

# Towards Lifetime Electronic Health Record Implementation

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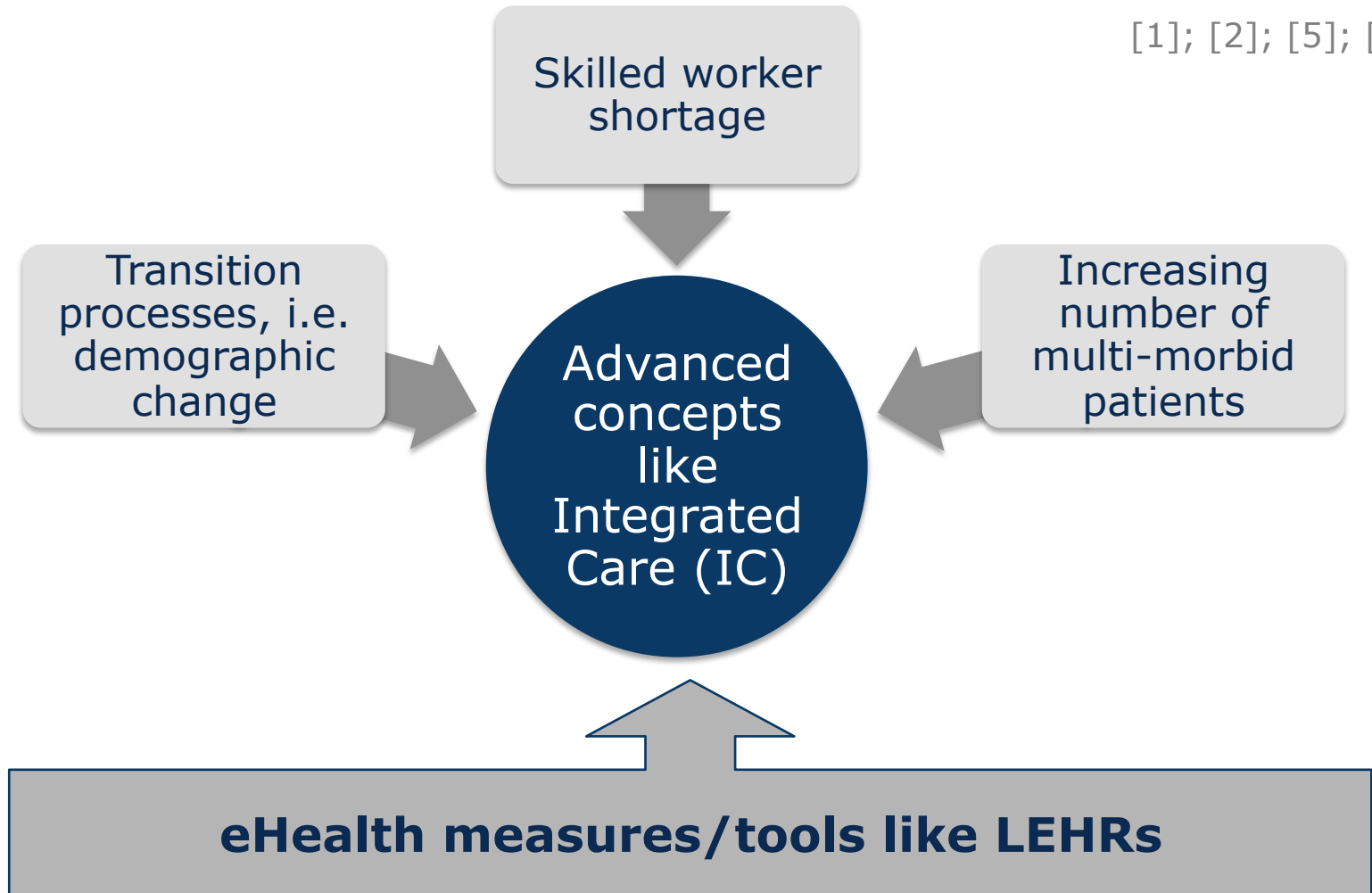
## **1) Background**

## **2) Method**

## **3) Country assessment criteria**

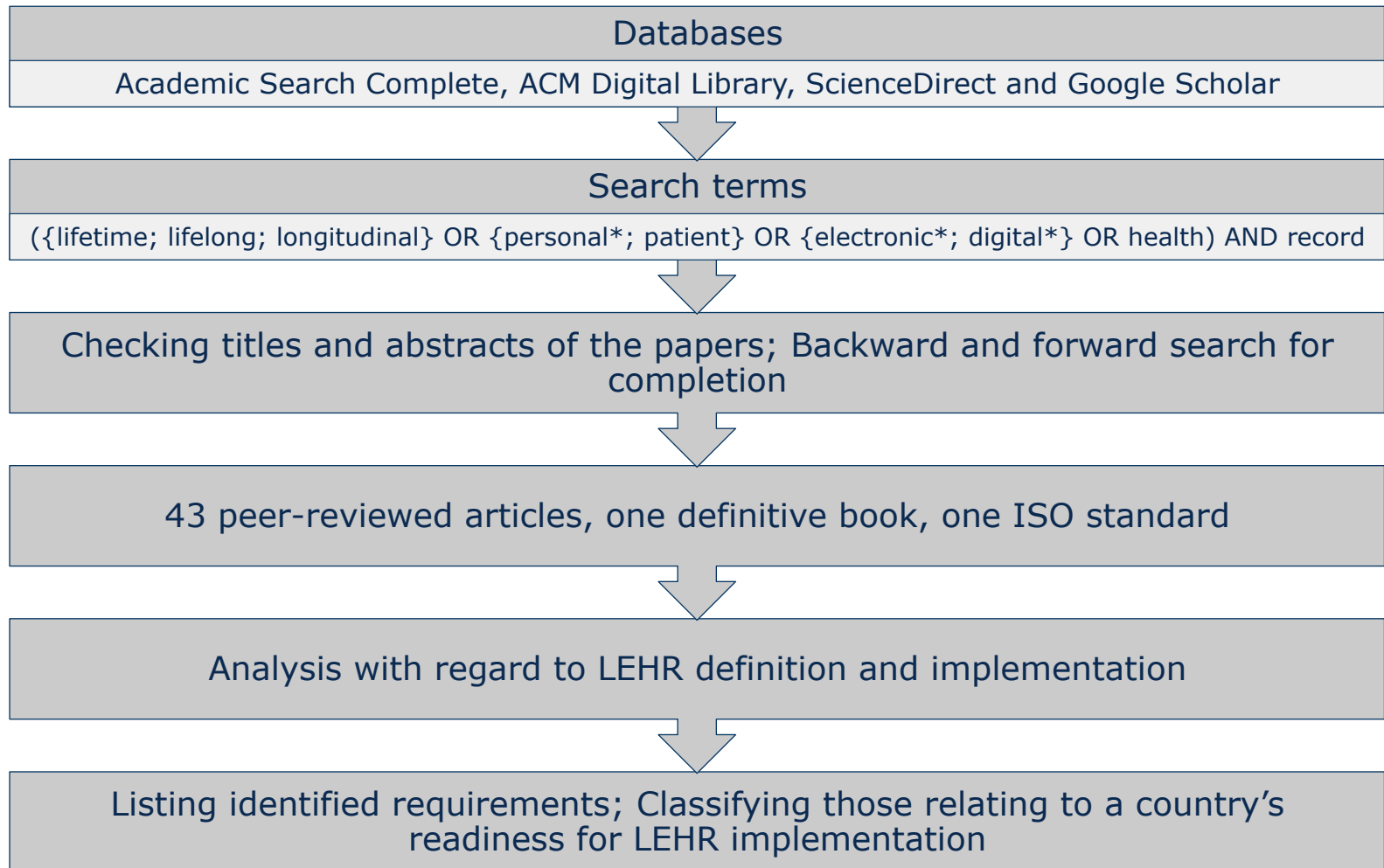
## **4) Summary**

# BACKGROUND



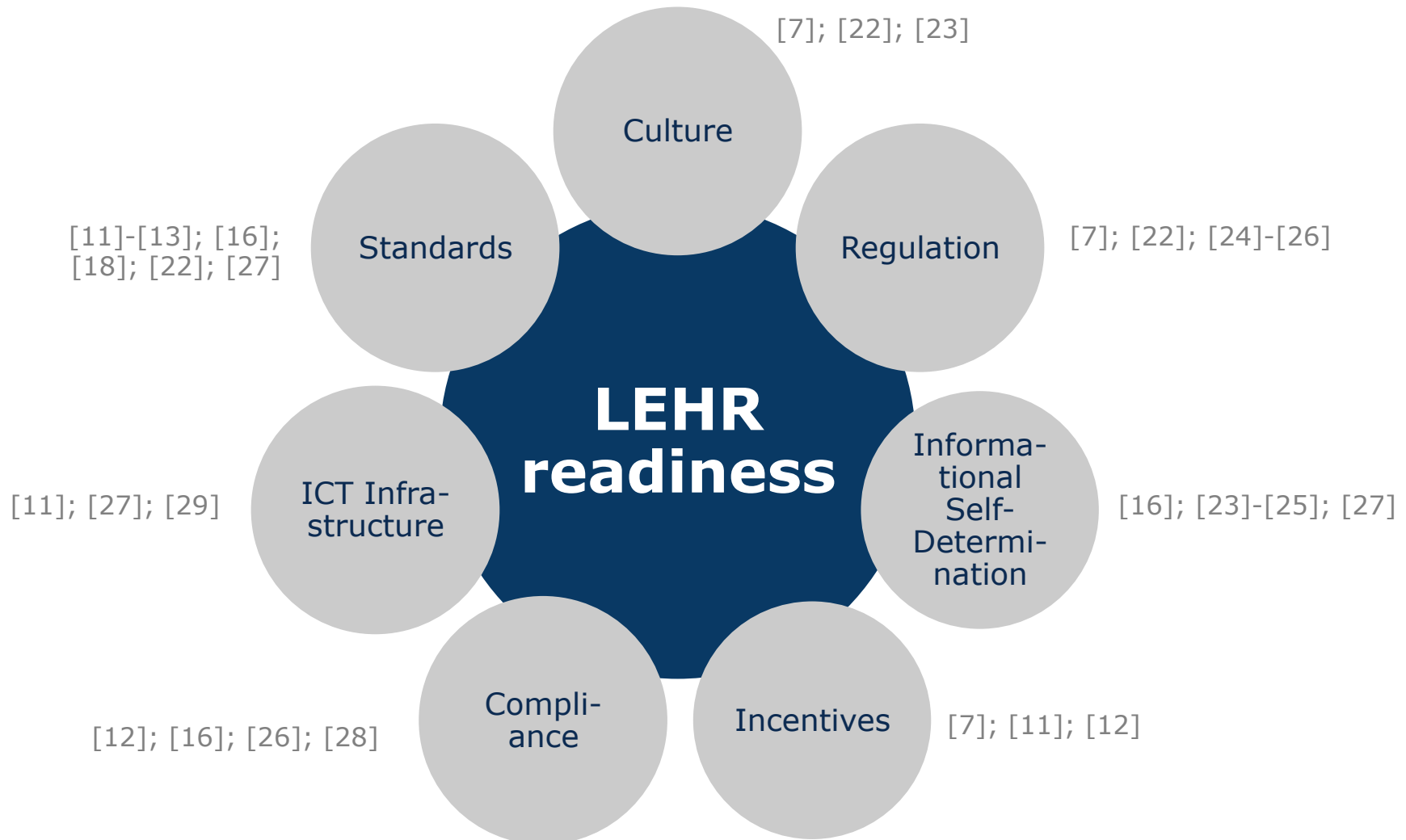
- **LEHR** = Lifetime Electronic Health Records
  - *"Lifelong electronic collection, storage and provision of all health related information about its owner, allowing integrated care and functioning as a data basis to improve the quality of health care on the individual and societal level"*
  - Reduce information asymmetries by empowering the individual, increase continuity, quality, patient safety, effectiveness and efficiency along the care process → reduce costs as well as redundant work [6]; [8]; [7]
- **LEHRs ≠ EMRs** → do not cover the whole lifespan and represent a provider-based, no alternative treatments or lifestyle information
- **LEHRs ≠ PHRs** → information is primarily collected, managed and used by the owning individual alone [15]; [4]; [7]; [11]

# METHOD



# COUNTRY ASSESSMENT CRITERIA





- **Culture:**

- Definite separation between health care providers → inflexible, not very permeable borders between different sectors [31]; [32]
- Large population + highly developed health care system → conservatism + difficulties managing large-scale eHealth systems on national level [29]

- **Regulation & Informational Self-Determination:**

- Data protections laws → highly developed → hurdle → barriers that hamper cross-sectoral data exchange + block integrated care approaches [31]
- Concept of informational self-determination → ranked as constitutional fundamental right → reason for strict German laws in this field [33]

- **Incentives:**

- Social security laws primarily include benefits and incentives for cost reductions → granted for
  - Patients, e.g. for routinely dental checks ups or the participation in prevention courses
  - Health care providers. e.g. drug prescription without naming the concrete product but only the active ingredient to save costs
- Sustainable behavioral change is rather a minor objective of the social security laws [34]
- Latest legislative measures → promoting incentives (and sanctions) for the broader utilization of eHealth solutions and the implementation of a uniform infrastructure for telematics and interconnection in health care [35]

- **Compliance:** Highly evidence-based medical guidelines, but voluntary usage + insufficient linkage to practical implementation in clinical practise → few mandatory regulations for a higher rate of IC [36]; [37]
- **ICT infrastructure:** Performs less well on eHealth usage and access, but has a mature health infrastructure, an excellent medical technology sector and performs well on ICT indicators [29]; [38]

- **Standards:** [39]
  - Overarching electronic exchange and integration of health-related data is uncommon
  - Standards are mainly used for data exchange within a single institution
  - Even intra-clinical integration of (new established) telemedicine solutions and the (already existing) primary systems often fails
  - Existence of double structures
  - Insufficient integration in organizational standard procedures
  - Differing standards used among practitioners
  - No cross-sectoral standards by now → only limited ways for IC and LEHRs

# SUMMARY

- Overall: Germany is partly ready yet to implement an LEHR
- Excessively fulfilled regulation criterion
- Pilot projects on integrated care → aim: sector and indication spanning integration of medical treatments → but: main focus currently on integration on the indication level [30]
- LEHRs open a chance to achieve a deeper and broader integration in health care

Category	Culture	Regulation	Informational Self-Determin.	Incentives	Compliance	ICT Infrastructure	Standards
Germany	○	●	●	◐	◐	●	◐

Explanation	●	extensively fulfilled	◐	partly fulfilled	○	insufficiently fulfilled
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- Ethical, legal and social concerns:
  - Privacy issues, unrealistic expectations for cooperation and interoperability, fear of data abuse along with expected high initial costs and uncertain payoffs for the users [11]; [26]; [40] → intensify research on possible solutions + societal acceptance
  - Technical (e.g. interoperability, sustainability, data security), societal (e.g. acceptance, benefits, willingness to cooperate, privacy understanding), organizational challenges (e.g. centralized vs. decentralized approaches, responsibilities, monitoring)
- For Germany: LEHR implementations fitting rather data protection and informational self-determination laws are needed



- Literature review could be broadened to increase rigor and to further verify the derived assessment criteria
- Limiting factor: non-existence of real, broad LEHR implementations by now → only first pilot projects and general experiences with eHealth/EHRs
- Broader evaluation is needed for more rigorous assessment
- Already proposed solutions have to be assessed with the criteria

***Thank you for your attention!***

***Questions?***



**» Knowledge builds bridges. «**

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