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Evaluation of current European open science initiatives in transport research

ST47: Building human capital for the future mobility system (ID 776)

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Abstract

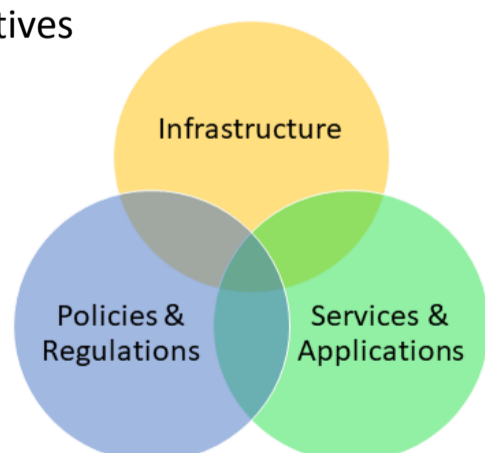
This paper conducts an analysis and evaluation of exploited Open Science initiatives and open access platforms in Europe. The proposed analysis presents clusters of possible use areas with respect to different challenges that key actors in transport research may face. The focus is given on the evaluation of different combined factors which could be used as a qualitative measurement for existing Open Science tools. Subsequently, relevant stakeholders could acknowledge the existence of Open Science initiatives and the way to use them efficiently in order to enhance a collaborative, innovative and transparent research environment.

OS initiatives supported by EC

- the European Open Science Cloud (EOSC)
- OpenAIRE-Advance
- Internet Engineering Task Force (IETF)
- Research Data Alliance (RDA)
- Fostering the practical implementation of Open Science – FOSTER project
- Transport Research and Innovation Monitoring and Information System – TRIMIS
- Community Research and Development Information Service - CORDIS

Analysis of Open Science initiatives coverage areas

3 main clusters of use areas are proposed to present how OS tools cover the different challenges and in addition, to provide a qualitative measurement for existing OS initiatives



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Main challenges of building OS platforms in Transport Research

Research, technology and innovation Open Science related actions in the transport sector face the following challenges:

- Technical interoperability (C1)
- Code of implementation such as membership and governance of new open observatories and forums (C2)
- Common terminology to support data and information interoperability (C3)
- Deployment of new skills and competencies for practicing Open Science (C4)
- Adoption of collaborative ways of working (C5)

Analysis of European Open Science initiatives

OS initiatives	Tackled main challenges	Cluster use areas
EOSC	C1, C2, C3, C4, C5	- Services & applications - Infrastructure - Policies & regulations
OpenAIRE	C1, C2, C3, C4, C5	- Services & applications - Infrastructure - Policies & regulations
IETF	C1, C2, C5	- Infrastructure - Policies & regulations
RDA	C1, C2, C3, C5	- Services & applications - Policies & regulations
TRIMIS	C1, C2, C5	- Services & applications - Infrastructure - Policies & regulations
CORDIS	C1, C2, C5	- Services & applications - Infrastructure - Policies & regulations
FOSTER	C1, C4, C5	- Services & applications - Infrastructure
Open Access platforms	C1, C4	- Infrastructure - Policies & regulations

Conclusions

The proposed relations table of the different OS and open access initiatives in transport research provides a **starting grid that has to be taken into consideration from key actors in transportation sector.**

The main goal is to present suggestions that could **make science more efficient, better reproducible and more responsive to societal and economic expectations**, as they follow the agenda of EC strategy and promote collaboration schemes among industry, research community and citizens in order to speed up the path from research to innovation.

Besides the aforementioned observations, consideration should be also given towards a systematic review of current European technology platforms and transport research competence areas of key stakeholders as they can give **an overall guidance towards a more comprehensive evaluation of current and on-going OS initiatives.**

Overall, this study provides an analysis and evaluation of exploited Open Science initiatives and open access platforms in Europe and recommends a more precise definition of OS in transport to specify its overarching goals. **A top-down approach is also recommended for implementing OS in transport research to provide transparent and understandable processes and goals to the transport research stakeholders.**

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