



Project to develop technology to capture and reuse waste heat in industry is now at the 12 month stage

This is the second newsletter from the EU H2020 Smartrec project which aims to develop technology capable of recovering at least 40 per cent of the waste heat lost in an industrial process. It is being coordinated by UK-based company ALTEK, with the rest of the consortium being made up of TWI from the UK, French Research Organisation CEA Tech, UK company Econotherm, the Spanish ITC-AICE (Instituto de Tecnología Cerámica), Italian company Spike Renewables, Greek company Innora, Norwegian company Flowphys and UK company Technovative Solutions.

During the 6 months since the last newsletter work has been progressing on several fronts of the project.

The partners decided that accurate temperature measurement of the flue gas at JBMI was required to enable long term monitoring equipment to be specified and Flue gas readings have been taken periodically since the beginning of May.

The model of the DMT has been completed. Life Cycle Cost (LCC) studies and Life Cycle Assessment (LCA) of Heat Exchangers have been undertaken.

The main component construction of the Molten Salts Test Plan – drain tank, cooler, section test, has been completed.

The end user requirements of the heat exchanger heat transport capacity have been identified. Development of the Development of Smartrec system simulator have begun.

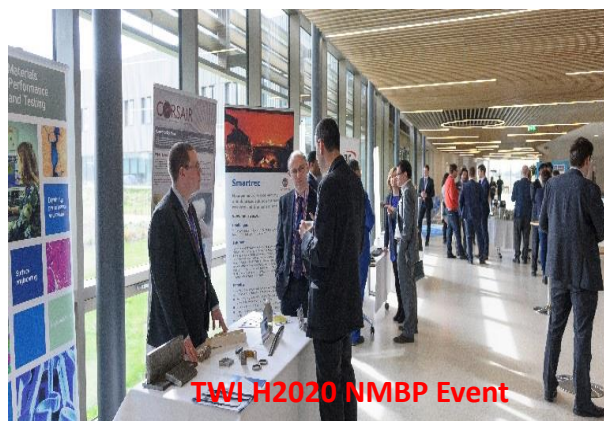


The 6 month review meeting in Spain

The 6 month project review meeting was held at ITC-AICE in Spain between the 29-30 of March 2017. During the meeting a tour of ITC facilities was undertaken by the consortium members and including a look at their two ceramic kilns.

Dissemination Activities:

TWI hosted visitors to a H2020 NMBP event on the 3 April 2017- The Smartrec banner was on show.



TWI H2020 NMBP Event



Smartrec Project Newsletter

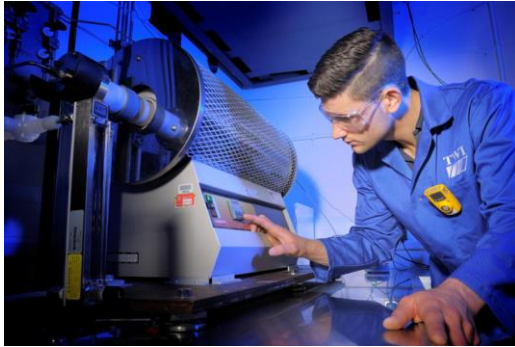
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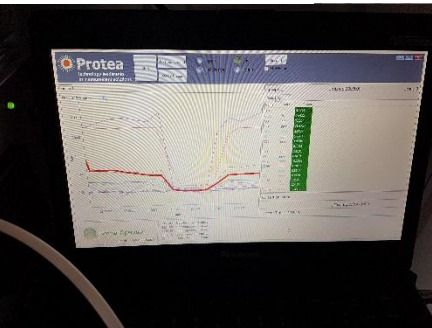
Fabrication of the Smartrec pilot plant has been progressing at Spike Renewables. These photos show various components in a state of construction



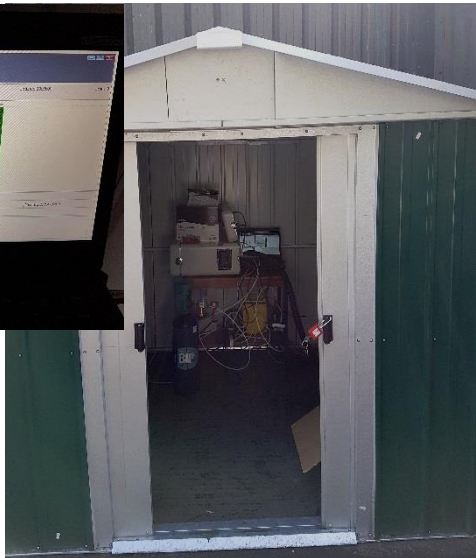
TWI has been carrying out corrosion tests on stainless steel samples in contaminated molten salts



Planned work over the next 6 months:
D1.5 Report on lab system test on HTF
D1.6 Report on the LCC and LCA analysis of Smartrec
D1.7 Summary Public Report of WP1
D2.1 Preliminary heat pipe design
D2.2 HPHE model and design ready
D2.3 Report on the HPHE model validation
D2.4 Summary Public Report of WP2
D3.5 Report on the DMT model validation
D3.6 Report on the DMT cost model
D3.7 Summary Public Report of WP3
D4.1 Report on Smartrec system simulator
D4.2 Report on DCS design and instrumentation framework of Smartrec
D4.3 Report on data base



Flue gas temperature monitoring equipment as JBMI



Forthcoming events:
Smartrec 12 month review meeting at CEA-TECH Genoble, France – 16-17 November 2017