

MINUTES OF THE BOARD MEETING

BRUSSELS, BELGIUM, 4-5 MARCH 2013

Present:

Bernard Quoix, President (BQ)	TOTAL
Catherine Goy, Vice President (CG)	E.ON UK
Uwe Kaltwasser (UK)	MTU
Herwart Hönen, Treasurer (HH)	RWTH Aachen
Andy Williams (AW)	Wood Group
Gary Lock (GL)	Frazer Nash Consultancy
Giovanni Cerri (GC)	University Roma TRE
Pericles Pilidis (PP)	Cranfield University
Robert Rijdsijk (RR)	Shell
Christer Björkqvist (CB)	ETN
André Mom (AM)	President Emeritus
Michaël Deneve (MD)	Laborelec
Karen Geris (KG)	ETN
Dominique Cornut (DC)	ETN

Apologies:

Jacques Maunand (JM)	EDF
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8. Cooperation with EUTurbines
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10. Project Board: Terms of Reference
11. Upcoming AGM and Workshop
12. Membership Information Package (potential members) and ETN Benefits and Opportunities Package (ETN members)
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14. Upcoming ETN meetings and events in 2013
15. Closing of the Board Meeting

Annex: Review of Action list from previous Board meeting (from April 2012 Board meeting)

1. Welcome

B. Quoix opened the meeting and welcomed the Board members. J. Maunand sent his apologies for not being able to join the Board meeting.

2. Review and Approval of the MoM London, UK, December 2012

P. Pilidis and the Board commented on item 4 – Renting/buying of office space (page 4) of the minutes. C. Björkqvist will update the MoM London, UK, December 2012 and circulate the document to the Board. The Board unanimously approved the December 2012 Board Meeting minutes.

Action: CB to update the MoM London, UK December 2012 and to distribute to the Board.

3. Review of Action List from the MoM London, UK, December 2012

The status of all actions is updated in the Annex. The pending and on-going actions are detailed below with additional comments:

C. Björkqvist reported that the actions to prepare a 5 – 10 year vision on ETN: how to support the European GT-industry as well as to prepare a plan to approach the European Commission (EC) and the European Parliament (EP) to deliver this message would be further discussed in the agenda under item 9.

C. Björkqvist reported that the action to prepare a MoU for cooperation with EUTurbines had been delayed due to the discussions on a potential cooperation to set up a PPP.

U. Kaltwasser informed the Board that he discussed ETN Membership with GKN and that they are interested to become a member of ETN. U. Kaltwasser is waiting for final decision and will follow-up with GKN.

P. Pilidis and G. Lock reported that they had not met with IMechE to discuss possible cooperation and would follow up on this in the coming months.

The importance to set up a mirror server to ensure a constant availability of ETN's website and data was discussed. It was agreed that C. Björkqvist should verify and ensure that a secure and reliable system for this is in place.

4. Review of ETN Activities Update

Gas Briefing Paper

C. Björkqvist informed the Board that A. Mom presented the Gas Briefing Paper at the Gas to Power Conference on 25-26 February in Brussels, Belgium and that the paper was positively received by the audience. It was proposed by R. Rijdsdijk to circulate the paper to our contacts in the European Commission (EC) and the European Parliament (EP).

Action: CB to verify that the Gas Briefing Paper has been sent to all EC/EP contacts.

Exhaust Systems Project

R. Rijdsdijk asked why the group did not accept the installation offered by Shell. C. Björkqvist responded that the Project Group was grateful for the offer but after careful consideration, at a meeting at the Mjorud headquarters in January 2013, came to the conclusion that the installation was not fully suitable. This decision was based on the size of the gas turbine, as well as the fact that the geometry of the HRSG exhaust would differ too much from the proposed WHRU geometry to obtain the required results.

ETN New Members

B. Quoix mentioned that TransCanada (Joint Venture with Wood Group) expressed interest in becoming an ETN member. A discussion took place on how to deal with a Joint Venture where one of the companies is a member of ETN. It was decided that if a company has its own Board, this company would need to have an individual membership.

C. Björkqvist also reported that EPRI has decided to become a member of ETN. C. Björkqvist has been invited to be a keynote speaker at EPRI's Annual Meeting in Rome in April.

Action: BQ to send the contact details of TransCanada representatives to AW.

Action: AW to contact TransCanada (JV with Wood Group).

Turbine Forum Conference

A. Williams informed the Board on the outcome of the teleconference with Nobert Czech, about a potential cooperation for the upcoming material conference. A. Williams reported that Turbine Forum offered ETN the opportunity to present the ETN platform to the audience of their event taking place in Nice, France on 24-26 April 2013. In return ETN has agreed to promote the Turbine Forum conference on our website and in different communications to members. ETN needs to identify a suitable person that would give the presentation at the Turbine Forum. It was proposed by the Board to ask Mike Wood from ERA Technology.

Action: CB and AW to set up a joint teleconference call with Mike Wood.

Membership fee payments 2013

The importance of having a structured follow-up system for outstanding payments was highlighted by the Board.

Action: CB to set-up a follow-up system for outstanding payments.

Users contact details (annex of the ETN Activities update)

The Board has asked C. Björkqvist to update the list of potential GT users and distribute it to the Board. A. Williams noted that Shanahan Engineering had expressed an interest in membership with ETN. As they are a subsidiary of Wood Group he offered to follow-up with them.

Action: CB to distribute the updated version of the potential GT user member list.

Action: The Board to review the potential members' list and to verify who would be the most suitable contact person for the listed users.

Action: AW to follow-up with Shanahan Engineering about ETN membership.

5. ETN Finances 2012

H. Hönen presented the financial result of 2012, as well as the draft budget and expected income for 2013 and 2014. He reported that the cost had been kept well below the budget (70.926 euro underspent) due to a successful effort to keep cost low and ETN's new VAT status which resulted in that we could claim back VAT on expenses in Belgium for the second half of the year. The income was also higher than expected, resulting in an overall end year result of +128.725 euro. The reason for the higher income was due to a high participation to the IGTC-12 conference and an increased membership income in 2012.

The board decided that a part of the positive result should be included in the budget for 2013 as "Project Development Costs" and the rest should be added to the reserves. The importance to have a solid cash reserves was discussed and regarded as crucial in order to be prepared for any potential down-term in expected income or unexpected cost. Overall the board was happy with the result and approved the proposed budget for 2013.

Action: H. Hönen and C. Björkqvist to prepare the result and budget presentation as well as an outlook for the coming years to be circulated and approved by the Board prior to the AGM.

6. Office Committee Report

C. Björkqvist and H. Hönen reported on the options of buying or renting an office and the Board discussed thoroughly the report of the ETN Office Committee. The board members stressed that, given the current status of the GT business, it is crucial for ETN to have access to sufficient cash reserves. The Board agreed on the importance of having an office with a meeting room available for the ETN office as well as for ETN members. They also highlighted the importance for the office to be in a central location and easily accessible by public transports. C. Björkqvist stressed that the most interesting option for buying, as referred to in the report, has already been sold. R. Rijdsdijk suggested making a balance sheet over a 10-year period, including all costs such as expected renovation, maintenance and taxes for a selected property for sale in comparison with cost for renting a property. This would then be presented to the General Assembly to ask for a mandate for the Board to decide on either purchasing or renting a new office.

For more details, please refer to the report from the ETN Office Committee.

Action: CB to inquire at the bank the interest rate in the case of a lower down payment and to continue the office research.

Action: CB and HH to prepare a balance sheet, including maintenance costs and taxes, for renting vs. buying over a 10-year period, taking into account a smaller cash payment.

7-8. External cooperation strategy and way forward (MoU)/Cooperation with EUTurbines

C. Björkqvist had invited Matthias Zellinger (EUTurbines) to give a presentation on EUTurbines' intention to set up a Public Private Partnership (PPP) for Turbomachinery under Horizon 2020. EUTurbines proposed ETN to join the lobbying efforts towards the European Commission (EC), representing the entire GT value chain.

The Board expressed their concerns about the possibilities for ETN members to suggest additional projects and join the projects proposed by EUTurbines. R. Rijsdijk also remarked that in the current proposal, the Oil & Gas priorities are not represented. The Board also noted that the current proposal lacks a clear and ambitious vision. P. Pilidis noted that at this stage, ETN, as an equal partner, would be able to formulate the vision and the goals of the PPP.

The Board decided that ETN should confirm to EUTurbines ETN's interest in joining the lobbying efforts but as equal partners. P. Pilidis agreed to write a vision for the PPP, similar to the vision of CleanSky. The Board also agreed that it would be important to have open calls in the GT field under Horizon 2020 to be able to receive funding for projects which might not fall under the PPP.

Action: P. Pilidis to write a proposal on ETN's vision for the PPP.

Action: C. Björkqvist to set-up a meeting with EUTurbines to discuss the next steps in the lobbying process for a PPP.

9. ETN 5-10 year vision discussion

As the formulation of a 5-10 year strategy very much depends on the potential opportunities to set up a Public Private Partnership (PPP), C. Björkqvist proposed to formulate this when we have more information about the potential opportunities to initiate a PPP.

Action: CB to find out more about the opportunity to propose and set up a PPP through meetings with the European Commission.

10. Project Board: Terms of References

CB reported that the final draft of the Project Board Terms of Reference has been agreed upon at the last Project Board Meeting and now needs final approval by the ETN Board.

Action: The Board to give comments on the Project Board Terms of Reference by 29 March 2013.

11. Upcoming AGM and Workshop

AGM

C. Björkqvist informed the Board that he would like enhance the coverage of the Oil & Gas sector as well as emphasise the requirements of the users prior to the technical discussions of potential projects by holding a panel discussion focussing on both the oil and gas users and utilities. The Board agreed with the approach and decided to have two slides (one on oil and gas users and a second one on the utilities) projected in the room to generate an active discussion on key issues. B. Quoix suggested to have two panels coming from both oil and gas users and utilities in order to have an overview of both side's concerns. C. Björkqvist suggested to do a follow-up on the issues that would be brought up by the panel discussion and to ask the OEM's to address them during the October Workshop. A. Williams offered to take the role of panel moderator along with C. Björkqvist.

The Board discussed the following potential panellists:

Name	Company
Heikki Oltedal	Statoil
Robert Rijdsijk	Shell
Bernard Quoix	Total
Dave Potter	E.ON UK
Dick van der Vecht	DGF Suez
Sauro Pasini	Enel

Action: CG to ask Dave Potter (E.ON) to be a panellist.

Action: CB to ask Dick van der Vecht (DGF Suez), Heikki Oltedal (Statoil) and Sauro Pasini (Enel) to be a panellists.

Workshop

H. Hönen highlighted the importance to have a more detailed agenda and the Board thoroughly discussed the structure of the workshop. After the discussion, the proposed way forward was that each on-going initiative as well as new initiatives should be presented in a 1-2 page document describing the project's objectives and progress and should also be circulated to ETN members prior the AGM. R. Rijdsijk proposed to add all the initiatives in the [ETN Project Process](#) figure as well as to associate each initiative with a colour code with the chance of success (red, yellow or green) in order to have an overview of the progress and chance of success of each initiative.

Action: CB to follow-up on on-going initiatives, to send a call for new initiatives and to circulate the collected documentation to ETN members two weeks prior the AGM.

12. Membership Information Package (potential members) and ETN Benefits and Opportunities Package (ETN members)

A. Williams reported on the previous request from higher management of Wood Group to provide a report on ETN benefits and successes. C. Björkqvist highlighted the importance to have a document explaining ETN achievements and benefits for current ETN members.

He also explained that the ETN office is currently working on a Benefits and Opportunities Package for current ETN members and on a Membership Information Package for potential members. C. Björkqvist mentioned that the ETN office should finalise the first draft of the two packages in the coming weeks and will circulate them to the Board for feedback, with the objective of presenting them at the upcoming AGM.

Action: AW to provide feedback to the ETN office on the ETN benefits and successes report.

Action: CB to circulate the Membership Information packages to the Board members for their comments.

13. Emeritus Club

C. Björkqvist proposed to set-up an Emeritus Club consisting of retired and well-known gas turbine experts and former ETN members. C. Björkqvist highlighted that this Emeritus Club would be beneficial to ETN as their knowledge and experience would be useful for the ETN platform. The board embraced the idea and asked for more details of the planned structure.

Action: CB to give more details on the structure and benefits of the Emeritus Club to the Board.

14. Upcoming ETN meetings and events in 2013

Event	Date	Location
Board Meeting	16 April 2013	Pisa, Italy (short gathering after closure of AGM)
AGM and Workshop	16-17 April 2013	Pisa, Italy
H ₂ -IGCC meeting	6-7-8 May 2013	Stockholm, Sweden
Board meeting	25-26 June 2013	Brussels, Belgium (depending on office arrangements)
Workshop	7-8 October (tbc)	Date and location to be determined
Board meeting	9–10 December 2013	Brussels, Belgium

15. Closing of the Board meeting

B. Quoix closed the Board meeting, and thanked M. Deneve for hosting the meeting.

No	New Actions	Resp.
1	CB to update the MoM London, UK December 2012 and to distribute to the Board.	CB
2	CB to verify if the Gas Briefing Paper has already been sent to EC/EP contacts.	CB
3	BQ to send the contact details of TransCanada representatives to AW.	BQ
4	AW to contact TransCanada (JV with Wood Group).	AW
5	CB to set up a joint teleconference call with Mike Wood and AW.	CB
6	CB to set-up a follow-up system for outstanding payments.	CB
7	CB to distribute the updated version of the potential GT user member list.	CB + Board
8	The Board to review the potential members' list and to verify who would be the most suitable contact person for the listed users.	Board
9	AW to follow-up with Shanahan Engineering about ETN membership.	AW
10	HH and CB to prepare the result and budget presentation as well as an outlook for the coming years to be circulated and approved by the Board prior to the AGM.	HH, CB
11	CB to inquire at the bank the interest rate in the case of a lower down payment and to continue the office research.	CB
12	CB and HH to prepare a balance sheet, including maintenance costs and taxes, for renting vs. buying over a 10-year period, taking into account a smaller cash payment for the buying option.	CB, HH
13	PP to write a proposal on ETN's vision for the PPP.	PP
14	CB to set-up a meeting with EUTurbines to discuss the next steps in the lobbying process for a PPP.	CB
15	CB to find out more about the opportunity to propose and set up a PPP through meetings with the European Commission.	CB
16	The Board to give comments on Terms of Reference for the Project Board.	Board
17	AGM (Panel discussion): CG to ask Dave Potter (E.ON) to be a panellist, CB to ask Dick van der Vecht (GDF Suez), Heikki Oltedal (Statoil) and Sauro Pasini (Enel) to be panellists.	CG, CB
18	Workshop: CB to follow-up on on-going initiatives, to send a call for new initiatives and to circulate the collected documentation to ETN members two weeks prior the AGM.	CB
19	AW to provide feedback to the ETN office on the ETN benefits and successes report.	AW
20	CB to circulate the Membership Information packages to the Board members for their comments.	CB
21	CB to give more details on the structure and benefits of the Emeritus Club to the Board.	CB

ACTION LIST (from MoM London UK December 2012)

No	Action	Resp.	Status
1	RR to see if Shell would have a machine available for the CFD validation in case the GT of Total could not be made available	RR	Done
2	Board and CB to prepare a 5 – 10 year vision on ETN: how to support the European GT-industry	Board + CB	Pending
3	UK to follow up with GKN for membership	UK	Follow-up

4	CB to follow-up on remaining 2012 invoices (membership + IGCT)	CB	Done
5	Office housing committee to do a study on office space and prepare a report before next Board meeting	CG, HH, CB	Done
6	CB to distribute HLU meeting report to Board	CB	Done
7	CB to officially publish ETN gas Briefing paper	CB	Done
8	CB and Board to prepare plan to approach EP and EC	Board, CB	On-going
9	CB to adjust paper on IGTC outcome and distribute it to Board	CB	Done
10	CB to draft a MoU for cooperation with EUTurbines	CB	Pending
11	CB and AW to meet with Czech (Turbine Forum) to discuss cooperation	AW, CB	Done
12	PP and GL to meet IMechE to discuss possible cooperation	PP, GL	Pending

ANNEX (old)

Actions (from April 2012 Board meeting)	Outcome / Next action	Responsible
ETN membership discussion with Ronnie Glen at Scottish & Southern Energy.	<i>Pending.</i> New, higher up contact required. AW to identify a representative from Scottish & Southern Energy.	AW/CW - Mar 2013
BQ to contact Frits De Jong of Turbocare about ETN membership.	<i>Pending.</i> BQ had a membership discussion with Mr. De Jong and will follow-up with him.	BQ - Mar 2013
UK to meet with Bo Pedersen of Maersk to discuss ETN membership.	<i>Pending.</i> UK to follow-up.	UK – Mar 2013
BQ to contact BP representatives in Houston, US.	<i>Ongoing.</i> BQ reported that he has identified the representatives and will follow-up with them.	BQ – Mar 2013
ENI membership of ETN.	<i>Ongoing.</i> CB had a meeting with ENI. No answer yet. CB will follow-up with ENI.	BQ, CB – Mar 2013
CB to install mirror server in external location.	<i>Partly done - Pending.</i> CB to contact IT support to identify the best option.	CB – Mar 2013
CB to distribute the list of external contacts to Board for approval.	<i>Pending</i>	CB – Mar 2013
HH and CB to make a projected balance sheet for the coming 3 years.	<i>Pending</i>	HH/CB – Mar/Apr 2013
CB and C. Dagnall to explore a wider cooperation with EVI-GTI.	<i>Pending.</i> Waiting for feed-back from EVI-GTI. CB to follow-up.	CB – Mar 2013
AW and CB to have teleconference with Yrjö Komakallio.	<i>Pending</i>	AW/CB – Mar 2013