Minutes of MGT Recuperator Meeting

03 December 2015, Teleconference

Attendees:

Luc Prieels	ACTE
Enrico Bianchi	Ansaldo
Jean-Paul Janssens	Bosal
Mario Lehmann	Brandenburg University of Technology
Jafar Alzaili	City University London
Axel Himmelberg	Cottbus University
Ignacio Lescano	ETN
Ugo Simeoni	ETN
Franco Magagnato	KIT
Luca Ratto	University of Genova
Mario Ferrari	University of Genova

1.   Welcome and Introduction

I. Lescano opened the meeting and welcomed the participants. He introduced the recuperator document created by L. Prieels based on the input of the working group members.

2.   Recuperator Vision Document

L. Prieels presented the different challenges for recuperators described in the document. No additional comment was added by the attendants.

L. Prieels highlighted the importance of including a description of the state of the art of recuperators and the attendants agreed to submit their contributions in the upcoming days. I. Lescano insisted on the importance of describing the current state of art to be able to generate more specific targets for recuperators.

L. Prieels introduced 4 work packages for recuperators: Thermodynamic Optimisation, Gas Composition and Anti-Fouling Channels Geometries, Materials, Cost Minimization. He detailed the different tasks identified by the partners for each work package. Regarding Fouling, L. Prieels asked if any partner had any expertise in fouling analysis with CFD. J. Alzaili indicated that he has experience in modelling fouling with CFD for compressor of larger gas turbines. He agreed to include a description of this expertise in the document. He also suggested adding size and weight as important points to consider for Thermodynamic Optimisation (WP1). U. Simeoni proposed to add a task to that work package to address optimisation of specific applications of MGT. L. Prieels agreed that the target application would affect the optimisation process and that this should be address, either added as a task of WP1 or bringing it up to a higher level. The decision was postponed until the final definition of the Global MGT Matrix.

U. Simeoni invited the attendants to indicate the tasks in which they might be interest in participating. ETN will circulate a Recuperator Matrix and it was agreed that the partners add the name of their organisation, cross the tasks there are interested on and include any task they considered to be missing.

3. MGT Global Matrix

I. Lescano introduced the MGT Global Matrix that presents the main MGT challenges and distributes the main associated tasks across the five MGT working groups. The MGT Global Matrix is intended to verify that the main challenges that could be of interest for the European Commission are addressed by the working groups and the tasks defined. It would also allow identifying missing tasks and potentially missing working groups.

No comments on the matrix were added during the teleconference and the attendants agreed to review the main challenges, the tasks and the working groups and to provide comments or suggestions.

4. Conclusions and next steps

It was agreed that the documents to be shared (Recuperator Document & Matrix and MGT Global Matrix) will be reviewed by the Recuperator Working Group before 16 December 2015 to:

- Provide a description of the state of the art
- Provide comments on the task descriptions
- Provide comments on the main challenges addressed in the MGT Global Matrix
- Identify potentially missing challenges, working groups or tasks

This would allow having a second iteration before the end of the year that would be reviewed by the partners in January 2016. A follow-up teleconference could be set early next year to finalize the document.

Annex I: Action list

Action Owner	Description	Deadline date
ETN	To share the Recuperator Document & Matrix and the MGT Global Matrix	10th December 2015
All	To provide a description of the state of the art To provide comments on the task descriptions To provide comments on the main challenges addressed To identify potentially missing challenges, working groups or tasks	16th December 2015
Leader & Co-Leader	To generate a second draft of the Recuperator Document	21st December 2015