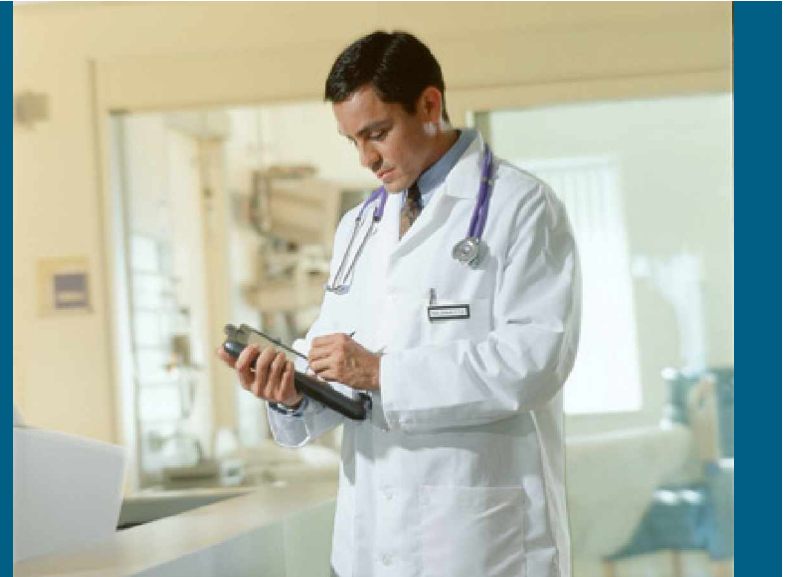




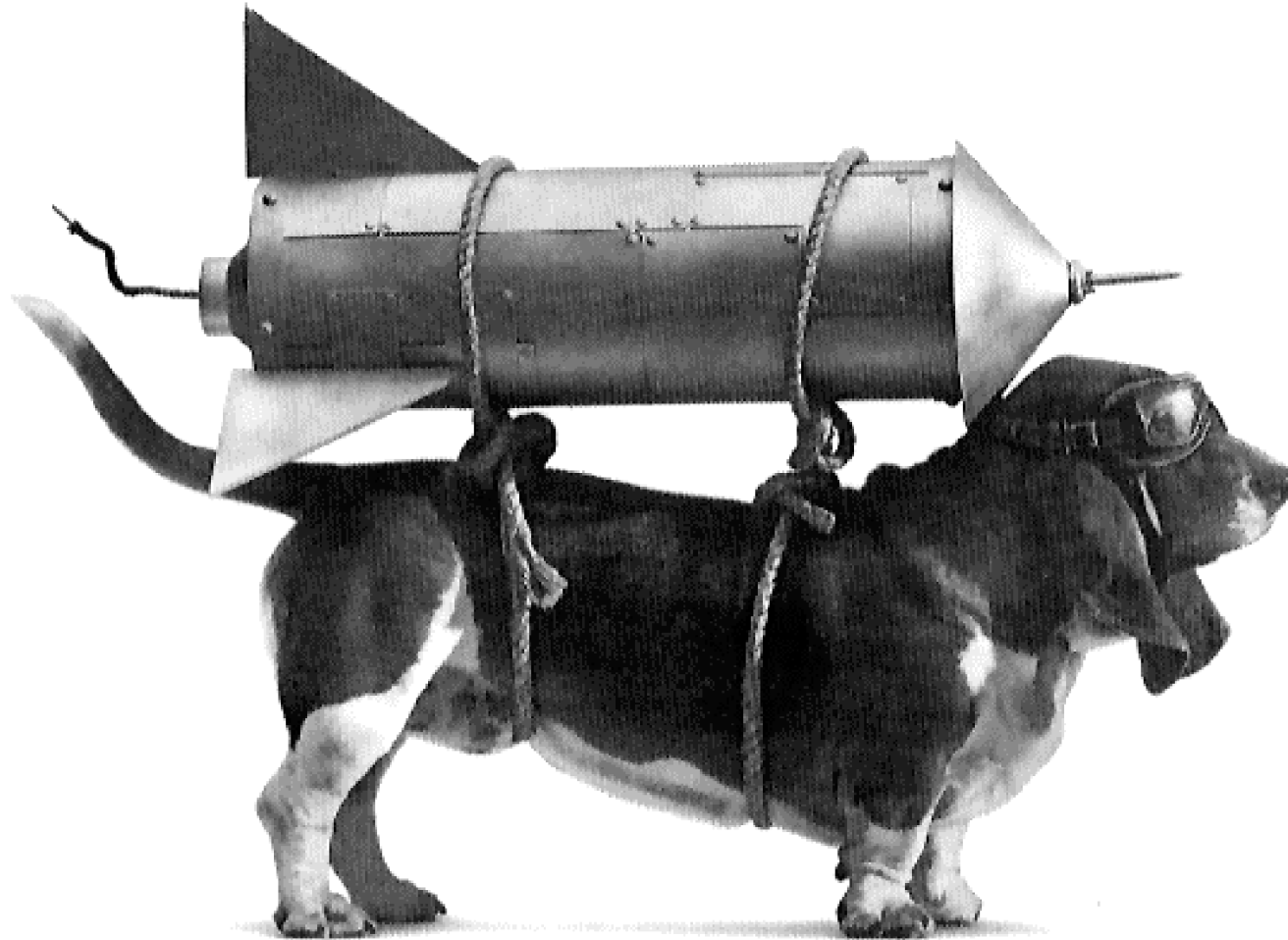
# Delivering Connected Health

## The importance of the Baltic eHealth Exchange Project

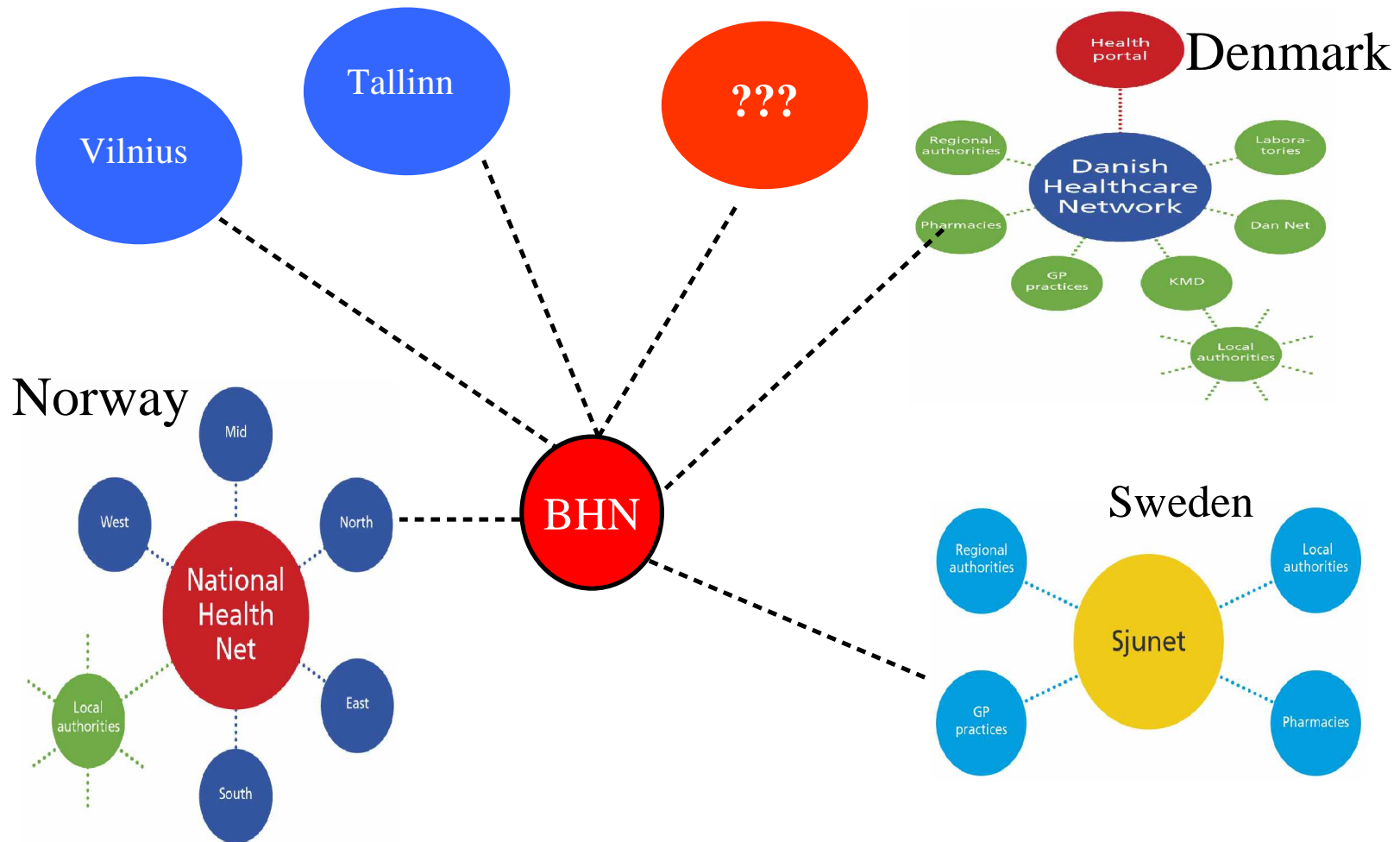


Kevin Dean  
Managing Director – Connected Health  
Cisco Systems Internet Business Solutions Group  
kevin.dean@cisco.com

# Information Technology & Healthcare

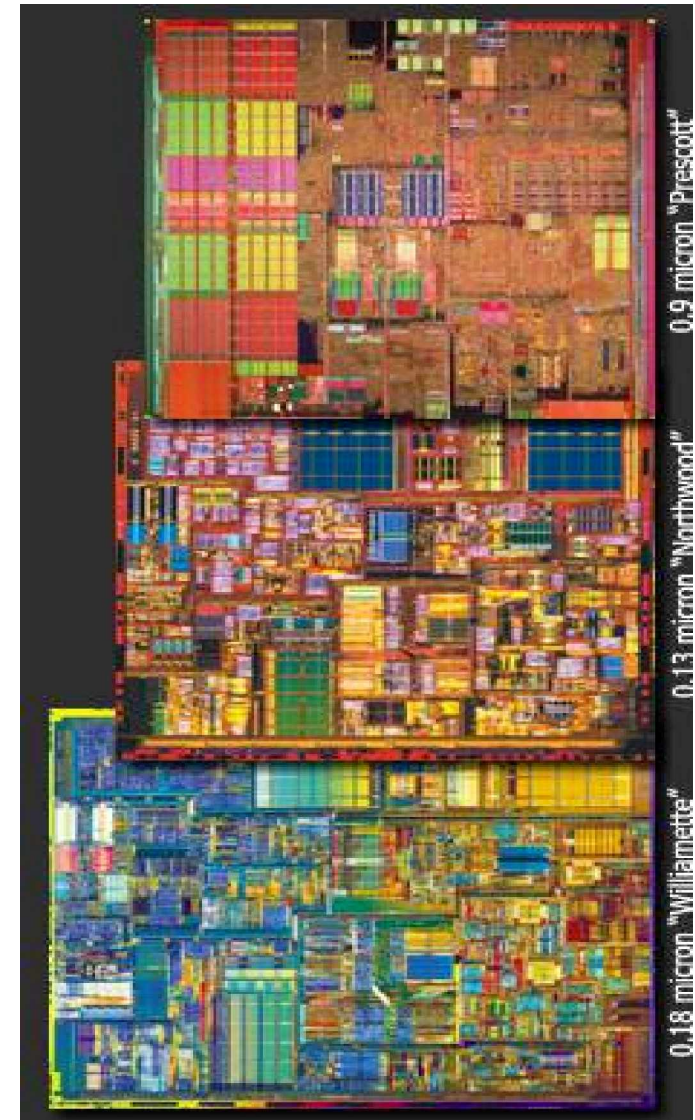


# Technicalities.....



# The storage, mobility, pervasiveness and network avalanche...

- § **6.5 exabytes** of data were created in 2003 This is roughly equivalent to **500,000 times the content of the Library of Congress**, which took 200 years to fill previously on paper. (1 exabyte = 1000 petabytes = 1m terabytes. (source: MIT)
- § In 2005, data of 4Gb was created for every person worldwide. In 2010 this is estimated to be **128Gb per person**. (source: ExtremeTech, University of California)
- § The first mass application of "cell" chip will be in Sony Playstation, 2006. Capacity will be 2.18 teraflops - **250 times faster than fastest desktop computer**. Equivalent of **2% of raw computing power of human brain for \$200**. Playstation 5 will likely equal power of human brain. (source - PC World)
- § 2003 - **1.9 petabytes** flowed across internet. 2005 - est. **1000 petabytes** flowed across the internet - 500 times increase in two years only. Extrapolate 10 years - the amount of **information on global networks will double every 11 seconds**. (source - University of California)
- § **14 billion devices** will be connected to the internet by 2010 **not including RFID tags** and readers (adds c 50 billion devices)(source - Forrester Research)



# ....Exploring critical barriers



## Guidelines & business model

---



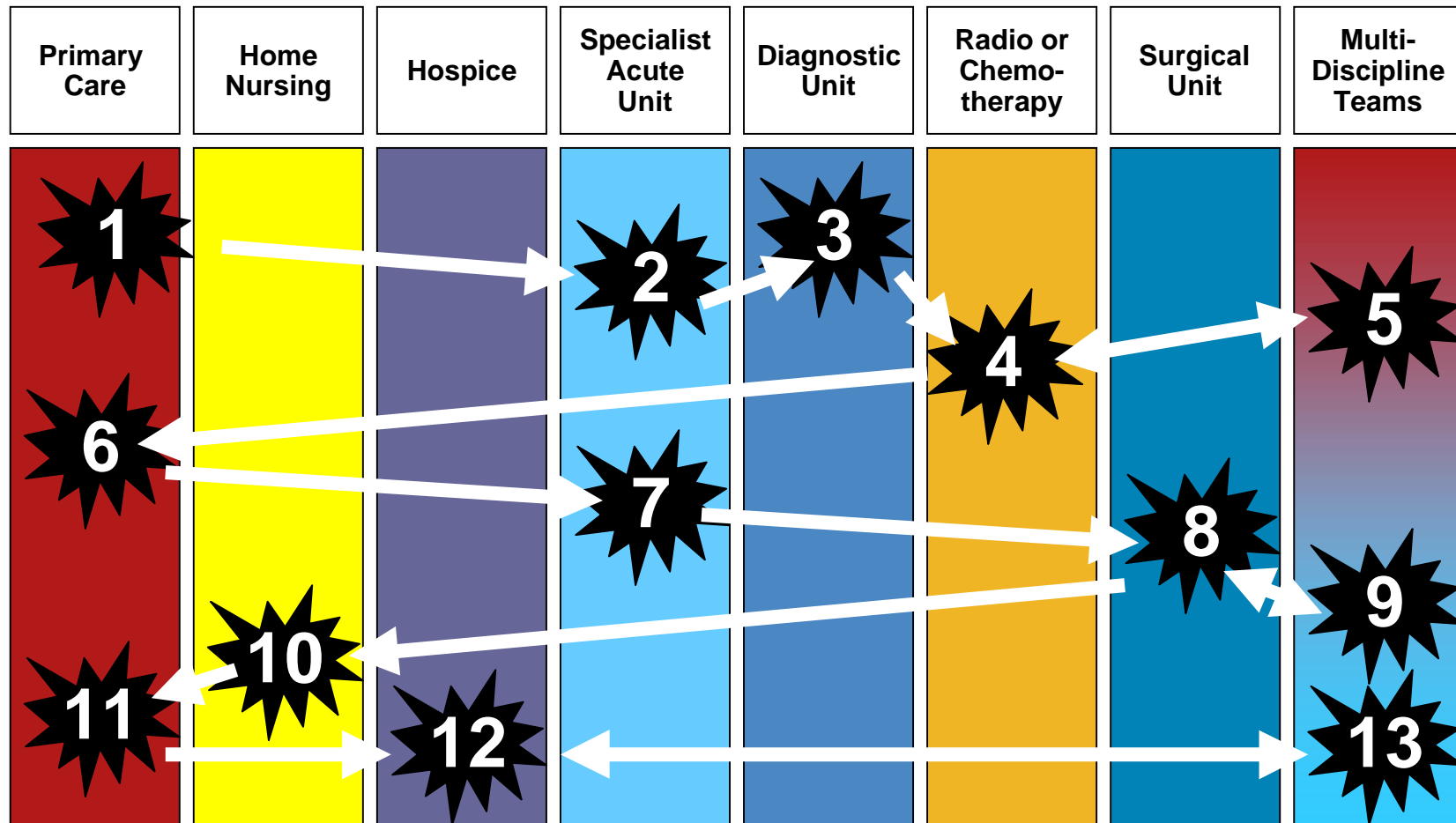
- Legal
- Reimbursement
- Organisational
- Cultural / linguistic



# Healthcare - is changing fast too

- § Demographics
- § Disease patterns
- § Patient & Citizen expectations
- § Treatment developments
- § Management approaches
- § Political landscape
- § Payer / Provider arrangements
- § Technology

# Why is connecting health so important?



# Why we must connect health, not just add an “e”

- § Processes, working practices, laws changed
- § Health & Care have equal focus
  - § Patient – Clinician relationship changed through interactions
- § Technology is seen as an asset, not a threat

- 
- § Technology is a perpetual research topic, peripheral, optional, dangerous, ill-designed...
    - § Focuses on transactions, not interactions
  - § Re-enforces Clinician-centric care
  - § Automates age-old ways of working (Lipstick on the Bulldog)

# Baltic eHealth

## § Business Architecture

Legal Framework

Exchange potential

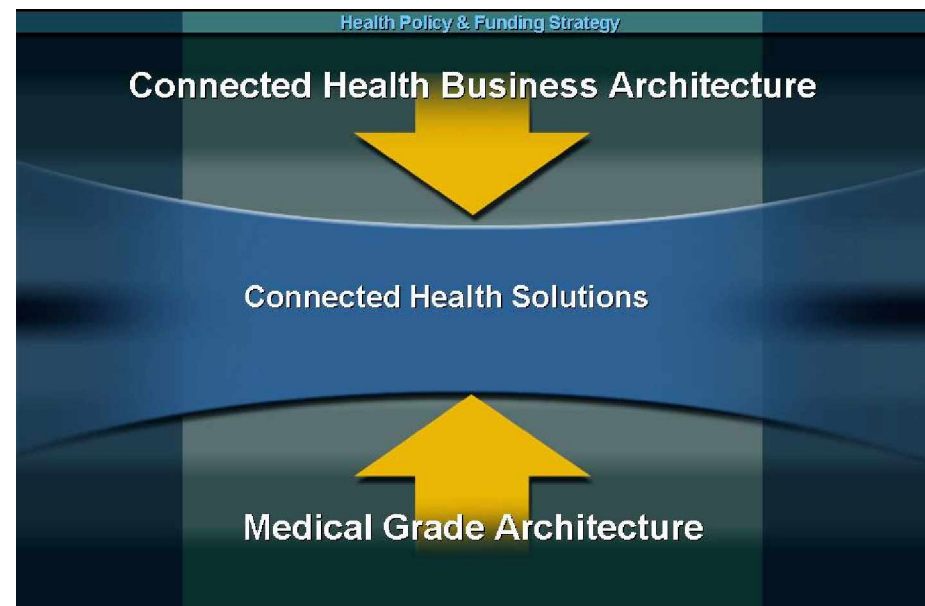
Working Practice

## § Solutions

Radiology cross-border services

## § Medical Grade Architecture

Images, Communications, Video between disparate networks



# Barriers to Connected Health

- § Clinician understanding of IT, working processes
- § Public understanding of IT
- § Legal barriers unintentionally (and intentionally) erected
- § Commercial interests
- § Technology (standards, user interfaces....)

A clear, irrefutable business case  
that can be delivered, measured and seen

# The Business Case

## § Quality

- Fewer people get so sick, even if ill

- Fewer medical errors leads faster to improved outcomes

- Increased use of best techniques leads faster to improved outcomes

## § Access

- More people avoid sickness

- More people get access to best care

- Accessing care is cheaper

## § Cost

- Better use of investment in medical research, discoveries

- People return to increased economic productivity faster

- Higher utilisation of assets (people, facilities, treatments)

- Lower waste of cost on unnecessary treatments, tests

# Baltic eHealth

## § Quality

Cross-border clinical practices – improve quality of care at point of access

## § Access

Scale scarce resources

Addressing migration

## § Cost

Opening markets

Create competition

- **Quality**
  - Fewer people get so sick, even if ill
  - Fewer medical errors leads faster to improved outcomes
  - Increased use of best techniques leads faster to improved outcomes
- **Access**
  - More people avoid sickness
  - More people get access to best care
  - Accessing care is cheaper
- **Cost**
  - Better use of investment in medical research, discoveries
  - People return to increased economic productivity faster
  - Higher utilisation of assets (people, facilities, treatments)
  - Lower waste of cost on unnecessary treatments, tests

# Is the Baltic eHealth Exchange a vision?

“Visions lead to sainthood or  
the psychiatric clinic, plans  
lead to action”

Sir Muir Gray, Chief Knowledge Officer, NHS England

# The Plan needs to be.....

## § Connect more infrastructures

Intelligent infrastructures

## § Expand the Pilot

Countries

Disciplines

## § Demonstrate the Business Case

Exchange operations

## § Create demand

Demonstrate success

- **Quality**
  - Fewer people get so sick, even if ill
  - Fewer medical errors leads faster to improved outcomes
  - Increased use of best techniques leads faster to improved outcomes
- **Access**
  - More people avoid sickness
  - More people get access to best care
  - Accessing care is cheaper
- **Cost**
  - Better use of investment in medical research, discoveries
  - People return to increased economic productivity faster
  - Higher utilisation of assets (people, facilities, treatments)
  - Lower waste of cost on unnecessary treatments, tests

**“The future is already here  
– it is just not evenly distributed”**

**William Gibson**

