Collaborating on interoperability to achieve a Digital Single Market

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OUTLINE

1. Digital Single Market
2. Interoperability in the Digital Agenda for Europe and the Data Value Chain strategy
3. Semantic interoperability
4. Conclusion

"DSM" in the EU policy context

➢ ***A strategy <u>for smart, sustainable and inclusive growth</u>***

➢ *A vision to achieve* ***high levels of employment, a low carbon economy, productivity and social cohesion,*** *to be implemented through concrete actions at EU and national levels.*

➢ *One of the seven flagship initiatives of Europe 2020, set out to* ***define the key enabling role that the use of ICTs will have to play*** *if Europe wants to succeed in its ambitions for 2020.*

➢ ***The overall aim […] is to deliver sustainable economic and social benefits from a <u>digital single market</u> […]***

➢ ***Action 3: <u>Open up public data resources for re-use</u>***

CONSILIUM EUROPAEUM

"The Commission is invited to ***make rapid progress in key areas of the digital economy to ensure the creation of the <u>Digital Single Market</u> by 2015, including […] the availability of public sector Information."***

Conclusions of the European Council (4 February 2011)

Conclusions of the European Council of 24/25 October 2013 in relation to Big Data

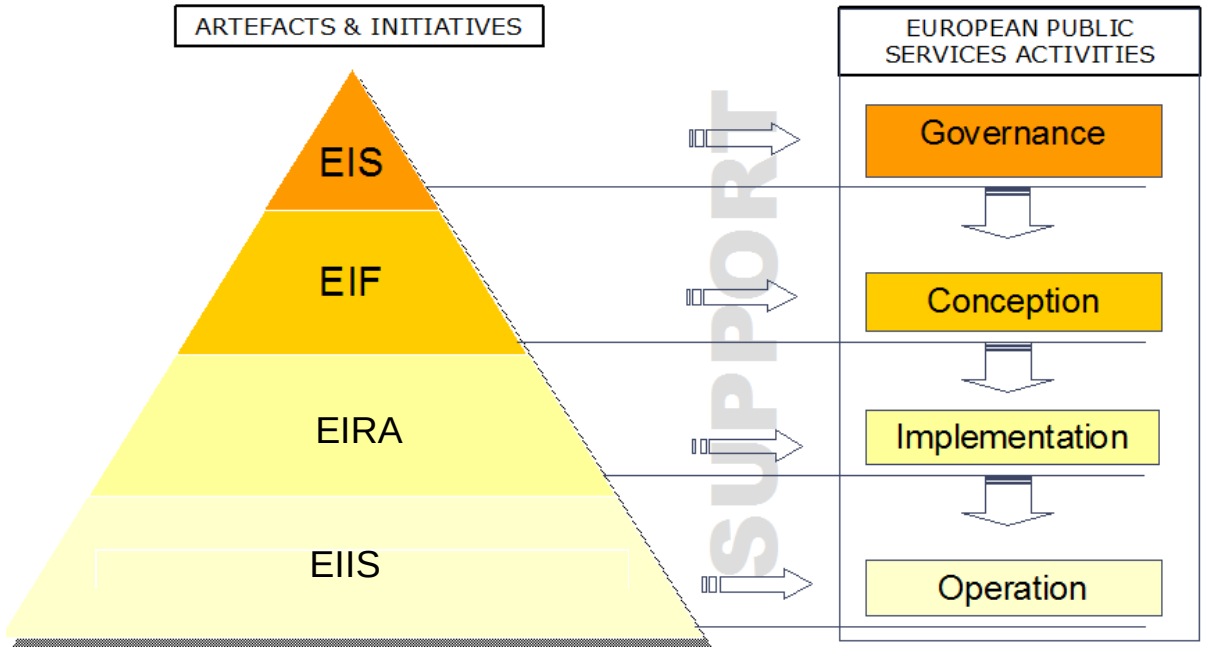
- ***Enhancing the potential*** *of 'Big Data' and "data-driven innovation"*
- *Technologies building on 'Big Data' are "important enablers for* ***productivity and better services****"*
- *Need to complete the* ***Digital Single Market*** *by 2015*
- ***Improve public services*** *through e-government, e-procurement, e-health and e-invoicing services*
- *Importance of an integrated approach to R&I& market deployment through* ***better coordination of grants****,* ***venture capital*** *and* ***pre-commercial procurement***

Interoperability

the ability of
disparate organisations,
to interact towards agreed goals,
by sharing information
through their business processes,
by means of exchanging data
between their IT systems

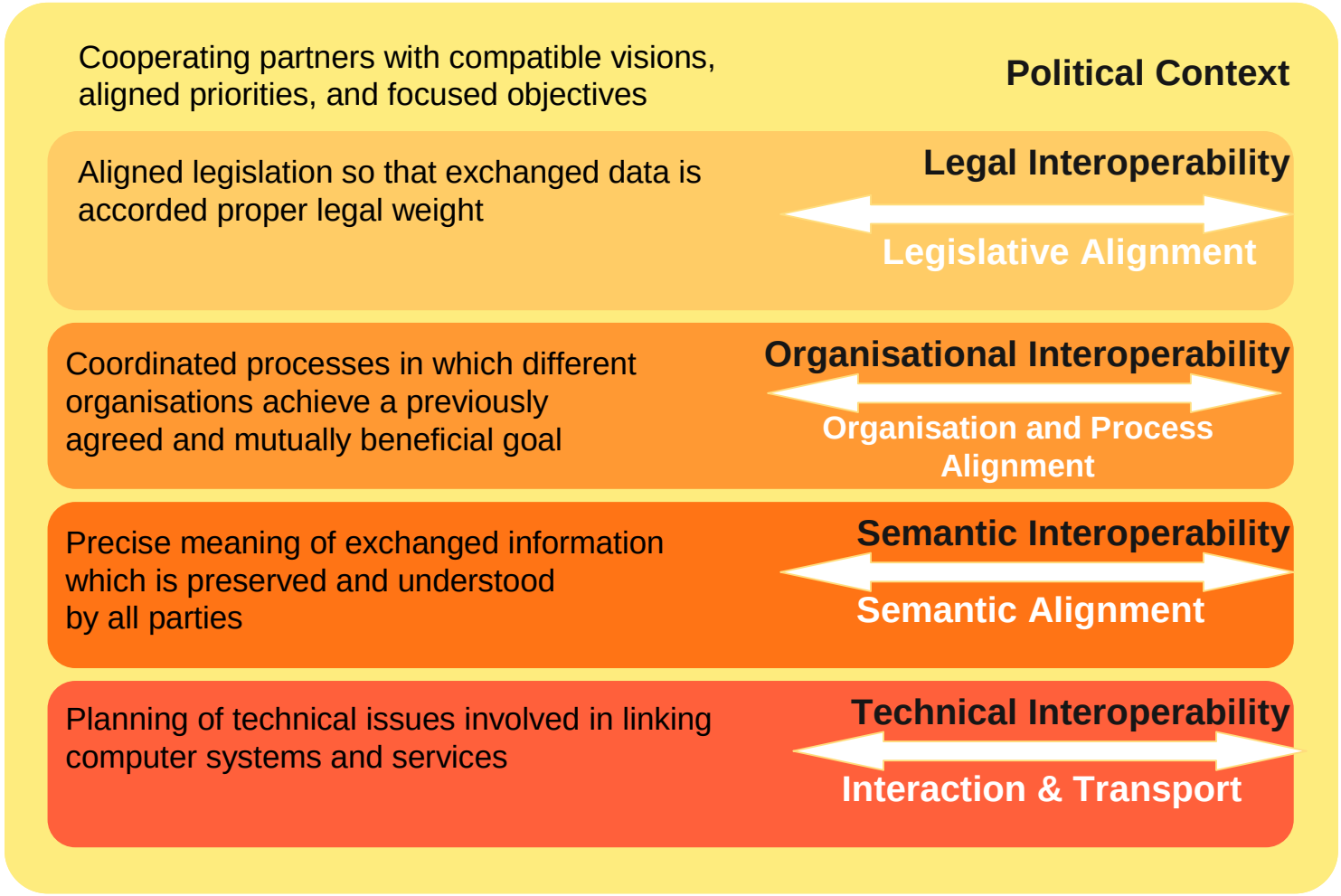
DAE Pillar II – Interoperability and Standards:

EC adoption of the Communication "Towards interoperability for European public services" in December 2010, that included the:



- European Interoperability Strategy (EIS)
- European Interoperability Framework (EIF)

Interoperability levels



Interoperability in the Data Value Chain

- The **Data Value Chain approach** takes into account all the 4 layers of interoperability (legal, organisational, semantic, technical).
- The viability of a common "**data ecosystem**" depends to a great extent on how the interoperability issue is solved.
- Interoperability is an **important framework condition** of data driven innovation

Interoperability layers:

- ***Legal interoperability***:

commonly accepted and adopted legal framework forms the basis of building a functioning data economy, based on ***effective exchange and re-use of data****.*

For example, the ***PSI directive*** *guarantees that public data assets are accessible to those who want to build value on them.*

Organisational interoperability

- *Data exchanges in value chains are only possible if organisations are able to pass data to and from each other.*

The CEF programme sets up fundamental processes and systems for such interoperability (e.g. document exchange, eSignature & eID, the Open Dispute Resolution system (ODR) that allows unhappy consumers across Europe to communicate with merchants and consumer law enforcement in view of solving their problems).

Semantic interoperability

- *It is important to make sure that we **all agree and understand the meaning of concepts** that we use.*
- *The **variety of different languages** in EU adds a specific challenge to this layer of interoperability.*
- *We have **different names for concepts** in the different EU countries, but we also have **different concepts** that do not always match.*
- *Promoting the use of **agreed core vocabularies** (as those available in JoinUp),*
- *The **mapping of concepts** at the Member State level.*

Technical and syntactic interoperability

*- Promote **standard data formats** and **exchange protocols**, especially in systems that are meant to work across national boundaries and across industry sectors (e.g. the pan-European digital services of CEF).*

*- Majority of data is **unstructured** (e.g. pictures, videos, tweets or blog posts on current events). We also have to be able to **process, analyse and visualise** this "wild" data, as it often contains the most valuable and timely information (R+I in H2020)*

Conclusions

- Growing data economy offers fantastic **opportunities** for new business
- **Interoperability is still a barrier to develop cross-border services**
- **Multilingualism in Europe** increases the complexity of semantic interoperability
- The **EC is committed to support** to improve European data driven competitiveness

More info and updates:

https://ec.europa.eu/digital-agenda/en/content-and-media/data

Thank you!