

EIT Health: Innovative healthcare solutions of tomorrow



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

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Universidade de Lisboa

Participação Nacional e oportunidades nas
Comunidades de Inovação e Conhecimento (KICs)

7 de Junho de 2017

Innovation in Europe

- **Most EU research** funding & support is provided for early Technology Readiness Levels (TLR) 1-5
 - gap in funding for projects > TLR 6-9
 - lack of 'entrepreneur education'
- **The EIT** was founded to develop
 - solutions for rapidly emerging societal problems
 - products that meet the needs of consumers
- **EIT Health** ensures the connection of education, research and business (knowledge triangle)
 - strengthens entrepreneurial education and support
 - supports innovative ideas and transformational business projects



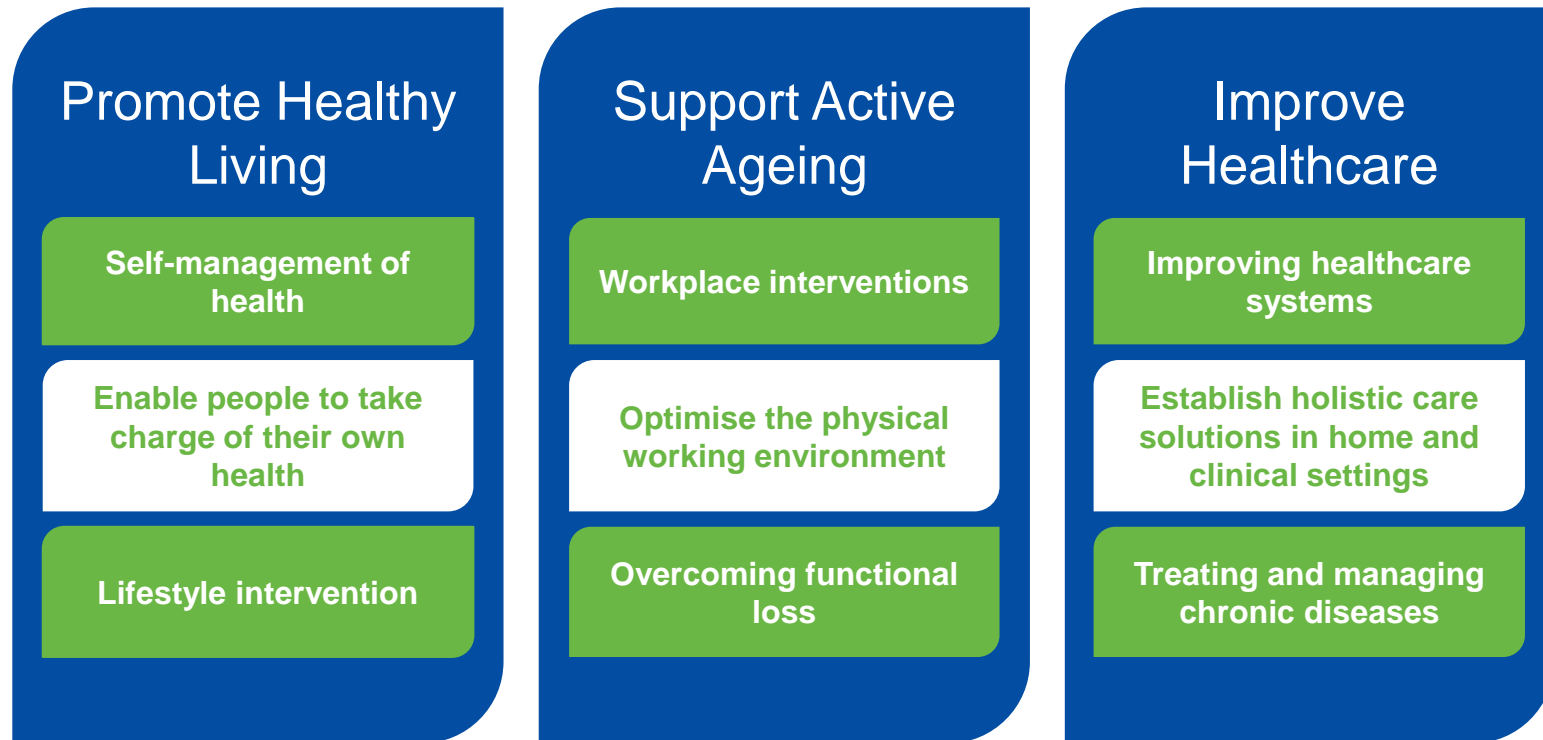


Our mission

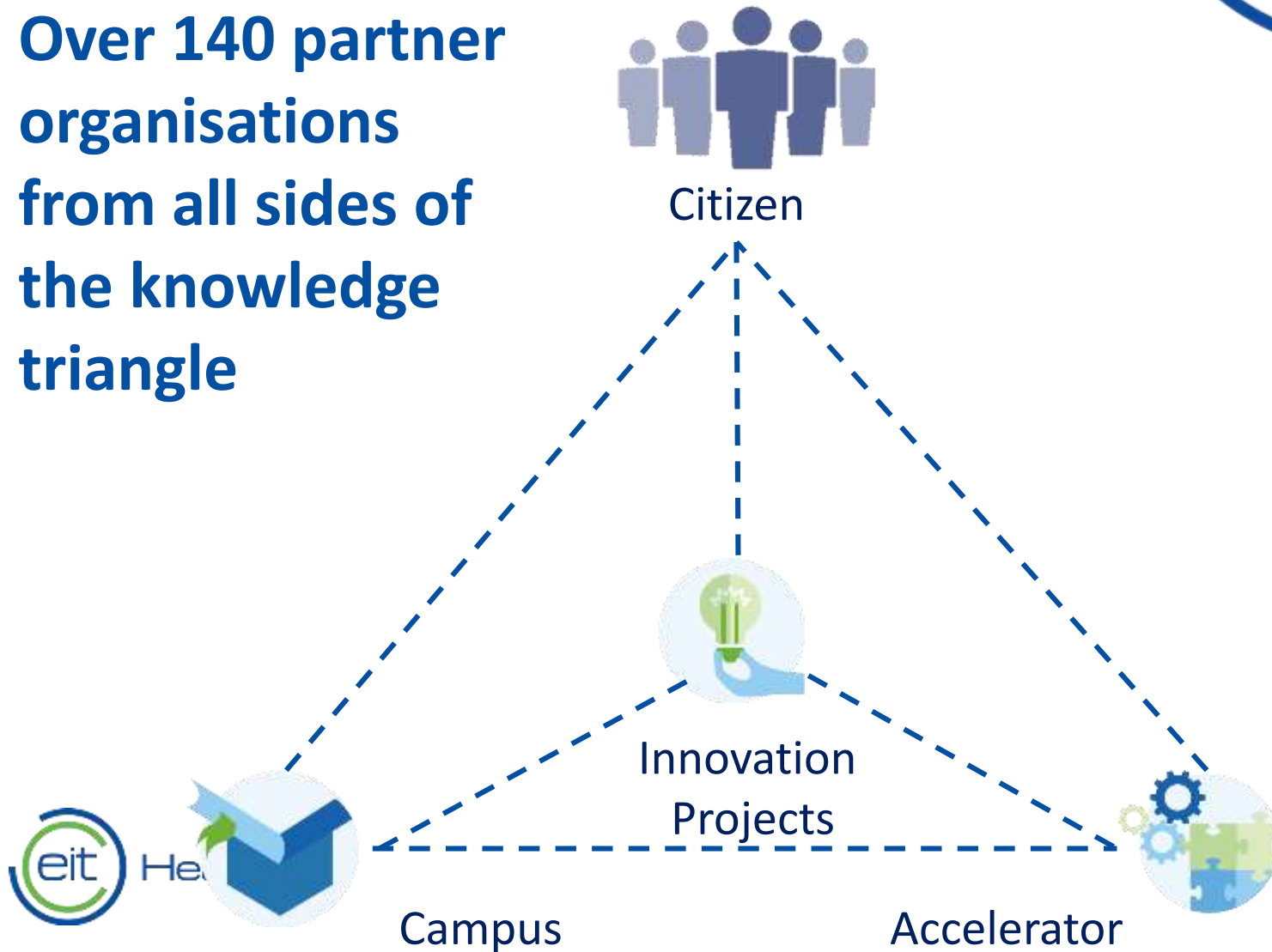
EIT Health promotes entrepreneurship and innovates in healthy living and active ageing, with the aim to improve quality of life and healthcare across Europe.



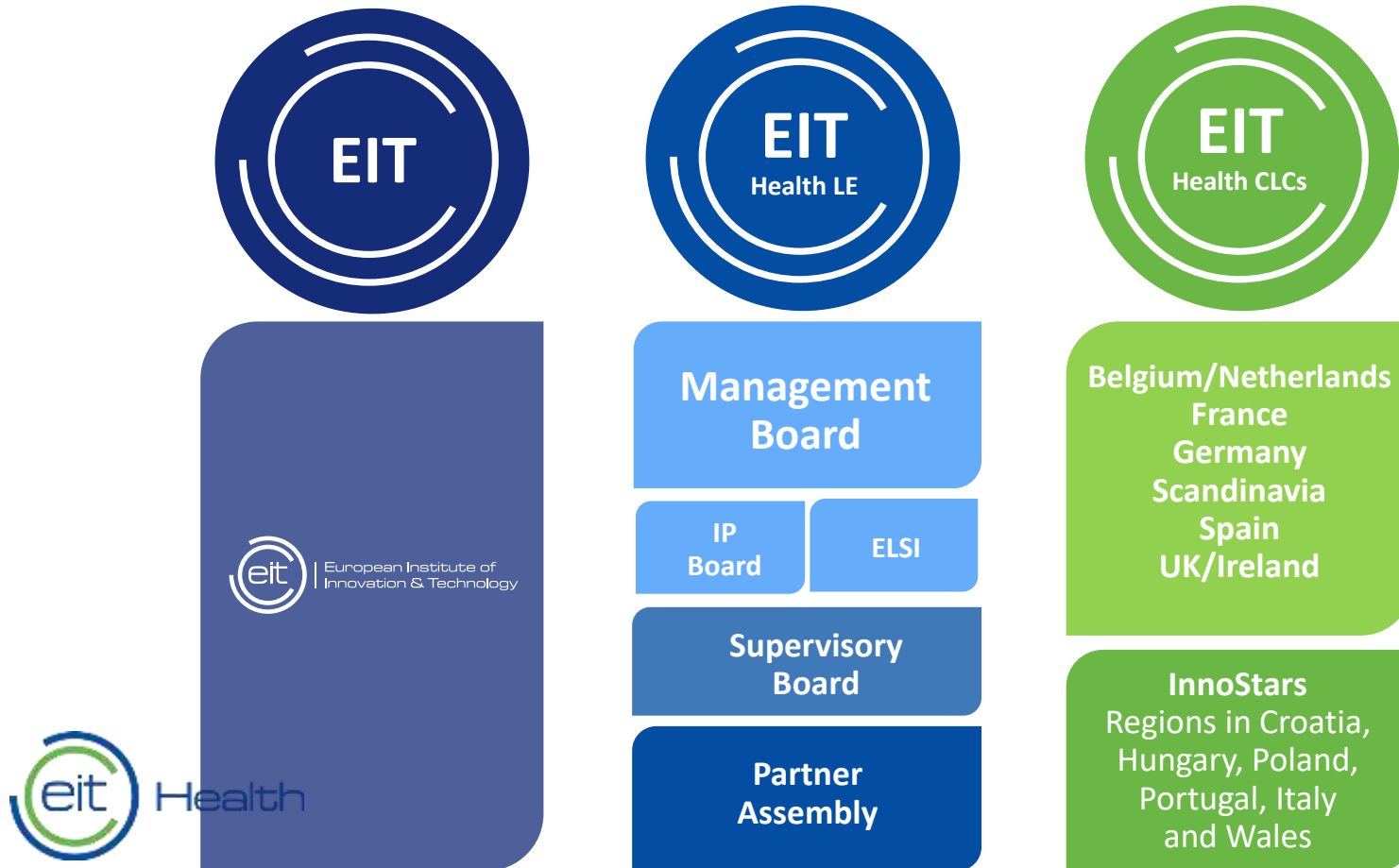
High potential areas



Over 140 partner organisations from all sides of the knowledge triangle



How EIT Health is organised



The 3 EIT Health Pillars: Fostering Innovation across Europe





Innovation Projects

- Developing achievable products and services
- Including educational elements of EIT Health Campus
- Focusing on activities with a clear added value for all healthcare challenges

<http://eithealth.eu/programmes/innovation/>

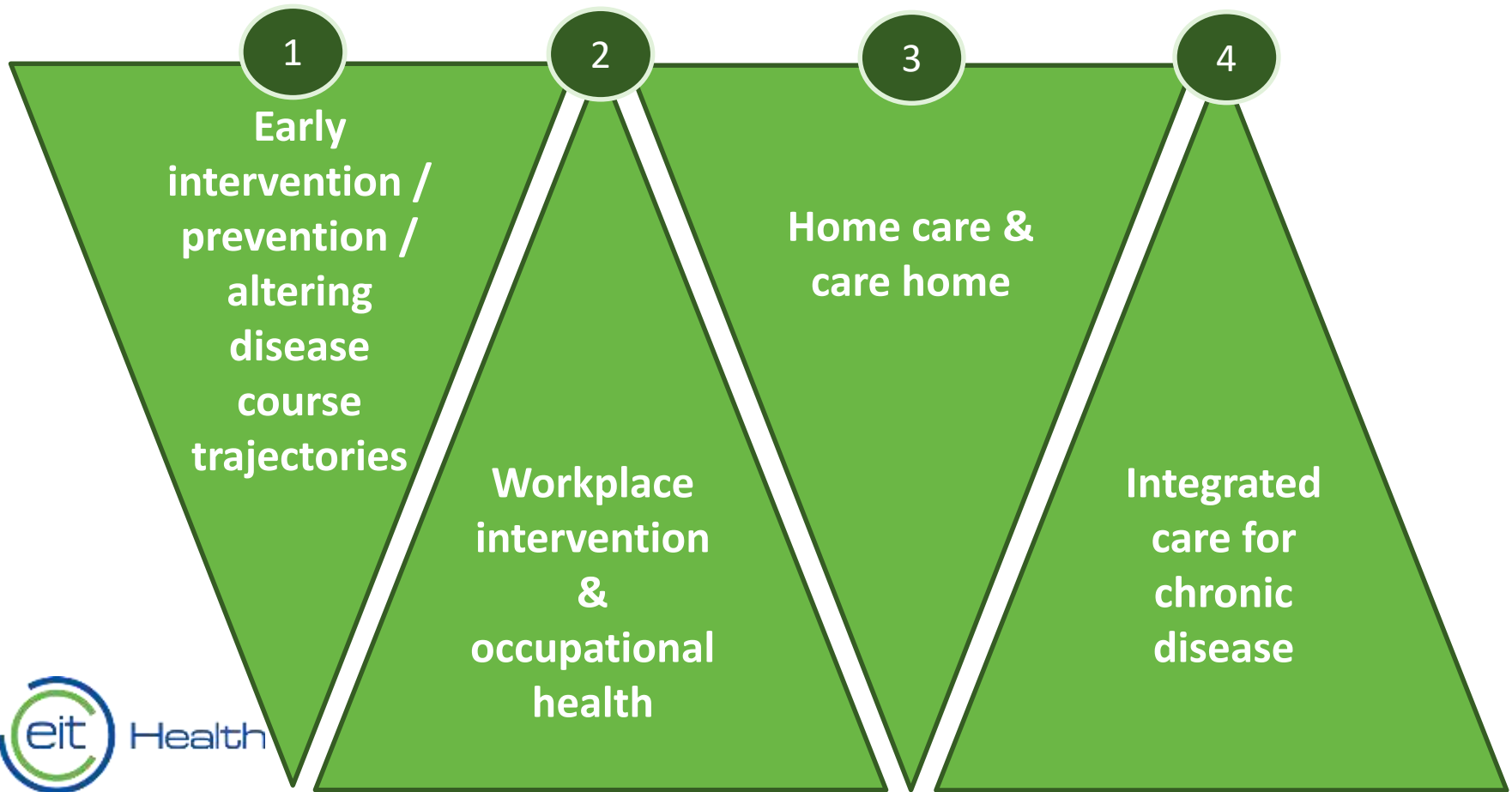
Projects by Ideas “solution-driven”

- collaborative projects
- a potential solution has been identified that either capitalises on an opportunity or addresses a specific problem presented by demographic ageing of the population

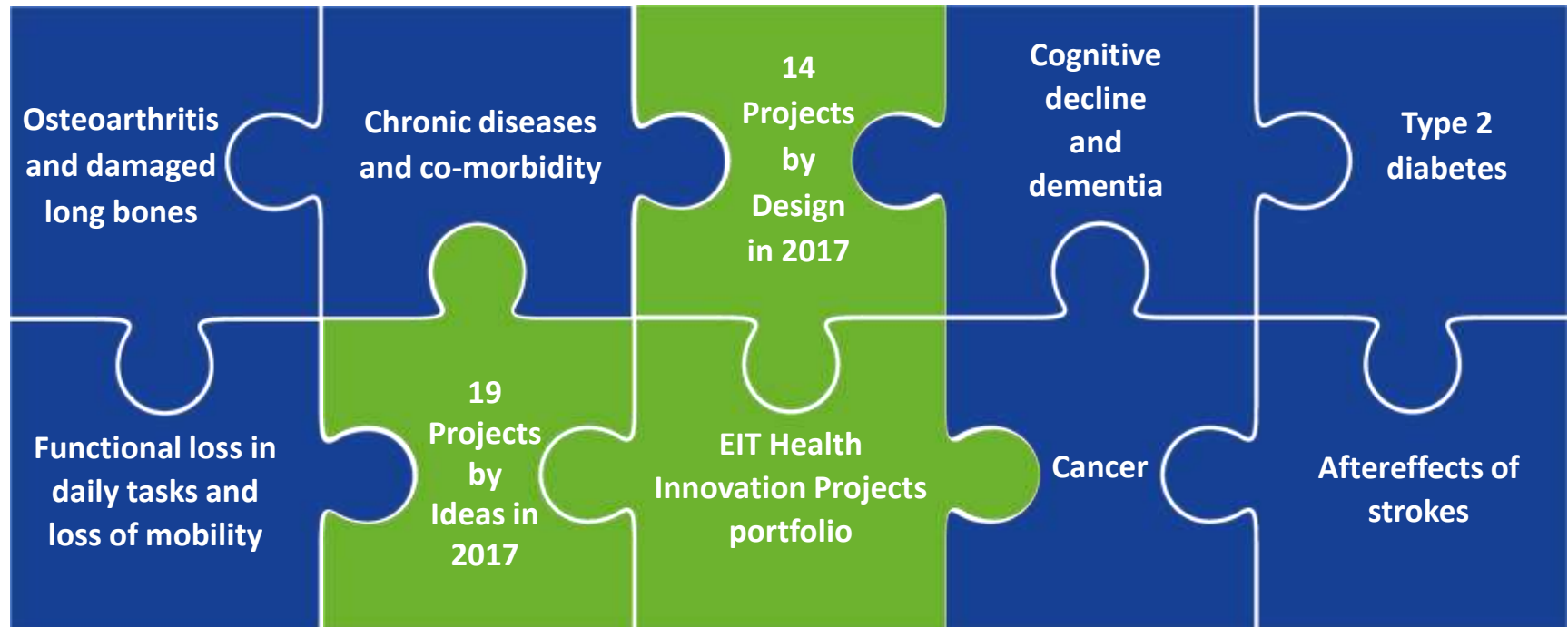
Projects by Design “needs-driven”

- start from a recognised market need or societal problem
- enable corporate and public non-academic partners to quickly initiate and execute activities
- aim at developing products and services hindered by specific innovation barriers

Innovation by Design: focus areas



Projects across societal healthcare challenges



Campus: focus on opportunities

EIT Health Campus develops the leaders of tomorrow

<http://eithealth.eu/programmes/campus-2/>

Tomorrows Needs

Students need **better innovation skills** and **entrepreneurial spirit** to take on opportunities.

Students and Professionals need **interdisciplinary skills and knowledge**, as its is essential for innovation.

Healthcare Professionals and Executives need a **better understanding of empowered patients' needs, attitudes, behaviours and desires.**

Citizens need to **improve their health literacy** in order manage their own health.

Our Answers

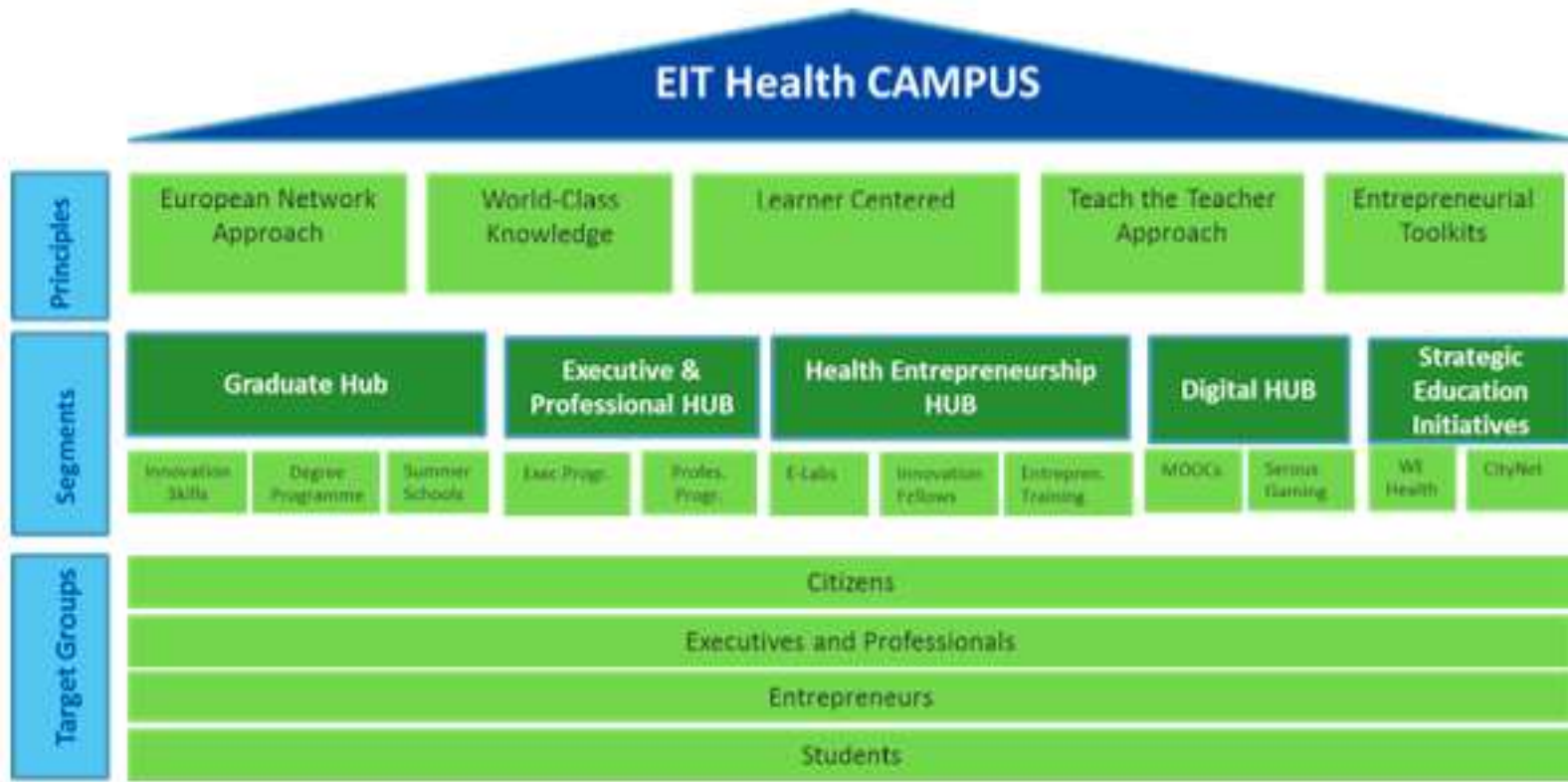
We teach entrepreneurship to equip students with the right skills, mindsets and behaviour.

We develop educational modules and programmes for healthcare innovation

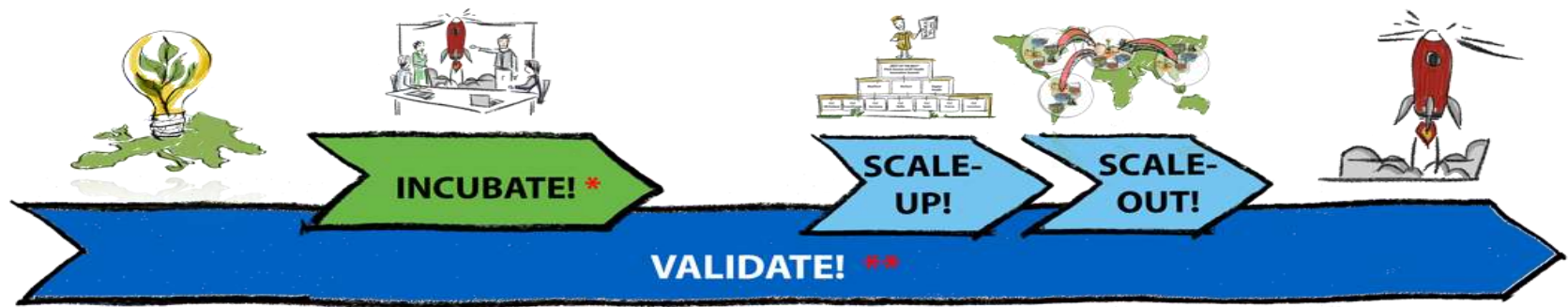
We teach novel processes and best practices for patient-centred care and self-management

We develop a citizen-centered approach to empower citizens by exploring new pathways such as Festivals and MOOCs.

Together with our partners, we are building up a world class European Health Academy to deliver our training



Accelerator Supply Chain



* Joint Activity with CAMPUS

** Link to INNOVATION

Join EIT Health Accelerator

Join EIT Health Accelerator

Why should you join?

- Get supported by the **leading European health network** covering the whole healthcare value chain (Producers, Providers, Payers, ...)
- Get boosted by selected **top-ranked European incubation and acceleration** programmes

Who can join?

- **Students, Scientists, Employees** or **Alumni** from EIT Health member organizations
- External participants with a **reference letter** signed by an EIT Health partner

<http://eithealth.eu/programmes/accelerator-2/>

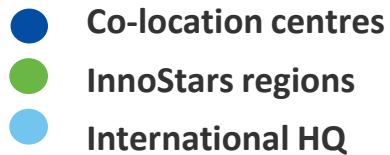


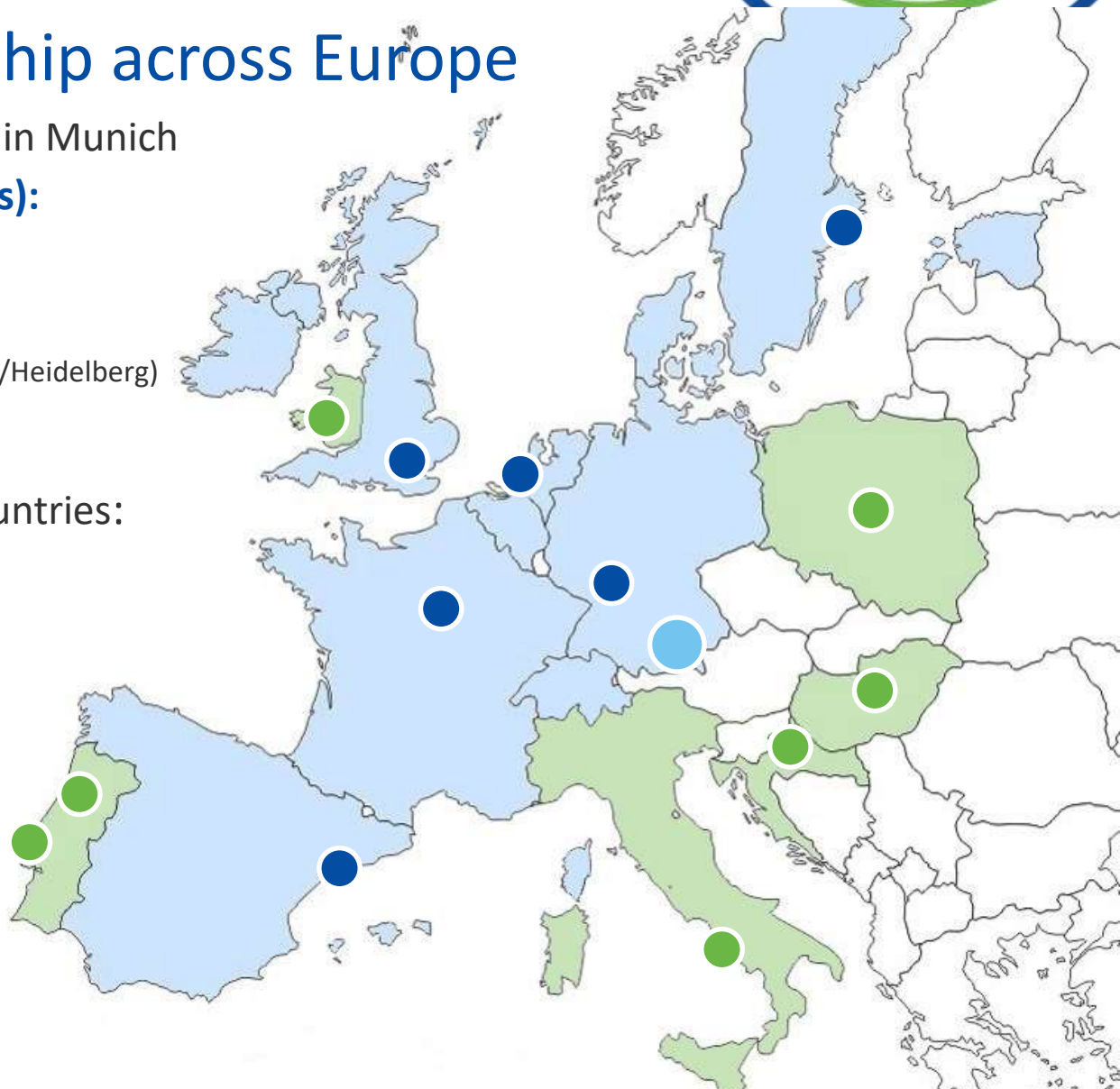
The CLCs and InnoStars: a Truly Unique Network



A strong partnership across Europe

- **International Headquarter** in Munich
- **6 Co-Location Centres (CLCs):**
 - UK-Ireland (London)
 - Scandinavia (Stockholm)
 - Belgium-Netherlands (Rotterdam)
 - Germany-Switzerland (Mannheim/Heidelberg)
 - France (Paris)
 - Spain (Barcelona)
- **7 InnoStars regions** in 6 countries:
 - Croatia
 - Hungary
 - Italy
 - Poland
 - Portugal
 - Wales

- 
- Co-location centres
 - InnoStars regions
 - International HQ



A strong partnership for health across Europe

CLC UK/Ireland

CLC Belgium/Netherlands

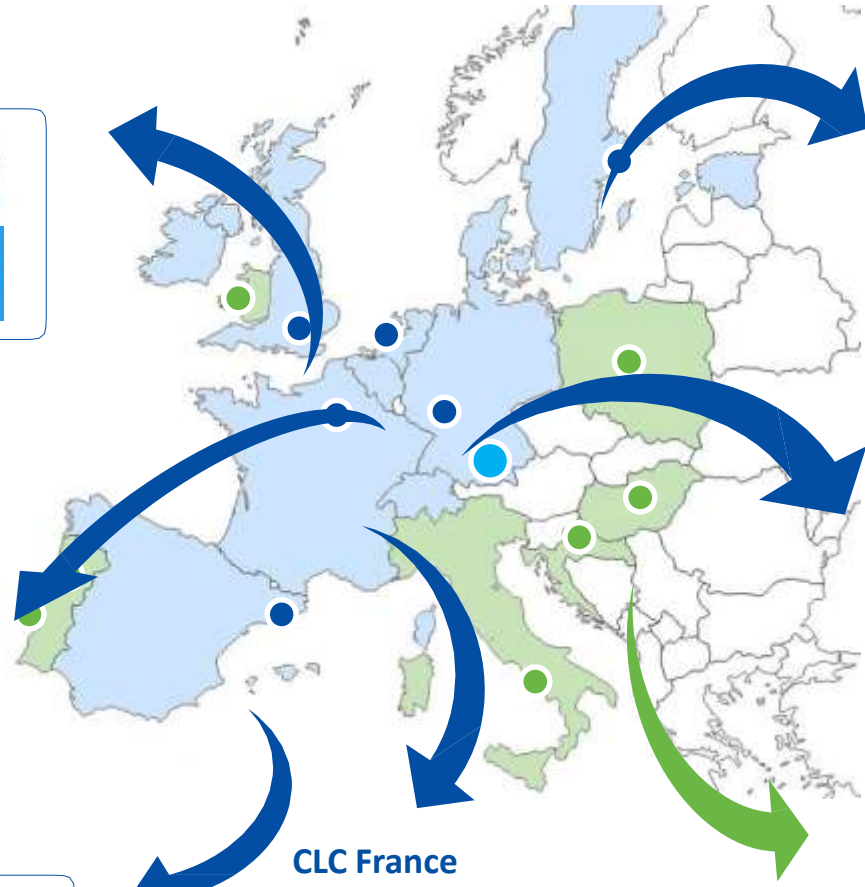
CLC Spain

CLC France

CLC Scandinavia

CLC Germany

InnoStars





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EIT Health @ ULISBOA



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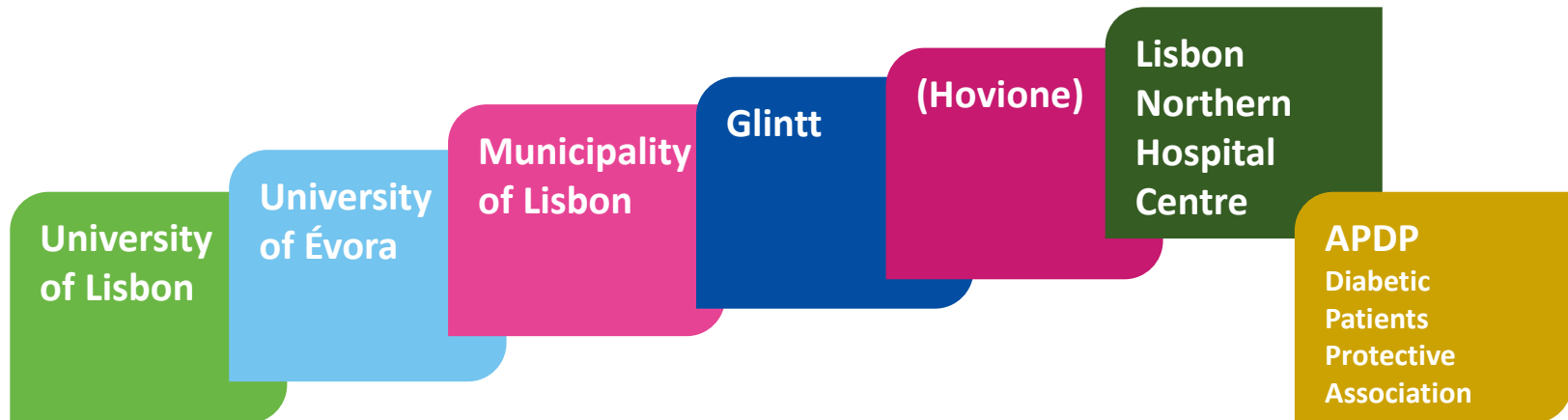
Faculdade de Psicologia
UNIVERSIDADE DE LISBOA



EIT Health @ ULISBOA: a community of 18 schools, 76 research centres and more than 8000 researchers

The beginning: LisbonLiving+ (or LL+)

- **Lisbon Living + (LL+)** is a Portuguese consortium created in October 2013 to prepare the negotiation with the international consortium **InnoLIFE**. This consortium was responsible for the InnoLife proposal to the EIT 2014 call “Active Ageing and Healthy Living”,
- Six of the LL+ members (which are also the members of the Executive Committee of LL+ together with APDP) had the possibility to participate as *Associate Partners* of InnoStars .



LisbonLiving+ (or LL+)



LL+ @ EITHealth (2017)

- U Lisboa
 - 18 schools as Linked Third Parties
- CHLN
- U Evora
- Glintt



Lisbon Living+ 1st Annual Conference




<https://www.youtube.com/watch?v=kN42wkaJjDA&t=448s>

Lisbon Living+ 2nd Annual Conference

- Évora
- February 2018



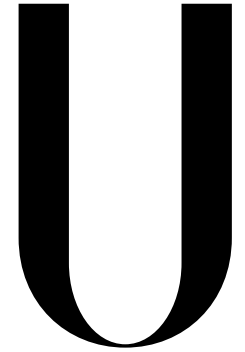
A large, light gray, stylized letter 'U' graphic that curves around the right side of the page, partially overlapping the University of Lisbon logo.

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University of Lisbon in EIT Health



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Master Technological Innovation in Health

Biomedical Engineering @ ULisboa

- All courses are run in semesters
- 6 ECTS per course;
- Taught in English
- Almost all courses involve lecturers from the engineering and medical schools (only a few courses are run by only one of the schools);
- The dissertation/project has 30 ECTS and may be completed in a health care industry setting.
- Degree accredited by the A3ES Portuguese Accreditation body.



TiH Master

- EIT Label
 - Annex to diploma
- Innovation and Entrepreneurship Requirements
 - 30 ECTS in OLO
 - 15 ECTS in non-academic environment
 - 15 ECTS international (different CLC)
- TIH: Federation of Master Programmes

TiH Master

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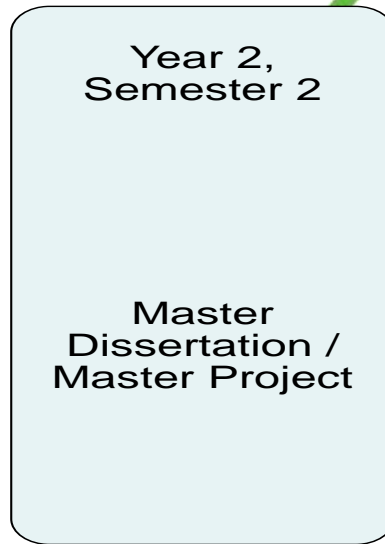
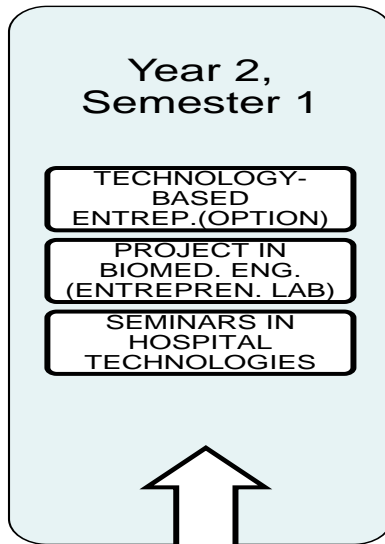
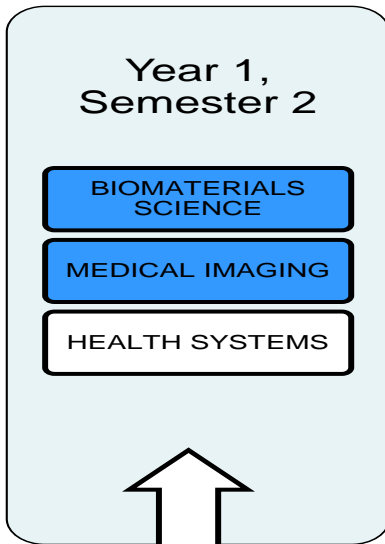
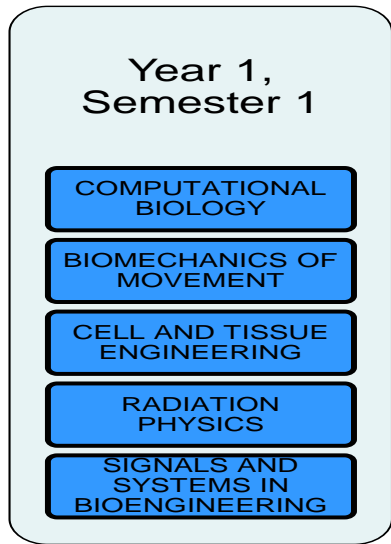


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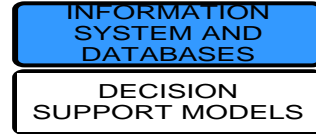
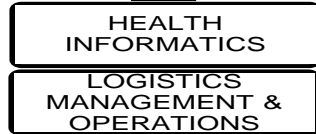
Non-academic participating in teaching:

- MEDICEN Paris Région (*EIT Health partner*)
- GE HEALTHCARE Iberia (*EIT Health partner*)
- RGB Medical Devices
- Viseo (*EIT Health partner*)
- Medtronic





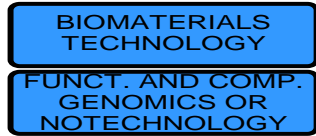
CLINICAL ENGINEERING stream A plug-in



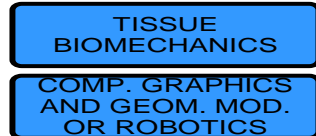
IMAGIOLOGY, BIOSIGNALS AND BIOMEDICAL INSTRUMENTATION stream B plug-in



CELLULAR AND MOLECULAR MED., TISSUE ENG. AND REGENERATIVE MEDICINE stream C plug-in



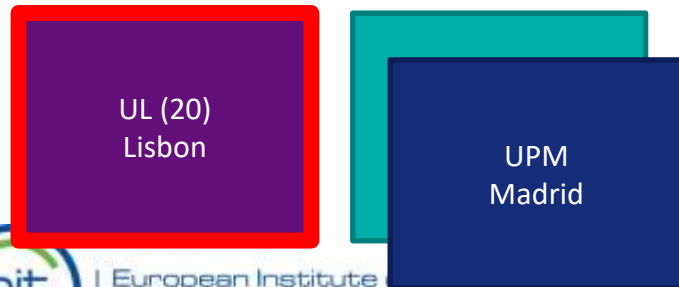
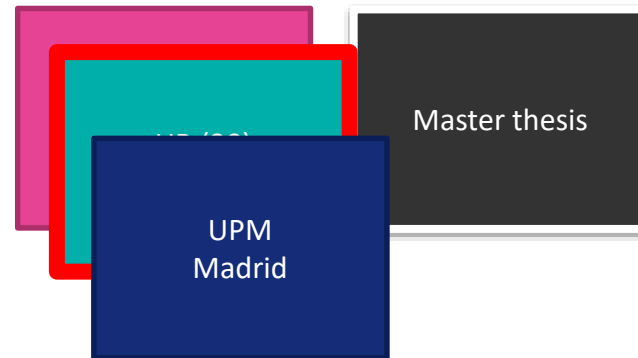
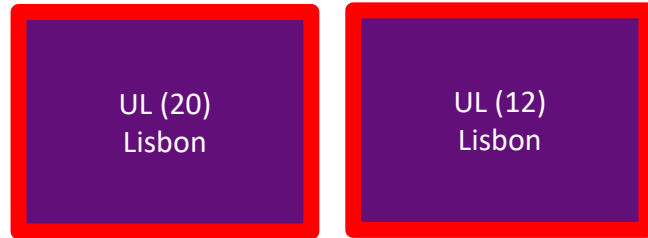
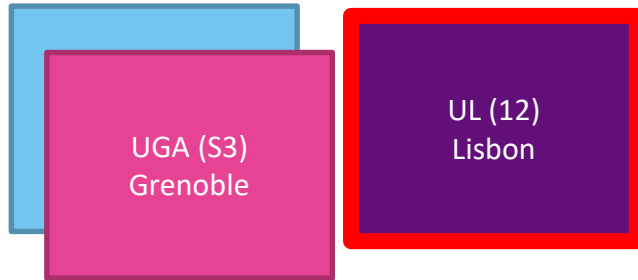
BIOMECHANICAL AND BIOMEDICAL DEVICES stream D plug-in



Legend

Courses fulfilling contributing to EIT OLO's

Labelling - Pathways



Starting NOW

- First incoming/outgoing students after Sep 2017



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FRAILTY, FALLS, AND FUNCTIONAL LOSS EDUCATION: The 3Fights@Edu MOOC perspective



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- Frailty is a geriatric syndrome of great vulnerability to the occurrence of falls and injuries, hospitalization, loss of functional capacity, institutionalization and death.
- Early identification of frailty is currently not embedded in health or social care structures; however, it is believed that early detection of risks and early intervention can delay or even reduce frailty and disability.

<http://posgrad.fmh.ulisboa.pt/mobilityandaging/>



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

Apart from recognized strategic policies, the improvement of health literacy for both elderly and their relatives, seems to be an important key factor for a preventive approach

From the educational and technological point of view, the Massive Open Online Courses (MOOCs) format is one of the most effective ways to answer this challenge, allowing to develop resources adjusted to different end-users' backgrounds and to implement empowerment programs





Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

PURPOSES & RELEVANCE

TARGET POPULATION

- To promote **Healthy Living (Challenge 1)**
- To support **Active Aging (Challenge 2)** by promoting health literacy and lifestyle changes and educational courses;
- To enable individuals, their families or caregivers **to detect early signs of frailty and risk of fall** that may impact functional capacity and physical independence;
- To better **understanding and monitor the signs** of loss of autonomy;
- To provide capacity to **Self-management of Health and Functional Capacity**

- Elderly citizens (Portuguese, Spanish, English and Danish);
- Informal caregivers;
- ~ 9 000, distributed by three countries and by 3 editions of the course in each country (1000 primary end-users per course edition).





Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

KIC Partner Activity Leader

- Universidade de Lisboa, Faculdade de Motricidade Humana & Instituto Superior Técnico

KIC partners involved

- Universidad Politécnica de Madrid
- University of Copenhagen

End-users Partners

Luz Saúde

Municipality of Oeiras

2017

10 000 citizens (3 countries)



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

EXPECTED OUTPUTS

- EIT Health **e-learning modules**;
- Setting up an **e-learning platform and a MOOC course** targeting elderly people and caregivers;
- To promote basic skills in health and functional capacity that contribute to the independent living of older people through the provision of **information (elderly people) and training (caregivers)**.
- To improve awareness and information about active and healthy ageing, particularly on the prevention of frailty and falls at the **general public** .



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

COURSE LENGTH & WORKLOAD

A- Duration of 3 hours (3 sessions x 1hr) over 1week.

B- Attendance the course in three different weeks: June, September and November 2017.

C- Each MOOC session will be supervised by two specialists to promote interaction with the participants and to answer to their main questions, at least three times per week



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

LEARNING OUTCOMES

1- Elderly citizens/patients or their relatives:

- **To understand** the aging process and the dynamics associated with the frailty and falls;
- Better **personal management** of health and functional capacity;
- **Knowledge of strategies** to support a self-sustaining life situation.





Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

The Units of Learning

- **UL1:** The aging process and the functional decline perspective.
- **UL2:** The frailty, sarcopenia, and dysmobility; the main risk factors and consequences of these syndromes and their interaction.
- **UL3:** The phenomenon of falls; the strategies to adopt in case of a fall occurrence and the assistance after a fall; the syndrome of fear of falling.



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

- **UL4:** The change of risk factors; the identification of networks of support to assist people at risk of frailty, falls, and functional decline.
- **UL5:** The existing prevention/treatment solutions/strategies that can assist elderly people in screening physical functioning, training physical fitness, and counseling physical activity and sedentary behaviors.

Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

Learning Platform & Online Resources

eLearning platform
edX – MOOC Técnico

- **Reading** material
- Tests and interactive **activities**
- **Videos**
- **Suggestions**
- Portal for **discussion with multi-stakeholder** engagement to enable discussion on functional capacity management



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

PRODUCTION PROCESS

- **Phase I:** Content development (i.e., design and production of the 3Fights@Edu MOOC)- 1st trimester;
- **Phase II:** Production and the onset of dissemination plan; a pilot study will be implemented in order to test the course in a subsample of Portuguese elderly people (100 citizens from senior schools, day care centers of the Municipality of Oeiras, and senior residences from the Luz Saúde Group)- the 2nd trimester
- **Phase III:** 3Fights@Edu MOOC will be launched at the end of the 2nd trimester across 3 countries; .



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

COMMUNICATION & DISSEMINATION CHANNELS

1- Public media

2- [3Fights@edu website](#): to incorporate the 3Fights@Edu MOOC and all e-contents and tools available to the general public

posgrad.fmh.ulisboa.pt/3fights.edu/

3- Social media: Twitter and Facebook

4- Publications: 2 newsletters will be drafted, in Portuguese, English, Danish and Spanish Languages.



Frailty, Falls, and Functional Loss Education: The 3Fights@Edu MOOC perspective

DISCUSSION & FUTURE DIRECTIONS

- Accessibility aspects
- Unobtrusive aspects
- Big data aspects
- AGING WELL@WORK-18295: Prevention of Frailty and Functional Loss in middle aged workers

Other Activities

- Doctoral Transition Fellowships
- Local Coordination of Regional Innovation Scheme
- Innovation Open House

Doctoral Transition Fellowships - 2017



- The aim of DPhil/PhD transition fellowship program is to address the funding gap between completion of the doctoral thesis and obtaining further seed funding.

- Invitation to Portugal, representing Innostars for the 2017 program
- Oxford, Imperial College, Coimbra and Lisbon University
- **Total Budget for 2017 Euro 50K to Portugal.**



Local Coordination of Regional Innovation Scheme:



eit Health Calling companies with well-developed prototypes intending to launch their product

April 30

eit Health | **U LISBOA** | UNIVERSIDADE DE LISBOA | **M** FACULDADE DE MEDICINA LISBOA

The banner features a teal background with the EIT Health logo, a central text block, a calendar icon for April 30th, and a row of five circular icons representing various aspects of innovation and business. At the bottom, logos for EIT Health, U LISBOA, UNIVERSIDADE DE LISBOA, and the Faculty of Medicine of Lisbon are displayed.

INNOSTARS ACCELERATOR COMPETITIONS 2017



INNOSTARS AWARDS

(For "proof of concept" level projects or companies having a prototype ready to be launched on the market.)



EUROPEAN HEALTH CATAPULT

(for "headstart" companies having at least one customer and ready to enter new markets)

- Promotion of InnoStars and EIT Health Accelerator programmes and competitions
- Awareness events
- Coaching and mentoring for start-ups and entrepreneurs



Innovation Open House

Universidade de Lisboa – June 30

- Innovation in medtech, biotech or digital health
- Available funds and training in innovation and business creation
- Networking with local and European decision makers
- Presentation of Good Practices and Success Stories



The screenshot shows the EIT Health Innovation Open House website for Lisbon. The main header reads "EIT Health: Innovation open house" and includes the text "Meet Europe's top universities & get engaged with their world-class incubation programs!". Below the header is a navigation bar with links for Home, Participants, Budapest, Lisbon, Naples, Coimbra, Lodz, and Contact. A "Register" button and a "Login" link are also visible. The main content area features a large image of a cityscape with the word "LISBON" overlaid in large white letters. To the right of the image is a sidebar with a green "Register for this event" button, a "SCHEDULE" section showing registration from 19 May to 30 Jun and the event from 8 Jun to 30 Jun, and a "DETAILS" section with options for Language (English), Costs (Free of charge), and Venue (Budapest; Lodz; Naples; Coimbra; Lisbon).

Participants: Students, Startup Teams and young professionals

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THANK YOU



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