



HALA! SESAR Research Network

Towards Higher Levels of Automation in ATM

SESAR INNOVATION DAYS

Final Plenary

Report and Observations from HALA!



Toulouse, 1/12/2011



HALA! Rapporteurs:

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HALA! Rapporteur

I. Keynote Address: "Darwin, Boltzmann, and the Sea of Air"

II. Feedback received about the HALA! network

III. The ALIAS project and network launch

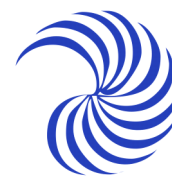
IV. Report of the Sessions related to HALA!

- Trajectory management & Flow Management
- Resilience
- Human Factors and Safety
- Meteo, Environment, UAS



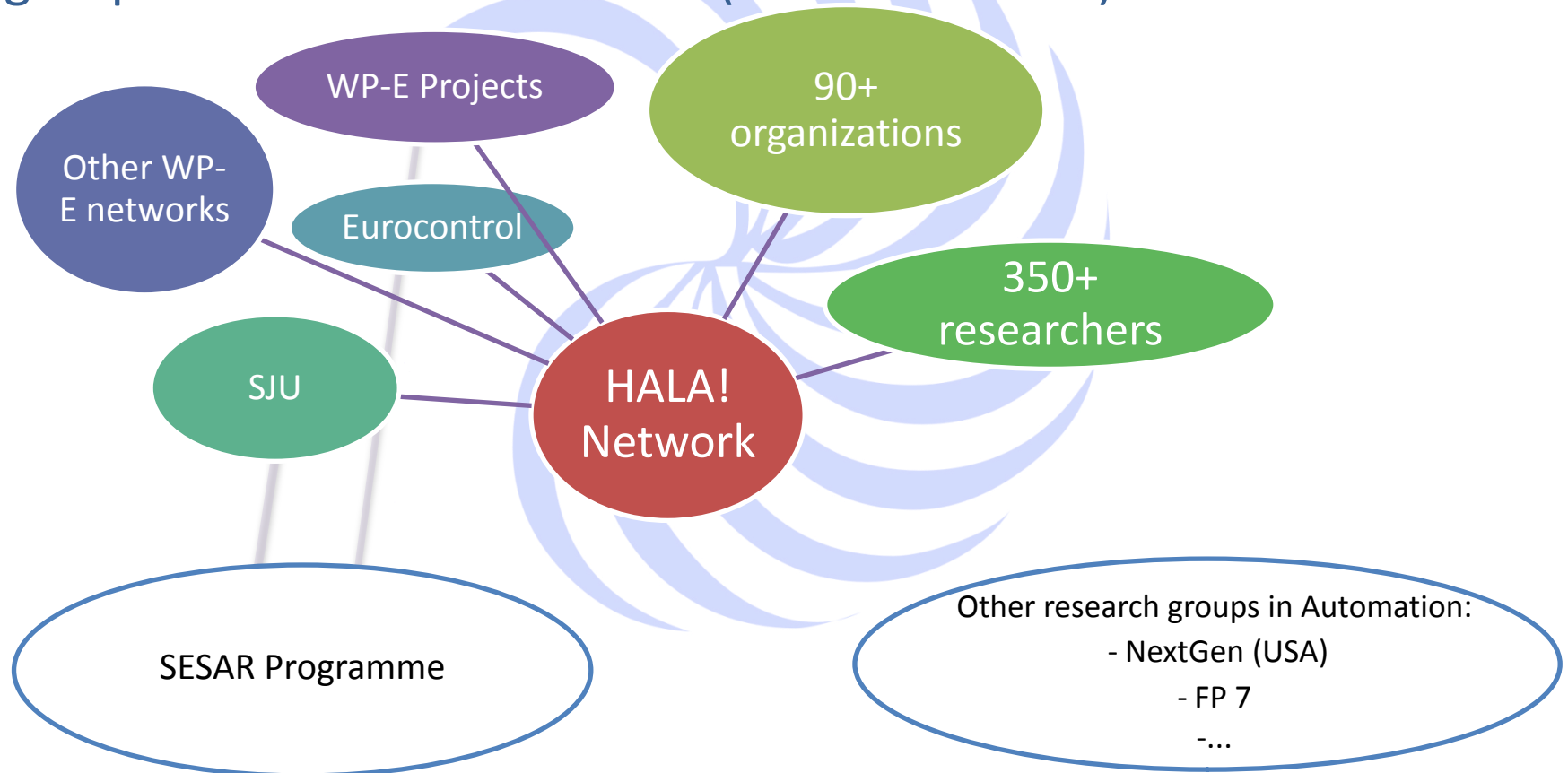
I. Keynote Address: "Darwin, Boltzmann, and the Sea of Air"

- Very interesting in opening new perspectives.
- Important for WP-E to look far ahead to avoid being stuck in a local minimum.
- SESAR is about implementing a step-wise change process;
- WP-E might help SESAR to adjust its direction



II. Feedback received about the HALA! network

1. HALA! is a strong network but we are still missing some important links: to the SESAR programme and to other research groups focused in Automation (i.e. in NEXTGEN)





II. Feedback received about the HALA! Network (2)

HALA! should be more connected to the SESAR programme in order to:

- a. Transfer knowledge from SESAR to the HALA! Participants researching in automation in ATM
- b. Identify in which areas SESAR requires more research in automation (Gap Analysis)

SESAR Research → WP E?
HALA!?



II. Feedback received about the HALA! Network (3)

2. HALA! has to actively try to bring in people/knowledge from other fields to fill identified gaps

3. HALA! should promote forums in which researchers can also interact with operational people

4. HALA! has to encourage the development of radically innovative projects

5. HALA! The ideal place for sharing and storing information



III. The ALIAS project and network launch

- Good to make this topic/project a plenary subject.
- The liability Impact of Automated Systems indeed relates to **all of us**. And is usually not something researchers are familiar with.
- Major concern: very broad focus for such a relatively small project.



IV. Report of the Sessions related to HALA! (1)

Trajectory management & Flow Management,
Resilience, Human Factors and Safety & Meteo,
Environment, UAS

A. There is a need to have a clear common understanding of certain topics:

- e.g.: **uncertainties**

- like uncertainties in trajectory prediction, position determination, weather prediction etc.

- e.g.: **KPIs**

→ **Specific forums/discussions** to define these topics or “terms of reference” would be helpful



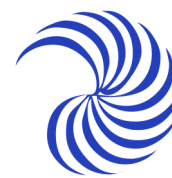
IV. Report of the Sessions related to HALA! (2)

B. Most of the projects meet WP-E second goal: **to look at gaps within SESAR (gap analysis).**

→ The results of these project will be **valuable for SESAR** (however it is not clear how the projects can feed the SESAR programme!)

→ **Risk:** Clear need to have more projects working in the first WP-E goal:

look into the very **long future (2050)**



IV. Report of the Sessions related to HALA! (3)

- C. In general it looks like there are not many overlaps between projects but it would be good to clearly map the research areas of all the projects. This would also be useful to identify gaps in WP-E (e.g. UAS)
- HALA! Position paper could be used as a reference
 - It should also be indicated if the scope of the project is short term or long term.



Our own thoughts about HALA!

Our current activities: 13 PhDs, ATACCS, HALA! position paper, network is in place /350+researchers, 90+ organizations

We have identified new possibilities, activities, ideas
....

....to get these ideas working we need :

- support by all involved parties
- probably additional resources in the future



Thank you for your attention!

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