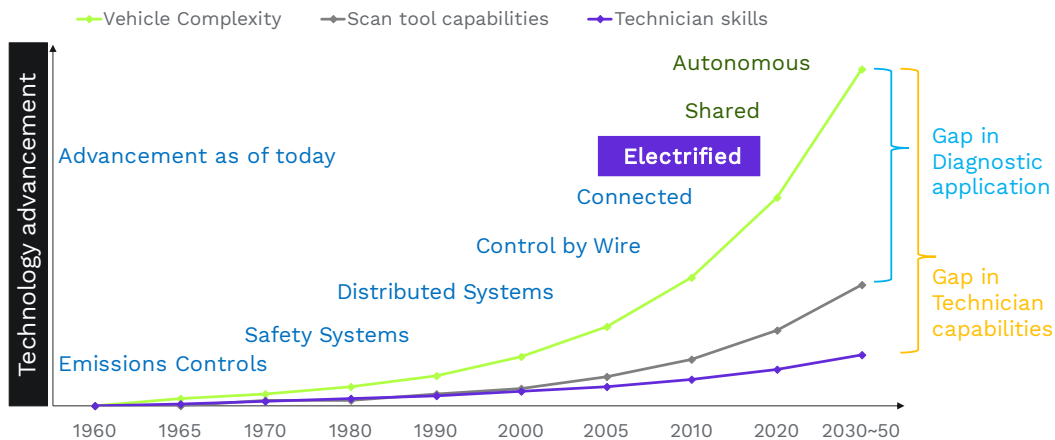


Assisted root-cause diagnostics for Electrified vehicles & Powertrains

Research states that out of all new vehicles sold in 2030, 24% would be Electric-A significant increase from the 3% share in 2020.

Automotive technology has advanced and evolved at a rapid click over the past years and decades, however, the skill levels of technicians and the capabilities of their tools, have failed to match pace, resulting in constantly widening gaps (Vehicle complexity Vs Technician skills & Scan tool capabilities).



These gaps are nearing their peak levels, as Electric vehicles (EVs) continue to make strides towards becoming a clean, viable, and a preferred mode of transportation.



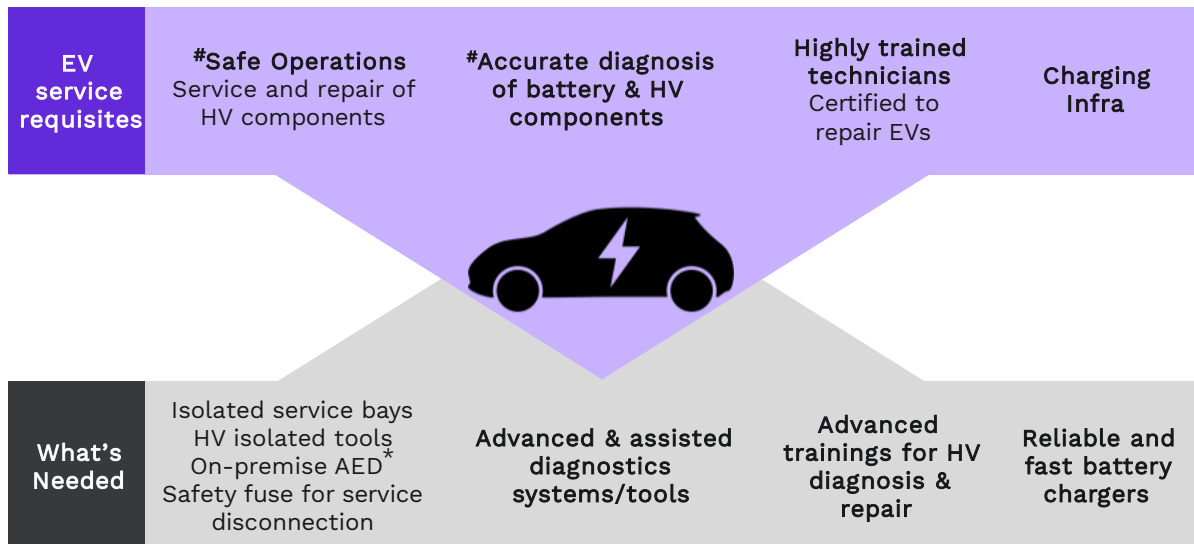
Why is EV service/repair posing challenges?



Evolving scenario at EV Dealerships

Existing diagnostic systems used for Internal Combustion Engine (ICE) driven automobiles are primarily designed for diagnosing faults on body, chassis, powertrain, and network systems.

Even though vehicles driven by an electrified powertrain have some similar components as that of ICE, however, there are many new platforms combining multiple EV components and diagnostic requirements, which are critical to the functioning of the electrical traction system.



Critical to EV reparability

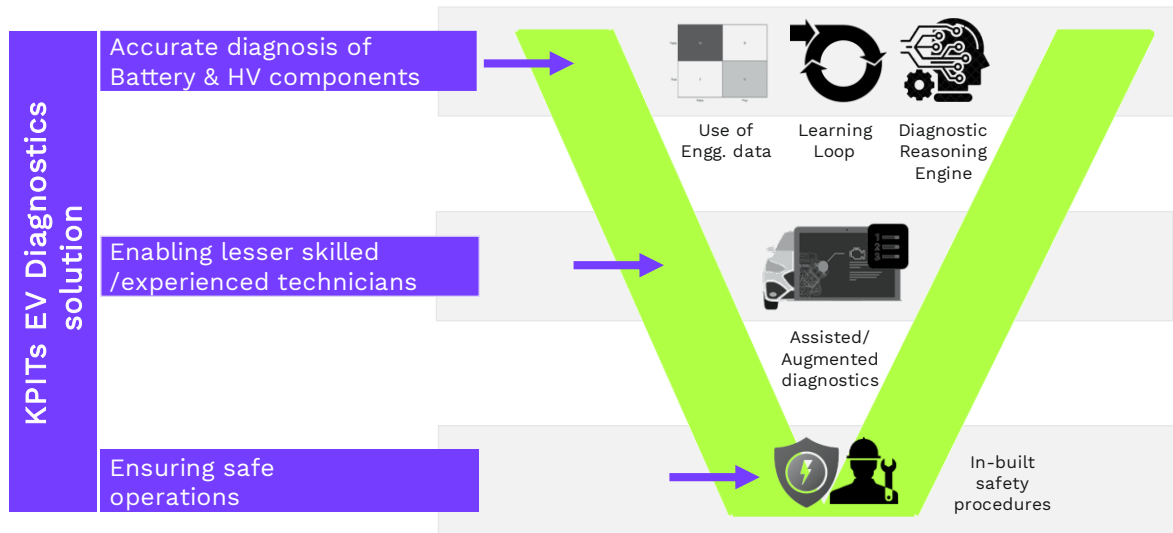
*AED-Automated External Defibrillator



Readying Dealerships for EV diagnosis & repair

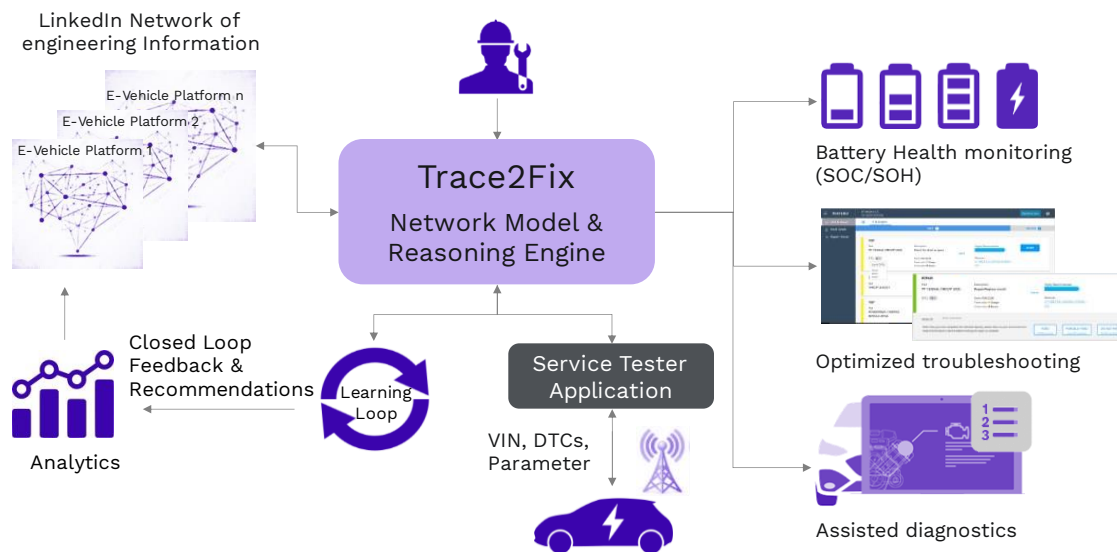
There is a need for diagnostics systems at Dealerships to be increasingly tailored towards EVs and their specific functions.

An EV diagnostics solution needs to ensure that it's addressing the challenges and issues faced by **lesser skilled and experienced technicians**, as they go about their business of diagnosing and repairing EV systems and sub-systems.



KPITs advanced diagnostics platform for EVs | Trace2Fix

KPIT's **Trace2Fix** is an intelligent, next-generation diagnostics platform which enables **assisted troubleshooting** with **pin-point accuracy** based on **self-learning** and **root cause analysis (RCA)** principles



Trace2Fix | System architecture



Key Operating Principles

	Increases service throughput by optimizing key service KPIs (FFV: Fix-First-Visit, MTTR: Mean-Time-To-Repair)		Improve diagnostic accuracy & technician productivity
	Lower technician skill gaps and learning curve		HV/LV mapping of components, specific test cases and detailed safety procedures to ensure a safe working environment for technicians



Key Features

	Data Modelling Creates models basis rich data sets (engg./service info) for fast & accurate diagnostics		Reasoning Engine Reasons multiple evidence, correlates faults to present the most optimum troubleshooting steps
	Learning Loop Learns from field sessions & produces recommendations to optimize diagnosis		High-Voltage (HV) Enablement <ul style="list-style-type: none"> • HV component diagnosis and parameter adjustment • Calibration downloads • Detailed safety-oriented descriptions & guidance for technicians

For additional info or queries, you can reach us at diagnostics@kpit.com

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KPIT is a global technology company with software solutions that will help mobility leapfrog towards autonomous, clean, smart and connected future. With 7000+ Automobelievers across the globe, specializing in embedded software, AI & Digital solutions, KPIT enables

customers accelerate implementation of next generation mobility technologies . With development centers in Europe, Americas, Japan, China, Thailand and India – KPIT works with leaders in mobility and is present where the ecosystem is transforming.