



Re: Peer Response

by [Mariam Ibrahim Ismail Hasan Almarzooqi](#) - Sunday, 19 October 2025, 2:17 PM

Hi,

Thank you for your insightful post on the Volkswagen emissions scandal. You've effectively highlighted how the failure of information systems, particularly in oversight and transparency, can lead to severe consequences, not only financial but also environmental and ethical. I agree with your point that the absence of real-time monitoring and intelligent system checks was a key factor in allowing the issue to go undetected for so long.

Building on your analysis, I'd like to emphasize how the shift toward Industry 5.0 could play a crucial role in preventing similar incidents in the future. As Metcalf (2024) notes, Industry 5.0 doesn't just build more intelligent systems; it promotes a human-machine collaboration model, where human oversight is seamlessly integrated with advanced analytics and AI. In the context of Volkswagen, this approach could have introduced more ethical decision-making checkpoints and possibly flagged anomalies earlier through human-in-the-loop systems.

Additionally, Industry 4.0's use of IoT and predictive analytics could have ensured continuous emissions monitoring, reducing reliance on retrospective audits. Together, both paradigms promote a socio-technical ecosystem that strengthens accountability.

Ultimately, adopting these frameworks is not just about efficiency, it's about aligning technology with ethical responsibility and long-term sustainability.

Reference:

Metcalf, J. (2024). *The impact of Industry 4.0 and Industry 5.0 on global industries*. *Journal of Technology and Innovation*, 56(3), 112–124.