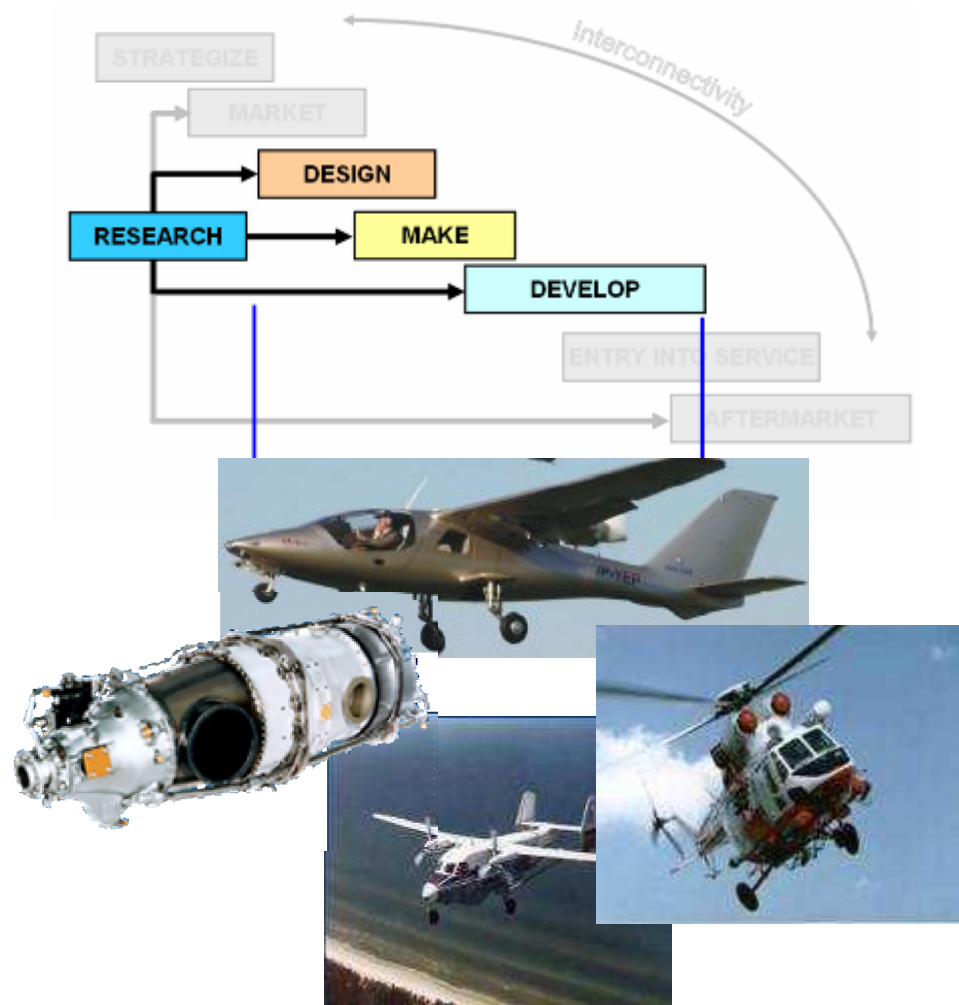
Research capabilities



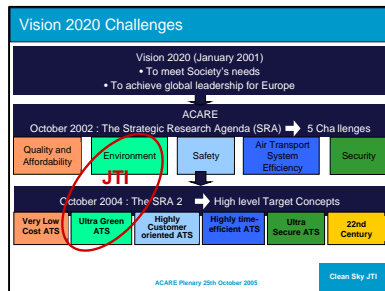
- Technical Universities – 17
- Universities – 15
- ▼ Aeronautics related Institutes – 16
- CAT AERONET Aviation Valley
- Scientific Network Aeronautica Integra



Polish aerospace industry transformation

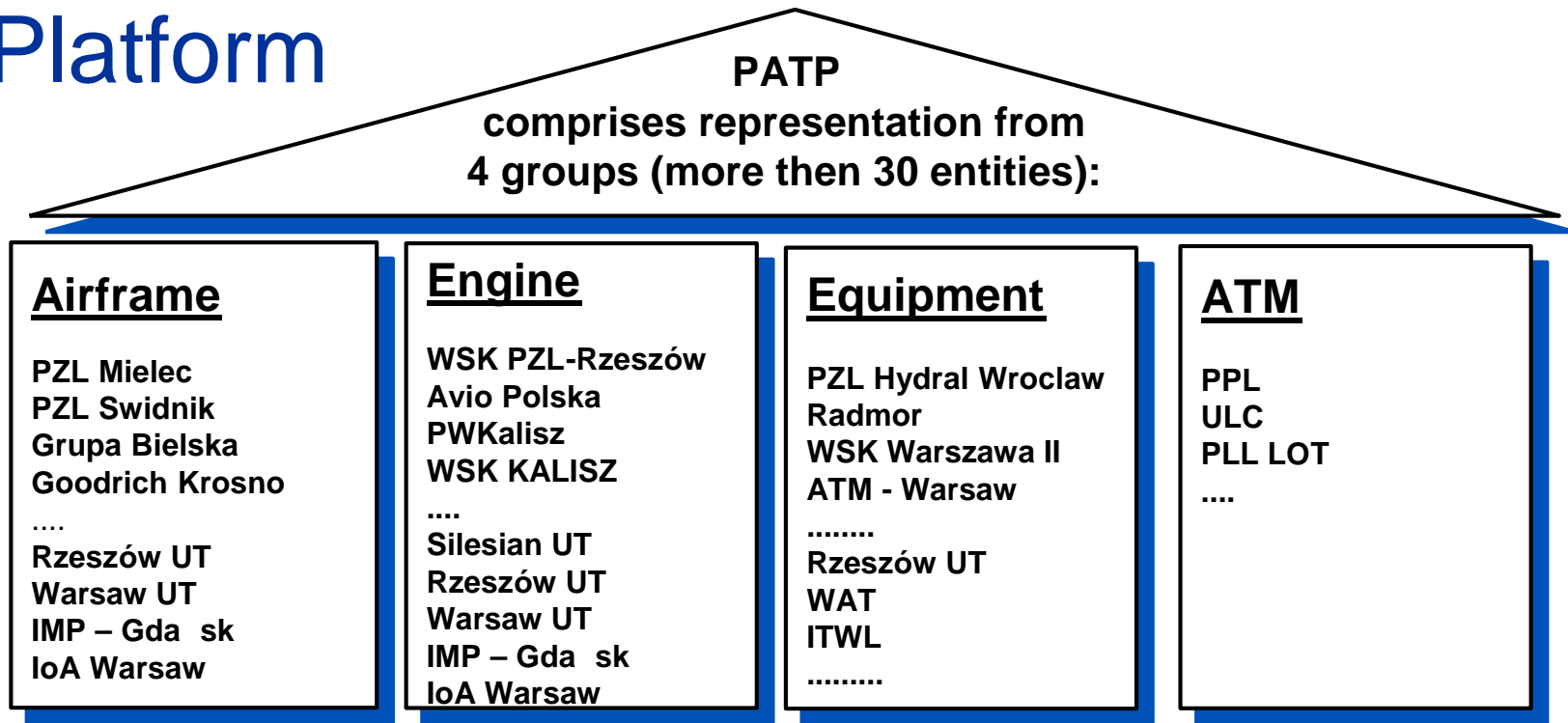


PATP - Vision



- PATP has capability and ambition to become modern and reliable group driving R&D.
- PATP as an interface with European aerospace platform ACARE
- PATP stakeholders:
 - can offer a significant potential in the manufacturing and R&D area to strengthen European competitiveness
 - working together have agreed on CR (both EU & national level) proposals and committed the necessary resources
- PATP will integrate industry, SME, R&D institutions and Academia .

Polish Aerospace Technology Platform



SHORT TERM GOALS:

- national SRA created in 2006 – in line with ACARE SRA2
- list all R&D capability / projects that may support both ACARE vision and IMG4 strategy (reduced emission, noise, SFC, etc.) in FP7

Success story - Industry



FP5 (AERO)

- CAST

FP6 (AERO, NMP, ITS)

- COCOMAT, FRIENDCOPTER, HELISAFE and PARTNER
- KMM-NoE and AVALON
- SPIDER-WIN

FP6 (AERO, NMP, SSA)

- VITAL, NEWAC
- FilmFree, EPATS

FP7 (AERO, NMP, SSA)

- FLEXA, ELUBSYS, MEFISTO

Success story – Academia

Universities

- Cz stochowa University of Technology (CUT)
 - FP5 – MOLECULES, TRANSPRETURB, UTAT
 - FP6 – INTELLECT, TIMECOP-AE, FarWake, WallTurb
- Pozna University of Technology (PUT)
 - FP5 - TAURUS
- Warsaw University of Technology (WUT)
 - FP5 – CAPECON, ADFSC II,
 - FP6 - NACRE, NICE TRIP, SimSac, VULCAN, ADIGMA
- Rzeszów University of Technology (RUT)
 - FP7 - HIRT



Success story – R&D Establishment

Institutes

- **Institute of Aviation, Warsaw (IoA)**
 - FP5 - HELIX, X Noise, ViewLS, Diamond VIP, FLITE, HiReTT, UAVnet, NAS-TAURUS
 - Scratch IV - Promoting SME Participation - Contact Point in IoA, PL
 - FP6 - Aeronet III, Adland, HISAC, Air TN, UFAST, Flite 2, CESAR, SOFIA, EPATS
 - Scratch - Promoting SME Participation - Contact Point in IoA, PL
 - Air Transport Net and X Noise Phase 2/3 - Air external noise network
- **Institute of Fluid Flow Machinery, Polish Academy of Sciences, Gdansk (IMP)**
 - FP6 - ARTIMA, AITEB-2, FLIRET, TLC, UFAST (Coordination)
- **Institute of Fundamental Technological Research, Polish Academy of Sciences, Warsaw (IPPT)**



Success story – Summary

Knowledge based production technologies –
WSK Rzeszów, PZL-Swidnik, PZL- Mielec,
Ultratech, ATM, Microtech

Aerodynamics CFD and experimental

external flows – CUT, IMP, IoA , PUT, WUT

internal flows and combustion - CUT, IMP, WUT

engines and turbine blades – CUT, IMP, WUT,

Adaptive structures – IMP, IoA, IPPT

Novel concepts – IoA, WUT, RUT

Airplane and rotorcraft systems - WUT

National SRA - Methodology

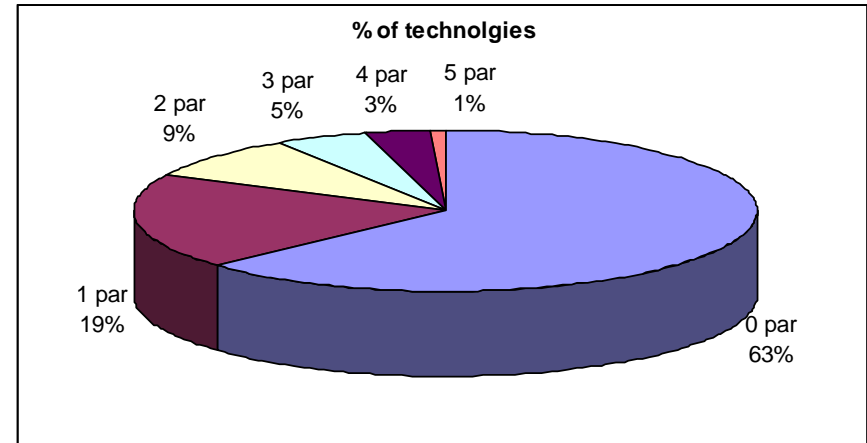
- Preparation of National SRA



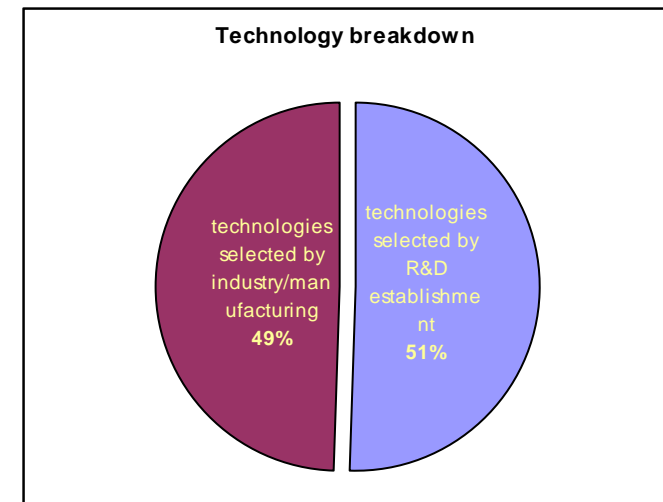
		Evolution per SRA 2		Polish vision / reality (data to Polish SRA)																					
		Impact?	HLTC	Sector	Artificial	Algorithms	Regulations & Air Traffic Services	Research Institutions + Universities				Manufacturing													
		Disruptive?	2015	2018	2020	Highly Customized (Distributed ATIS)	Highly Cost Efficient ATIS	Ultra Green ATIS	AI/ML	Autopilot	Account	PIL/LOC	Performance	EFEL	ISSE	Advanced	ATIS	ATIS	ATIS	ATIS	ATIS	ATIS	ATIS	ATIS	
228	Adaptive paths for flight to achieve high thrust at low speeds	#																							
229	High computational conditions for approach	#																							
230	More efficient cooling technologies	K																							
231	Lightweight architecture and materials for engine parts and structures	B																							
232	Advanced multi-thermoelastic design (started with shell structures...)	K																							
233	Composites with reduced thermo-mechanical dilatation and more efficient cooling technology	K																							
234	Full laminar flow / Preparation	K																							
235	Composites with reduced thermo-mechanical dilatation and more efficient cooling technology	K																							

Methodology & Current results

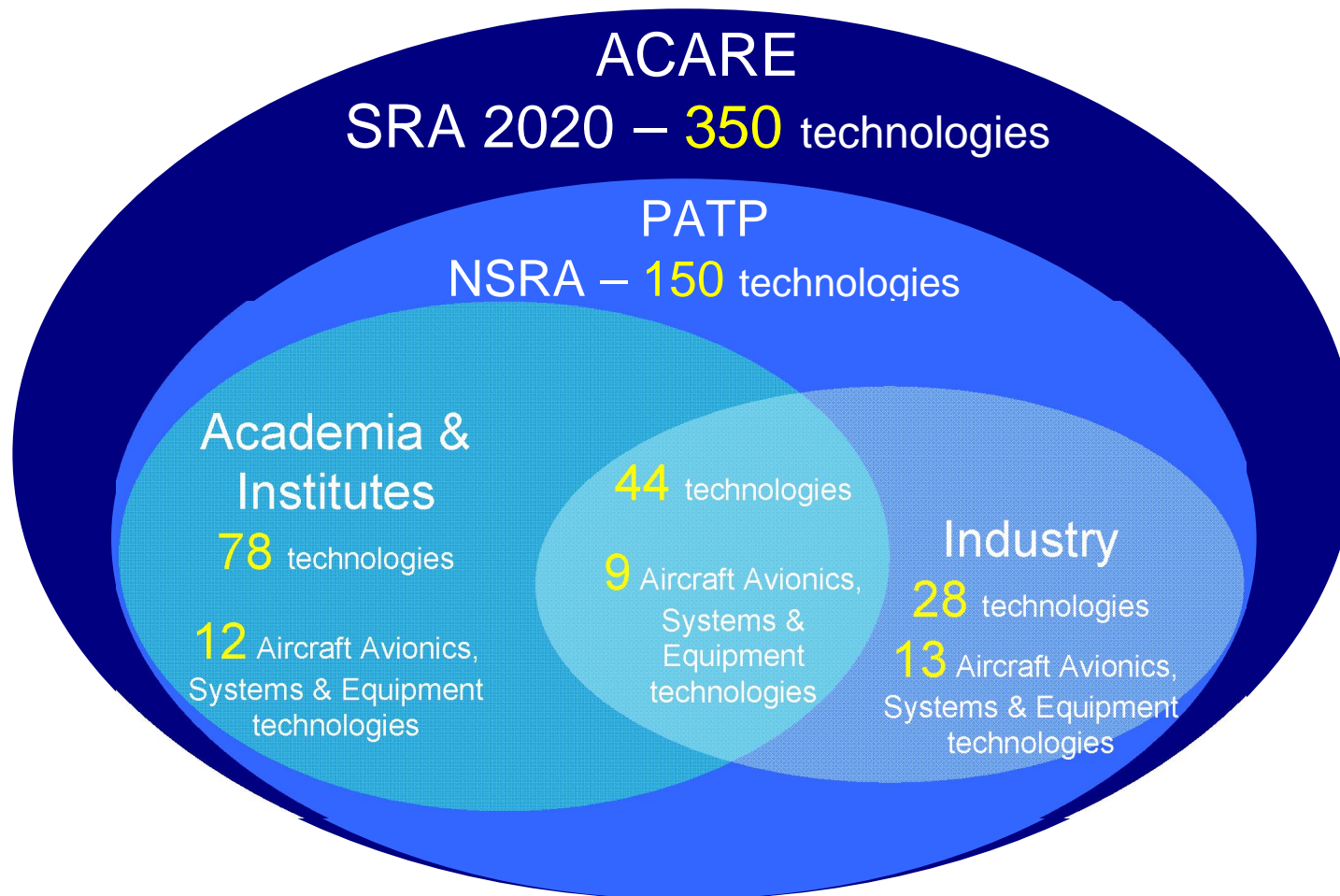
- 350 technologies listed
 - 2 – 52 technologies selected per participant
 - 200 technologies of 0 participant
 - 59 technologies of 1 participant
 - 46 technologies of 2 participants
 - 22 technologies of 3 participants
 - 12 technologies of 4 participants
 - 10 technologies of 5 participants
 - 1 technology of 6 participants
- 17 participants:
 - 124 technologies from R&D establishment
 - 121 technologies from industry/manufacturing
 - 0 Airlines, 0 Airports, 0 Regulators & ATM services



High potential of 7FP participation
 Real participation will be function
 of internal R&D budgets & resources
 of PAPT participant



National SRA – Conclusion 1/2



National SRA – Conclusion 2/2



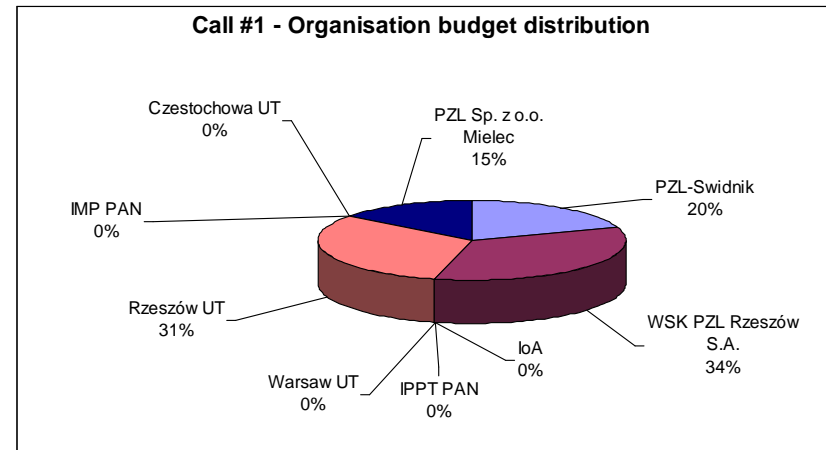
Taxonomy Area and Domain	RUT	WUT	SUT	PCz	IMP	IoA	IPPT	ITVL	MRLIAE	PZL-Swidnik	PZL-Melec	P&WKalisz	WSKRzeszów
01. Flight physics	5	5		2	14	18	2				6	3	
02. Aerostructures	3	3	1		4	13	1				21	16	9
03. Propulsion	5	4	1	7	9	12		1					2
04. Aircraft Avionics, Systems & Equipment	6	10			2	7	1				20	10	
05. Flight Mechanics - Performance	1	2											2
06. Integrated Design & Validation (methods & tools)	12	8			1	3		1			1	4	
07. Air Traffic Management (Source ARDEP)		1				1		1			1		
08. Airports												1	
09. Human Factors	6					8		1					
10. Innovative Concepts & Scenarios	2	5	1			6	1				4	3	
2. Aerostructures	4		1					1					3
4. Aircraft Equipment							1						
6. Integrated Design & Validation (methods & tools)	2							4		2			
8. Airports								2					
9. Human Factors								1					
10. Innovative Concepts and Scenarios	1												
Suma łącznie	47	38	4	9	30	68	6	12	4	52	38	14	24



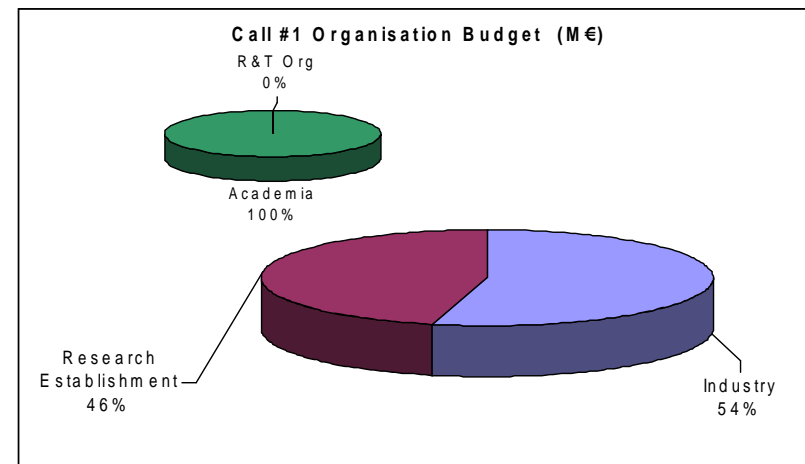
PATP involvement in FP7

- PAPT stakeholders (only 11 organisations) submitted 64 proposal in Call 1 & 2:
 - CR projects: L1, L2
 - SCA
- Tasks are linked with 50 various technologies from both SRA2 & National SRA

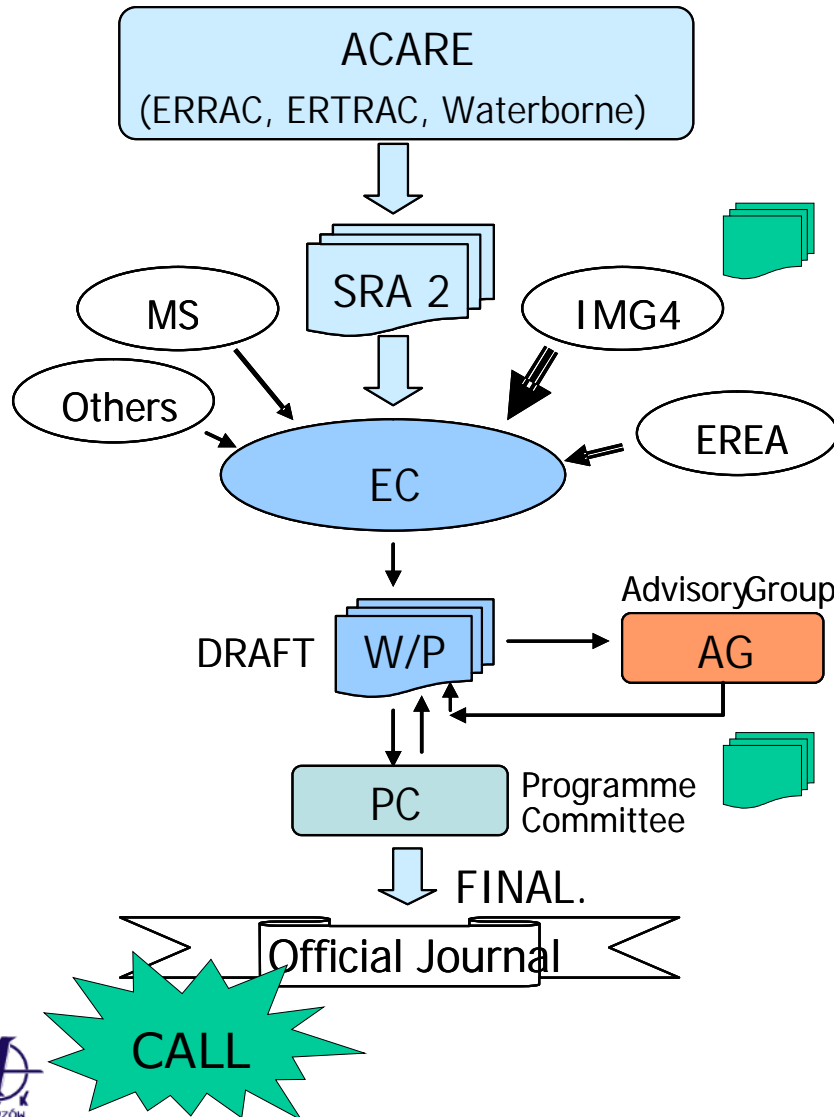
JTI figures are not included



Results



PAPT in EU



Krzysztof Jan Kurzydłowski (WUT) – National Representative

Robert Haligowski (WSK) – IMG4/SRG ACARE/ASD
Paweł Chojnacki (PZL-Świdnik) – ASD/IMG4

Witold Wisniowski (Ilot) - EREA

Romana Śliwa (RzUT)

Zbigniew Turek – KPK

Evaluators:

Jacek Rokicki - WUT

Janusz Narkiewicz – WUT

Piotr Doerffer – IMP PAN

Krzysztof Piwek – Ilot /SRG ACARE

Jacek Małecki – PZL Swidnik

Marek Bujny – Ultratech

INFORMACJE O PLATFORMIE

- CELE PPTL
- CZŁONKOWIE
- PARTNERZY
- KOORDYNACJA
- INTRANET
- DOKUMENTACJA
- WIADOMOŚCI
- KONTAKT

INFORMACJE o platformie

W roku 2008 w Europie został zapoczątkowany proces tworzenia Europejskich Platform Technologicznych. Platformy Technologiczne są wielkim wspólnym przedsięwzięciem Komisji Europejskiej, przemysłu, instytucji naukowych i finansowych oraz grup decyzyjnych i opierają się na celu opracowania strategii rozwoju w ramach sektora dla Europy sektorów gospodarki i przyszłościowych technologii. Inicjatywę tę mają skoordynować wybitni kluczowych partnerów europejskich do realizacji tych strategii w formie wielkich projektów najnowo-technologicznych.

Pierwsze platformy technologiczne w Polsce zaczęły powstawać w roku 2001 w opracowaniu strategii rozwoju wsłomch dla kraju sektorów gospodarki i przyszłościowych technologii.

W dniu 26 kwietnia 2004 podpisany został list intencyjny dotyczacy utworzenia PPTL, a następnie porozumienie dotyczace utworzenia konsorcjum PPTL. Stronami tych dokumentów byly Państwowa Rozwodniska, Stowarzyszenie Grupy Przedsiębiorstw Przemysłu Lotniczego „Dolina Lotnicza” i Krajowy Fundusz Kolejowy.

AKTUALNOŚCI

26-09-2007
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[archiwum aktualności](#)

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informacje o platformie | członkowie | partnerzy | koordynacja | intranet | dokumentacja | wiadomości | kontakt

www.pptl.pl

Thank You!

Robert Haligowski

Haligowski.Robert@wskrz.com

Tel. +48 17 866 7388

WSK 'PZL-Rzeszów' S.A.; Hetma ska 120;

35-078 Rzeszów;

www.wskrz.com