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### Responding to a fast-moving market

The industrial and logistics industries are ones of extreme diversity, featuring a wide range of sectors ranging from storage and distribution, to product and equipment manufacturing, to chemicals production and vertical farming. All of these sectors require modern, sophisticated warehousing space in order to respond effectively to their customer and market demands.

There is a high priority on growth where companies are launching new products and services, entering new markets and sectors. This is being achieved through mergers, acquisitions or organic growth. Gaining competitive advantage through improved access to markets or reduced operating costs is key.

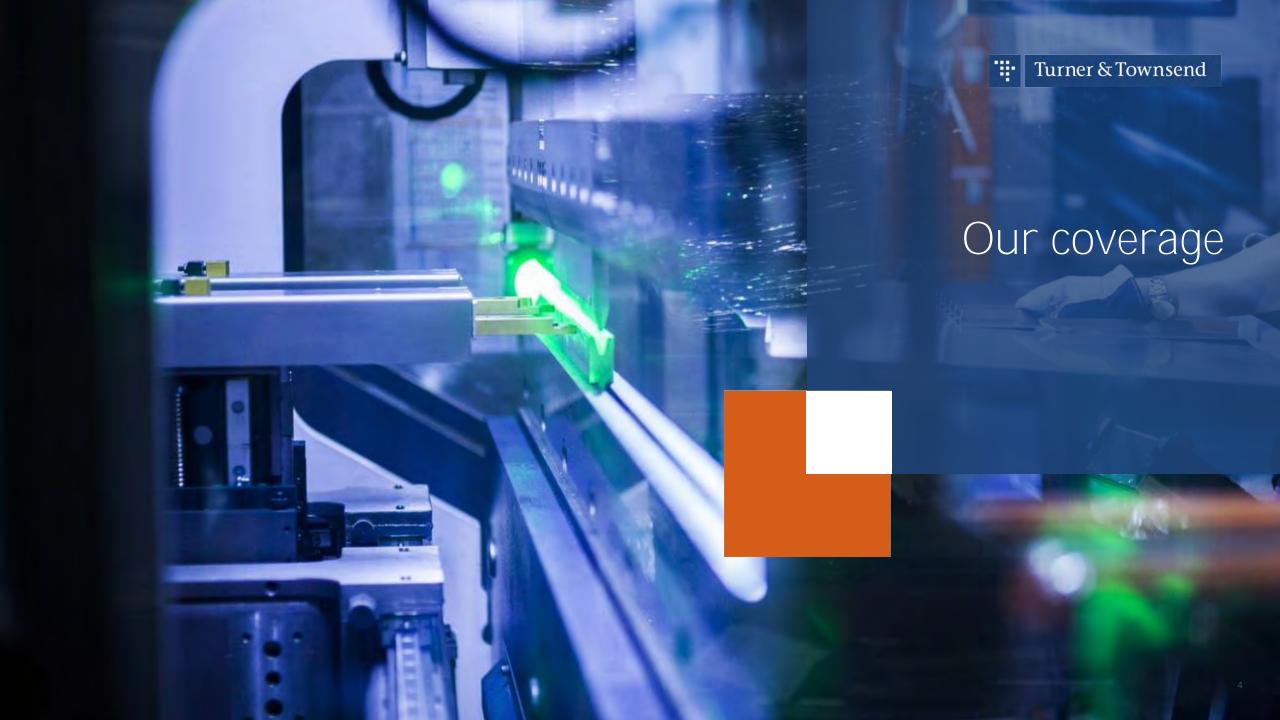
Research and development, innovation and speed to market are recognised as the differentiators for the market in the future, improving quality, lowering costs and increasing margins. The increase in new technologies such as 3D printing, robotics, artificial intelligence, and materials science, will also provide competitive advantage. At the same time, greater visibility of the end-to-end supply chain, consolidating where possible, will help to better understanding the risk factors.

We are working with our clients to explore how their estates can be used as an enabler to not only complement the new ways of working but also act as a financial catalyst to fund significant capital developments.



Dan Ayley
Global Head of
Industrial

"Globalisation, changing customer expectations, digitisation, regulation and disruptive business models are pushing companies to upgrade, redesign and build new industrial and logistics facilities in order to succeed in this highly competitive and changing environment."



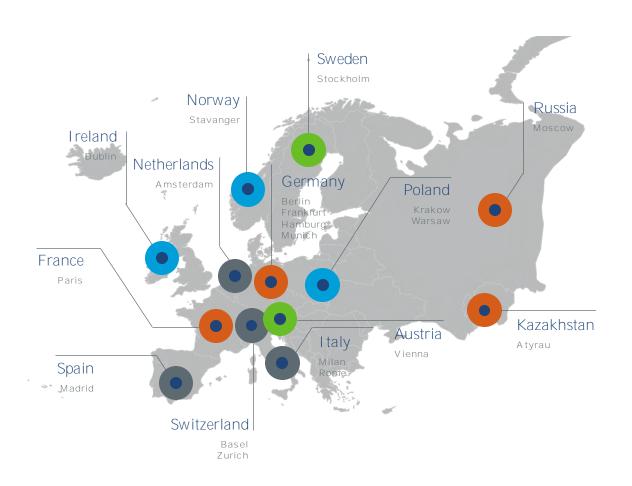
### Where we work



### Our European coverage

Our Europe team comprises of more than 450 employees, working across 19 offices in 12 countries. Within the region, we specialize in project and cost management, risk, contracts and procurement, lean construction practices, and life cycle asset management.

We have been supporting both local and global clients in Europe for over 20 years.



Net Revenue

€55.9m

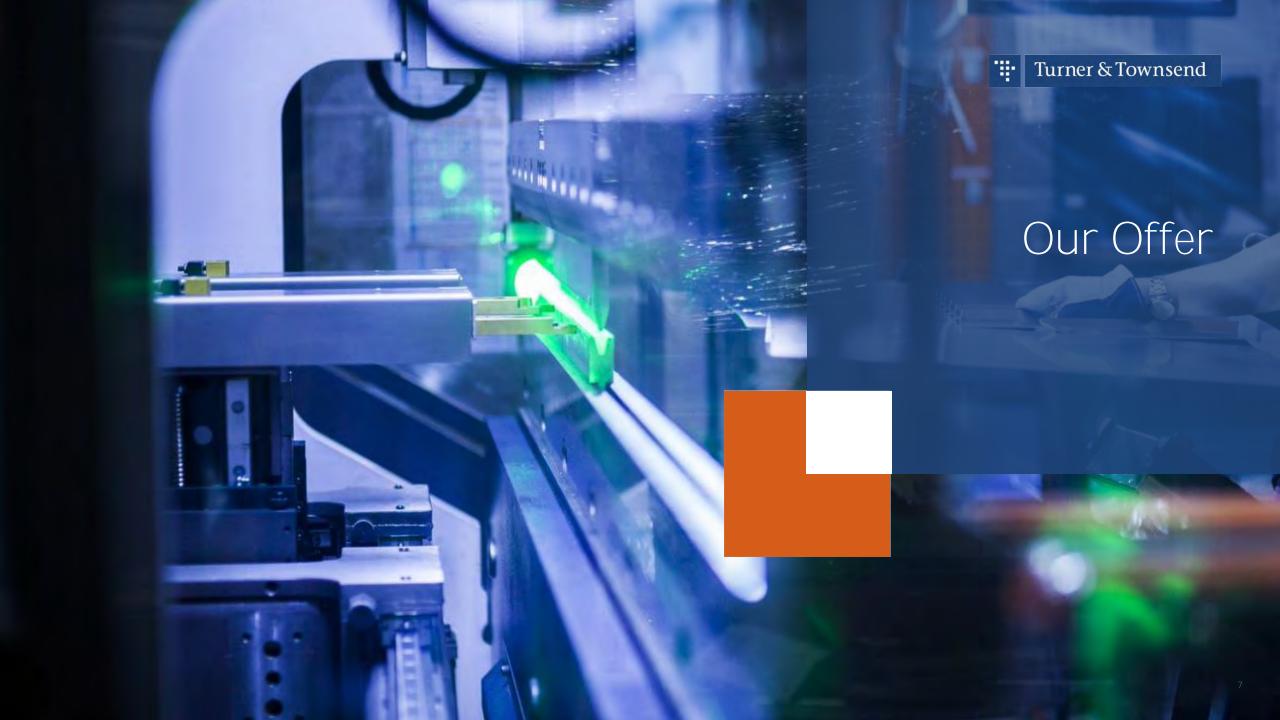
+20% on 2019

People

450

+8% on 2019

19
offices
in 12 countries



### What our industrial & logistics clients want

### To be first-to-market



Speed of deployment is fundamental in meeting market demands and disrupting the competition. Once a business has committed to a go live date it must deliver. Intelligent procurement models, identifying the best supply chain, smart interfacing, pre-fabrication, and modularisation can help to achieve aggressive time lines.

### Schedule certainty



Establishing robust timelines involves a wide understanding of the risks and uncertainties that can affect delivery. Lean management methods can be used to design a streamlined structure and decision-making process, in which the level of checks and balances for each decision type is tiered according to the level of risk and impact on timeline.

#### Value for money



While the drive to be first to market is strong, it's balanced with ongoing cautiousness on economic stability. Control must be achieved from the outset by setting robust budgets and managing spend to maximise return on investment.

#### Zero downtime



Once operational, many facilities become mission critical assets operating 24/7. Any downtime results in lost revenue and reputational damage. Therefore, any capital programme, whether it's a new facility or improvement work within live environments, has to be planned and implemented with an awareness and understanding of the service continuity, redundancy requirements and safety and security concerns.

### To stay ahead of the pack



New market entrants are disrupting client expectations and traditional business models. Economies of scale are no longer a standalone competitive advantage. Innovation, customisation and proximity to market are giving companies a winning edge. Manufacturing processes are being increasingly optimised for mass customisation, high-quality throughput and speed. Understanding how to outpace these changing business models is essential to stay ahead of the competition.

#### The best location



Site selection of manufacturing and distribution facilities is critical. Proximity to market, infrastructure access, connectivity to energy and utilities, government regulation, incentives and land prices can all inflate costs.

Choosing the wrong location can hamper attempts to attract qualified staff or source a supply chain, particularly in intensively competitive metropolitan markets. Local market insight coupled with an understanding of global trends is key to making any location work.

### To be future proof



In a fiercely competitive sector with significant investment in research and development, systems, tools and products evolve quickly. Clients are demanding their facilities be built in modular fashion, able to withstand wholesale change with minimal disruption.

Effective and collaborative use of Building information modelling (BIM) gives clients the best chance to make confident decisions about their asset during its design, build and entire lifecycle.

### To make the right investment decisions



As clients strive to reduce costs to defend or extend their market share, securing the right capital investment decisions becomes an enormous challenge.

In many programmemes, a single poor decision could lead to decade-long difficulties, or market opportunities missed. This is where establishing the total cost of ownership (TCO) for capital investments and getting a bulletproof business case to decision makers is mission critical

### How we help

### Our services for industrial and logistics clients

No matter the market in which you operate, our team understands exactly what is required to plan and execute a project or programme that gets you to market faster. We're here to help our clients both deliver and future proof their investments. For every engagement, we ensure that knowledge is transferred between people, regions, and sectors to support our clients and 'deliver great project outcomes, every time, everywhere.'

## Programme management

Looking at the big picture, driving better overall outcomes, and having real confidence your programme is under control.



## Strategy and set up

Setting up for success – building the right capabilities and execution plan to drive clear programme outcomes.



Delivering project success through effective planning, the right team, and rigorous controls.



# Cost and commercial management

Driving and safeguarding your commercial interests from start to finish



### Driving Net Zero

Helping to build a carbon net zero future and creating a more green, inclusive and productive world.



### Procurement

Developing and delivering procurement and supply chain strategies that get the best results from the market.



## Controls and performance

Applying robust and proactive controls from a clear baseline to deliver confidence in programme and project performance.



## Safety, health and quality

Embedding the strategies and culture that support effective operations and maintain a safe and healthy environment.



## Technology and data

Unlocking the potential of technology, data and information modeling to drive performance, support great decision-making and create collaborative working environments.



Independent advice to help make your business and investments a success.





### Industrial and manufacturing expertise

With robots and automated factories, mass customisation, rapid prototyping through 3D printing, ever-shorter product cycles, the need to balance global demand swings, and even sensors being embedded throughout the supply chain, new innovations are having a pervasive impact on manufacturing across all sectors.

Electrification and digitalisation are underpinning the '4th Industrial Revolution', creating the opportunity for sustainable growth and reduced carbon emissions. Electrification creates new market opportunities for our manufacturing clients, particularly with new methods of harnessing, storing and utilising electricity and the advancement of manufacturing techniques and production facilities.

The industry is fiercely competitive, and highly integrated in a global network of interwoven supply chains. New markets and sectors are constantly explored through mergers, acquisitions or fast-paced growth. Any uncertainty in global growth only intensifies competition for market share. Gaining competitive advantage through improved access to market or reduced operating costs is the key. As the costs of energy increases, it is likely this will become one of the highest costs of the manufacturing process.

Organisations are developing plans for a workplace of the future which is flexible, efficient and inspiring. Delivering projects across this spectrum can be extremely challenging with works often required to take place within live environments where the protection of production, safety and security is paramount.

"We've worked with Turner & Townsend before so we're confident in their ability to deliver the latest and best practice whilst providing project and cost management services for our new £250m manufacturing factory in the United **Arab Emirates**" Ahmed Kadous. Supply Chain Director at Unilever Gulf

### Warehousing and logistics expertise

A tide of capital has flowed into warehousing and logistics facilities over the past decade, with both global and local players responding to the transformative impact of e-commerce, which has created an up-surge in demand.

The retail industry is going through major change driven by the disruption of e-commerce. As retail and technology merge, significant investment in warehouse and logistics are being made to gain a competitive advantage.

Despite becoming an increasingly popular asset class, there are varied challenges facing the sector. From rapid technological change, to rising competition and prices for the best locations, to intensifying demands from consumers, business and industry, it is clear that warehouse owners and occupiers require agile solutions meet to their portfolio needs.

The trends of Industry 4.0 are as applicable to the warehouse and logistics landscape as they are production and manufacturing. 'Fulfilment centres' are automated and lean factory conditions and practises are becoming the norm. As investments move us further towards robots in warehouses and drones for online fulfilment, the supply chain is undergoing a major transformation. When the possibilities of artificial intelligence are added, the future supply chain holds the promise of being completely autonomous and self-orchestrated. A fleet of robotics driven by intelligent algorithms, eliminating waste.

The supply chain of tomorrow will be leaner, faster and most importantly, self-orchestrated. This unprecedented pace of change will be driven by a few radical technologies that will be cautiously adopted by industry participants over the next 15 years.



### Sector coverage

### Drawing together best practice from diverse perspectives

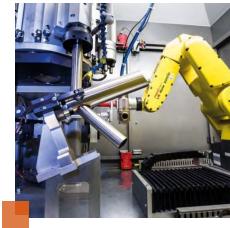
We have experience and knowledge working with diverse players across all facets of the industrial sector giving us a wide perspective on market trends.











### Batteries & semiconductors

Leading clients:

- Tesla
- Infineon
- EPCOS
- Intel
- Samsung
- Other battery confidential clients

### Automotive & Aerospace

Leading clients:

- Daimler
- Jaguar Land Rover
- Rolls-Royce
- Boeing
- Siemens
- Bombardier
- GE

### Distribution & logistics

Leading clients:

- Amazon
- Adidas
- Pinnacle
- Global Logistics Properties
- DHL
- Paccar Parts
- Foodstuffs

### Pharmaceuticals & chemicals

Leading clients:

- AstraZeneca
- Johnson Matthey
- BASF
- CSL Behring
- Pfizer
- GSK

### Fast moving consumer goods

Leading clients:

- Dyson
- Pepsico
- Unilever

### Advanced manufacturing



Confidential client

### Lithium-ion battery plant

#### Scope

Our client is developing a plant to develop green lithium-ion batteries. The project includes both upstream and downstream plants to process and develop the batteries. The aim is to provide 500,000 electrical car batteries by annum by 2024.

#### Services

Turner & Townsend's scope of work includes Quantity Surveying, project controls, risk management, estimating, and scheduling.



Confidential client

## Two new electrode and battery manufacturing facilities, UK & Southern Europe Scope

Two new electrode and battery manufacturing facilities. This forms part of a potential, large scale expansion with future plants in each location providing a total capacity exceeding the 50 GWh. Each battery manufacturing plant will include an integral electrode manufacturing plant.

#### Services

Project Management and Cost Management services.



Confidential client

### Cathode Materials manufacturing facility in Konin, Poland

#### Scope

A new Commercial Plant build for production of new grades of Elno cathode materials for Automotive Industry clients. This plant has the potential for up to 100,000 MTpa plant capacity.

#### Services

Change, cost and risk management. In our role we established a framework and strategy for RAID and Change management for Battery Materials Capital projects

### Pharmaceuticals & chemicals



AstraZeneca

### EVEREST programmeme

#### Scope

While providing financial coordination services, Turner and Townsend was able to support project controls and ensure optimal cost management by:

- Creating new cost report models,
- Designing new procedures,
- Helping define roles and responsibilities,
- Validating scope and interfaces with general contractor.



Freudenberg Real Estate

#### PUMA, Maisach, Germany

### Scope

Freudenberg Real Estate is building a chemical production and storage facility in Maisach Gernlinden, Germany, complete with a logistics yard, two-storey office and laboratory building with a canteen.

#### Services

Schedule and cost control of the design and construction phases; contract management.



Johnson Matthey

### Refurbishment of an existing manufacturing facility, Eastern France

### Scope

The programmeme consists in the refurbishment to adapt the existing facility to the new production needs, while maintaining a part of the existing assembly lines for a product that was not discontinued.

#### Services

Setting up the programmeme with best practice process and procedures to provide assurance and control.

### Automotive & aerospace



Faurecia

### Global industrial projects

#### Scope

With 330 sites in 34 countries around the world including R&D centres, production facilities and warehouses, Faurecia is a global leader in automotive seating, interior systems, emission control technologies and infotainment systems.

#### Services

Under a Global Service Agreement, Turner & Townsend assists Faurecia with their global industrial portfolio with more than 30 projects to date.



### C Class Body Shop, Bremen, Germany Scope

The Daimler site in Bremen has undergone a major expansion and reconfiguration programmeme to facilitate the assembly of the new C-Series model. All capacities along the value chain need to be expanded, which requires to build new buildings, extensions to existing buildings and the reconfiguration of existing buildings.

#### Services

Project manager and scheduler for the delivery of the project – managing the complex project team.



#### Global programmeme of work

### Scope

Implemented a structured and efficient phase gate programme delivery model from proof of concept, execution and benefits realization.

#### Services

Our innovative and interactive programme reporting and data analytics improves the decision making process, drives efficiency and contributed to long term savings.

### Distribution & logistics



Leading online retailer

### European fulfilment centre programmeme Scope

Project Manager/ Client representative from the initial due diligence phase, setting up the projects, manage through design phase and construction phase and leading into the launch process.

#### Services

We provide services on developer lead build-to-suit projects, client lead refurbishment projects and client lead greenfield projects. More than 25 projects per year.



Adidas

### Distribution Centre Caspe, Spain

#### Scope

Following increase in e-commerce Adidas decided to expand and re-model their Caspe Distribution centre.

#### Services

The project covered incorporation of new mezzanine for packaging, remodelling of 5,000 m2 of existing facility into very narrow aisle storage and extending it with addition 1,500 storage space.



### Pinnacle Flex Space programmeme, Silesia, Poland

#### Scope

The investment involved the construction of manufacturing & logistics objects in 5 different locations (two sites in Katowice, sites in Sosnowiec, Bytom, Gliwice) on the area of over 70 ha in total.

#### Services

We provided Project and Cost Management what included Permit Process Management, Utilities Agreements Support, Project Management, Cost & Budget Planning, Value Engineering.



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