Interoperability, critical element for an eHealth Strategy

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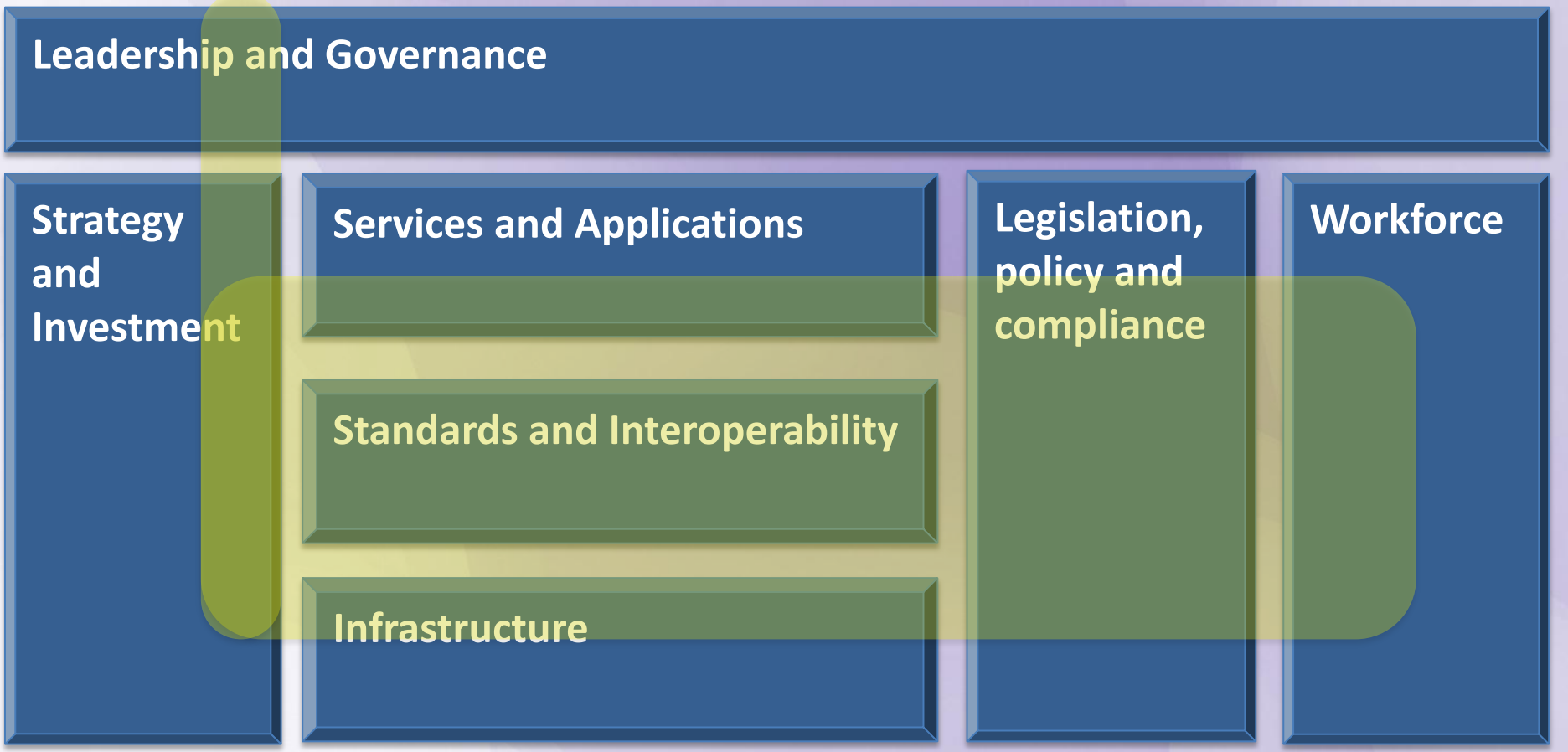
Components of a National ehealth Strategy

What components contribute to **interoperability** ?



From National ehealth Strategy Toolkit – WHO – ITU - 2012

Gain control of Interoperability (1)

- Reduce complexity to master the detailed flow of information between ehealth systems through selection of Use Cases:
  - ➔ Use Case = Description of an interoperability problem
  - ➔ Select Use Cases based on constraints and strategic goals (e.g. integrated care)

- Simplify choices of Standards using Profiles when available. Otherwise profile them yourself (e.g. terminology value sets).

Gain control of Interoperability(2)

- Mandate profiles and standards in the context of each use cases:

  ➔ Develop national "interoperability specifications" to record the use cases and corresponding supporting profiles/standards and national extensions, if needed

- Ensure ownership and sustainability to demonstrate value and build culture of interoperability.

  ➔ Establish a "neutral" National Interoperability Center to:
  - Turn each use cases into National Interoperability Specifications based on profiles.
  - Bring innovation as extensions of existing use cases or new use cases
  - offer test tools and organize conformity assessment

Making ehealth Interoperability Operational

- **A eHealth Information Exchange Culture** for better care delivery and development of a thriving digital health market
- A **Pro-active Interoperability Testing Culture** in turning interop specifications into interoperable deployed systems
- A national consensus process to identify new use cases in addition to those already under deployment and to organize them in an **Interoperability Roadmap**

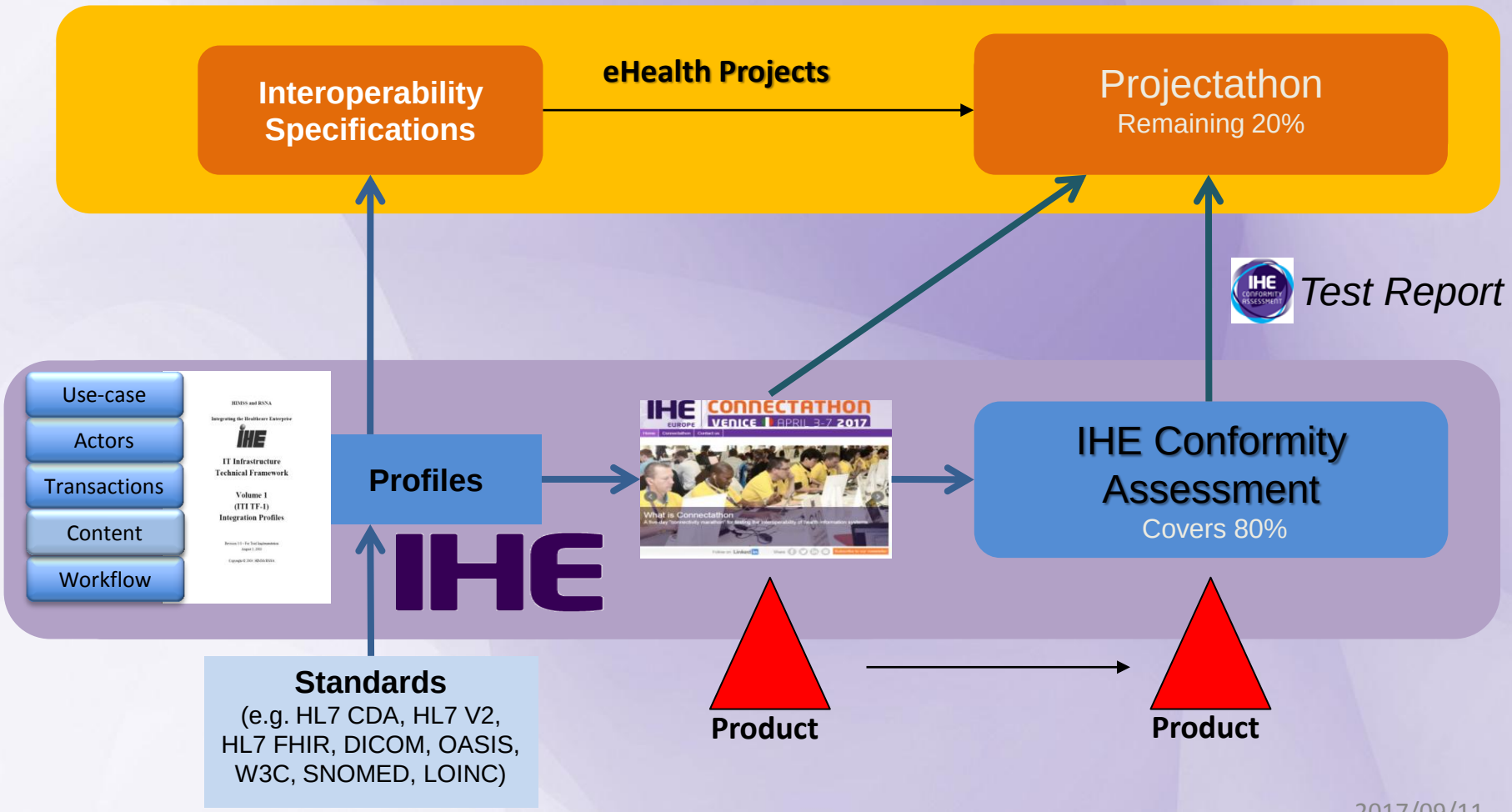
eHealth Information Exchange Culture

- Adopt **eHealth Information Exchange** for:
  - **Better care delivery**. Care Coordination (Integrated Care) needs health information to follow the patient. Clinician driven use of terminologies (Semantic) and large scale analysis of health data (Big Data) to facilitate population health management and personalized treatments.
  - **Thriving digital market development**. Existing and innovative digital health products need to easily interoperate to deliver their value. A key element of the European Digital Single Market (DSM).

Pro-active Interoperability Testing culture

- *Testing is strategic*, with organizational and efficiency impacts. Most ehealth deployments realize "too late" their weaknesses in this area.
- A *Pro-active Interoperability Testing culture* is a combination of test methods (tools & plans), test processes, practice/training, procurement, and leadership.
- *European Framework for testing* emerging with Antilope project recommendations and on-going development of a Conformity Assessment Scheme for Europe (EuroCAS)

IHE's Contribution to Testing



Interoperability Use Cases Roadmap

- There are many new use cases to address in addition to those already under deployment
- They should be organized in an evolving **Interoperability Use Cases Roadmap.** Why:
  - A documentation/clarification process to discuss
  - Avoid disruption on the use cases being deployed
  - Ensure consistency and complementarity among the use cases
  - Feed the ehealth architects and solutions designer to account for the future
- Two examples:

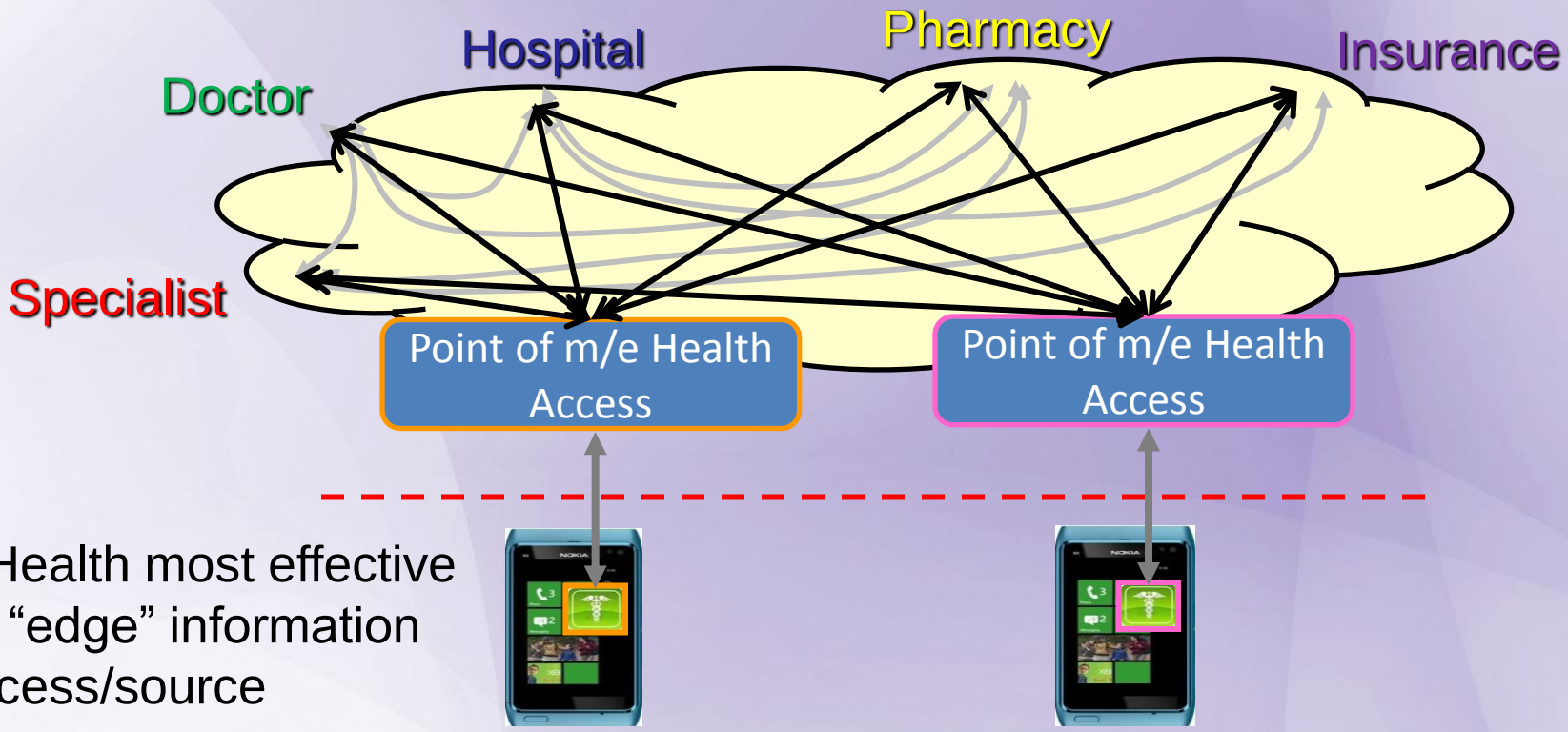
Interoperability Use Cases Roadmap - Examples

Two examples: Care coordination and mobile health

- Care Coordination
  - Most countries consider as a set of related use cases.
  - The current 3 Use Cases in development in Poland (Prescription service, eReferral, Sharing of medical documents) ➔ Three building blocks that support care coordination
  - In the care coordination context, some gaps can be identified in these first three use cases
  - Additional use cases should be identified and prioritized in a roadmap for Poland

Interoperability Use Cases Roadmap
Mobile health Example

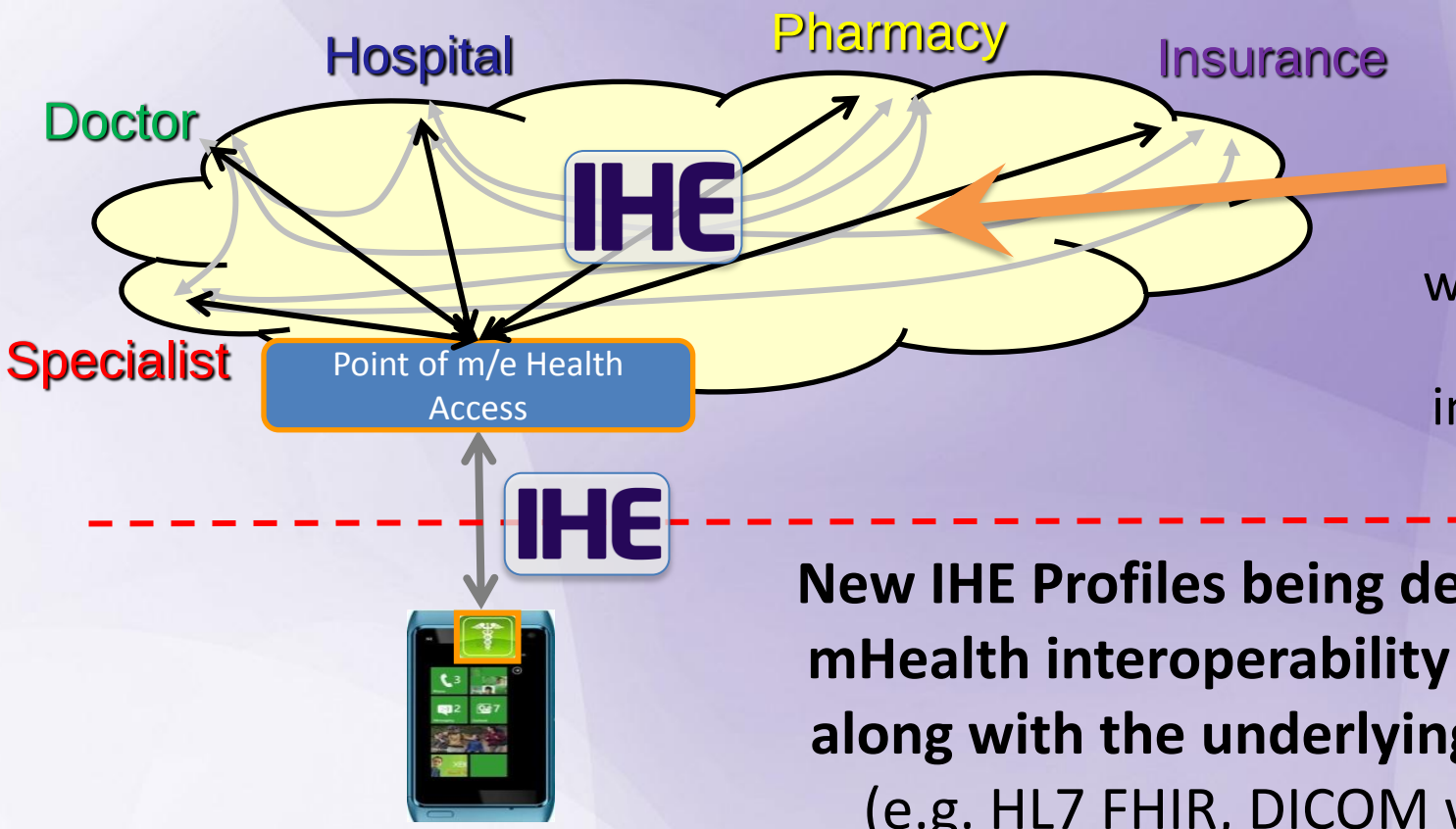
mHealth needs eHealth interoperability to provide an integrated and ubiquitous patient health view



mHealth most effective as “edge” information access/source

Most consider mhealth as a set of related use cases

IHE for „Mhealth“ and „Ehealth“



IHE Profiles available and widely accepted for eHealth interoperability

New IHE Profiles being developed for mHealth interoperability – Maturing along with the underlying standards
(e.g. HL7 FHIR, DICOM web, etc.)