



Joint Action Health Workforce  
Planning and Forecasting

# Technology and the Paradigm Shift of Care Impact on the Workforce

*Can technology reduce the need for health workers ??*

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EIP AHA B3 AA3 Integrated Care Workforce  
EIT Health Core Partner





Technology will replace 80% of what doctors do DECEMBER 4, 2012

This McDonald's Billboard Reports the Weather Using Whipped Cream 5:38 PM EST

Your 'Certified Organic' Marijuana Doesn't Actually Have to Be Organic 5:24 PM EST

France Wants People to Ignore Email After They've Left the Office 5:17 PM EST

New technologies will make the receptive doctors better at their jobs – quicker, more accurate, and more fact-based. There is a tremendous opportunity in the influx of data that has never before been available. Once we have a large enough dataset, and an addressable database of research studies, we'll be able to identify patterns and physiological interactions in ways that weren't possible before.

This Women's Group Wants Sponsors to Cut Ties With Peyton Manning 5:14 PM EST

This Major Hedge Fund Is Cutting Jobs 5:13 PM EST

# Technology will replace 80% of what doctors do

by Vinod Khosla DECEMBER 4, 2012, 2:26 PM EST



**Data-driven healthcare won't replace physicians entirely, but it will help those receptive to technology perform their jobs better.**



PHOTO: THINKSTOCK

FORTUNE — Healthcare today is often really the “practice of medicine” rather than the “science of medicine.”

Take fever as an example. For 150 years, doctors have

No brilliant diagnostician with bad manners, a la “Dr. House,” will be needed in direct patient contact. Instead, we’ll use “Dr. Algorithm” to provide the diagnosis, while the most humane humans provide the care.

# Medical journal concept annotations



Relations  
causeOf  
modifierOf  
negationOf  
partOf  
remedyOf  
resultOf

1 Chamarthi, Bindu; Morris, Charles A.; Kaiser, Ursula B.; Katz, Joel T.; Loscalzo, Joseph  
 2 Stalking the Diagnosis  
 3 362/9/834  
 4 [http://content.nejm.org/cgi/content/full/362/9/834</citation\\_fulltext\\_html\\_url>](http://content.nejm.org/cgi/content/full/362/9/834</citation_fulltext_html_url>)  
 5 A 58-year-old woman presented to her primary care physician after several days of dizziness, anorexia, dry mouth, increased thirst, and frequent urination. She had also had a fever and reported that food would "get stuck" when she was swallowing. She reported no pain in her abdomen, back, or flank and no cough, shortness of breath, diarrhea, or dysuria. Her history was notable for cutaneous lupus, hyperlipidemia, osteoporosis, frequent urinary tract infections, three uncomplicated cesarean sections, a left oophorectomy for a benign cyst, and primary hypothyroidism, which had been diagnosed a year earlier. Her medications were levothyroxine, hydroxychloroquine, pravastatin, and alendronate. She lived with her husband and had three healthy adult children. She had a 20-pack-year history of smoking but had quit 3 weeks before presentation. She reported no alcohol or drug abuse and no exposure to tuberculosis. Her family history included oral and bladder cancer in her mother, Graves' disease in two sisters, hemochromatosis in one sister, and idiopathic thrombocytopenic purpura in one sister.

- Entity Types / Roles
- FAMILY-DISEASE
  - FAMILY-SUBSTANCE-ABUSE
  - FINDING-BLOODPRESSURE
  - FINDING-GENERIC
  - FINDING-HEARTRATE
  - FINDING-HEIGHT
  - FINDING-OXYGEN-SATURATIO
  - FINDING-RESPIRATORYRATE
  - FINDING-TEMPERATURE
  - FINDING-WEIGHT
  - MODIFIER-ANATOMY
  - MODIFIER-GENERIC
  - MODIFIER-NEGATION
  - MODIFIER-TIME
  - PATIENT-ACTIVITY-EVENT
  - PATIENT-AGE
  - PATIENT-ALLERGY
  - PATIENT-FEMALE
  - PATIENT-HAZARD-EXPOSURE
  - PATIENT-HEALTHSTATE
  - PATIENT-LOCATION
  - PATIENT-MALE
  - PATIENT-NAME
  - PATIENT-OCCUPATION





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# The Impact of Technology

Opportunities to transform the HC system ?

## Kaiser Permanente

- better coordination → fewer expensive specialists
- EHR - 25 % reduction in office visits

## Geisinger:

- Team & IT 1 GP /2.000 → 2,5-5.000 population

## Bask Health Reform

- 17,000 fewer hospital admissions
- 20% PHC made by telephone (25% self-appointed)
- COPD 32% lower hospitalisation, 81% satisfaction

## General

- imaging - ↓ exploratory surgery
- stents and angioplasty ↓ bypass surgeries
- **Laparoscopy ↑ demand (gallbladder removal)**

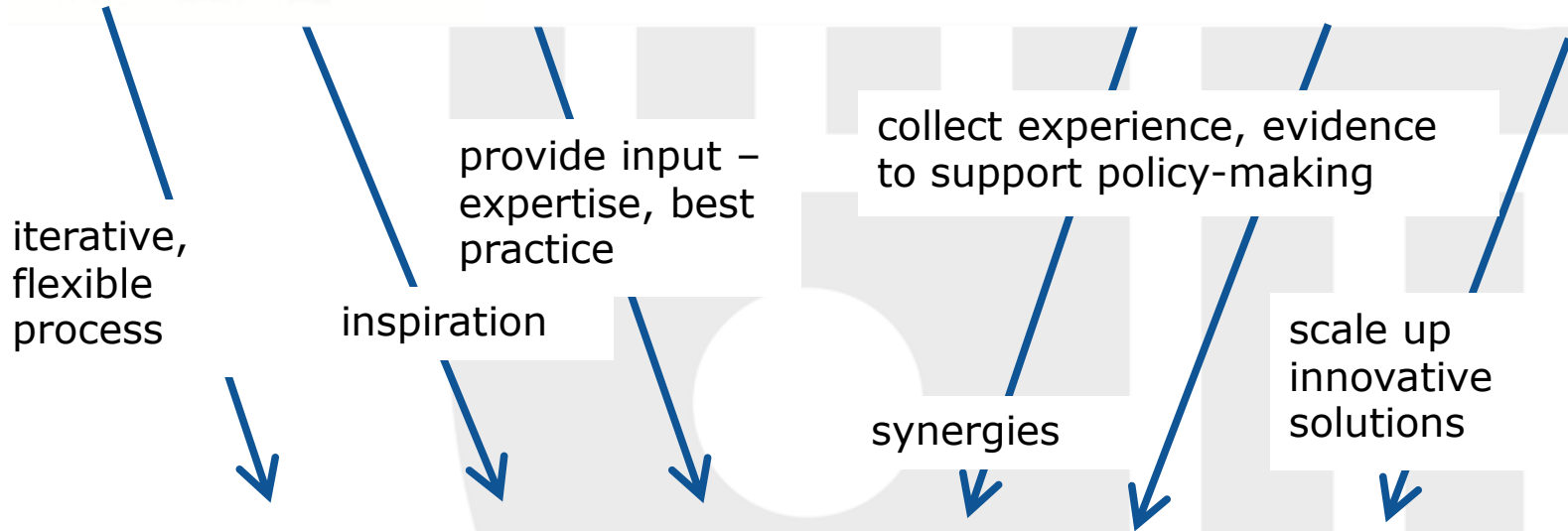
Source: Various  
Cunningham, R, *Health Workforce Needs: Projections Complicated by Practice and Technology Changes*  
National Health Policy Forum, Issue Brief 851, 22. Oct 2013. George Washington University. DC  
Bask Country Reform. IESE Case Study. Barcelona 2016.



# B3 Integrated Care Collaborative



Regions, delivery organisations, patient / carers organisations, academia, industry



**+2 HEALTHY LIFE YEARS by 2020**  
*A triple win for Europe*

# EIP AHA B3 Action Plan

Increase the average number of healthy life yrs by 2 in the EU by 2020

Health status and quality of life | Supporting the long term sustainability and efficiency of health and social systems | Enhancing competitiveness of EU industry

## Chronic Conditions

**By 2015**

Chronic Conditions' Programmes available at least **10% of target population** in at least **50 regions**

**SIP TARGETS**

## Integrated Care

**By 2015 - 2020**

Integrated Care Programmes serving older people, supported by innovative tools and services, in at least **20 regions**

### Implementation and Scale Up of Chronic Care + Integrated Care Programmes

Action Area 7 ICT Tools	<b>Action Area 1</b> Organisational Models	<b>Action Area 2</b> Change Management	<b>Action Area 3</b> Workforce Development	<b>Action Area 4</b> Risk Stratification	<b>Action Area 5</b> Care Pathways	<b>Action Area 6</b> Patient / User Empowerment
Action Area 8 Finance/Funding	Map of partnership models for implementation of Chronic and Integrated Care Programme	Map of best practice methodologies to support the implementation of Chronic and Integrated Care	Map of reusable learning resources	Stratification of the population	Mapping Best Practices in the EU regions	Map of coaching, education and support patient/user empowerment and adherence
Action Area 9 Dissemination	Toolkit	Toolkit	Toolkit	Toolkit	Toolkit	Toolkit

2013

Monitoring impact and outcomes

2015

# B3 Action Group since 2012...

The B3 Action Group (B3) was established to develop as a response for Integrated care to the challenges set by the Strategic Implementation Plan (SIP) of the EIP on AHA:

The overall objective of the B3 is to:

*“ Reduce avoidable/unnecessary hospitalisation of older people with chronic conditions, through the effective implementation of integrated care programmes ad chronic disease management models that should ultimately contribute to the improved efficiency of health systems”*



# B3 Action Group since 2012...

- **B3 Co-ordination Group** was set up in 2012 to oversee the development and implementation of B3 Action Plan;
- **9 Action Areas** were established within the B3 group to deliver tangible deliverables and outcomes;
- **A collaborative governance model** was adopted;
- **450** participants representing **141 commitments** received on behalf of regions, sub-national administrations, delivery organisations, patient/user and carer organisations, academic institutions and industry and member organisations.







## B3 Action Group on Integrated Care AA3 Workforce

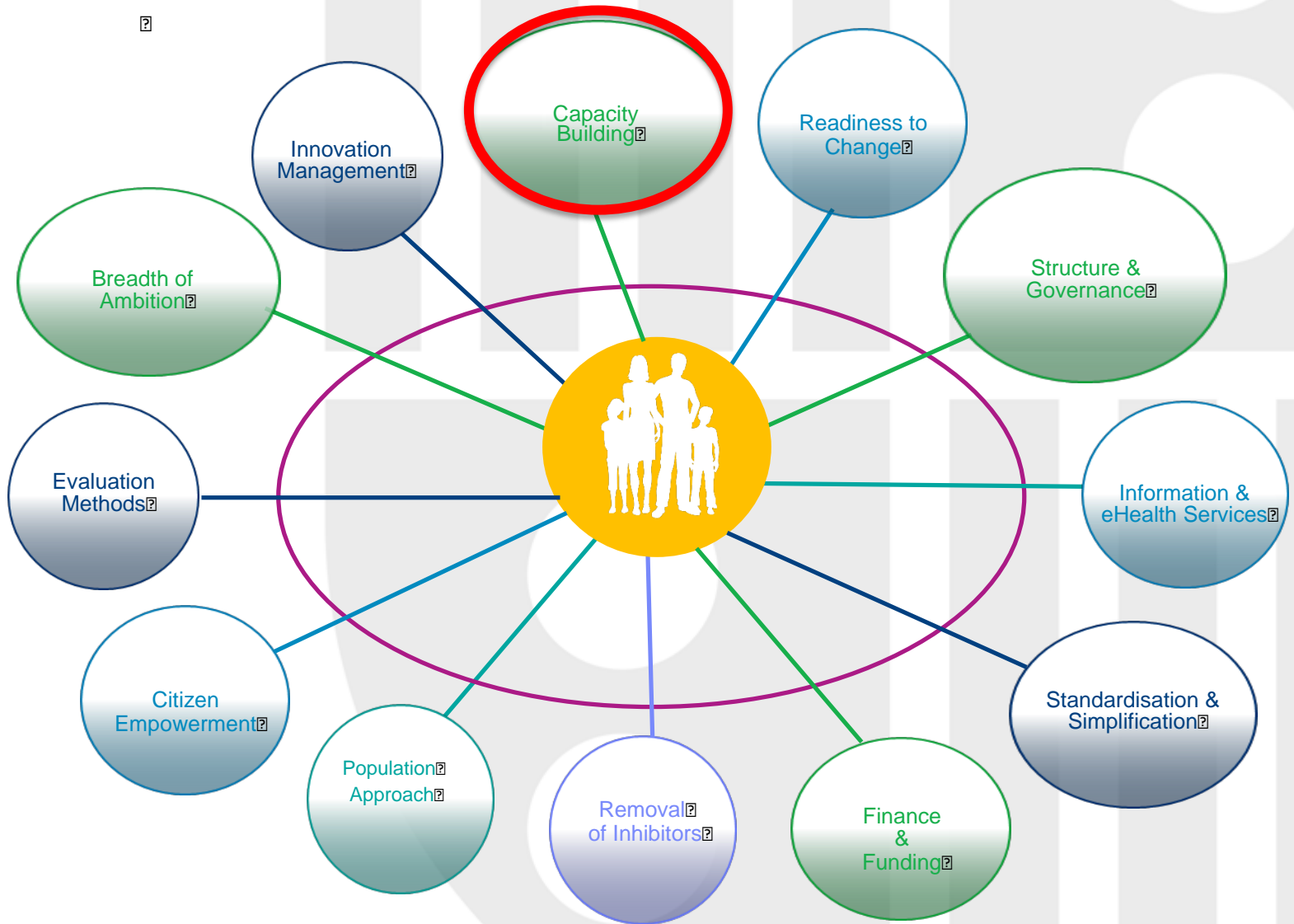
Good practices related to **Workforce Development, Education and Training** offer replicable training programmes, and show how a skilled health workforce can answer to the challenges.





# B3 Maturity Model

?



# Technology to Care Initiative (UK)

[www.technologytocare.org.uk](http://www.technologytocare.org.uk)



*Developed new knowledge and skill sets for social care workers (+workforce strategy)*



*... recognition of 'distinct areas' that needed to be addressed 'regardless of traditional service boundaries'*



- Confidence in Technology (KS1)
  - Rights and values (KS2)
  - Sourcing Technologies (KS3)
  - Assessment and Review (KS4)



- Safe Installation, Maintenance and Disposal (KS5)
- Remote or Virtual Monitoring & Response Systems (KS6)



## B3 Good Practices

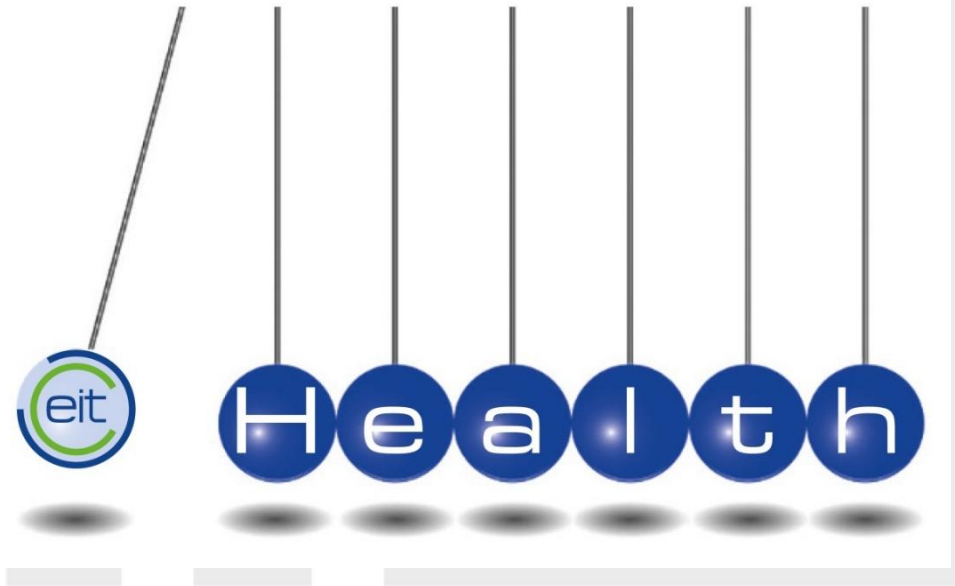
- Product of the **unique collaborative work** of the B3 members to map existing initiatives relevant to the delivery of integrated health and social care.
- The mapping exercise was not meant to select or validate a limited number of practices.
- **Over 100 good practices collected throughout 2013-2014** demonstrating that integrated care practices have potential to improve the quality and sustainability of services.
- [http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/gp\\_b3.pdf#view=fit&pagemode=none](http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/gp_b3.pdf#view=fit&pagemode=none)



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# EIP AHA Good Practices related to Workforce Skills (15)

- 89 **ParkinsonNET** Radboud University Nijmegen Medical Centre
- 101 **School of Diabetes** - Courses for Health Professionals APDP - Diabetes Portugal
- 123 **FOCUSS** Bio-Med Aragón
- 135 **OPIMEC** - Observatory of Innovative Practices for Complex Chronic Disease Management Andalusian School of Public Health
- 143 **Population Intervention Plans PIP's** Department of Health of the Basque Country
- 147 **PROMIC** - Congestive heart failure Department of Health of the Basque Country
- 155 **TELBIL** Department of Health of the Basque Country
- 163 **Building Capacity and Competency for Staff Using Telehealthcare Education and Training Strategy** Scottish Centre for Telehealth and Telecare, NHS 24
- 169 **Everyone Matters: 2020 Workforce Vision for healthcare in Scotland** Scottish Government - Health and Social Care Directorates
- 189 **Supporting an Integrated Telehealth and Telecare Learning Network** NHS 24, Scottish Centre for Telehealth and Telecare



# EIT Health: a powerful alliance for healthy living and active ageing



EIT Health is supported by the EIT,  
a body of the European Union

er | Location | Date

# A strong partnership across Europe

## CLC UK/Ireland

## CLC Belgium/Netherlands

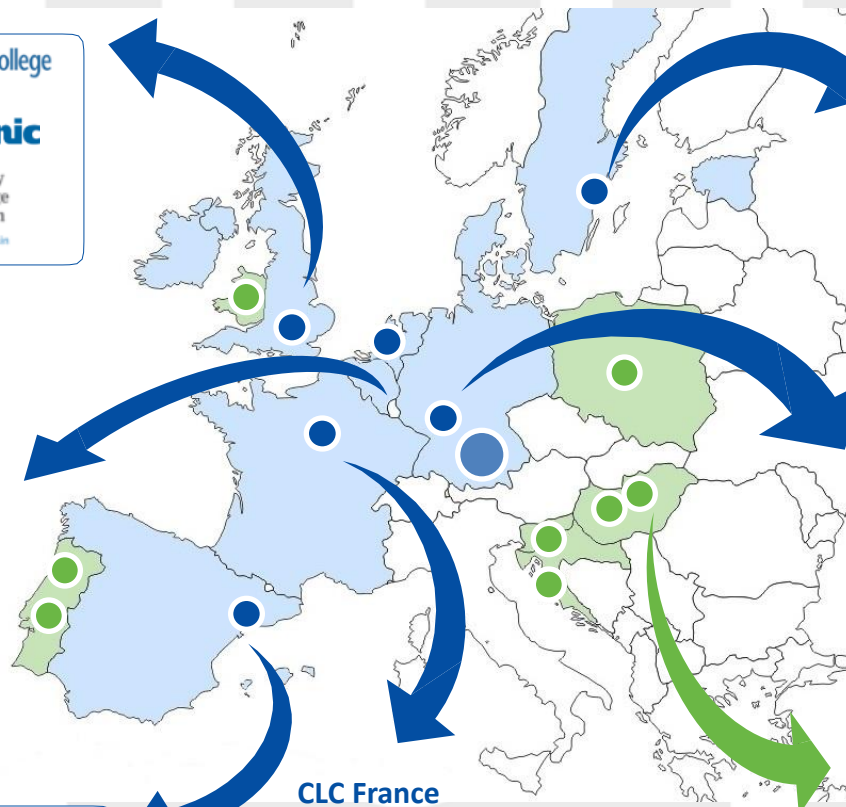
## CLC Spain

## CLC France

## CLC Scandinavia

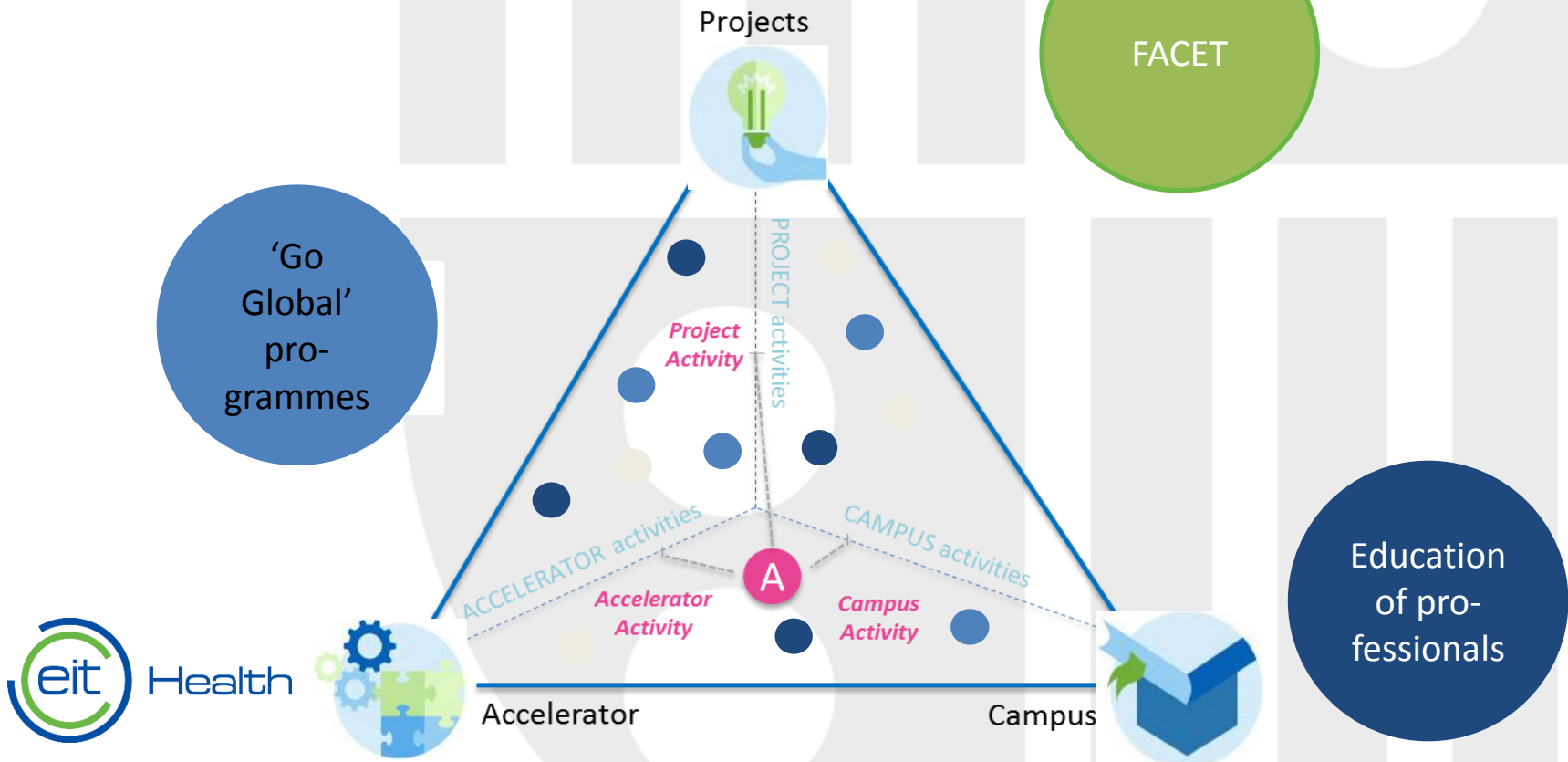
## CLC Germany

## InnoStars



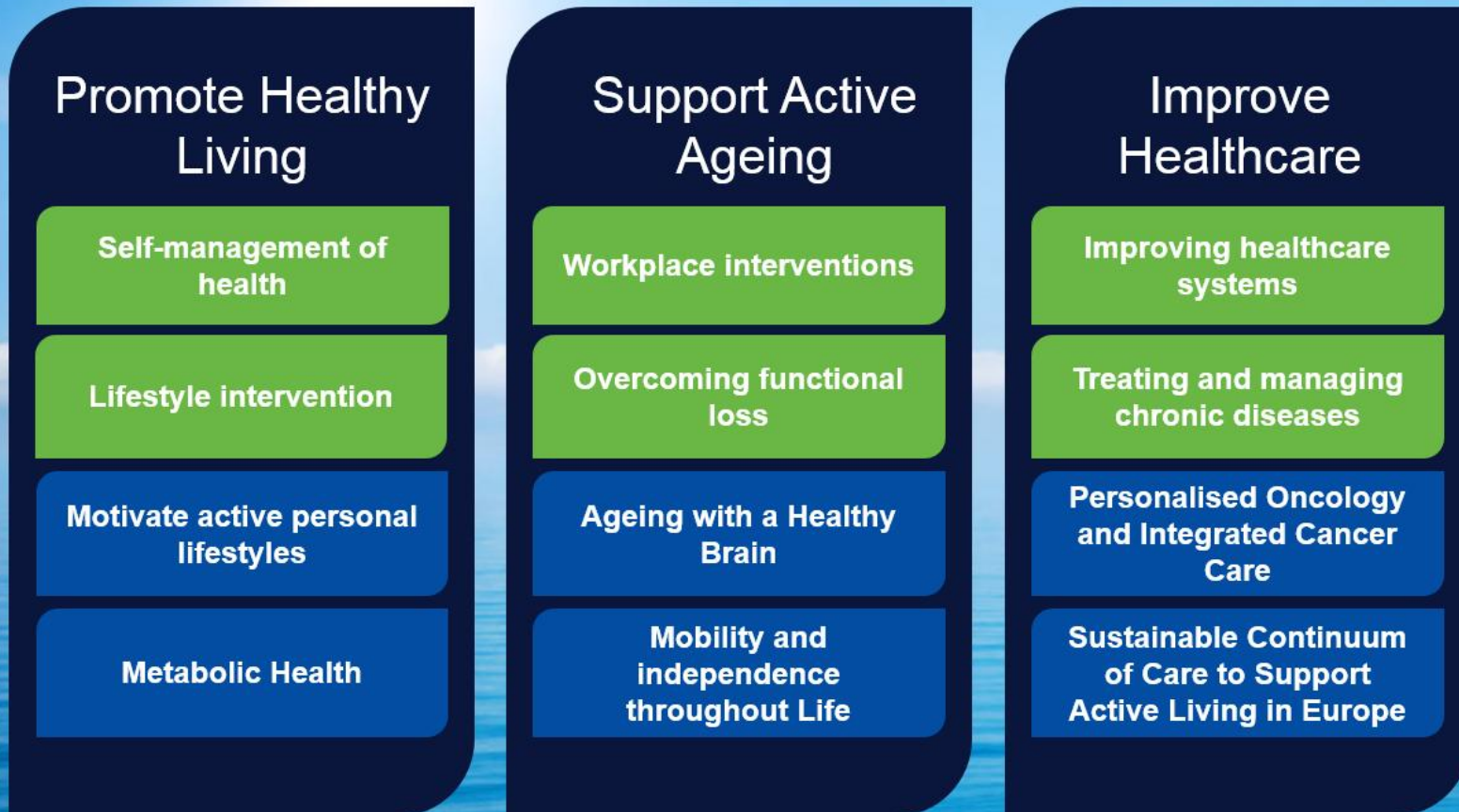
# Integrating innovation, education and entrepreneurship

## Integrated Activity Pyramid





# Focus areas support citizens' desire for an active and self-determined life, even at old age



# CAMPUS: education of professionals and executives is a key education component

**Aim:**  
citizen-  
centred active  
ageing and  
well-being

Develop  
patient-  
centred and  
personalised  
healthcare

Engage  
professional  
citizens for  
healthy living  
and active  
ageing

Create  
sustainable  
and  
innovative  
workplace

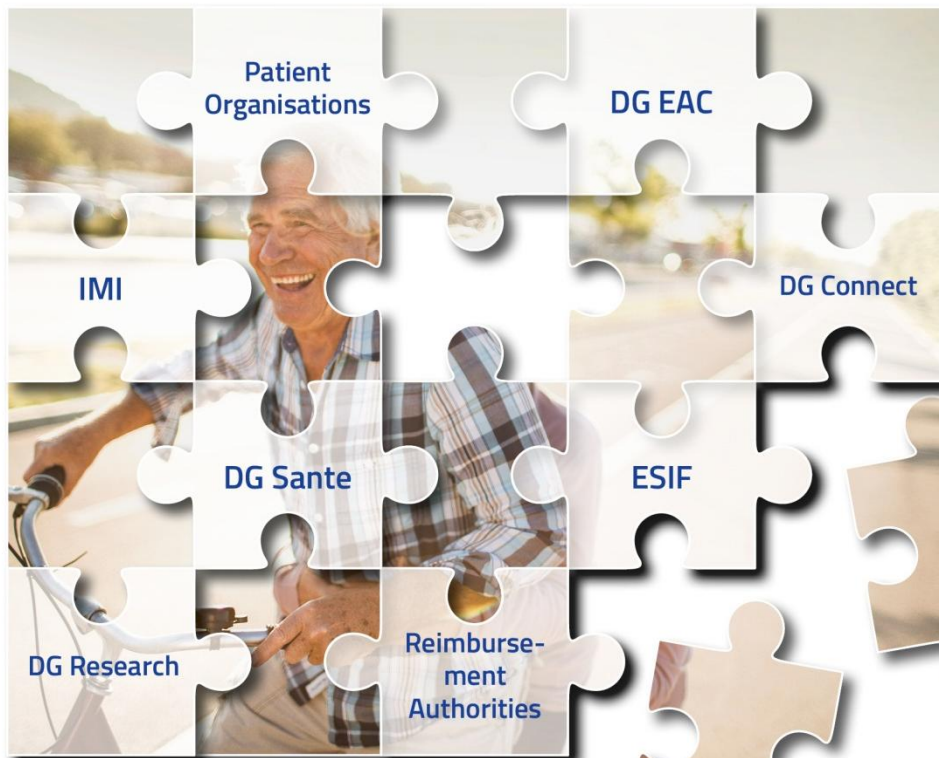
Enable  
executives to  
realise the full  
potential of  
innovations



# 1<sup>st</sup> EITHealth SummerSchool - July 2015



# European synergies for health





## Joint Action Health Workforce Planning and Forecasting

Thank you very much for your interest!

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