

Horizon 2020 – opportunities next calls

Brussels, 12th June 2014– **Shallow geothermal**



Horizon 2020 - Work programme 2014 & 2015

Excellent science

Industrial leadership

5. Leadership in enabling and industrial technologies (LEITs)

i. Information and communication technologies

ii. Nanotechnologies, Advanced materials, Advanced manufacturing and processing, Biotechnology

Societal challenges

10. Secure, clean and efficient energy

12. Climate action, environment, resource efficiency and raw materials

Spreading excellence and widening participation

Science with and for society

Communication, Dissemination and Exploitation

Leadership in enabling and industrial technologies (LEITs)

i. Information and communication technologies

No specific reference to energy supply technologies **but topics on:**

- **Software development**
- **Energy efficiency of data centers**
- **Etc.**

Example of FP7 project: Thermomap 'Area mapping of superficial geothermic resources by soil and groundwater data'

deadline: 25/11/2014

Leadership in enabling and industrial technologies (LEITs)

ii. Nanotechnologies, Advanced materials, Advanced manufacturing and processing, Biotechnology

Call for EeB – Energy-efficient Buildings

- EeB 5 – 2015: Innovative design tools for refurbishment at building and district level (TRL 5-7)
- EeB 6 – 2015: Integrated solutions of thermal energy storage for building applications (TRL 4-6)
- EeB 7 – 2015: New tools and methodologies to reduce the gap between predicted and actual energy performances at the level of buildings and blocks of buildings (TRL 5-7)
- EeB 8 – 2015: Integrated approach to retrofitting of residential buildings (TRL 5-7)

Deadline: 09/12/2014

Leadership in enabling and industrial technologies (LEITs)

ii. Nanotechnologies, Advanced materials, Advanced

The topic	Potential R&D
Underground components	<ul style="list-style-type: none">- Thermal and hydraulic design of heatexchangers- Heatexchanger applications & materials- Foundation heatexchangers
Underground installation	<ul style="list-style-type: none">-Improved productivity-Long term quality (thermal & enviromental)-Working conditions, Health and Safety
Integrated design	<ul style="list-style-type: none">-Site investigation, in situ testing, models-Dynamic relation: building-installation-underground-Hybrid installation design-Operating strategies, control strategies
Sustainability Environmental impact	<ul style="list-style-type: none">-Underground interference between systems-Thermal storage effects-Design tools for long term environmental evaluation-Low cost environmentally friendly antifreeze

Societal challenges

10. Secure, clean and efficient energy

Call for Energy-efficiency

- A. Buildings and consumers
- B. Heating and Cooling
- C. Industry and products
- D. Finance for sustainable energy

Call for Competitive low carbon energy

Renewable electricity and heating/cooling

Modernising the European electricity grid

Providing the energy system with flexibility through storage

Biofuels

Fossil fuels

ERA, etc.

Call Smart cities and communities

Call – SMEs and fast track to innovation for energy

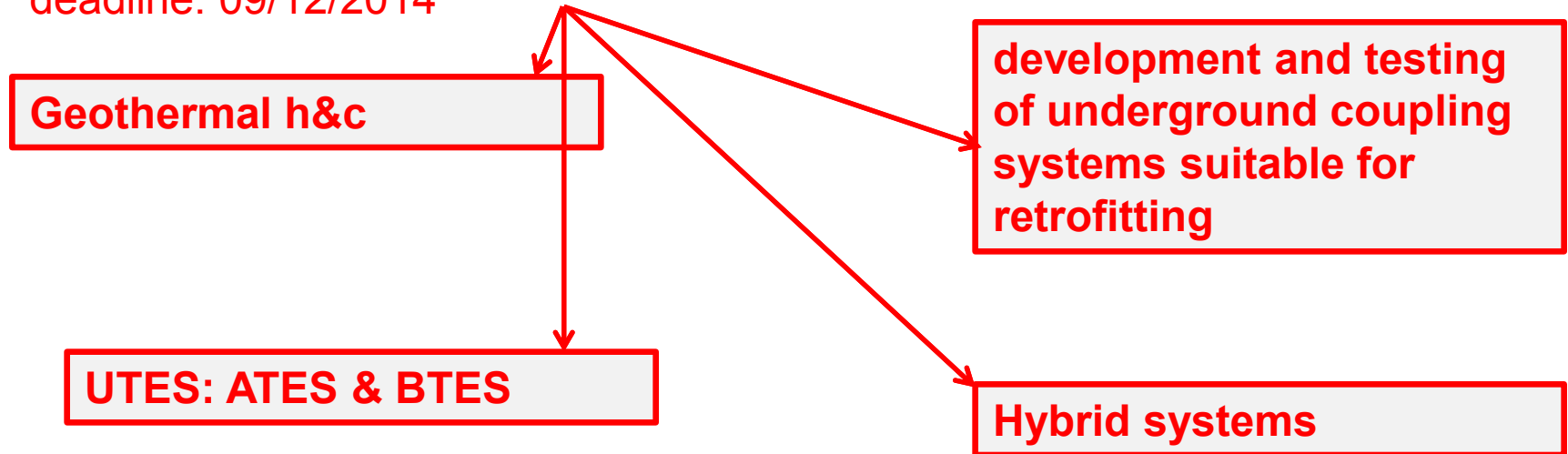
Societal challenges

10. Secure, clean and efficient energy

Call for Energy-efficiency: A. Buildings and consumers

- EE 2 – 2015: Buildings design for new highly energy performing buildings 'RES, low temperature, storage, NZEB' (TRL 5-7)

deadline: 09/12/2014



Societal challenges

10. Secure, clean and efficient energy

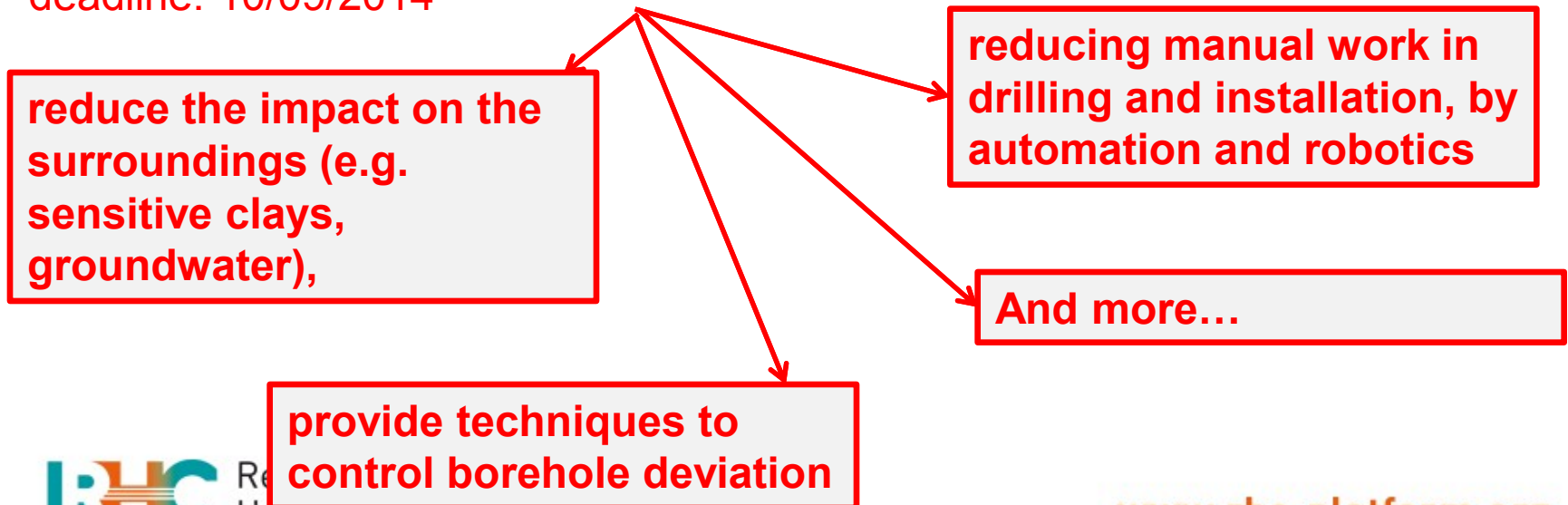
Call for Competitive low carbon energy:

Renewable electricity and heating/cooling

- LCE 3 – 2014/2015: Demonstration of renewable electricity and heating/cooling technologies ‘bring technologies from TRL 5-6 to TRL 6-7’ (budget: 5-20 €mio)

2014= i. Shallow geothermal energy: Improved vertical borehole drilling technologies to enhance safety and reduce costs

deadline: 10/09/2014



Societal challenges

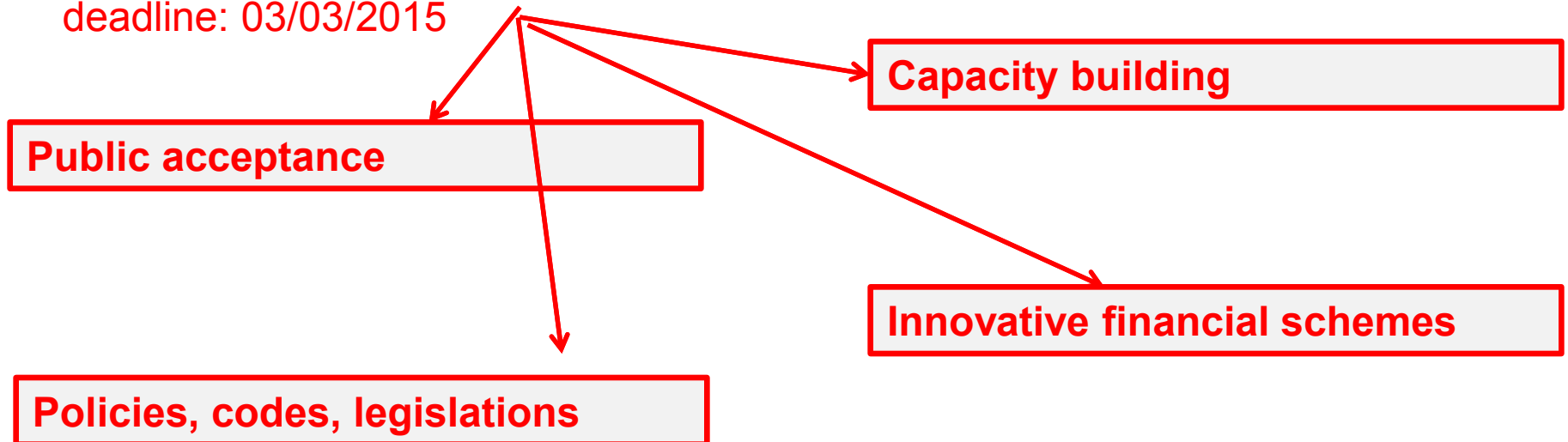
10. Secure, clean and efficient energy

Call for Competitive low carbon energy:

Renewable electricity and heating/cooling

- LCE 4 – 2014/2015: Market uptake of existing and emerging renewable electricity, heating and cooling technologies

deadline: 03/03/2015





Information on Calls

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html>



Thank you
for your kind attention