The Learning Economy

The Foundation of a Robust Health IT Ecosystem

Panel Discussion

5th EU-US eHealth Marketplace

Boston, Massachusetts, USA

October 22, 2014

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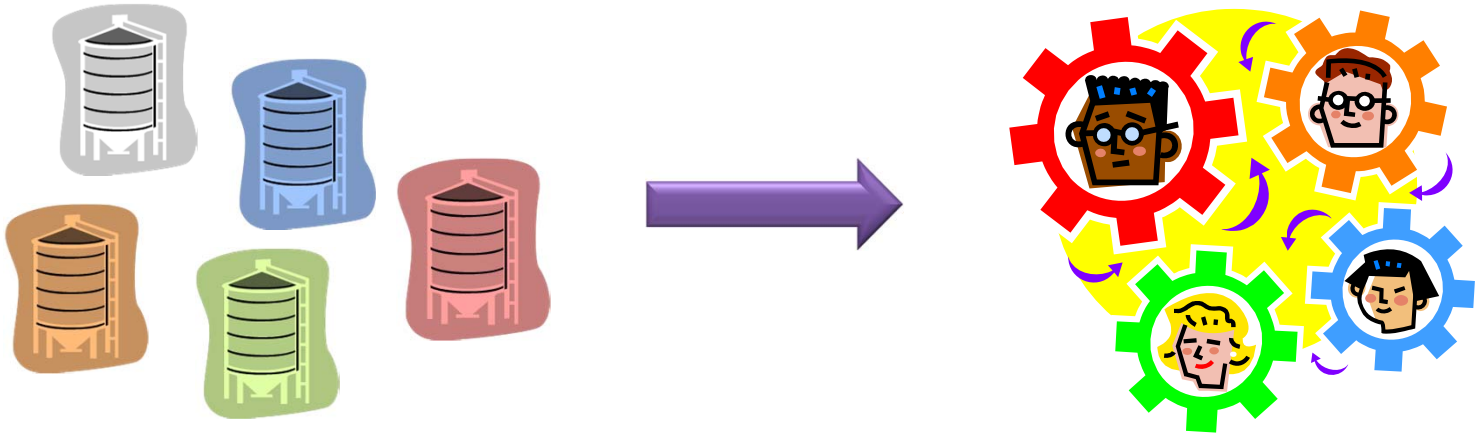
Agenda

- Who we are and why we're here
- Skilled Workforce as a Foundation
  - The Health IT/eHealth Ecosystem
  - The Learning Economy of Healthcare
- Rationale for the work
- Results and validation of our work
- The CAMEI Project
- Practical Applications
- Next Steps

Answering the Challenge: EU-US Workforce Development Initiatives

- There have been many Health IT/eHealth*/ICT projects over the years
  - The projects have been disparate and have worked in disconnected silos
- The EU-US Workforce Development Workgroup, formed from the MOU, has been charged with:
  - Evaluating and harmonizing workforce development standards, methods and tools
  - Ensuring the efforts are compatible, consumable and coordinated



*These terms are interchangeable between the EU and US

The Health IT Ecosystem

- Comprised of multiple factors working in conjunction toward a common goal
- These factors include:
  - Government and Policy Makers
  - Infrastructure
  - Academia and Education Providers
  - Community
  - Marketplace and Industry
  - Healthcare Workforce
  - Patients
- All supported by a Learning Economy

The Learning Economy

- The Learning Economy is a new, innovative concept
  - Emphasizes the benefits for employees
  - Integrates their learning and working lives in a life long journey
  - Facilitates quality of life, career success and contribution to society at large
- In the health sector, is the underpinning support for the Healthcare Ecosystem

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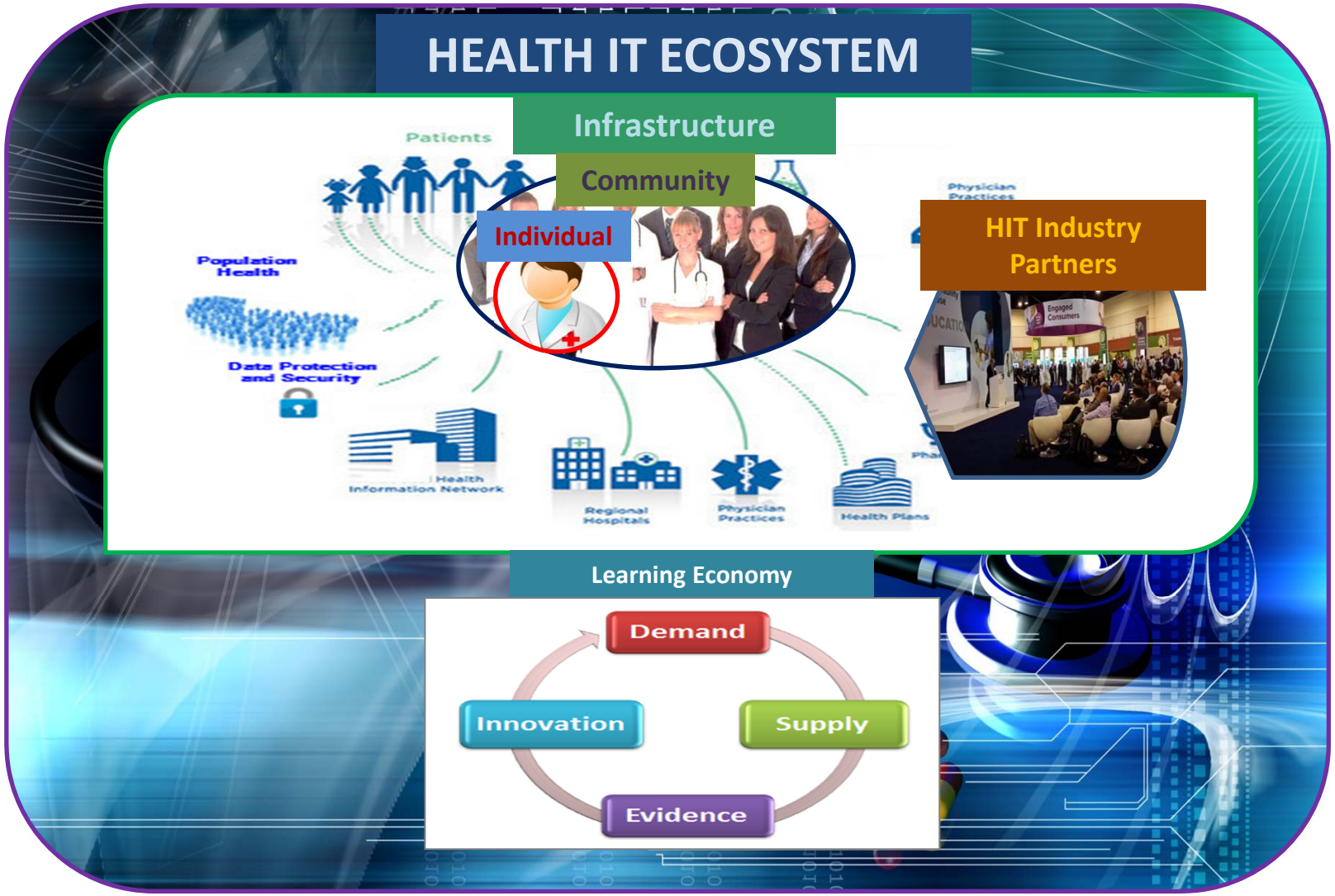
The Health IT Ecosystem



Slide 6

CN2 "Industry" instead of "marketplace"

Include health professionals
Christina Nguyen, 10/15/2014

Health IT Workforce: The Challenge

Main drivers for workforce development include:

- Enhancement of healthcare
  - Improved patient outcomes and safety
  - Resource and financial efficiency
- Economic benefits
  - eHealth/Health IT is a growing industry
  - Employment opportunities
- Self-actualisation of individuals in health IT workforce
  - Career development and success
  - Contribution to the **Learning Economy**

CN3

Health IT Workforce: The Challenge (cont'd)

- "Healthcare technology marketplace is thriving, but ***there aren't enough qualified IT workers*** to meet the market demand"
- The North American HIT market is forecast to grow at a compound annual growth rate of 7.4 percent
  - However, **major constraints** to the growth of the healthcare IT system **include…interoperability issues and shortage of healthcare IT professionals** among others
- 67 percent of US hospitals report shortages of HIT staffing
  - System and installation cost still a major problem, but **lack of staff is now a bigger barrier** to implementing HIT/eHealth

Slide 8

CN3 Make point earlier on about how HIT influences healthcare economy. What is the value?
Christina Nguyen, 10/15/2014

CN13

Health IT Workforce: The Challenge (cont'd)

- The European Commission is compelling EU health systems to ***find innovative solutions*** through new technologies, products and organizational changes
  - This depends on a **high quality motivated health workforce** of sufficient capacity and **with the right skills** to meet the growing healthcare demands
- The ***global telemedicine market has grown from $9.8 billion in 2010 to $11.6 billion in 2011***
  - Is expected to continue to expand to $27.3 billion in 2016, representing a ***compound annual growth rate of 18.6%***
- From 2013, the ***Commission will support activities aiming at increasing citizens' digital health literacy***
  - For professionals the focus will be on developing evidence-based clinical practice guidelines for telemedicine services
  - Particular emphasis on nursing and social care workers

Slide 9

CN13 Make point earlier on about how HIT influences healthcare economy. What is the value?
Christina Nguyen, 10/15/2014

EU-US: Workforce Development Goals

- Collaboratively, we are working to:
  - Increase awareness of HIT and the need for a competent and ready workforce
  - Educate future and incumbent workers to skills rather than concepts
  - Bridge gaps between the healthcare delivery, healthcare information management and health informatics communities
  - Ensure at the end of our work that our output is harmonized, valuable and usable for individuals, the HIT community, and industry partners
  - Position both Health IT/Informatics and HIT Empowered Workers for success in the workplace

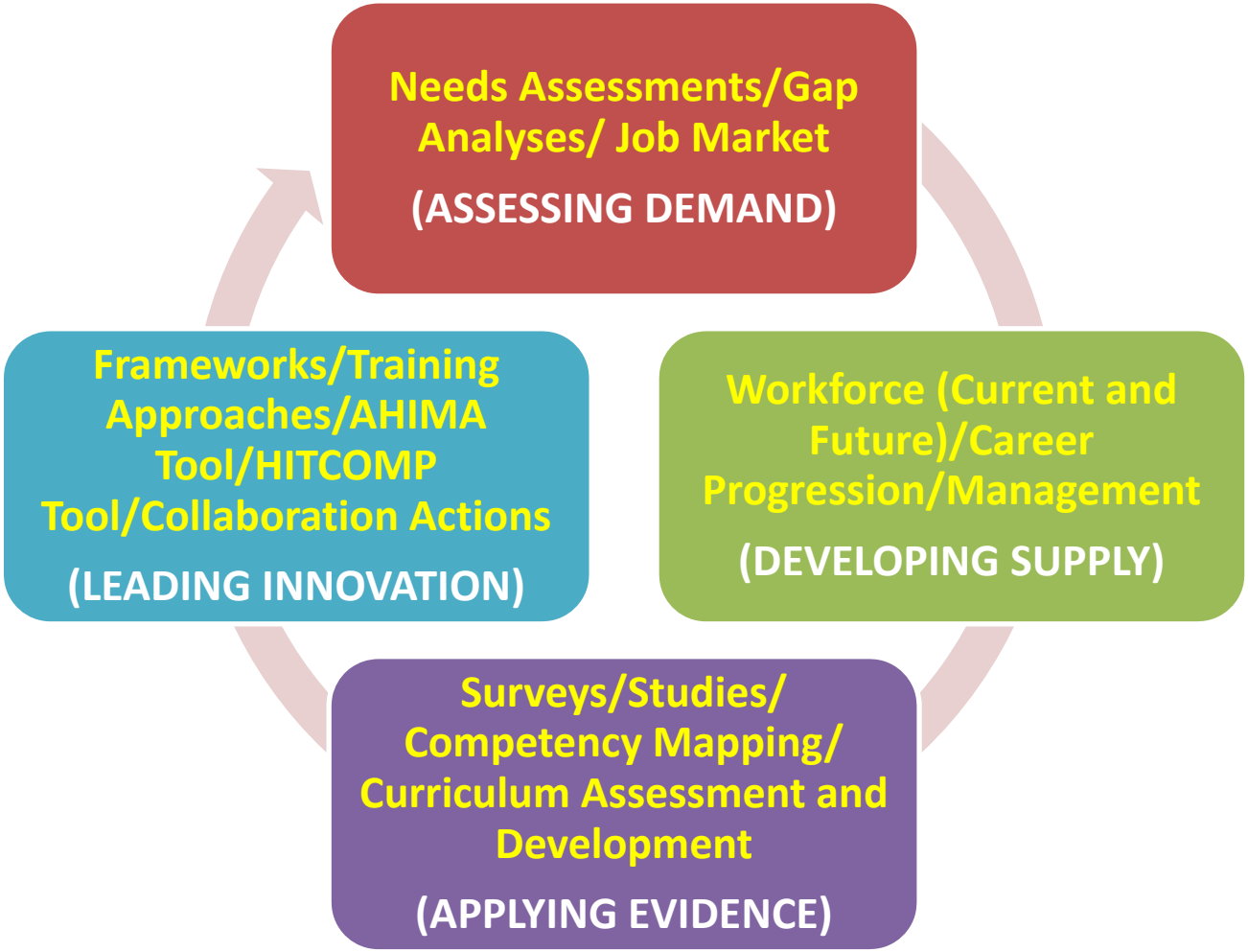
Workforce Development Initiatives Members

- Some of these groups and initiatives include:

  - We all came together and realized it's not just a matter of workforce development - it's about fostering, sustaining and enhancing **a whole Health Ecosystem** that ***starts with building a robust Learning Economy***

The EU-US Work – Supported by the Learning Economy

- The work of key groups and initiatives directly relates to The Learning Economy



CAMEI's Cooperation Action Plan (CAP)

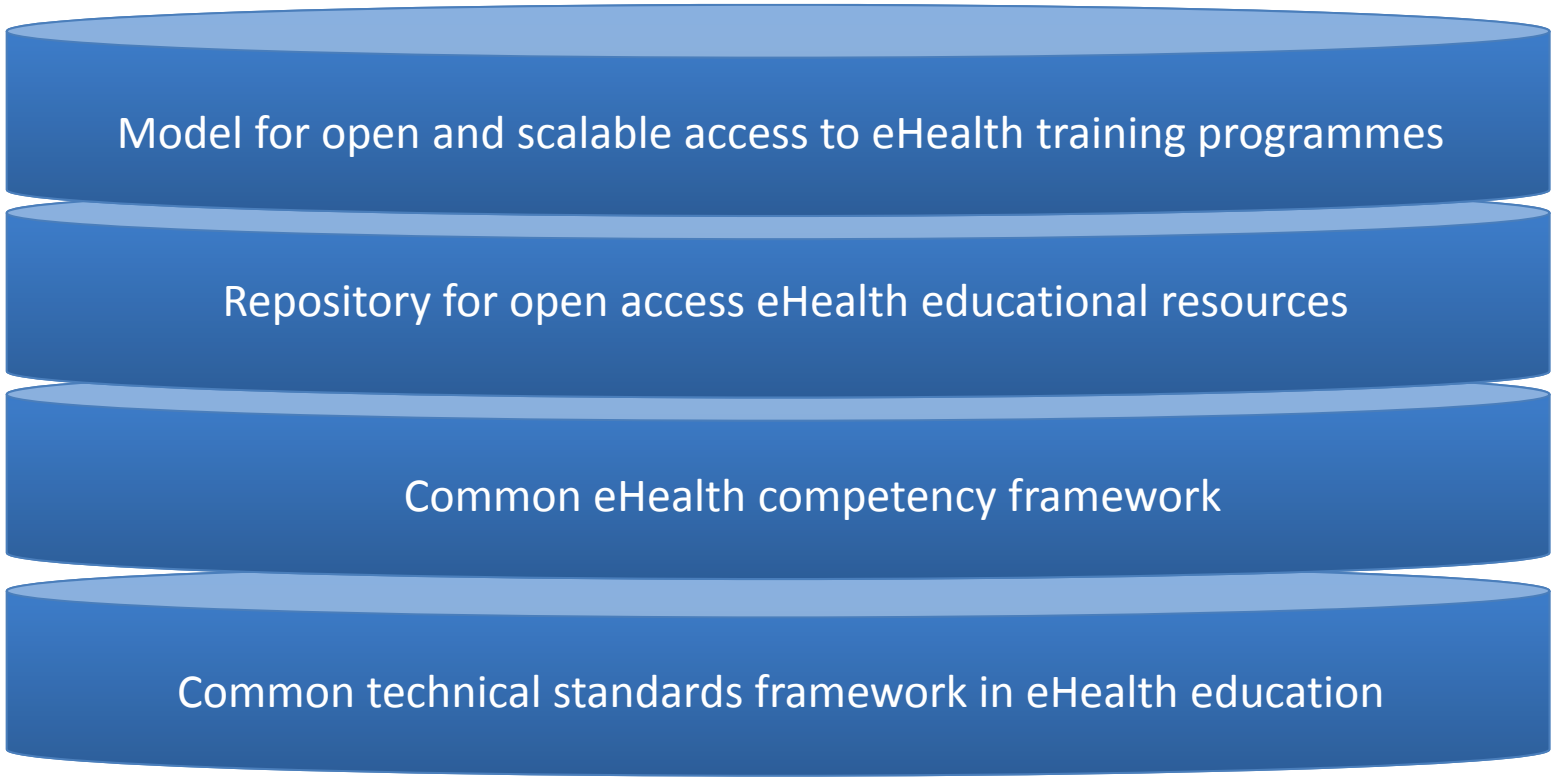
INPUTS			OUTPUTS	OUTCOMES	IMPACT
Challenge Statement(s)	Strategies	Resources	Measures of Implementation	Measures of Change	Goals

Strategy:				
Action Steps	**Resources**	**Measures of Implementation (Outputs)**	**Partner(s) responsible**	**Deadline**
What steps must be taken to implement our strategy?	*What specific supports are needed to implement this action step?*	*How will readers of the plan know the action step or strategy is fully realized or carried out?*	*Who is most closely responsible and accountable for taking each action step?*	*By when will the step be completed?*

Collaboration Case: Selection

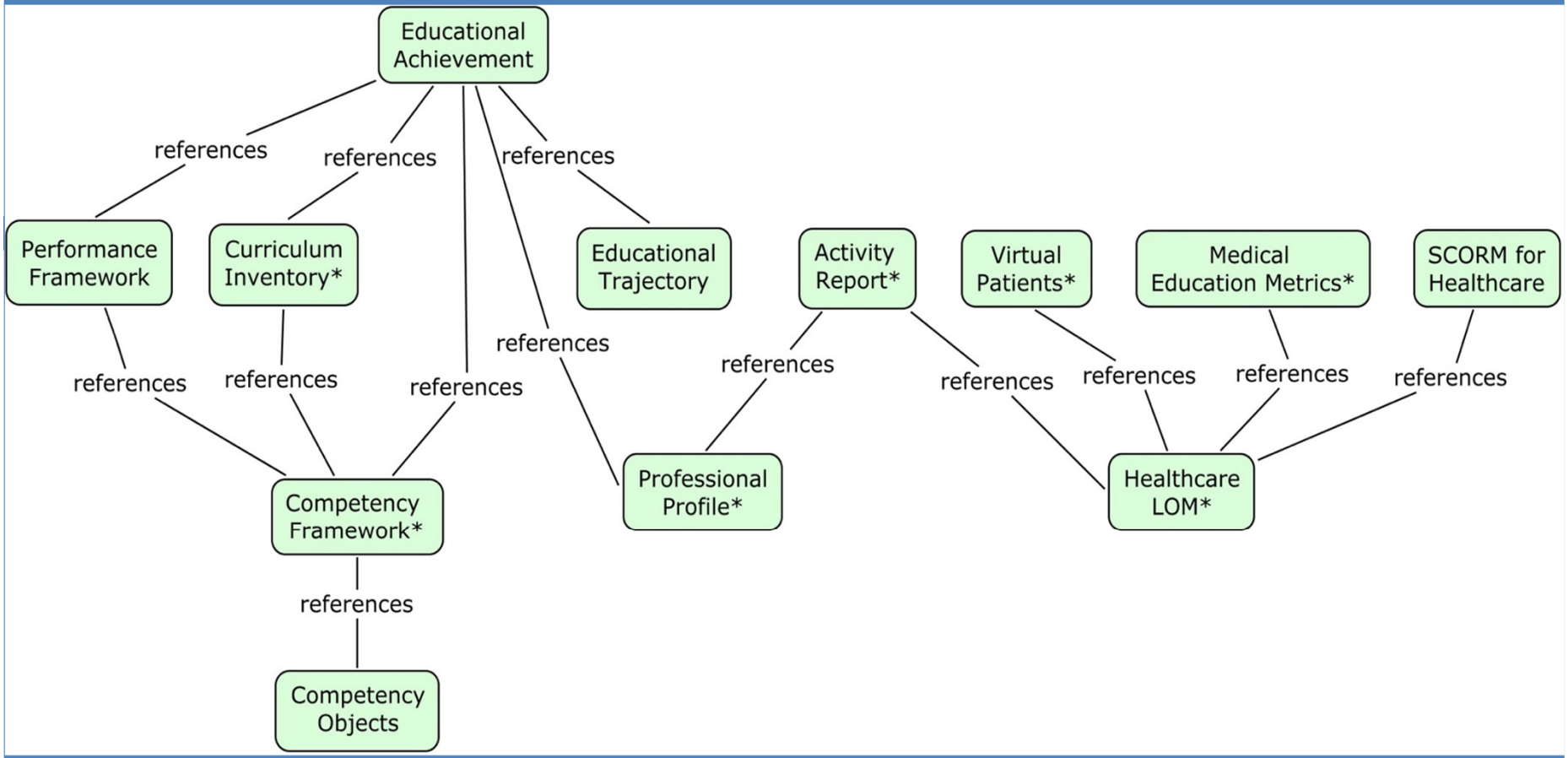
INPUTS			*OUTPUTS*	*OUTCOMES*	*IMPACT*
Challenge Statement(s)	**Strategies**	**Resources**	**Measures of Implementation**	**Measures of Change**	**Goals**
How to provide joint EU/US training methods and programmes that are open and scalable?	Combine areas of complementary strengths between EU and US to create joint open educational eHealth programmes	CAMEI partners Stakeholders with an interest in addressing the challenge	Model on how to combine the strengths from EU/US in order to address the challenge of providing open and scalable Implementation Case study	Increased number of joint EU/US open training methods and programmes	Open and scalable training programmes for achieving a robust supply of highly proficient eHealth professionals and assuring health care, public health, and allied professional workforces have the eSkills needed to make optimum use of their available eHealth/health information technology.

Collaboration Case:

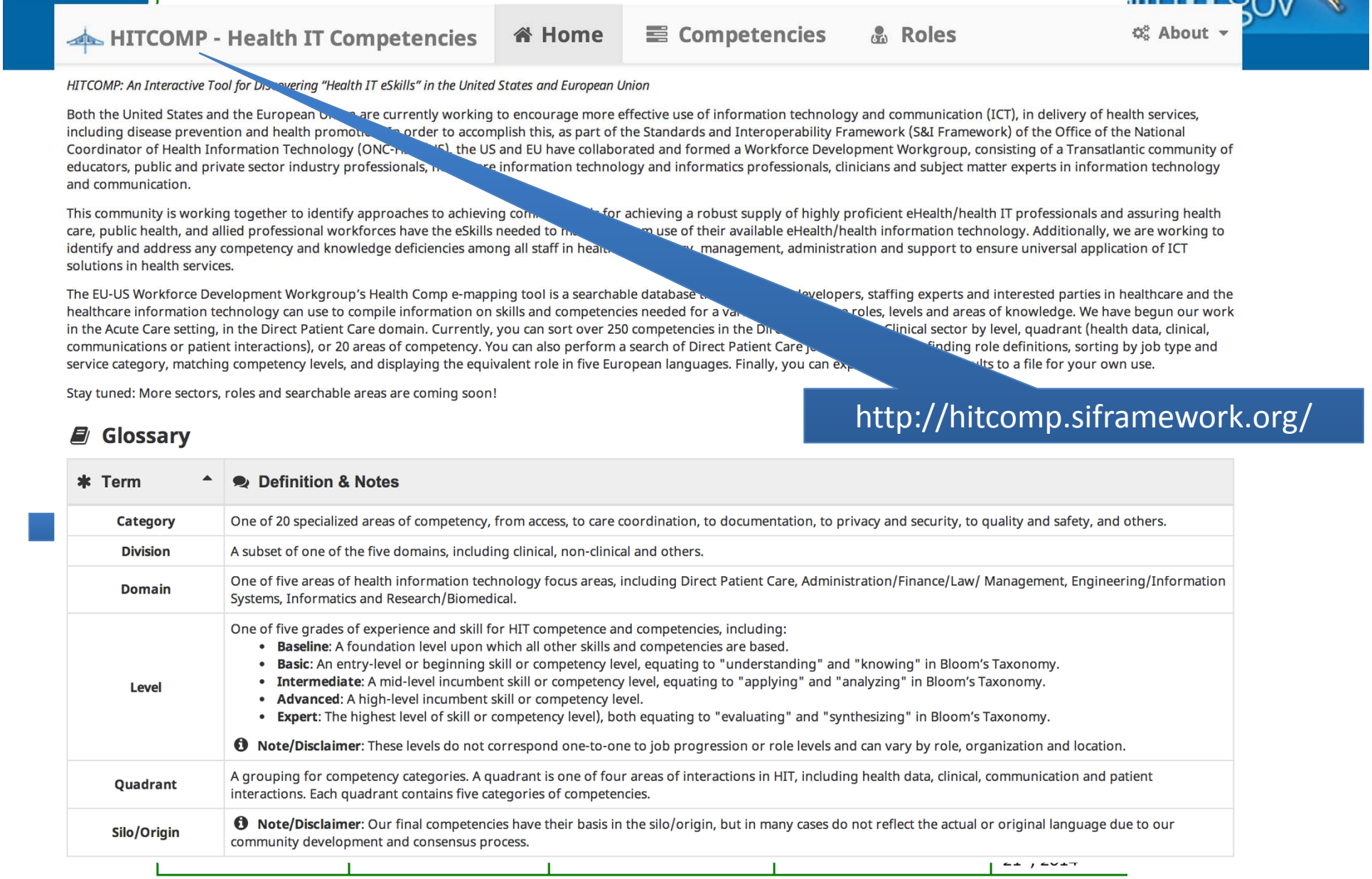


Strategy: Combine areas of complementary strengths between EU and US to create joint open educational eHealth programmes

		Measures of		
scalable access to eHealth training programmes	Open Education Europa Portal	dedicated open education platform for eHealth training		be set during a meeting at Boston Nov 21st, 2014



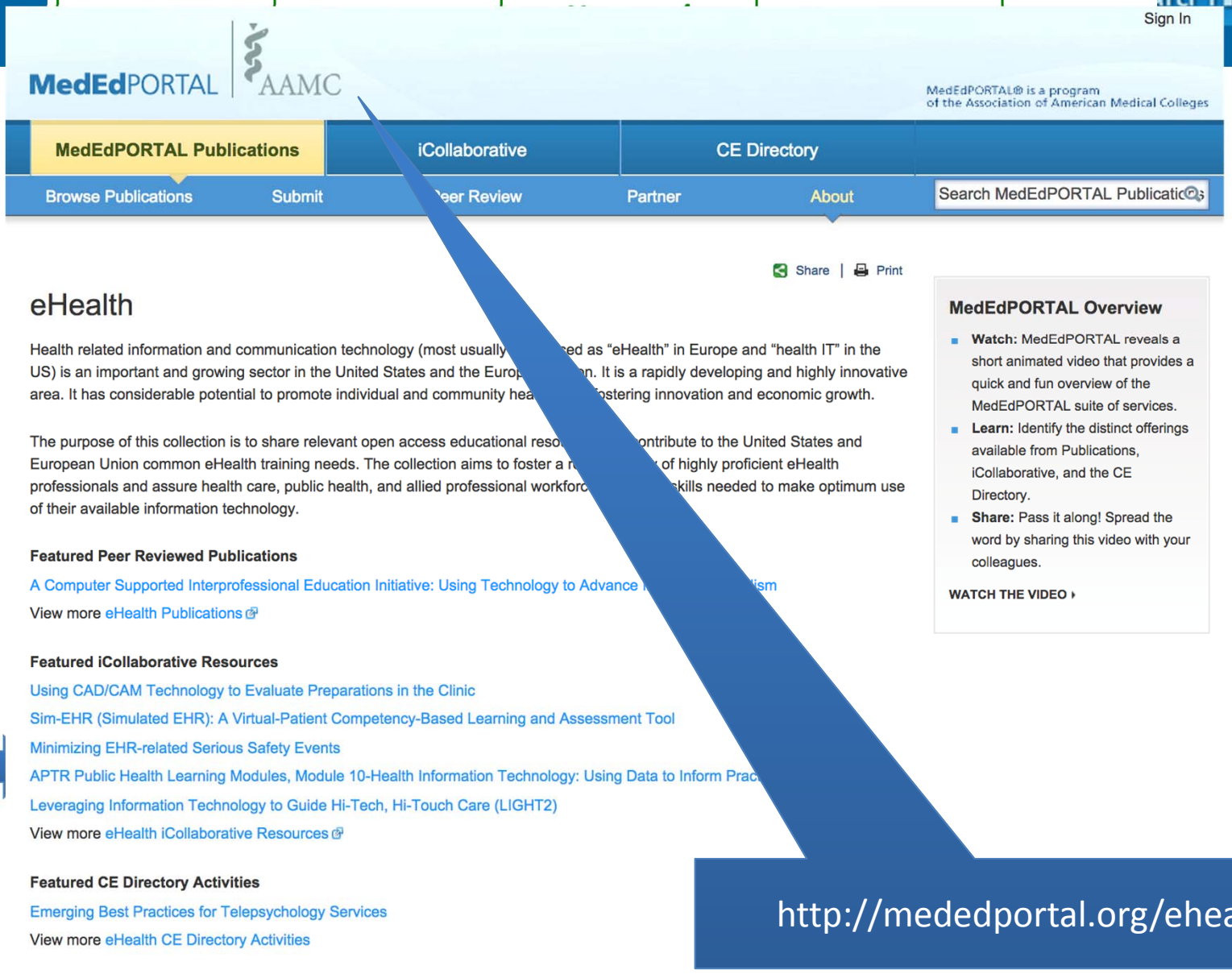
Strategy: Combine areas of complementary strengths between EU and US to create joint open educational eHealth programmes



Glossary

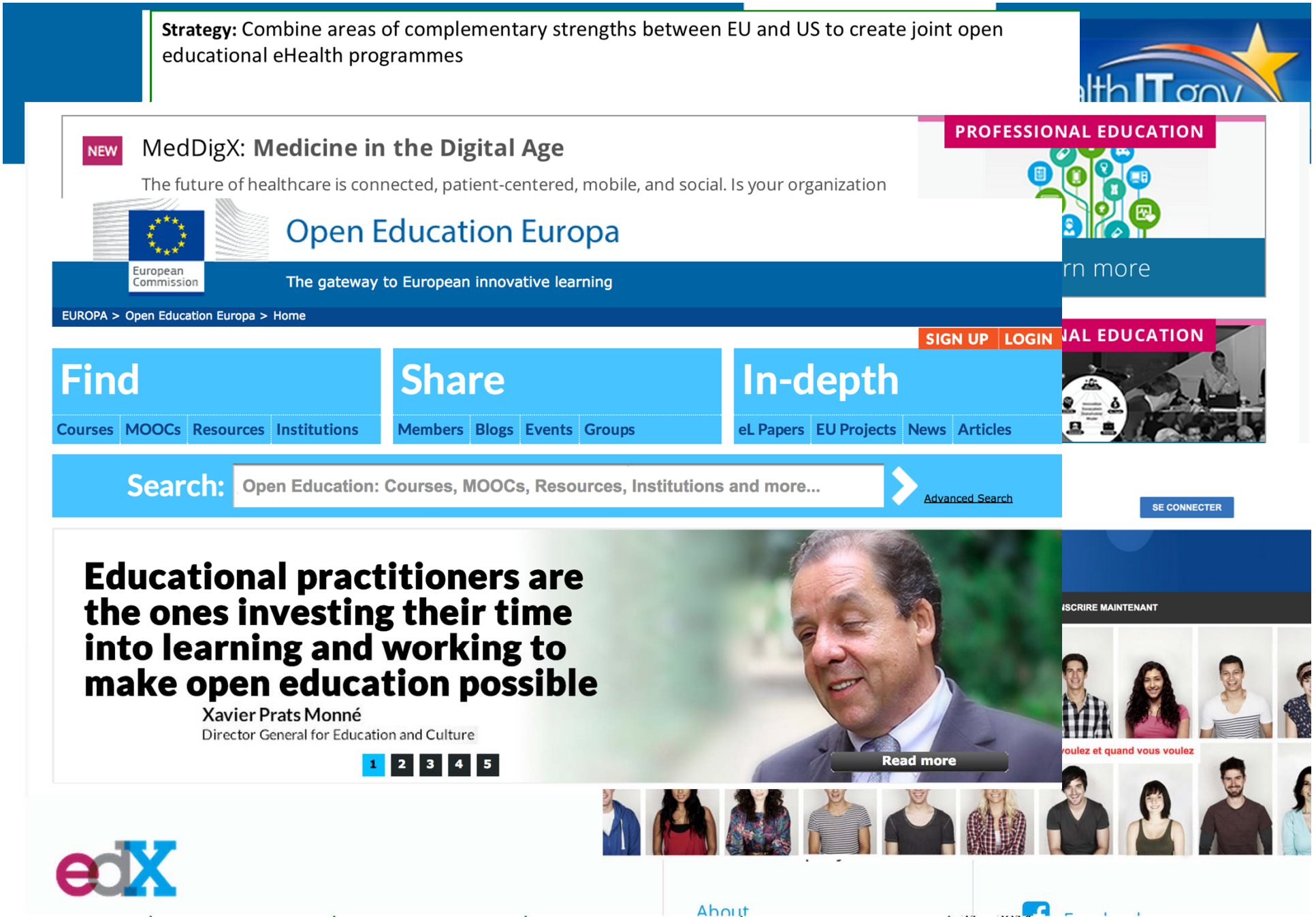
Term	Definition & Notes
Category	One of 20 specialized areas of competency, from access, to care coordination, to documentation, to privacy and security, to quality and safety, and others.
Division	A subset of one of the five domains, including clinical, non-clinical and others.
Domain	One of five areas of health information technology focus areas, including Direct Patient Care, Administration/Finance/Law/ Management, Engineering/Information Systems, Informatics and Research/Biomedical.
Level	One of five grades of experience and skill for HIT competence and competencies, including: • **Baseline**: A foundation level upon which all other skills and competencies are based. • **Basic**: An entry-level or beginning skill or competency level, equating to "understanding" and "knowing" in Bloom's Taxonomy. • **Intermediate**: A mid-level incumbent skill or competency level, equating to "applying" and "analyzing" in Bloom's Taxonomy. • **Advanced**: A high-level incumbent skill or competency level. • **Expert**: The highest level of skill or competency level), both equating to "evaluating" and "synthesizing" in Bloom's Taxonomy. **Note/Disclaimer**: These levels do not correspond one-to-one to job progression or role levels and can vary by role, organization and location.
Quadrant	A grouping for competency categories. A quadrant is one of four areas of interactions in HIT, including health data, clinical, communication and patient interactions. Each quadrant contains five categories of competencies.
Silo/Origin	**Note/Disclaimer**: Our final competencies have their basis in the silo/origin, but in many cases do not reflect the actual or original language due to our community development and consensus process.

Strategy: Combine areas of complementary strengths between EU and US to create joint open educational eHealth programmes



http://mededportal.org/ehealth

Strategy: Combine areas of complementary strengths between EU and US to create joint open educational eHealth programmes



Staffing and Management: HR Survey*

*Have you noticed a difference in the quality and productivity of work performed by those with **industry-recognized, competency-based credentials/certifications** and those who do not?*

	Not at All	Sometimes	Often	Always	Not Sure	N/A
Orientation Period	6.38%	36.17%	19.15%	6.38%	12.77%	19.15%
First Six Months	4.26%	23.40%	38.30%	6.38%	12.77%	14.89%
Year One	6.52%	28.26%	28.26%	10.87%	13.04%	13.04%
Year Two	10.87%	23.91%	26.09%	10.87%	13.04%	15.22%
Beyond Year Three	10.87%	36.96%	15.22%	8.70%	13.04%	15.22%

**September 2014 Survey conducted of HR Directors at employers across industries. Sponsored by DirectEmployer Association, AHIMA Foundation and the National Network of Business and Industry Associations . Survey unpublished at the time of this presentation.*

Tools for Competency Interoperability

- AHIMA's Health Information Career Map Tool
- Global Health Workforce Council
- European eCompetence Framework
- HITCOMP Tool

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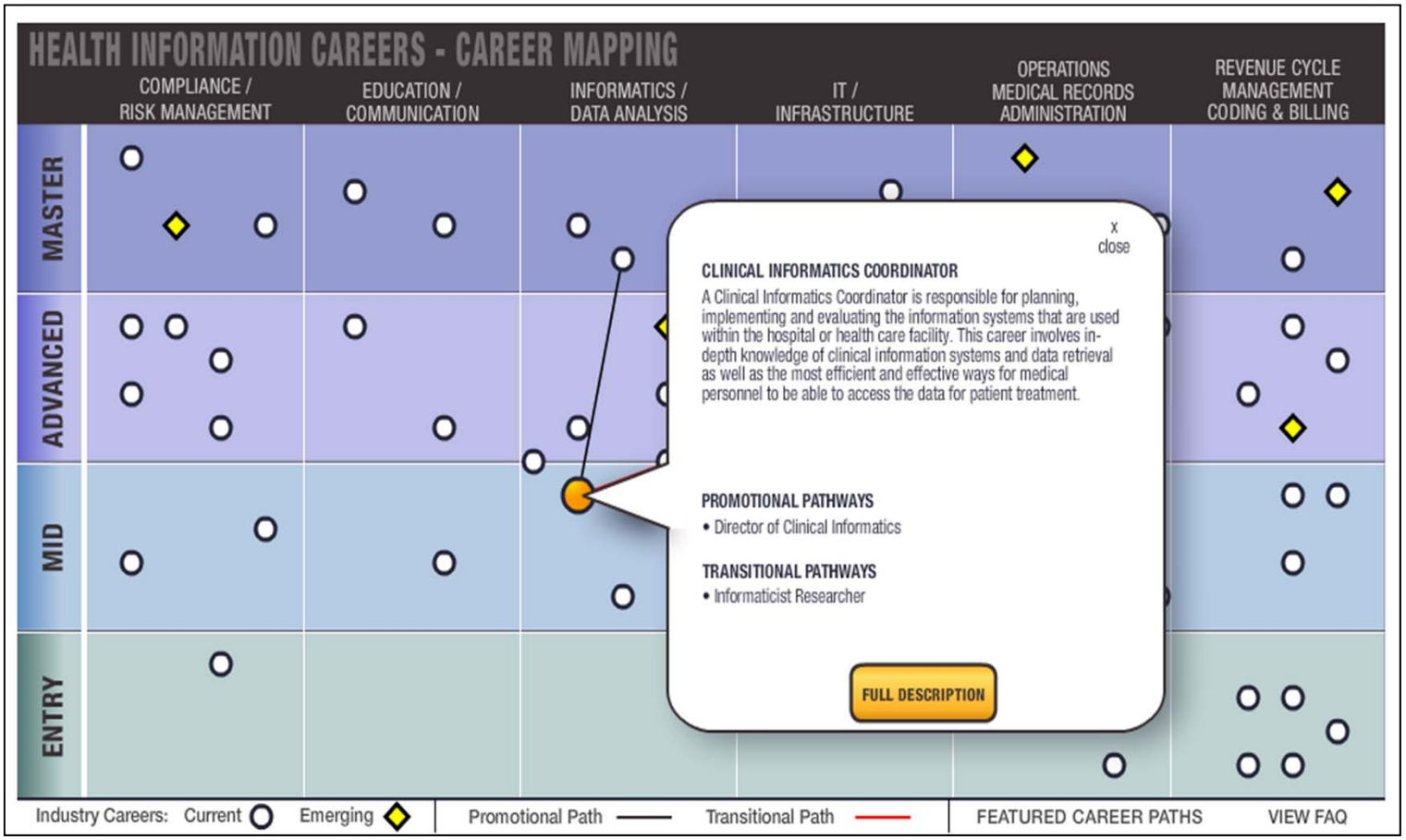
AHIMA's Health Information Career Map



An interactive and visual representation of the job titles and roles that make up the scope of HIM and the career pathways associated with them. Available at: www.hicareers.com/CareerMap

6 Job Families. 4 Skill Levels, 55 Job Titles, 13 Emerging Job Titles

Slide 22

CN12 Michelle to talk about the difference between career and incoming workers

Christina Nguyen, 10/15/2014

Global Health Workforce Development

- Sponsored by the AHIMA and IFHIMA through a grant by the US Department of Commerce
- The goal of the GHWC is:
  - to establish a global health information curricula and competency standard
  - to provide a framework for healthcare and education systems worldwide
  - to update and/or build a workforce development strategy
  - Representatives from all six WHO Regions

GHWC Members:
http://www.ahima.org/about/global?tabid=members

Health Information Global Curricula Competency

Academic curricular competencies prepare the workforce

Health Information Exchange

Curricular Competencies by Academic Level					
Entry	**Blooms**	**Intermediate**	**Blooms**	**Advanced**	**Blooms**
Explain current trends and future challenges in health information exchange	2	Collaborate in the development of operational policies and procedures for health information exchange	4	Lead the development of policies for health information exchange (HIE)	6
Apply appropriate standards to achieve interoperability of health information systems	3	Conduct system testing to ensure data integrity and quality of health information exchange	6		
		Evaluate various models for health information exchange	5		
Related Curricular Considerations					
• Data sharing agreements and policies • Inter-operability studies • Legal and legislative considerations • Information Linkage • HL7 and ISO standards		• Data sharing agreements and policies • Inter-operability studies • Legal and legislative considerations • Information Linkage • HL7 and ISO standards • Testing protocols • Information governance • Data sharing agreements, entities and repositories • Delivery system exchanges • Data warehouses • Data dictionaries • Archiving		• Data sharing agreements, entities and repositories • Delivery system exchanges • Data warehouses • Data dictionaries • Archiving	
Related Knowledge, Skills and Attitudes (KSA's)					
Entry KSA's		**Intermediate KSA's**		**Advanced KSA's**	

Employers identify the related competencies (knowledge and skills) desired for roles/jobs

European eCompetence Framework Tools

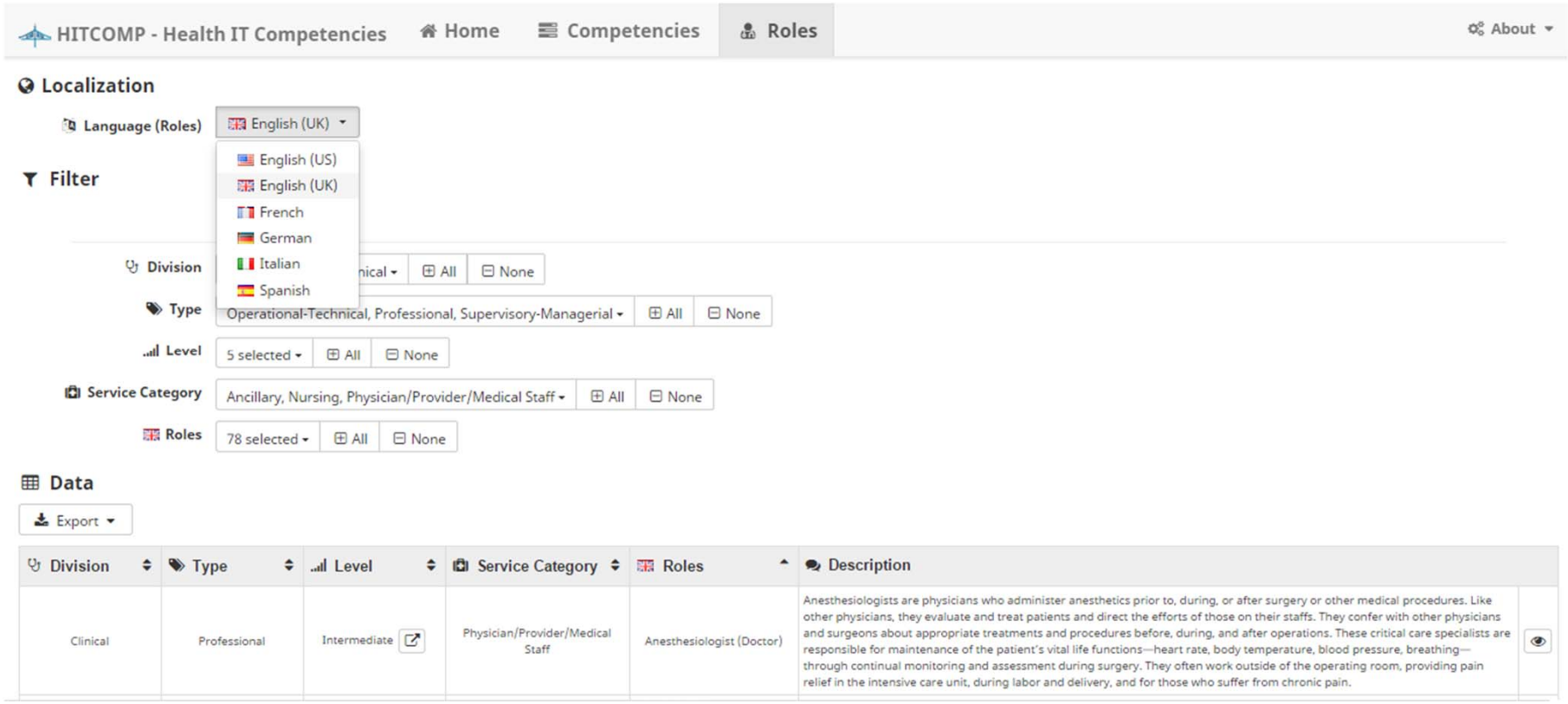
European Commission

HealthIT.gov

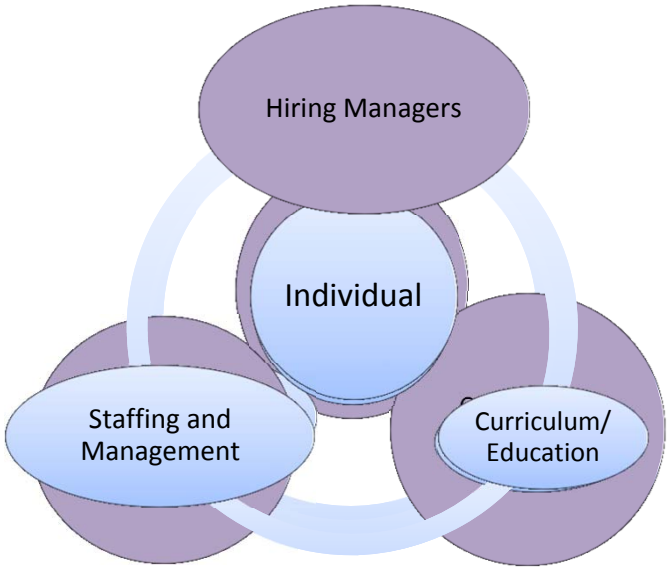
OVERVIEW OF THE EUROPEAN e-COMPETENCE FRAMEWORK 3.0

Dimension 1	Dimension 2	Dimension 3				
5 e-competence areas (A - E)	40 e-competences identified	e-competence proficiency levels e-1 to e-5 (related to EQF levels 3-8)				
		e-CF levels identified for each competence				
		e-1	e-2	e-3	e-4	e-5
A. PLAN	A.1. IS and Business Strategy Alignment					
	A.2. Service Level Management					
	A.3. Business Plan Development					
	A.4. Product/ Service Planning					
	A.5. Architecture Design					
	A.6. Application Design					
	A.7. Technology Trend Monitoring					
	A.8. Sustainable Development					
	A.9. Innovating					
B. BUILD	B.1. Application Development					
	B.2. Component Integration					
	B.3. Testing					
	B.4. Solution Deployment					
	B.5. Documentation Production					
	B.6. Systems Engineering					
C. RUN	C.1. User Support					
	C.2. Change Support					
	C.3. Service Delivery					
	C.4. Problem Management					
D. ENABLE	D.1. Information Security Strategy Development					
	D.2. ICT Quality Strategy Development					
	D.3. Education and Training Provision					
	D.4. Purchasing					
	D.5. Sales Proposal Development					
	D.6. Channel Management					
	D.7. Sales Management					
	D.8. Contract Management					
	D.9. Personnel Development					
	D.10. Information and Knowledge Management					
	D.11. Needs Identification					
	D.12. Digital Marketing					
E. MANAGE	E.1. Forecast Development					
	E.2. Project and Portfolio Management					
	E.3. Risk Management					
	E.4. Relationship Management					
	E.5. Process Improvement					
	E.6. ICT Quality Management					
	E.7. Business Change Management					
	E.8. Information Security Management					
	E.9. IS Governance					

HITCOMP Tool



HITCOMP User Stories: Individual, Educators, HIT Managers and HR



Level 5 selected All None

Service Category Nursing All None

Roles None selected All None

Data

Export

Division	Type	Level	Service Category	Roles	Description
Clinical	Professional	Advanced	Nursing	Registered Nurse (RN)	Registered nurses (RNs) provide and coordinate patient care, educate patients and the public about various health conditions, and provide advice and emotional support to patients and their family members.
Clinical	Professional	Intermediate	Nursing	Nurse Anesthetist	Nurse anesthetists provide anesthesia and related care before, during, and after surgical, therapeutic, diagnostic, and obstetrical procedures. They also provide pain management and some emergency services. Before a procedure begins, nurse anesthetists discuss with a patient any medications the patient is taking as well as any allergies or illnesses the patient may have, so that anesthesia can be safely administered. Nurse anesthetists then give a patient general anesthesia to put the patient to sleep or regional or local anesthesia to numb an area of the body. They remain with the patient throughout a procedure to monitor vital signs and adjust the anesthesia as necessary.
Clinical	Professional	Intermediate	Nursing	Licensed Practical Nurse / Licensed Vocational Nurse	Licensed practical nurses (LPNs) and licensed vocational nurses (LVNs) provide basic nursing care. They work under the direction of registered nurses and doctors. Duties of LPNs and LVNs vary, depending on their work setting and the location in which they work. For example, they may reinforce teaching done by registered nurses regarding how family members should care for a relative; help to deliver, care for, and feed infants; collect samples for testing and do routine laboratory tests; or feed patients who need help eating. LPNs and LVNs may be limited to doing certain tasks, depending on their location. An LPN may provide certain forms of care only with instructions from a registered nurse. In some locations, experienced licensed practical and licensed vocational nurses oversee and direct other LPNs or LVNs and unlicensed medical staff.
Clinical	Professional	Advanced	Nursing	Clinical Nurse Specialist/Patient Care	The Clinical Nurse Specialist has advanced expertise in a specific knowledge and practice area of nursing. Responsibilities include clinical practice, education, research, consultation and management. A CNS provides direct patient care; teaches patients and families self-care; administers medications, IV therapy, and treatments; performs assessments; plans, implements, evaluates, and documents care; serves as preceptor, team leader, and charge nurse supervising RNs, LPNs, and NAs; advocates for the patient and family with other members of the healthcare team.
Direct Patient Care	Clinical	Basic	Patient Interactions	Quality & Safety	UK-Resources	Recognise the need for continuous monitoring of system safety and performance
Direct Patient Care	Clinical	Intermediate	Patient Interactions	Quality & Safety	Cuyahoga CC	Contribute to processes, environments and information flows that improve patient outcomes

Wrap Up

Bringing it all Together/ Next Steps

Where we would like to go…

- Ensure the work we are doing and will continue to do reflects the objectives of the EU-US eHealth/Health IT Roadmap, driven by the input of key stakeholders
- Continue to evolve and adapt our workforce development work to address the needs of all staff in healthcare delivery, management, administration and support
- Further develop our work by integrating additional settings of care and domains
- Complete a comprehensive needs analysis that examines and aligns health IT/eHealth skills with training, identifying gaps, and bridging those gaps
- Increase collaboration between stakeholders on both sides of the Atlantic
- Develop common eHealth competence and professionalism standards to enable further collaboration on our processes, methodologies and tools
- Continue to foster growth of a robust eHealth/Health IT workforce through skills development and lifelong learning

Questions & Answers/ Group Session