At the core of the Engage KTN is the definition of various thematic challenges: new ideas suggested by the research community, not already included within the scope of an existing SESAR project. They are developed along with the ATM concepts roadmap and complementarily with some of the network's PhDs and theses.

Thematic challenge 2

Data-driven trajectory prediction

3rd workshop programme

Edition 1.0, 03 December 2020

Workshop date:	**25 January 2021**
Host:	EUROCONTROL ZOOM
URL for access:	https://engagektn.com/thematic-challenges/

Programme

1000-1015 **Welcome and overview from the Engage KTN; overview of TC2 and previous workshops -** *Dirk Schaefer (EUROCONTROL), Tatjana Bolic (University of Westminster) and Andrew Cook (University of Westminster)*

SESSION 1 (1015-1155, chair: Dirk Schaefer)

1015-1040 **Uncertainty modelling and data assimilation to propagate aircraft trajectory uncertainties using polynomial chaos expansions -** *Andrés Muñoz (Boeing) and Manuel Soler (University Carlos III Madrid)*

1040-1105 **Prediction of propagation and evolution of delays with machine learning -** *Ramon Dalmau Codina (EUROCONTROL)*

1105-1130 **Trajectory Prediction via Imitation Learning -** *George Vouros (University of Piraeus)*

1130-1155 **Clustering & Complexity measures of European traffic -** *Didier Dohy (NeoMetSys)*

1155-1300 ***Lunch***

SESSION 2 (1300-1530, chair: Tatjana Bolic)

1300-1330 **A Data-drIven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') -** *Jose Manuel Cordero (CRIDA)*

1330-1400 **Probabilistic information Integration in Uncertain data processing for Trajectory Prediction -** *Francesco Martone, CIRA*

1400-1430 **An interaction metric for an efficient traffic demand management: requirements for the design of data-driven protection mechanisms -** *Juan José Ramos (Aslogic)*

1430-1500 ***Coffee break***

1500-1530 **OpenSky: Crowdsourcing Data Collection for ATM Research -** *Martin Strohmeier, University of Oxford*

SESSION 3 Engage PhDs (1530-1645, chair Andrew Cook)

1530-1600 **PhD presentations**

- ***Machine Learning Applications to Extend AGENT's conflict resolution capabilities*** **-** *Ralvi Isufaj (Autonomous University of Barcelona)*
- **Advanced statistical signal processing for next generation trajectory prediction -** *Homeyra Khaledian (Technical University of Catalonia)*
- **Data-based Pre-tactical Trajectory Prediction -** *Manuel Mateos (Nommon)*

1600-1630 **Discussion**

1630-1645 **Wrap-up and close-out -** *Dirk Schaefer (EUROCONTROL) and Andrew Cook (University of Westminster)*

This project has received funding from the SESAR Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 783287.