

Kansainväliset terveydenhuollon
tietojärjestelmätoteutukset.
Ovatko kansalliset tavoitteemme linjassa niiden
kanssa?

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Business from technology

Tarkastelun viitekehys



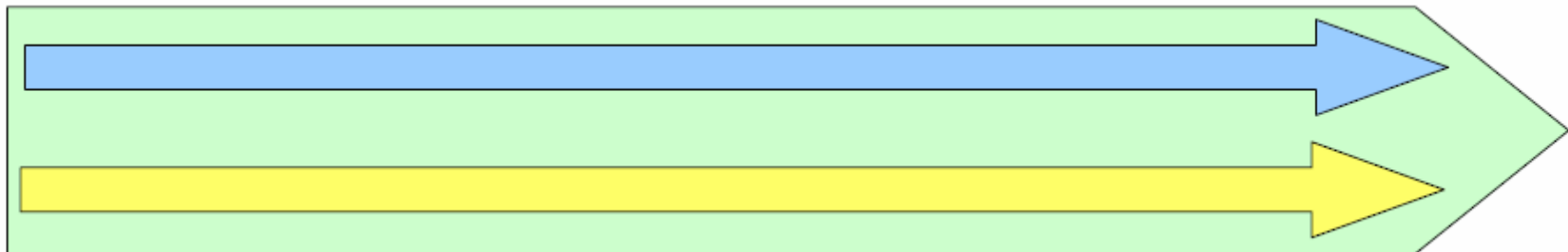
Business from technology

Separate data from care processes

© Anthony Nowlan, Personal Health Systems

Individual
Health Record

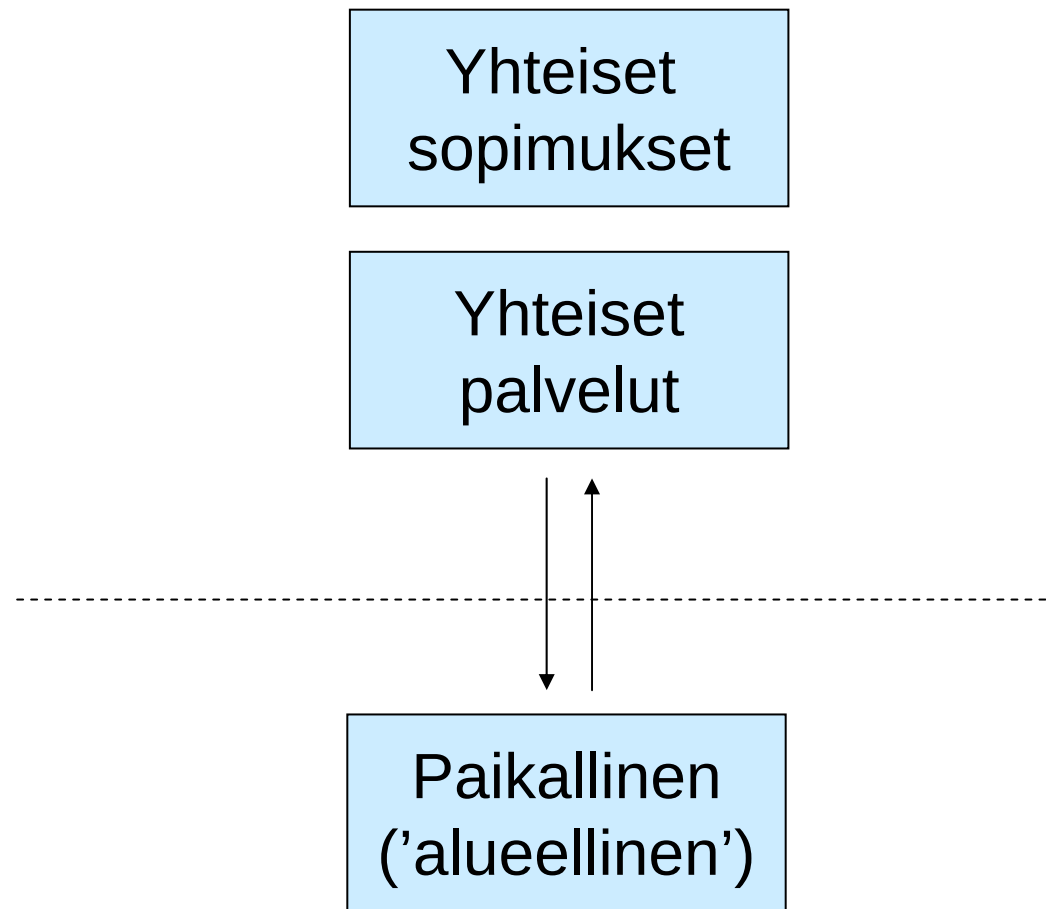
- Focused on individual
- Public infrastructure for the conduct of health
- Independent of institutional configurations
- Incremental growth



Care
Management
Systems

- Focused on institutions
- Corporate institutional responsibility
- In common or not by agreement

Arkkitehtuuri

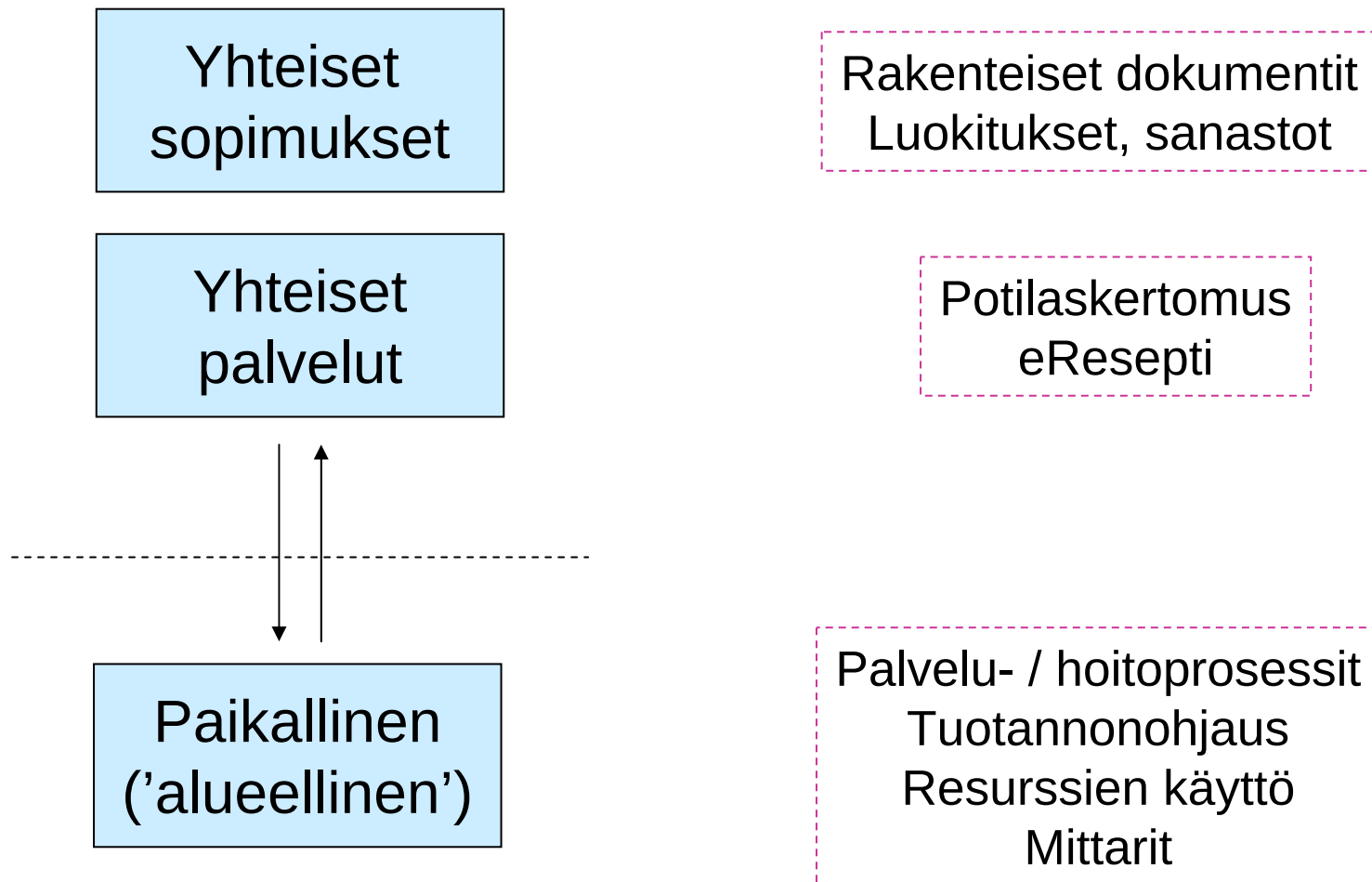


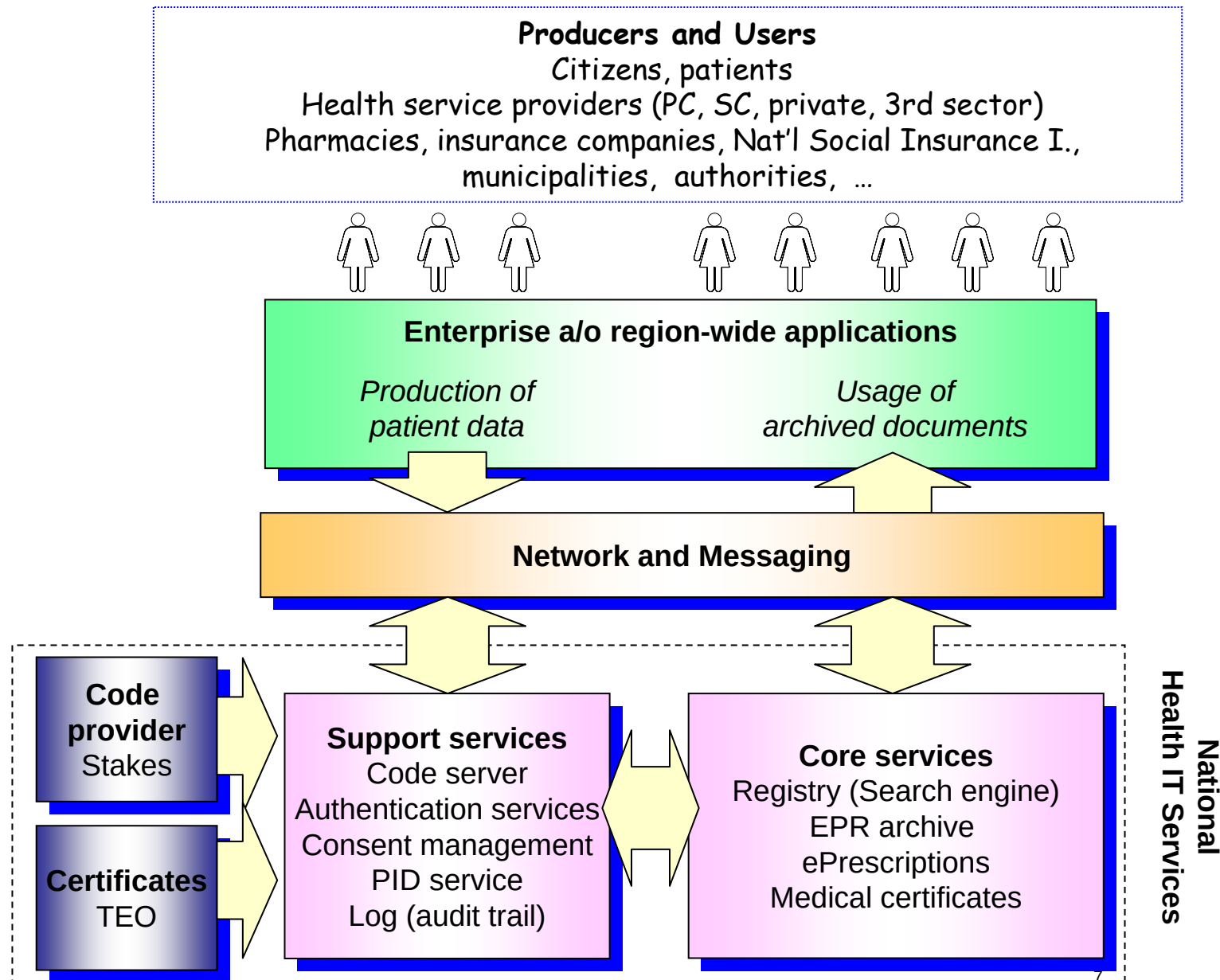
Meidän ratkaisumme – tällä hetkellä

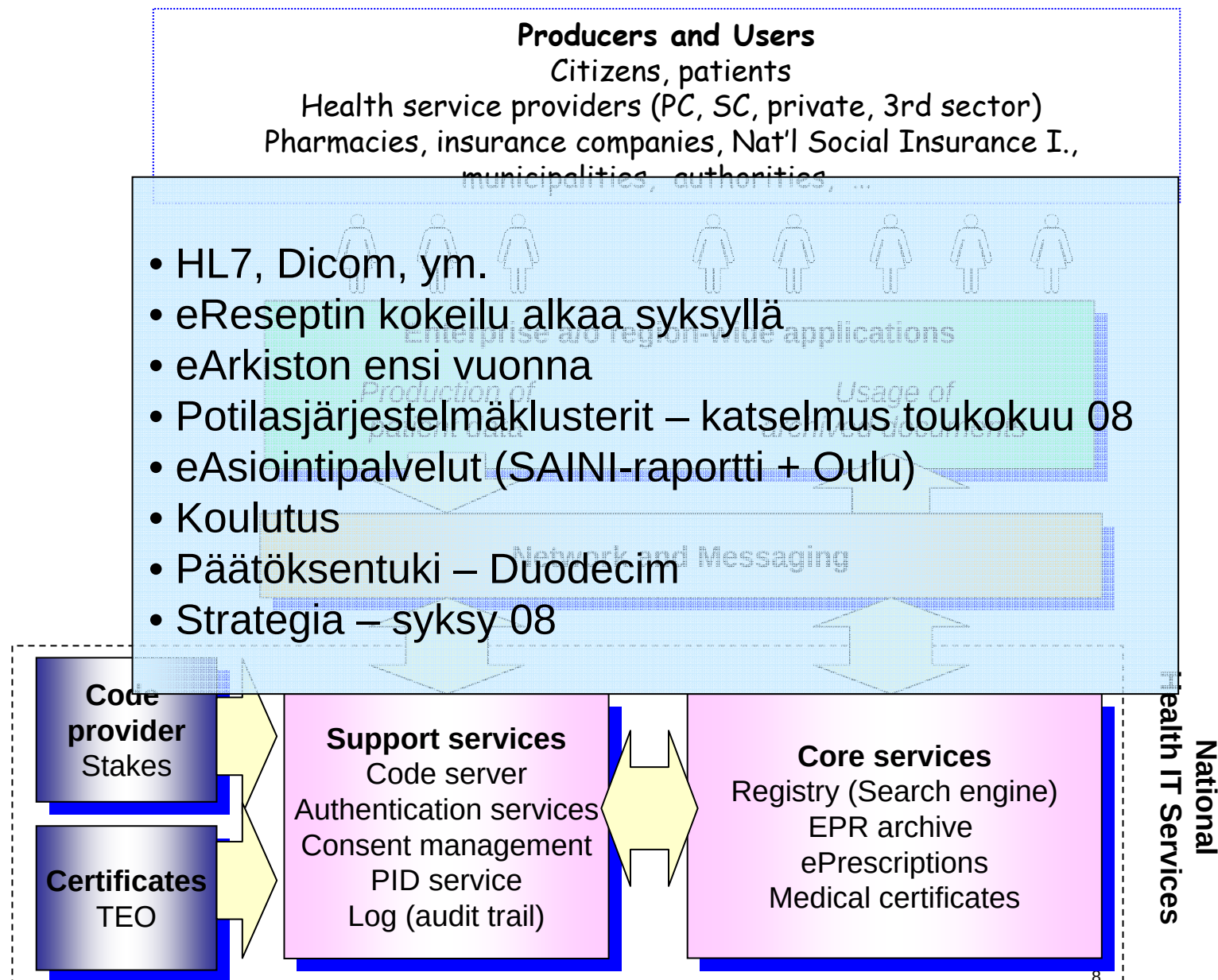


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Arkkitehtuuri – Suomen ratkaisu







The background is a solid blue color. It features several faint, light blue geometric shapes, including cubes and rectangular prisms, some of which are overlapping. Scattered across the background are numerous small, light blue arrows, many of which point upwards and to the right, suggesting a sense of growth or progress.

Muiden ratkaisuja:

Samanlaisuuksia - erilaisuuksia



Business from technology

Terveystiedon infrastruktuuriohjelmia löytyy lähes kaikista maista, mm.

- Kanada
- Tanska
- Englanti
- Ranska
- Saksa
- Alankomaat
- Pohjois-Irlanti
- Ruotsi
- Turkki
- Yhdysvallat
- Eesti
- Health Infoway
- Sundhed.dk & Medcom & Medicinprofil
- Connecting for Health
- DMP - Dossier Medical Personnel
- Gesundheitskarte
- NICTIZ – Aorta
- “Continua Health Alliance”
- Patientöversikt & eRecept
- NHIN (CDA)
- RHIO – aluetietojärjestelmät – kirjavaa
- Toimikortti

HL7 UK, May 2008

Statistics for V3 messages in England, as of March 2008

<http://www.connectingforhealth.nhs.uk/>

- 8 million electronic bookings/referrals placed, messaged in V3
- Over 77 million electronic prescriptions
 - Several V3 messages per prescription
- 100,000 complete medical records transferred from one GP to another, via V3 message
- 100,000 medical summaries uploaded to the NHS central record



Joined up care

Single Assessment
Protocol Database,
Housing Record,
Social Care Record



NHS Care Record



NHS Direct



Care Professionals



Telecarer

Elderly
living independently



Cholesterol
Monitor



Blood-
pressure
Cuff



Pedometer



Glucose
Sensor



Sensor
networks



Medication
Tracking

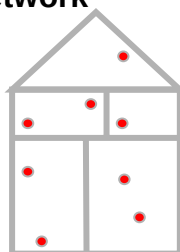


Home Hub
Appliance



Home Automation
Security Wireless Network

- Lights
- Doors windows
- Motion / Activity
- Bed
- Drawers
- Kitchen
- Bathroom



e.g.
Text
alerts



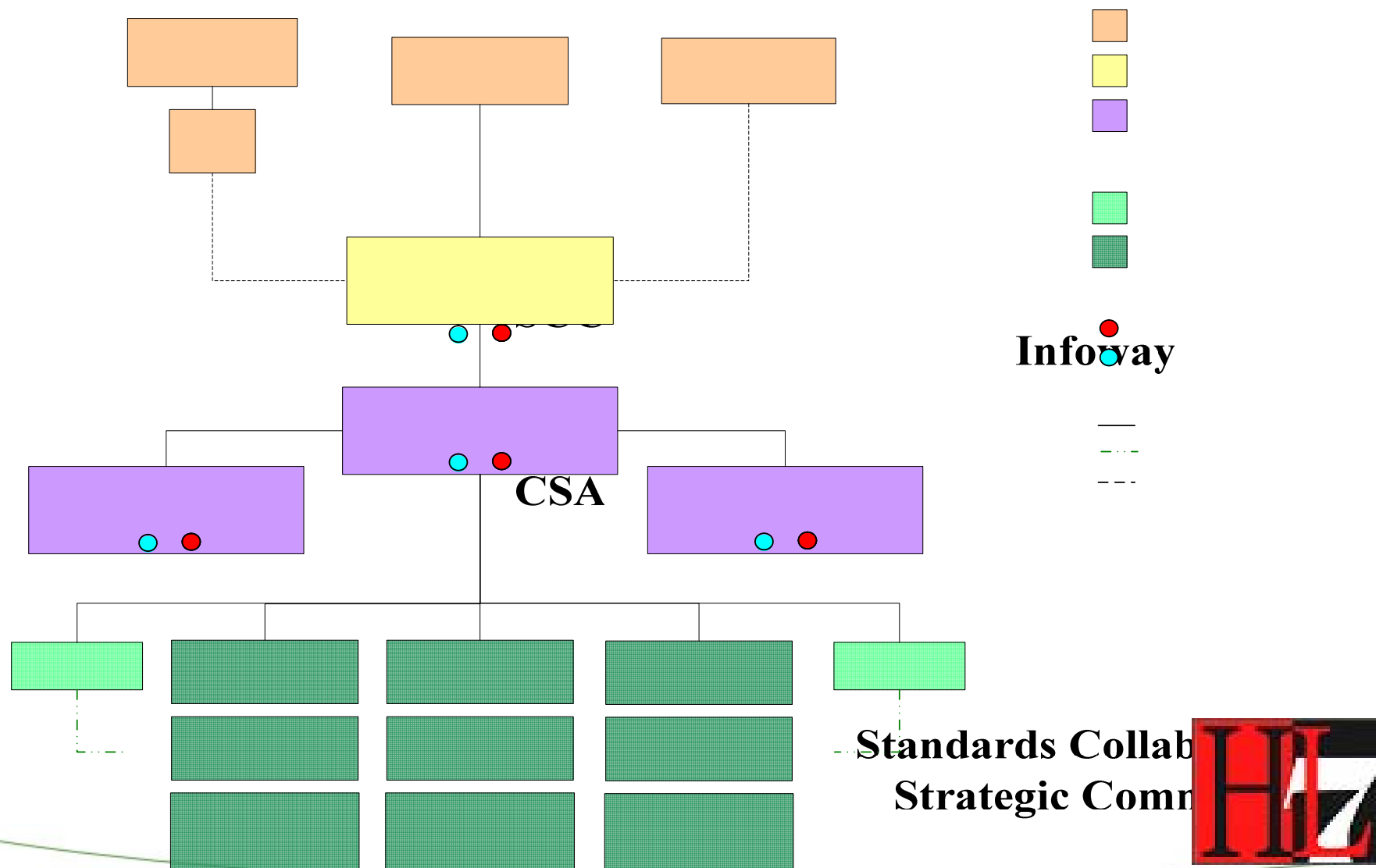
Family, friends and
volunteers

Emergency Services



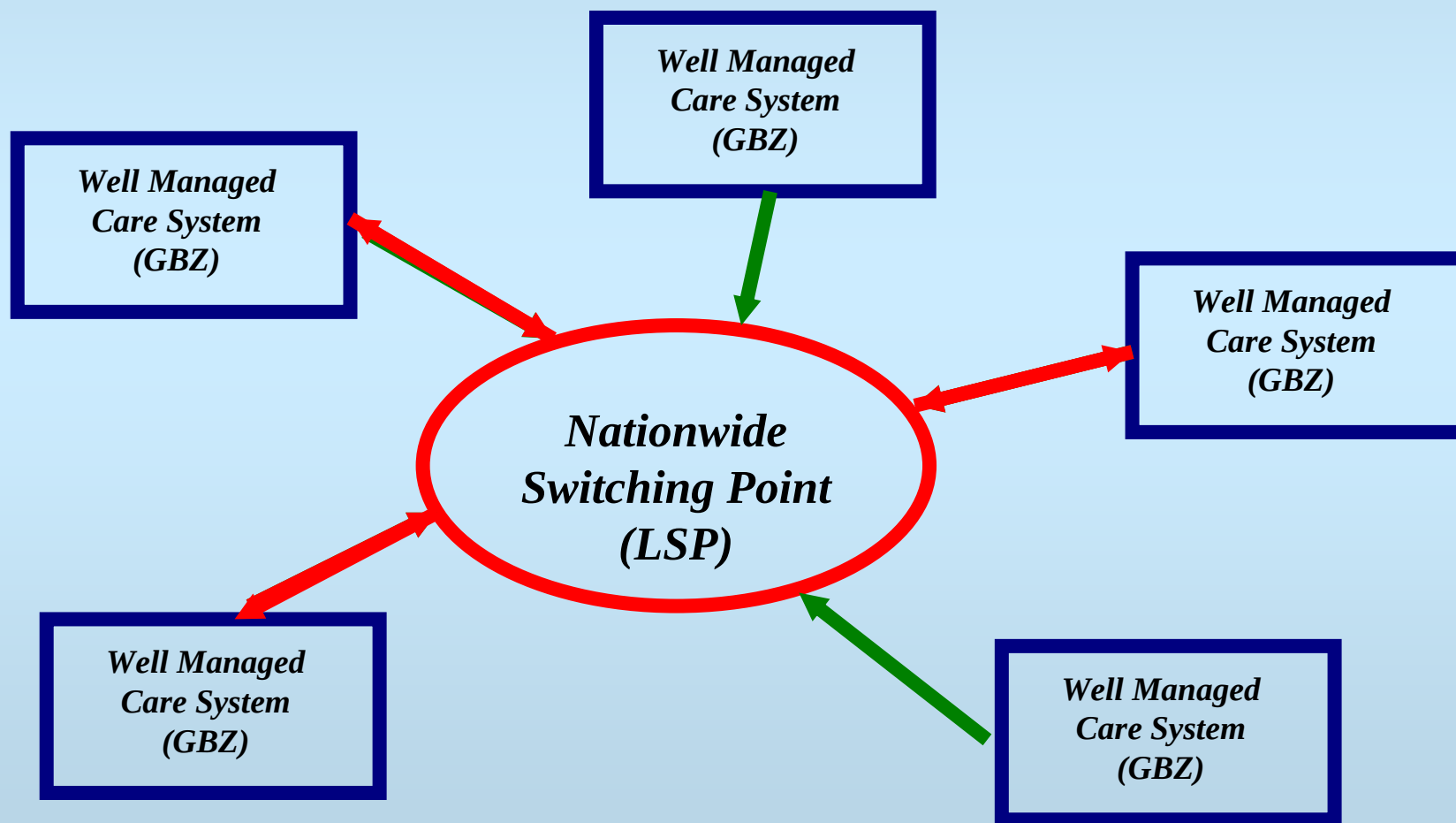
Care Response Service,
Warden etc

Standards Collaborative Governance Model

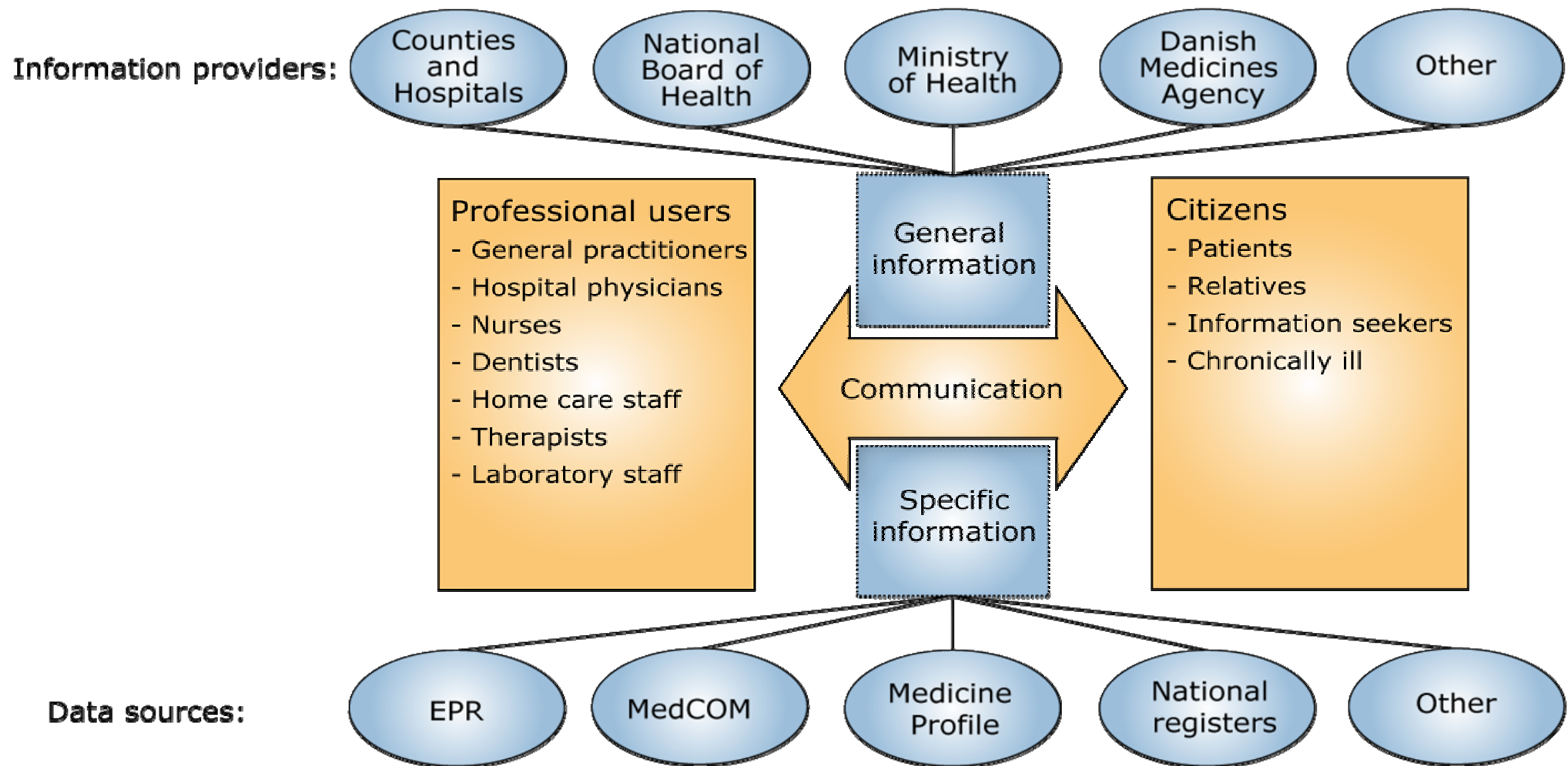




Nationwide Switching Point (ZIM on nationwide scale)



Integration via the e-health portal (www.sundhed.dk)





- Tips on diseases
- Health and prevention
- Treatment
- Drugs
- Legal issues
- Numbers and facts
- The health services

LOG ON TO SUNDHED.DK

Log on using digital signature

Digital Signature

Log on

How to get a digital signature

HEALTH INFORMATION

Click on map to find regional health information



Home/Welcome to sundhed.dk



Welcome to sundhed.dk

Welcome to sundhed.dk – your direct access to the health services. Sundhed.dk unites the entire Danish healthcare sector in one place. Here to all the information you need as a patient or an employee in the healthcare sector.

Shortcuts

- [Organ donor?](#)
- [Your personal medicine profile](#)
- [Quality of care](#)
- [Waiting lists](#)
- [Topic: choosing a hospital](#)
- [Find drugs](#)
- [Self-service pharmacy](#)
- [Test yourself](#)

YELLOW PAGES

Area of healthcare:

All areas

County:

All of Denmark

Name:

Search

NEWS

18.04.2005

[Midlertidig tilbagetrækning af Bextra® \(valdecoxib\)](#)

Lægemiddelstyrelsen orienterer om midlertidig tilbagetrækning af Bextra®.

15.04.2005

[Nyhed](#)

Informationskategori:

Nyhed. Publiceret kl.

17:36.

Læs flere nyheder

Receive newsletter



Tips on diseases



Patients rights

Features: *Citizen / Patients*

Directory of names and addresses

- Contact information
- E-services (booking, prescription renewal, consultation) (log on)
- Health appointment calendar
- Comparison of prices, quality and accessibility
- E-commerce (pharmacies) (log on)

Information about prevention and treatment

- Contact information
- Medical information (eg. information about treatments)
- Waiting list information from hospitals
- Preventive medicine
- Health laws and regulations

Access to own health data (log on)

- Cross-sectorial personal electronic medicine profile
- Patients' medical history (since 1977)
- Shared care: Pregnancy Records
- Online Donor Registration and access to own data

Features: *Health professionals*

Information for GP (log on)

- Patient appointment calendar
- Web access to laboratory data (pilot)
- ICPC search of diagnoses from GP's electronic healthcare program (Linkportal)

All Health care professionals (log on)

- eMedicine records
- Electronic patient records etc (pilot)
- Waiting list information from hospitals
- Secure e-mail communication
- Cochrane library

Regional and national information

- Contact information (authorities, departments, health personnel)
- Information on referral principles to hospitals / regions
- Preventive medicine
- Health laws and regulations
- Laboratories and consultants

Implementation plan

Service delivery schedule

	Delivered	2008												2009						2010			
Services		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Q3	Q4	H1	H2
National email and directory services	EFHI			DK	J		AM	B	L		N	G		C		O							
Canisc	ABCDEFGHIJKLN				L																		
IHR – OOH additional communities							CEF			K	H	I											
PAS replacement					B							M						A					
Medicines management – national hosting	ABEFJN			H	DL	KM		C															
Public Sector Broadband Aggregation					ALL																		
Redis2	EHIJKN			C		A	B	D		FM		L				I							
Welsh Clinical Portal release 1	DL				AEF HIJ		M																
Welsh Clinical Portal release 2									ABDE FGHI JKLM														
Welsh Clinical Portal release 3														ABC DEFG HIJK LMN									
Welsh Clinical Portal release 4																			ABC DEFG HIJK LMN				
Welsh Clinical Portal release 5																					ABC DEFG HIJK LMN		
Welsh Demographic Services											ALL												
Welsh Clinical Portal features by version (to be developed over six six-monthly releases)																							
Version 1		Version 2a		Version 2b		Version 2c		Version 3															
- My patients: Patient lists, find and select patient - Reviews: Patient details, status, outcomes, test results - To: Request, publish, print - Workspaces: Email, user profiles, alert messages		Letters, discharge or consultation notes, referrals and other structured clinical documents can be created and viewed		- The adoption of medicines, simple decision support - Send-off-line clinical documentation can be created and viewed - Templates and codes at low to ease of entering data		External test and investigation requesting to technology, endoscopy or laboratory and others		- Clinical standards-based data - Standard electronic forms developed and tested and used - Security enhancements added - Design and layout specialist and national releases and integration															
Pilot projects																							
IHR – UCS Gwent extension SIP						M		M															
My Health Online e-services	CEHIL																						
Medicines management – EMMS	L																						
PRISM							HIM																
SCI Gateway	L																						
Shared diabetic record	D																						

KEY

- | | | |
|---|--------------------------------------|----------------------------------|
| A Conwy & Denbighshire NHS Trust | I Swansea NHS Trust | ■ North Wales |
| B North East Wales NHS Trust | J North Glamorgan NHS Trust | ■ Mid and west Wales |
| C North West Wales NHS Trust | K Pontypridd & Rhondda NHS Trust | ■ Swansea and Bro Morgannwg |
| D Carmarthenshire NHS Trust | L Cardiff and Vale NHS Trust | ■ Pontypridd and North Glamorgan |
| E Gwynedd & Mid Wales NHS Trust | M Gwent Health care NHS Trust | ■ Cardiff |
| F Pembrokeshire & Haverfordwest NHS Trust | N Wiltshire NHS Trust | ■ Gwent |
| G Powys Local Health Board | O Welsh Ambulance Services NHS Trust | ■ All Wales |
| H Bro Morgannwg NHS Trust | | |

March 2008

v0, 14 March 2008

The background of the slide is a solid blue color. It features several faint, white, 3D wireframe rectangular blocks of varying sizes and orientations, some of which are overlapping. Scattered across the background are numerous small, white, stylized arrows, many of which point upwards and to the right, suggesting a sense of growth or progress.

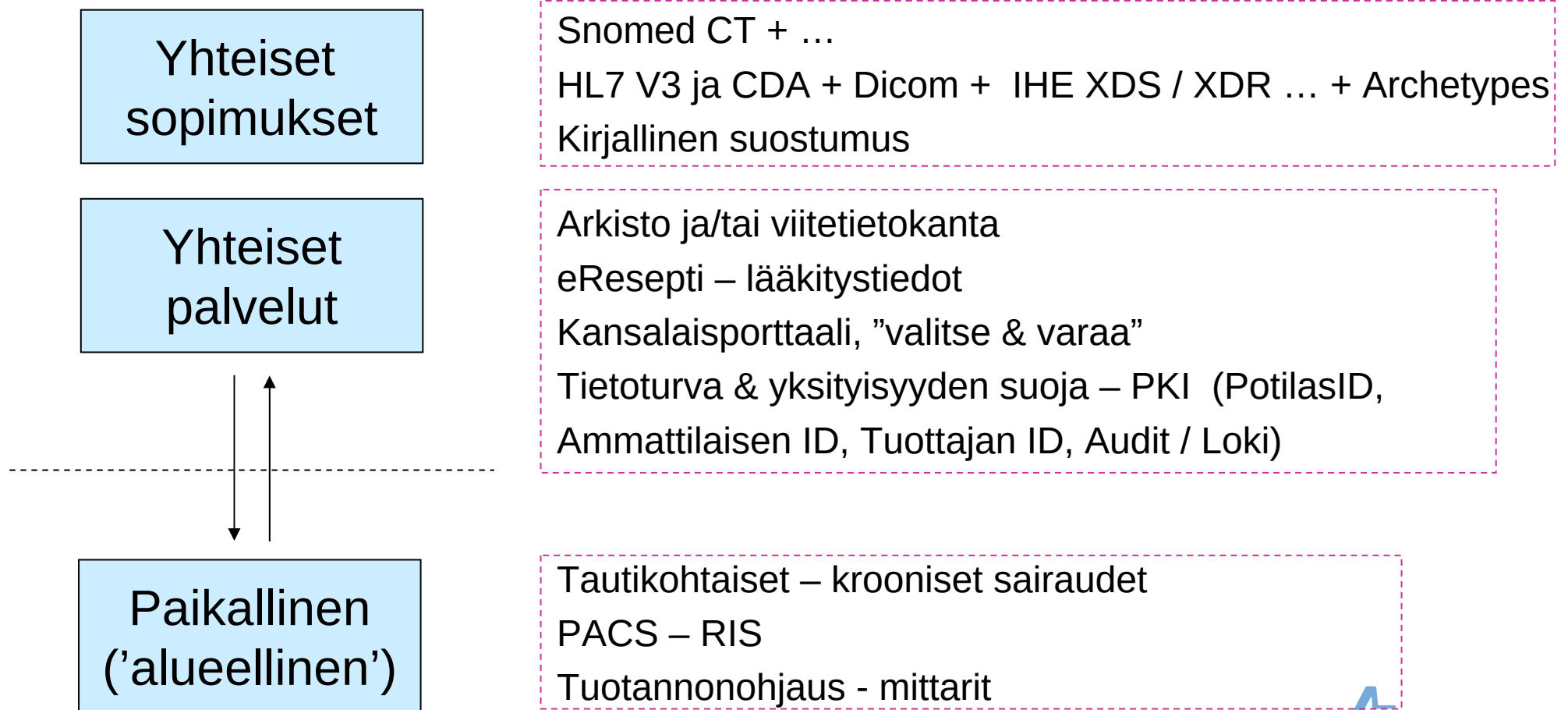
Johtopäätöksiä:

Erilaiset lähtökohdat – erilaiset ratkaisut



Business from technology

Arkkitehtuuri - samanlaisuudet



The background of the slide is a solid blue color. It features several faint, light blue geometric shapes, including rectangles and parallelograms, some of which are overlapping. Scattered throughout the background are numerous small, light blue arrows, many of which point upwards and to the right, suggesting a sense of growth or progress.

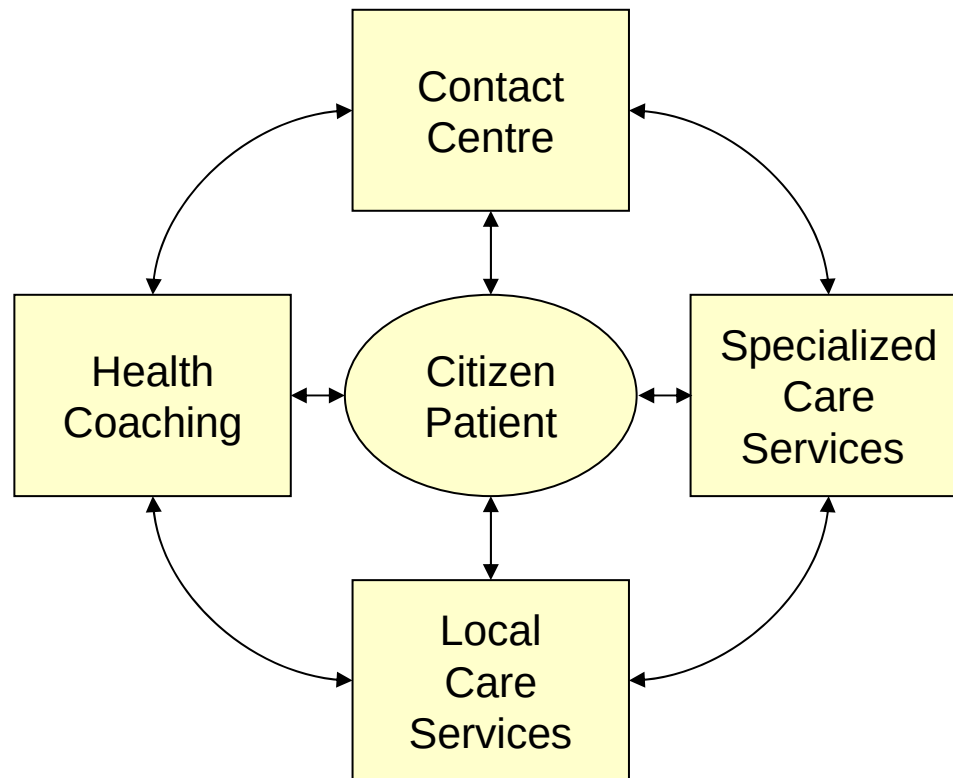
Lopuksi

Rakenteet → Palveluprosessit → Teknologia



Business from technology

Millaisiksi muodostuvat palvelurakenteet?



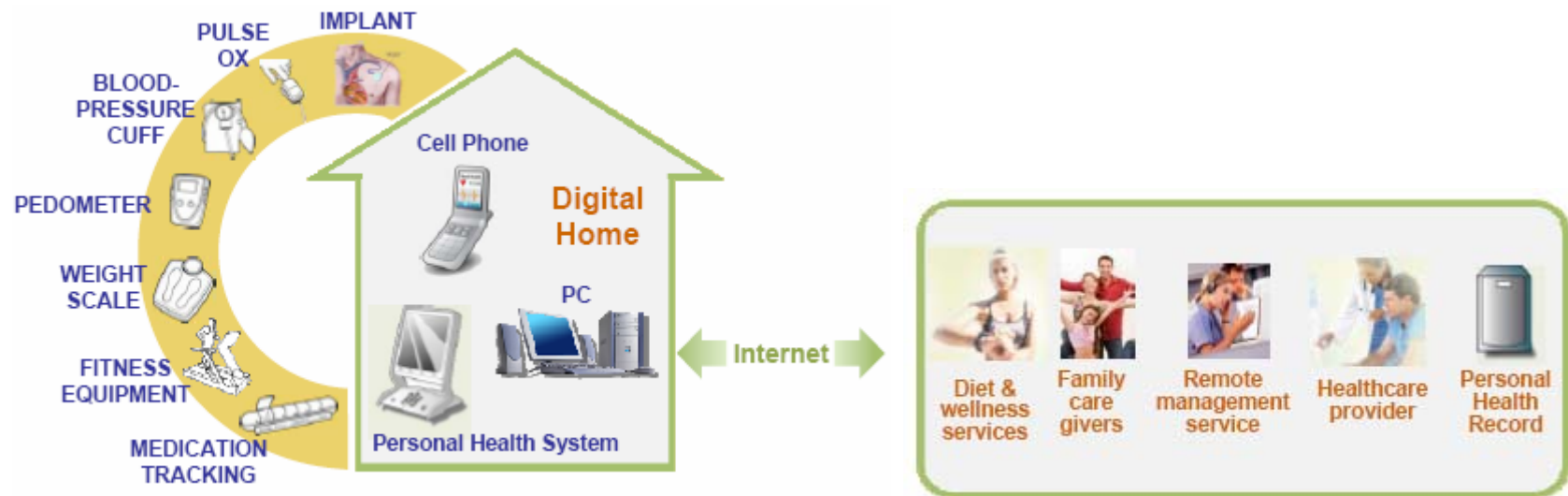
Hoitojatkumo
(EPR + PHR)

+

Palveluiden
järjestäminen
(ajan- ja resurssivaraukset,
tuotannonohjaus,
kustannukset,
laatu,
johtamisen mittarit)

Continua Health Alliance (www.continuaalliance.org)

Tavoitteena on kehittää ja standardoida ratkaisuja, jotka mahdollistavat oman terveyden ja hyvinvoinnin hallinnan erilaisissa elämän vaiheissa.



Ajatellut kohdealueet / käyttäjät (www.continuaalliance.org)

Kroonisen sairauden hallinta

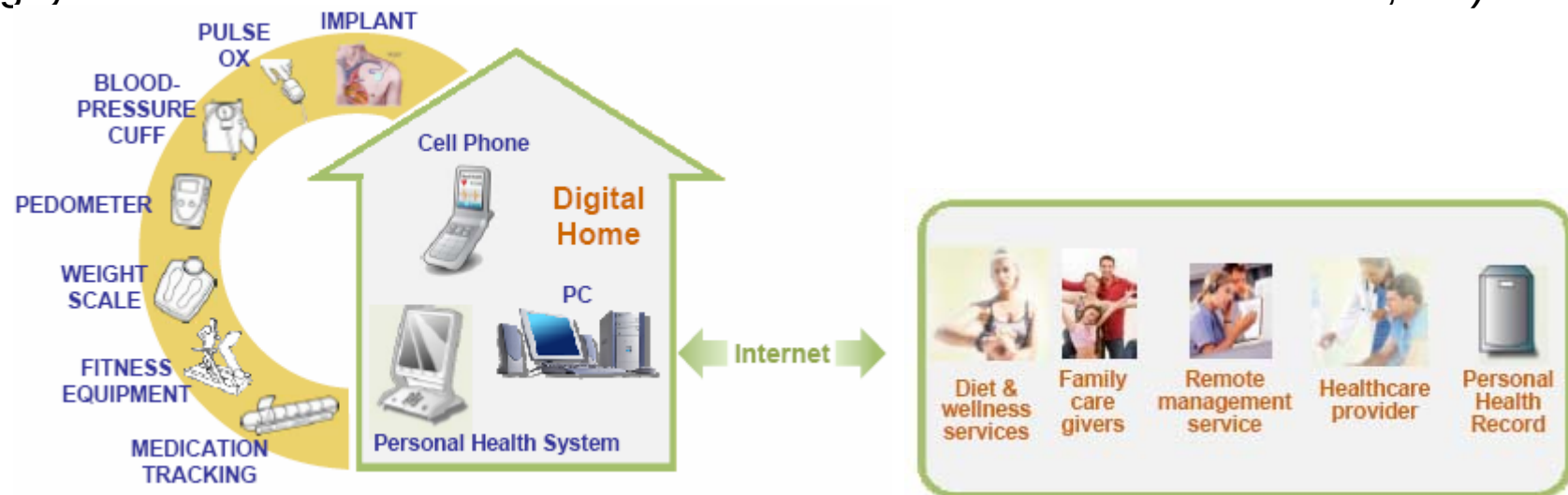
- Etämonitorointi
- Paino
- Verenpaine
- Veren sokeri
- Kuume
- Hengitys

Itsenäinen suoriutuminen

- Lääkityksen hallinta
- Päivittäiset askareet
- Unen laatu
- Turvallisuus
- Liikkuminen

Terveys ja hyvinvointi

- Ruokailutottumukset
- Liikunta & kuntoilu
- Stressin hallinta
- Riskitekijöiden hallinta
(mm. paino, verenpaine, kolesterolit, uni)



eHealth 2008 Conference Declaration (Portorož, 7 May 2008)
eHealth in a Europe “without frontiers”:
Building New Initiatives – Working Together

- People-centred eHealth
 - Building on national eHealth roadmaps
 - Organising Europe-wide cooperation
 - Combining standardisation and innovation in eHealth
 - Involving all stakeholders, in particular patients, and supporting the eHealth industry, especially small and medium-sized enterprises
 - Creating an innovative eHealth market
- Key next steps – three core and four other endeavours
 - Deploy telemedicine and innovative ICT tools for chronic disease management
 - Introduce an enhanced focus on new research opportunities
 - Create a transparent legal framework agreed between the Member States

**EU komissiolla on
eHealth Action Plan,
jota toteutetaan
v 2003 lähtien.**

Vaihtoehtoisia tulevaisuuden terveysmaismia

Reaktiivinen
Toimenpidekeskeinen terveydenhuolto
("tänään")

Kunnat järjestävät ja maksavat
Ostamisen osaaminen

Kahlehdittu



Yhdessä



Vastuu & maksaja



Kädet täynnä



Vastuu minulla

Proaktiivinen
Henkilökohtainen, yhteistyössä,
tiedot ja taidot
ei-invasiivinen

Yksilöt vastuussa ja maksavat
Motivaatio, koulutus