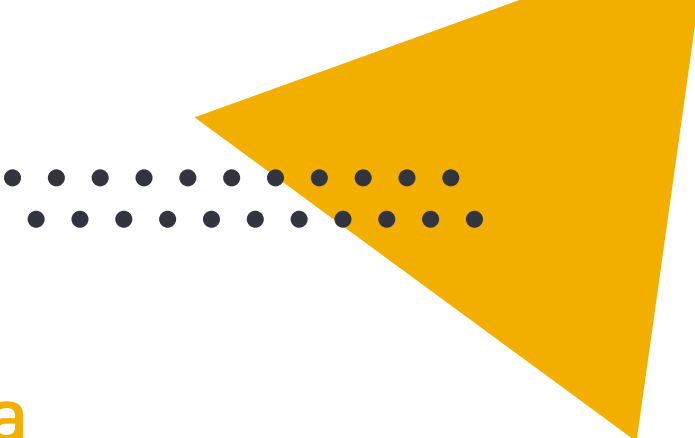**VISUAL COMPONENTS**

FUTURE FOCUS:
THE FIVE KEY CONSIDERATIONS FOR CIOs IN 2023

2022 proved to be a tumultuous year for a range of sectors, not least the manufacturing industry.

The energy crisis and rising material costs have led organizations to explore cost cutting measures to ensure continued profitability. However, such measures have cost businesses in other ways.

Research by Visual Components of manufacturing decision makers shows that over two-thirds (67%) in the US agree that their sustainability strategy has been restricted due to a squeeze on expenditure. While hindering progress in helping to meet net zero targets, stalls in sustainable strategies also present missed opportunities with customers. A survey of American adults reveals that 66% are willing to pay more for sustainable products.

With projects coming to a standstill, pressure is mounting on senior leaders in the business, including the Chief Information Officer (CIO), to ensure continued innovation and digital transformation in the digital-focused Industry 5.0 era. In 2023, they'll need to consider the following five trends to ensure that they can continue to support their organization's goals.
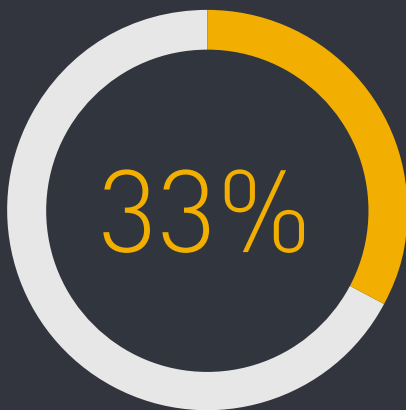
1

Percentage of Americans who lack basic digital skills

33%
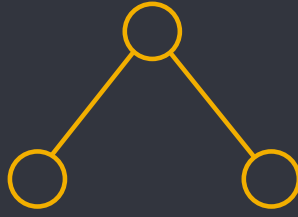
THE ROLE OF THE CIO WILL EVOLVE

The first consideration for CIOs will be their evolving responsibilities in 2023 and beyond. The role itself has shifted from being a provider of technology and a key component of a delivery unit to also operating as a strategic advisor, business partner and business model enabler. This means that they'll need to take on the active leadership of identifying technology solutions that can benefit humans in the business and help to upskill them in using such platforms.

CIOs have a responsibility to impart knowledge and help inspire the new generation of digital natives, particularly as one-third of Americans lack the basic digital skills needed to engage successfully in the modern economy. By identifying technologies that can be deployed, such as simulation software, they'll also need to play a part in enabling efficiency, reducing costs and upholding sustainability on the factory floor.

SUSTAINABILITY CANNOT SLIP FROM THE AGENDA

CIOs are now emerging as key figures in the drive towards sustainability and creation of ESG initiatives at their organization. Awareness of climate change's effect on the planet has grown, particularly with major weather events occurring across the globe.

A number of organizations are voluntarily complying with sustainability regulations and frameworks already, but more regulators now require disclosures for nonfinancial metrics such as commitments to environmental, social and governance (ESG) strategies.

**CIOs should explore how simulation technology can allow their organization to reduce waste and optimize floor layouts.** In addition to sustainable practices on the factory floor, wider use of the technology in colleague and client communications can encourage remote meetings and reduce the need for carbon emissions-heavy travel via car or plane.

3

HUMANS WILL NEED TO BE AT THE CENTRE OF THE PRODUCTION PROCESS

Percentage of employees in the US who believe that wellbeing programs help them to be productive

79%
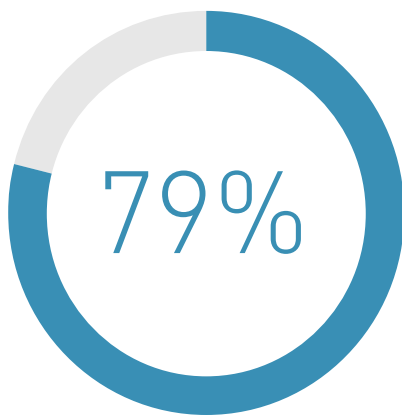
Employees are looking to benefit from better workplace environments, higher wages and flexible hours to career progression opportunities and workplace wellbeing programs. In fact, research has discovered that 79% of employees in the US believe that wellbeing programs help them to be as productive as possible. HR departments won't be the only functions with a responsibility to ensure that employees are fully supported. While CIOs are largely focused on technology integrations and how they benefit the business, they will also need to play a role in ensuring that humans are supported with the right solutions.

Working with intuitive simulation software for example will help build their capabilities in the optimization of manufacturing environments, and meet the expectations of digitally savvy employees entering the workplace. This will also help stem resignations from the industry, with one in five workers saying they are extremely or very likely to switch employers at some point over the coming year.

SUPPLY CHAINS WILL NEED TO BECOME MORE RESILIENT

Just as manufacturers had pivoted to deal with Covid-related lockdowns and blocked shipping lanes, material component shortages, rising prices and military conflict plagued operations in 2022. **Where materials have to be brought in from remote locations, CIOs will need to play their part in ensuring that their organization is as prepared as possible to deal with inevitable supply chain disruptions.**

This may mean the adoption of simulation tools to improve production flexibility and agility, while enabling lean or small batch production to suit available resources. For example, semi-finished products, or sub-assemblies, can be customized later for smaller batches. Robot offline programming (OLP) can also reduce potential downtime as robots can be quickly programmed to work on small new batches as needed.
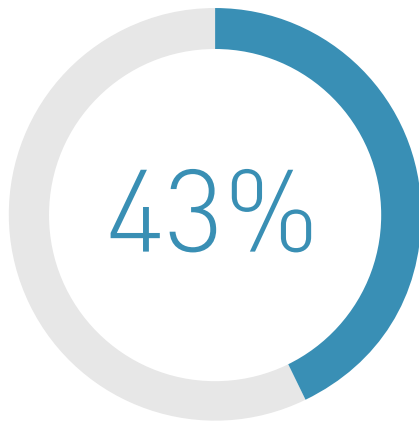
5
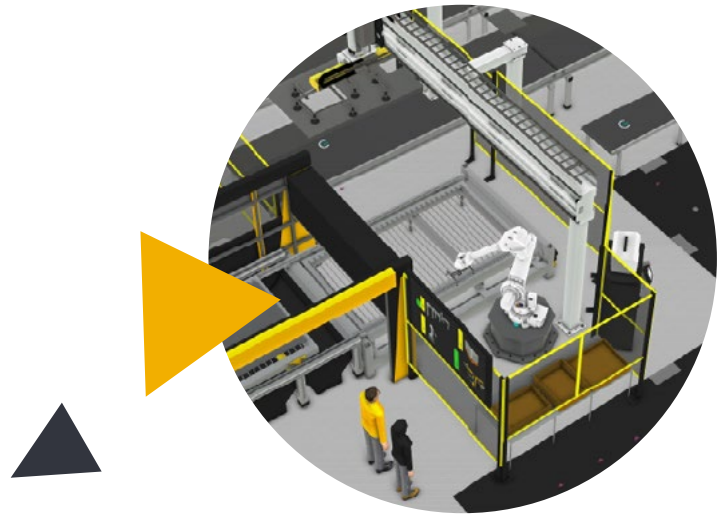
RESHORING STRATEGIES WILL NEED TO BE ACCOUNTED FOR

Percentage of manufacturers planning to reshore their operations back to the US

43%

Continued cost pressures, the risk of depending on offshore facilities during crises and continued global port congestion in 2023 is leading organizations towards reshoring strategies. In fact, over four-in-ten (43%) manufacturers are planning to reshore their operations back to the US. CIOs will need to ensure that the right technology is in place to enable increased production capacity on site.

Simulation software can scale to meet these demands and devise potential scenarios where incoming materials and components are set to increase. In this virtual sandbox environment, CIOs can allow their employees to test any number of potential eventualities, allowing them to make numerous mistakes before applying these learnings to the real factory floor.

APPROACHING THE YEAR WITH CONFIDENCE

CIOs will have numerous challenges that they need to navigate in 2023, with cost pressures still at the forefront of concerns. By February of this year in the US, prices had increased by 6% compared to February 2022, according to the 12-month percentage of change in the consumer price index. Additionally, under the spotlight of Industry 5.0, CIOs must effectively balance sustainability, human needs, the supply chain and new production strategies over the course of the year.

Simulation software allows for layout design, feasibility and validation of control logics, robot programs and processes, alongside OLP capabilities to program robots on the factory floor. With this technology in place, CIOs can take the lead in encouraging employees to achieve new efficiencies in the production process. CIOs will also be empowered to acquire new responsibilities in their role and assume the lead in fostering technology innovation.

OUR STORY

Visual Components is a leading developer of 3D manufacturing simulation software and solutions. Founded in 1999 by a team of simulation experts, we started with a humble goal – to make manufacturing design and simulation technology easy to use and accessible to manufacturing organizations of all sizes.

www.visualcomponents.com

VISUAL COMPONENTS