



Standards – The main game in eHealth

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Agenda



- Introductions
- Standards - What and why?
- Standards – Who and how?
- Standards development work program
- New challenges and issues

Standards?



A Standard is a published document which sets out specifications and procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs in the way it was intended.

Types of standards



- Units and measures – e.g. a metre...
- Technologies and systems – e.g 240 volts, GSM, VHS/Beta, HD DVD/Blu Ray
- Performance based – e.g. fire burn through times, impact absorption (bicycle helmets)
- Management based – e.g quality and risk
- Interchange formats – e.g. HL7, STEP

Types of standards



- De facto – what the market adopts (e.g. the QWERTY keyboard); or what a market dominator supplies...
- Regulatory – what regulators specify (e.g. aged care assessment standards)
- Consensus – voluntary standards developed via neutral agencies such as Standards Australia

Benefits of standards



- Protection – safety and confidence
- Innovation – technology/best practice diffusion
- Productivity and growth
- Competitive edge, support for competition
- “Red tape” reduction

Innovation?



- Standards can be productivity aids or inhibitors – e.g. the QWERTY keyboard
- They enable technology diffusion
- And the relationship between standards and innovation is often very interlinked – e.g. Boeing and STEP

Productivity & growth?



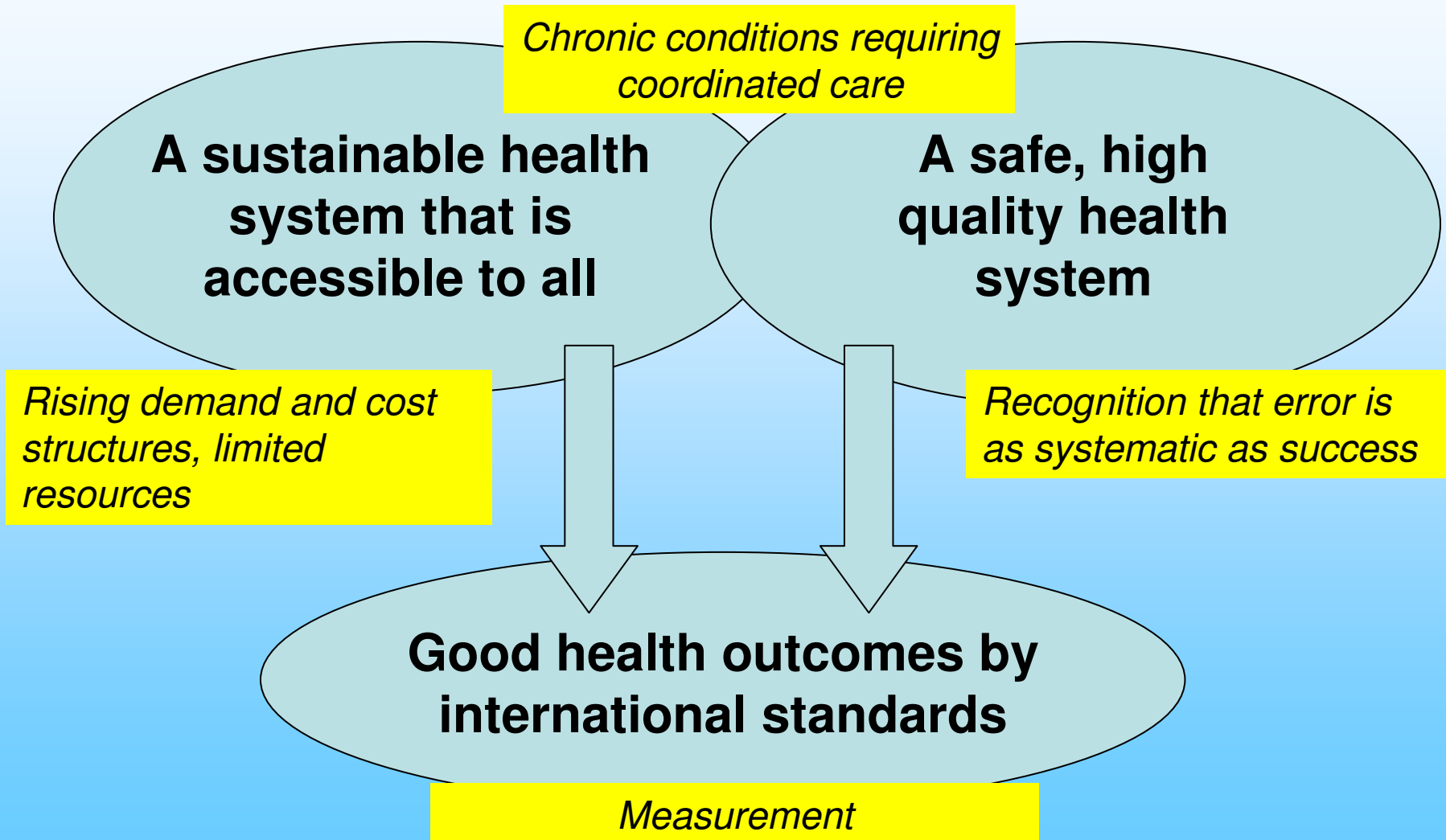
- One third of Germany's economic growth over the period 1960-96 is attributed to standards – “Standards are at least as important as patents for growth”
- See WTO report - http://www.wto.org/english/res_e/booksp_e/anrep_e/wtr05-2a_e.pdf
- Australian Standards generate benefits of between \$24 million and \$100 million per year (research submission to Productivity Commission)

Standards in Health IT?



- What's the problem?
- How are we addressing it?
- Why standards?
- Challenges and issues
- Whose problem, whose challenges?

The problem?

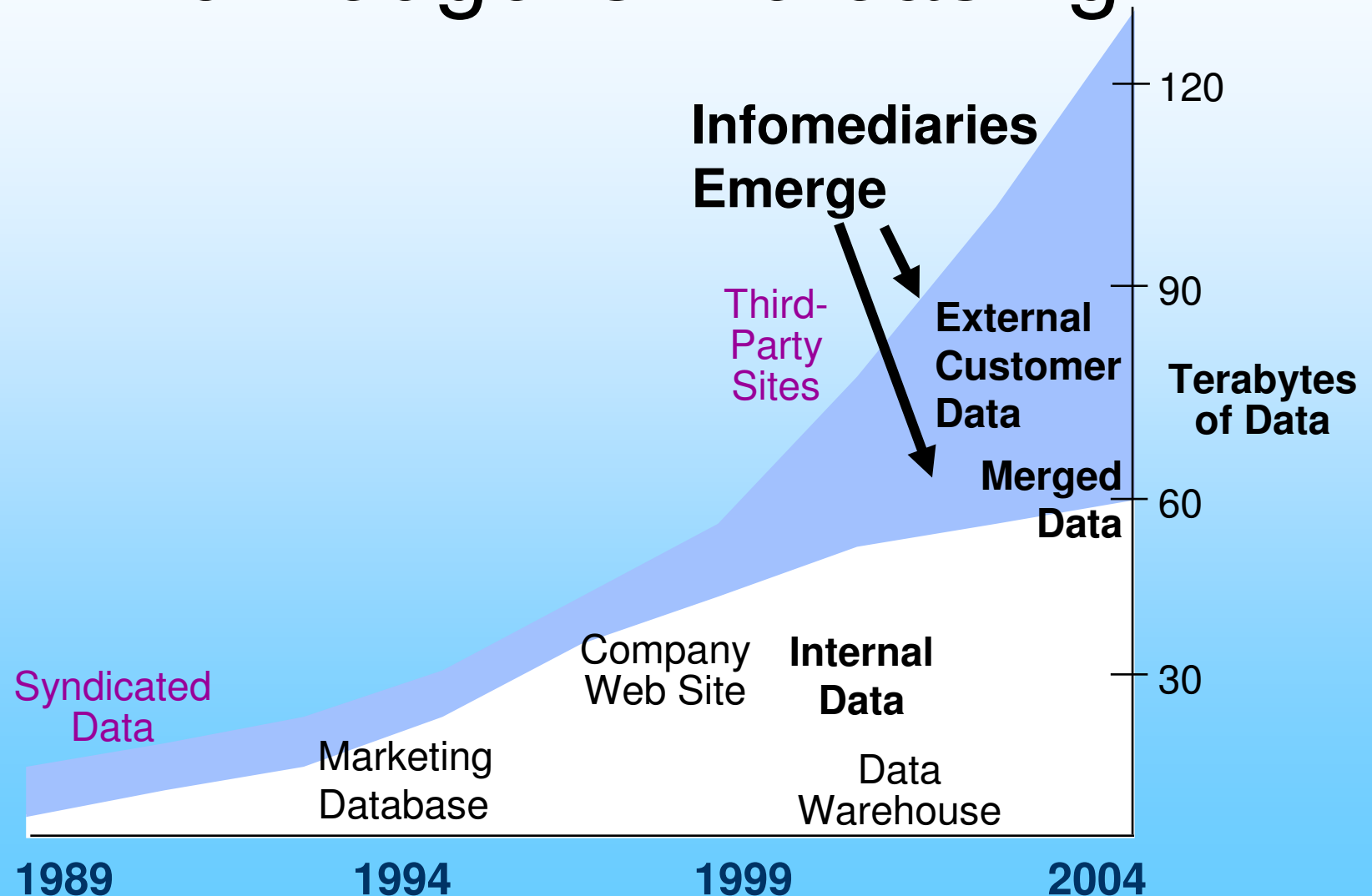


The solutions?



- A more connected health service delivery system – e.g. chronic disease management strategies
- Evidence-based (standards-based?) delivery systems
- Measurement; cost containment
- Better use of information and knowledge
- With dependencies on the flow of information – to enhance safety and quality; to enable more efficient markets

Reliance on “External” Data and Knowledge is Increasing



Health ICT goals?



- Support systemic approaches, within and between organisations, by delivering interoperability and interconnection capabilities
- Enable market efficiency by providing a common technical framework for e-health application development, procurement and implementation
- Support knowledge and information management

Health ICT benefits



- CITL - \$US60 billion per annum in the USA
- Schloeffel - \$A3.7 billion in Australia
- Sprivulis – 4.1% of the expenditure by Australian Governments on healthcare
- Georgeff - improved knowledge sharing & care plan management for patients with chronic disease would produce direct health care savings of over \$1.5 billion per year

Standards or adapters



- Adapters – work best when there are blocks of standardisation
 - E.g. the power adapter
 - The interface engine
- Standards – work best when there is too much diversity for adapters to be feasible
 - As in health
- A mix is not uncommon

Standards?



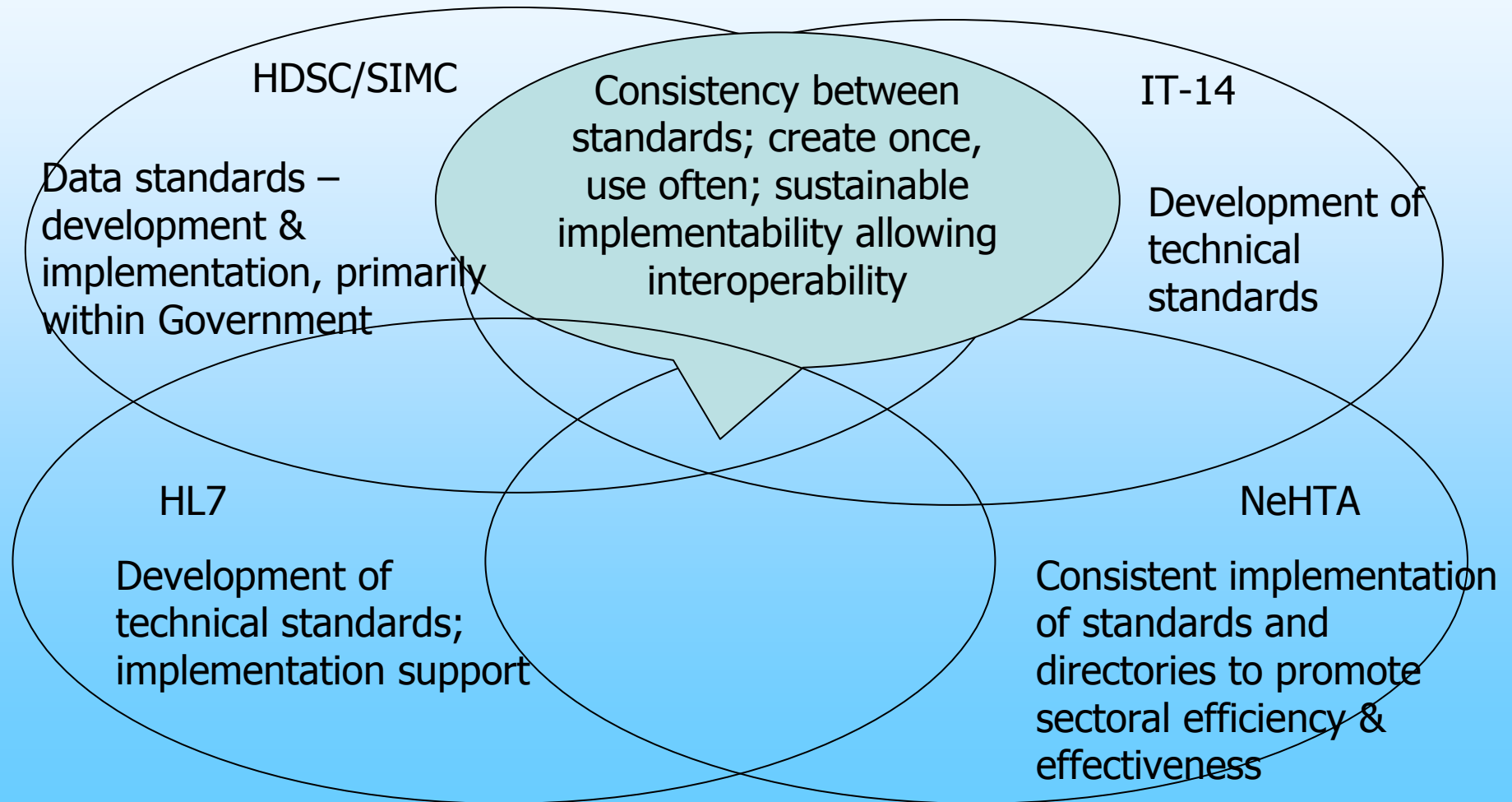
- Most countries have recognised the need for health informatics standards to support health system reform
- And are investing in them
- As a necessary but not sufficient contributor
- But there are a range of other reasons why developers and implementers should be interested in standards (e.g. the Boeing example)

Health informatics standards

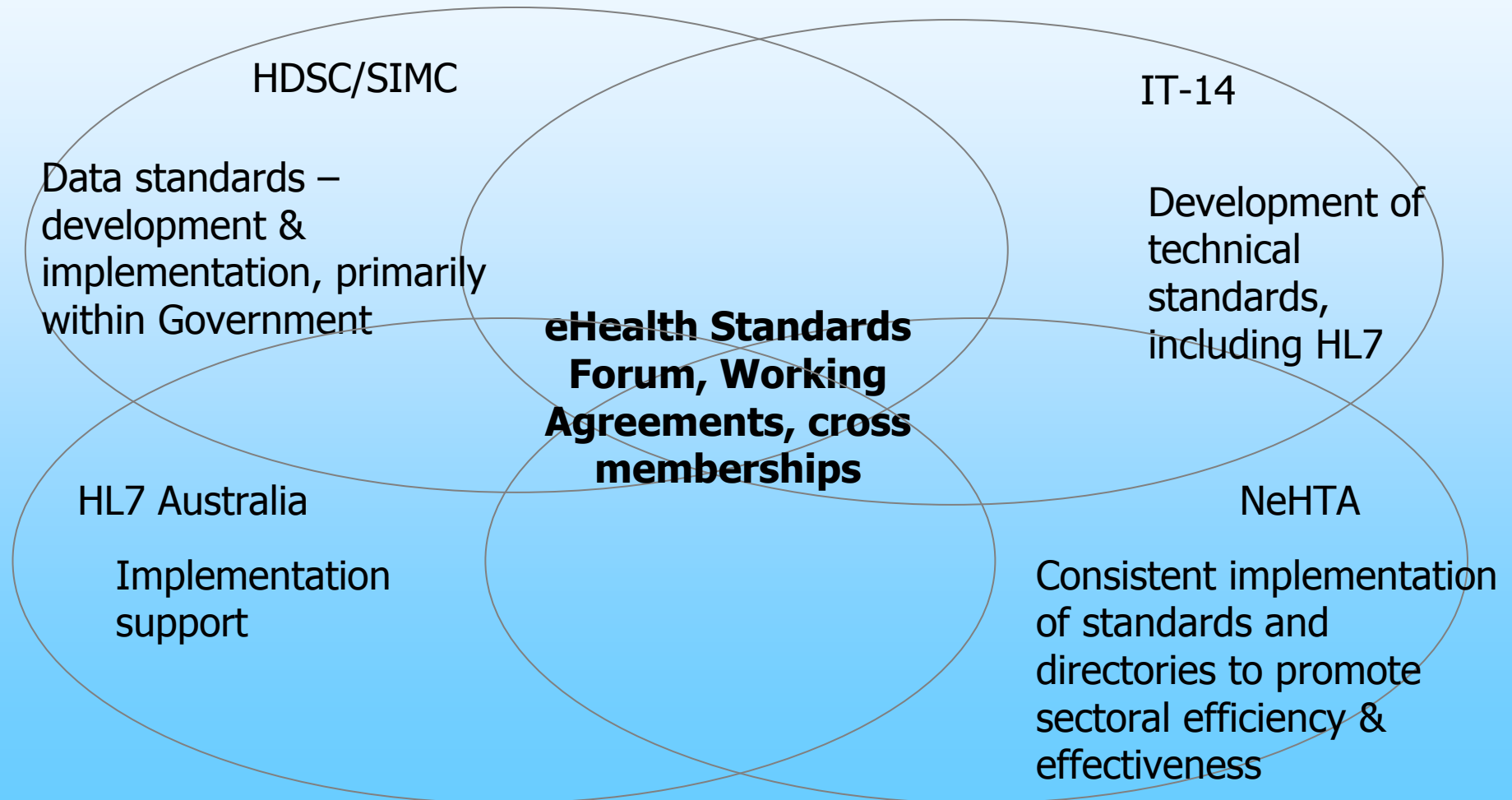


- IT-014 is Standards Australia's Health Informatics Technical Committee
- IT-014 has published or is in the process of publishing 75 standards/specifications/ guidelines/reports
 - 41 about implementing HL7 in Australia
 - 11 about supply chain messaging
 - 11 about security and identity management
- Another 40 projects in 2007-08?
- Other IT standards also apply to health (e.g. IT governance, security)

Who's who?



Who's who?



Who's who (part 2)?



- International – HL7, ISO, CEN
- Industry collaboratives – W3C, WSI, OMG, Continua,..
- Very important to Australia:
 - We are a small market that imports health software from multinational vendors – the assimilation problem
 - With small local companies trying to export into global markets

International



- Participation is vital
 - These are lobbying bodies
 - Clear objectives required
 - We are international leaders
- See international standards reports at www.e-healthstandards.org.au/

Questions/comments



- Questions/comments at this stage?
- To come:
 - Standards development in 2007-08
 - Challenges and issues

2007-08 (subject to funding)



- Identification:
 - Revision of Australian client ID standard
 - International provider ID standard
- Messaging & communication:
 - HL7 version 2 compatibility guide
 - Specifications for digital signature in healthcare messages
 - HL7 V2 messages for scheduling clinical events; bed availability
 - Carriage of archetyped data in HL7 V2 diagnostic and collaborative care messages
 - Upgrades to & conformance criteria for HL7 V2 diagnostic messaging
 - NEHTA leading in service and CDA specifications for pathology and collaborative care

2007-08 (subject to funding)



- Telehealth:
 - Session information for health records
 - Specifications for data produced by personal monitoring devices
- Electronic decision support:
 - Investigation of standards requirements
- Standardised self-populating electronic document

2007-08 (subject to funding)



- International:
 - HL7/OMG Health Service Specifications
 - CEN/ISO Health Informatics Service Architecture
 - Harmonised data types for e-health interoperability
 - Progression of the HL7 EHR-S Functional Model into an ISO Standard
 - HL7 EHR interoperability and life cycle models
 - Review of AS/ISO18308: Requirements for EHR architecture
 - Australian position on ISO/CEN 13606: EHR communication
 - Requirements for health summary records
 - Harmonisation of standards for clinical models

2007-08 (subject to funding)



- International (continued):
 - Pseudonymisation
 - Scoping of needs for standards for personal health IT, including personal health records
 - Privilege Management and Access Control
 - Good practice in term set development and terminology mapping
 - Risks associated with health software
 - ISO Pharmacy and Medication work items
 - Deployment of clinical data warehouses

Issues and challenges



- Some perspectives...
 - The speed of standards development is “glacial
 - The system of standards development takes too long to understand and operate effectively within
 - The value of participation is not clear to the outside world (particularly potential funders)
 - Participation is falling
 - Many potential participants are priced out of the game by the assumption that ability/willingness to pay is a reliable proxy for interest

Issues and challenges



- Some perspectives...
 - The ICT marketplace has changed - greater competition and overlap; monolithic approaches supplanted by heterogeneous technology development; shift from hardware to software; speed.
 - These imply a shift from traditional standardisation to products with short-term development/exploitation cycles; creates parallel routes to standards
 - Implementation of standards is inconsistent
- We also have fusion of standards

Issues and challenges



- These quotes are ***not about health informatics***; they are referring to standards development across the board; they originate from inside and outside Australia
- There are much wider issues at play here

Responses



- More consistent implementation:
 - NEHTA's standards implementation initiative
 - Certification and conformance
 - Active networking (e.g. through HL7)
 - Availability – free downloads (thanks DoHA!)
 - Ensure standards development is fed by implementation requirements and feedback
 - Means being involved
 - We are seeking more active participation

Responses



- Participation/more balanced representation:
 - Web meetings, tele- & video-conferencing; e-health standards portal
- Speed of development:
 - contracted drafting (thanks DoHA)
- Partnering:
 - With HL7, NEHTA, jurisdictions, major projects

Funding?



- Standards development is resourced by:
 - Government grants (DoHA)
 - Participants volunteering their time and effort
- Productivity Commission has encouraged Government support
 - Same arguments apply to State and Territory Governments
- We need wider support from others - you

Whose problem?



- Increasingly, interoperability is required as well as functionality
- Each time an idiosyncratic local decision is made, interoperability gets harder

Whose problem?



- Ours – yours, mine
- Standards – part of the main game in eHealth and health system reform
- There's lots in it for organisations
- And for individuals, as part of a knowledge network



Standards – the main game in eHealth

Please play!

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