

#### **INPATH-TES**

PhD on Innovation Pathways for TES



Duration: 36 months

Start: 1 May 2015

Call: H2020-LCE-2014-2

Type: Coordination and Support Action

Coordinator - University of Lleida (SPAIN)

Website: www.inpathtes.eu





#### Main goal:

 To create a network of universities and research institutes to implement a joint PhD programme on thermal energy storage (TES) technologies at year 0+2 (2017)

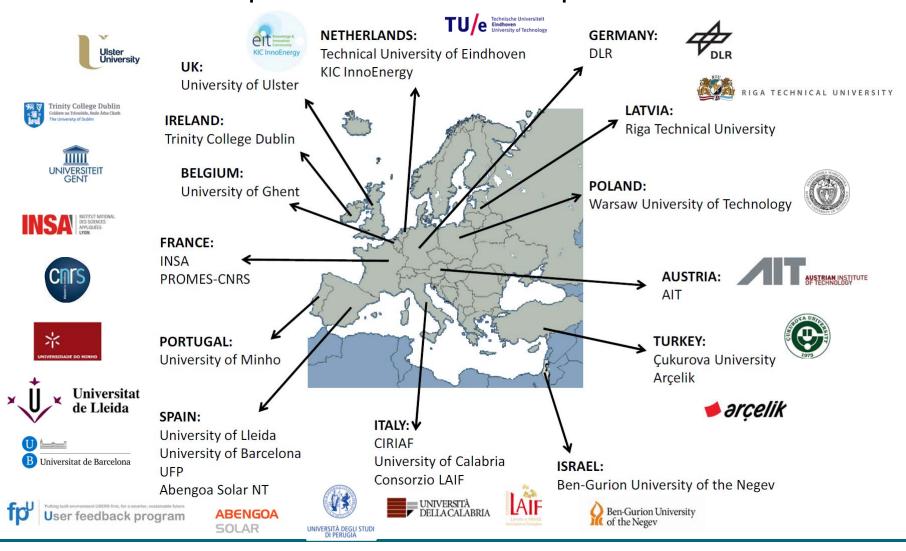
#### Specific objectives:

- To develop at least 20 ECTS of basic common training module
- To develop four basic common technology PhD courses
- To establish one annual joint workshop for PhD students
- To aim at graduating at least 28 PhD students every year at year 0+6 (2021)
- To exchange at least 14 PhD students every year between industry and academia





• Partners: 22 partners from 14 European countries:





# The project



Interaction between WPs







#### Main challenges:

- Two levels of work: PhD programme and MSc
- Development of the programme
- The approval of the programme by each country/institution
- Ensure the continuity of the programme after EU funding ends



## The PhD programme



- A total of 14 courses are being developed
- The EIT/KIC InnoEnergy pedagogical methodology will be implemented
- The PhD programme built according to the following structure:
  - Course
    - Topics
      - Lessons
        - » Learning activities

The following structure.	
No.	Title
1	Research and PhD
2	Introduction to TES
3	Thermal energy storage materials
4	Testing and characterisation of energy storage materials
5	Heat and mass transfer and sizing of energy storage devices
6	Intellectual property and patenting ideas
7	Idea to product development
8	Dissemination of research results
9	Funding of research: writing proposals
10	Management and entrepreneurship
11	Thermal energy storage applications for buildings
12	Demand side management concepts and energy storage
13	Large scale energy storage
14	Energy policy and market development



- Share knowledge on the PhD program and its specifics to increasing the level of awareness
- Share knowledge on the importance, experience and best practise of TES storage applications
- Developing job opportunities for the new PhDs graduated every year;
- Carrying out secondments for the PhD students;
- Organizing technical events for stakeholders e.g. national workshops to identify current technical, regulatory barriers, and challenges for TES systems or conferences
- Supporting networking opportunities and
- Exploiting potential collaboration opportunities
  - e.g. Online survey to get feedback to determine the needs and future demands of the industry and other relevant stakeholders to the planned PhD program https://www.soscisurvey.de/test078662/.





- Joint activities
  - General and management board meetings every four months:
    - Kick-off meeting: 16-17 June 2015, Brussels







- Joint activities
  - General and management board meetings every four months:
    - 1st general meeting: 19-20 October 2015, Perugia







- Joint activities
  - General and management board meetings every four months:
    - 2<sup>nd</sup> general meeting: 14-15 February 2016, Beer-Sheva







- Joint activities
  - Workshops:
    - Instructional workshop for all intended educational providers inside the project: 21 October 2015, Perugia











- Joint activities
  - Other meetings:
    - 1st Stakeholder Advisory Board meeting: 15 February 2016, Beer-Sheva



# Thank you for your attention!



Be involved in the project and influence the future of thermal energy storage applications!

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