

Top 4 Challenges for Industrials Who Choose DIY for IoT

As industrial companies embark on digital transformation (DX) initiatives, some decide that the best approach is to build home-grown solutions (DIY). DIY is PTC's most common IoT competitor, with companies often choosing to build on top of a cloud platform such as Azure or AWS, and many companies that have attempted DIY have struggled.

In fact, a recent **Cisco survey of senior business and IT decision-makers at manufacturing companies found that 75% of self-initiated IoT projects were considered a failure.** The lessons and challenges from industrial companies who have attempted DIY can be valuable for PTC as we look to position ourselves with executives who are leading digital transformations.

MONEY

Investments in home-grown solutions are costlier than vendor solutions. Total cost of ownership can be almost 4x greater for a DIY system in a factory setting.

Smart Factory Case Study		Fleet Management Case Study	
5-year real cost of:			
DIY	BUY	DIY	BUY
\$2.6 million	\$655,100	\$2.7 million	\$200,500

Source: [NetworkWorld](#)

TIME

DIY solutions take significantly more time to implement and realize value vs vendor solutions. They often linger on indefinitely without achieving ROI.

DIY	PRE-STUDY	BUILDING/HIRING THE TEAM	DEVELOPMENT		ROLL-OUT	~2.5 YEARS
	PRE-STUDY	SCREENING/SOURCING PLATFORMS	PLATFORM INTEGRATION	ROLL-OUT	~1.25 YEARS	

Source: [IoTAnalytics](#)

PEOPLE

Industrial companies are challenged with recruiting best-in-class digital talent and are susceptible to brain drain from attrition.

“ In the US, demand for software engineers outpaces supply by around 35,000 jobs, and demand is expected to grow at more than 20% through 2022.”

Source: [BCG](#)

SCALING

McKinsey found the top 2 factors preventing the move from pilot to rollout in IoT relate to the difficulties of scaling. Corporate Strategy research found that DIY exacerbates these factors.

Lack of resources/knowledge to scale	██
High cost of scaling	██████████████████████████████████████
Hard to justify business case	████████████████████████████████████
Pilots demonstrate unclear business value	██████████████████████████████████
Too many use cases to prove out	██████████████████████████████

Source: [McKinsey and WEF](#)

Conclusion

DIY IoT projects present significant challenges that industrial companies may struggle to overcome as they embark on their DX initiatives. Along with the lost money and time, these companies are at a significant risk of lost advantage in the market. As DIYers shift resources from their core products into IoT solution development and maintenance, they can potentially lose share to competitors who realized value more quickly by partnering with technology vendors such as PTC. PTC's IoT solutions enables businesses to scale their solutions, benefit from top-tier software talent, and save money and time.