

Abstract

This research analyses the extent to which sustainability is a driver in advancing strategy, reporting measures and initiatives, optimising resources, reducing carbon emissions, improving supply chain management, decreasing costs, supporting customer retention, and providing stakeholders with a competitive edge. It also analyses the role of digital solutions deployed to bolster sustainability and any related challenges, new initiatives, and innovative digital offerings designed to support future sustainability goals.

Research results are based on a quantitative survey of 600 organisations across the two segments of design and manufacturing and architecture, engineering, and construction (AEC) covering the three regional segments of the UK & Ireland, Nordics and Benelux. The goal is to measure and compare the level of sustainability demonstrated by AEC and manufacturing companies in these selected regions of Europe and present the steps they are taking to improve their standing.

The analysis highlights organisations' efforts to develop or enhance their sustainability strategies, including tangible targets and the development and/or utilisation of digital tools and services to monitor, measure, integrate, and manage their processes and systems on the path to net zero.

Rapid urbanisation and the continual depletion of limited resources are driving the need for a new systems-thinking approach to how resources are consumed and retained in a closed-loop circular economy. The deployment of data-driven solutions such as sensors, building information modelling (BIM), digital twin, track-and-trace, material passport, 3D printing, and robotics is set to unleash an era of value-driven data analytics. This in turn takes a step beyond delivering insights toward achieving optimised decision-making based on artificial intelligence (AI) and machine learning (ML).

