

# Digital Engineering Services 2024 Market Insights™ Excerpt

Driving innovation in engineering  
practices through digital  
technologies

September 2024



# Table of contents

## About the report (Page 3)

## Executive summary (Pages 4-7)

- Defining digital engineering services scope
- Key drivers and enterprise response
- Avasant recognizes 23 top-tier providers offering digital engineering services

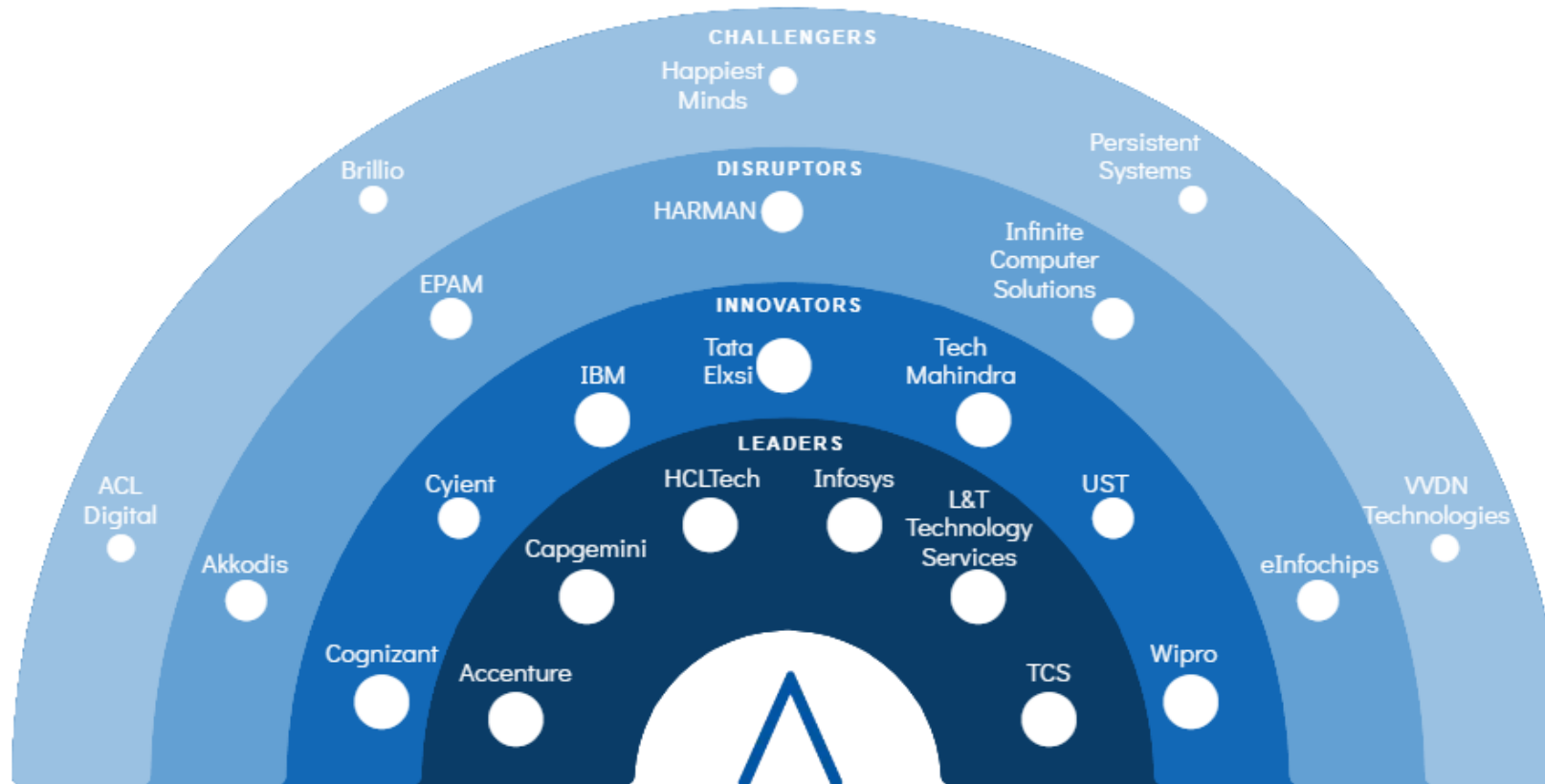
## Demand-side trends (Pages 8-13)

- Enterprises are looking to prioritize innovation and R&D efforts amid macroeconomic uncertainty
- Connected products see more traction as operational efficiency becomes increasingly crucial
- Traditional enterprises are exploring new revenue streams as emerging digital-native competitors disrupt the ER&D landscape
- Heightened emphasis on sustainability and regulatory changes are prompting asset-heavy industries to reconsider their product engineering approach
- Customer preferences are evolving, with a growing inclination toward hyperpersonalization and sustainable products

## Key contacts (Page 14)

# Avasant recognizes 23 top-tier providers offering digital engineering services

Practice maturity 



# Key enterprise digital engineering trends shaping the market

Macroeconomic uncertainty creates cost pressure, pushing enterprises to focus on innovation and R&D

- With market softness due to macroeconomic uncertainty, especially in manufacturing, automotive, and healthcare and life sciences industries, the focus is on innovation and investments in ER&D. This proactive approach is essential to prepare for future business opportunities and maintain a competitive edge.
- Enterprises are looking to partner with digital engineering providers to drive ER&D initiatives at optimal cost, set up joint CoEs, engineer future-proof solutions, optimize R&D processes, and mitigate risks.

Demand for more connected products increasing with a focus on operational efficiency

- Stand-alone products and processes across the product life cycle are causing losses to enterprises due to operational inefficiency, such as having disjoint data and siloes. These inefficiencies are prompting them to look at technology to optimize their offerings.
- Enterprises are looking at “platformization” and establishing a connected digital thread across the entire product life cycle to improve operational efficiency by leveraging advanced networks, IoT, automation, and generative AI.

Push for new revenue streams as new digital native entrants challenge the status quo

- Traditional reluctance to combine hardware and software engineering has now shifted to combining the two to deliver new revenue streams, across various industries, especially in asset-heavy ones such as automotive, telecom, aerospace, and defense, with new-age startups differentiating themselves with platform offerings.
- Enterprises are looking at servitization and leveraging AI, 5G, and edge computing to improve their hardware offerings in fields such as autonomous driving, aircraft design, and telecom equipment development.

Increased focus on ESG and regulations compelling the asset-heavy industries to relook at product designs

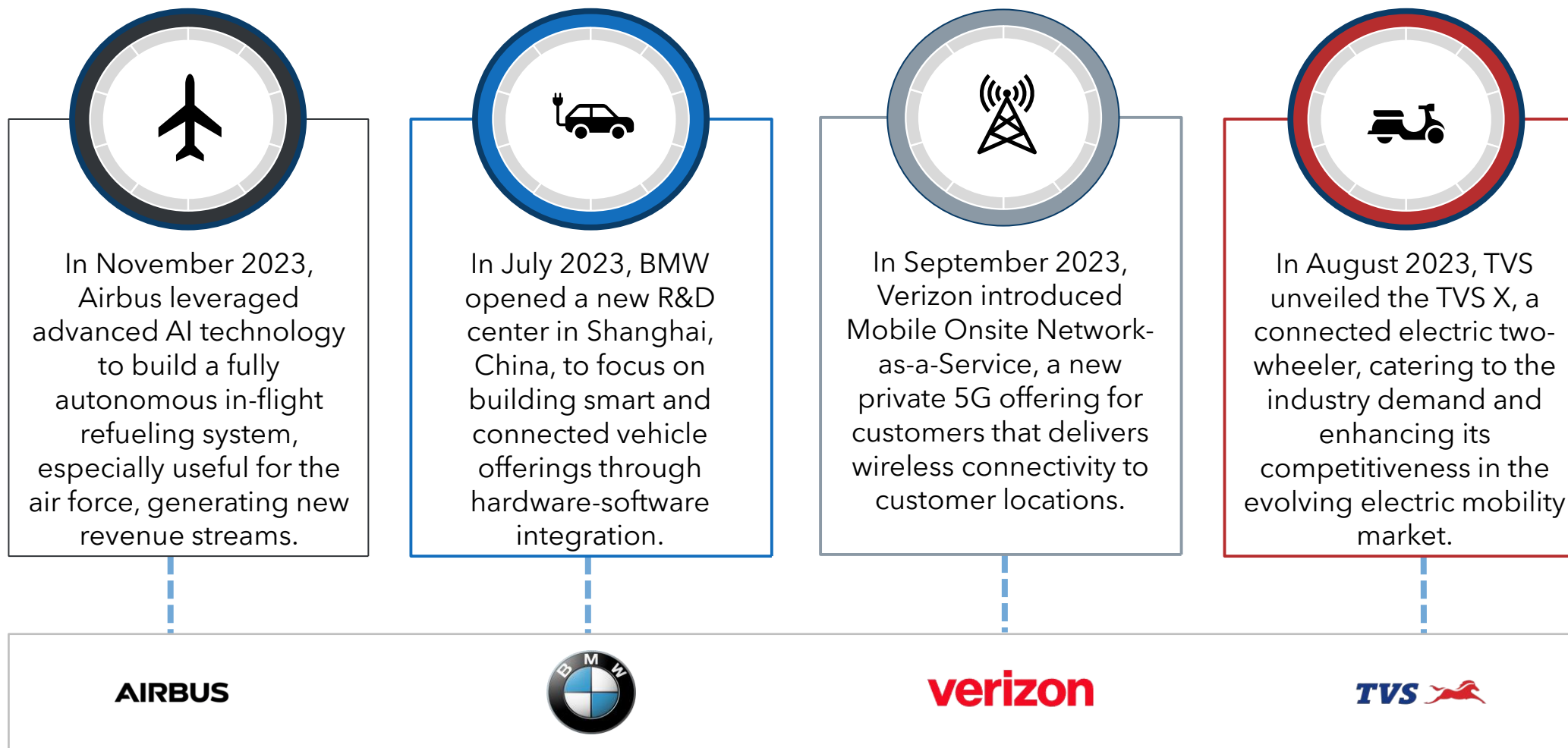
- Enterprises are increasingly leveraging technology to improve their existing engineering processes to comply with government regulations and meet their sustainability goals.
- Advancements in technologies such as digital twins with AR/VR/XR are being leveraged to build virtual scenarios for product testing, enabling resource optimization and energy conservation. Quantum computing and generative AI are used to determine the right composition of the material to improve strength and reduce weight.

Changing customer demand with a preference for hyperpersonalization and sustainable products

- Customers are looking for a more personalized experience with a greater focus on customization. They are also looking for sustainable product solutions that are efficient and consume little power.
- Enterprises are exploring using AI, ML, and analytics to develop personalized experiences in areas such as infotainment, health tracking, meter bill management, dynamic travel pricing and smart building management.






# Traditional enterprises are exploring new revenue streams as emerging digital-native competitors disrupt the ER&D landscape

Enterprises across industries, such as automotive, telecom, aerospace, and defense, are abandoning their traditional mindsets by integrating hardware and software engineering, leveraging AI, 5G, and edge computing to create new revenue streams.



# Customer preferences are evolving, with a growing inclination toward hyperpersonalization and sustainable products

Enterprises are leveraging AI, ML, and analytics to create personalized experiences tailored to customer needs in areas such as infotainment, resource management, and smart building management solutions.

Enterprise	Use cases	Description
 Mercedes-Benz	Infotainment	<ul style="list-style-type: none"> <li>In January 2024, Mercedes-Benz introduced MBUX Virtual Assistant and MBUX Surround Navigation. The offerings include AI-driven personalization utilizing NLP to enhance customer experience by providing tailored content and seamless connectivity.</li> </ul>
	Building management system	<ul style="list-style-type: none"> <li>In January 2024, Honeywell launched Advance Control for Buildings, aiming to enhance customer experience with built-in cybersecurity and faster network speeds. It utilized automation and ML to provide occupants with optimized building operations and improved satisfaction.</li> </ul>
	Resource tracking	<ul style="list-style-type: none"> <li>In July 2024, Harnett Regional Water launched the WaterSmart portal, which allows customers to view and track their water usage, detect leaks, and receive tips to save money. The portal utilizes real-time data and a user-friendly interface to enhance customer engagement.</li> </ul>
	Customer assistance	<ul style="list-style-type: none"> <li>In May 2024, Verizon introduced new generative AI offerings, such as the Personal Research Assistant and "Fast Pass" to resolution, to transform customer interactions by matching them with the most suitable representatives and offering tailored solutions for a personalized experience.</li> </ul>
	Personalized experience	<ul style="list-style-type: none"> <li>In May 2023, Delta Air Lines launched the Delta Sync Exclusives platform, enhancing customer experience with curated onboard content and exclusive offers. It leveraged AI-driven recommendations to tailor entertainment and services to individual preferences.</li> </ul>

---

# AVASANT

EMPOWERING BEYOND

GET CONNECTED



[www.Avasant.com](http://www.Avasant.com)