



# Decoding Digital for Care 2030

## Digital Solutions to enable our services and meet the Regulation Requirements

Speaker:



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# IT Standards in Health Care.....

## General ICT Standards

1. **ISO/IEC 27001**: Information security management systems
2. **ISO/IEC 20000**: IT service management
3. **ISO/IEC 38500**: IT governance

## Networking and Telecommunications

4. **IEEE 802**: LAN/MAN standards (including Wi-Fi and Ethernet)
5. **ISO/IEC 11801**: Generic cabling for customer premises
6. **ETSI EN 300**: Telecommunications standards

## Cybersecurity and Privacy

7. **ISO/IEC 27002**: Information security controls
8. **ISO/IEC 27017**: Security techniques for cloud services
9. **NIS1 and NIS2**: Directives Cybersecurity framework (NIST Framework)
10. **CIS Benchmarks**: prescriptive configuration recommendations

## Software and Systems Engineering

11. **ISO/IEC 12207**: Software lifecycle processes
12. **ISO/IEC 15288**: System lifecycle processes
13. **CMMI**: Capability Maturity Model Integration

## Cloud Computing

14. **ISO/IEC 17788**: Cloud computing vocabulary
15. **ISO/IEC 17789**: Cloud computing reference architecture





# IT Standards in Health Care.....

## Data Management and Analytics

- 16. **ISO/IEC 11179**: Metadata registries
- 17. **ISO/IEC 19510**: Business Process Model and Notation (BPMN)
- 18. **ISO/IEC 20546**: Big data

## Interoperability and Standards for eHealth

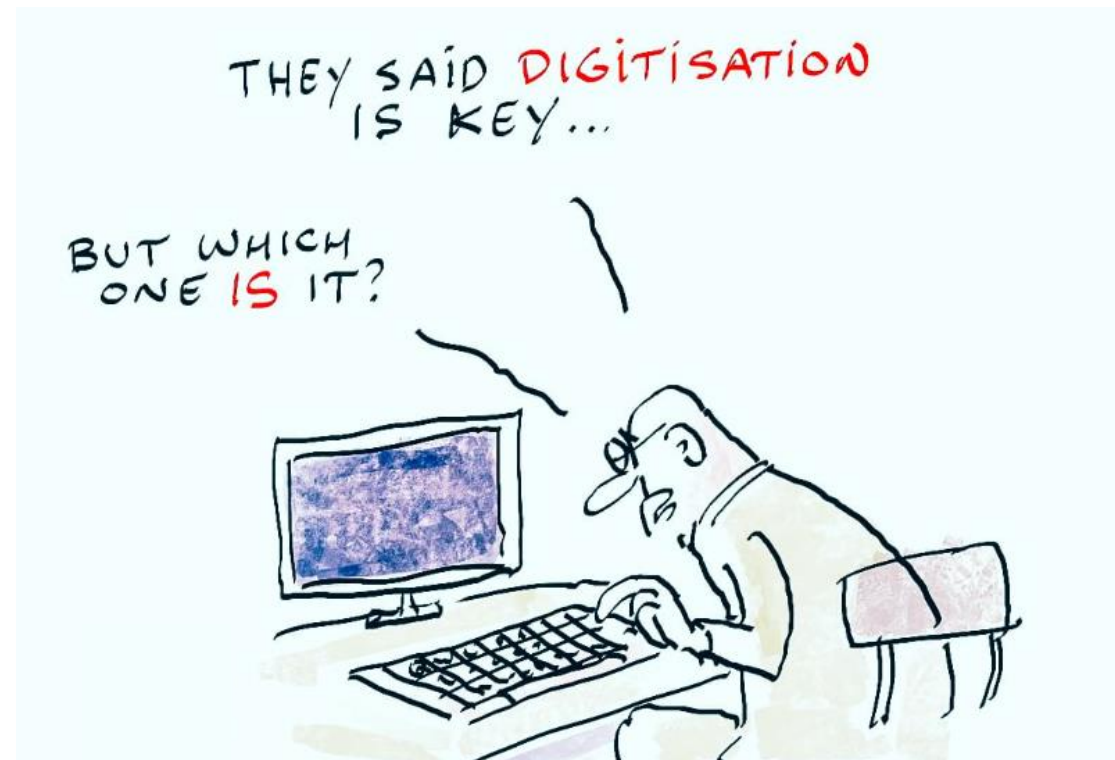
- 19. **HL7**: Health Level 7 standards for healthcare interoperability
- 20. **DICOM**: Digital Imaging and Communications in Medicine
- 21. **ISO/IEC 62304**: Medical device software lifecycle processes
- 22. **SNOMED CT**: A comprehensive, multilingual clinical healthcare terminology that enables consistent representation of clinical content in electronic health records
- 23. **FHIR** : Defines how healthcare information can be exchanged between different computer systems regardless of how it is stored in those systems
- 24. **OpenEHR** : Open standard that supports the management and storage, retrieval and exchange of EHR data.

## Emerging Technologies

- 24. **ISO/IEC 23894**: AI risk management
- 25. **ISO/IEC 30141**: Internet of Things (IoT) Reference Architecture

## European ICT Standardisation

- 27. **ETSI EN 303 645**: Cybersecurity for consumer IoT
- 28. **ETSI TS 102 825**: European electronic signatures and infrastructures
- 29. **CEN/TC 251**: ICT standards for health informatics





# HIQA Standards/Reports in Health Care.....

National Standards for Information Management in Health and Social Care

Published  
27 Jun 2024

National Standard for an electronic patient summary will improve patient safety

Published  
15 Jan 2019

Electronic health records

Recommendations on the Implementation of a National Electronic Patient Summary in Ireland

Published  
12 Jan 2021

National Data Collections

Information management standards for national data collections

Published  
01 Mar 2017

Recommendations on the ICT enablement of older persons services

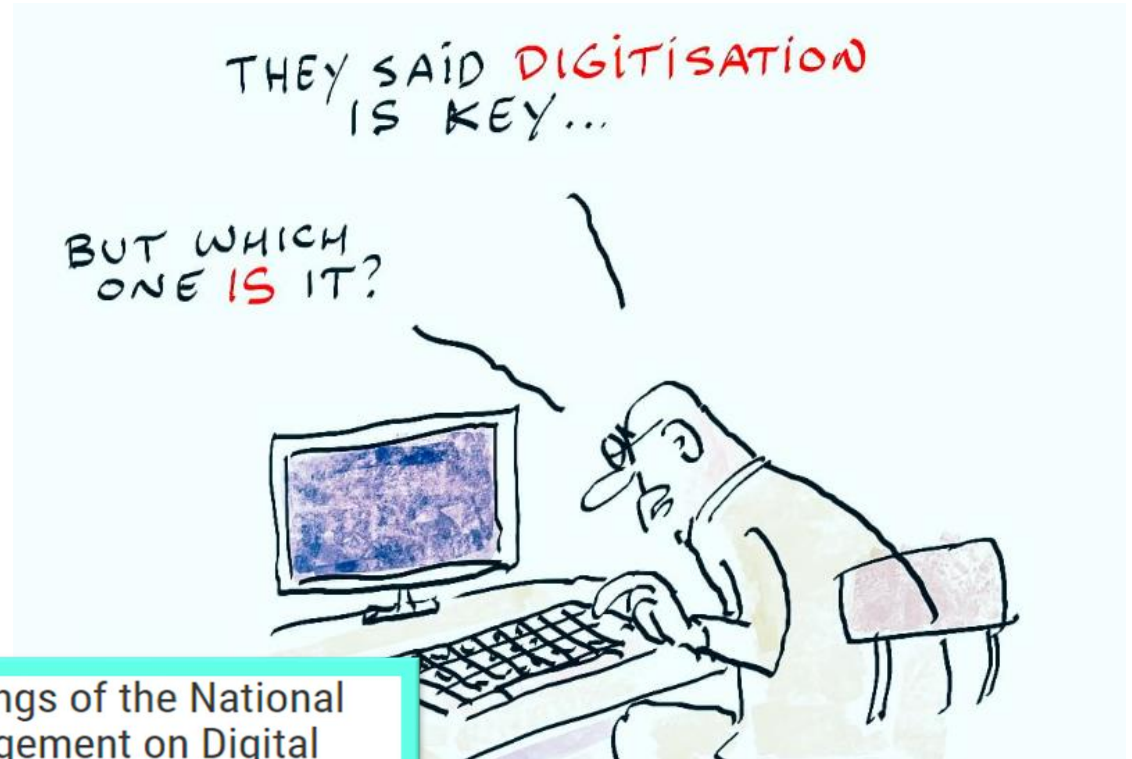
Published  
25 Nov 2022

Catalogue of National Data Collections

Updated  
03 Oct 2022

Findings of the National Engagement on Digital Health and Social Care

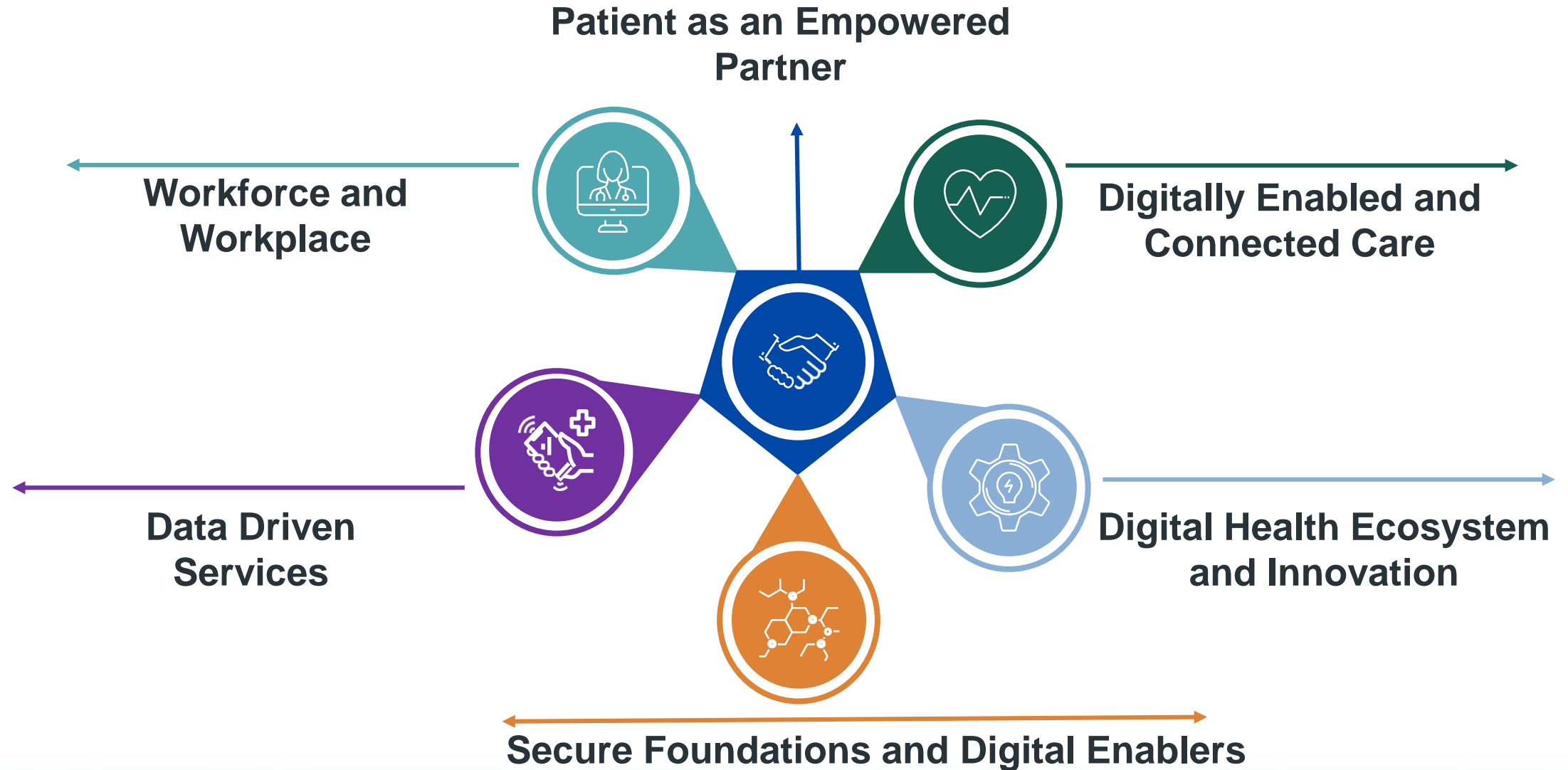
Published  
04 Sep 2024







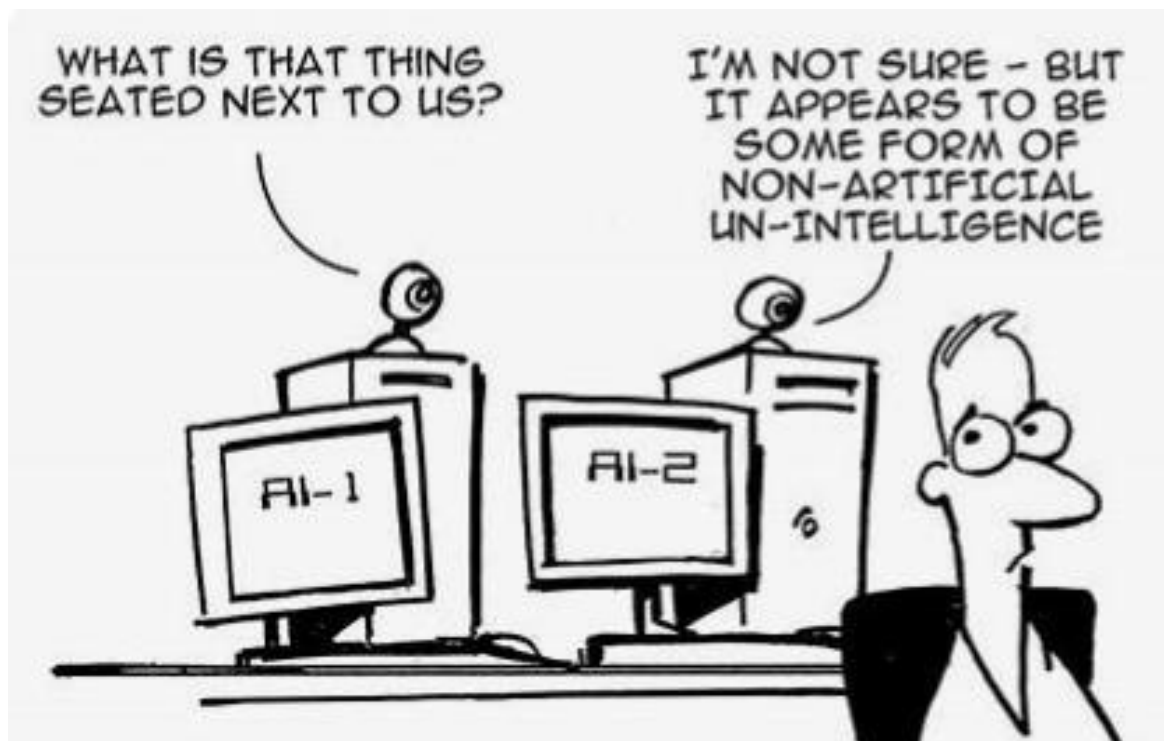
# Digital for Care:6 Principles





# European Health Data Space (EHDS) – AI view

Prompt:  
What needs to be done to meet the  
regulation requirements for the EU Health  
Data Space?





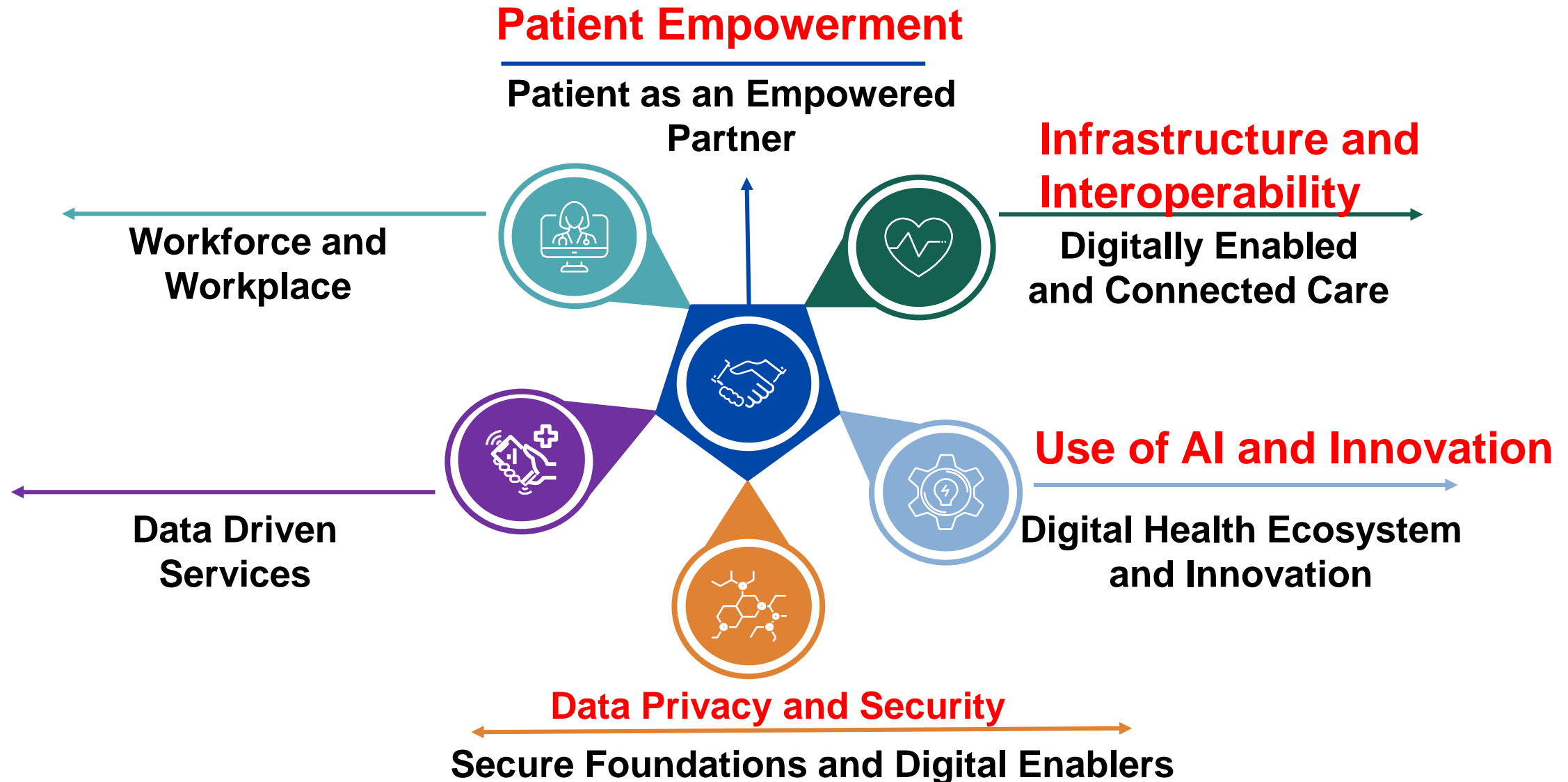
# European Health Data Space (EHDS) – AI View

- **Infrastructure and Interoperability**
  - Develop a secure and interoperable infrastructure across EU member states.
  - Use of Digital Solutions in an integrated way to provide care
  - Implement common standards and governance frameworks.
- **Data Privacy and Security**
  - Adhere to GDPR and implement sector-specific rules.
  - Strengthen security measures in health data systems.
- **Patient Empowerment**
  - Provide easy access to health data for patients.
  - Use digital platforms to facilitate data sharing control.
- **Use of AI and Innovation**
  - Leverage AI technologies to enhance health data analysis.
  - Support innovative healthcare solutions.
- **Legislative and Regulatory Alignment**
  - Harmonize national legislations with EHDS regulations.
  - Regularly review and update regulations.

**Prompt:**  
What needs to be done to meet the regulation requirements for the EU Health Data Space?



# A Mapping between the two....







# HE Why?

## Interoperability

- **Enhanced Compatibility:** Standards ensure that various systems and devices can communicate seamlessly with each other, improving data exchange and collaboration across different platforms and organizations.

## Security and Trust

- **Increased Security:** Adhering to industry standards helps protect systems from cyber threats, ensuring data protection and reducing vulnerabilities.
- **Credibility:** Compliance with recognized standards increases trust among users and stakeholders, as it signals a commitment to quality and security.

## Cost Efficiency

- **Reduction in Costs:** Standards reduce the need for custom solutions and integrations, leading to lower development and maintenance costs.
- **Efficient Procurement:** Easier sourcing of standard-compliant products and services simplifies procurement processes, saving time and resources.



# Why?

## Quality and Performance

- **Consistent Quality:** Standards provide a benchmark for quality, helping organisations deliver consistent and reliable services.
- **Optimized Performance:** Adhering to standards ensures optimal performance and efficiency of ICT systems.

## Innovation and Scalability

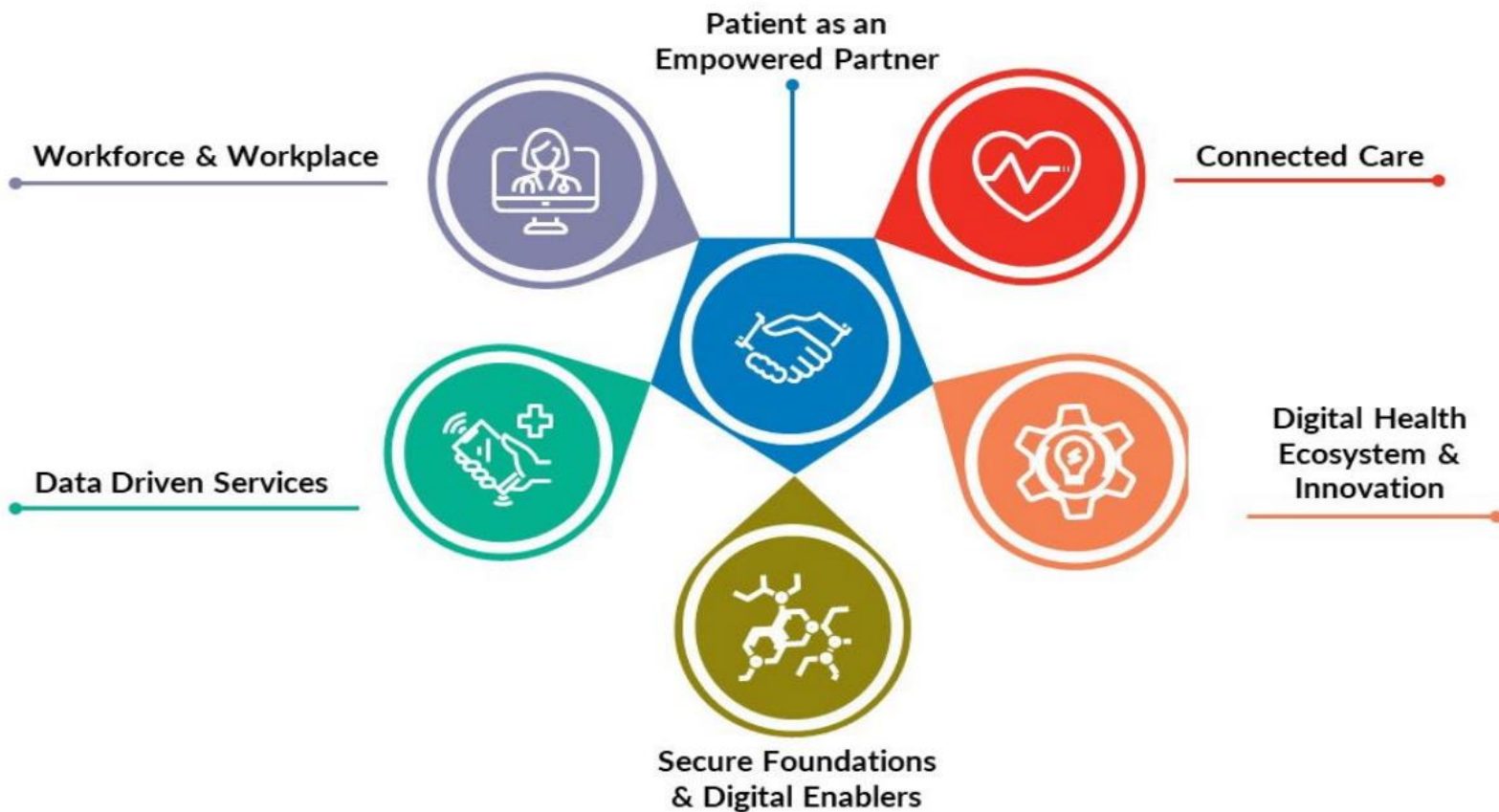
- **Fostering Innovation:** By providing a common framework, standards facilitate innovation and development, enabling the creation of new products and services.
- **Scalability:** Standards ensure that systems can easily scale, accommodating growth and adapting to technological advancements.

## Regulatory Compliance

- **Ensuring Compliance:** Utilising standards helps organizations meet regulatory requirements, avoiding legal issues and penalties.
- **Simplified Auditing:** Standardized systems make auditing processes more straightforward, ensuring transparency and accountability.



# Some Key Programme Deliverables.....



A modern, patient-centred, and sustainable health and social care system for patients and workforce

HSE Digital Health Roadmap

## Some Key Deliverables:

- Patient App –Dec 2024, Q1 2-25
- Shared Care Record.
- Electronic Healthcare Record.
- National Laboratory & National Imaging
- Digitising Benefits & Schemes
- HSE Live & Contact Care
- Telehealth & Virtual Care
- Modern Workspace and Productivity Tools
- Healthcare Data Analytics
- Resource Management (SAP IFMS & HR)
- Expanding wifi across healthcare services.
- E-Pharmacy/Prescription.
- Automation, AI & Open Innovation
- Cybersecurity & Resilience





# Shared Care Record

## FHIR

- Demographic Data held will utilise the FHIR standard

## OpenEHR

- Clinical Data held will utilise the OpenEHR standard

## SnoMed

- Clinical Data encoded at source will be incorporated. Utilisation of Terminology Server to translate content from other coding systems (EHR will utilise SnoMED day one)

## OMOP

- Research data transformed to make data available for research and secondary use

## EU EHR exchange Format (C(2019(800))

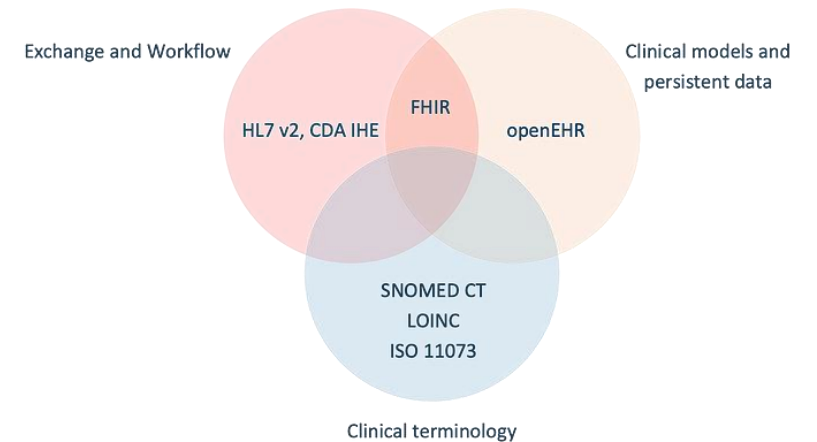
- Ability to support exchange format for EU patient records (Prescriptions, Patient Summary, Lab Results, Imaging Reports and Studies, Discharge Reports)

## NIS2:

- The Directives Cybersecurity will be applicable on day one

## HIQA Patient Summary & HIQA Information Management

ISO/IEC 27001: Information security management systems (Vendor Hosted)



Source: Prof. Rachel Dunscombe, NHS Digital Academy



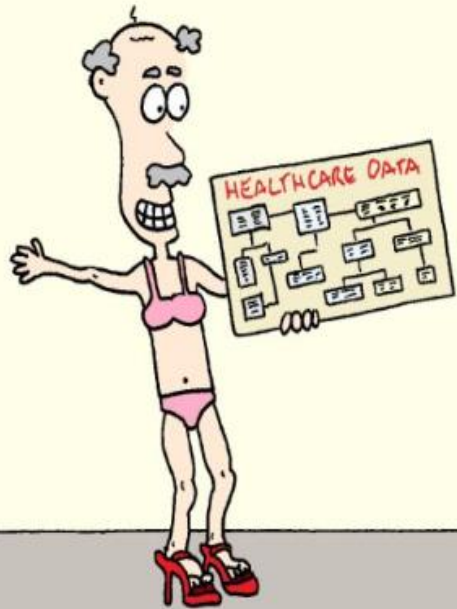
# At the end of the Day its all about Data and Information....



The HSE SLT have agreed to create the role of a Chief Data and Analytics Officer (from the existing Complement of staff)

**Chief Data and Analytics Officer (is to ensure high quality health data that can drive value for all of the people who need to use and access data within our health system, while ensuring the right tools and insights are available to all our services and staff to exploit this data for the benefit of patients, staff and our services.**

# At the end of the Day its all about Data and Information...



“Right. Well, thank you Dr Jones for that informative, if slightly misconceived presentation on health data modelling”

**Consistent Quality:** Standards provide a benchmark for quality, helping organizations deliver consistent and reliable services.

**Fostering Innovation:** By providing a common framework, standards facilitate innovation and development, enabling the creation of new products and services.

**Enhanced Compatibility and Creditability:** Improving data exchange and collaboration across different platforms and organizations

**Fostering Innovation:** By providing a common framework, standards facilitate innovation and development, enabling the creation of new products and services.

**Ensuring Compliance:** Utilising standards helps organizations meet regulatory requirements, avoiding legal issues and penalties.



**Thank You**