ETN October Workshop 2024

Digitalisation and Diagnostic WG Meeting

10.10.2024

Agenda of the Meeting

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1. Results of 2024 & Learnings from Day 1
2. Activities for 2025 (What, How, Why)
3. Thematic Presentation
4. Q&A

Results of 2024 & Learnings from Day 1

Results of 2024

Summary

2024 Activity	Status and current results achieved
Form a new working group	- Created a network of over **40 professionals** from **20 different organisations**: - 6 Users - 2 OEMs - 7 R&D / Universities - 4 Suppliers - 1 Service Providers - Held six meetings

Scope and objective definition	- Defined:
	  - **Scope**: Create a network, improve awareness and promote the implementation and expansion of existing Digital Solutions and technologies, and produce documents of relevance to the gas turbines and rotating machinery industry.
	  - **Objective:** Promote the development and deployment of digital solutions for gas turbines and rotating machinery operations.
	- Creation of the DIG WG One-Pager with the **Value Proposition** of the WG

Activities for 2024/2025	- Dissemination of the advantages of digital solutions and best practices:
	  - Two training sessions at October Workshop (**Woodward** and **Cranfield University**)
	  - Webinar Series – tbc
	  - Best practice document – tbc

Learnings from Day 1: Digital Solutions

1. Description of the problem root causes

- Unclear data ownership
- Business cases unclear/put a monetary value to data
- Cost of sensors
- Operational data does not flow back consistently
- Different incentive schemes

Learnings from Day 1: Digital Solutions

2. What solutions did your groups brainstorm?

- Standardisation of data capture
  - Automated collection of operational data e.g. imaging
- Increased data sharing between industries
  - Areoa vs. Utilities
- Increase use of existing sensors/ e.g. smart sensors
- Share use cases

Learnings from Day 1: Digital Solutions

3. How can ETN Global Network bring these solutions to life?

- Standardise gathering of engineering data specifically for gas turbines
- Share best practices/use cases

Activities for 2025

What, How, Why

Activities for 2025

What, How, Why

Problem statement	Proposed activities
Lack of understanding of the advantages of State-of-the-art digital solutions and practices for cost effective, secure, and reliable operations for rotating machinery for power production	▪ Define the best practices for implementing digital solutions in the power industry by discovering SOA technology, establishing the best practices, mapping technological gaps and quantify costs and benefits ▪ Share knowledge on digital solutions (see point above) by disseminating results through technical documentations (best practice report, gap matrix), thematic webinars and training sessions **Next work** ▪ Enhance new and existing power generation systems with SOA digital solutions and practices

Activities for 2025 - Webinar

Call for contributors

- Candidates for the first edition:
  - ENGIE : Vibration monitoring system. Online interface and integration with PI database.
  - VBR: Sharing ‘lessons learned’, pitfalls and successes.
  - Universitá di Genova: Experimental investigation of incipient surge identification based on system dynamic responses analysis.
- Select a suitable date.

- **Send your candidacy for the following editions to gt@etn.global (CC chairs)**

Activities for 2025 – Best practices

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