BENCHMARKING EMR ADOPTION FOR HELSIT 2013

Introduction to EMRAM & status as of Q2/2013
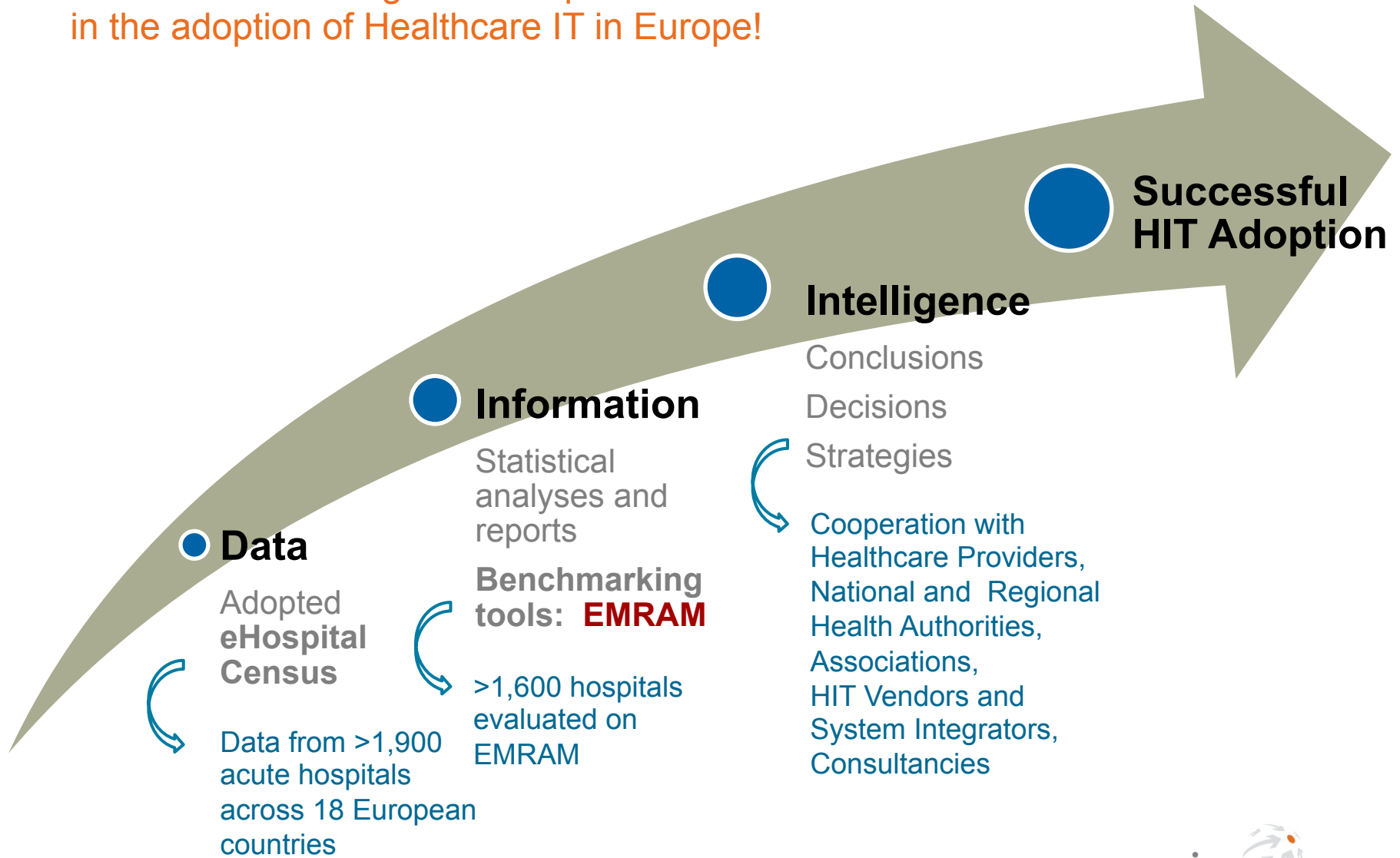
HIMSS ANALYTICS EUROPE

It's How You Know What's Next.

PRESENTED BY: DANIEL CZERMAK-WÄNN, NORDIC CLIENT RELATIONS MANAGER, HIMSS ANALYTICS EUROPE
SEPTEMBER 18TH 2013, TRONDHEIM

INTRODUCTION TO
HIMSS ANALYTICS EUROPE (HAE)

HIMSS ANALYTICS EUROPE

… for benchmarking and best practice
in the adoption of Healthcare IT in Europe!

**Successful
HIT Adoption**

Intelligence

Conclusions

Decisions

Strategies

Information

Statistical
analyses and
reports

**Benchmarking
tools: EMRAM**

Cooperation with
Healthcare Providers,
National and Regional
Health Authorities,
Associations,
HIT Vendors and
System Integrators,
Consultancies

Data

Adopted
**eHospital
Census**

>1,600 hospitals
evaluated on
EMRAM

Data from >1,900
acute hospitals
across 18 European
countries

HIMSS
ANALYTICS EUROPE
It's How You Know What's Next.

THE EMR ADOPTION MODEL

THE EUROPEAN EMR ADOPTION MODEL

… in 7 Stages to Highest Quality in Patient Care

European EMR Adoption Model℠

Stage	Cumulative Capabilities
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing feeding outcomes reports, quality assurance, and business intelligence; Data continuity with ED, ambulatory, OP.
Stage 6	Physician documentation interaction with full CDSS (structured templates related to clinical protocols trigger variance & compliance alerts) and Closed loop medication administration.
Stage 5	Full complement of PACS displaces all film-based images.
Stage 4	CPOE in at least one clinical service area and/or for medication (i.e. e-Prescribing); may have Clinical Decision Support based on clinical protocols.
Stage 3	Nursing/clinical documentation (flow sheets); may have Clinical Decision Support for error checking during order entry and/or PACS available outside Radiology.
Stage 2	Clinical Data Repository (CDR) / Electronic Patient Record ; may have Controlled Medical Vocabulary, Clinical Decision Support (CDS) for rudimentary conflict checking, Document Imaging and health information exchange (HIE) capability.
Stage 1	Ancillaries – Lab, Radiology, Pharmacy – All Installed OR processing LIS, RIS, PHIS data output online from external service providers.
Stage 0	All Three Ancillaries (LIS, RIS, PHIS) Not Installed OR Not processing Lab, Radiology, Pharmacy data output online from external service providers.

© 2012 HIMSS Analytics Europe

"Paperless" patient record environment for highest quality of care, data continuity & full HIE

↑ Full electronic clinical decision support, **and** highest medication safety

↑ Completely electronic diagnostic image management

↑ Electronic order entry with decision support and result reporting

↑ Clinical ordering and documentation – especially nursing care

↑ A patient-centered electronic data repository

↑ Electronic diagnostic and pharmacy department information

HiMSS **ANALYTICS** EUROPE
It's How You Know What's Next.

EMR ADOPTION MODEL

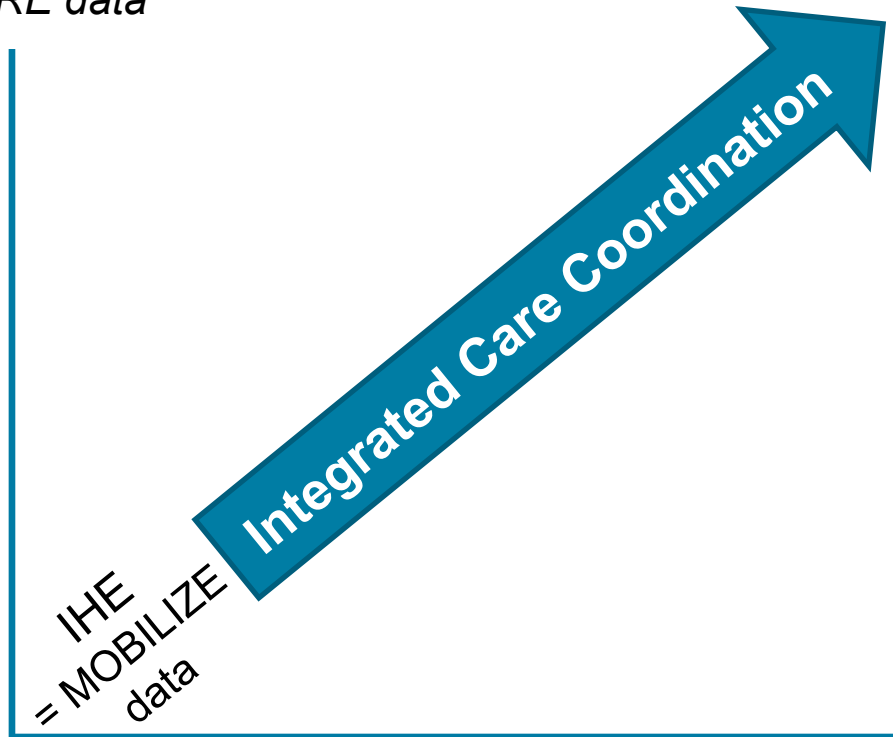|	**Required capabilities**	**Health Information Exchange**
7	Paperless medical record environment	Full internal data continuity and HIE (e.g. for disease m'ment programs)
6	Structured physician documentation for automated CDSS; CLMA	Sharing of clinical information via standardised electronic transactions
5	Completely electronic image management	PACS available to external clinicians remotely
4	Computerized physician order entry with 2nd level clinical decision support	e.g. ePrescribing with external pharmacy, exploding orders to ext. CPs
3	Clinical ordering and nursing documentation	e.g. medication reconciliation in eMAR, tele-monitoring
2	Patient-centered clinical data repository or electronic record	e.g. Remote access / HIE with care providers (e.g. medical summary)
1	Electronic diagnostic and pharmacy department information	Remote ordering, result reporting / data sharing (e.g. HL7); e.g. teleradiology
0	Mainly patient administration and hospital management	e.g. Exchange with payers (billing / claims) and supply chain

HIMSS
ANALYTICS EUROPE
It's How You Know What's Next.

FROM SILOS TO CARE CHAIN

… toward truly integrated care coordination & delivery

EPR/EMR
= *GATHER &
STORE data*

PHR
= *EMPOWER
the patient*

Integrated Care Coordination

IHE
= *MOBILIZE
data*

EHR
= *SHARE
data*

EMR ADOPTION - ECONOMIC AND CLINICAL PERFORMANCE

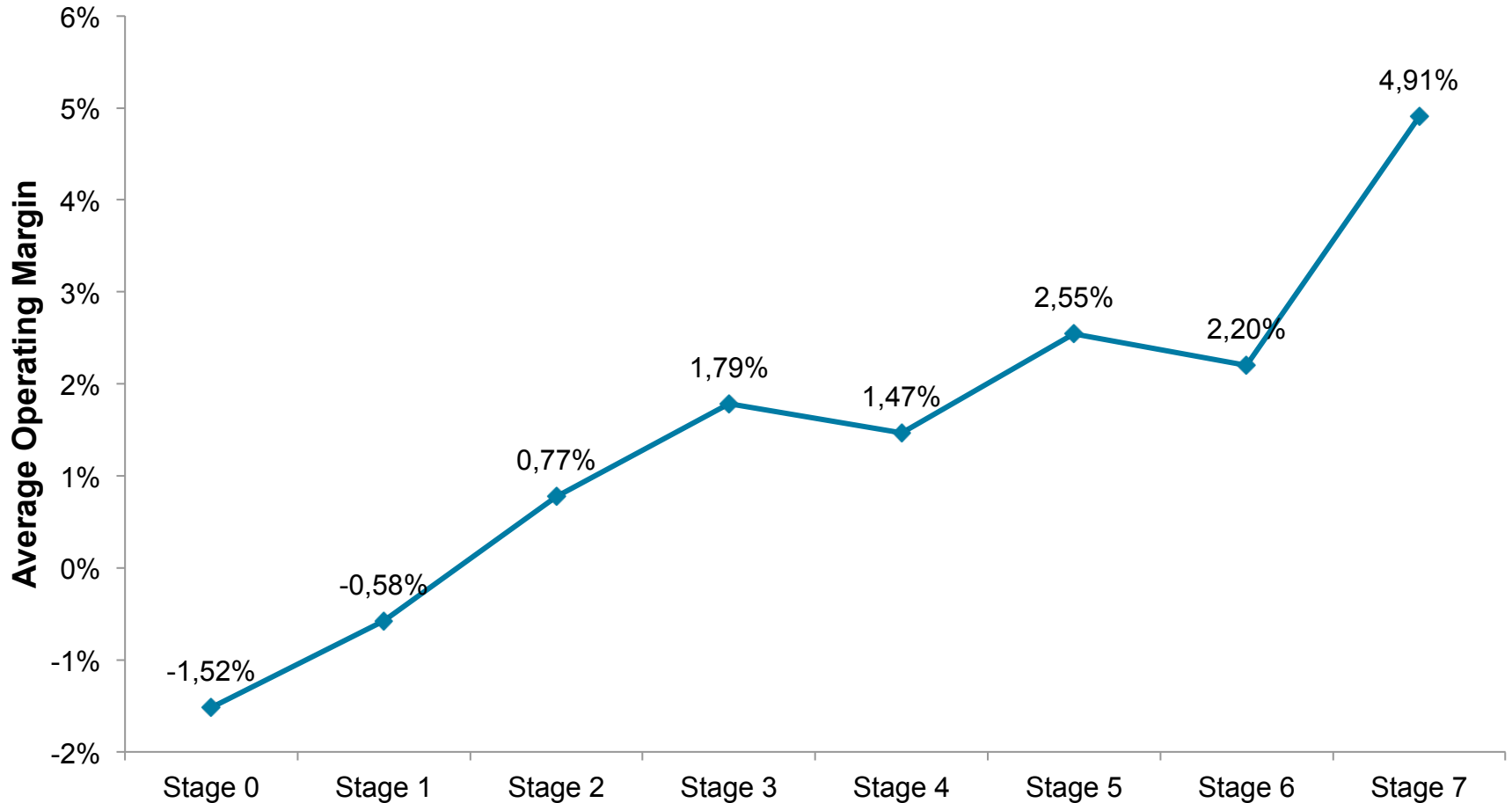# IS EXPENSE BY EMRAM STAGE

EMR Adoption has a cost

Based on data from HIMSS Analytics™ Database (U.S.A.)

OPERATING MARGIN BY EMRAM STAGE

EMR Adoption also has a ROI

Based on 2011 data from HIMSS Analytics™ Database (U.S.A.)

CLINICAL PERFORMANCE BY EMRAM STAGE

… clear positive association with advanced EMR capabilities
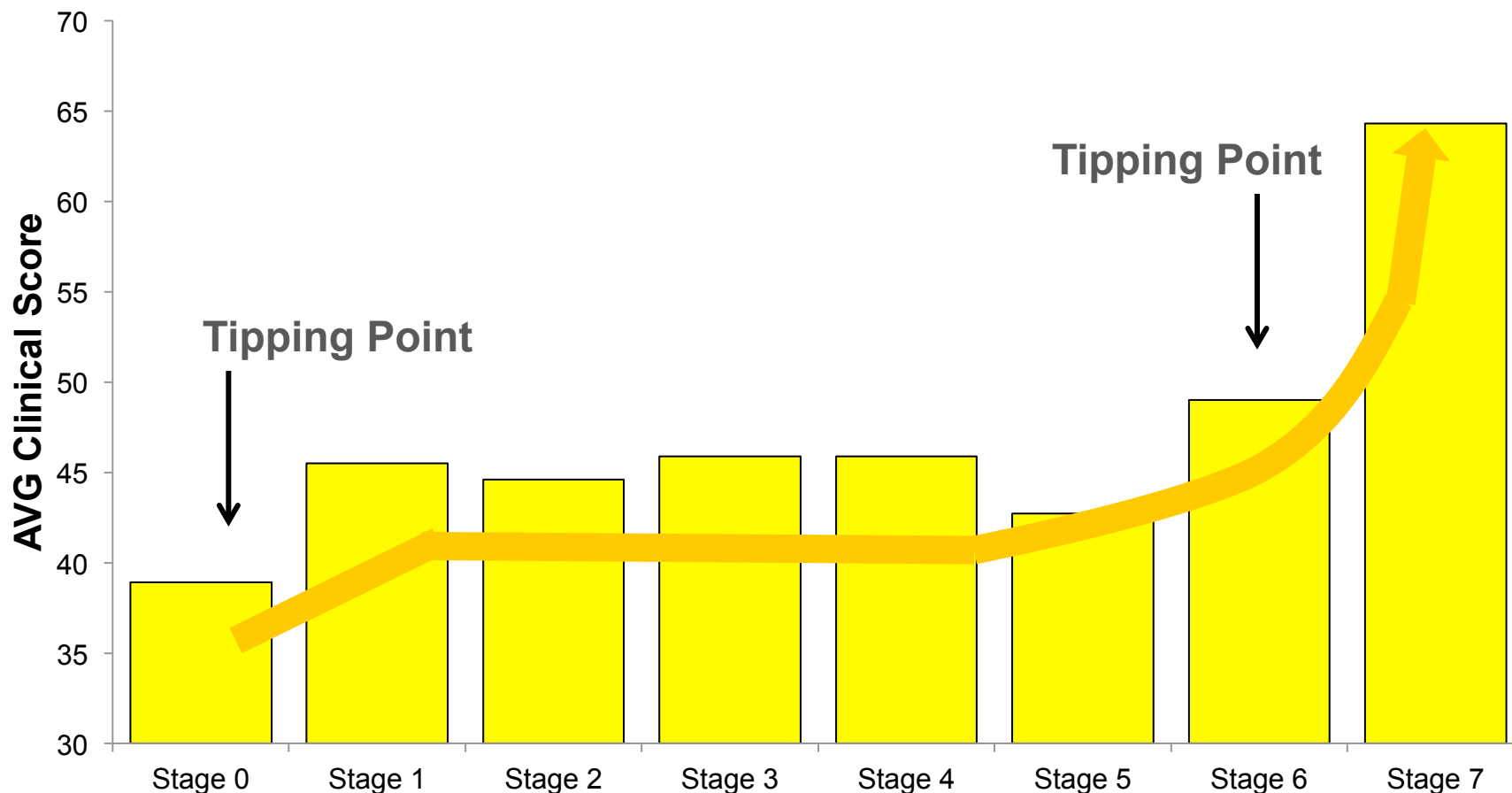
Based on data from HIMSS Analytics™ Database (U.S.A.)

ECONOMIC IMPACT OF EMR ADOPTION

… What are the main ROI points?

- Avoid duplicate medical orders
- Reduce length of stay
- Reduce medical errors leading to complications, repeat admissions, etc.
- Reduce Adverse Drug Events (ADEs)
- Workflow / process improvements, e.g.:
  - o Coding & Billing
  - o Transcription
  - o Scanning
  - o Storage

→ Stage 6 is where ROI pay-off really begins

Source: HIMSS Analytics White Paper, 2008 http://www.himssanalytics.org/docs/stage6whitepaper.pdf

STATUS OF EMR ADOPTION
… IN DE, DK, NL, NO, EU & US

EMR ADOPTION IN EUROPE

Netherlands
- S0; 0%
- S1; 0%
- S7; 0%
- S6; 4%
- S5; 28%
- S4; 4%
- S3; 3%
- S2; 61%

Poland
- S5; 0%
- S6; 0%
- S4; 1%
- S3; 0%
- S7; 0%
- S2; 11%
- S1; 11%
- S0; 78%

Spain
- S7; 0%
- S6; 3%
- S5; 41%
- S0; 24%
- S1; 7%
- S2; 11%
- S3; 9%
- S4; 5%

Germany
- S7; 1%
- S6; 0%
- S5; 10%
- S4; 4%
- S3; 8%
- S2; 18%
- S1; 2%
- S0; 57%

Portugal
- S7; 0%
- S6; 0%
- S5; 23%
- S4; 3%
- S3; 20%
- S2; 7%
- S1; 2%
- S0; 45%

Italy
- S7; 0%
- S6; 2%
- S5; 1%
- S4; 9%
- S3; 6%
- S2; 10%
- S1; 24%
- S0; 48%
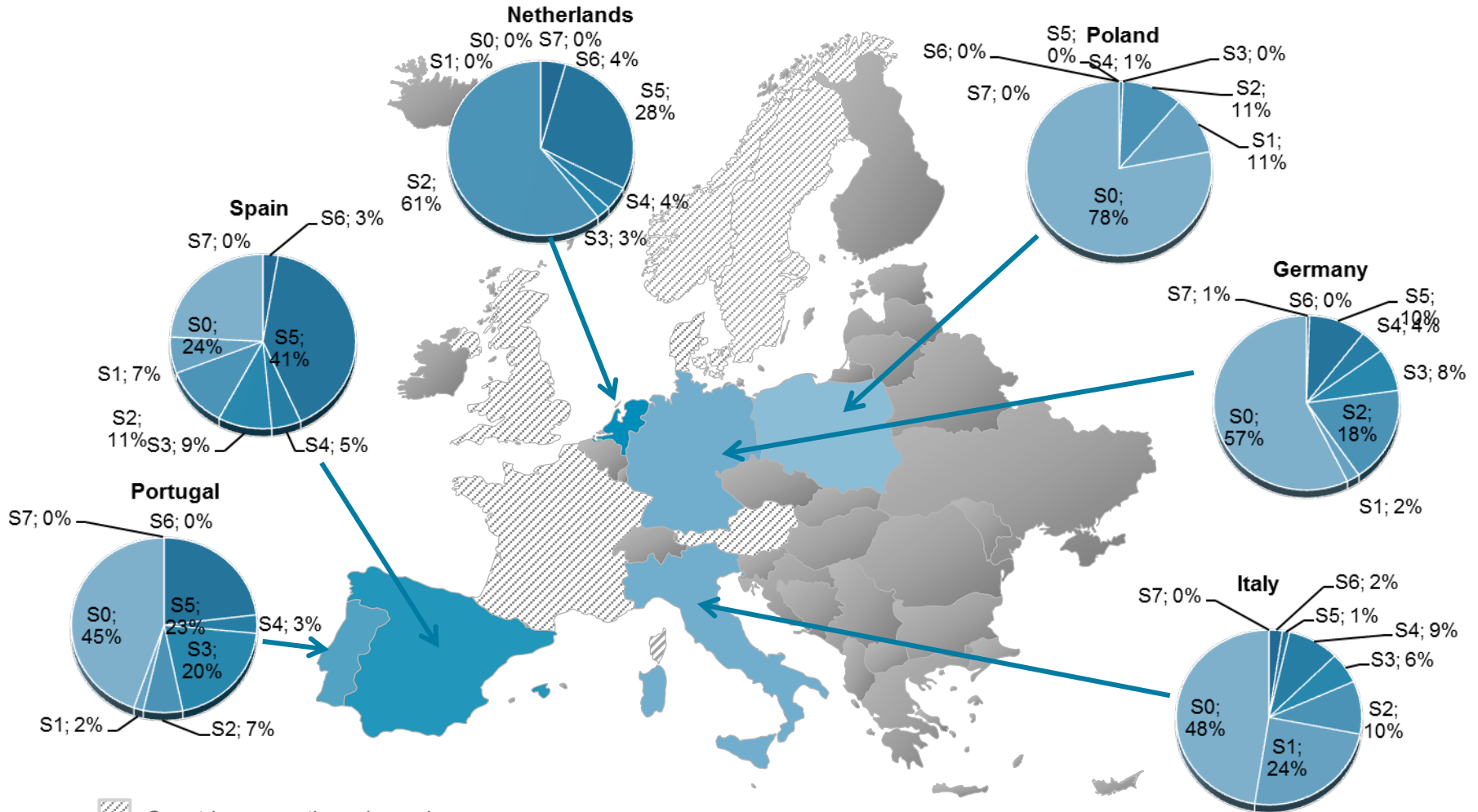
Countries currently under review

Source: HIMSS Analytics Europe eHospital Census 2012

HiMSS
ANALYTICS
EUROPE
It's How You Know What's Next.

EMR ADOPTION IN EUROPE

... based on HIMSS Analytics European EMR Adoption Model

EMRAM Scores, % of Hospitals, Q2/2013 (based on data from latest 24 months, no weighting etc. applied)

Stage	Germany	Italy	Netherlands	Spain	Poland	Portugal	Europe*	US
Stage 7	0.3%	0.0%	0.0%	0.4%	0.0%	0.0%	0.1%	1.9%
Stage 6	0.0%	0.5%	8.9%	3.8%	0.0%	0.0%	1.6%	9.1%
Stage 5	8.9%	7.1%	33.9%	40.2%	0.0%	26.3%	15.6%	16.3%
Stage 4	2.5%	3.0%	3.6%	7.7%	0.7%	5.3%	3.5%	14.4%
Stage 3	6.9%	4.0%	1.8%	1.7%	0.0%	21.1%	4.0%	36.3%
Stage 2	32.1%	26.8%	51.8%	17.5%	10.2%	7.9%	26.1%	10.1%
Stage 1	1.3%	38.5%	0.0%	10.3%	12.9%	2.6%	17.6%	4.2%
Stage 0	48.1%	20.0%	0.0%	18.4%	76.2%	36.8%	31.5%	7.8%
N	393	574	56	234	147	38	1,581	5,441

* Includes countries listed in the table above, plus: Austria, Belgium, Denmark, Finland, France, Ireland, Norway, Sweden, Switzerland, United Kingdom

Source: HIMSS Analytics Europe Database, Q2/2013

HIMSS EUROPE
ANALYTICS
It's How You Know What's Next.

PRIMARY CARE EMRAM

MEASURING HIE – THE PC-EMRAM

… an adoption model for primary care EMRs and HIE with acute care

- To measure IT Adoption in the primary care setting
  - for patient and prescriber based encounters,
    i.e. physician and/or licensed care giver assessing and
    generating orders & prescriptions
  - for tethered and non tethered practices alike
  - in North America, Europe, Middle East, Asia, because
    Northern Europe and Southern Asia are way ahead of the US
    with A-EMR deployments
- To assess "care chain readiness"
  - for Health Information Exchange
  - for community medical records / EHRs
  - for Clinical and Business Intelligence across "silos"
- To "Push the market"

THE PC-EMRAM

… an adoption model for primary care EMRs and HIE with acute care

Stage	Cumulative Capabilities
Stage 7	HIE, data sharing with community based HER, robust business and clinical intelligence
Stage 6	Advanced CDS, proactive care management, population health management
Stage 5	Patient engagement
Stage 4	CPOE, physician documentation with CDS, external data exchange
Stage 3	E-prescribing, nursing documentation, medication reconciliation, CDS
Stage 2	CDR, access to results from outside facilities
Stage 1	Access to clinical information, unstructured data, multiple data sources
Stage 0	Paper based chart

Note: "Ambulatory EMRAM" will be used in the United States

THANK YOU

Daniel Czermak-Wänn, MD
Nordic Client Relations Manager, HIMSS Analytics Europe
CMIO Exonor

Exonor Group AS
Karihaugveien 89
1086 Oslo

e-mail: dcw@exonor.com
phone: +46 70 417 66 02

For further information visit: www.himssanalytics.eu

HIMSS
ANALYTICS EUROPE
It's How You Know What's Next.