



HALA! SESAR Research Network
Towards Higher Levels of Automation in ATM

Latest news from WP-E Research Network HALA!

SESAR Innovation Days 2015



SID 2015 HALA News

1st -3rd December , 2015

www.hala-sesar.net



Congratulations to new HALA doctors

Gonzalo Tobaruela

Imperial College

A framework to assess the ability of automation to deliver capacity targets in European airspace.

Martina Ragosta

IRIT/DEEP BLUE

Effective Automation in ATM: a new perspective on management and control of automated systems

Elena Tirri

University of Naples
"Federico II"

Exploiting Innovative Sensor Data Fusion Strategies for Sense and Avoid Units to be Installed onboard Unmanned Aerial Systems

Emre Koyuncu

Istanbul Technical University

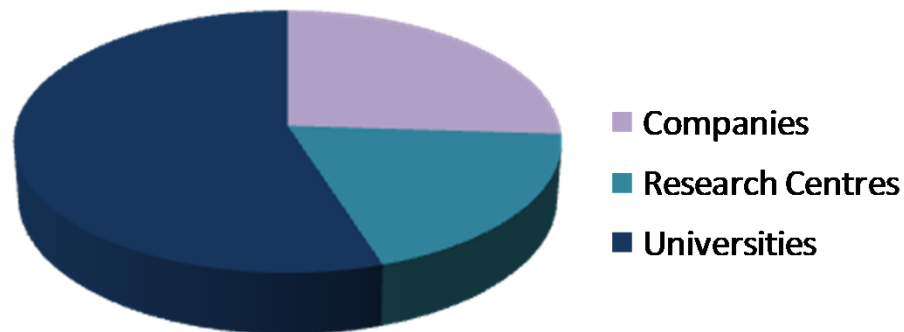
AUTOFLY-Aid : Flight Deck Automation Support with Dynamic 4D Trajectory Management for Responsive and Adaptive Airborne Collision Avoidance Adaptive Airborne

Among today's PhD graduates are tomorrow's leaders, researchers, innovators...

HALA! Participants
who share our objectives

Currently there are over **90 Organizations** in the Network!

350+ researchers registered in the HALA! Network



HALA! is open to academia, industries, research centers and individuals who are interested in participating to the research activities of the network.

Participants are researches in:

- ATM
- Mathematics
- Avionics
- Human factors
- Other related areas...



1 Ad-hoc Workshops at WATM 2015



SEMINAR World ATM Congress HALA! RESEARCH NETWORK

Madrid (Spain), March 12th, 2015

**“Identifying open issues for reduced-crew
operation in the cockpit of large civil
aircrafts and implications for the future
ATM system”**



Speakers:

- Francisco Sáez - UPM
- Alberto Pasquini – Deep Blue
- Philippe Palanque - IRIT/University of Toulouse
- José Neves –GMV Portugal
- Giuseppe Contissa –European University Institute (EUI)
- Alfonso Sánchez –A330 Captain Air Europa

FUTURE AIR TRAFFIC SYSTEMS BASED ON 4D TRAJECTORY MANAGEMENT

13th and 16th July 2015



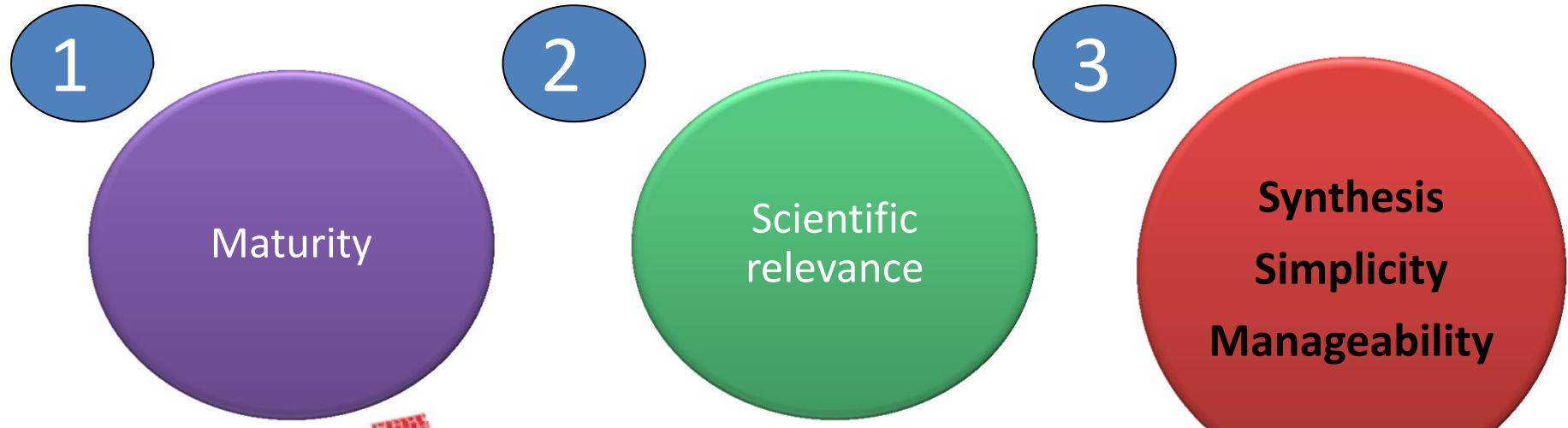
22 presentations by different lecturers spread over the four days together with 5 group exercises.

simulation exercise using the EUROCONTROL program “eDEP”

HALA Position Paper has evolved



HALA! SESAR Research Network
Towards Higher Levels of Automation in ATM



Original Article

The long journey toward a higher level of automation in ATM as safety critical, sociotechnical and multi-Agent system

Francisco Javier Sáez Nieto

**Institution of
MECHANICAL
ENGINEERS**



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2015



Towards Higher
Level of
Automation in ATM

POSITION PAPER
HALA! SESAR RESEARCH NETWORK



ATACCS'2015

5th International Conference on Application and Theory of Automation in Command and Control Systems

sponsors



University Paul Sabatier (IRIT), Toulouse

Opening keynote, Michel Harrison,
Newcastle University , UK

Closing Keynote, Pr. Chris Johnson,
University of Gragow, Scotland

Workshop "Resilience in ATM automation: a chimera or a reality?"

Workshop: "The long journey toward a higher level of automation in ATM as safety critical, sociotechnical and multi-Agent System"

24 Papers

(22 research papers + Doctoral symposium)

8 Posters

68 participants

8 Sessions +

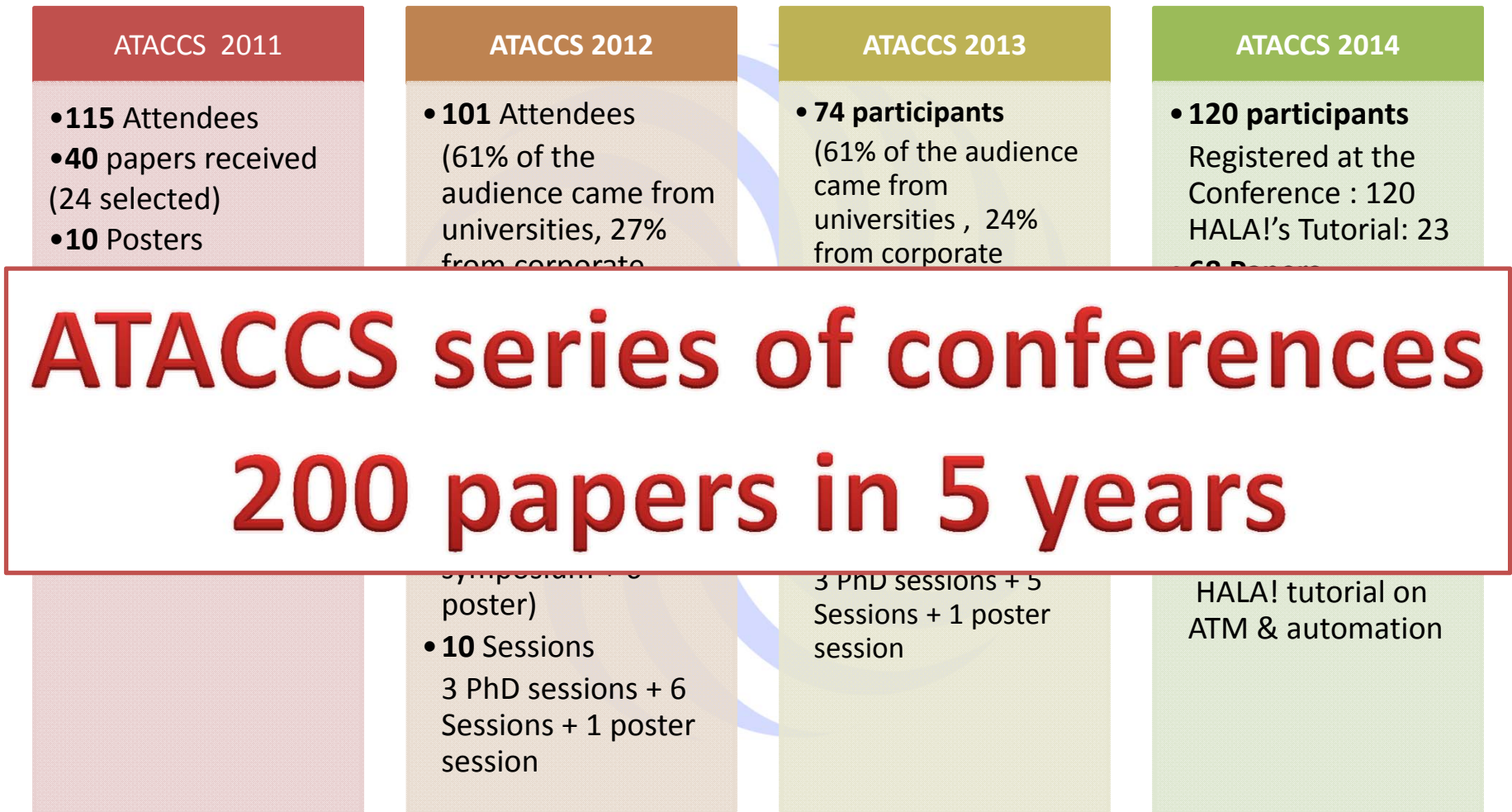
1 Demonstration +

2 ad hoc workshops

ATACCS series of conferences



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ATM Automation research implies vast challenges

New research challenges

Good and clear identification of research challenges

Good set of promising researchers

Enough knowledge to face the technological challenge

HALA resources to deal with them

HALA /SESAR Research ideas & three "bests" (best Time, Place & Player) approach to automation.

350 HALA! researchers & participants to help industry to face the lack of researchers.

UPM infrastructure & HALA experience to organize ad-hoc high quality Summer Courses.



“HALA! Tools and resources to face new research challenges on ATM automation: Learn how to use them

Interactive session

- Participants **will exercise how to employ** HALA network activity key elements and concepts to face future ATM automation problems and research challenges

SID 2015 HALA News

Organize competitive groups.

- Participants will build consortiums
- Groups will face some automation research challenge
- Groups will be guided to use HALA /SESAR ideas & resources

1st -3rd December , 2015

Automation & Bologna sightseeing

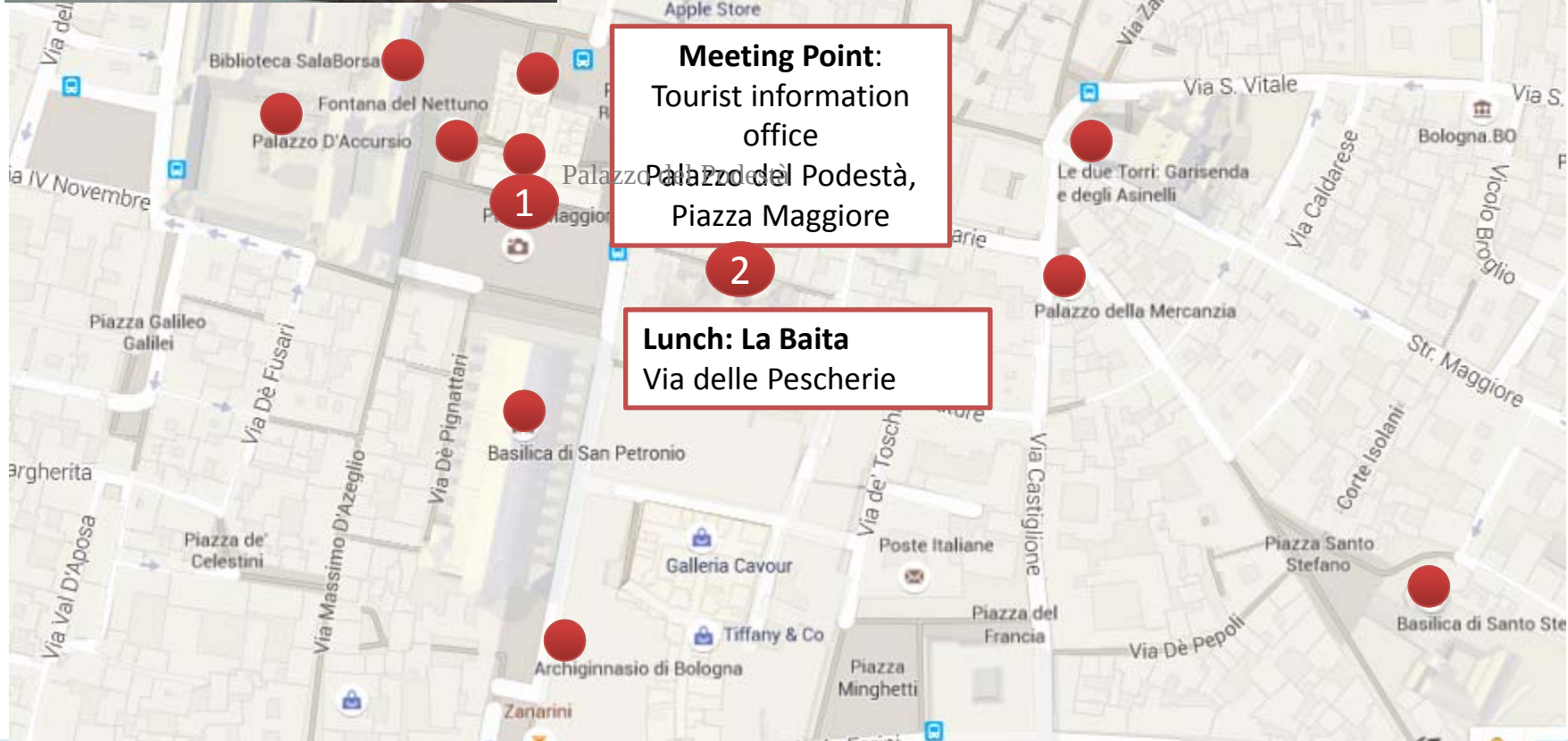
- Real life exemplification of the HALA! 3 be”st” axis (best Time, Place & Player) approach to automation
- **Guide tour** to highlight the three "best" with a **sightseeing** / historical examples around the city.

www.hala-sesar.net



Illustration of the Best Three

1. Best time....to eat
2. Best place..... in town
3. Best Player.... who is hungry





Do you want to know what research challenges on Automation in ATM and the history of Bologna have in common?

- Confirm participation: Send **WhatsApp message** to **+34636708530** with your name, email and the organization you belong to
- Carefully Watch **HALA! Workshop WhatsApp Group**
- **Instructions will be provided** from the moment you are added to HALA! Workshop WhatsApp Group



Enjoy the best SID conference ever

***The meaning of HALA! in Spanish is
"Go on! Get moving".***