TRUSTS: Data Economy must emerge securely and trustworthy
Pan-European Data Sharing needs solid legal frameworks for technological development

23 March 2022, Vienna/Graz/Delft – Data platforms or data marketplaces are emerging to facilitate data exchange. In the opinion of policy makers data should be a tradeable commodity, just like capital or other resources. But so far, lack of skills and knowhow[1] and additional challenges, like privacy, security, regulation and competitiveness hinder the practical feasibility of such approaches. There are already existing marketplaces on national or city-level, some are industry-specific (e.g., mobility) or data type specific (e.g., IoT, personal, business).

In order to elevate such approaches to the European level, TRUSTS – Trusted Secure Data Sharing Space – is dedicated to the question *how can platforms work together?*

"*Data markets will target communities with common interest. They collectively constitute their data spaces; yet data spaces should interoperate and not stand on their own. We have to federate in order to progress and create a dynamic environment in order to find a way to create a big ecosystem.*" – Mark de Reuver from TU Delft.

Trustworthy data sharing – key challenges for secure data exchange

Within TRUSTS, major challenges[2] around privacy are tackled in providing legal and technical perspectives on privacy-preserving analytics, merging encryption with other machine learning approaches or working on prototypes like an industry-ready PSI solution: PSIttacus[3].

"*There are different techniques that allow secure collaboration*", Andreas Trügler from KNOW Center in Graz explained. "*For example: the homomorphic encryption can do calculations with encrypted data without decrypting it, which can be used e.g., for outsourcing data for training a machine learning model. Another example would be the private set intersection, which is a cryptographic protocol: it encrypts data with a private key, exchange encrypted data sets and encrypt it again with a private key.*"

Legal and ethical basis for technological development

Trust is not only a matter regarding to privacy. For achieving trust, a solid legal and ethical framework is important. To make data sharing work we need to overcome the fear to place trusts in involved parties.

Within TRUSTS research ethics principles were developed and addressed the legal and ethical issues arising from the research activities to be conducted throughout the project. Besides, challenges which are relevant to the platform were identified. In a next step, TRUSTS consortium will provide guidance to implement the legal and ethical requirements of the project, clarify legal questions in the context of data sharing and identify legal and ethical barriers.

Are you interested in exchange with our experts? Please contact us: info@trusts-data.eu

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[1] More: Creating a Taxonomy of Business Models for Data Marketplaces:
https://www.researchgate.net/publication/352781995_Creating_a_Taxonomy_of_Business_Models_for_Data_Marketplaces

[2] If you are interested in open challenges for privacy: Privacy in Open Search: A Review of Challenges and Solutions

[3] https://www.trusts-data.eu/private-set-intersection/