MetaCDM Functional Groups – Information Sharing and Performance Based Travel Management
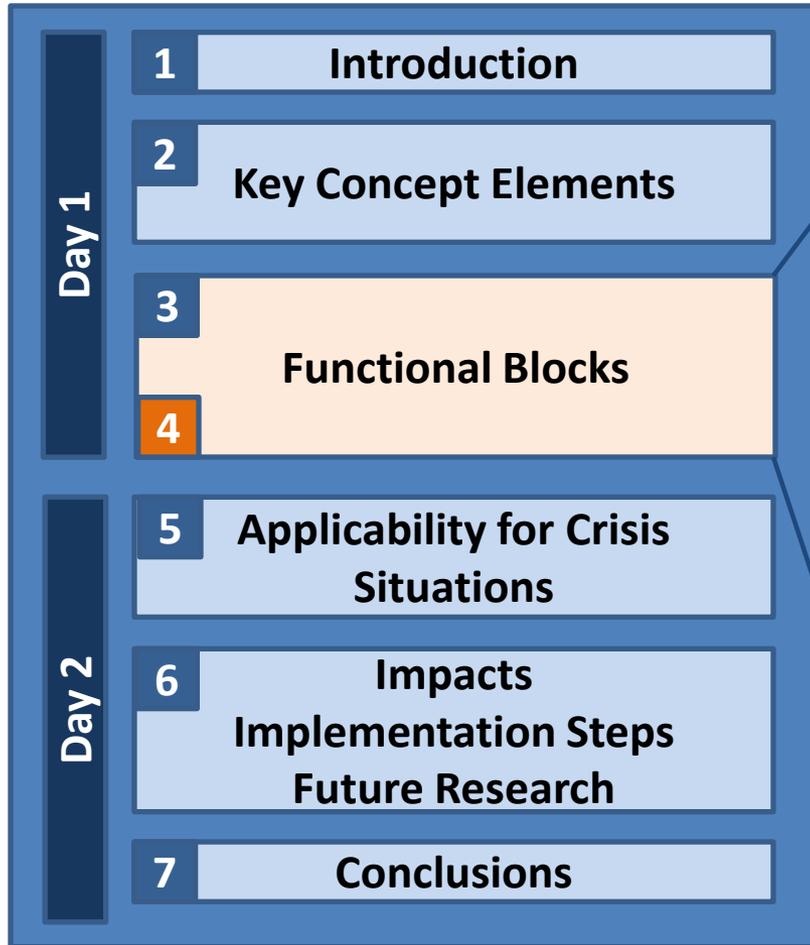
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MetaCDM Workshop

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Meta CDM
Multimodal, Efficient Transportation in Airports
and Collaborative Decision Making

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COOPERATION

Workshop and MetaCDM concept structure

Day 1	1	**Introduction**
	2	**Key Concept Elements**
	3	**Functional Blocks**
	4	
Day 2	5	**Applicability for Crisis Situations**
	6	**Impacts Implementation Steps Future Research**
	7	**Conclusions**

- **Information Sharing**

- **Passenger Travel Milestone Approach**

- **Variable Process and Transfer Time Predictions**

- **Performance Based Travel Management**

- **Adverse Conditions**

- **Collaborative Management of Travel Updates**

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Content

Information Sharing between passengers and other MetaCDM stakeholders (including airport stakeholders, alternative transport mode providers)

Performance Based Travel Management: Process of calculating target times (e.g. arrival at terminal, check-in, etc.), taking into account estimated process and transfer times as well as performance objectives defined by the passenger

Adverse conditions: Management of potential disruptive events, such as snowy conditions, which leads to delays and few cancellations.

Travel updates include both updates triggered by management of disruptive events (e.g. delays, flight cancellations) as well as passenger travel updates (e.g. road traffic jam).

Basis: Calculation of Target Times

- Application of A-CDM principle to calculate target times
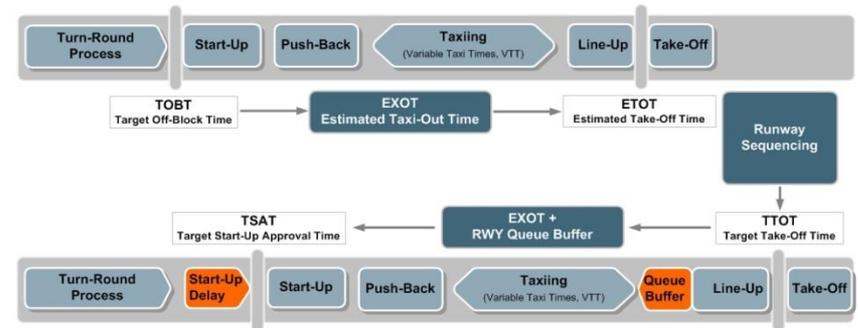
  – A-CDM: e.g. Target Start-Up Approval Time
  – META-CDM: e.g. Target Boarding Time

- Calculation is based on

  – EOBT/TOBT provided by airlines,

    (*) A-CDM principle of TOBT provision is not applicable as travel start time is planning result

  – variable transfer/process times

  – and passenger performance criteria (*)

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Premise: Information Sharing with PAX

- MetaCDM assumes some information sharing in order to function properly. If not all information is provided this limits the forecast ability of milestones and in the case of major delays might even disable empowered travel

- Every passenger more or less expects to receive the following information in a timely manner (in particular in case of flight delays / cancellation)

Information Sharing – Key Content

- Information to be provided by passenger:
    - Journey details (incl. target time at destination)
    - Estimated times at milestones
    - Performance objectives
- Information to be provided by stakeholders:
    - Target times at milestones provided
- External system support, e.g. to consider multimodal transport information

Performance Based Travel Management

- Support passenger satisfaction by travel management in accordance to individual parameters set by the passenger

- Performance parameters allow system support tools to propose best fitting travel alternatives (decision process may be supported by travel agents)

- To set the desired performance parameter, a simple interface should be offered to the passenger

Recap: Exemplary Performance Criteria (1)

- **Time:**
  - MetaCDM is directly aimed at reducing journey time, both under non-disrupted conditions (via better information about journey and process times enroute) and in crisis situations
  - MetaCDM should also reduce the amount of time passengers spend planning their journeys by improving information accessibility

Recap: Exemplary Performance Criteria (2)

- **Availability** refers to the extent of the service offered in terms of geography, time, frequency and transport mode.
  - Under normal conditions MetaCDM should not alter service availability
  - But under crisis situations airlines will be able to improve the effective frequency and geographic range of their services compared to the current system, leading to a net positive in this area
  - Addresses in particular also RELIABILITY

Recap: Exemplary Performance Criteria (3)

- **Comfort**
  - MetaCDM estimates of journey and arrival times should lead to passengers being able to spend more time at home and decrease uncertainty, which should increase satisfaction on comfort-related criteria.
  - Ideally passengers should always be given the option of disruption handling as it is done currently, e.g. a night in a hotel and a flight the following day.

Passenger Support Solutions

| Empowered Traveller	Guided Traveller
• The empowered traveller receives the necessary information to take timely decision on how she/he will continue her/his journey. • This form of decision making requires that the traveller takes initiatives for planning and re-routing. • To enable empowered travelling, he must be provided with the necessary travel information.	• The guided traveller receives not only information on disruption of his/her actual planning but also an automatic proposal of next actions or of a re-route. • A predefined loyal body to the traveller (e.g. a hired travel agency) takes care of the complete door-to-door route planning and if necessary plans and provides advice on an alternative route.

Adverse Conditions

- Improving communication regarding adverse conditions relies on four aspects:
  - Gathering accurate and timely information about caused journey disruptions,

  - Re-accommodating the passenger proactively,

  - Communicating with the passengers directly, transparently

  - Offering the passengers alternative options

Collaborative Management of Travel Updates

- Application of A-CDM principles (FUM / DPI)
  - PAX apps provide updates about estimates for suitable milestones (e.g. Estimated Arrival Time in Terminal)
  - Passenger is provided with updated information concerning his flight (e.g. Target Boarding Time)
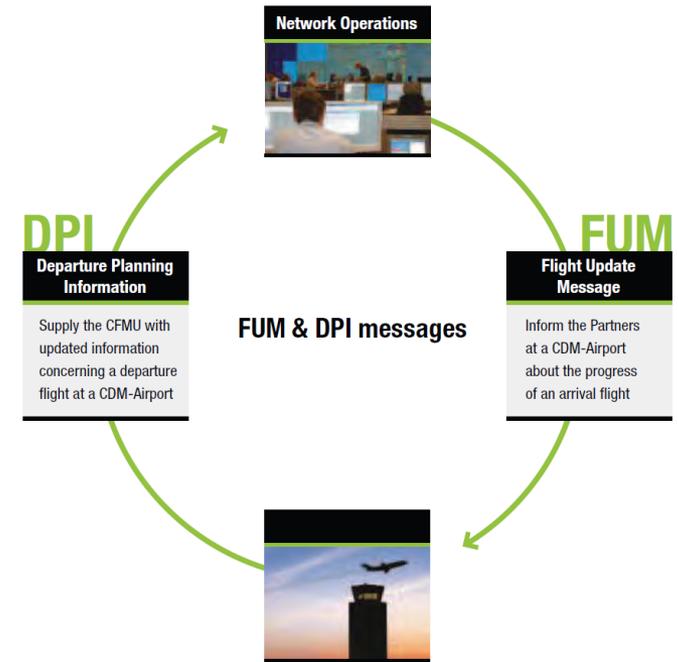
Travel Updates (Example)

- Traffic jam:
  - May trigger proposal to depart earlier from home, use alternative modes of transport (either for journey to airport or even complete journey)
  - May trigger update of milestone estimate times to enable aircraft operators to take early decisions

- Needs information sharing as well as modelling & decision support functions

Thank you!

- Questions?