

# Leveraging Operator-Driven Safety and Reliability Programs to Boost IIoT Program Success

by **Martin Robinson**  
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One possible initiative to increase the success of IIoT programs is to use operators to implement solutions into Operator Driven Safety and Reliability Programs.

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*Industry 3.5 is a term used to describe the transitional phase between Industry 3.0 and Industry 4.0. It refers to integrating digital technologies into traditional manufacturing and industrial processes to a lesser extent than Industry 4.0. Industry 3.5 involves the use of technologies such as computer-aided design (CAD), computer-aided manufacturing (CAM), and enterprise resource planning (ERP) systems, which enable companies to automate and optimize their manufacturing processes, reduce costs, and improve productivity. Industry 3.5 is considered a stepping stone towards Industry 4.0, as it allows companies to gradually introduce digital technologies into their operations and establish a foundation for more advanced systems.*

The Industrial Internet of Things (IIoT) has become increasingly popular, with companies investing heavily in IIoT programs to improve their operations. However, not all IIoT programs have successfully delivered their intended results. While there is no specific data on the number of IIoT programs that have failed to deliver their design intent, several studies have highlighted the challenges associated with implementing IIoT programs and the factors that can contribute to failure. For example, one study by Cisco found that only 26% of companies

had succeeded in their IIoT initiatives, with most companies struggling to scale their programs beyond pilot projects. In addition, the study found that the most significant challenges associated with IIoT implementation were data integration, security, and a lack of internal expertise.

Another study by Bain & Company found that the majority of IIoT programs fail to deliver their intended results, with only 5% of companies reporting significant financial benefits from their IIoT programs. The study identified several factors that can contribute to the failure of IIoT programs, including a lack of executive support, internal expertise, and a failure to focus on solving specific business problems.

While there is no specific data on the exact number of IIoT programs that have failed to deliver their design intent, several studies have highlighted the challenges associated with implementing IIoT programs and the factors that can contribute to failure. These studies suggest that companies must be mindful of these challenges and take steps to mitigate them to increase the likelihood of success. One possible initiative to increase the success of IIoT programs is to use operators to implement solutions into Operator Driven Safety and Reliability Programs.



**ODSR programs can help improve safety and efficiency, reduce downtime, and improve productivity, leading to financial benefits and improved operator job satisfaction.**

### **Operator-Driven Safety and Reliability (ODSR):**

Operator-driven safety and reliability (ODSR) is a program that empowers operators to take ownership of their equipment and processes. ODSR programs enable operators to identify and address potential safety hazards and reliability issues before they become problems, leading to increased safety, reduced downtime and improved productivity. ODSR programs involve training and support, performance metrics, and integrating equipment inspection system designs and IIOT monitoring systems. ODSR programs can help build a safety culture and improve overall performance in manufacturing and industrial environments by involving operators in identifying and addressing safety and reliability concerns.

ODSR programs can help enhance Industry 3.5 by providing real-time feedback to operators, allowing them to make informed decisions and take corrective actions in response to potential safety hazards and

reliability issues. In addition, by involving operators in identifying and addressing safety and reliability concerns, ODSR programs can help build a safety culture and improve overall performance in manufacturing and industrial environments.

### **How ODSR Programs Can Improve the Success of IIoT Programs:**

ODSR programs can help improve the success of IIoT programs by addressing some of the challenges associated with IIoT implementation. For example, a lack of internal expertise is a familiar challenge company face when implementing IIoT programs. ODSR programs can help address this challenge by empowering operators with the knowledge and skills to identify and address potential safety hazards and reliability issues. In addition, by involving operators in the implementation and maintenance of IIoT systems, companies can leverage their expertise and experience to ensure the success of their IIoT programs.

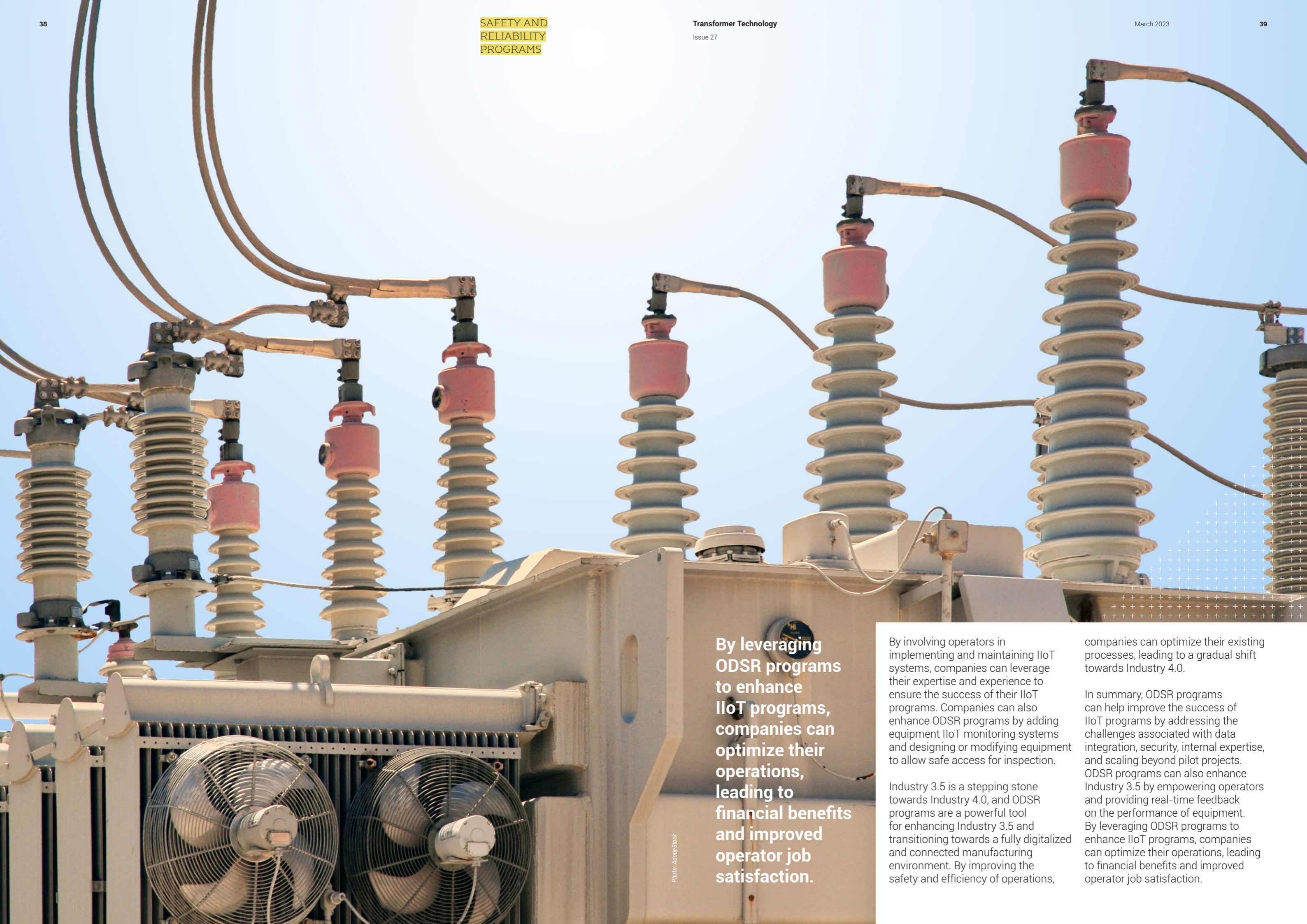
Another common challenge associated with IIoT implementation is data integration. ODSR programs can help address this challenge by providing real-time feedback on the performance of equipment, enabling operators to quickly identify and address potential issues before they become significant problems. This can help prevent data silos and ensure that IIoT systems are fully integrated into existing processes.

Security is another significant challenge associated with IIoT implementation. ODSR programs can help address this challenge by involving operators in identifying and addressing potential security issues. Companies can reduce the risk of cyberattacks and other security breaches by providing operators with the tools and knowledge to identify and address security issues.

Additionally, ODSR programs can help to address the challenge of scaling IIoT programs beyond pilot projects. By involving operators in the implementation and maintenance of IIoT systems.

In conclusion, the success of IIoT programs depends on several factors, including data integration, security, internal expertise, and executive support. ODSR programs can help address these challenges by empowering operators to take ownership of their equipment and processes and providing them with real-time feedback on equipment performance. As a result, ODSR programs can help improve safety and efficiency, reduce downtime, and improve productivity, leading to financial benefits and improved operator job satisfaction.





**By leveraging ODSR programs to enhance IIoT programs, companies can optimize their operations, leading to financial benefits and improved operator job satisfaction.**

Photo: AdobeStock

By involving operators in implementing and maintaining IIoT systems, companies can leverage their expertise and experience to ensure the success of their IIoT programs. Companies can also enhance ODSR programs by adding equipment IIoT monitoring systems and designing or modifying equipment to allow safe access for inspection.

Industry 3.5 is a stepping stone towards Industry 4.0, and ODSR programs are a powerful tool for enhancing Industry 3.5 and transitioning towards a fully digitalized and connected manufacturing environment. By improving the safety and efficiency of operations,

companies can optimize their existing processes, leading to a gradual shift towards Industry 4.0.

In summary, ODSR programs can help improve the success of IIoT programs by addressing the challenges associated with data integration, security, internal expertise, and scaling beyond pilot projects. ODSR programs can also enhance Industry 3.5 by empowering operators and providing real-time feedback on the performance of equipment. By leveraging ODSR programs to enhance IIoT programs, companies can optimize their operations, leading to financial benefits and improved operator job satisfaction.