

Annex 5: Answers of representative of TRANSMODEL to the questionnaire

Interoperability basics

1. What is the Interoperability for you?

Answer: *Interoperability of systems is the ability of a system to easily re-use information provided in different ways (in particular by different providers, in different formats).*

Interoperability of information is the situation in which information A and Information B are semantically equivalent, i.e. have the same purpose (scope) and can easily be replaced one by another without loss of information.

2. How do you conceptualize an interoperable ecosystem?

- a. A framework for sharing/exposing data in an interoperable manner
- b. A framework for exposing our services to others and utilize interesting services provided by other systems
- c. A framework which facilitates communication and interaction with other systems

Answer: *mainly a. (a. facilitates c., possibly b.)*

3. What do you consider to be the primary role of the interoperability?

Answer: *interoperability of information is a necessary condition for c. above.*

4. Do you feel a need for the interoperability in your organisation? What are your expectations?

Answer: *Not really applicable, however, I am facing the question of "interoperability" when considering overlaps in standards and mappings between standards. The IF may ease the mapping process (mappings between ontologies) . The examination of semantic equivalence of semantic models is a difficult and time consuming topic, needs high level expertise. An (partial) automation would be helpful – this is to be investigated/made applicable (my expectation from the IF).*

The interoperability environment

5. If you are facing interoperability issues, what kind of issues are there?

E.g.: Hardware interoperability, data interoperability, service interoperability, live streams interoperability...?

Answer: *data interoperability*

6. If you are facing interoperability issues, how are you overcoming them?

Answer: *partial harmonisation (where possible) and mapping*

7. Does your initiative provide a central "hub for interoperability" or are you providing companies a de-centralised solution? Is centralisation (a single solution installed and managed by a single organisation) a viable way in your domain?

Answer: *complete centralisation is not realistic. Even if a single format is recommended, several profiles will co-exist. However recommendations to use a well established refereces for new systems would enhance interoprability (cf analogy to standards fo electric plugs all around the world)*

8. Do actors in your domain use well-established standards/specifications or are they all using their own custom data model/API ?

Answer: *several APIs , often their own APIs but more and more they see interoperability problems and if installing new platforms come closer to standards (e.g. Paris region, Marseilles system, Lyons).*

9. Did you define a single reference datamodel or API? Are you accepting data/services expressed using different standards/specifications or are you forcing everyone to use a single one?

Answer: *the standardisation group I am representing considers a single Reference data model for a particular purpose/scope and several local models. The usefulness of a Reference model is clearly to be either used as is (often parts of it) or to compare/map other locally defined models. Mappings make it possible to identify similatities an differences and thus e.g. express a judgement on the degree of interoperability of systems.*

The group recognises the existence and even necessity of other Reference models for other purposes – the scope of the Reference models has to be cleary defined.

10. In case each company uses a different standard/specification, is there a process by which a company/actor notifies other actors in the initiative about changes in his data/service model or behaviour?

Answer: *currently probaly only peer to peer agreements*

What is the process that a new actor must follow to contribute their data/services to your initiative?

Answer: *if the "reference data model for public transport" can be considered as an "initiative" then actors wishing to be conform to it shoul follow "conformity statements" expressed in the standard documentation, as a minimum. A Mapping Matrix has further been established and used (within a range of projects) which provides a certain qualification of the mapping. This applies to the semantic/conceptual level. If an actor wants to use the related implementation standard (NeTEx or SIRI) then more automadc validation routines may be used (e.g. a opensource tool called Chouette, developed in France).*

11. When a new actor joins the initiative, can he define his own policy regarding data/service access? Are new data/services accessible to anyone in the initiative or is there a process to gain access to the resources contributed by the actor?

Answer: *the "semantc model" (Transmodel) initiative is not related to implementation/organisational issues.*

National Access Points

12. Are you aware that an EU Regulation (EU 2017/1926) requires each EU transport authority, operator and infrastructure manager to allow access to transportation data, defined according to specific standards (e.g., NeTEx, SIRI), via a National Access Point?

Answer: yes

13. What's the status of the National Access Point to multimodal transportation data in your country?

Answer: France - currently being established

14. What are your priorities/biggest challenges regarding the Regulation?

Answer: to help the EU Member states implement the Regulation – teaching/information/dissemination of standards

15. Are you already using the standards that the Regulation mandates? If not, have you already set up a project to work on this?

Answer: developer of Transmodel, basis for NeTEx, SIRI, OJP. Currently investigating gaps/overlaps in standardisation. Developer of an extension to Transmodel – a reference model for the alternative modes of transport (vehicle sharing/pooling/rental). Proposer of a project for the development of an API for publication of the information concerning the alternative modes (based on the model as mentioned above) as an extension of NeTEx.