inteq

Engineering
smarter businesses

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animation here

Who is Inteq?

We are a leading integrator of automation and robotics technology for supply chains.

We are lateral thinkers

Automation and robotics thrive on innovation. Too many challenges in industries such as manufacturing, logistics, and healthcare exist due to rigid, conventional thinking. We challenge the status quo by approaching automation problems from fresh perspectives, uncovering new efficiencies, and developing intelligent, adaptable robotic solutions that go beyond traditional limitations.

We are partners for growth

The future of automation isn't static; it's dynamic. Our robotics and automation solutions are built to scale with your business, ensuring that as your operations expand or evolve, our technology grows with you. Whether integrating new robotic systems or optimising existing workflows, we design solutions that future-proof your business.

We are seamless & agnostic

The best automation solutions are those that integrate effortlessly into existing ecosystems. We design robotics and automation systems that are hardware- and software-agnostic, ensuring compatibility with a diverse range of platforms, devices, and industry standards. This flexibility allows businesses to leverage cutting-edge technology without being locked into a single vendor or rigid infrastructure.

Our experience

Inteq has helped businesses around the world optimise their warehousing and improve international logistics. We've worked with well-known brands and industry leaders in key sectors, making their operations smoother and more efficient.

Vehicle components for **major electric car companies**

Outdoor pursuits gear for well known **camping and adventuring brands**

Animal consumables for **national pet shop chains**

High end vehicular equipment for **elite automotive manufacturers**

Popular sports goods for **iconic brands**

Refined beverages for **major producers**

Fitness equipment for **sporting suppliers**

Optics technology for **international equipment manufacturers**

High speed logistics for **international operators**

Fashionable apparel for **household clothiers**

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How does Inteq work?

Inteq operates within a structured framework ensuring every project is delivered efficiently while maintaining high standards of accuracy and reliability. The framework allows for rapid project execution without compromising quality, ensuring that solutions are not only effective today but also adaptable for the future.

Agnostic approach

Inteq prides itself on independent automation, unbiased towards suppliers, vendors, or developers.
We prioritise client solutions, free from distractions like supplier ties or corporate strategy.

Our sole focus is efficient problem-solving. Objective and impartial, we avoid commercial and solutional biases. Inteq remains agnostic to suppliers, manufacturers and automation types, delivering what works best for your needs.

In-house empowered rapidity

Inteq prioritises swift solution deployment for our client's warehouses. By leveraging our in-house capacity, we work to the shortest possible timeline.

We avoid excessive dependencies, rarely using external contractors or temporary staff. Our skilled team includes experienced technicians, engineers, and designers collaborating closely with your business. With in-house expertise, we ensure independence and speed, extending our grasp effectively.

Scalable solutions

Inteq understands that your business is not a static situation or a stationary entity. Growth and change are expected for warehouse-utilising business. Whether you are delivering prophylactic pharmaceuticals, computer components, artfully-designed apparel, or vehicular ventilation units, your business now will not be your business next year.

Inteq designs every element of our solutions, from the modular software, to the hardware which can be adapted for multiple purposes, with it in mind that your business will change.

Our promise

Throughout defining, designing, delivering, and maintaining your solution, we prioritise totally transparent collaboration.
Our goal is your unwavering confidence in crafting the finest, enduring turnkey solution for your business. We don't just "close" deals; our focus is long-term success, not just a handshake at the end.

Define

Design

Deliver

Maintain

The Inteq way

When you become an Inteq client, you are always treated as an individual. Every warehouse is distinct, every business is different. The challenges and needs of each situation present distinct challenges and specific needs.

For that reason, Inteq has developed a robust and well formulated approach to working with our clients.

It works as a four-stage process:

1. Define

No two businesses are identical. Even if two warehouse managers seek "enhanced throughput," the interpretation and implementation can greatly differ. That is why Inteq uses the "define" phase.

Inteq achieves optimal results. We collaborate closely with clients to outline vital factors. These include business requirements, operational goals, industry nuances, and commercial aspects.

Via extensive attentive listening and data-driven investigation, Inteq establishes the project's full scope. This is transparent and involves substantial client representative involvement.

2. Design

After definitions are set, designs are drafted. Inteq understands that tailored technology is the best route to optimum outcomes. Our designs are bespoke and carefully aligned with our client's challenges, needs, and objectives as determined at the define stage.

Inteq's in-house developers will outline scalable solutions and select the most suitable manufacturers and machinery based on entirely independent criteria. This process involves everything from software to hardware to controls, automation, and all other necessary elements.

This all concludes with a detailed ROI calculation reached through staging scenarios, simulating systems, and expert-lead testing and emulation using real data and active software.

3. Deliver

Inteq intends on giving our clients complete confidence in what we do. That's why every last element of your solution gets delivered on time and on budget. We accomplish this thanks to our talented in-house team of technicians, who always work with flexibility, agility, and pragmatism.

Thanks to our high levels of in-house capacity, we can be sure that your project is delivered as rapidly as possible, and without any substantial dependence on external contractors, locum employees, or other such less reliable elements.

Our project managers ensure seamless implementation of software, hardware and controls, and our safety supervisors guarantee the protection of everyone whose work involves any interaction with the completed solution.

This concludes with a successfully delivered project, exactly as outlined in the design phase. Thanks to our principle contractor capacity, this is all completed quickly and independently. Inteq has the in-house skills, knowledge and experience to successfully deliver a project.

4. Maintain

Inteq intends on installing a legacy for our clients. That's why we work so hard to meticulously maintain every element of our solution. Every client gets a dedicated contract manager, and a bespoke maintenance package based on recognised risks, considered contingencies, and practical planning.

Our maintenance options include resident engineers, travelling maintenance (reactive), scheduled maintenance (deep clean/strip down), on-call service, or software only maintenance (email/phone line)

We offer a 24/7/365 UK based telephone helpdesk for software support, CMMS software for work order control, asset management, inventory control, preventative maintenance, and reporting.

That is Inteq way.

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Inteq equipment

Inteq takes a completely agnostic approach when it comes to hardware. When we approach a given clients situation, we work hard to find the specific technique, process, technology, or structure that will best provide the kind of outcomes most urgently needed/wanted.

The following is an overview of just some of the technologies we've helped install in warehouses across the UK and far beyond.

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Flexible AMRs

AMRs (autonomous mobile robots) use freestanding storage and wireless communication to revolutionise warehouse management. Their advanced sensors, motors, and communication, paired with sturdy storage, greatly enhance throughput, accuracy, and overall intralogistic efficiency.

Vertical and horizontal carousel systems

Carousel systems of all kinds offer huge efficiency improvements. When fully integrated with a wider array of sensors, timers, and programmable logic centres, these can hugely improve every possible metric of your facility's operational capacity.

Pick to light systems

LEDs, lasers, spotlights, are used to identify and direct picking. These systems greatly improve overall efficiency and throughput speed. Especially useful for warehouses with a wide variety of SKUs that need stocking/packing in quick responsiveness to fast flowing orders.

Piece pick solutions

There are many different product types where allowing things to be dropped, poured, or otherwise indirectly moved is less than desirable. These involve situations where picking one item at a time is overall more useful. For operations of that kind, you need robotic arms, suction grabbing mechanisms, mechanical hands, and other such technologies. If you are dealing with environments with small items-per-order values, high fragility products, or smaller than average packages, all these kinds of equipment have a valuable part to play.

Automated forklift operations

Ideal for manoeuvring sizable loads across diverse spaces and heights, automated forklifts ensure secure intralogistics, managing heavy loading without constant manual oversight. Total traceability at all stages, ideal for heavy duty goods-in, large item fulfilment, and many other tasks.

Bombay sorters

With direct linkages to conveyors, Bombay sorters efficiently handle fast inflows for rapid processing. They swiftly manage robust, securely packed items through quick-succession door movements. Using integrated sensors, timers, and controls, these systems track item placement precisely.

Conveyors

The mainline workhorse of so many different facilities for such a long time. Conveyors of all kinds can be powerful additions to everything from assembly lines to packing processes and sortation systems. The category itself however is massively broad, ranging from telescopic options to flexible redirection systems, dropping bay conveyance, carton oriented arrangements, and many more besides. Your specific situation could need all of these in different and distinct arrangements, which is why it's important to have expert advice and talented technicians behind they design of any conveyor based intralogistics solution.

Handheld terminals

Handheld terminals deliver real-time responsiveness, visual instructions, and instant connectivity between your pickers and your software. This dramatically enhances workflow speed and overall reliability. Efficiency and readiness are all fully updated for today's fast-paced market.

Static built-in-place ASRS

ASRS (automated storage and retrieval system) involves engineered in-place storage solutions within the warehouse superstructure. High bay racking and aisle-to-aisle shelves connect via forklifts, robots, or any other modes of efficient item transport. Ideal investments for businesses advancing their intralogistics.

Shuttles

Shuttle systems involve a self-powered vehicle moving back and forth across a defined space, carrying items, equipment, or products across the warehouse. Naturally these systems come in a wide range of styles and types depending on how, where, and why they are needed. Rather than the continuous movement of conveyors, shuttles only launch as and when needed. This can offer many efficiency and space advantages to operations that move in different and more varied intervals. Exactly how your shuttles can and should operate is a valuable area of expert detailing.

Inteq has provided unrivalled support to the site team; from design through to implementation, their creative and flexible approach has brought the vision to life, resulting in a robust and flexible solution for our customer.

CEVA Logistics

Inteq has been really great at helping us determine what the planned preventative schedule needs to look like – this has probably been the biggest learning curve for us, and has allowed us to significantly increase the reliability of the system. During the retail Christmas peak we see a good 30-50% uplift in volume and I'm happy to say that the modelled and planned maintenance and support structure put in place by Inteq copes well.

Craig Maguire, General Manager, Pets at Home

Our software

While Inteq provides independence in hardware by avoiding relationships with manufacturers/suppliers etc, when it comes to software we move one step beyond.

Meet IWS – Inteq Warehousing Software

IWS is a suite of software tools and utilities that combines and co-ordinates every possible digital function your facility could ever possibly need.

By bringing together the functionality of a WMS (warehouse management system), WES (warehouse execution system), and WCS (warehouse control system), Inteq provides a powerful software solution designed to give your business a digital advantage and a competitive edge—tailored to fit your unique needs.

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- IWS is a comprehensive system, covering dispatch, goods-in, courier integration, pick route planning, and more.
- IWS is modular, functioning as a distinct software package or integrating seamlessly into other systems.
- IWS is continually updated, offering innovative warehouse operation solutions and improved task management.
- IWS is multilingual, adapted to a wide range of languages and many other communication needs.
- IWS is intuitive, presenting essential information through tailored KPI tracking and custom dashboards.
- IWS is scalable, growing with your business as needed, thanks to its stable, secure code base.

By providing your digital services through our own in-house developed warehousing software solution,Inteq is better able to guarantee the very best possible software options for you and your business.

What makes Inteq's systems stand out?

There are specific techniques and technologies that we have developed and have found to be effective in a multitude of situations. By understanding what some of these are, you gain a better grasp of what might work in the future in your warehouse.

Every warehouse is different.

Every business is unique.

Every situation is specific.

GOALS – Grouped Ordering Algorithmic Logistics System

Inteq's software suite (IWS – Inteq Warehousing Software) can include an advanced warehouse operational efficiency system we call GOALS – **The Grouped Ordering Algorithmic Logistics System.**

GOALS is a new way to order and organise the picking system in your warehouse.

Instead of first-come-first-served, GOALS works by collecting together picks that are either similar, or have items that are stored close by.

By using advanced AI sequencing and selection processes to process when and where picks should happen, individual pickers have to walk far less to accomplish far more.

To understand it better, here's an example...

Imagine an apparel and accessories wholesaler with only **six objects**, circle, triangle, square, diamond, star and pentagon.
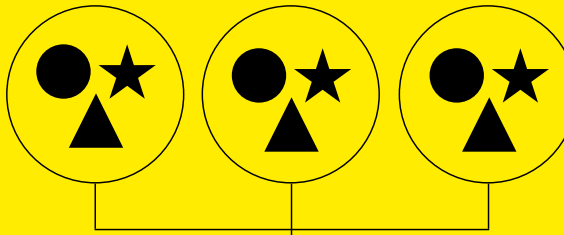
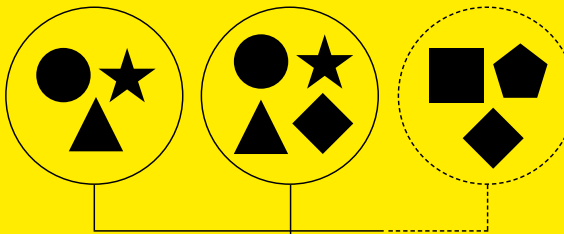**Now imagine the following orders came in:**

However, since customers 1, 4 and 5 all just want stars, circles, and triangles in varying quantities, it's faster to group those orders into one journey.

The same with **customers 2 and 6**, who only have the very slight difference of 6 wanting triangles also. **Customer 3** could also be easily grouped in here too, making the overall routing much quicker.

A system using first-come-first-served might just split these orders into two pickers duties, with a first wave dealing with customers 1, 2 and 3 while a second wave deals with 4, 5 and 6.

This is an simplistic version of what GOALS does. GOALS also knows things like the distance between pentagons and stars in the warehouse, and how many triangles remain. The underlying principle is clear. First-come-first-served creates a situation where pickers are roaming warehouses on repetitive, needless, and inefficient journeys.

With GOALS, your pickers can be grouped for speed and efficiency. This saves your warehouse time, gives your customers a better service, and ensures your business reputation is growth oriented.

Customer No 1
8:15 am	●	▲	■	◆	★	⬠
	12	8			6	

Customer No 2
8:16 am	●	▲	■	◆	★	⬠
			10	2	18	

Customer No 3
8:17 am	●	▲	■	◆	★	⬠
			4	9		

Customer No 4
8:17 am	●	▲	■	◆	★	⬠
	10	4			10	

Customer No 5
8:18 am	●	▲	■	◆	★	⬠
	4	8			9	

Customer No 6
8:19 am	●	▲	■	◆	★	⬠
		7	6	12	4	

CUSTOMER No 1   CUSTOMER No 4   CUSTOMER No5

CUSTOMER No 2   CUSTOMER No 6   **CUSTOMER No3**

Waveless picking

Waveless picking is a far faster picking method than first-come-first-served.

Conventional logistics uses "waves", lists of orders collected by WMSs which are sent to the picking staff using various methods like paper or voice commands. This enables the collection and delivery of items along the interconnected chain of tasks.

However, this system introduces a natural delay that consistently constricts operational efficiency. While one wave is being handled, new orders continue, creating cascade effects. Each picker follows predefined routes from the previous wave. WMSs must wait until the previous wave is completed before dispatching the next. Unfortunately, new orders continue to pile up.

This makes waves accumulate, creating backlogs. The system is inherently reactive, responding to events only after a delay. This makes it difficult to manage the warehouse operations

in real time, leaving warehouse managers and pickers struggling to keep up with incoming orders, limited by the timing of the last wave's generation. This flaw highlights the waved picking approaches shortcomings.

Waveless picking departs from the traditional paradigm. It involves dynamically adapting and planning picking processes in real time. As new orders come in, intelligent routes and routines are promptly devised to ensure tasks are completed promptly upon arrival, eliminating avoidable delays.

Modern warehousing equipment controlled by IWS, makes waveless picking feasible. Wireless connections to handheld terminals allow continuous updates and optimisations of picking lists, resulting in the most efficient workflows throughout the day. This liberates intralogistics from the constraints of a simplistic "first come, first served" arrangement, opening the door to a more accelerated and expansive operational capacity.

The advantages of this approach are numerous, but the three biggest are:

1. Higher productivity

Waveless picking removes the slowdown time caused as one wave completes and the next is released. Instead, picking staff receive continuous work content, without waiting for more orders to come later.
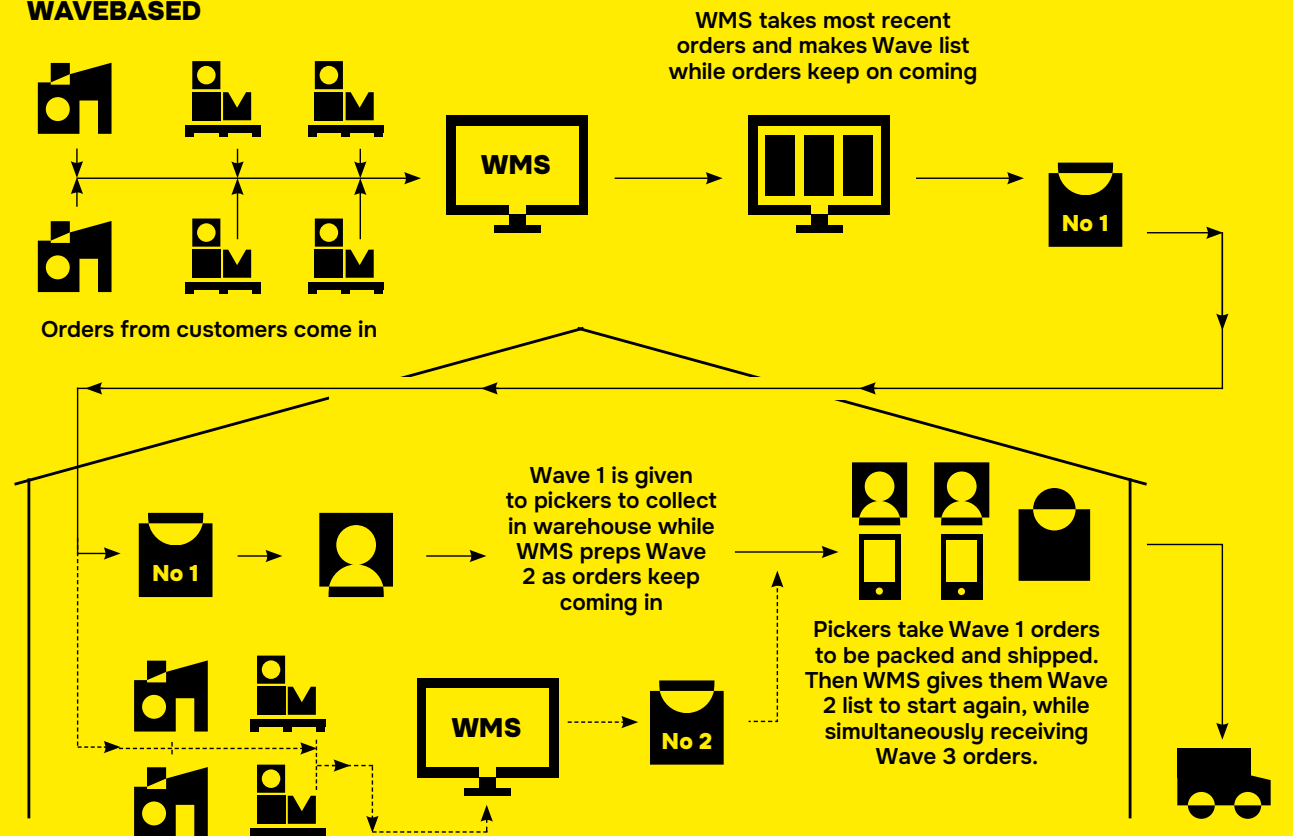
2. Accelerated throughput

Better productivity and consistent work release and distribution increases throughput and results in more efficient allocation of workers and equipment.
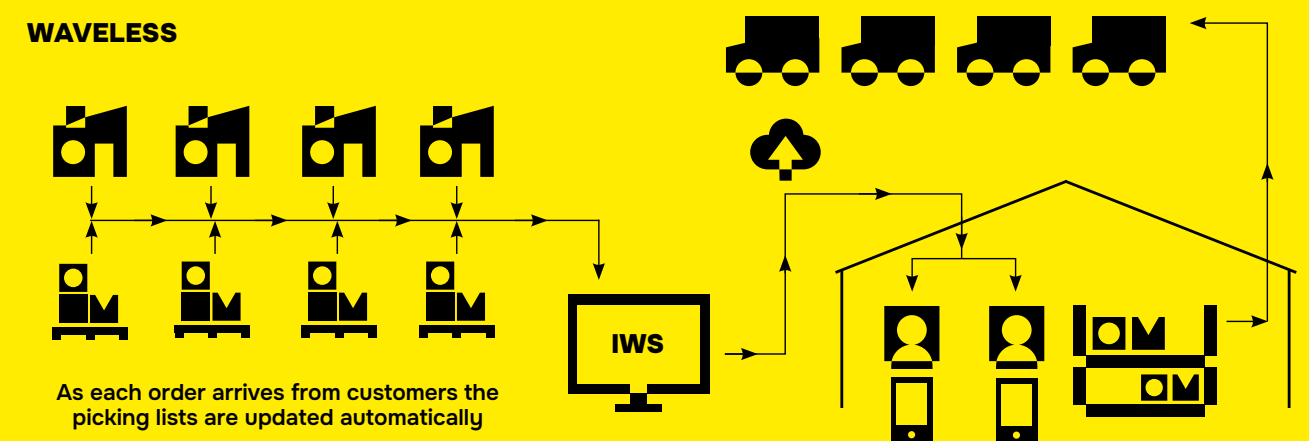
3. Reduced turnaround times

Orders can be prioritised and arranged as they arrive. This sorts things like rushed orders far sooner. Options such as next-day and two-day delivery become more readily available and more reliably accurate.

WAVEBASED

Orders from customers come in

WMS takes most recent orders and makes Wave list while orders keep on coming

WMS

No 1

Wave 1 is given to pickers to collect in warehouse while WMS preps Wave 2 as orders keep coming in

WMS

No 2

Pickers take Wave 1 orders to be packed and shipped. Then WMS gives them Wave 2 list to start again, while simultaneously receiving Wave 3 orders.

WAVELESS

As each order arrives from customers the picking lists are updated automatically

IWS

Inteq outcomes

Improve
Boost performance and efficiency

Automation is about maximising outcomes while minimising effort. An Inteq turnkey solution ensures efficiency previously unseen in your business operations.

Accelerate
Increase throughput rates

Backed by advanced tech and streamlined processes, your operations will witness significant throughput acceleration. Space utilisation will vastly improve, enabling more work with minimal floor usage.

Strategise
Effectively manage labour

With the latest automation and intralogistics technology, warehouse labour management can be simplified. Staff can shift from menial to meaningful. Seasonal hiring concerns diminish as focus turns to maximising talented teams.

Sharpen
Improve overall accuracy

As warehouse automation takes over the moving of goods between storage units, distractions decrease, errors are eroded, and performance peaks. Inherent accuracy is the natural result of properly designed automation.

Streamline
Complete control of inventory at all stages

Stock management is always a warehousing concern. An Inteq solution slashes risks and issues, granting staff full inventory awareness. Complete control radically boosts your advantage.

Reinforce
Enhance health and safety

A well-prepared automation system ensures top-tier safety and security. Inteq produces paragon of secure operation and safety conscious design, putting prosperity in plain sight.

Controls

Controls is the master of the hardware side of our operations. Directing, configuring, and selecting the most effective hardware to deliver the kind of radically game changing automation solutions that have made Inteq so successful. With their understanding of the strengths and weaknesses of all the different manufacturer's product lines, the peculiarities and proclivities of the different automation techniques, and the advantages and drawbacks of specific technologies, the controls team is ideally placed to give you the best possible commodity of all. Context specific insight. They will be the ones to look at your situation, consider what you want, and deliver what is needed. From PLC systems to Bombay sorters, the controls team will deliver what you need.

Integration

Our team of integration experts sit between and within both other teams to install, support, and deliver your turnkey solution. They will be bringing your solution online and ensuring that it full fits into not just the physical space, but also the operational niche of everything you need and want from this kind of solution. Their reach of project management and ongoing support skills will be key in bringing about the kind of success you and your business would naturally expect from Inteq.

This is a hugely beneficial transformation programme that has boosted the potential of our entire business, putting us in a stronger position to grow revenue and meet future customer demands.

Steve Rayson, Head of Logistics, Development, Superdry

Systems

Our systems team of specialists who helm the deployment and development of Inteq's flagship in-house product – IWS – Inteq Warehousing Software. Their role is to ensure that our software is not only the best it can be in and of itself, they will also be working with you closely to develop the necessary connections between any pre-existing digital apparatus you might have, and the new systems your turnkey operation will utilise. The systems team help keep IWS at the peak of its effectiveness at every stage and are constantly working to develop new versions with new functionality for new utilisations. They will bring you the digital realisation of your operational prosperity objectives.

Our business structure

Everything we do is about engineering smarter businesses in order to drive impactful growth and change.

Our business comprises of three core areas:

NOTES

Inteq (formerly known as Invar Group) is a leading integrator of automation and robotics technology for supply chains.

Our team of experts helps businesses deploy end-to-end warehousing automation solutions and leverage the latest technologies to transform supply chain performance, including industrial robotics, goods-to-person solutions, pick-to-light technology and sortation systems.

Our proprietary software, Inteq Warehousing Software (IWS), is an intelligent, intuitive, configurable, and scalable solution that enables 'hardware agnostic' warehouse control and management.

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