

Human Centered Urban Mobility Usage Scenarios, Users, and Novel Services

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1. CONTEXT

Assure competitive advantage within evolving urban mobility market parameters:

- Improve the current offer.
 - Propose new solutions.
- ➔ Recenter design choices on the human.

AnthroPOLIS
HUMAN CENTERED URBAN DESIGN



2. OBJECTIVES & RESEARCH QUESTION

Objectives:

- Provide a model to Anthropolis partners with that allows them to *identify, describe*, and *quantify travel problems* in order to design relevant solutions for travelers.
- Integrate the model in their design and innovation practice.

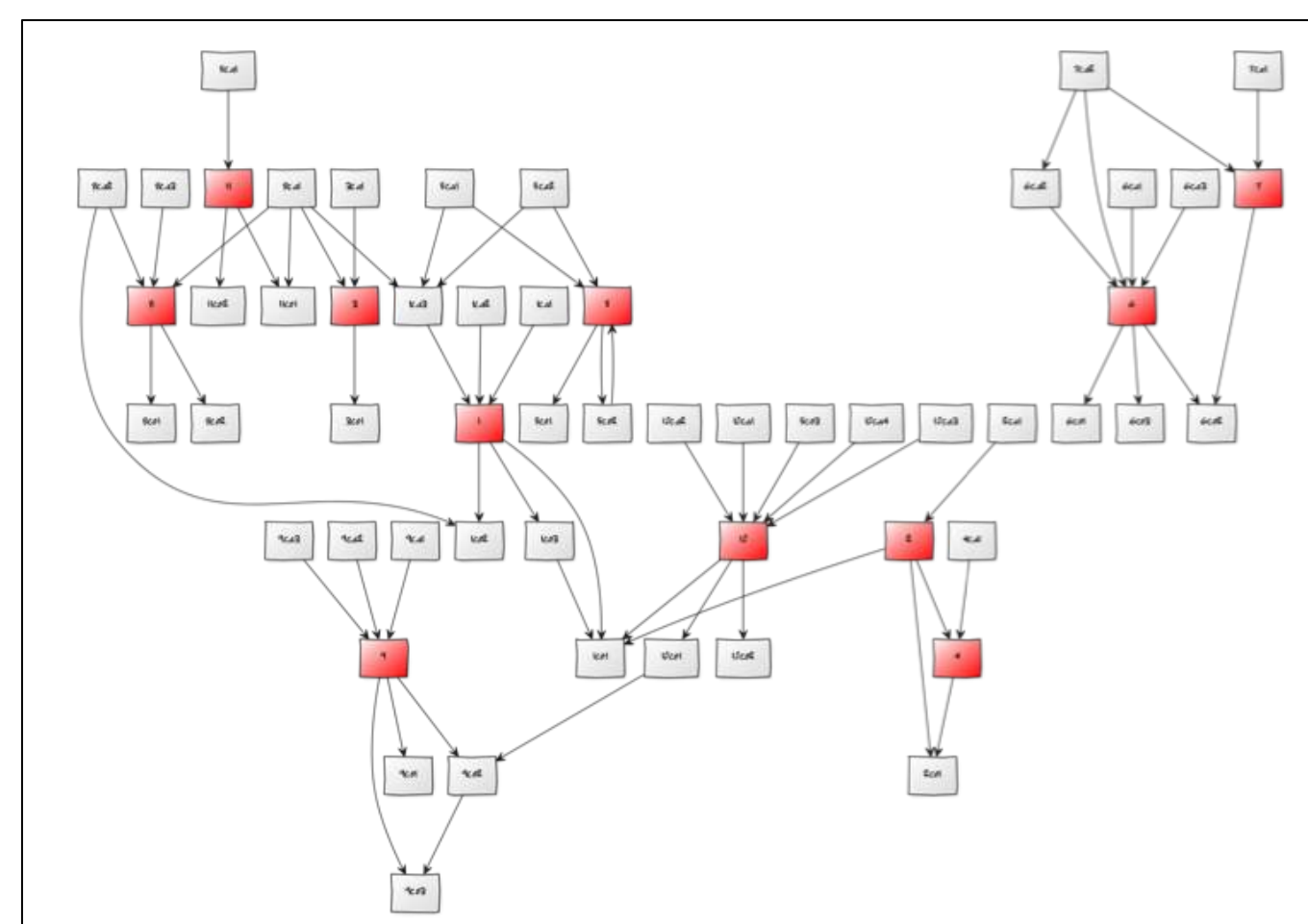
Research question:

How can urban traveler experience be modeled to assist mobility actors uncover innovation opportunities?

3. CASE STUDIES



Travelers of IRT SystemX at Future@SystemX (March 14th 2017) workshop



A demand responsive transport service travel problems causal network

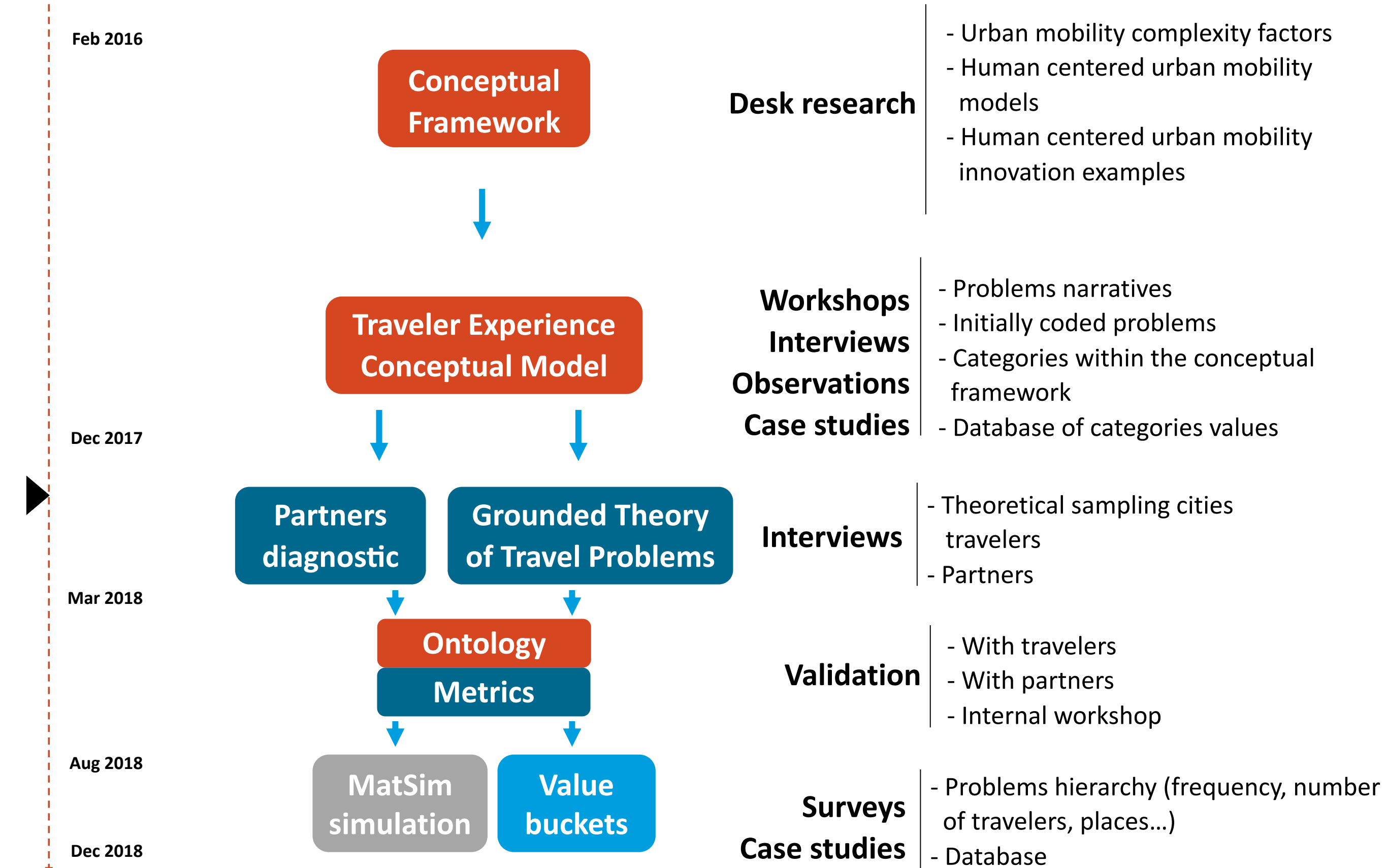


Urban mobility systems of Ile-de-France



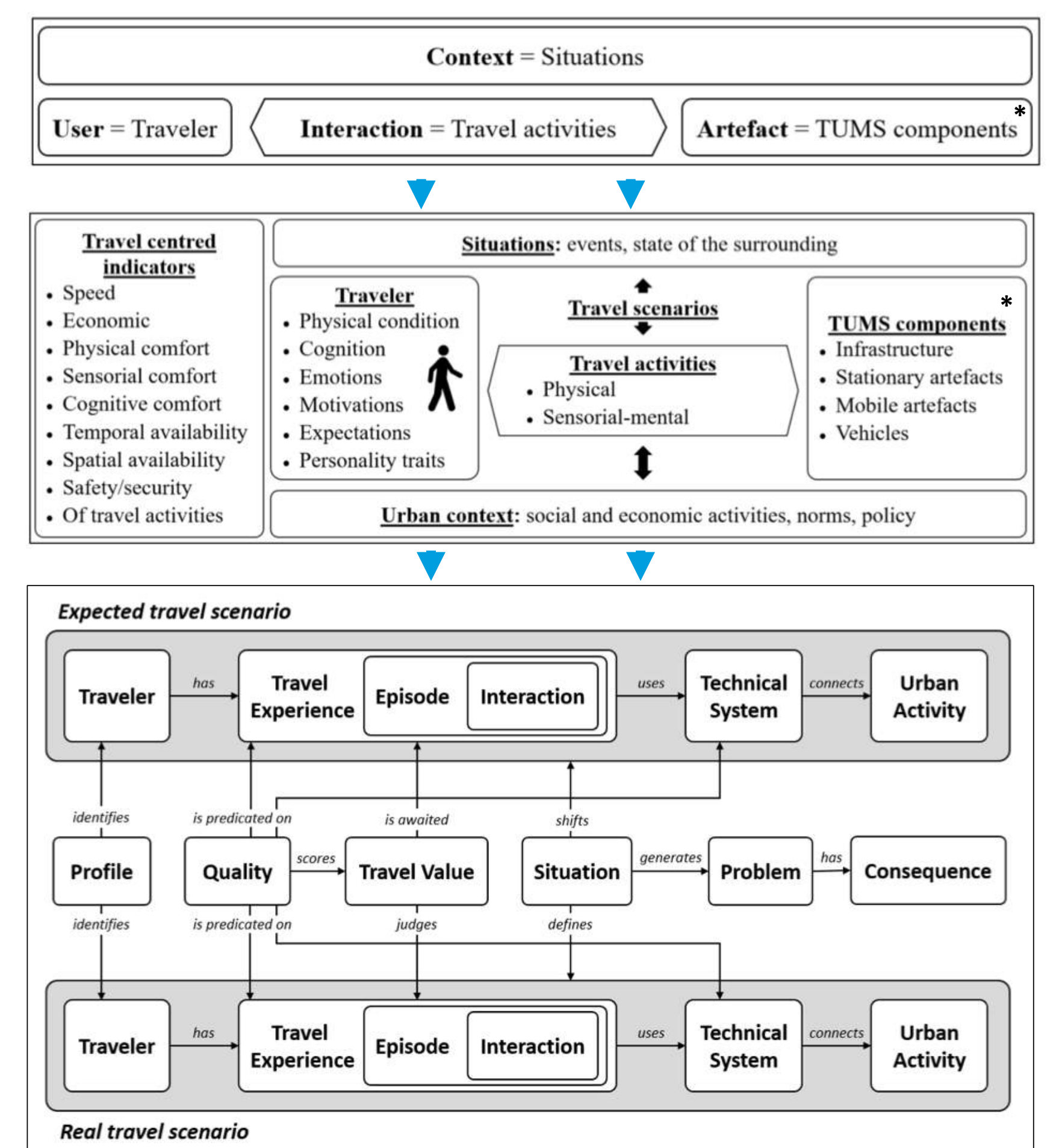
Urban mobility systems of Vienna

4. RESEARCH METHODOLOGY



5. RESULTS

User Experience of Travel
↓
Traveler Experience Conceptual Framework
↓
Traveler eXperience Conceptual Model



* TUMS: Technical Urban Mobility Systems

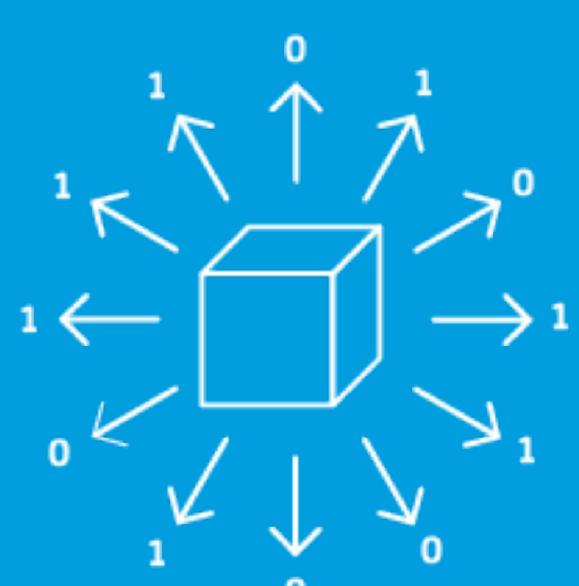
6. FUTURE WORK

- Quantification of travel problems.
- Completion of the traveler experience conceptual model by a grounded theory approach.
- Validation of the model with designers.

PUBLICATIONS

Al Maghraoui O., Vallet F., Puchinger J., Yannou B. (2017). Framing key concepts to design a human centered urban mobility system. In *International Conference on Engineering Design*, (Vancouver - Canada, August 21-25), 91-100

Al Maghraoui O., Vallet F., Puchinger J., Yannou B. (2017). Un cadre conceptuel pour concevoir le système de mobilité urbaine. *12^e Congrès International de Génie Industriel (CIGI)*, (3-5 May), Compiègne



Scientific domain: Data science and Interaction
Program: Smart Territories
Project: Anthropolis Chair (HCU)

Doctoral school: Interfaces
Institution: Université Paris-Saclay

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