

OSME Showcase:

Striving for Excellence in Collaboration

Manufacturing today faces a moment of unprecedented change. Climate change and digitalization require shorter lead times and increased adaptability while geopolitical tensions create uncertainty regarding the supply of critical materials. To excel, manufacturers must work more closely with their partners.

The Open Smart Manufacturing Ecosystems, OSME, initiative encourages manufacturing companies to meet these challenges. OSME originates from Wärtsilä in Vaasa which had established the Sustainable Technology Hub to engage and leverage upon the skills and strengths of its partners. OSME builds upon this foundation by motivating large corporations, SMEs, and research partners to deepen and expand the ecosystem collaboration needed to meet the rapidly changing conditions, under which manufacturers must simultaneously perform and transform.

The OSME initiative started in 2021 when Wärtsilä contacted a number of its partners to develop a joint project that would use the experiences of Wärtsilä as an extended enterprise to establish an open manufacturing ecosystem. The first step in getting OSME off the ground was to establish the collaboration principles through a governance structure consisting of the steering group, the project team, and the work streams. The collaboration was supported by a shared communication platform, the architecture of which was one of the first key topics to be agreed upon.

OSME's main contribution has been achieved through the work carried out in the work streams, where a number of **use cases** have been piloted to build the open ecosystem step by step. Each use case has been the responsibility of a dedicated OSME partner organization. The project team has monitored the progress of the use cases and initiated new use cases once the previous ones have been completed. A very central use case is **issue management**, as this emphasizes the new type of flexibility and adaptation needed due to the rapidly changing conditions.

The positive results have also attracted external attention. The OSME initiative is financially supported by Business Finland, which has encouraged the OSME partners to share their learning more broadly. Subsequently, the OSME partners have presented the progress of the collaboration continuously in various events organized by Business Finland and MEX Finland. The OSME initiative also has its own subsection of the MEX Finland webpage. The positive response from the dialogue with external partners encouraged the OSME IT-developers to intensify efforts to make the **OSME communication platform**

more accessible. Developing a suitable API management solution therefore emerged as a key success factor for OSME when moving forward.

The evolution of the **OSME collaboration** is summarized in the following table:

OSME activities	Collaboration principles 2021-	Use cases 2022-	Enlargement 2023-
Work focus	Governance structure	Project team engagement	Sharing learnings
System development	Platform architecture	Issue management	API management

OSME is enabling a shift from a traditional, linear value stream to a more resilient, collaborative network that is based on a **digital foundation**. We have increased the ability to identify and address critical improvement areas that will make the OSME partners both individually and collectively more competitive. Examples of results already achieved from the OSME collaboration are shorter feedback loops, optimized logistics, and better quality with less effort. The OSME collaboration has allowed the partners to build competences together through co-learnings based on sharing data and knowledge.

When OSME looks to the future, the aim is to make the collaboration even stronger and engage additional partners that share the ambition to be part of an open manufacturing ecosystem that will improve the competitiveness of the Finnish mechanical engineering sector. We are inviting new members to join OSME and engage in the efforts to bring OSME to the next level.

Contact details

Christian Sundman +358 50 539 2948 christian.sundman@wartsila.com niklas.koski@synocus.com

Niklas Koski +358 44 298 8909

For more information on the Open Smart Manufacturing Ecosystems initiative, please visit mexfinland.org/osme































