

# POSTER SESSION

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## Harmonization of National Access Points to Intelligent Transport Systems data: A data content and added value perspective

### INTRODUCTION

Intelligent Transport Systems (ITS) constitute the pillar for the adaptation of transport sector to the currently witnessed digital era. ITS applications should consume data that comply to certain rules, such as being accurate and up to date. Nonetheless, several limitations, ranging from the scarcity of appropriate data hinder the deployment of ITS services and the sector's overall potential for adaptation. These limitations may be overcome with the deployment of data platforms, which could enable a seamless life cycle of data harvesting, processing, and exchange. This is the mission that the **National Access Points (NAPs)** suggested by the European Commission aspire to accomplish. Hence, all Member States have joined their forces, through the project titled "**National Access Point Coordination Organization for Europe (NAPCORE)**", to establish a mechanism for the harmonization of NAPs.

### ADOPTED APPROACH

This study aims to describe the importance of NAPs within the data exchange domain explaining the necessity of data, both for the NAPs themselves and for the evolution of the whole transport field. It also aims to present the NAPCORE project as well as the approach through which it seeks to provide solution to the difficulties and technical issues attributed to the varying implementation of NAPs across Europe.

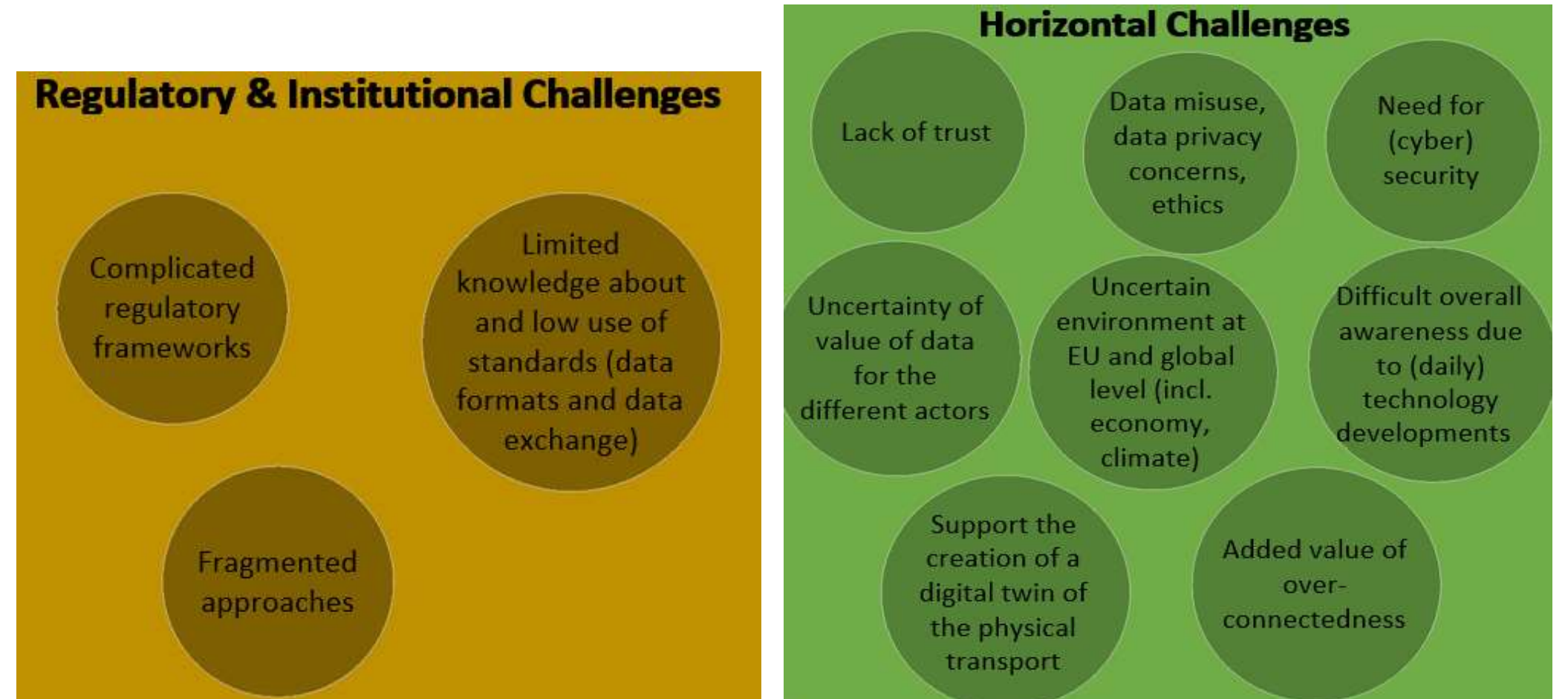
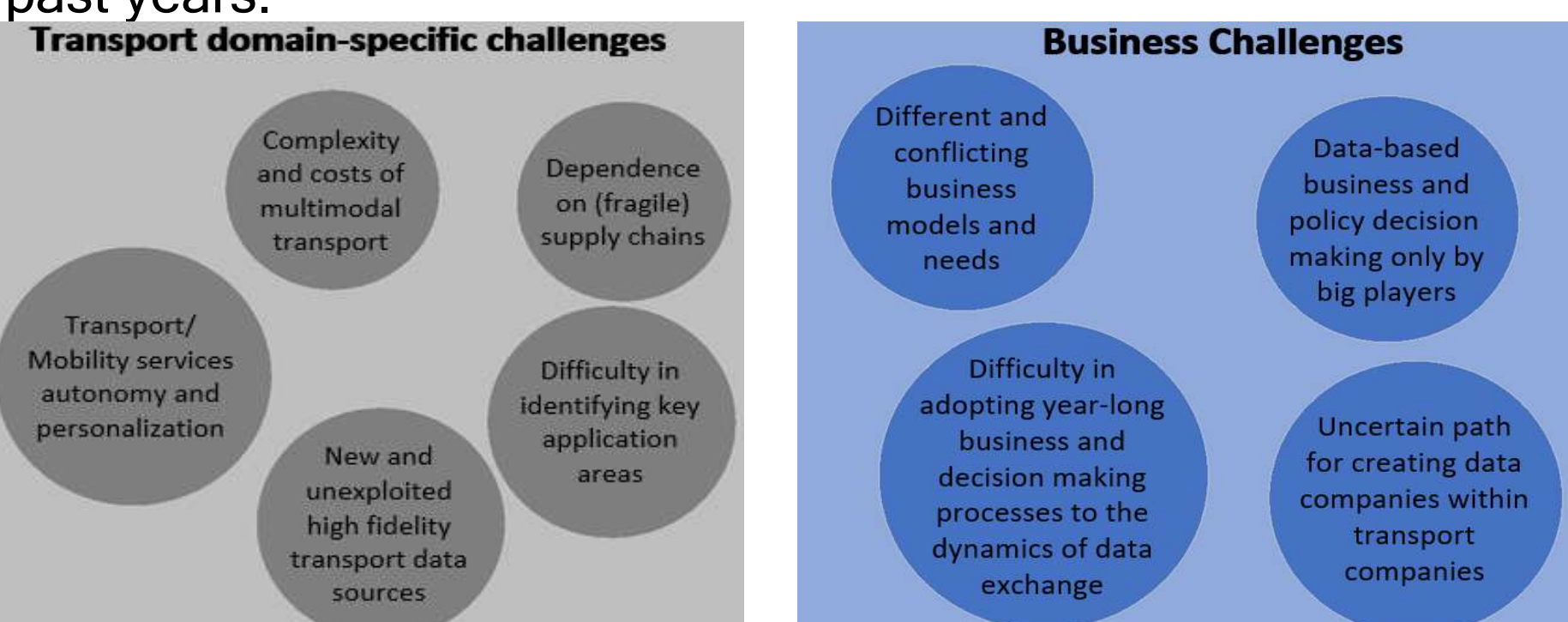
### THE SIGNIFICANCE OF NAPs

A NAP is a node in which ITS-related data are concentrated and published in the form of datasets. Each dataset is described by metadata that should conform to a certain terminology or control vocabularies and may include one or more data resources of varying types that should comply to standardized formats. The standardized formats is determined by the data categories described within the Delegated Regulations supplementing the ITS Directive. Some benefits of NAPs are summarized in the table below.

Benefits	Description
<ul style="list-style-type: none"> <li>Improved data comprehension</li> <li>Improved processability of data</li> <li>Improved discoverability of data</li> <li>Increased (re)use of data</li> <li>Increased trust towards data</li> <li>Increased interoperability</li> </ul>	<ul style="list-style-type: none"> <li>Humans will understand more easily the structure, the meaning, and the nature of data</li> <li>Machines will be able to automatically process (and manipulate the data within) a dataset</li> <li>Data consumers will be able to find datasets; machines will be able to automatically discover (data within) a dataset</li> <li>The chance of dataset reuse by different consumers will increase</li> <li>The confidence that consumers have in a dataset will improve</li> <li>Humans and machines will be able to access up-to-date data in multiple forms</li> </ul>

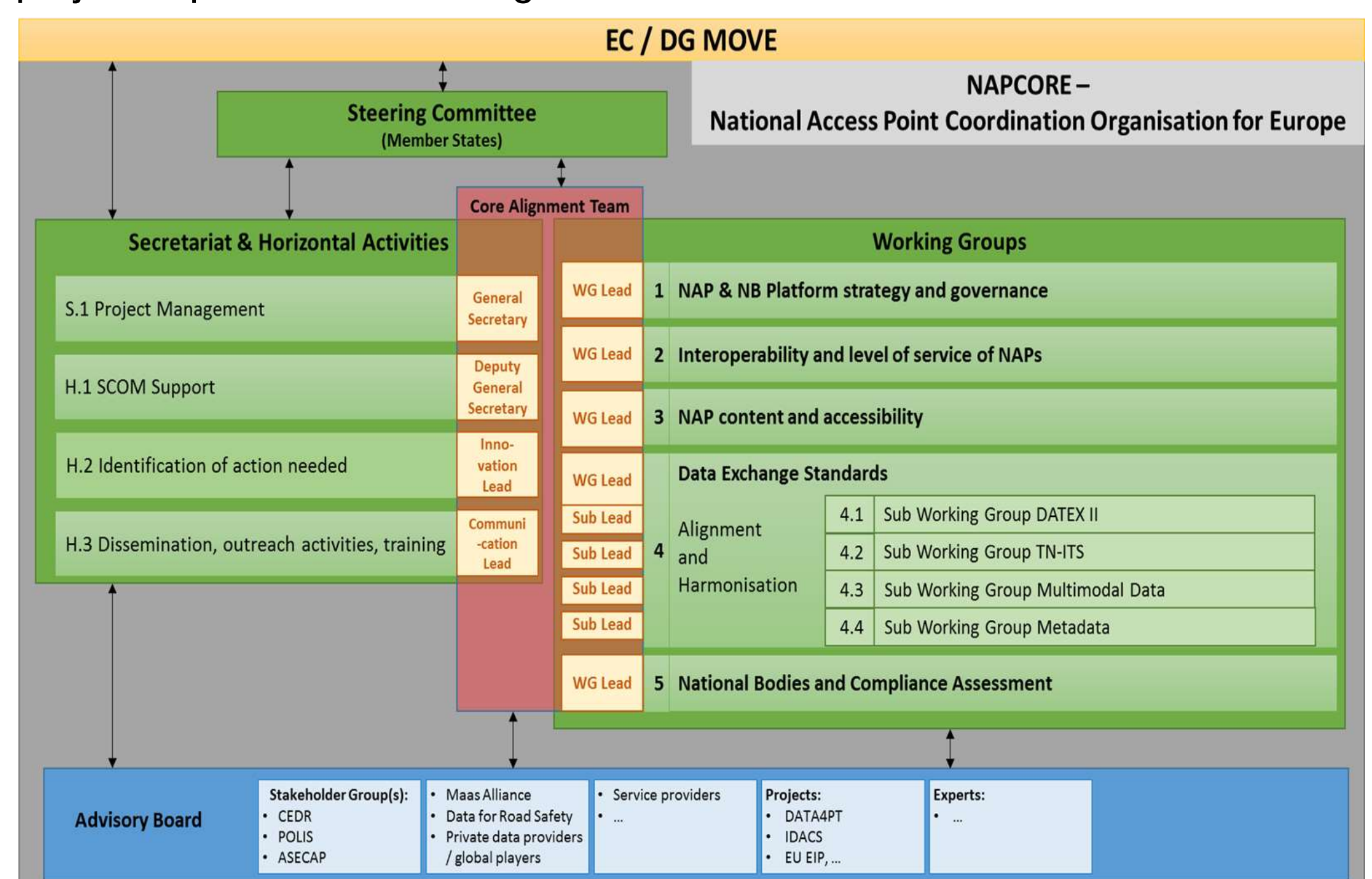
### DATA EXCHANGE CHALLENGES

Despite the plethora of benefits, the transport sector faces a wide variety of challenges that are domain-specific as well. The figures below present several challenges that are witnessed during the past years.



### NAPCORE ACTIVITIES

The main idea behind the NAPCORE project is to set upfront a mechanism and future-oriented platform for the harmonization of NAPs with the vision of establishing their role as the backbone of ITS-related data exchange infrastructure. Activities included in the project's portfolio cover several dimensions. An overall concept of NAPCORE project is presented in the figure below.



### DISCUSSION AND CONCLUSION

ITS constitute a core driver for the future of the transport sector and especially for its adaptation to the new digital era. However, the degree to which ITS can drive the future of the sector one step further, greatly depends on the availability of suitable and reliable data streams. Hence, it becomes apparent that the availability of accurate and up to date data is essential in any case. This is exactly what NAP platforms try to achieve by accumulating transport-related data from various data providers and made them accessible to the public. Although the benefits arisen from the development and operation of such platforms are many, however, several challenges exist, making more complicate the process of data exchange. Therefore, the NAPCORE project is of great importance for the ITS community, considering that it seeks to provide solutions to the above-mentioned challenges as well as to clarify the future role of NAPs in ITS ecosystem.

