

# CATER: Air Transport Time-Efficiency

## EU FP7 Coordinating & Support Action

May, 2014

CATER Newsletter Nr. 1

### Overview and current status



#### What are the CATER project aims?

The **CATER** team is working to provide a *landscape* on the **European Research and Innovation** in the domain of Air Transport and focuses on the **Time-Efficiency** (TE) topic in a broader sense, where airport stands for the *key node* of the journey time efficiency, but the *inter-modality and co-modality* are the enablers in succeeding and improving TE. CATER work is focusing on three main areas: i) Door2Door D2D process model definition; ii) R&I framework to classify and assess the EU R&I against the EUSRIA *Needs and Goals*; and iii) an ICT tool, called CASK, to support the above goals. A first release of the D2D and CATER R&I framework is going to be published in Q2 of 2014.

#### CATER Door-to-Door (D2D) model in daily journey

In keeping-up with the vision of 90% of travelers within Europe being able to complete their journeys door-to-door within 4 hours by the year 2050, the CATER project firstly needed to establish a model adequately describing the very notion of a D2D travel process, thereby creating a common language and understanding for the theme of Time-Efficiency.

The model proposed by ICTS Europe starts when a traveler leaves home, and ends when that traveler reaches his or her final destination. In between, the model identifies five main stages of a journey: travel from one's door to the airport of origin; movement through the origin, transit and destination airports; the actual flight phases; and finally, travel from the destination airport to the "door" of the traveler's specific final destination.

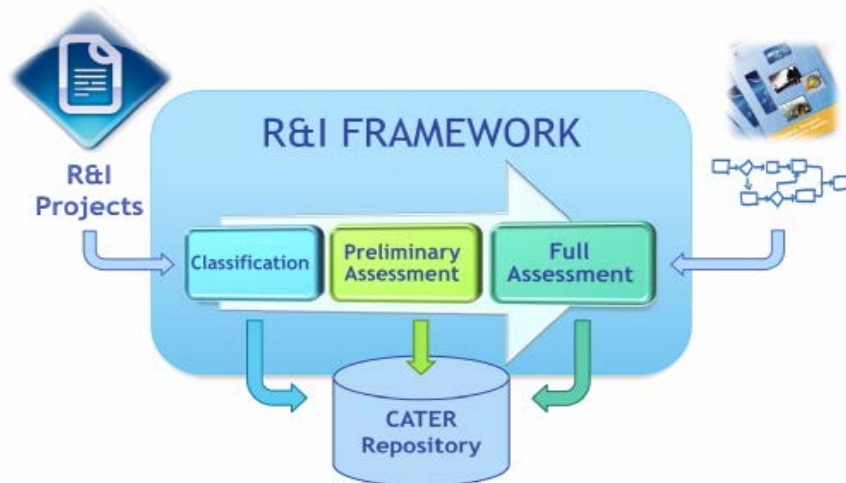
The depiction of the various stages drew from sources such as research on collaborative decision-making in air traffic management and on the modeling of ground operations in airports, to cite two examples. The model also acknowledges the importance of multi- and inter-modal connections and the influence of travel originating or ending in Schengen vs. non-Schengen states. The CATER door-to-door model lends itself as a basis for iterations of different travel scenarios with a multitude of varying parameters.



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## How to assess the R&I on TE? CATER evaluation framework a step ahead.

CATER Workpackage 2.2 led by Isdefe has delivered an initial version of the “R&I Assessment Framework” to be applied in the R&I analysis as well as to couple the analyzed R&I with the future needs and opportunities for further research and innovation. The developed Assessment Framework will be utilized to assess past and running EC funded projects, and leveraged to identify future evolutionary needs and opportunities for innovation. At the same time, a strategic analysis of the ACARE SRIA has also been performed in order to identify relevant R&I needs targeting time efficiency. The strategic analysis has included evaluation of the door-to-door process main bottlenecks. This has set the basis to identify opportunities – that can be focused on and funded as future research areas – that have a high potential to enhance time-efficiency of the overall air travel chain.



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## Recent News Around Time Efficiency



### Time-Efficiency (TE) at the 2014 Barcelona Passenger Terminal Expo Event

This year's Passenger Terminal Expo was held in Barcelona on 25-27<sup>th</sup> of March 2014. TE related highlights are:

**Automation:** Baggage handling, security check and boarding all benefit due to automation and new technologies.

**Self-service:** The trend of self check-in is increasingly complemented by self-serve bag-drop solutions. The traditional check-in desk is likely to disappear within 5 years.

**Information sharing & Collaborative Decision Making:** Historical and real-time information on passenger flows and ground operations is being used to smooth peaks in demand and reduce bottlenecks in the airport operations.

**Multi-modal transportation:** Seamless connections and innovative solutions are critical to improving the passenger experience to and from the airport.

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## IMPA & TE Industry and Technology Watch

The collaborative, web-based Innovation Management Platform IMPA, developed under a past FP7 project, is being used by CATER to collect and manage information for the TE Industry and Technology Watch. IMPA will complement and be linked to CATER's official tool, CASK. With IMPA, screening and detection of potential breakthrough changes, trends, and factors which can impact Time Efficiency and which are not driven by planned R&I programmes is being conducted and analysed by the core CATER team and beyond (expert crowd-sourcing in IMPA) ....



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### Time Efficiency and Air Travel in Europe

It's all about more planes and more routes, better ground access to airports, faster planes and making sure people get through the arrivals process without queues. These are the conclusions of CATER business analyst James Cogan in a recent review of air transport time efficiency. He finds that the low cost airlines are the chief innovators in the industry, bringing about the greatest progress in mobility efficiency, and he suggests that the bulk of public investment in innovation for time efficiency be directed at stimulating the adoption of true point to point airport networks and better local links to those airports on the ground. The full article can be found at this link:

[> Click here](#)

Some of the highly relevant Time-Efficiency-linked EU FP7 projects that are being screened by CATER:



#### TATEM

Transferring unscheduled maintenance to scheduled activities increases safety and helps avoid delays.

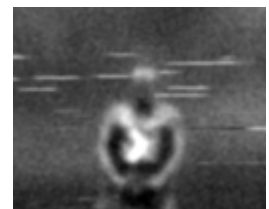
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#### TITAN

Optimising the turnaround process improves predictability and increases efficiency of operations.

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#### ATOM

Improving security while avoiding delays with a non-intrusive but pervasive security system

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### Project Partners



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 605487.