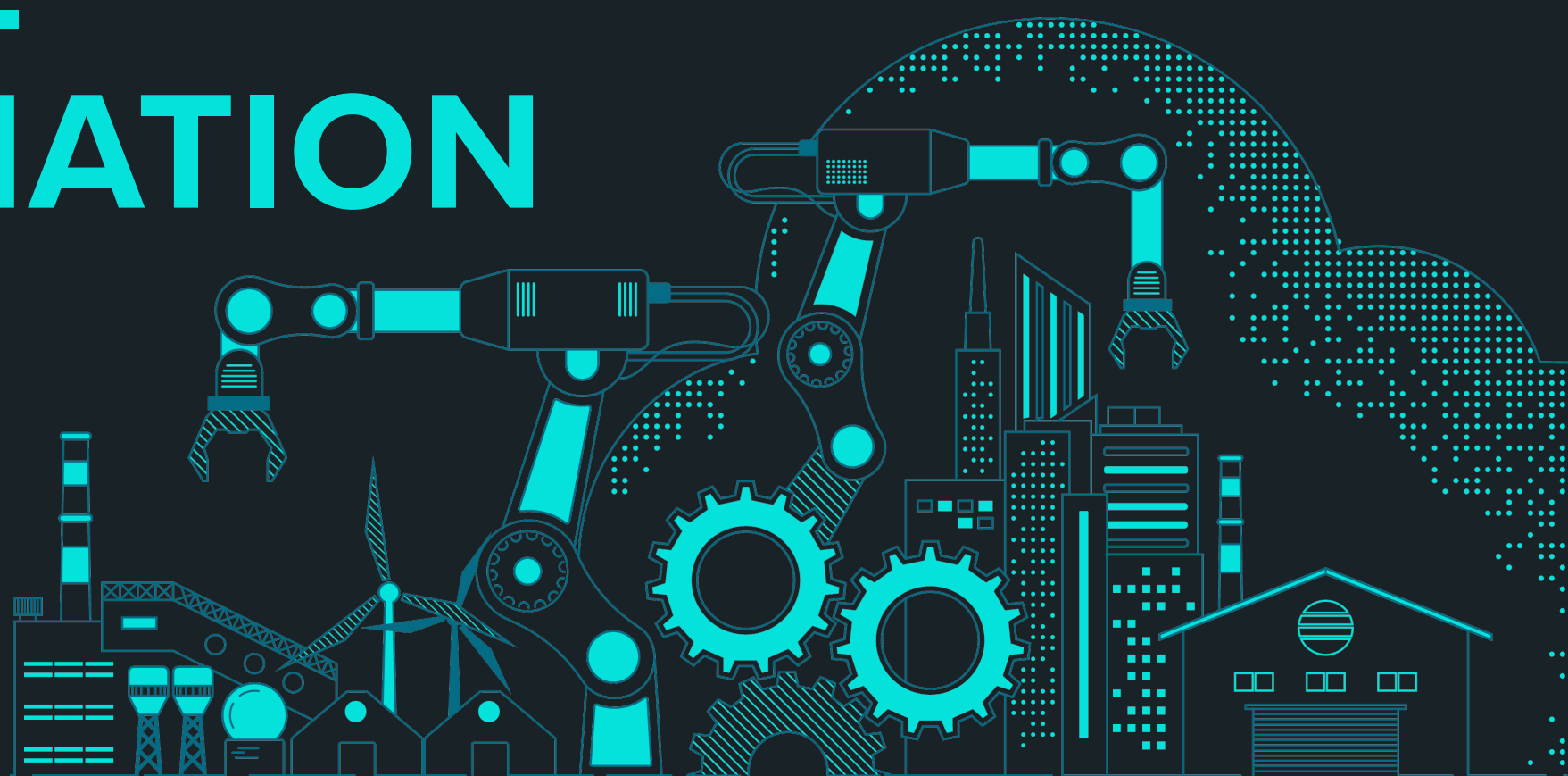# HYPER-AUTOMATION

## THE NEXT PHASE OF AUTOMATED SYSTEMS

BY CARLOS M. GONZÁLEZ

On the journey to advanced automated systems, no one system can do it alone. Organizations recognize that the next level of automation involves a combination of multiple tools in operational harmony.

Hyperautomation—the combination of several advanced automated systems to create a unique ecosystem of processes—brings together robotic process automation (RPA), intelligent business management (BPM) software, artificial intelligence (AI), machine learning (ML), and advanced IoT analytics.

According to Gartner Research, which highlighted **hyperautomation** as a major trend for 2021, "**it is the next step beyond RPA, further replacing human involvement in physical and digital tasks, and eventually the complete decision-making process**."

Hyperautomation refers to both the processes that can be automated as well as their automation level. It is considered to be the next major phase of digital transformation and the key to efficient digital operations and resiliency for organizations.

HERE ARE THE **FOUR KEY AREAS** OF HYPERAUTOMATION

- Advanced IoT Analytics
- Business Process Management
- Hyper-automation
- Robotic Process Automation
- Artificial Intelligence and Machine Learning
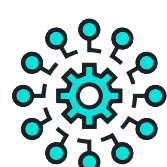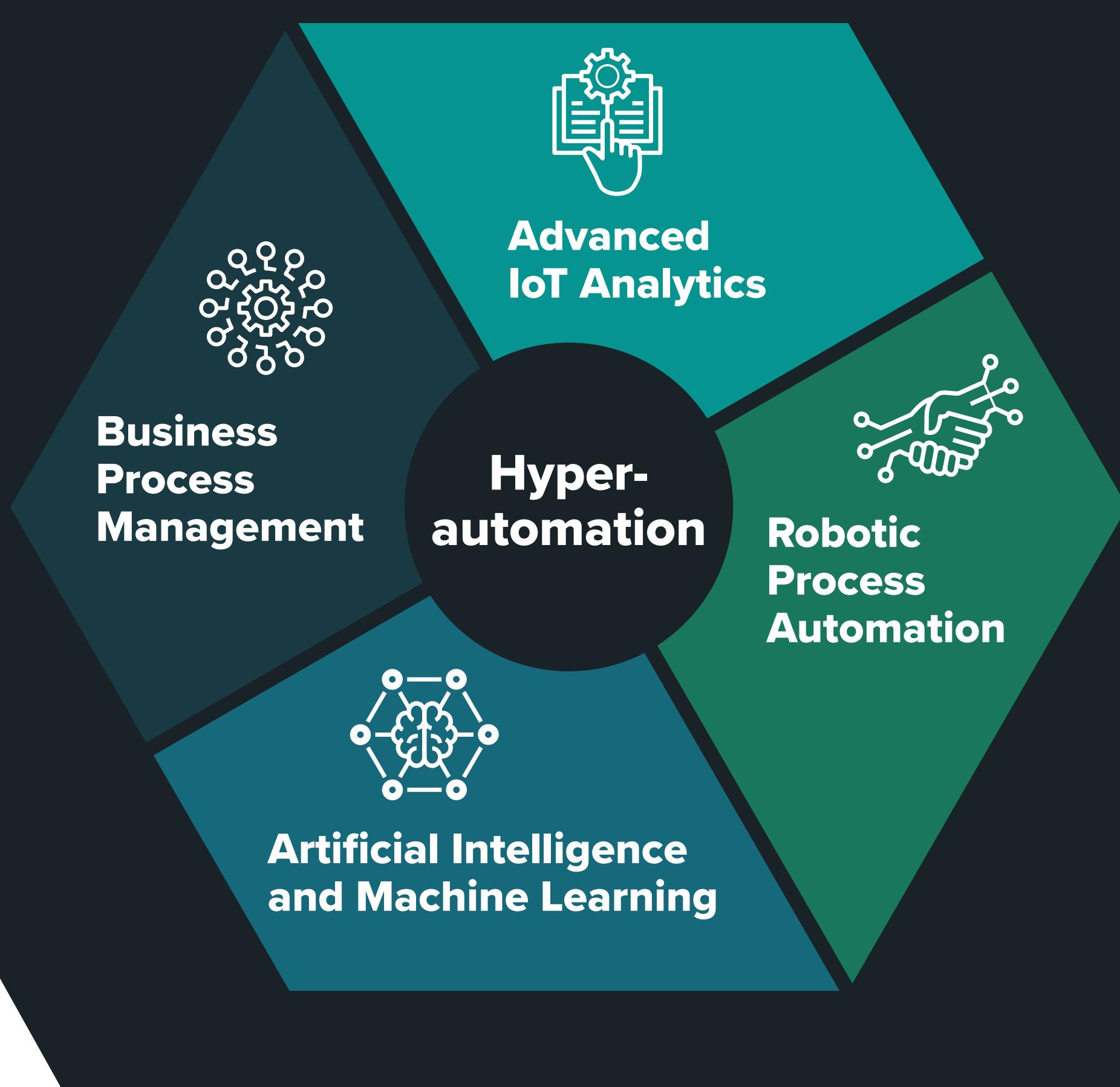
Business Process Management

Business process management (BPM) software are powerful platforms that manage hyperautomation strategies and initiatives. Intelligent **BPM software** suites organize information and apply automation tasks within those processes. The programs consolidate integration services, decision management, process orchestration, ad hoc processes, and advanced analytics into a single platform. **BPMs** are also responsible for crossing organizational boundaries that span people, machine services, and functional boundaries.

Robotic Process Automation

The rise of robots will lead to further automation across various product lines. **RPAs** are noninvasive integration technologies that help automate routine and reduce the repetitive physical work burden on humans. The goal of **RPAs** is not to replace humans but rather free them from low-value tasks to focus on ones that are of a higher value to the organization. **RPA** focuses solely on operating alongside humans to deliver higher efficiency.
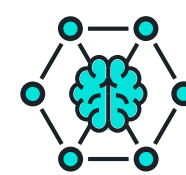
Advanced IoT Analytics

Organizations are beginning to rely on artificial intelligence and machine learning to help carry out specific tasks without explicit programs. ML is a subset of AI that uses computer algorithms to allow systems to improve overtime automatically. There are two types of algorithms—supervised, which creates inputs and outputs before making predictions, and unsupervised that observe structured data and develop insights from pattern recognition. AI and ML play a crucial role in hyperautomation because it frees users from interpreting mountains of data. **The Internet of Things** introduced richer data sets but still left it to humans to analyze. AI and ML help humans analyze and execute decisions based on automated data analysis.

Artificial Intelligence and Machine Learning

As IoT was introduced to the world, it provided organizations with massive amounts of data via sensors and connected devices. The problem became that the data collected was overwhelming and unorganized. Many organizations currently analyze data from a single source, such as the physical inputs of an RPA system, and current software platforms provide a top-level analysis to operators so they can make operational decisions. Hyperautomation differs by combining data from multiple sources and turns unstructured data into structured analysis. With BPM software and **AI**, hyperautomation can turn unstructured data into structured data and gain crucial organizational level insights. This relationship is how hyperautomation brings together digital tools to work together.