

# NEXT GENERATION BIOBANKING: THE FUTURE OF PERSONALIZED MEDICINE

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# BIOBANKING CHANGES THE WORLD

Big ideas, bad sample handling!

TIME MAGAZINE, March 2009:  
„Biobanks: Saving your Parts“



# **HOMEMADE.** **WHEN WELL-INTENDED** **IS SIMPLY NOT GOOD** **ENOUGH.**

**EXPERTSYSTEM / BREAKTROUGH TECHNOLOGY  
VS. HOMEMADE IT-SOLUTION**

**Software is a medical device (DIN ISO 13485)**

**New systems are needed for healthcare: fit to Medical device  
regulation and new GDPR rules.**



# WHAT DOES NEXT GENERATION BIOBANKING MEAN?

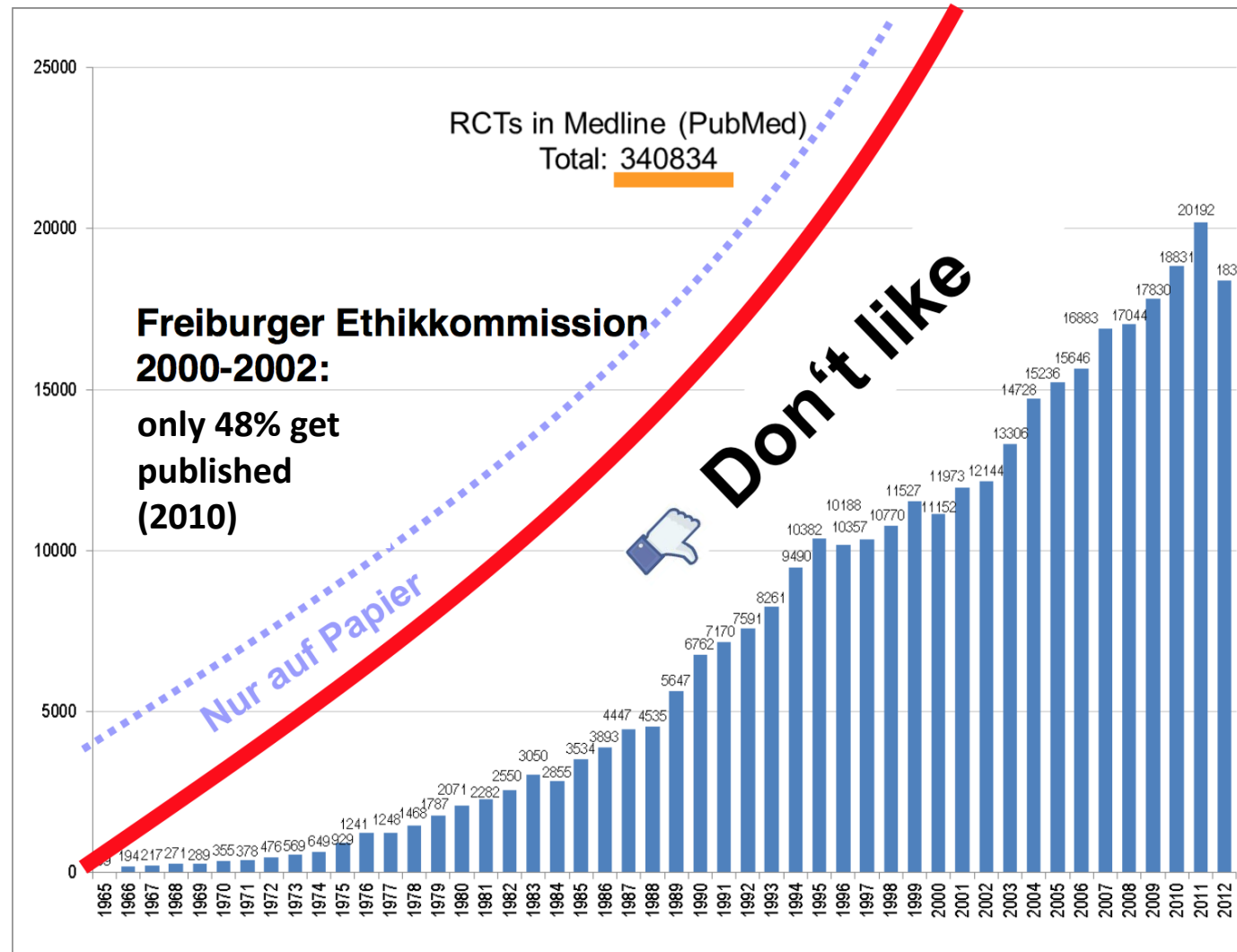


A ☐



B ☐

# EVIDENCE BASED? NOT REALLY!

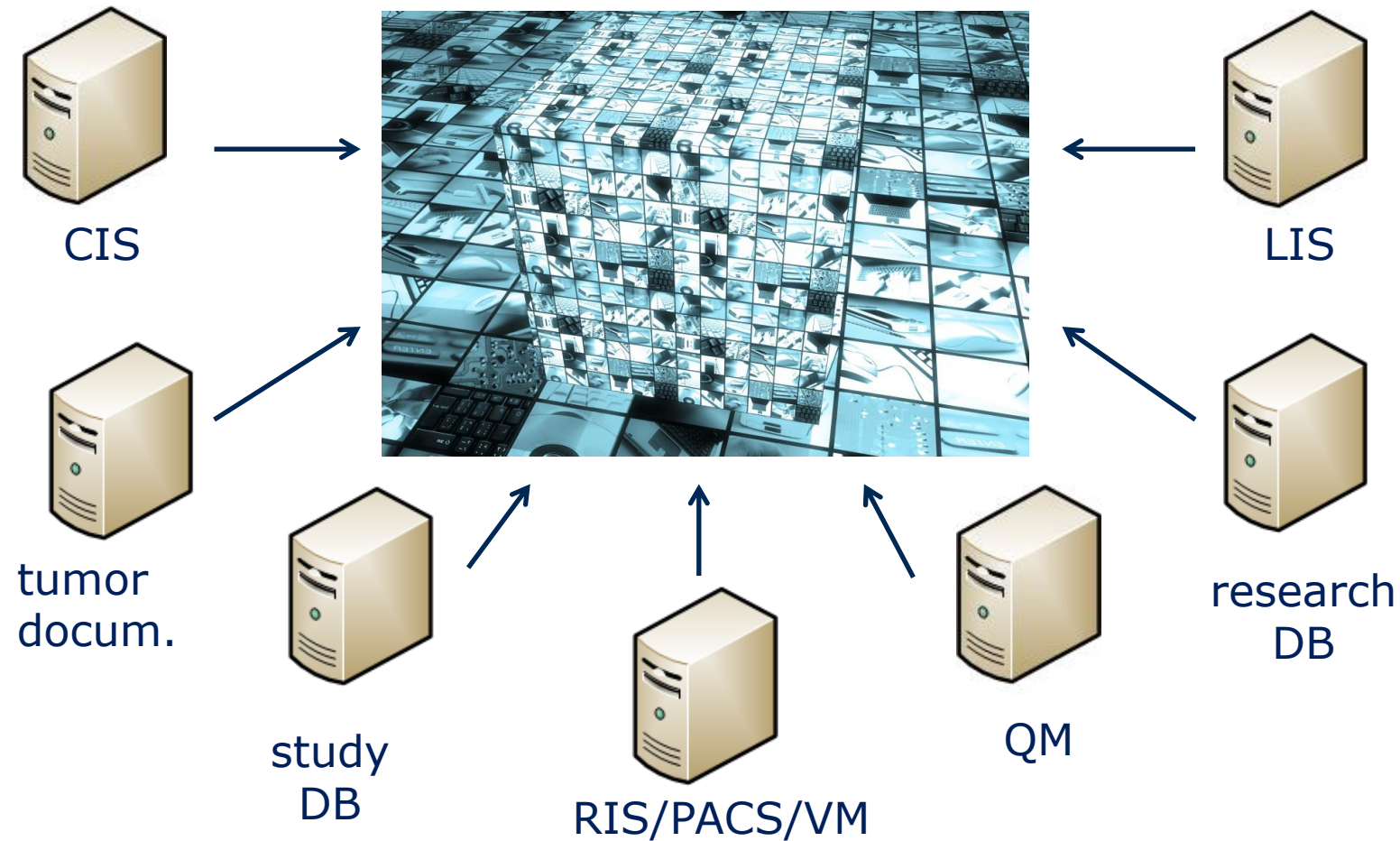


# COMMON PROBLEMS

- Data structure is unclear
- Fragmented data storage
- Easy question, complicated answer
- Huge unstructured data sets
- Missing standards (not really, too many)
- Missing translation
- Varying SOPs
- Uncontrolled reproducibility



# CENTRAL DATA INTEGRATION



# INTEROPERABILITY

## Expectation



Source: <https://www.storage-insider.de/weltweite-datenmenge-verzehnfacht-sich-bis-2025-auf-163-zbyte-a-597286/>

## Reality



Source: <https://www.cloudcomputing-insider.de/azure-import-export-zum-versenden-von-daten-nutzen-a-680576/>



# GARBAGE IN, GARBAGE OUT

## SMART DATA VS. BIG DATA (COLECTERITIS TOTALITUS)



A ☐

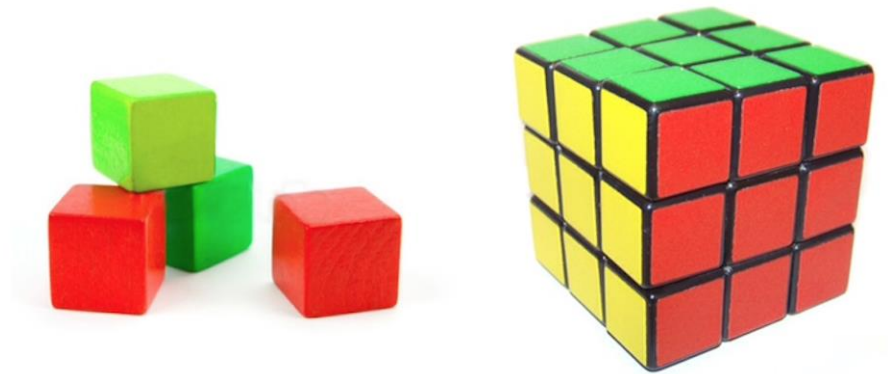


B ☐

# Proven Track Record



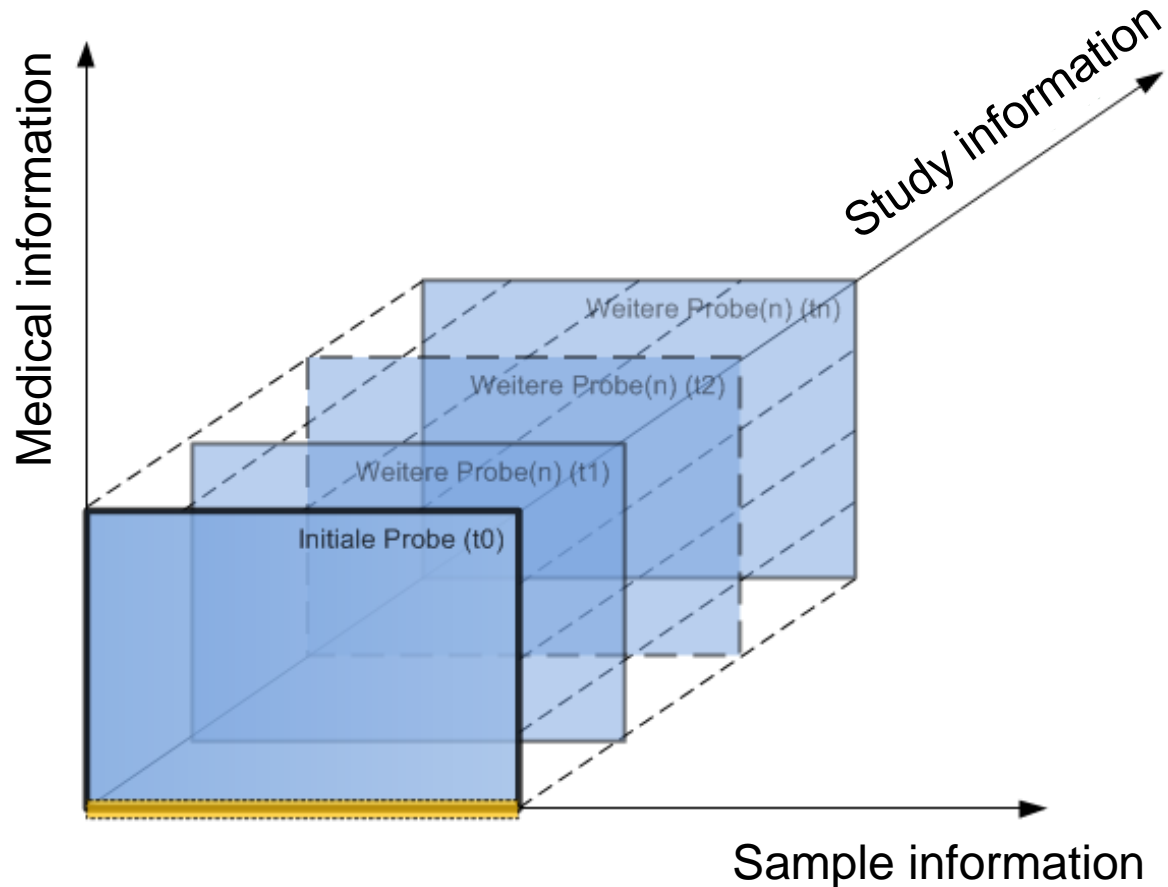
# WHY KAIROS?



A ☐

B ☐

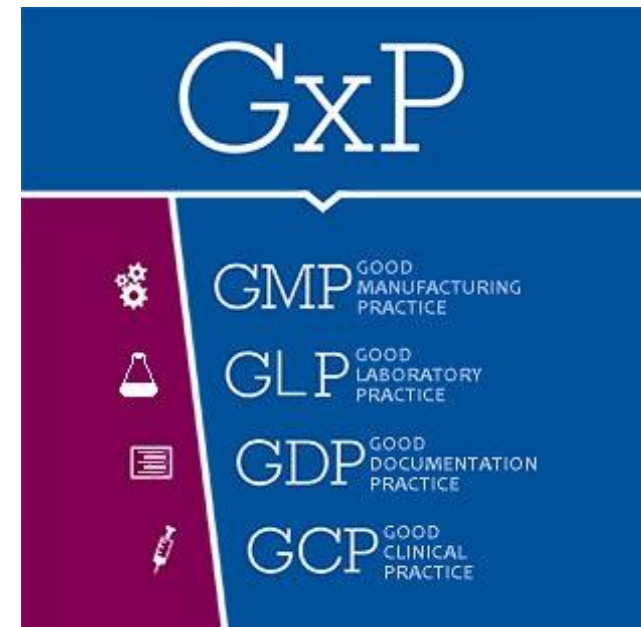
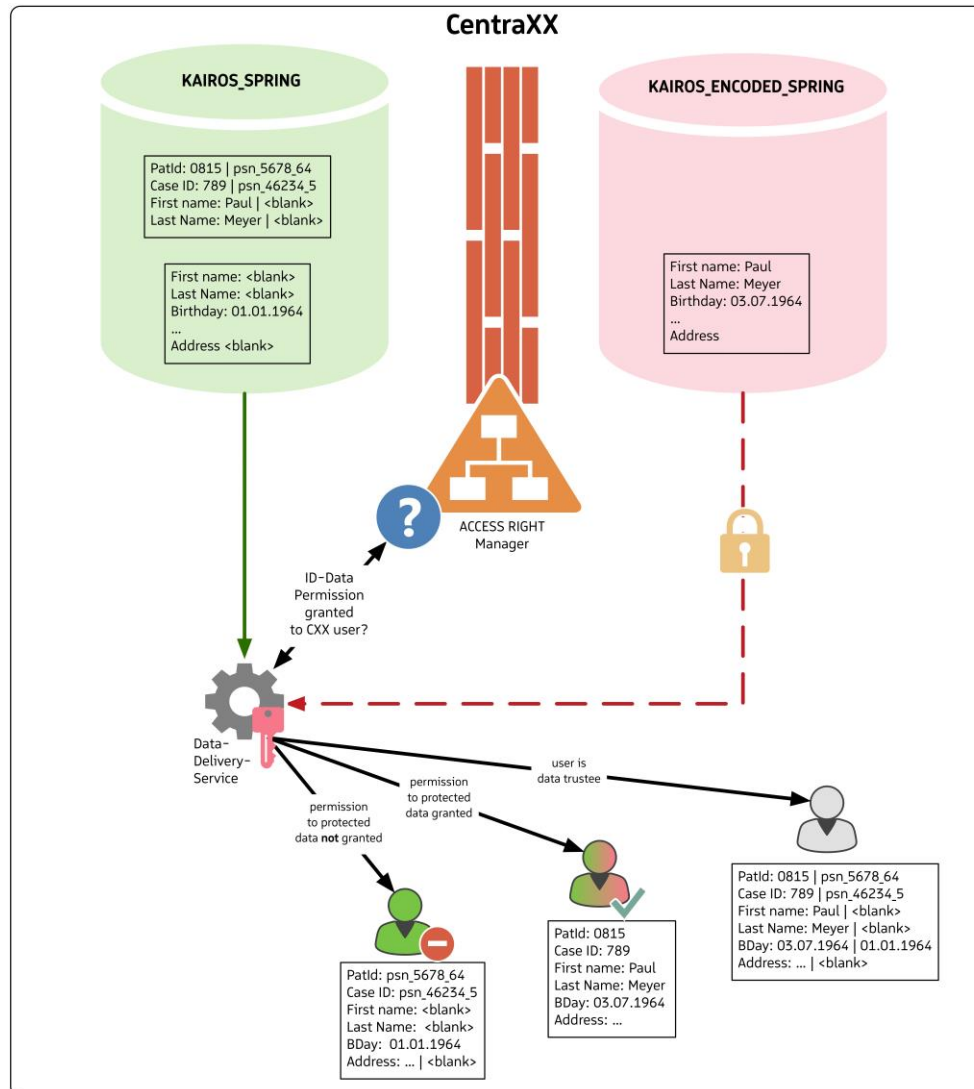
# MOVIE OF LIFE



Necessary for:

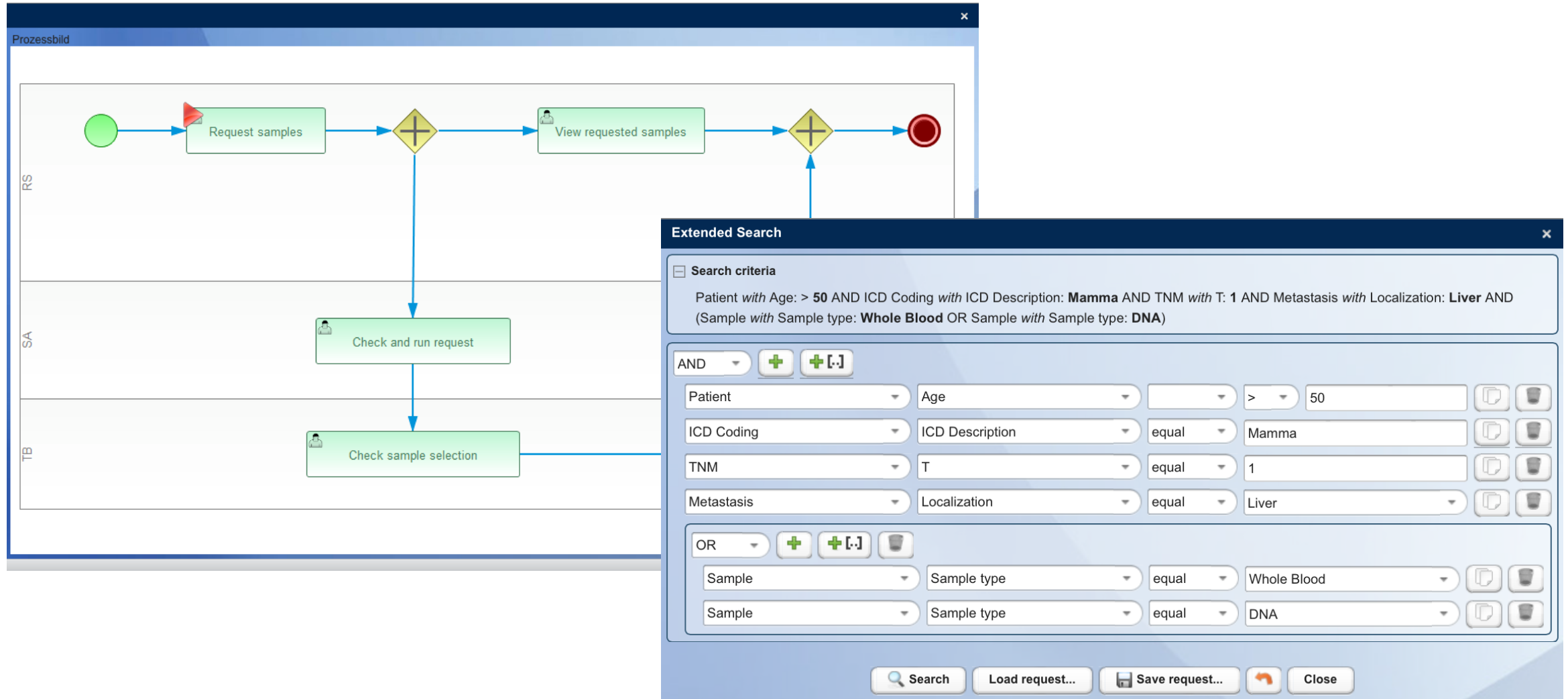
- prospective sampling (cohort)
- focus on disease progression (preventive vs. curative)
- „decision support“ for new therapies
- epidemiological or clinical registers (e.g., cancer)
- personalized / individualized medicine

# IN RESPECT OF DATA PRIVACY AND SECURITY





# BIOBANKING IS ORCHESTRATION



# PROMISING YOU MORE THAN A ROSE GARDEN? **KAIROS** an IQVIA business



Egg laying wool giving milk pig

# COME TO OUR BOOTH

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