

ETN'S 18th Annual General Meeting and Workshop

29-30 March 2022, Le Plaza Hotel, Brussels, Belgium

ETN Global Keynote speech

Welcome

- Ladies and Gentlemen, good afternoon, and warm welcome from my side to the 18th ETN Annual General Meeting.
- It is a great pleasure to be here today in Brussels, at the first AGM hybrid meeting after 2 years with COVID restrictions.
- Welcome to all of you who could join in person today, but also to our members that have joined virtually and special welcome to our new ETN members.
- Let me also welcome our sponsors who have made this event possible: Thomassen Energy and VBR Turbine Partners.

ETN Activity 2021

As you know ETN Board of Directors is responsible for preparing ETN strategy but also responsible for ensuring a sound governance of the association to deliver against such strategy. ETN Board was elected 2 years ago, and I had the privilege, together with my board colleagues, to be part of the ETN journey, during probably one of the most interesting and challenging times for our Gas turbine industry.

Let me provide some of the key ETN achievements since the last AGM:

- At 2021 AGM meeting, the ETN strategy, was presented and approved. ETN's vision document "*Gas turbines: an enabling technology for a carbon-neutral society*" was published in July 2021 and has been a reference document to guide us. It is based on ETN's vision: Safe, secure, affordable and dispatchable carbon-neutral energy solutions by 2030, implemented globally by 2050.
- We have implemented a clear ETN Office strategic and performance targets scheme, to fully align ETN office with the required actions to deliver ETN Goals and Objectives matching the interests of ETN Members.
- After completing the R&D recommendation report in 2021 the target has been to strengthen our Technical Working Groups and to start up new common projects. I am pleased to announce that since our last AGM two additional projects have been launched: one EU-funded project (Supercritical CO₂ power cycles demonstration in Operational environment Locally valorizing industrial waste HEAT CO₂OLHEAT Project) and another industry-funded project initiated by our Additive Manufacturing Working Group (Additive Manufacturing Machine Evaluation Initiative).
- In total we now have four ongoing projects: ROBINSON (Smart integration of local energy sources and innovative storage for flexible, secure and cost-efficient energy supply on industrialized islands), FLEXnCONFU (Flexibilize combined cycle power

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plant through power-to-X solutions using non-conventional fuels), CO2OLHEAT and Additive Manufacturing Machine Evaluation Initiative.

- On top of that several smaller studies have been started within our individual Working Groups and a new Working Group has been launched covering Decentralised Energy Systems.
- Our PUMP-HEAT project (Performance Untapped Modulation for Power and Heat via Energy Accumulation Technologies) has been successfully completed in Sept 2021.
- During last year, ETN has continued its successful adaptation to the new operational environment with virtual events, webinar series and regular meetings on Teams and other platforms. In the autumn of 2021 ETN held its first virtual IGTC meeting with virtual breakout rooms for more focused discussions.
- The ETN Young Engineers Committee has continued to be active, as a key ingredient of the future of the industry and has worked on a techno-economic study on hydrogen deployment in centralised power generation. This study will be published in April 2022.
- You can read more about this in our Annual Report where you will also find links to relevant documents, papers and webpages of interest. I can recommend you have a look at these, as once again, the standard of the technical documents is very high.

Where does ETN stand today?

- We have welcomed 8 new members and now we do have 114 members from 22 countries, in EU, Asia and North America.
- The financial situation of the association is stable.
- ETN visibility has increased, and the lobbying activities have been strategically defined to protect our industry. As an example, we highlighted to the EU President the importance of gas in the energy transition and the need to make sure we do have sustainable financing for our projects and technology.
- After 2 years, as you all know, we held virtual ETN Board elections between 23 and 25 March and results will be announced today.

Current global context

Finally, I cannot finish my opening speech without referring to the current global context within our industry:

- Reflecting on last year, I do recognize that first part of 2021 has been characterized by a continuous increase in the ambition to decarbonise the industry across the globe. Examples like the EU Green Deal raising ambition on CO2 targets reduction, the EU taxonomy aiming to reduce the financing to non-sustainable industries, or the COP26 focusing on methane emissions reduction for first time, as well as more and more countries making commitments for coal phase out.

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- Due to strategic relevance of these issues, the ETN Board and ETN office, worked actively on those topics, and in our interactions with the key stakeholders, we did reinforce the requirements as not to endanger the present or the future of our industry.
- On reflection, I think there has been an unbalanced focus over the last years in phasing out dispatchable technologies to deliver against those climate targets, but not sufficient focus on building up new dispatchable technologies to ensure security of supply in a carbon neutral world.
- Such accelerated decarbonization trend was fundamentally challenged, when in the last part of 2021 we have faced an unprecedented energy price rally, driven by a geopolitical risk which unfortunately materialized in the first part of 2022, with an unjustifiable war in Ukraine, which has led to a tragic humanitarian disaster, and to one of the most concerning energy crises the world has seen in decades.
- As a result of the Ukraine invasion, we did review ETN relationships with Russian counterparties, and confirmed that ETN doesn't have any Russian companies as members. The ETN Board condemns Ukraine invasion and consequently decided not to allow the participation of Russian companies at ETN meetings and events following the EU regulations on sanctions.
- Under the current energy crisis that we are facing, the forgotten security of supply concerns as well as the energy affordability have prominently come back to the policy maker's table. But also, an additional dimension in the traditional energy trilemma has emerged, the energy independency.

Those topics will be on our agenda for 2022 and beyond and might change the play rules of the industry. I am sure there will be tactical short-term changes, like increase in the use of coal for example, prioritizing security of supply versus decarbonization. Nevertheless, I believe that the medium and long-term decarbonisation goals will remain or will become even more ambitious. When I look at the gas turbine industry, despite the challenges we see today, I remain optimistic of our industry role now and in the future. I do believe that our ability to decarbonise the gas turbine industry is real and compatible with the most ambitious carbon neutrality targets. Moreover, our technology dispatchability offers security of supply, and the clean gases production together with renewables power production can offer a greater degree of energy independency. Once again, the level of cooperation among various industry players across the entire value chain, and now especially with politics, is key in finding the solutions we need for solving the current challenges.

Thank you.

Pedro Lopez, President of ETN Global