Impacts

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MetaCDM workshop 3

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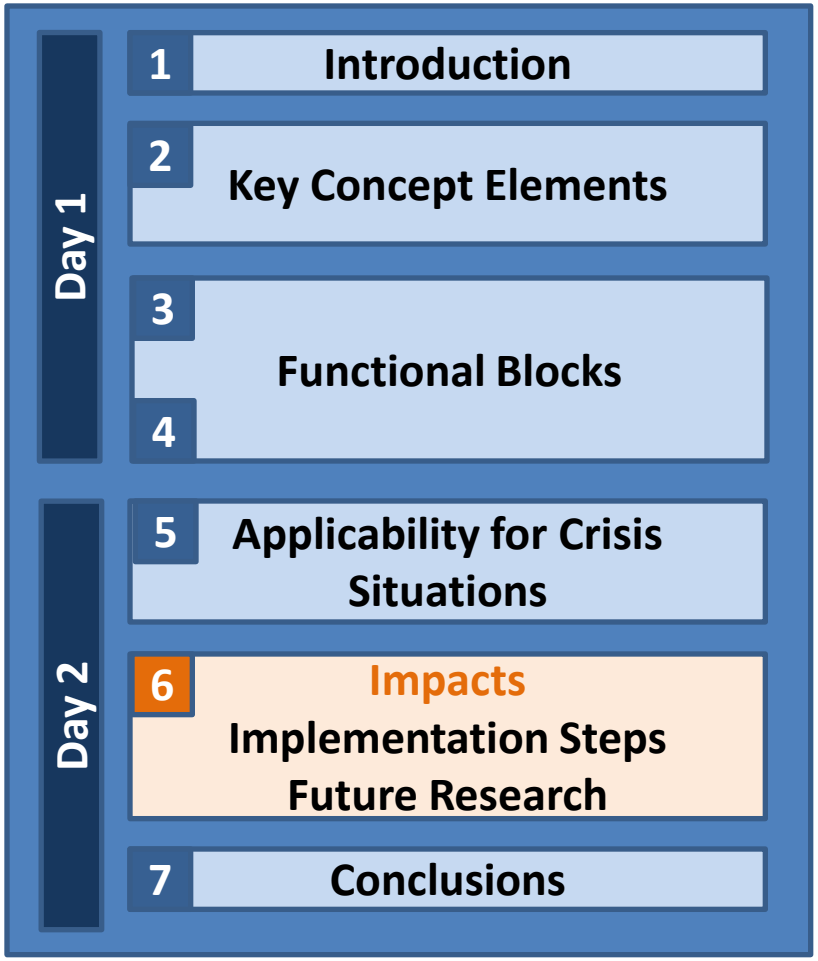
Meta CDM
Multimodal, Efficient Transportation in Airports and Collaborative Decision Making

COOPERATION

Workshop and MetaCDM concept structure



Impacts of MetaCDM

- Benefits and costs of implementing MetaCDM would be spread out over a large number of stakeholders
  - Situation needs to be win-win for all major stakeholders for good adoption
  - Where there are drawbacks there need to be good enough benefits to mitigate their impact

Impacts by Stakeholder (1)

Stakeholder	Benefits	Costs
Passengers	• Shorter journey times under disrupted conditions • Improved experience of delay (e.g. at home rather than in queues) • Reduction in uncertainty	• Guided travel increases ticket cost • Reduced accessibility to travellers without smartphones • Passengers may have to transport own baggage • Data provision may cause privacy concerns
Airlines	• Reduction in passenger hard/soft costs of delay • Improved public image • Information on passenger location/ reduction in uncertainty	• Cost of funding travel via alternative mode • Staff and infrastructure costs for information provision • Concerns about co-operation/competition

Impacts by Stakeholder (2)

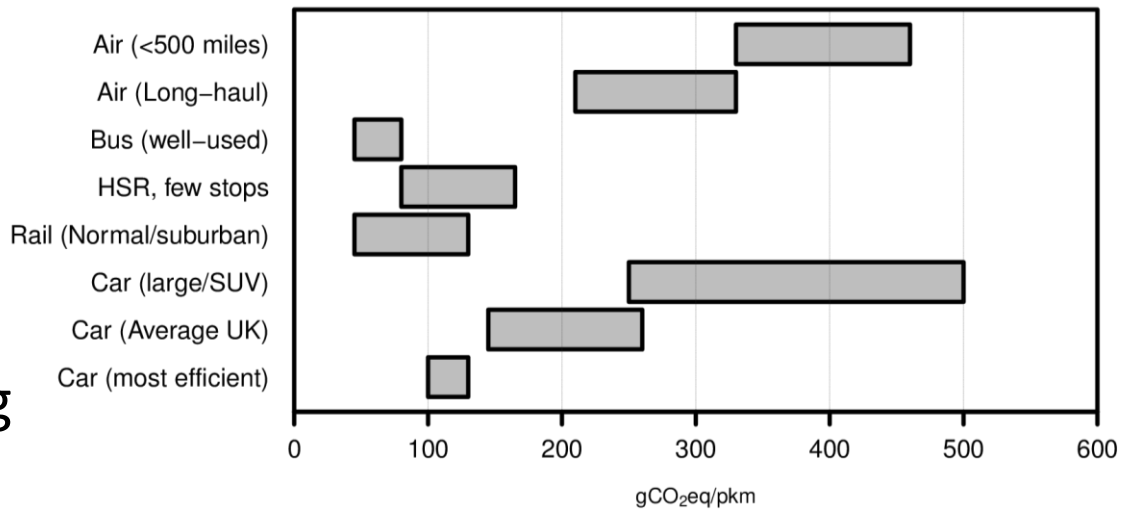
Stakeholder	Benefits	Costs
Airports	• Reduction in terminal crowding during disruption • Reduction in uncertainty over passenger location	• Staff and infrastructure costs for information provision • Passengers may spend less long in shopping areas
Federal Police	• Decreased uncertainty about passenger location (so can e.g. plan staffing levels to reduce queues at immigration)	• Potential infrastructure/ information handling costs
Local Authorities	• Reduction in congestion associated with disrupted airports	• Infrastructure costs for information provision (e.g. if motorway dot matrix signs are used)
ANSPs/Ground Handlers	• Second-order impact only	• Second-order impact only

Impacts by Stakeholder (3)

Stakeholder	Benefits	Costs
Ground transportation providers	• Greater knowledge about demand from stranded air passengers, allowing better planning • Increased passenger revenue	• Potential for overcrowding for existing passengers • Issues of duty of care/legal liability for air passenger transportation
Information service providers/Media	• New business opportunity • More, better and faster information on disruption	• Startup/infrastructure costs
Travel agents	• New business opportunity • Opens up potential new market (services to independent travellers)	• Startup/infrastructure costs

Environmental Impacts

- Typically crisis events reduce environmental impact
  - Fewer flights → lower emissions, noise, etc.
- Ideally MetaCDM should not increase this over the undisrupted baseline
- Assuming pax use existing ground services this is easily achieved
  - Edge case for long delays without cancellation



[Data:OECD/ITF 2008]

Passenger-centric metrics (1)

- The most important part of MetaCDM is the **passenger**
  - Benefits for other stakeholders are needed to get the concept adopted…
  - … but benefits for passengers bring reputational/loyalty and other advantages for other stakeholders
- Therefore impact areas on passengers need close consideration

Passenger-centric metrics (2)

FOR EXAMPLE: EN 13816:2002 quality criteria for passenger satisfaction on public transport

- **Availability:** should be unaffected under normal conditions but improved in crisis situations
- **Accessibility:** should be improved in many areas via increased information exchange, but face-to-face staff availability may be lower
- **Information:** improving this is a main aim of MetaCDM

Passenger-centric metrics (3)

- **Time:** Reducing journey time is a main aim of MetaCDM
- **Customer support:** should be improved but there would be less face-to-face support
- **Comfort:** should be improved under non-disrupted conditions but could be worse under disrupted ones
- **Safety:** Perception of safety may be lower for alternative modes
- **Environmental Impact** should be similar to or lower than the situation without MetaCDM

Concluding remarks

- Potential benefits for all stakeholders **BUT** some areas of concern:
  - Exchanging face-to-face for digital support may be difficult for some
  - Privacy and trust issues
    - Passenger location data should be optional
  - (Perceived) safety and comfort issues on alternative modes
    - OK if the options to cancel travel and hotel + next flight are still given