

Case-Study

Evolution of Process Analytical Technologies (PAT)

Understanding technology developments in manufacturing for the Life Sciences industry



Quick overview

With the continuous advancements and technology expansion in Process Analytical Technologies (PAT), industry leaders must be aware of such developments and implement the advanced tools in their operations. The Client was in the early stage of implementing PAT tools and was willing to evaluate technology advancements around sensors for equipment maintenance, cleaning validation, finished product quality checking, process monitoring, and process completeness.

Client success

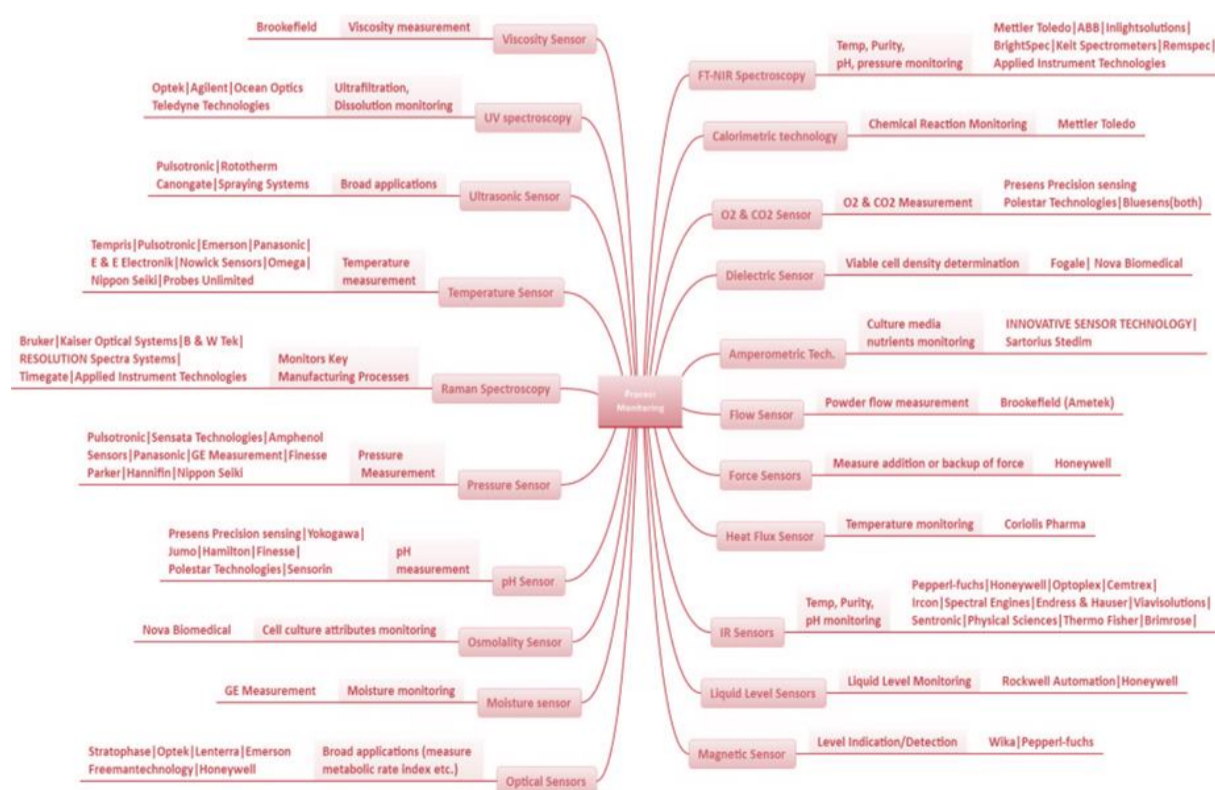
The Client team was willing to understand innovations around sensors for implementing the right technologies in their process. FutureBridge's evaluation of PAT supported the Client in this new journey from the perspective of understanding regulatory scenarios, industry adoption level, competitors activities, innovative sensor technologies, and potential technology integration partners:

PAT tools are heavily applied in pharmaceutical workflows because of associated benefits like better understanding of processes, increasing efficiency, and decreasing costs. Industry players are investing heavily in advanced PAT tools, including smart sensors and digital technologies to make their processes more robust.

- How is the landscape of sensor technologies evolving?
- What is the adoption level of such advanced technologies amongst the key industry players?
- What is the future outlook of such PAT tools in pharma/med-tech/diagnostics/animal health?
- Who could be the strategic partners to in-license & implement novel PAT technologies?

FutureBridge used a combination research approach to conduct a comprehensive literature review and conducted expert consultations with subject matter experts (SMEs), practitioners, and PAT consultants to understand their sentiments. The engagement output included:

- Technology and application mapping w.r.t. different sub-areas
- Technology trend analysis to understand the innovation focus and unique propositions of advanced technologies
- Technology due-diligence on some of the promising technologies



FutureBridge's recommendations helped the Client in implementing PAT for its bioprocess cleaning validation systems using sensor technology. Additionally, the Client requested quarterly monitoring activity for identifying new sensor technology developers for PAT integration for other processes. And, keeping track of top pharma/biotech manufacturers on the adoption of PAT for different modules/end-to-end process monitoring.

About FutureBridge

FutureBridge tracks from 1 to 25 years, how industries and sectors will evolve, develop, and innovate.

We keep your business ahead of the technology curve. Propel your growth, identify new opportunities, markets, and business models. We can answer your key strategic questions. Facilitate focused, tailored solutions and partnerships using our platforms and programs, with access to global information ecosystems and key industry players for their insights and expertise.