



EUROPEAN UNION AGENCY  
FOR CYBERSECURITY

# ENGINEERING PERSONAL DATA PROTECTION IN EU DATA SPACES

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Hellenic DPA – byDefault event

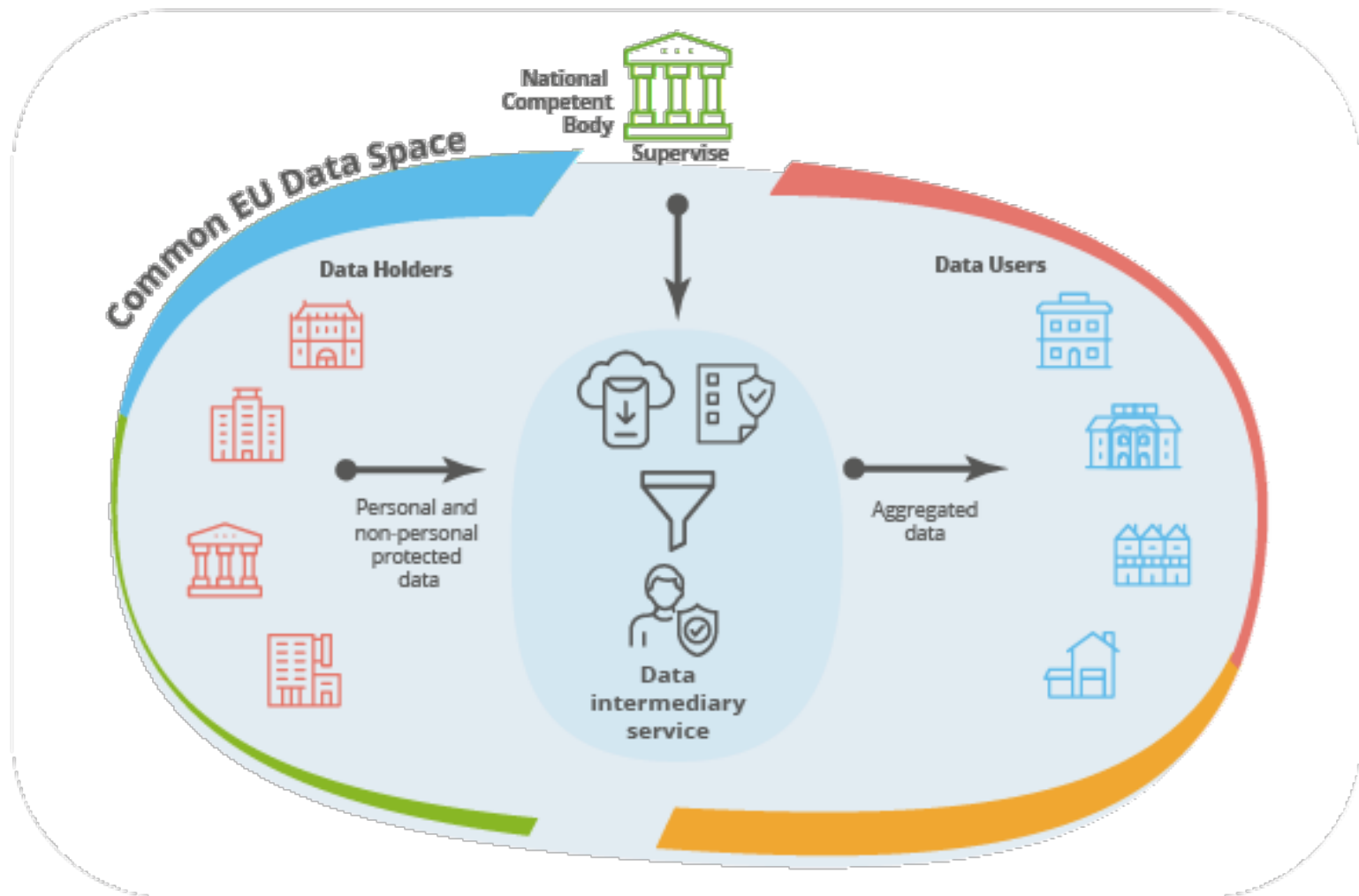
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# ENISA STRATEGIC OBJECTIVES

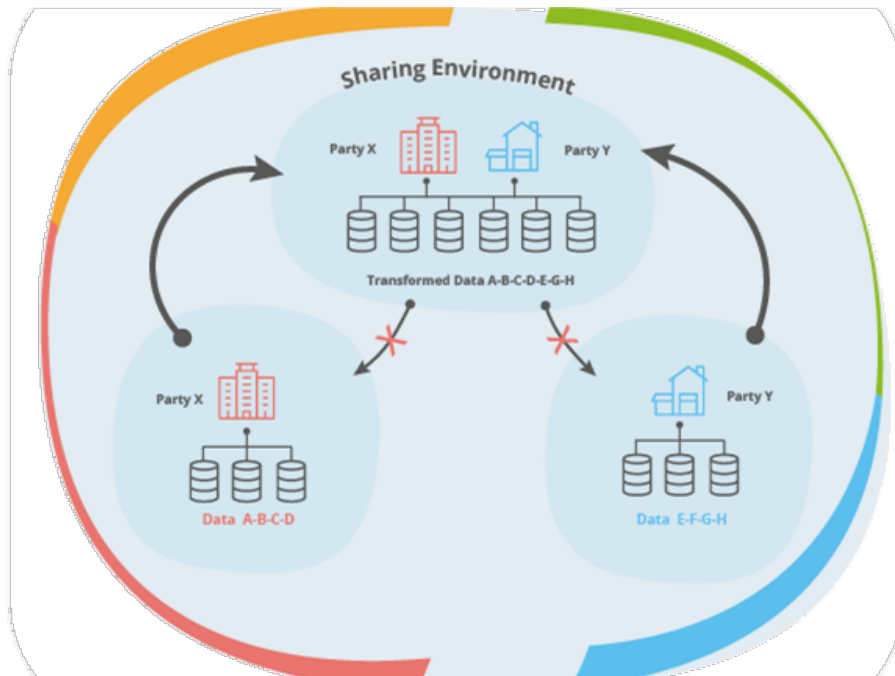


# COMMON EU DATA SPACES

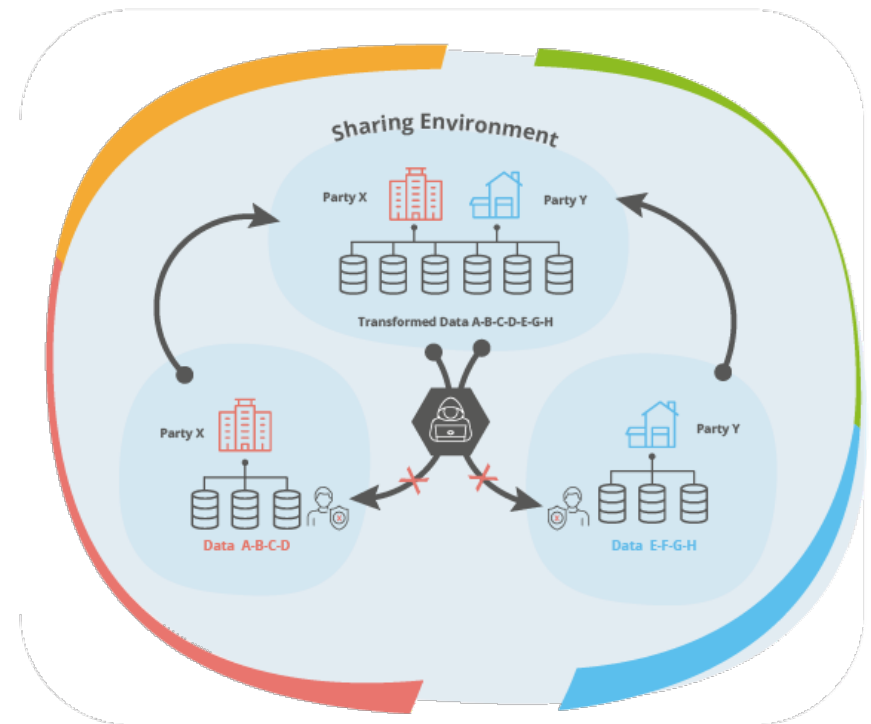


# INPUT PRIVACY AND OUTPUT PRIVACY

## Input Privacy



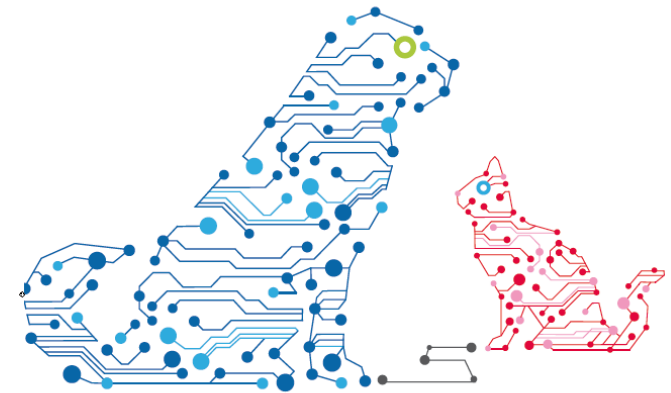
## Output Privacy



# PRIVACY ENHANCING TECHNOLOGIES

- Anonymisation & pseudonymisation techniques
- Data masking and privacy preserving computations
  - (e.g. homomorphic encryption, secure multiparty computations, synthetic data,..)
- Access, communication & storage
  - (e.g. end-to-end encryption, proxy/onion routing,..)
- Privacy-enhancing access control, authorisation and authentication (
  - e.g. privacy-enhancing attribute-based credentials, zero knowledge proof, ..)
- Transparency, intervenability & user control tools
  - (privacy policies, privacy icons, sticky policies, privacy dashboards, ..)
- Consent management tools

Privacy Enhancing Technologies  
protect your online privacy



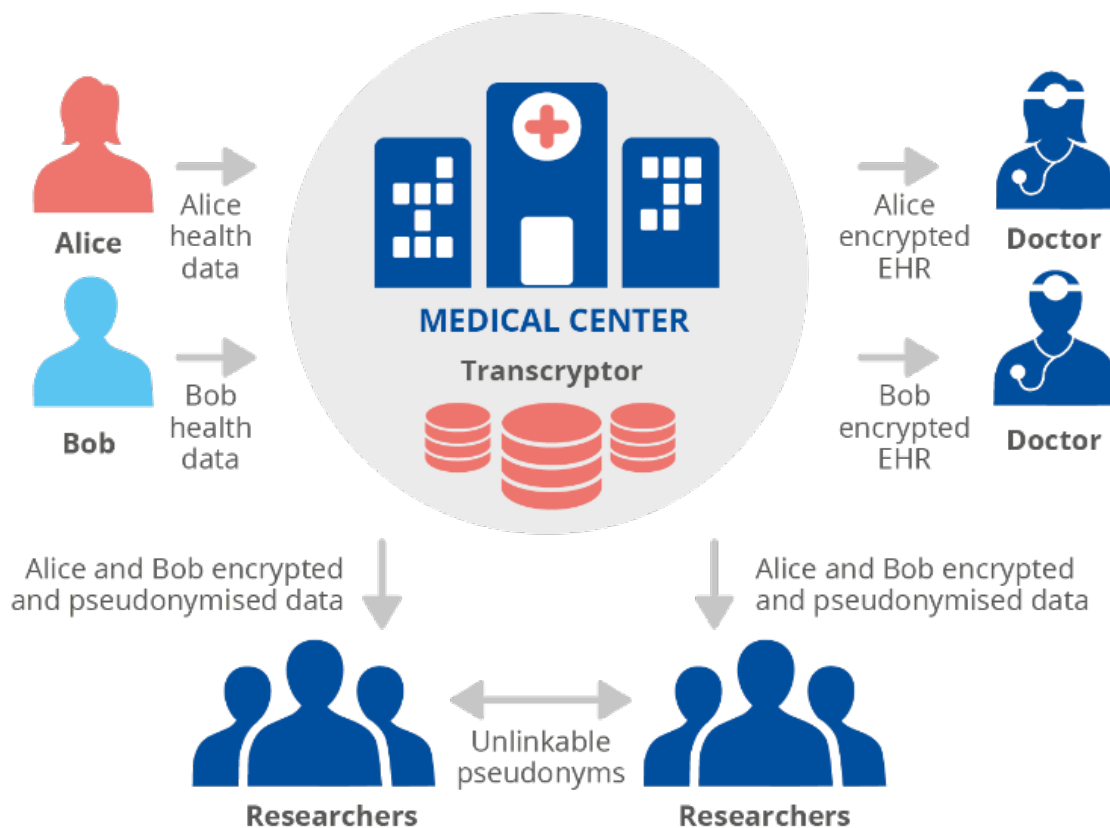
## Time to adopt PETs!

Privacy Enhancing Technologies (PETs) help to protect online privacy following the simple approach "reduce, protect, detect".  
The future starts now: make it a habit, adopt PETs.

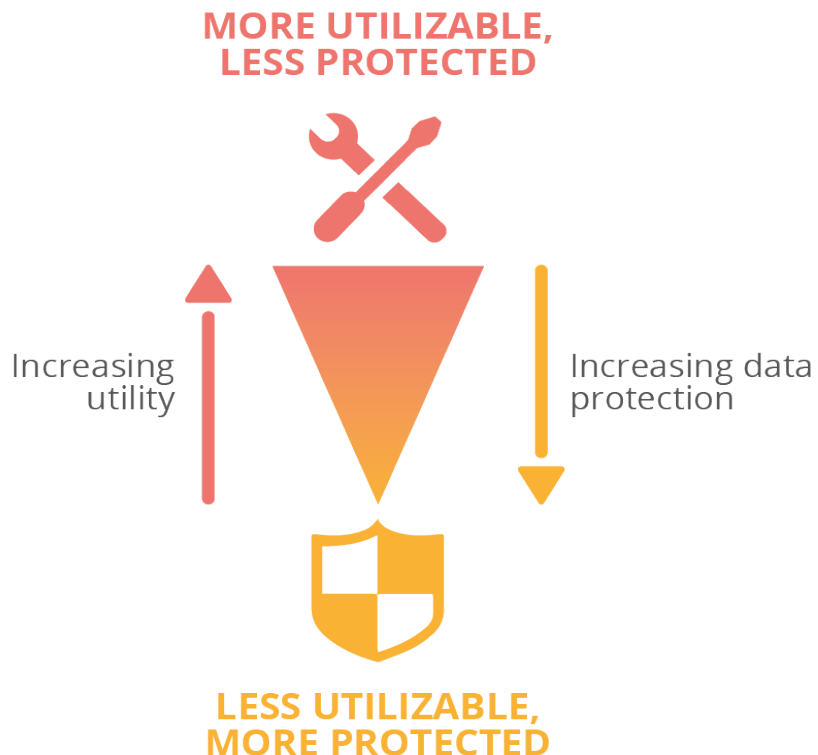
*Source: ENISA, Data protection engineering (2022)*



# POLYMORPHIC ENCRYPTION AND PSEUDONYMISATION (PEP)



# UTILITY AND DATA PROTECTION



- No **one size fits all** approach
- Clear **definition** of the processing operation
- Sharing based on a **risk based** approach
- **Anonymised vs aggregated** data

# RELEVANT ENISA PUBLICATIONS





# THANK YOU FOR YOUR ATTENTION

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