Digital Preservation

New Challenges for Software Maintenance

Design for Future @ WSR 2012

Sven Euteneuer, Daniel Draws

SQS Software Quality Systems AG

WHO is TIMBUS

TIMELESS BUSINESS

CMS Caixa Mágica	**DPC** DigitalPreservationCoalition	**INESC-ID** inesc id lisboa	**Intel** intel
iPharro iPharro	**KIT** Karlsruher Institut für Technologie	**LIP** LIP	**LNEC** LNEC
SAP SAP	**SBA** secure sba-research.org	**SQS** Excellence through Independence	**WWU** Westfälische Wilhelms-Universität Münster

What is this artefact?

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Context…

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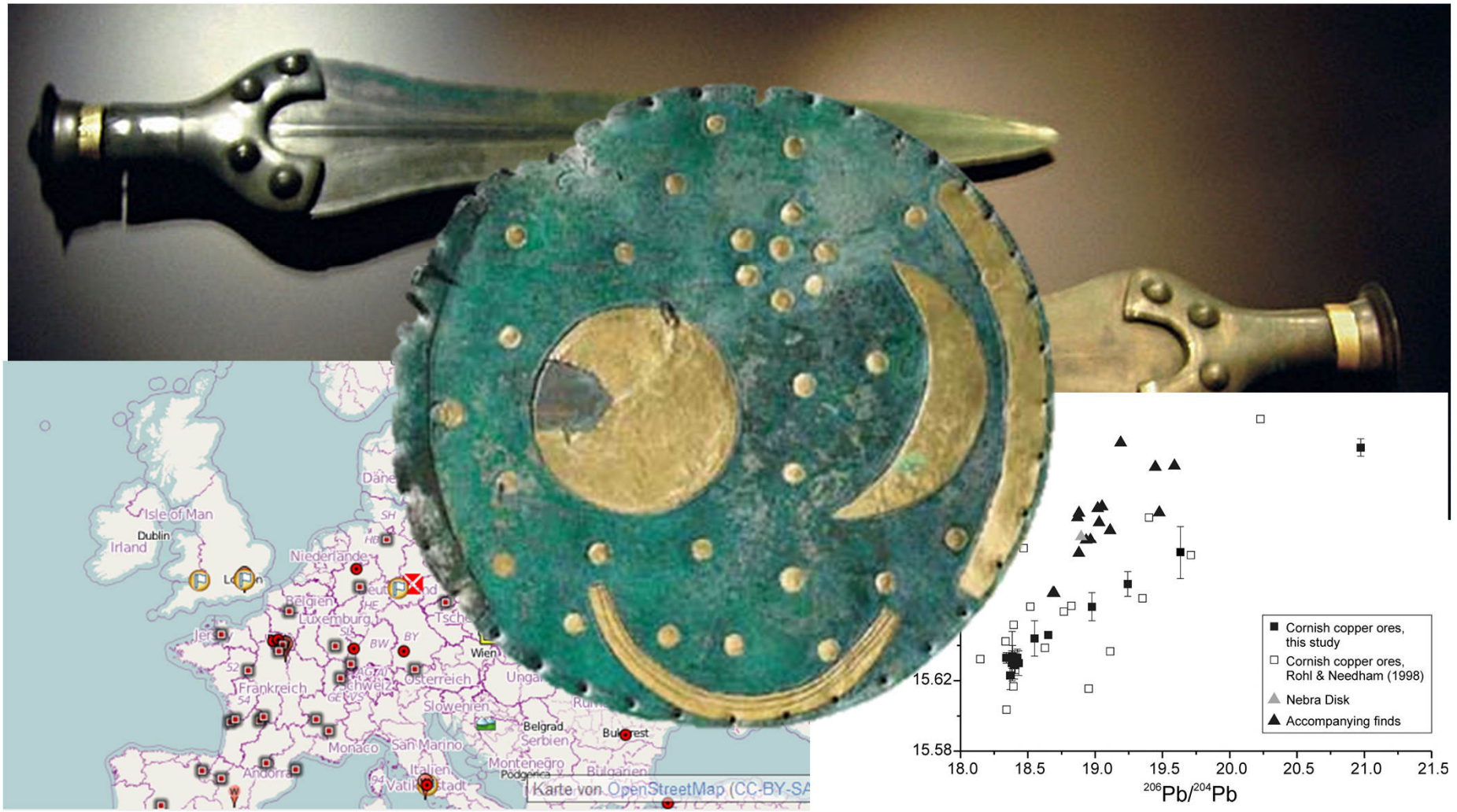

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Three „releases“ of the disk

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Some more context…

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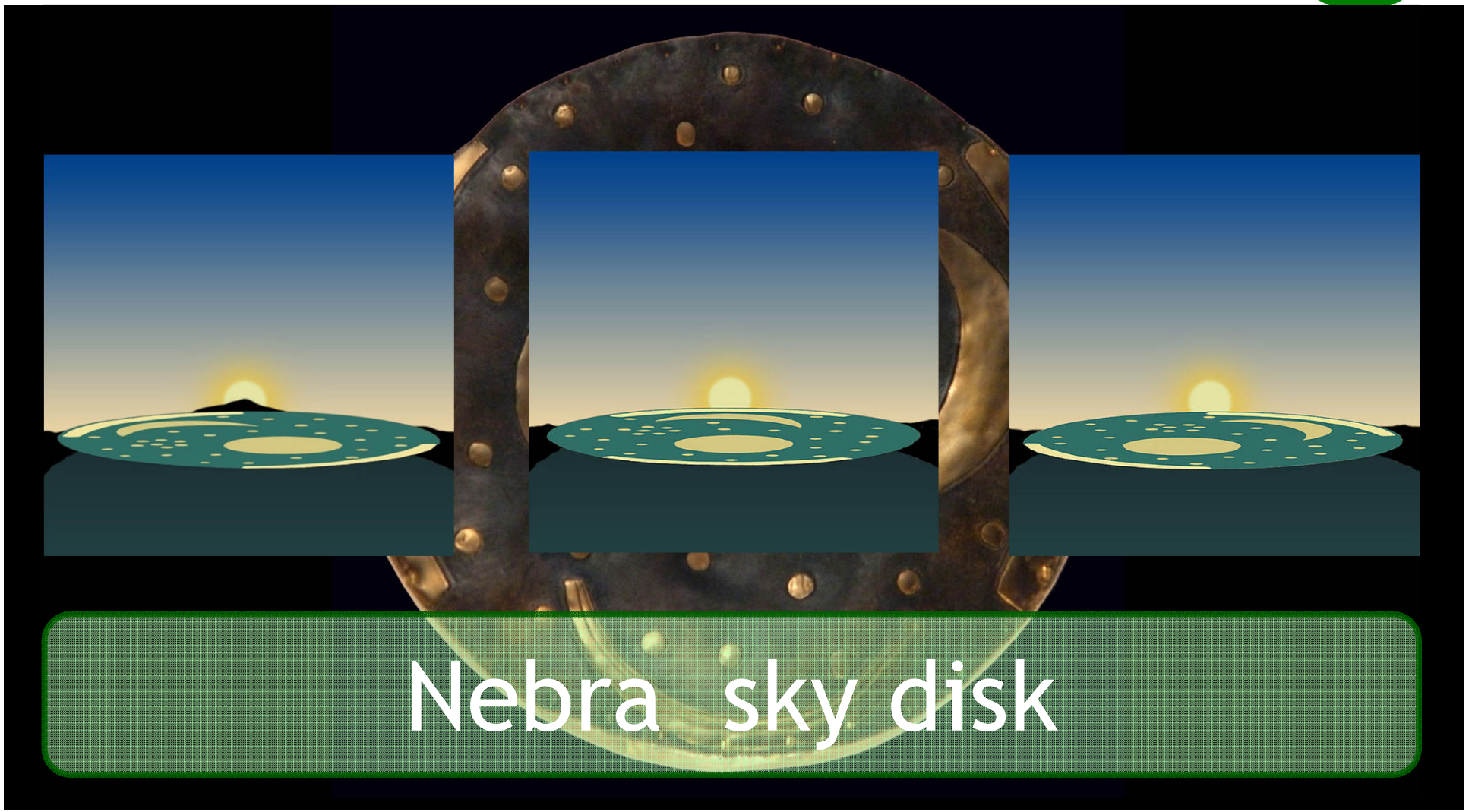

Our Sky Disks

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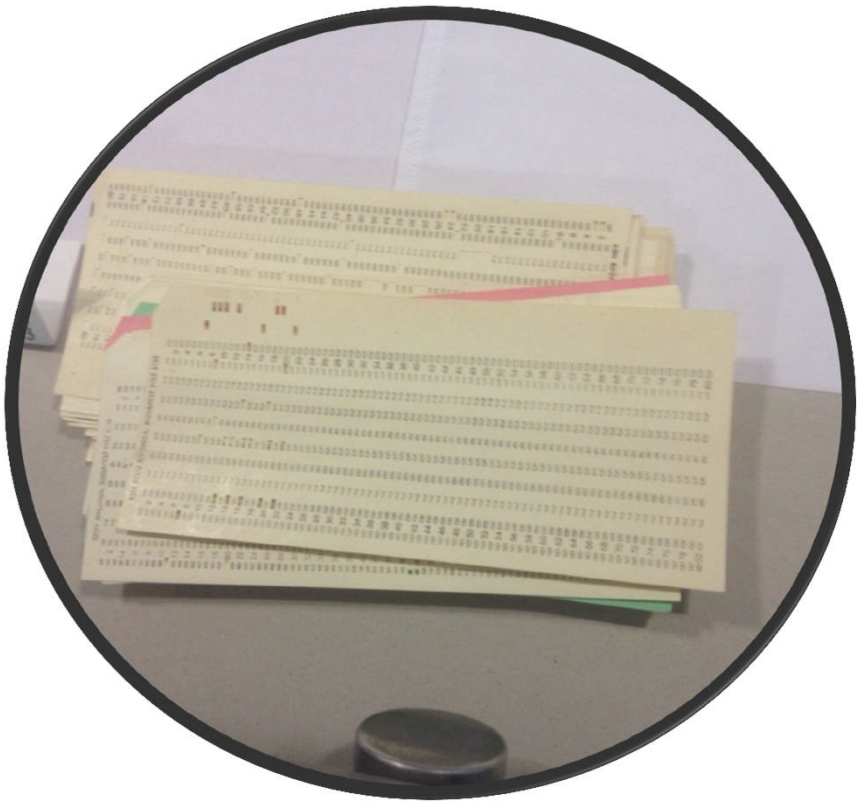

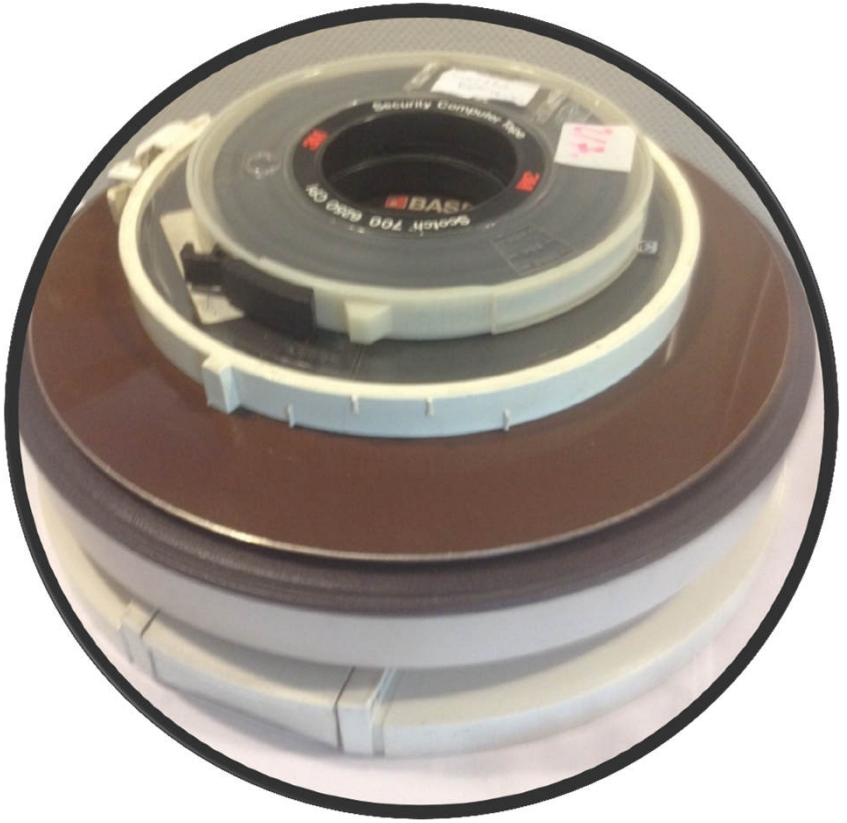

Digital Dark Ages

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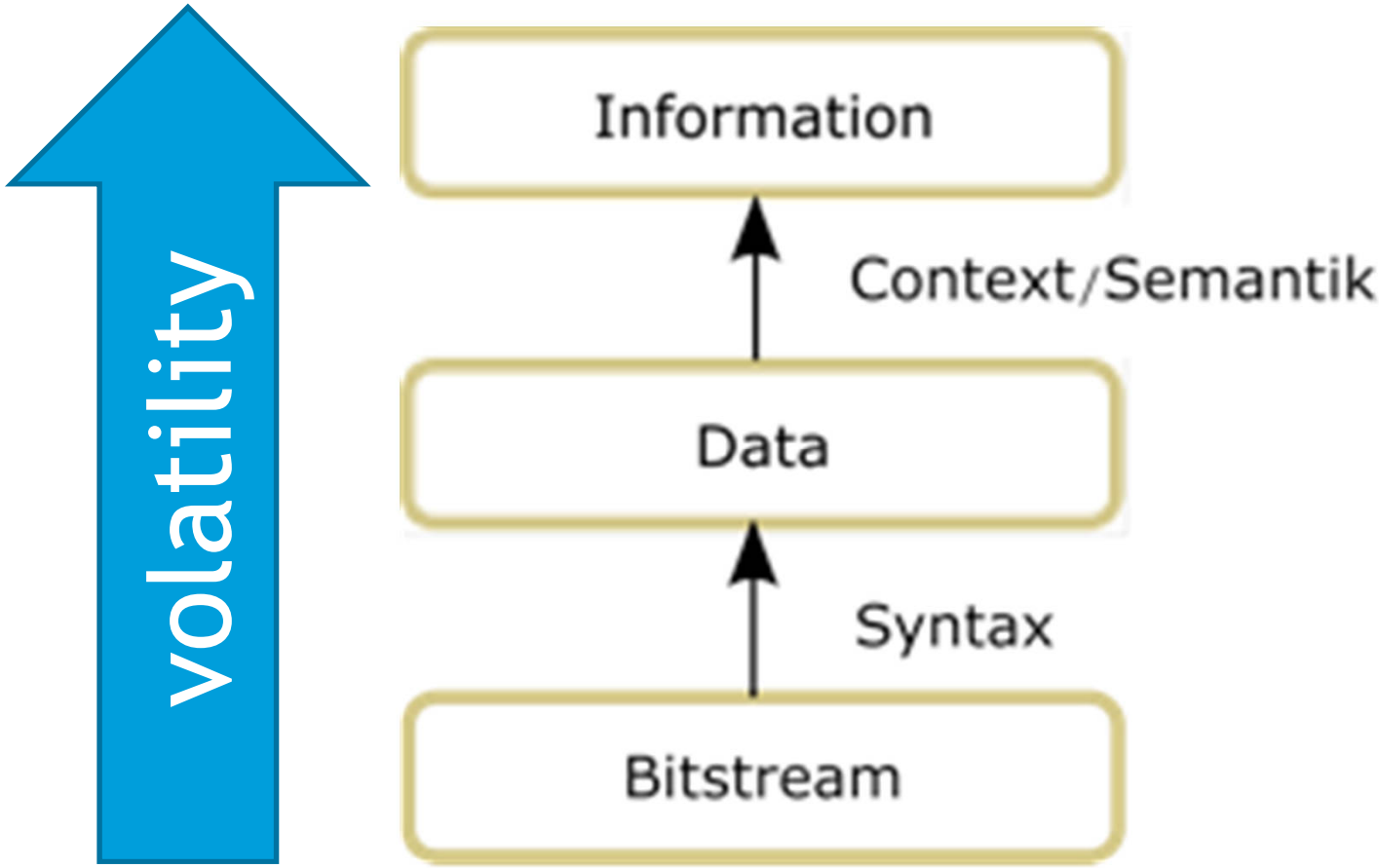

State of the Research

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- OAIS as an ISO standard
- Different Research on:
  - FileFomat Databases
  - Onthologies
  - Emulators
  - Migration
- But…

- … it‘s focused on artefacts

TIMBUS: How to preserve a process?

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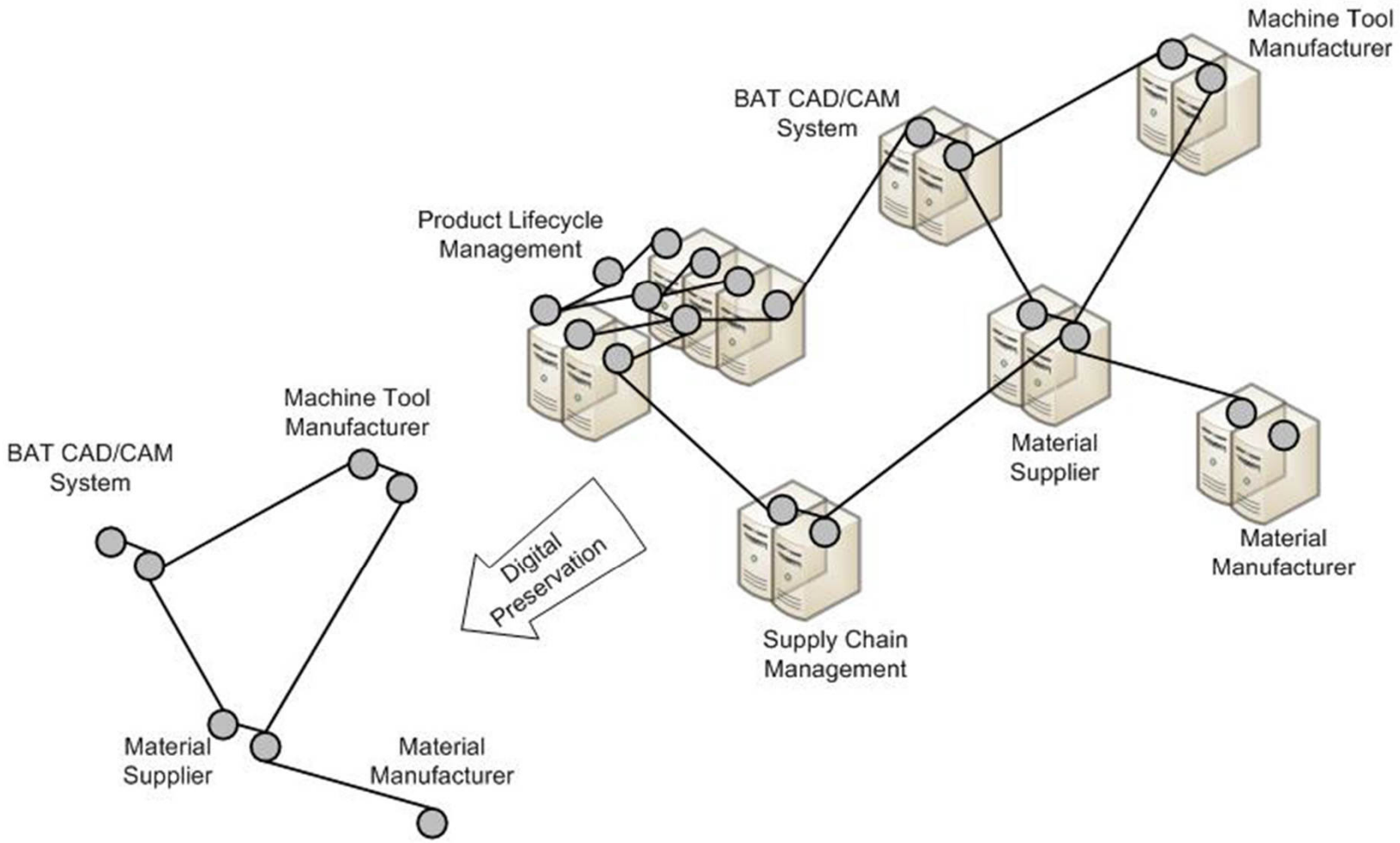

The role of Software…

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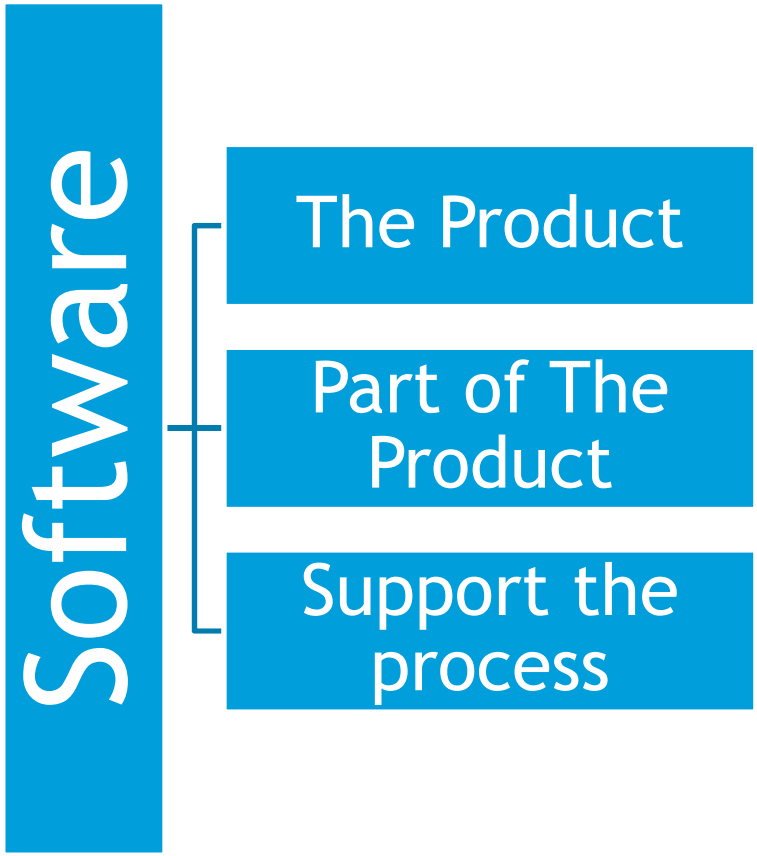

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History of the Tornado!

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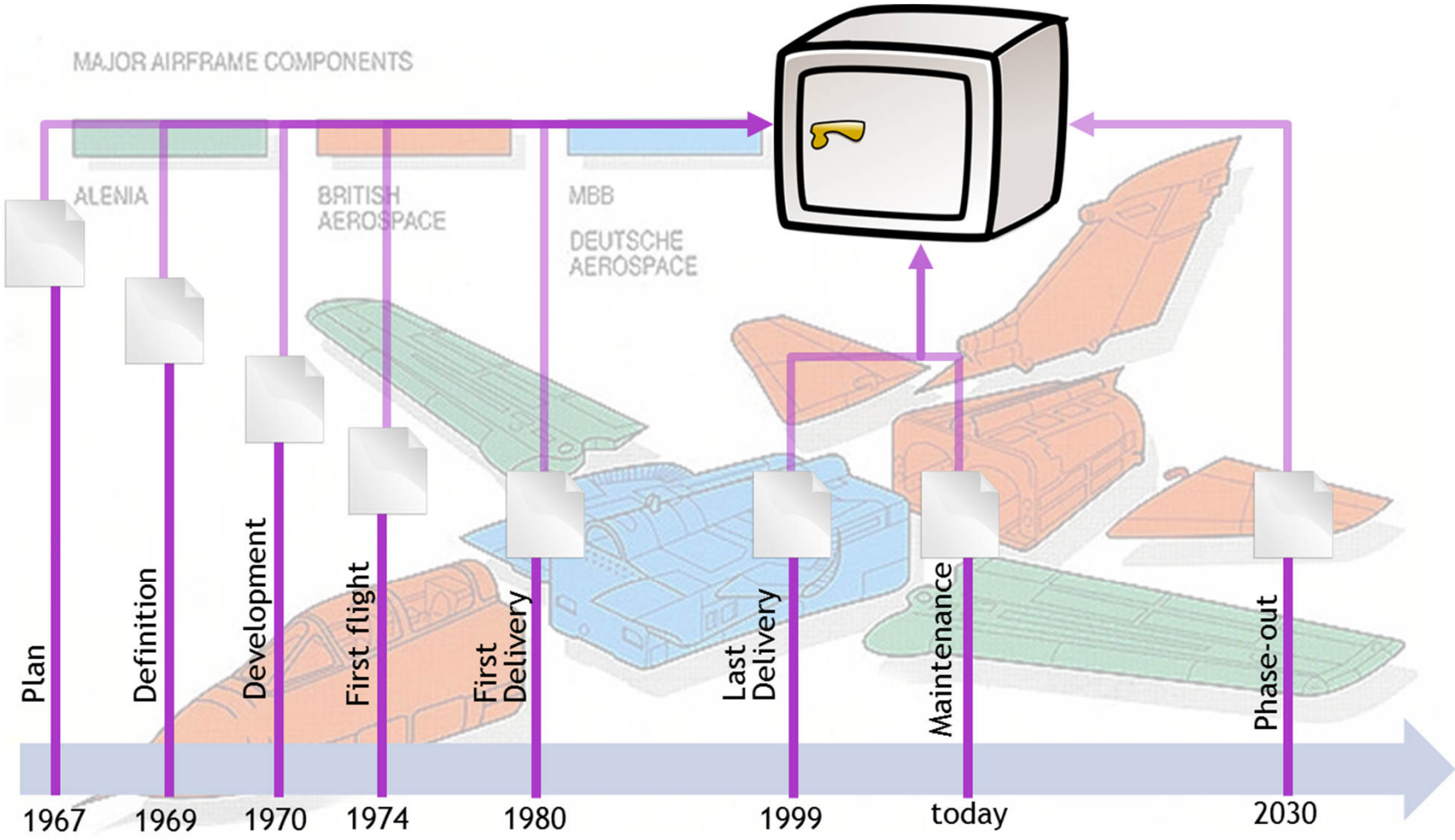

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History of Languages

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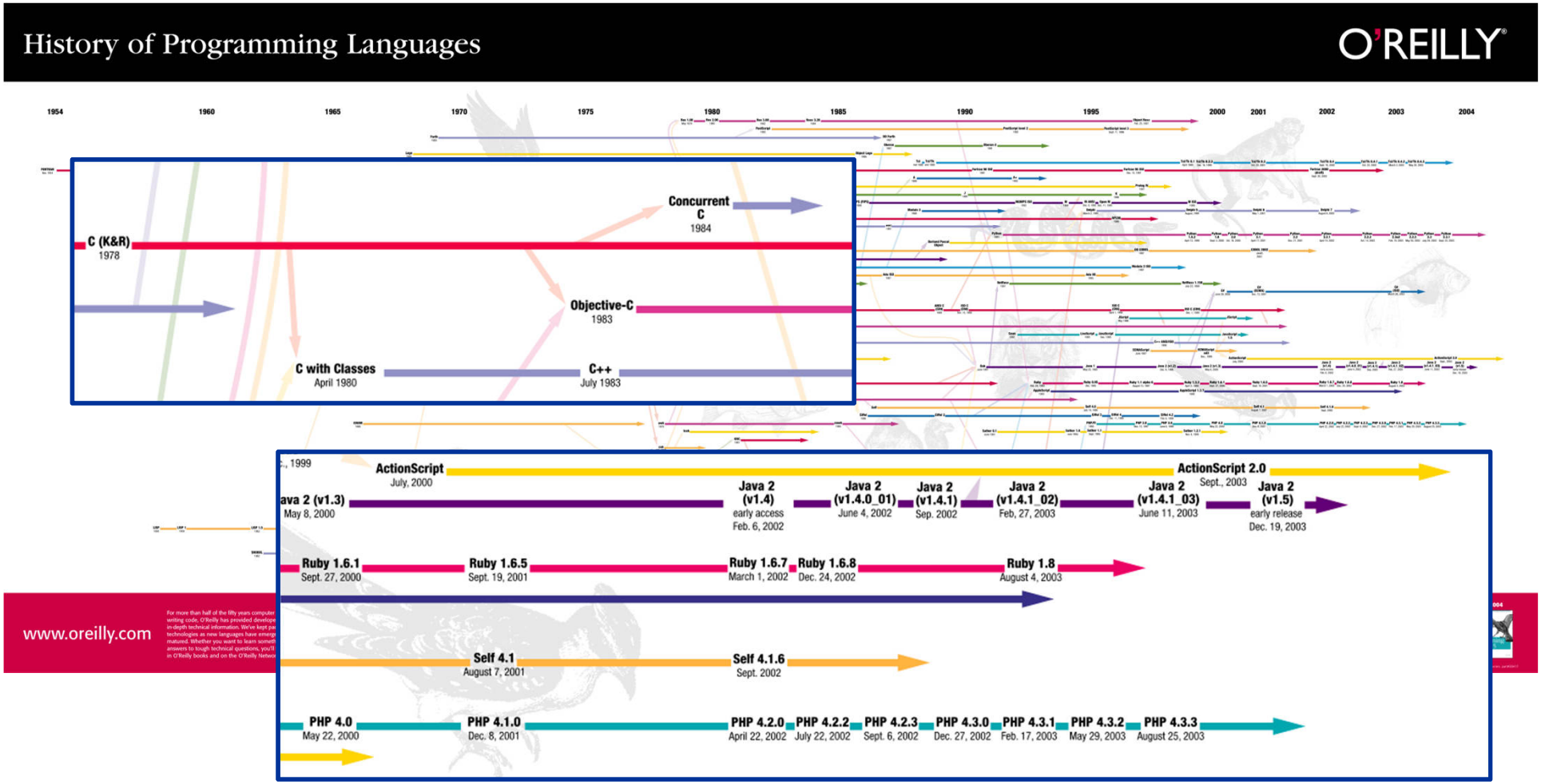

Communicate with the future

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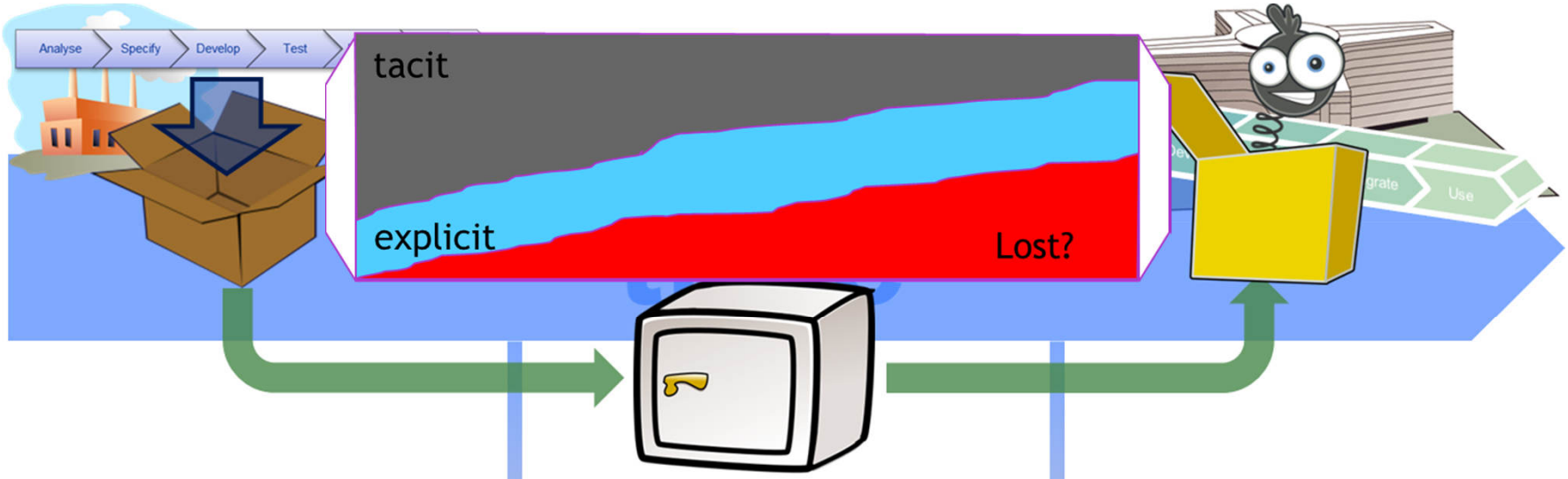

- Why preserve?
- What to capture in which quality?
- How to store?

- How to keep content readable?
- How to identify and assess?

- How to re-instantiate?
- How to analyse?

First Results: Holistic Escrow

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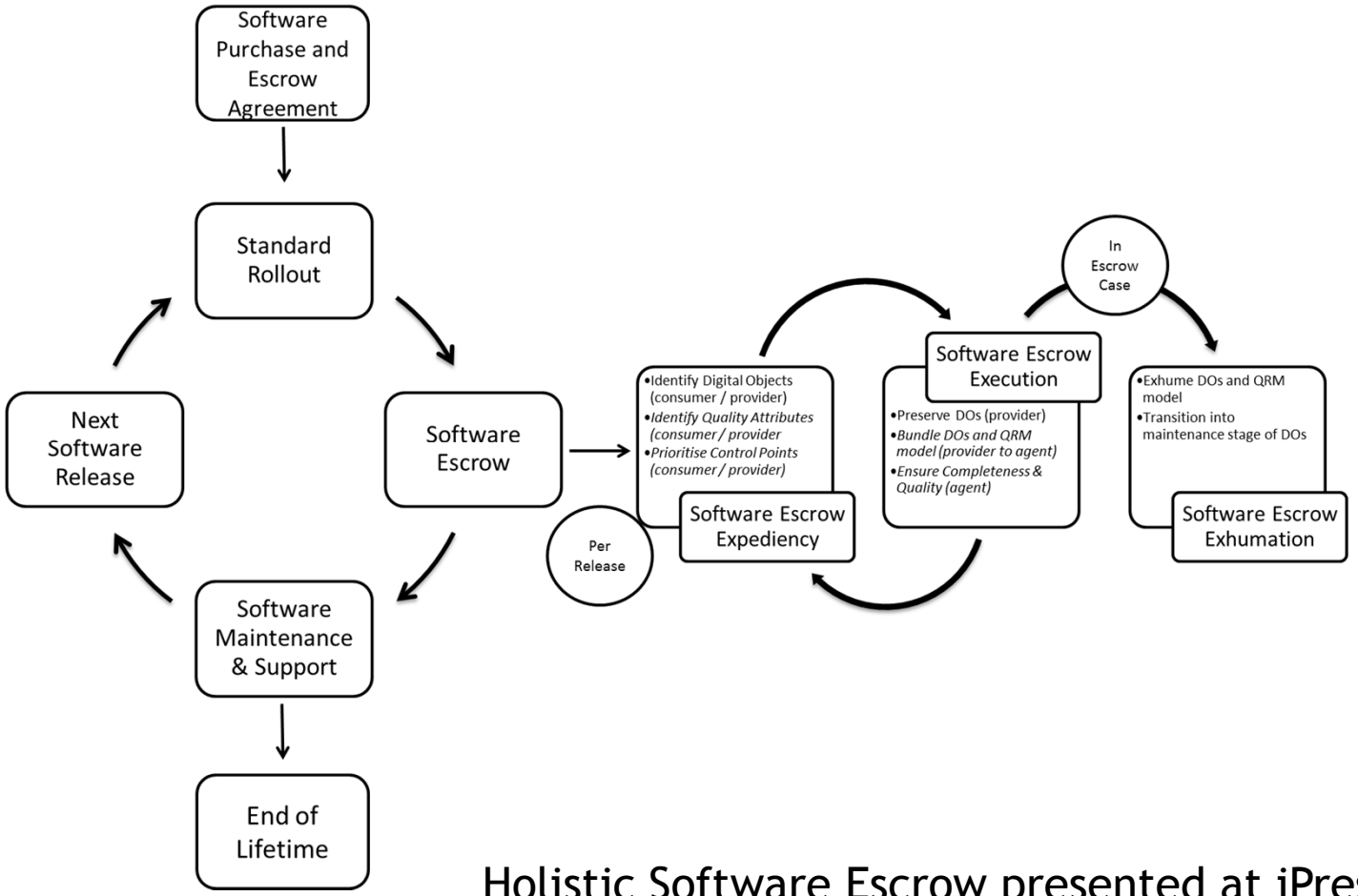

Holistic Software Escrow presented at iPres 2011

SW is more than code

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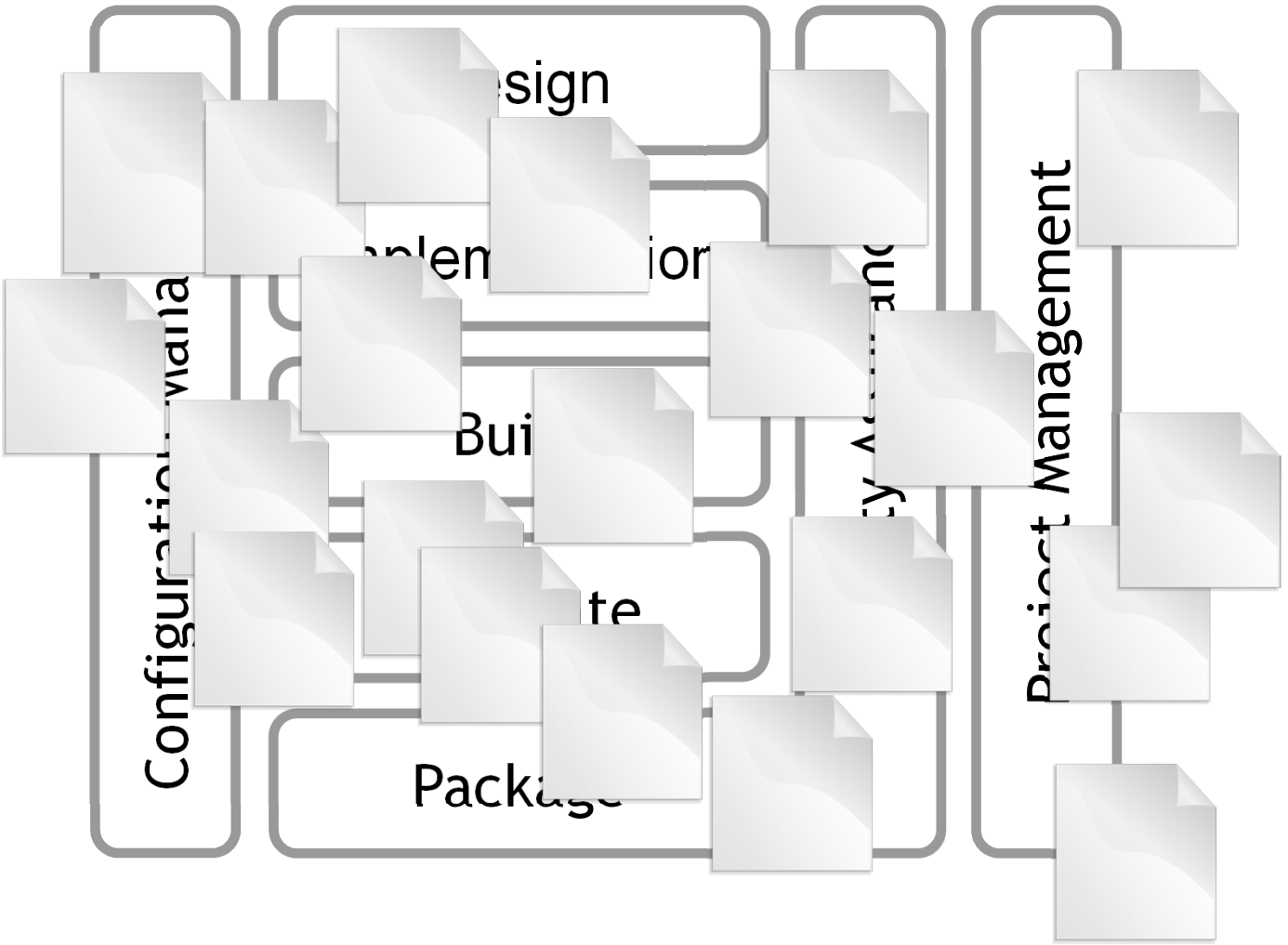

… but we still need to prioritize!

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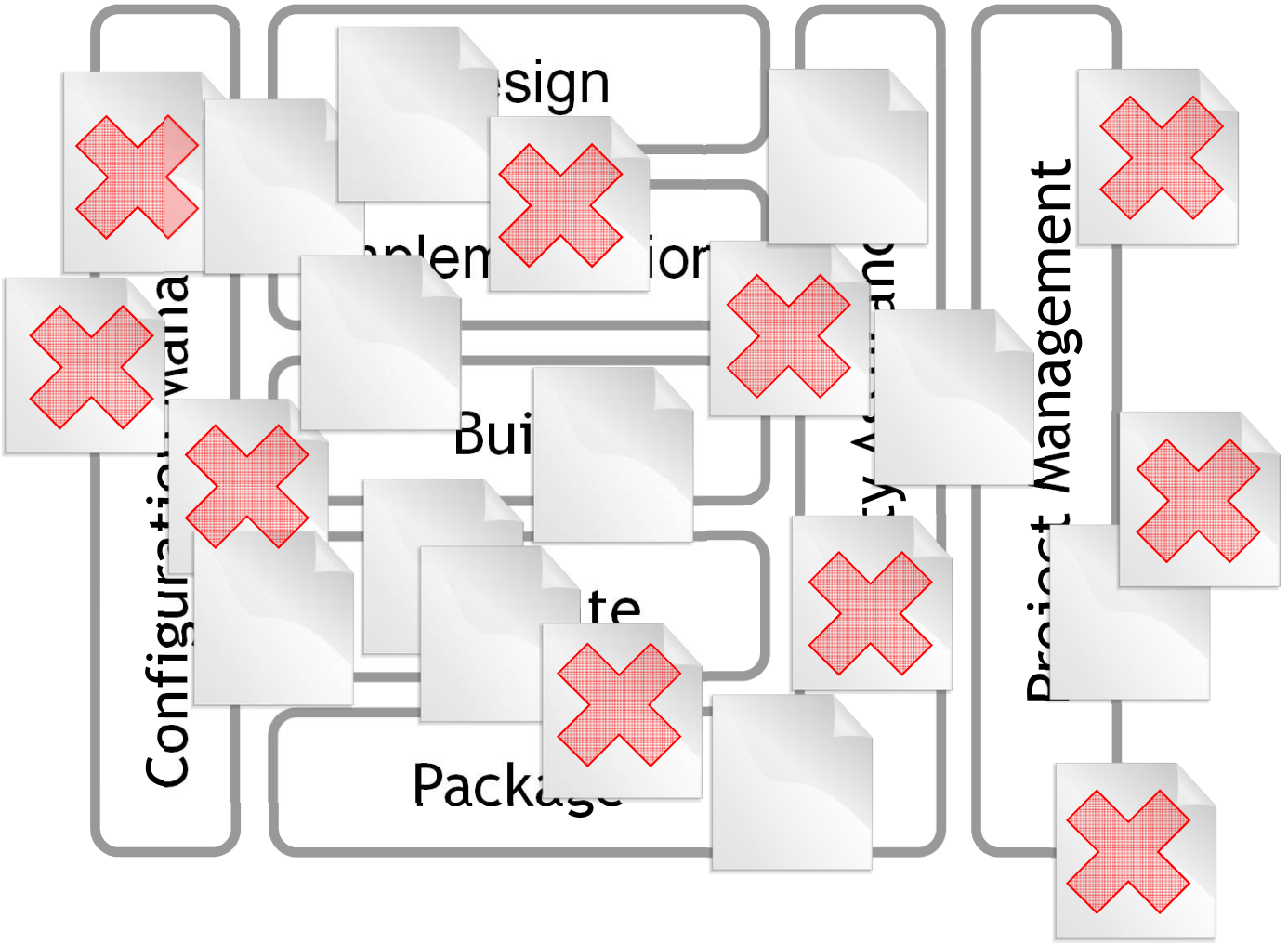

Catalogs of relevant Objects

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Catalogs of relevant Attributes

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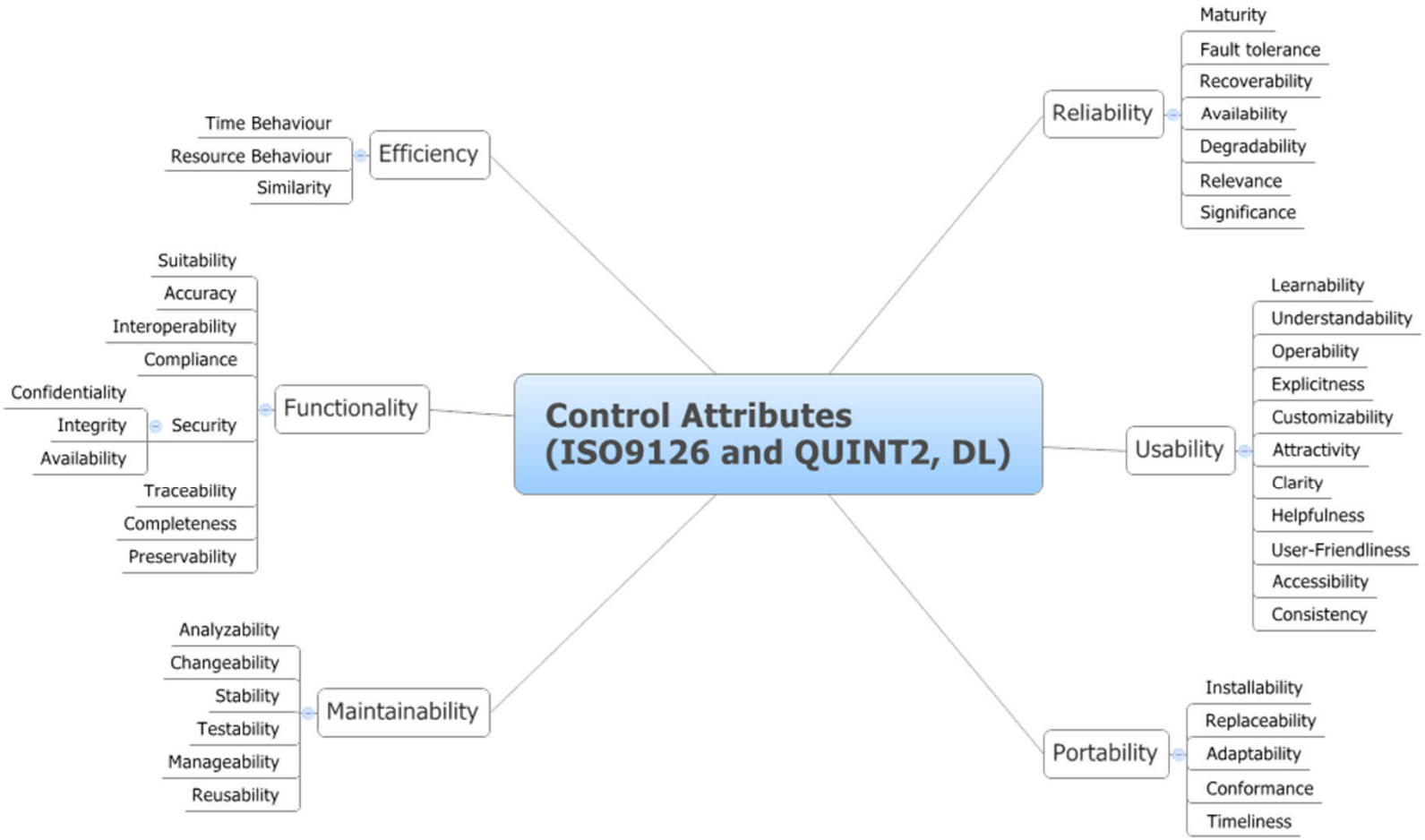

Combination: Control Points

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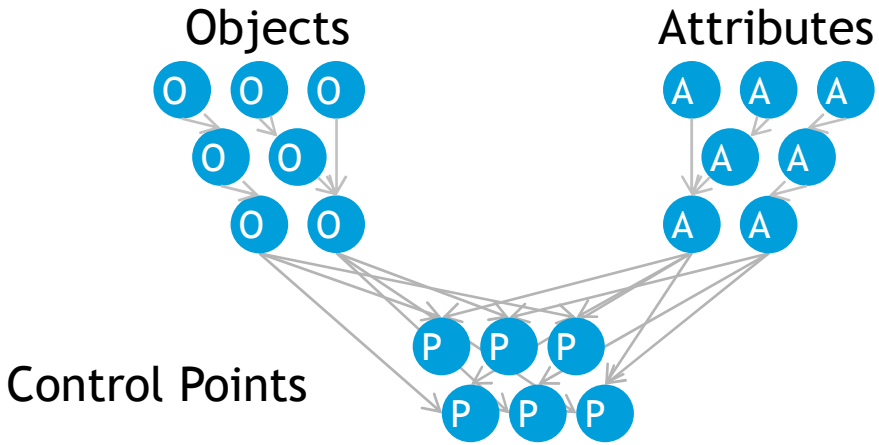

Example: Legal Context

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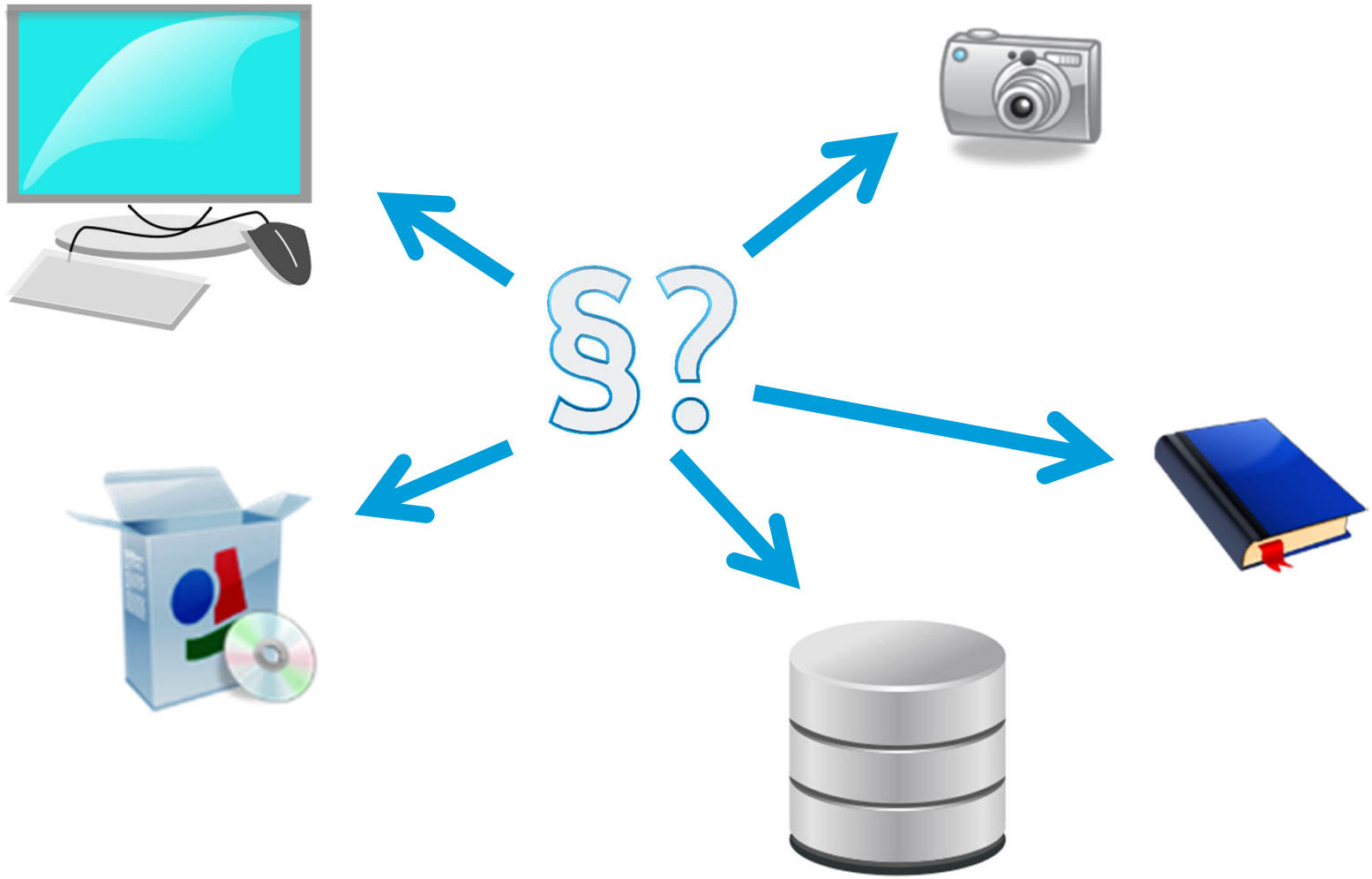

Thank you for your attention!

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Can we really preserve

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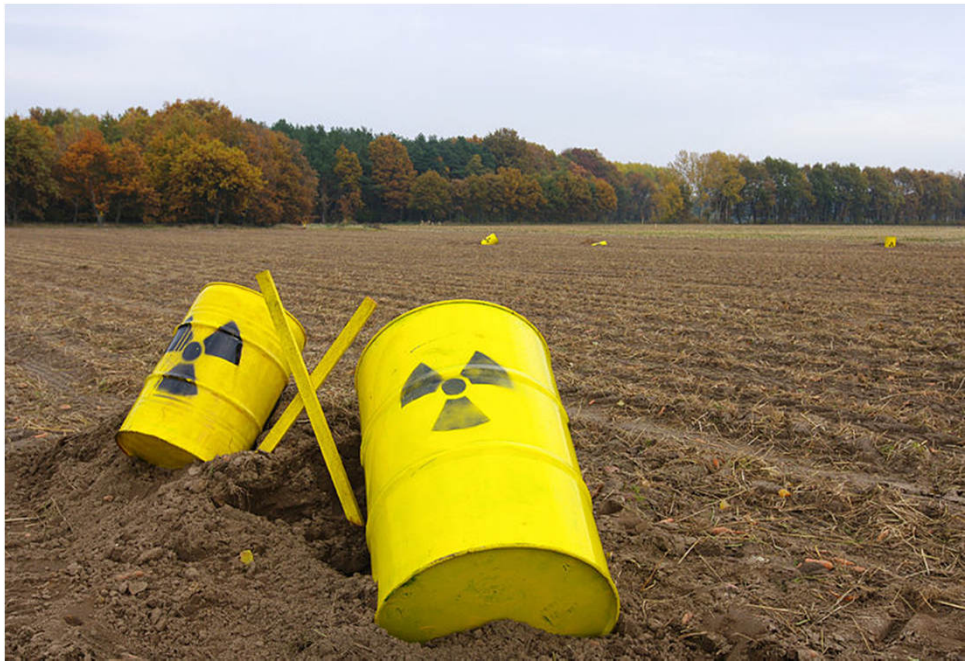
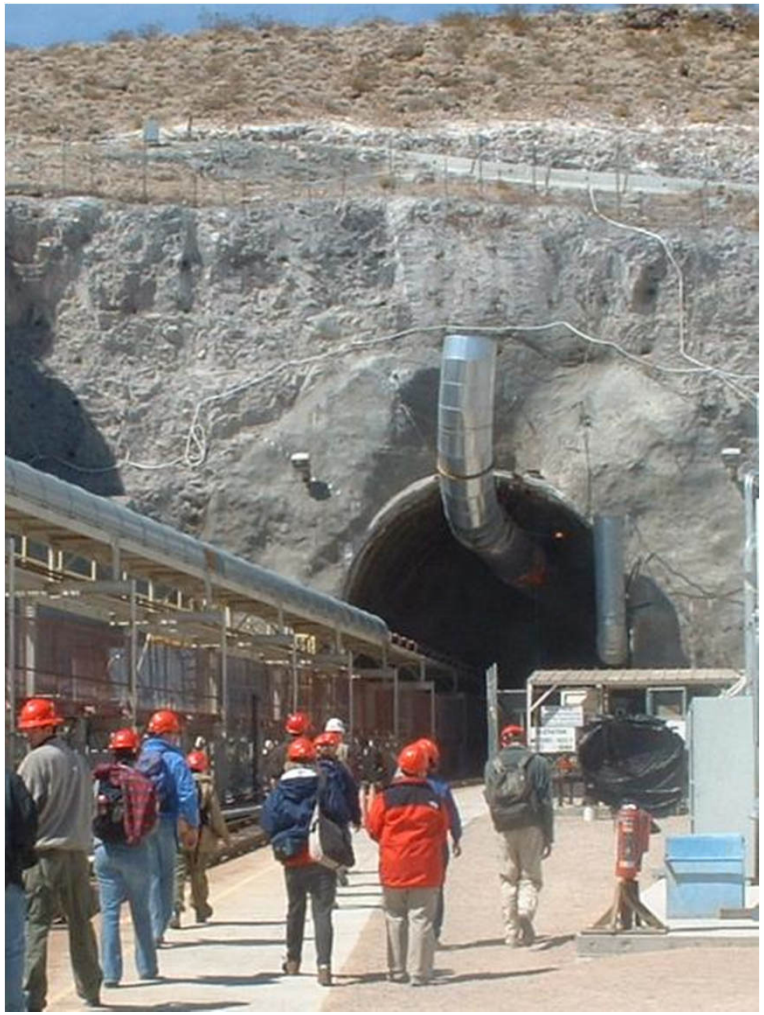
- …for more than 100.000 years





ISO 25010: Quality in Use

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