

# FAIR Digital Objects

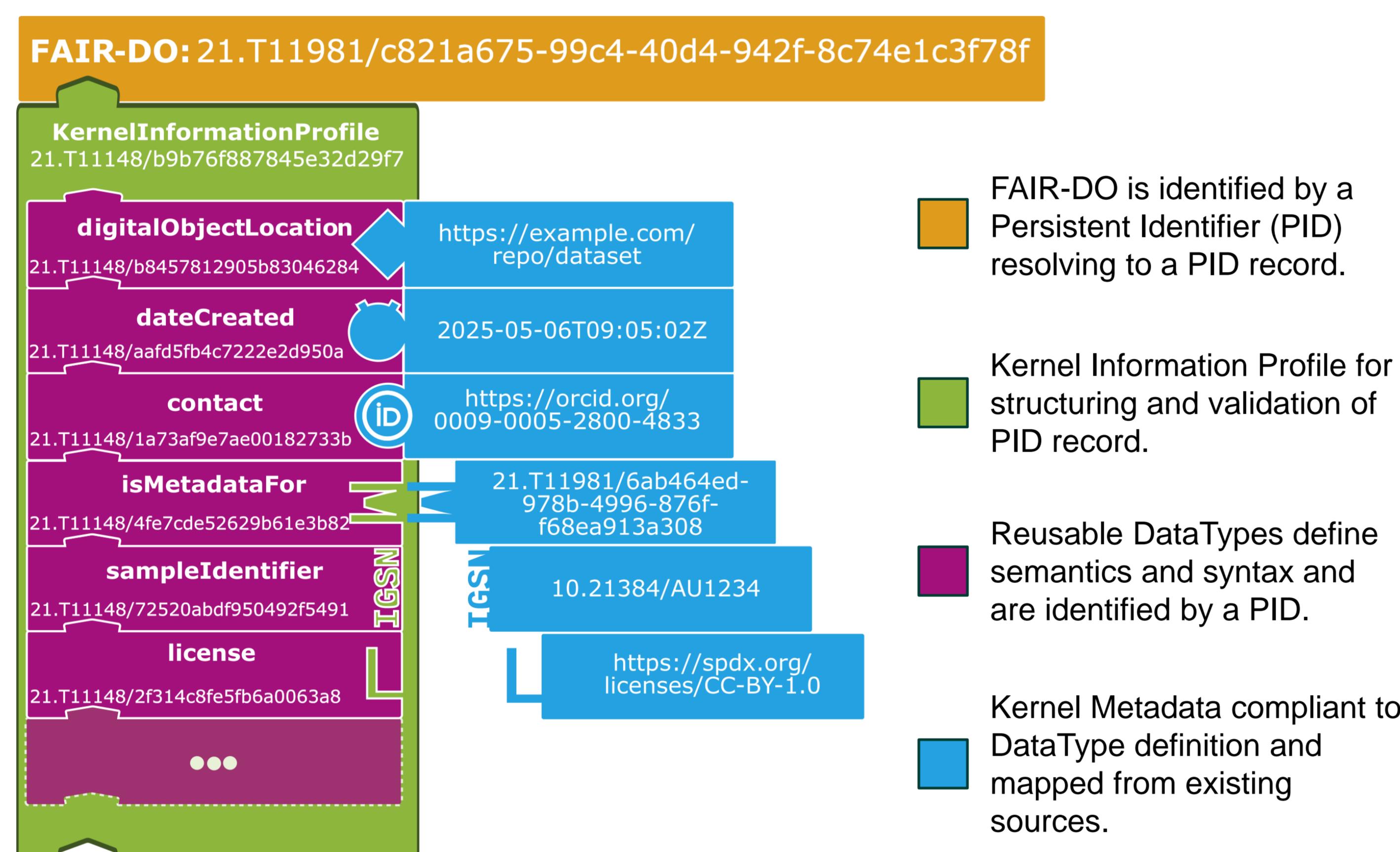
## How to compare apples with oranges

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### Benefit from a harmonized representation of digital assets using FAIR Digital Object technology.

Digital assets in today's research data infrastructures are highly diverse in shape and organization. This limits interoperability and makes them hard to reuse. FAIR Digital Objects (FAIR-DO) offer a solution to create harmonized, machine-actionable representations of arbitrary digital assets, which can be handled equally and automated no matter where they originate from.

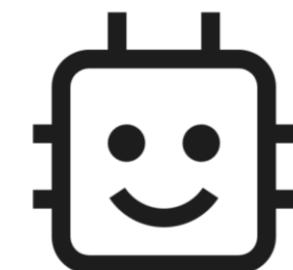
### FAIR-DOs Under the Hood



- FAIR-DO is identified by a Persistent Identifier (PID) resolving to a PID record.
- Kernel Information Profile for structuring and validation of PID record.
- Reusable DataTypes define semantics and syntax and are identified by a PID.
- Kernel Metadata compliant to DataType definition and mapped from existing sources.



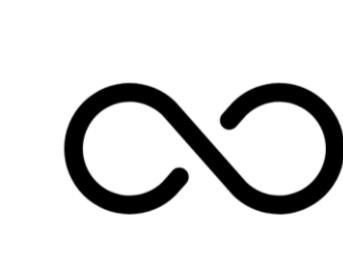
**Harmonized**  
representation of all kinds  
of digital assets.



Focus on **machine-actionability** and fast  
decision making.



**Non-invasive** application  
on top of existing research  
data infrastructures.



**Persistence** beyond service  
life of underlying research  
data infrastructure.

### FAIR-DO Designer



- Web-based, graphical tool utilizing Google Blockly
- Allows to create FAIR-DO designs from existing metadata documents
- Generated Python code from finished designs allows batch processing for automated FAIR-DO creation
- Initial version available for testing, suggestions and remarks highly welcome!



HELMHOLTZ  
Metadata  
Collaboration

FAIR DIGITAL OBJECTS FORUM