Electronic Evidence and digitally secured Records

Evidence with electronic records based on digital signatures/trusted time stamps (DS/TS) – Development and case studies

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WILDHABER Consulting

Our Vision:

To support organisations realising their true Business power through IT Governance.

To provide Business focused IT Governance & Records Management Services.

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AGENDA

Wrap up

IT Governance

Implementation Examples

The starting point

Digital Signature based archiving

Legal basis

IT Governance

The Importance of Measurement....

Strategic Alignment
"aligning with the business and providing collaborative solutions"

Resource Management
knowledge, infrastructure and partners"

Performance Measurement

Value Delivery
focus on IT expenses and proof of value

Records Mgmt

Risk Management
safeguarding assets and disaster recovery
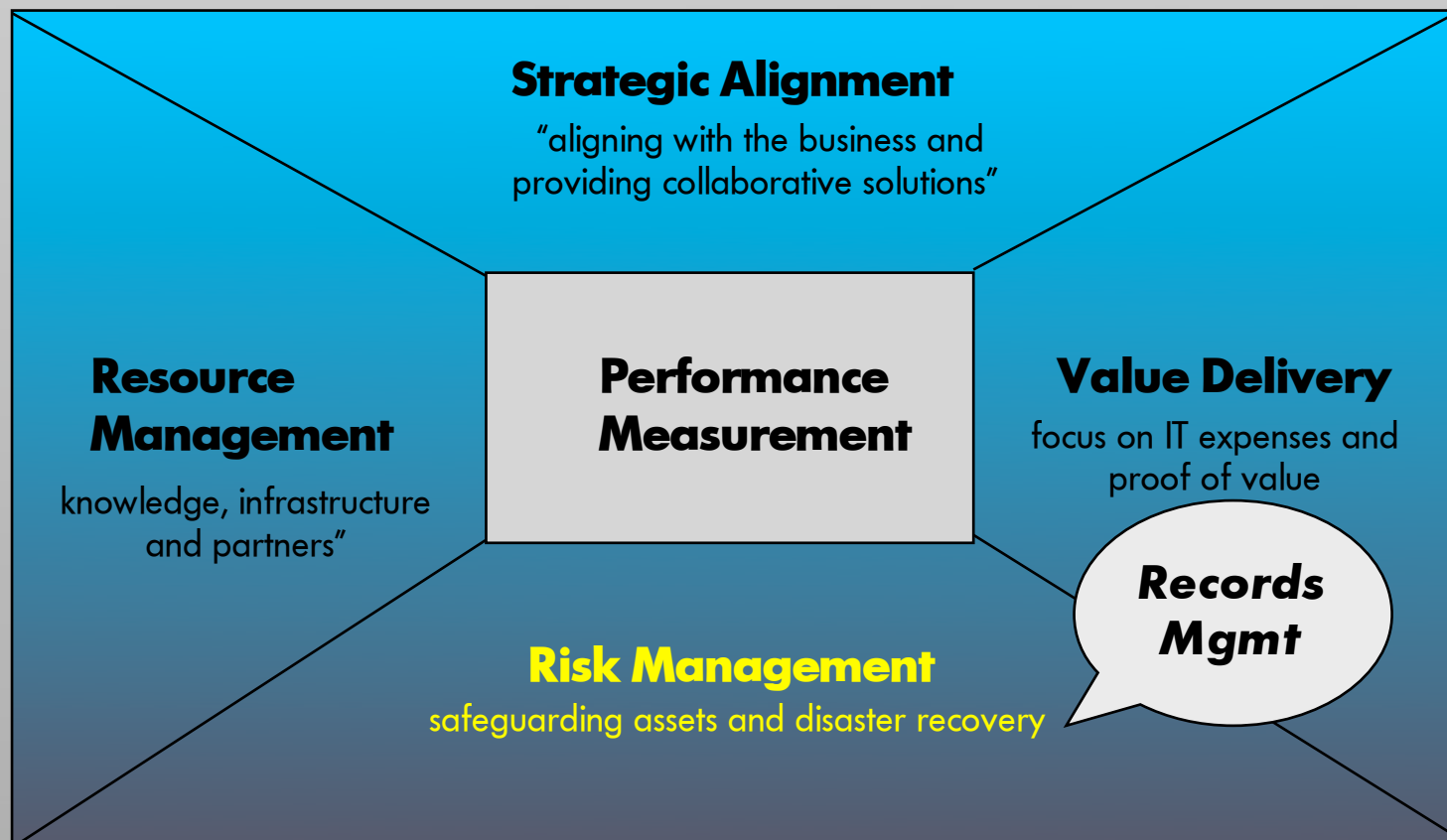
Records Management Self Assessment: www.aufbewahrung.ch

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Starting point

How reliable are digitally secured records?
What is their evidential value?
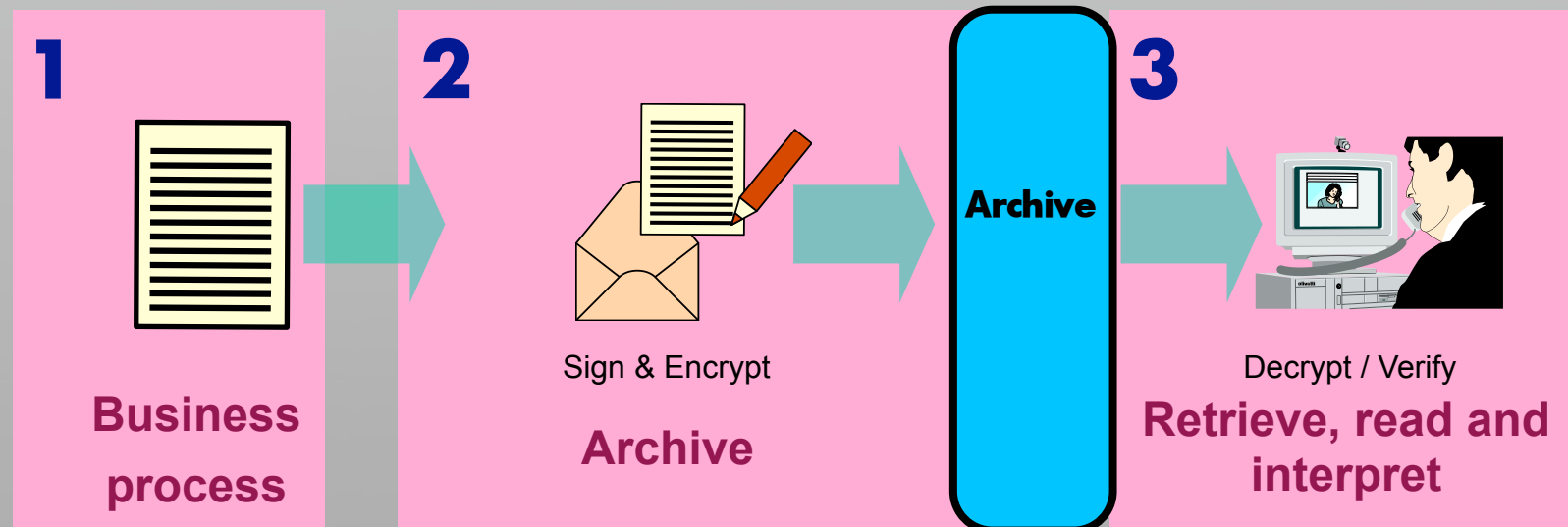Compliance with actual and future legislation?

Quality of evidence

- **Objections to the quality of evidence**
- **In principle, three significant areas can be distinguished:**
  - ◆ *1. The quality of the original/raw data (archive objects) and associated processes*
  - ◆ *2. The presentation/submission of documents*
  - ◆ *3. The interpretation of the presentation.*

1 **Business process**

2 Sign & Encrypt
Archive

Archive

3 Decrypt / Verify
Retrieve, read and interpret

Swiss Legal basis

Art. 9 Permissible information carriers

1 The following are permissible for storing documents:

Information carriers that cannot be edited, namely paper, image carriers and uneditable data carriers;

Editable information carriers if:

technical procedures are used to guarantee the integrity of the stored information (e.g. digital signature procedure),

**the storage time of the information can be proven and cannot be adulterated (e.g. with a "time stamp"),**

Most important changes

- Storage media becomes of less importance
- The integrity of the archived data is in focus. But integrity can mean different things.
  - ◆ Data integrity / forms integrity / archive integrity
- Implementation must be due diligence oriented.
- An evaluation of the current practice includes the whole process and document life cycle, not only the archive media.
- Organisation of archive data should be in focus when defining the necessary storage technology
  - ◆ Index data (long term index)
  - ◆ business process oriented data organisation

Digital Signature/Time Stamp (DS/TS) based Implementations
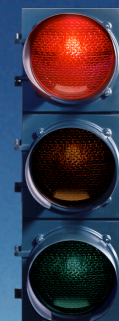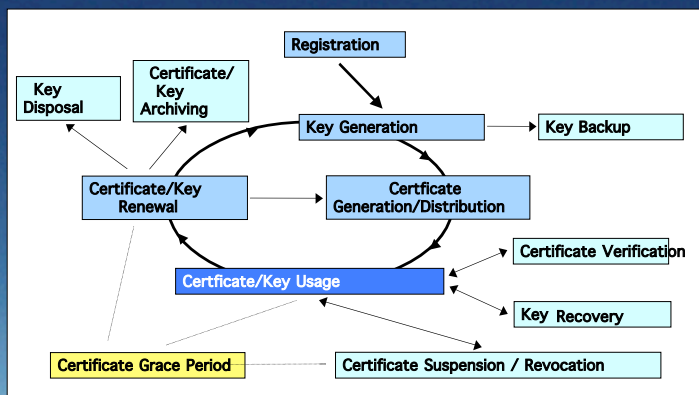
DS/TS based archiving

📌 **DS/TS pro's:**

- *Flexible and adaptive administration of data*

- *No wasted media space*

- *Destruction of archived objects does not rely on physical media, thus organisation of data becomes less challenging*

- *Massively reduced running cost*

- *Pay-back period of new projects: 12 –18 month estimated (compared with traditional WORM based installation)*
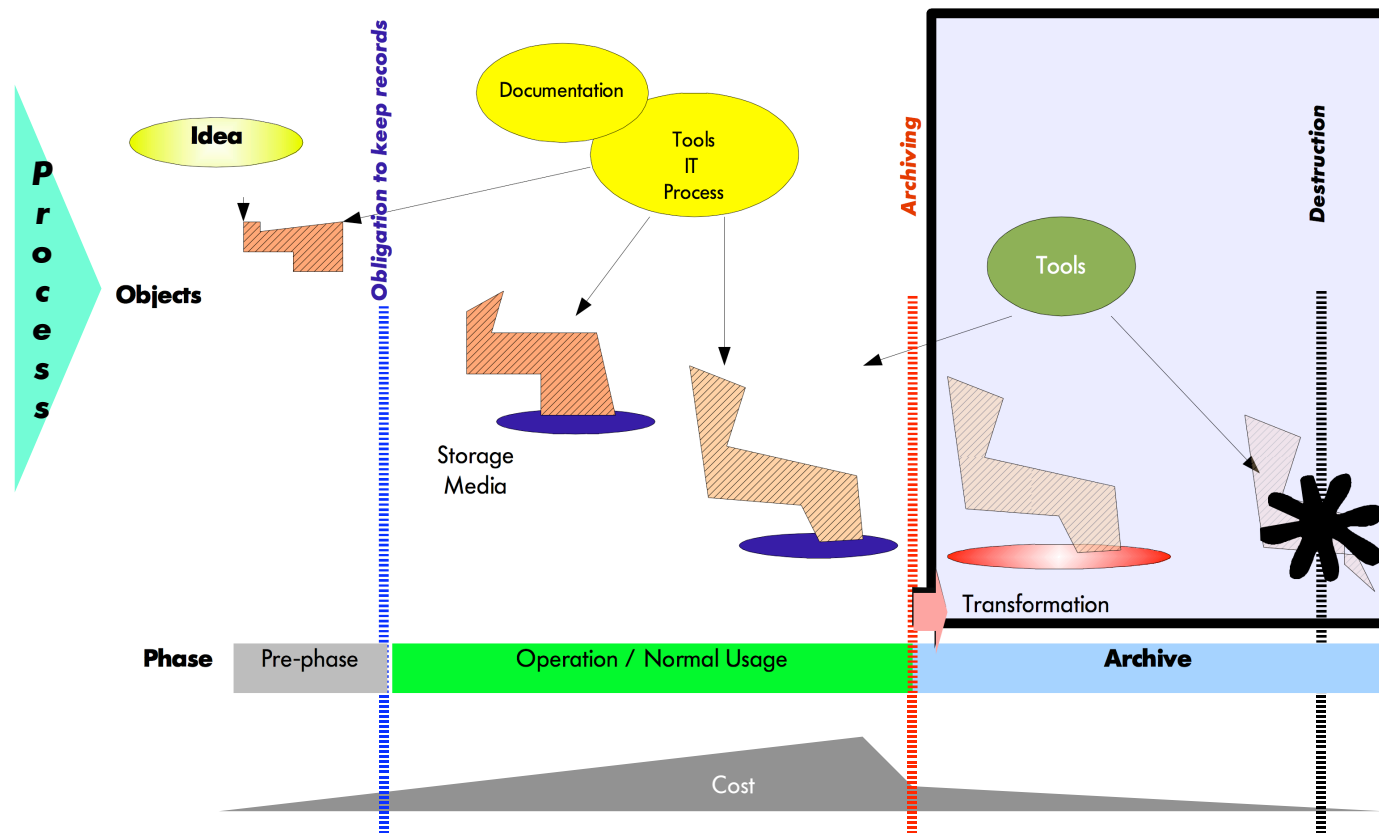
📌 **DS/TS con's:**

- *Quality of protection fades with security of algorithms used*

- *No international standard released yet (progress is made)*

- *Organisation must be mature to cope with organisational challenges*

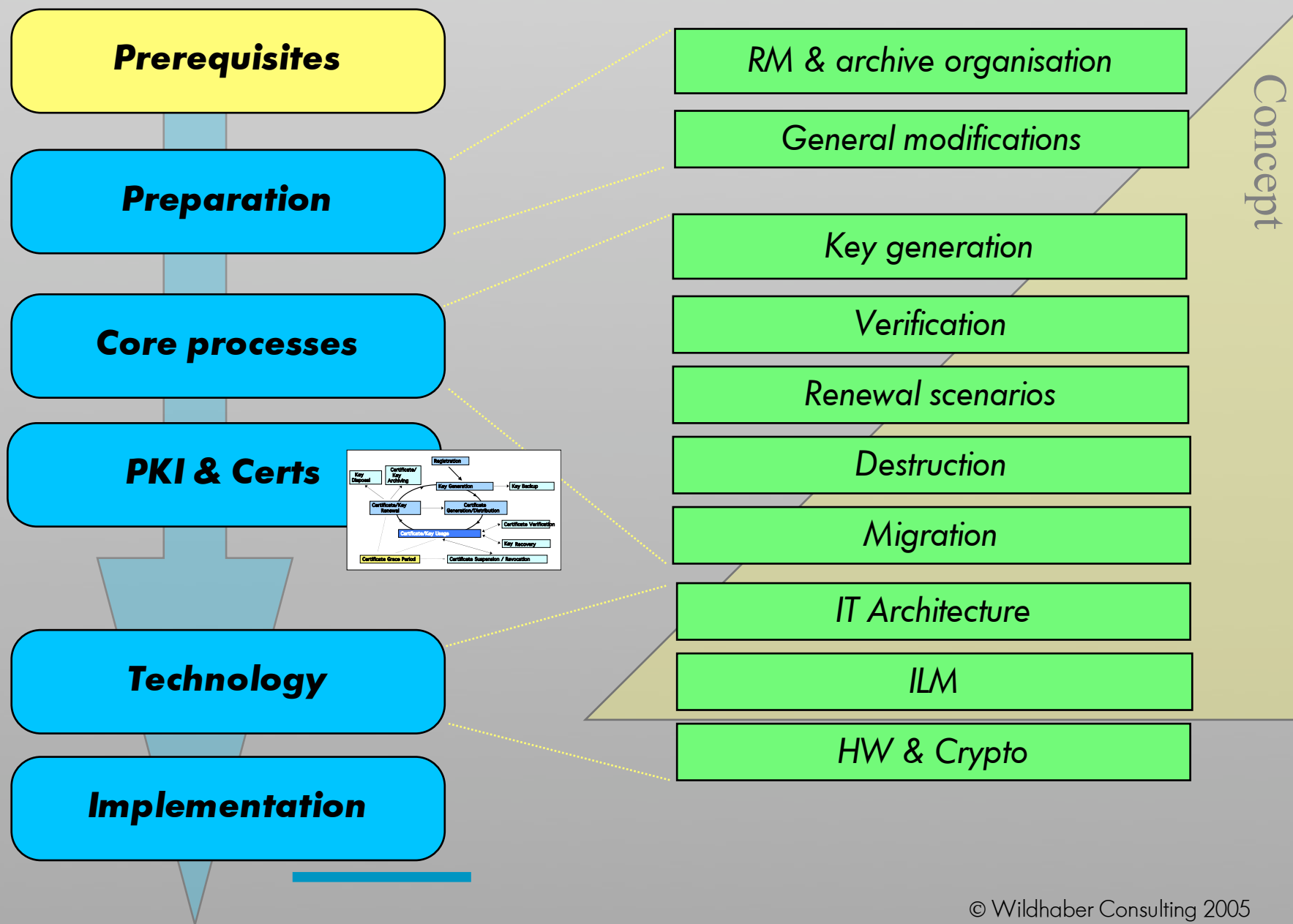- *Must implement several processes to keep evidential value*

Data Life Cycle

Core business processes must be known and a mature records management organisation must be in place!

What you need to do..

Prerequisites

Preparation

Core processes

PKI & Certs

Technology

Implementation

RM & archive organisation

General modifications

Key generation

Verification

Renewal scenarios

Destruction

Migration

IT Architecture

ILM

HW & Crypto

Concept

Wrap up

- **Electronic evidence will be used more intensively**

- **Legislation must be changed to allow alternate storage technology**

- **Full process must be understood and managed**

- **Digital signatures provide an efficient, but challenging method**

- **Future products will include DS based archiving methods**

- **Customers should carefully follow product development and evaluate thoroughly**

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Questions?

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