

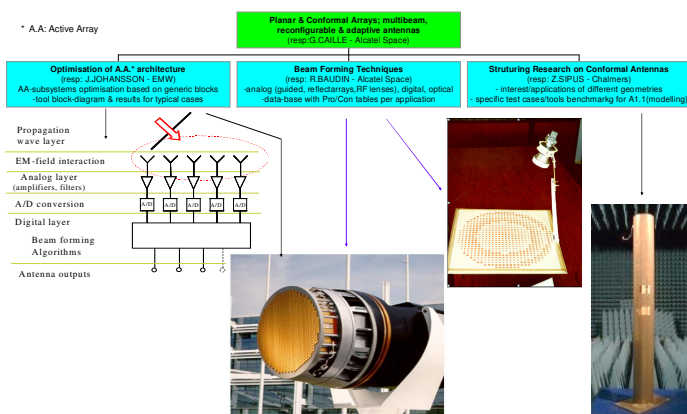


ACE - Antenna Centre of Excellence



Activity 2.4: Planar & Conformal Array antennas

Objectives

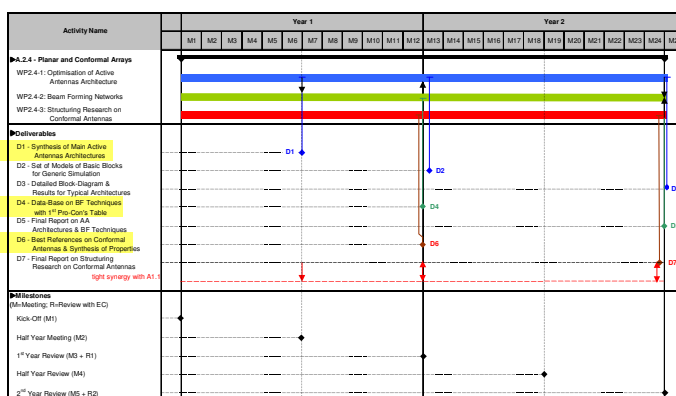


1. Synthesise up-to-date state-of-the-art on numerous Array categories, by exchanging experiences between ACE Participants
2. Build common optimisation tools with modular approach, able to be used by all, if adding specific equipment blocks/ array geometries/ R.E.* types
3. Define future needs for European R&D and launch new co-operations:
 - Industry/University Thesis
 - Joined proposal to R&D EC/Agencies/Ministries Calls
4. Research re-structuring, by pushing on complementary expertise to create an European research Team.

Expected Results

* AA : Active Array
** BF : Beam Forming

	Wp 2.4-1	Wp 2.4-2	Wp 2.4-3
Final (2-year) main output	Detailed architecture of a generic AA(*) simulator, interconnecting equipment models, computing main AA performances	Pro/Con tables for various arrays-BF(**) techniques, versus applications, based on partners experience & other publications	Advantages/critical items for various conformal antennas & modelling tools (in tight link with A1.1)
1-year planned output	Synthesis of main AA architectures and optimisation tools	1 st data-base on BF techniques experimented by partners (with 1 st data on advantages / drawbacks)	Inventory of main geometries, radiating elements, and modelling tools
Proposed work-plan	Send questionnaire to partners + split external review work - block-diagram of developed AAs - what tools used to compute overall perfos (G/T, EIRP, NRR, freq. stability...) Synthesis organised by each WP leader, published in the internal VCE part & basis for the first Deliverables	- what & why such BF technique has been chosen? - proven advantages / critical points (on precise examples)	- partners experience on conformal antennas & modelling methods - external best published ones



Participants

1	Katholieke Universiteit Leuven	Belgium
2	Alcatel Space	France
3	Thales Airborne Systems	France
4	Technische Universitaet Darmstadt	Germany
5	Deutsches Zentrum Fuer Luft- Und Raumfahrt E.V.	Germany
6	Universitaet Karlsruhe	Germany
7	Universita degli Studi di Siena	Italy
8	Universidad Politecnica de Madrid	Spain
9	Universidad Politecnica de Valencia	Spain
10	Chalmers Tekniska Högskola AB	Sweden
11	Ericsson Microwave Systems AB	Sweden
12	Swedish Defence Research Agency	Sweden
13	Kungliga Tekniska Högskolan	Sweden
14	Saab Ericsson Space AB	Sweden
15	Netherlands Organisation for Applied Scientific Research - TNO	The Netherlands

Contacts

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