#### Knowledge Pool

Martyna Bogacz

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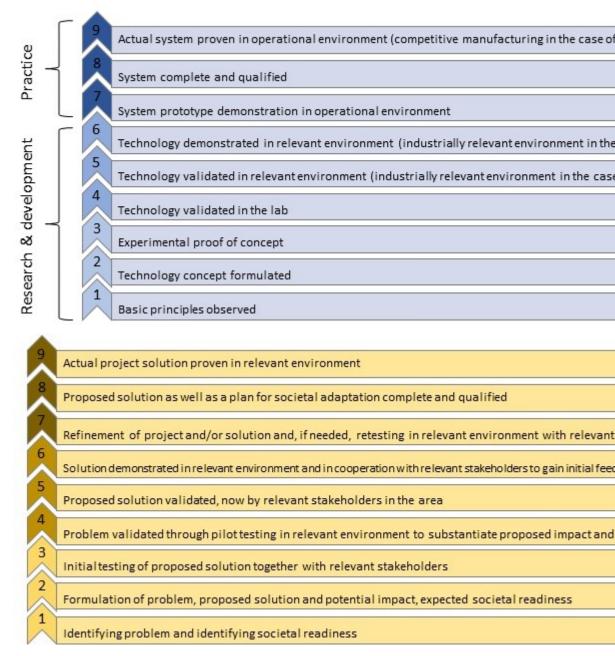
#### Preface

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#### Introduction

This work gathers and defines essential concepts related to automation and digitalisation of transport system together with the description of their impact, both negative and positive on individual, systemic and economy level. This knowledge pool is driven by the fact that automation and digitalisation are progressing quickly, although not uniformly across all areas within transport context. Therefore, to understand spectrum of possibilities that they bring, it is necessary to explain key concepts, demonstrate their level of maturity and current market penetration, and finally assess their impact on different levels. Given this approach, the page of each topic contains the following elements: definition of the phenomenon, key stakeholders who are the main parties responsible for and affected by the given technological development. Then, we include two subsections on current state of art in research and **practice**. The former one summarizes the most recent research in a given topic while the latter explains the current stage of implementation of given technology in the real world. Further, section named relevant initatives in Austria covers the leading initaitives within given topic and potential for Austrain actors. Moreover, we provide the summary table of the impacts of the concept on selected sustainable development goals (SDGs). Beyond, to provide an objective measure of technology maturity within each topic we include socalled technology readiness scale (Willismson & Beasley, 2011) and societal readiness scale, as described below:



Finally, we provide a list of **outstanding questions** and **links to additional sources** on the topic.

## Physical road infrastructure

# Highway infrastructure management

Traffic management

Road pricing

# Digital road infrastructure and connectivity

#### 18CHAPTER 6. DIGITAL ROAD INFRASTRUCTURE AND CONNECTIVITY

Passenger information system

# Multimodal integrated system

# Connected and autonomous driving

On-board technology for connected and automated vehicles

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Freight and commercial transport

Collective mobility vehicles

Big data

Shared mobility

### Alternative power sources

### References