Newsletter
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CAPPADOCIA

Coordination Action Pro "Production, Avionics, Design" on Cost-efficiency in Aeronautics

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Concept & Objectives

CAPPADOCIA *(Coordination Action Pro "Production, Avionics, Design" on Cost-efficiency in Aeronautics),* co-ordinated by Efficient Innovation, was officially launched during the 2-day kick-off meeting held on October 21st-22nd 2013, in Toulouse. **CAPPADOCIA is a 4 years Coordination and Support Action of the last FP7 call which focuses on research activities that address solely or mainly the SRIA goal of cost-efficiency in Aeronautics and Air Transport** and in particular the following technical domains:

* ***Airframe Design Systems and Tools***
* ***Production and Maintenance***
* ***Avionics and other relevant domains dealing with cost efficiency, e.g. propulsion***

In this context, the **foremost objectives** of CAPPADOCIA are *a) to comply with the expectations of the European Commission and b) to contribute to a better coordination of research and innovation (R&I) in the field of Aeronautics and Air Transport (AAT).* To achieve these objectives, CAPPADOCIA will:

-Assess past and ongoing EC (and non-EC) funded projects related with cost efficiency in AAT
-Identify gaps in terms of needed Research
-Identify bottlenecks towards innovation (e.g. funding and financial mechanisms, etc.)
-Identify impact with respect to societal and market needs

These elements combined, will ultimately allow CAPPADOCIA to provide coherent strategic recommendations aiming to cover research gaps, overcome bottlenecks to innovation and justify effort with an impact on policy, industrial market and social needs.

Main CAPPADOCIA Goals:

> Prepare annual strategic recommendation reports that fully address the cost-efficiency targeted domains in terms of state of the art and impact assessment towards the ACARE goals;

> Disseminate activities through all the European AAT Communities;

>Enhance the coherence of strategic research policy making, impact assessment and dissemination;

> Fully cover the cost-efficiency domain, i.e. investigate manufacturing, design, operations and services, and not only in avionics;

> Maintain close collaboration with the other CSAs of the call, dealing with environmentally related research and innovation, time efficiency and safety.

CAPPADOCIA Overall Strategy and Scientific Methodology

Based on the relevant ACARE roadmaps and objectives, CAPPADOCIA will assess a number of ongoing or completed EU (and non EU)-funded projects dealing with cost efficiency and contribute to answering the following main questions:

* ***What are the most commonly used cost-reduction practices in aviation for design system and tools, production and avionics?***
* ***What are the main limitations (innovation, regulation, financing, etc.) to the implementation of solutions that have a significant impact on the achievements of cost-efficiency objectives set by research policy-makers?***
* ***Which actions should be launched or strengthened to overcome these obstacles and speed up the development, maturation and uptake of new solutions?***

Precisely, **the CAPPADOCIA multidimensional methodological approach intends to fully cover the cost efficiency domain** thus mainly dealing with the foremost areas that influence cost efficiency in the field of aeronautics: i.e. ***design systems and tools, production and avionics, but not only. Other related areas such as propulsion or maintenance, human factors, repair and disposal will also be considered.***

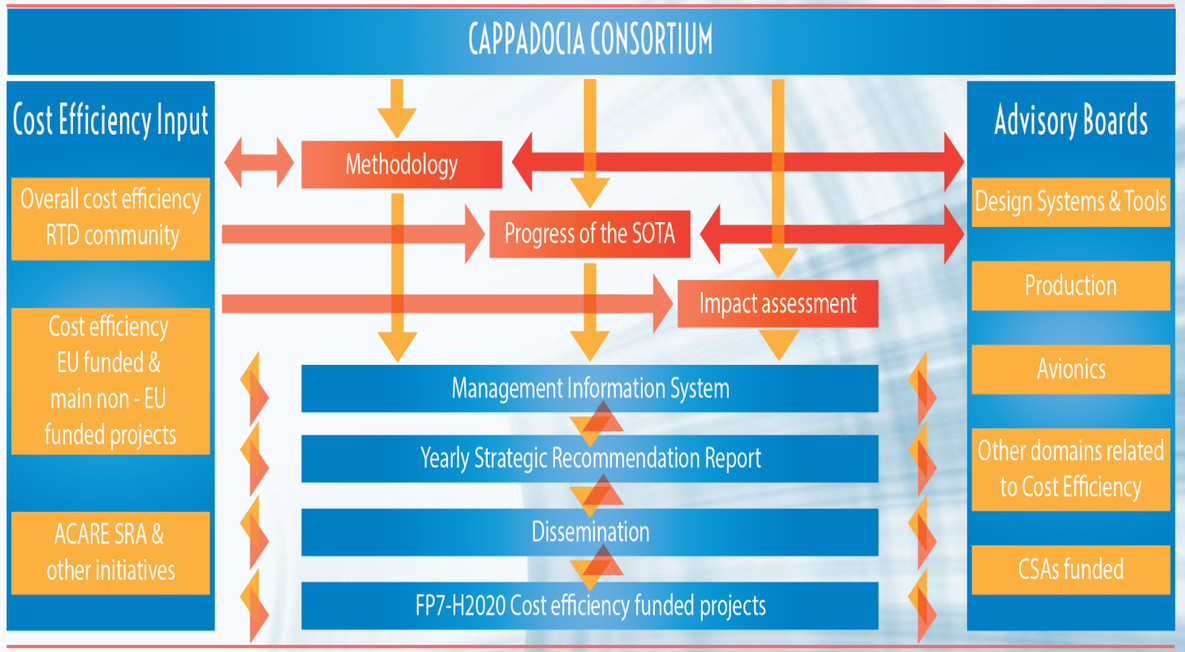
The work is mainly organized around two technical work packages: The first one aims at analyzing the ***state of the art in the research landscape*** in terms of *capacity and main performers*; as well as the second one aims at ***performing an impact assessment on relevant past and ongoing EU and non-EU funded projects*** *towards the ACARE goals and solutions achievements.*

Based on their respective results, the two technical Work Packages will formulate individual ***strategic recommendation reports aimed towards policy-makers for possible improvements to cost efficiency and competitiveness in aeronautics and air transport.*** These annual reports will be analyzed, reviewed and compiled into a yearly strategic recommendations report.

Which actions should be launched or strengthened to overcome these obstacles and speed up the development, maturation and uptake of new solutions?

What are the main limitations (innovation, regulation, financing, etc.) to the implementation of solutions that have a significant impact on the achievements of cost-efficiency objectives set by research policy-makers?

What are the most commonly used cost-reduction practices in aviation for design system and tools, production and avionics?



Description of Work

The CAPPADOCIA project is divided into five Work Packages (WPs):

WP1: Definition and implementation of an annual publication of a strategic recommendations report.

WP2: Analysis of the state-of-the-art research and innovation for the design system and tools, production and avionics research areas so as to identify gaps in the research landscape and innovation bottlenecks.

WP3: Impact assessment campaigns of EU-funded projects towards ACARE's goals and solution achievements.

Based on their respective results, WP2 and WP3 will formulate individual strategic recommendation reports aimed towards policy-makers for possible improvements to cost efficiency & competitiveness in aeronautics and air transport. These annual reports will be analysed, reviewed and compiled into an annual strategic recommendations report (WP1).

WP4: Promote the broad dissemination of the project's achievements towards the relevant communities, including ACARE.

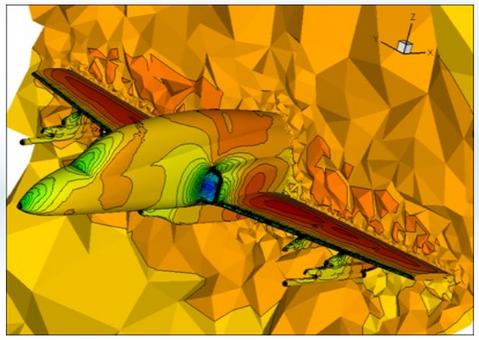
WP5: Overall project management and coordination. All these elements together will provide coherent strategic recommendations that aim to cover research gaps, overcome innovation bottlenecks, and justify efforts with an impact assessment on policy, the industrial market and social needs.

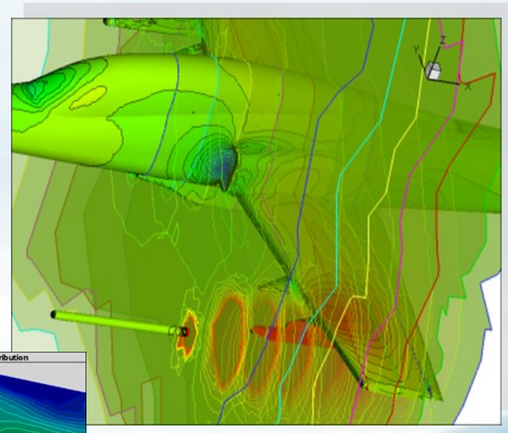
Expected Impact

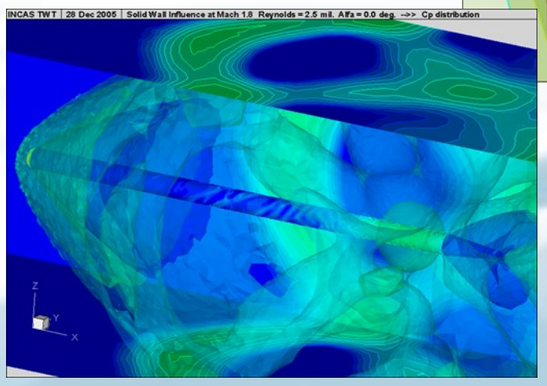
CAPPADOCIA is expected to enhance the coherence of strategic research policy making, impact assessment and dissemination in the field of aeronautics and air transport. The project will focus on the Cost Efficiency domain and coordinate with the other three CSAs-funded by the addressed call to widen the coherence to the whole field of Aeronautics and Air Transport.

To bring about these impacts, in the CAPPADOCIA multidimensional methodology, the relation with strategic publications (such as the SRIA and FlightPath2050) is greatly considered. Thus a thorough approach will be followed to come to coherent recommendations for strategic actions which could thereby strongly impact coherent strategic research policy in the Cost Efficiency domain. **To further ensure this looked for coherence, CAPPADOCIA is carried out by partners representing industry, research establishments, and academics.**

Concurrently, the timing of CAPPADOCIA is very adequate coinciding with the FP7 breaching into H2020. Therefore it is expected that with the incorporation of the CAPPADOCIA related FP7 lessons learned, the impacts of a successful CAPPADOCIA project will consist on a more efficient and focused R&T efforts in H2020, both from companies and the EU. The CAPPADOCIA action will then through interviews and dissemination communications, reach European R&T players and indirectly contribute to H2020 future success.







Expected Results

The main CAPPADOCIA deliverables will be:

* ***Achieve the coherence of strategic research policymaking in the cost-efficiency domain;***
* ***Identify, on a yearly basis, the state of the art in the cost-efficiency domain in terms of capacity and main performers;***
* ***Provide recommendations for coherent strategic actions based on the views obtained from the scientific and industrial communities, and validated within these communities through advisory boards representing industry, research establishments and academia;***
* ***Reach the European research and technology players and indirectly contribute to Horizon 2020's future success;***
* ***Ensure clarity on European competitiveness;***
* ***A public database, which will be devoted to compiling the state of the art and impact-assessment information that was gathered from interviews, web surveys, questionnaires and workshops, will be prepared according to CAPPADOCIA's methodological Approach.***

The results gathered here will impact the strategic research policy within aeronautics and air transport via its main stakeholders, such as the European Commission, ACARE, Industry Management Groups, the Association of European Research Establishments in Aeronautics, and the European Aeronautics Science Network. This will be achieved by providing recommendations and appropriate dissemination actions.

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