THE LEARNING HEALTHCARE PROJECT

REALISING THE POTENTIAL OF LEARNING HEALTH SYSTEMS

A Framework for thinking about Learning Health Systems

The Learning Health System in the Osnabrück / Emland Region (ROSE)

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The Health Foundation

Overview

- Definitions
- Exemplars
- A framework
- Discussion

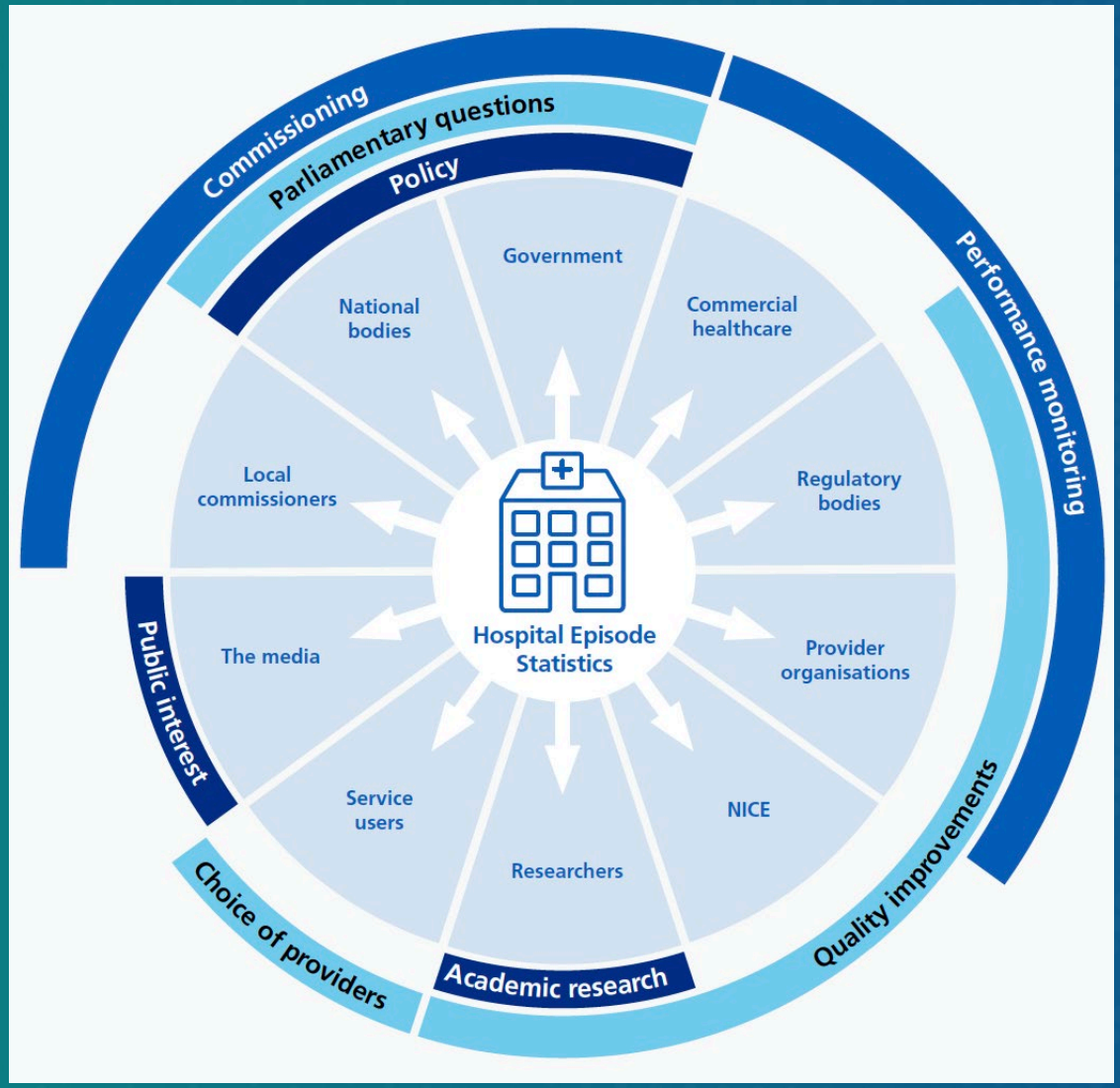
A HEALTH SYSTEM THAT LEARNS FROM EVERY PATIENT WHO IS TREATED

"in which **science, informatics, incentives, and culture are aligned for continuous improvement** and innovation, with best practices seamlessly embedded in the delivery process and new knowledge captured as an integral by-product of the delivery experience."

US Institute of Medicine [National Academy of Medicine]

A National Exemplar

- NHS Digital
- Running since 1989
- Every patient, every interaction, longitudinal
- Administrative, process, some outcomes
- Standards
- Data Services Platform
- Access, dissemination, reports, dashboards, audits, DigiTrials
- Scope for greater use



Other Exemplars

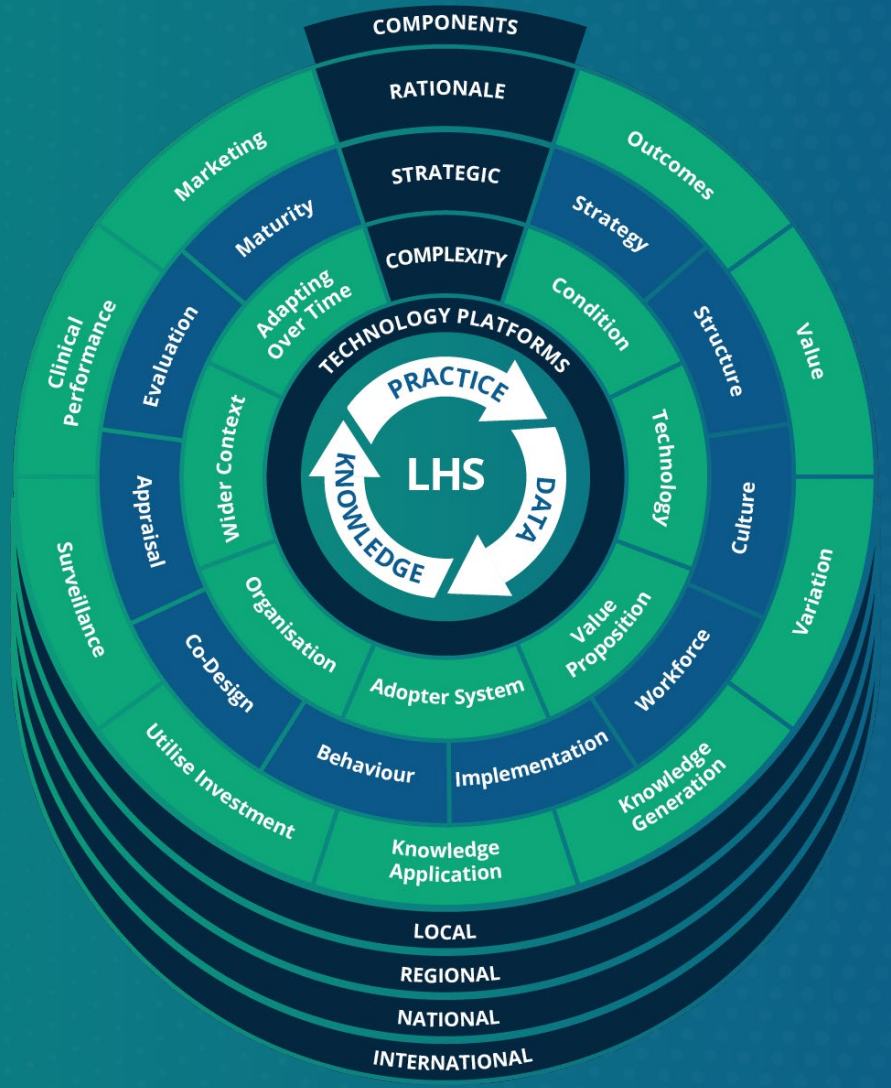
- Connected Health Cities (x20)
- Local Health & Care Record Exemplars (x7)
- HDRUK Better Care (x8)
- Cystic Fibrosis LHS
- Asthma LHS
- Child Health Partnership LHS
- Radiotherapy LHS
- Opioid Prescribing LHS
- Antibiotic Resistance LHS
- COPD LHS
- Stroke LHS
- Palliative Care LHS
- LHS for Vulnerable Families
- Alcohol Related Illness LHS
- Transform

HOW TO MAKE SENSE OF A LEARNING HEALTH SYSTEM

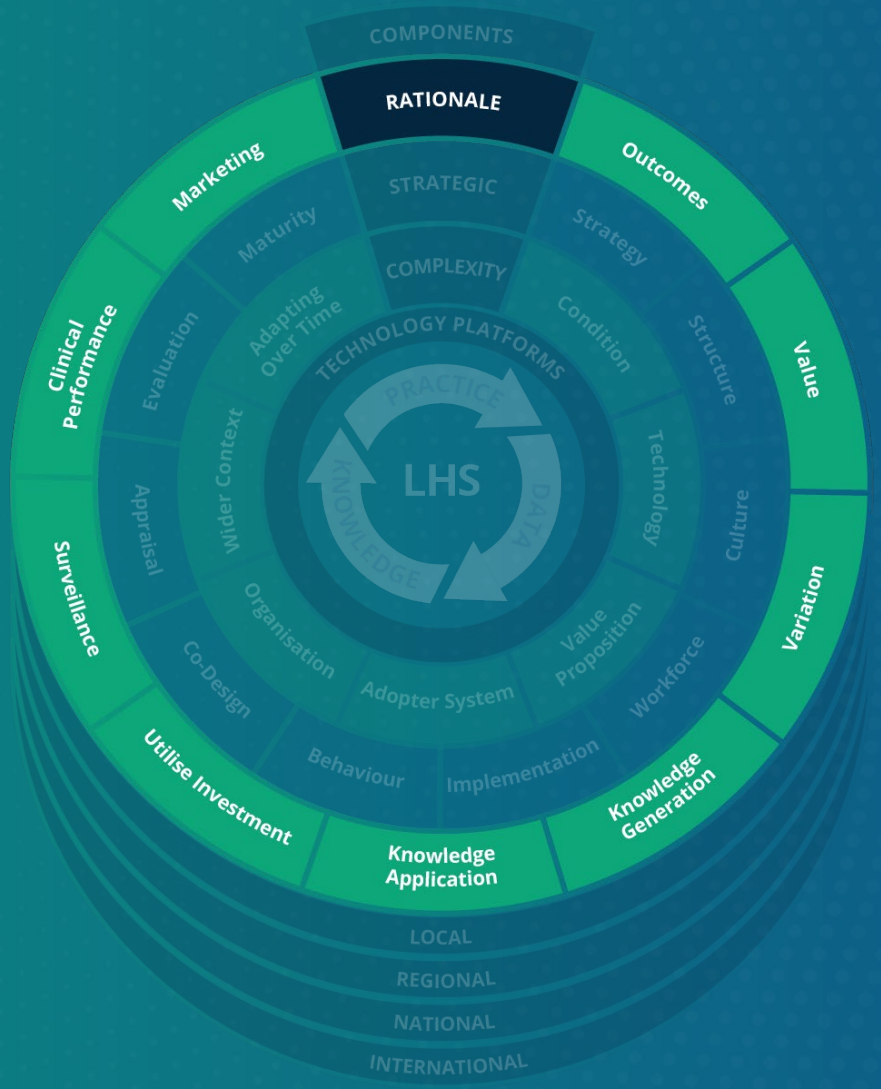
(GesundheitsCampus Osnabrück)

FOUR QUESTIONS

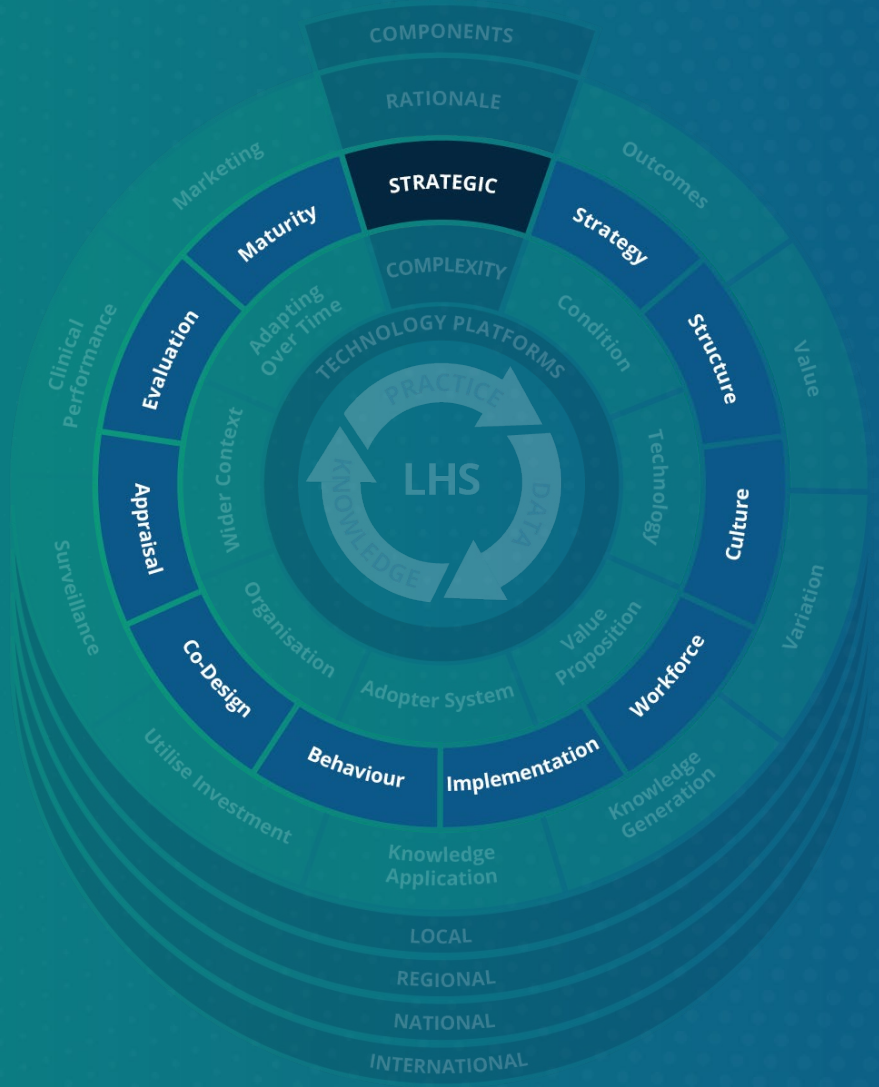
1. Why?
2. What strategic approaches to change?
3. What complexity?
4. What technical building blocks?



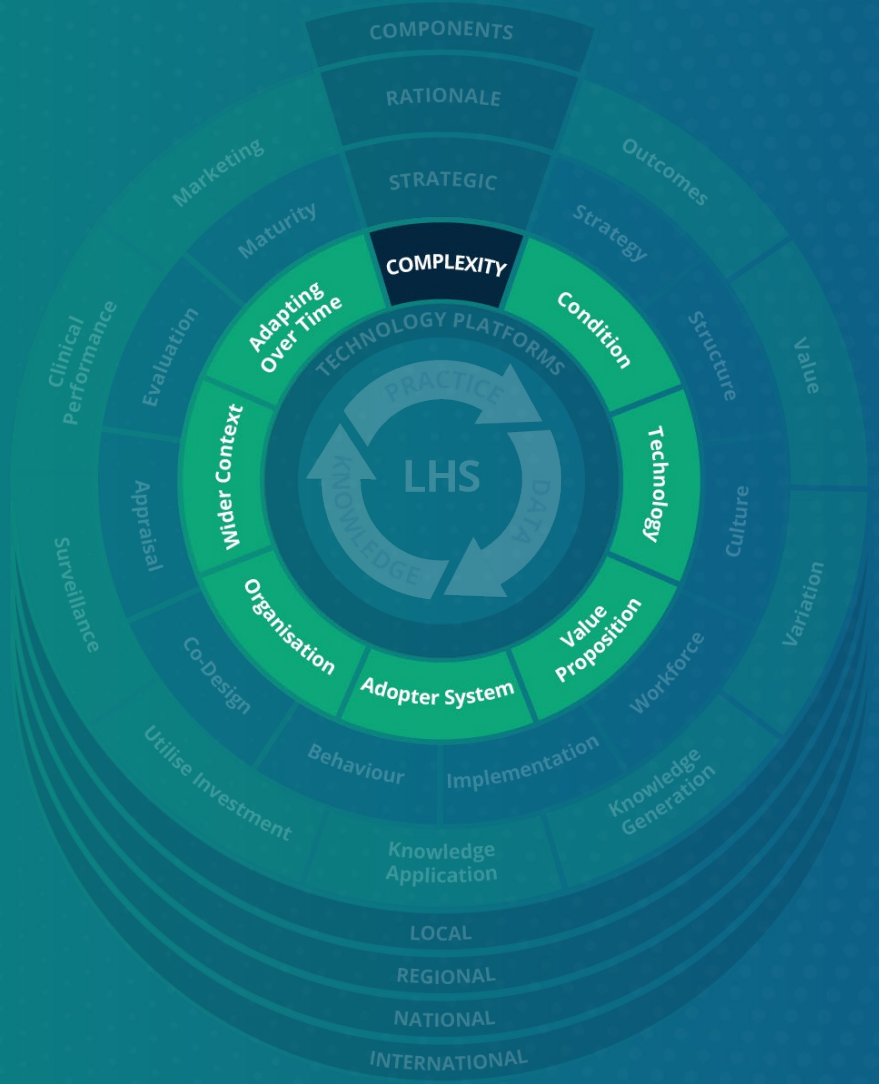
WHY ARE YOU DOING IT?



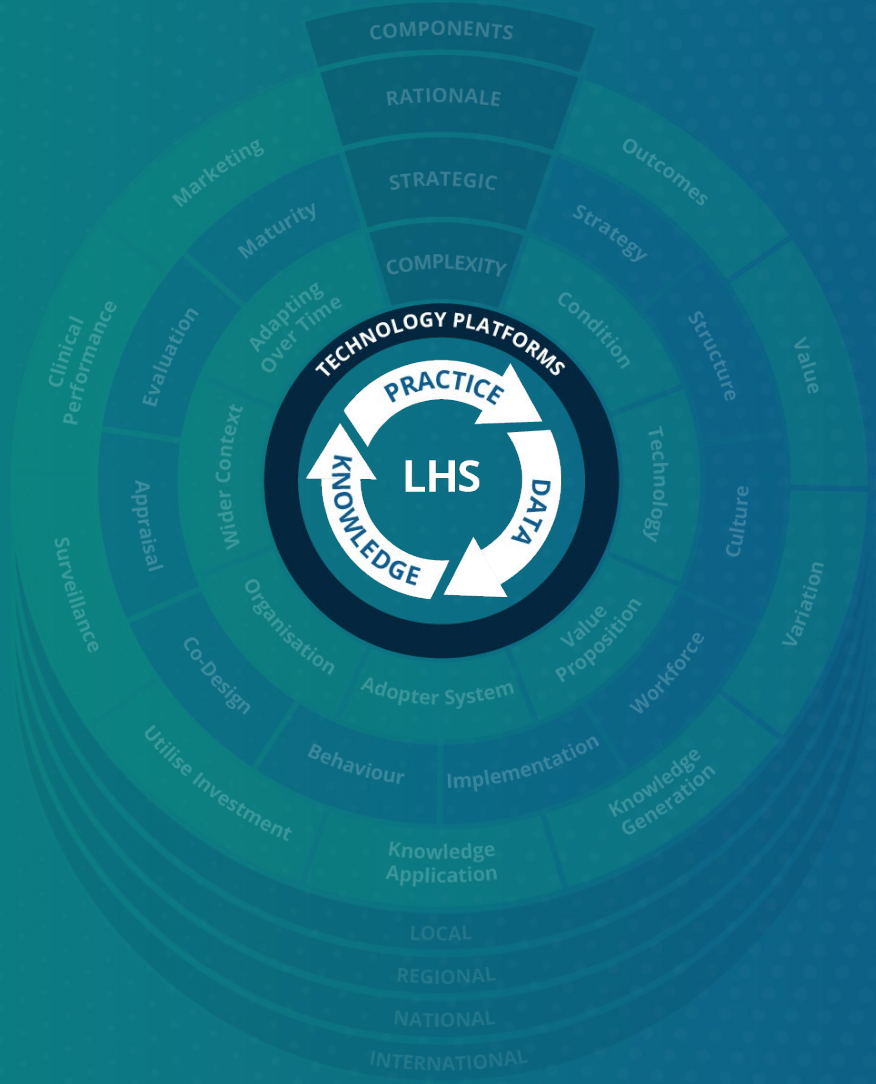
WHAT STRATEGIC APPROACHES TO CHANGE?



WHAT COMPLEXITY?

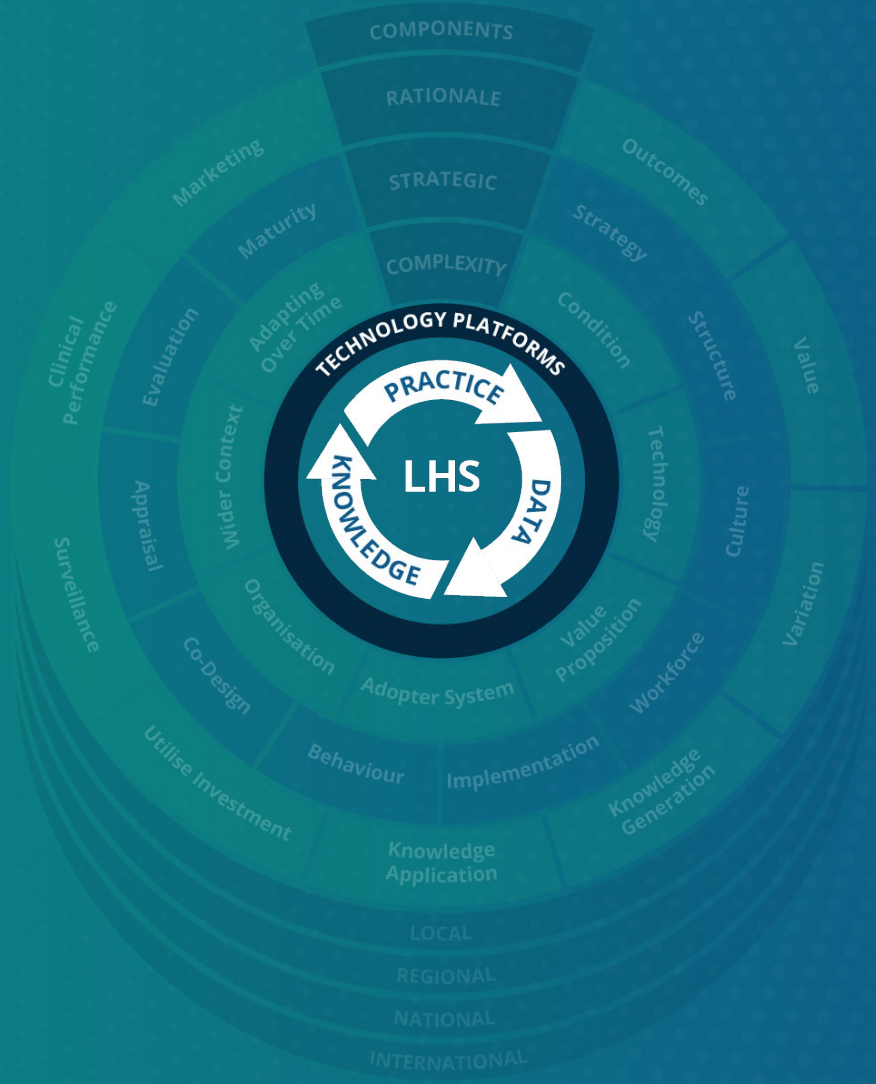


WHAT TECHNICAL BUILDING BLOCKS?



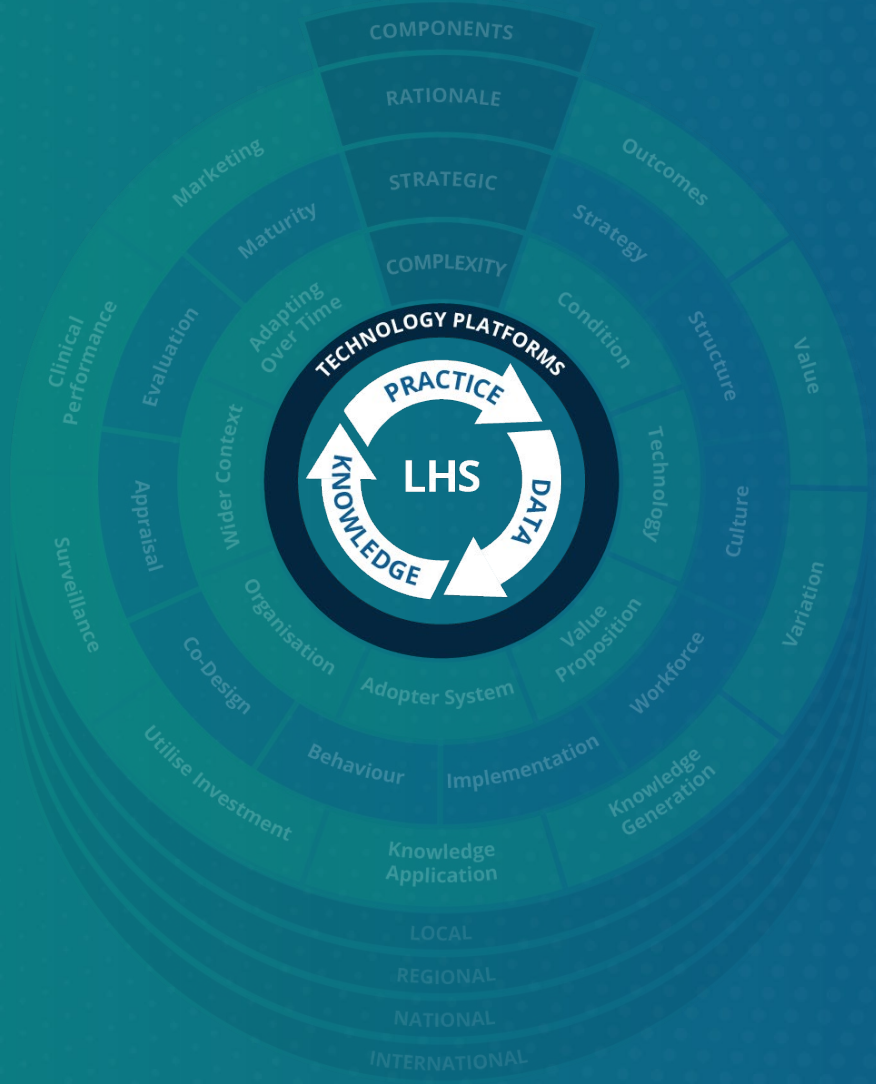
LEARNING COMMUNITIES

- Co-design terms of reference
- A safe space to reflect
- A positive error culture
- Build trust and skills
- Engender confidence and agency for change
- Provide challenge and reassurance
- Action focused and sustainable



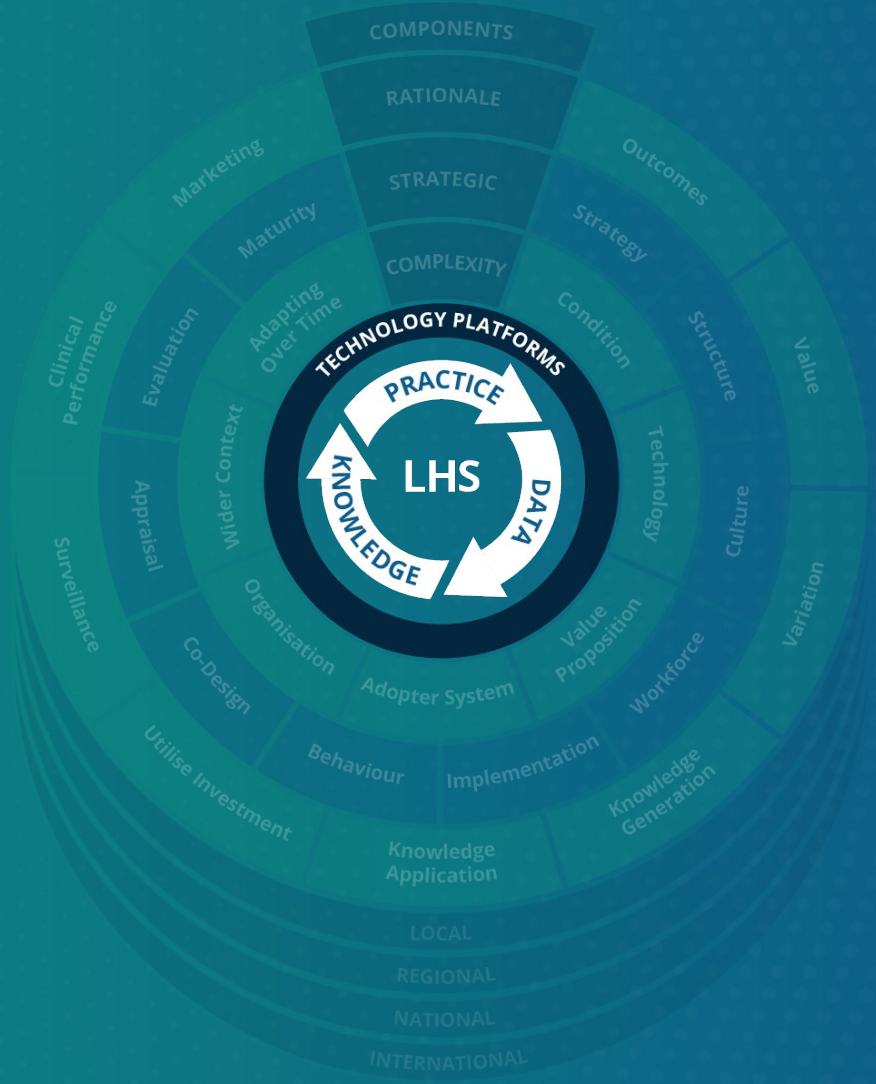
PRACTICE TO DATA

- Data Capture
- Data Standards
- Data Quality
- Storage & Access
- IG
- Interoperability



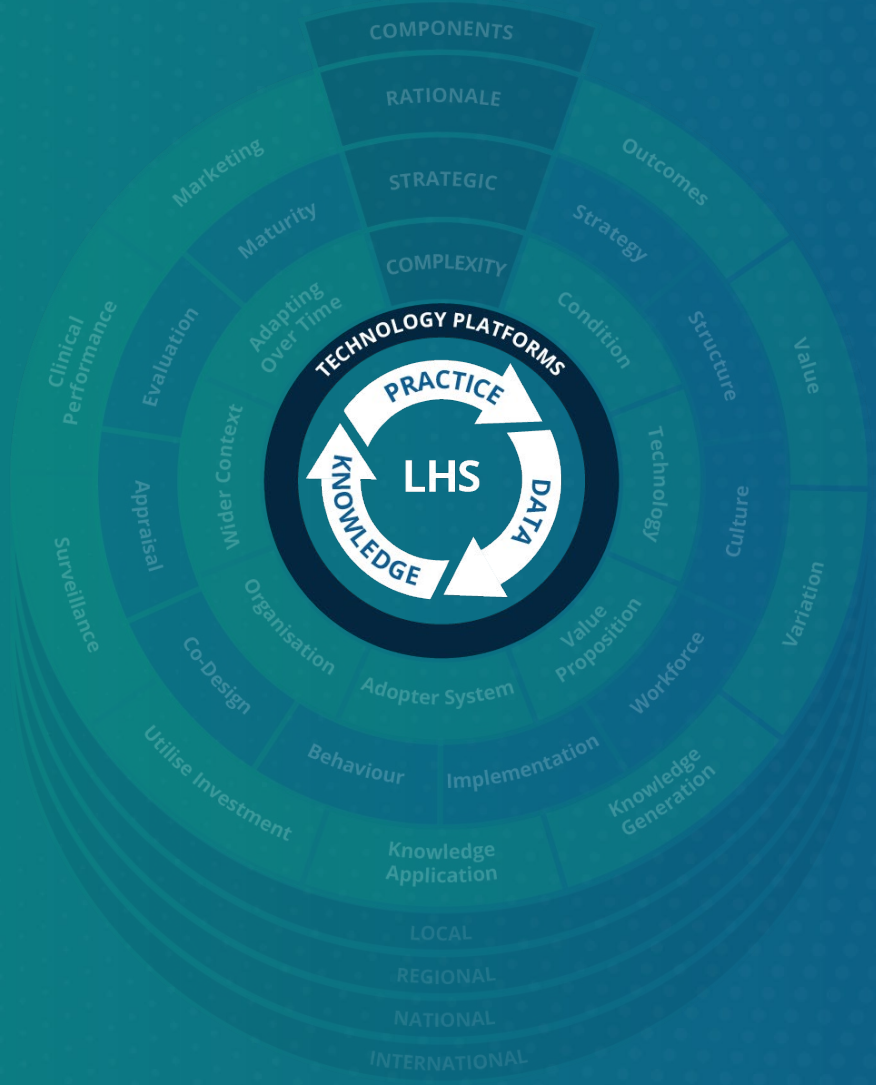
DATA TO KNOWLEDGE

- Randomisation
- Quasi-experimental
- ML & AI
- Knowledge from Local Experience
- Engineering Approaches
- Qualitative Methods
- Learning Communities



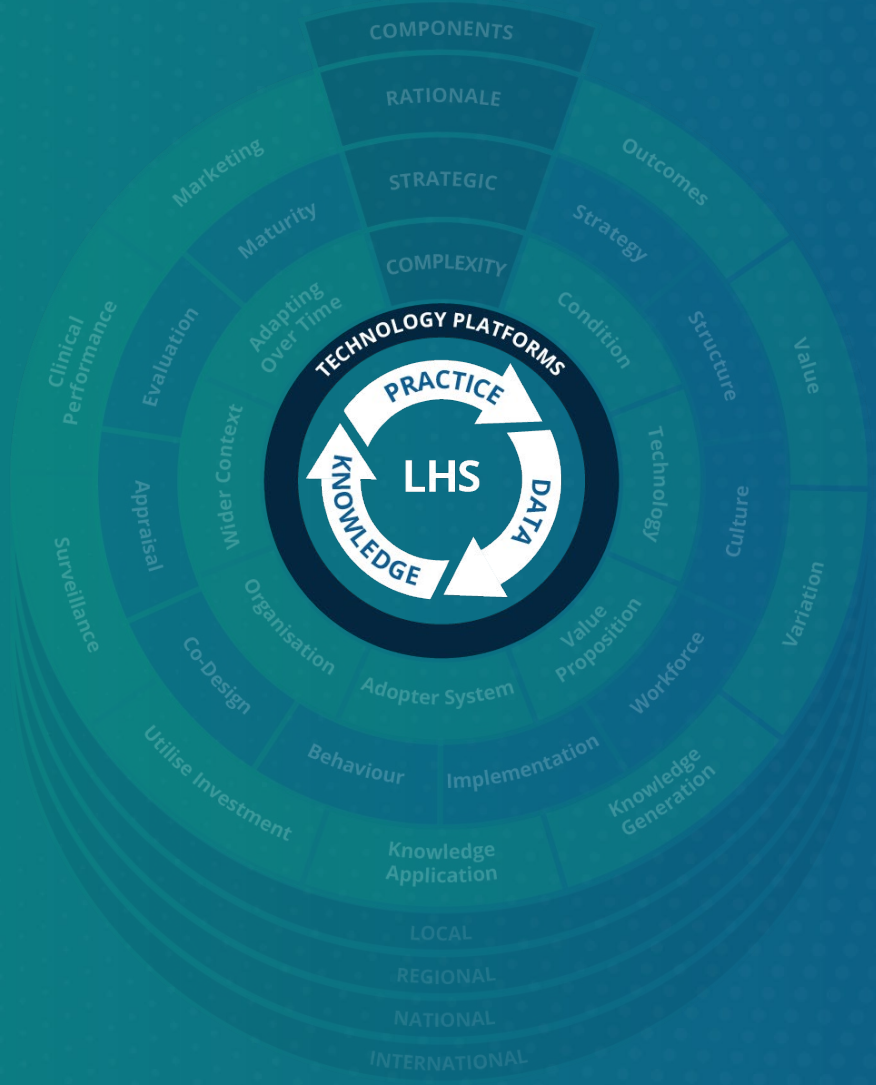
KNOWLEDGE TO PRACTICE

- Representing Knowledge
- Challenges for Knowledge Providers
- Mobilizing Computable Biomedical Knowledge

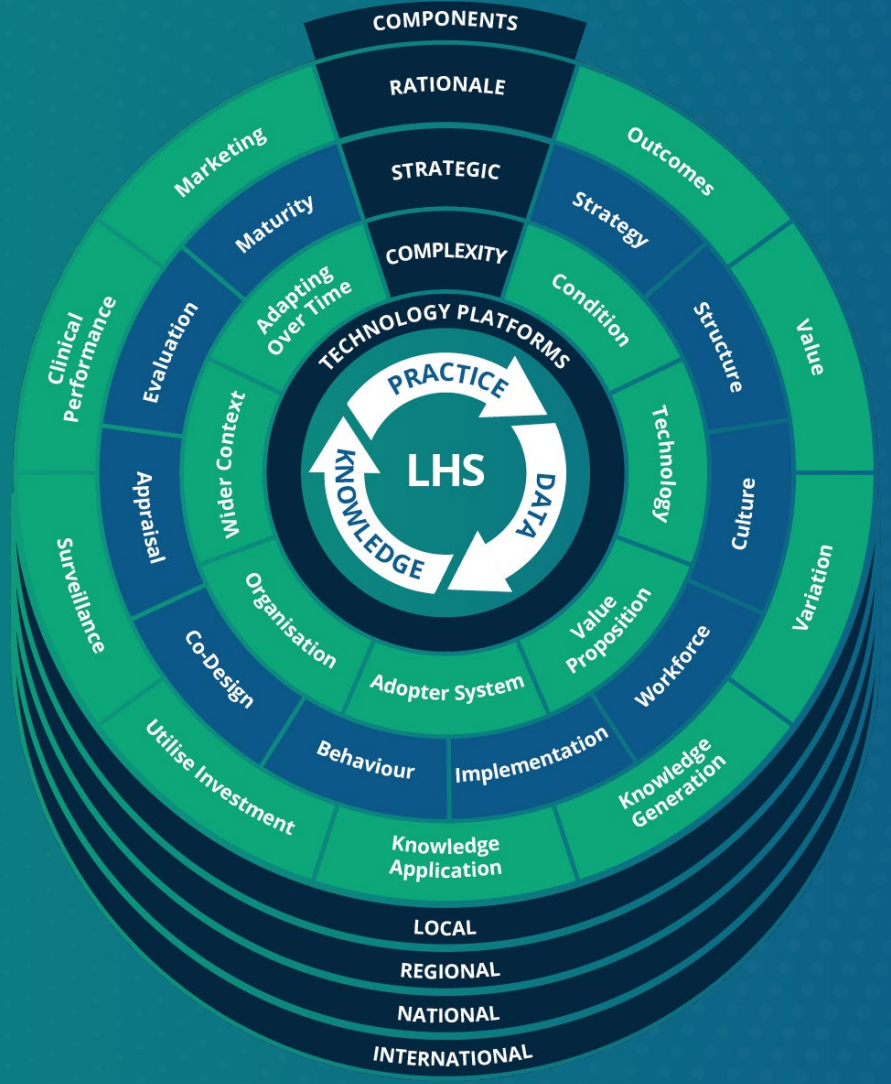


PLATFORMS

- Digital maturity
- Krankenhauszukunftsgesetz (Hospital Future Act)



SCALE


COMPONENTS
RATIONALE
STRATEGIC
COMPLEXITY
Marketing
Maturity
Outcomes
Strategy
Clinical Performance
Evaluation
Adapting Over Time
Condition
Structure
Value
TECHNOLOGY PLATFORMS
PRACTICE
LHS
DATA
KNOWLEDGE
Wider Context
Technology
Culture
Surveillance
Appraisal
Organisation
Value Proposition
Variation
Co-Design
Adopter System
Workforce
Utilise Investment
Behaviour
Implementation
Knowledge Generation
Knowledge Application
LOCAL
REGIONAL
NATIONAL
INTERNATIONAL

FURTHER INFORMATION

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