

# TKH GROUP NV

March 2018

# HISTORIE TKH GROUP NV



- 1930** Foundation BV Twentsche Kabelfabriek – Haaksbergen (NL)
- 1953** Issue of shares TKF at Amsterdam Stock exchange
- 1980** Foundation NV Twentsche Kabel Holding – transfer shares TKF to TKH
- 1999** Opening fibre optic production location TFO in China – expansion to Europe & Asia
- 2005** Name change in TKH Group NV - transition to solution segmentation
- 2012** Acquisition Augusta AG – expansion to North America
- 2014** Mid-cap listing Euronext Amsterdam
- 2017** Sub-Sea plant Lochem (NL) in operation



➤ Turnover € 1.5 billion

➤ Number of employees (FTE) 5,900

➤ Technology company

➤ Four core technologies

**Vision & security, communication, connectivity and manufacturing systems**

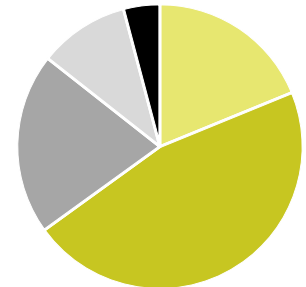
➤ The core technologies are combined with software and system integration into total solutions in vertical focus and growth markets within three business segments:

➤ Telecom Solutions 13%

➤ Building Solutions 43%

➤ Industrial Solutions 44%

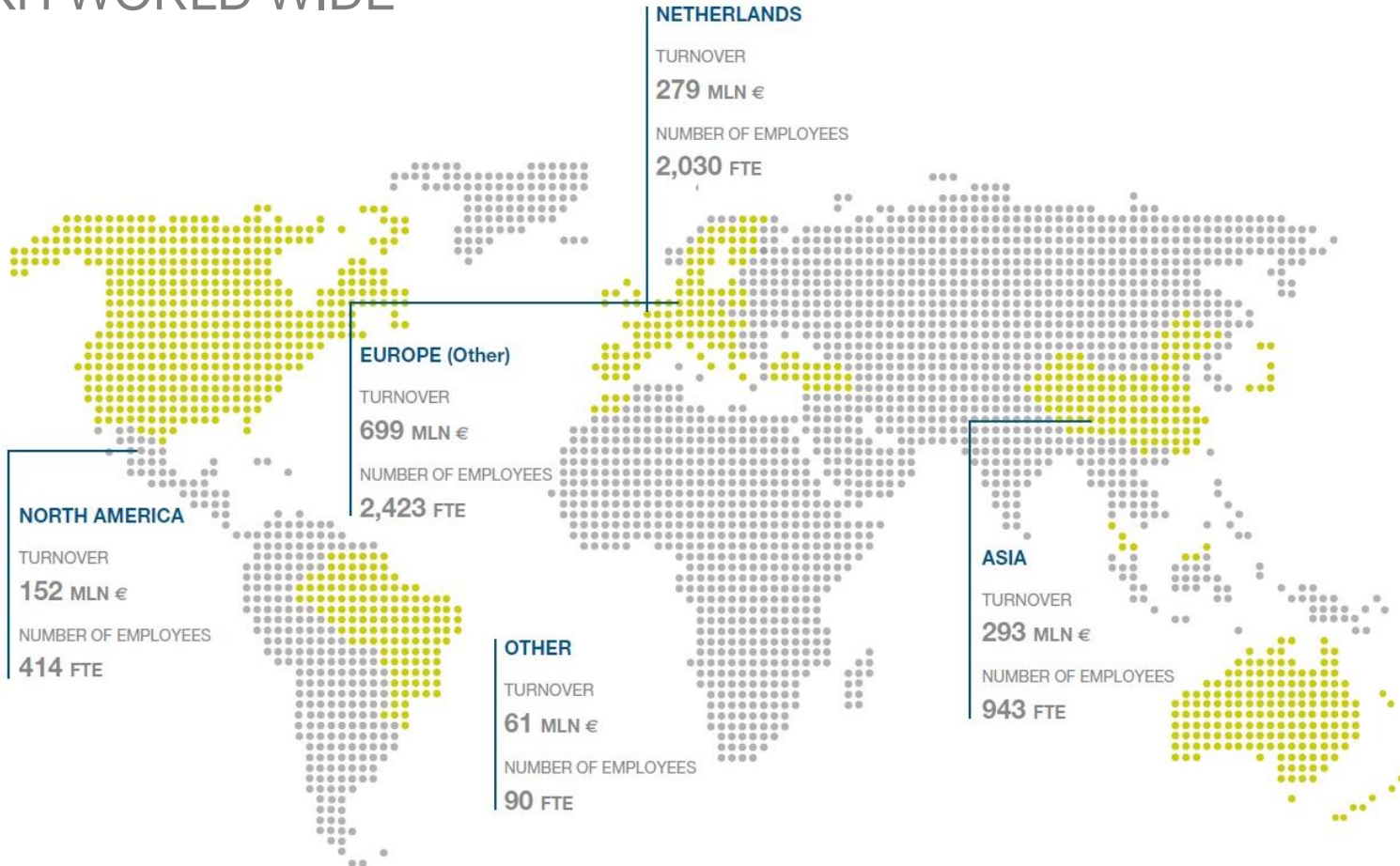
**Geographical distribution of turnover**  
(in %)



2017

	Netherlands	19
	Europe (other)	46
	Asia	21
	North America	10
	Other	4

# TKH WORLD WIDE



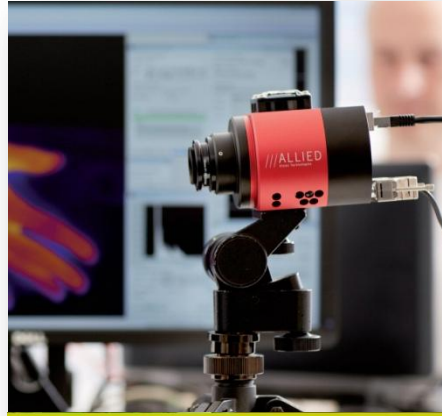
# MISSION

TKH intends to be an innovative and leading technology (niche) player by creating combinations of its four core technologies to total solutions that lead to larger efficiency, more comfort and larger safety for customers. By offering 'best in class'-solutions, TKH aims to continuously exceed customers' expectations.

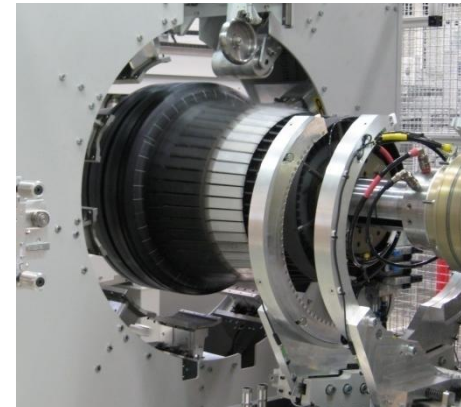
TKH aims to be an attractive employer and a solid investment for shareholders, whereby corporate social responsibility is placed centrally.



Telecom Solutions



Building Solutions



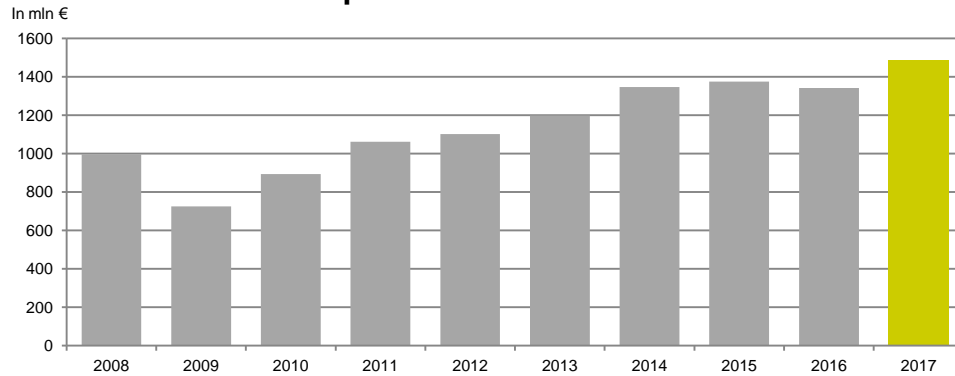
Industrial Solutions

# SOLUTIONS SEGMENTATION

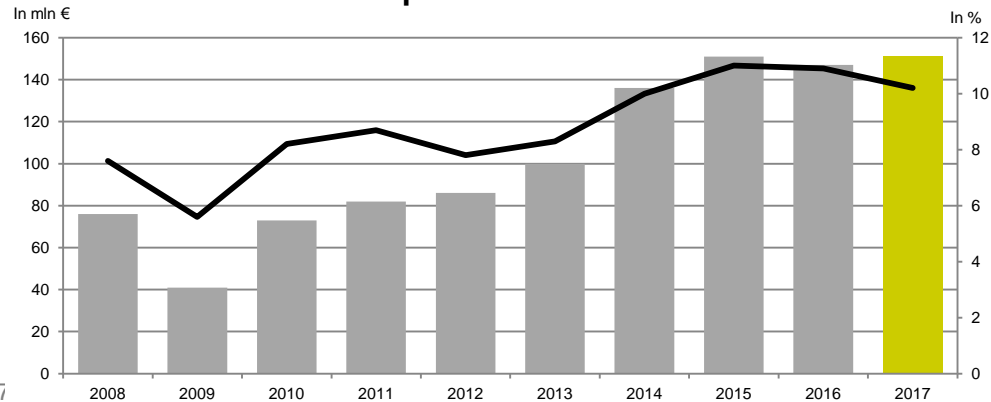
Segment   Subsegment	Share	Business model					Markets
		R&D and System engineering	Inhouse Manufacturing	Outsourced Manufacturing	Assembling	Service	
<b>Telecom Solutions</b>	<b>13%</b>						<ul style="list-style-type: none"> <li>• Telecom operators</li> <li>• Cable operators</li> <li>• Service providers</li> <li>• Telecom installers</li> <li>• Telecom retailers</li> <li>• Housing associations</li> </ul>
Indoor telecom & Copper systems	5%						
Fibre network systems	8%						
<b>Building Solutions</b>	<b>43%</b>						<ul style="list-style-type: none"> <li>• Building construction (installers and wholesale)</li> <li>• Government</li> <li>• Traffic infrastructure</li> <li>• Care institutions</li> <li>• Parking organizations</li> <li>• Marine and offshore</li> <li>• Rail</li> <li>• Energy companies</li> </ul>
Connectivity systems	19%						
Vision & Security systems	24%						
<b>Industrial Solutions</b>	<b>44%</b>						<ul style="list-style-type: none"> <li>• Machine building industry</li> <li>• Process industry</li> <li>• Tire building industry</li> <li>• Medical industry</li> <li>• Robot industry</li> <li>• Automotive industry</li> <li>• Can making industry</li> </ul>
Connectivity systems	18%						
Manufacturing systems	26%						

# DEVELOPMENTS 2007 - 2017

## Revenue development



## EBITA & ROS Development



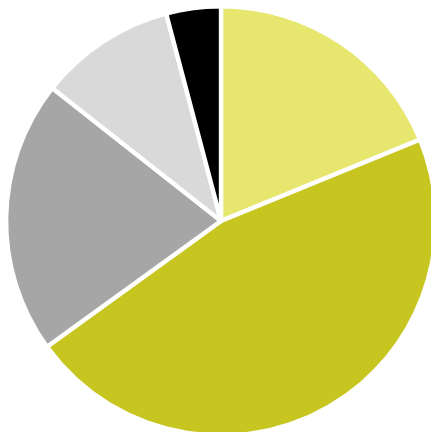
■ EBITA<sup>1)</sup>

— ROS

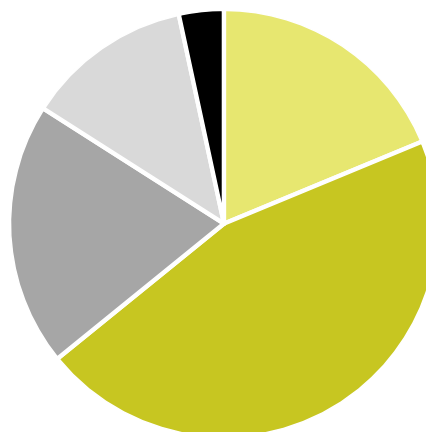
<sup>1)</sup> Excluding one-off income and expenses

# GEOGRAPHICAL DISTRIBUTION OF TURNOVER

Geographical distribution of turnover (in %)



2017		
	Netherlands	19
	Europe (other)	46
	Asia	21
	North America	10
	Other	4



2016		
	Netherlands	19
	Europe (other)	45
	Asia	20
	North America	13
	Other	3



## VALUE CREATION

### 4 CORE TECHNOLOGIES



INNOVATIONS >15%

### 3 BUSINESS SEGMENTS



### GROWTH-DRIVERS



### 7 VERTICAL MARKETS



TKH merges 4 core technologies into specific solutions for 7 high growth vertical markets with special focus on growth opportunities within 3 business segments Telecom, Building and Industrial Solutions

### Focus on 4 core technologies

- > Offer high level of service and integrated solutions
- > Offer highly innovative 'best in class' systems
- > High return on investment for customer by focusing on improving efficiency, increasing the reliability of processes and security levels

### Focus on 7 vertical growth markets

- > Choice for growth verticals is determined on return potential based on internal and external benchmarking - ROS and ROCE in combination with organic growth opportunities
- > Growth potential in 3 - 5 years of € 300 - € 500 million



## TKH focuses on distinguishing potential for an above-average performance

- **Niche player** strategy – focus on high-grade solutions and relatively small markets with high margins
- High pricing power due to **innovative unique solutions**
- Selling **high return on investment** to customers
- Besides entering into partnerships, we focus on the development of advanced **proprietary technologies**
- High added value through **system integration**, service and solutions
- Commodity products used primarily as part of total solutions
- **Outsourcing** more than 70% of **capital intensive** production - flexible capacity is available and cost basis more variable
- Focus on **high-growth vertical markets** or **market share expansion** potential - optimal use of R&D-resources and investments to markets with largest potential
- **Spreading risk** across a large number of product/market combinations
- **Geographic focus for growth:** Europe, Asia, North America; limited number of export focus areas outside these territories
- **Acquisitions** in defined growth verticals

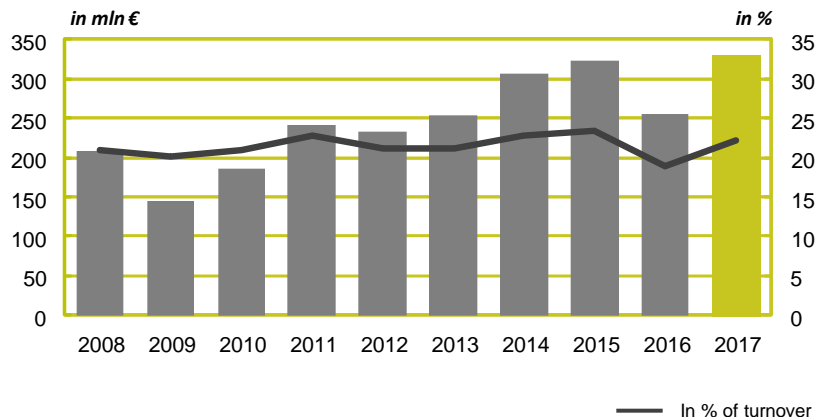
## Focus on 7 vertical growth markets with growth potential in 3-5 years of € 300 - € 500 million

Fibre Optic Networks - Care - Tunnel & Infra - Parking - Marine & Offshore - Industrial Machine Vision - Tire Building Industry

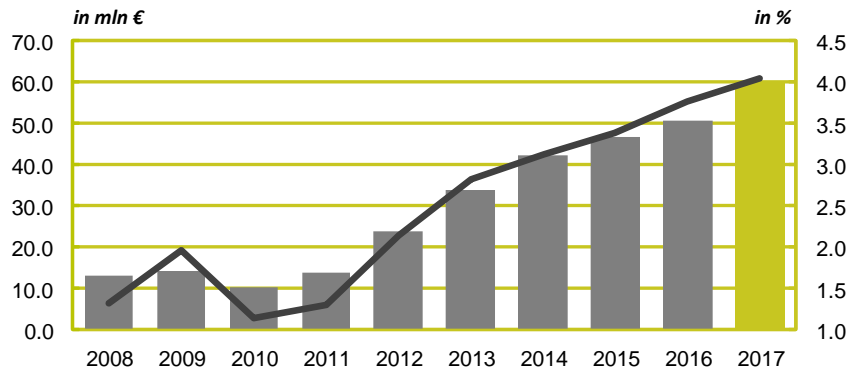
- Focus leads to maximum traction to realise growth potential
- Choice for growth verticals is determined on the return potential based on internal and external benchmarking – ROS and ROCE in combination with organic growth opportunities
- Defined turnover, ROCE and ROS targets per segment
- Impact of focus on above average margin vertical markets will have positive effect on ROCE and ROS TKH
- Executive Board directly involved in realisation of targets through solution responsibility
- Strong monitoring of execution of growth plans per building block: weekly – monthly reviews
- One end-responsible per vertical market who reports directly to the Executive Board
- Optimal use of R&D-resources and investments to markets with largest potential
- Coordination of technology development priorities to growth verticals
- Only acquisitions in defined growth verticals

# GOOD PROGRESS IN STRATEGY EXECUTION IN 2017

## Turnover from innovations



## R&D expenditure



### ➤ Intensified focus:

- Several innovation projects still in development and roll-out phase - only limited contribution to turnover growth
- Less profitable activities reorganized to reduce operating costs and increase further focus
- Discontinuation of certain distribution activities that offer no added value for proposition in vertical growth markets

### ➤ Strategic important milestones achieved with great potential:

- Further increase market share among top-5 tire manufacturers
- Expansion of market share in consumer electronics manufacturers with machine vision technology
- Roll-out of first projects for airfield ground lighting ('AGL') portfolio based on disruptive CEDD technology
- Start-up of subsea production

### ➤ R&D, operational and commercial organizations have been strengthened to respond to expected growth

# BUILDING BLOCKS GIVES A STRONG BASIS FOR STRATEGY EXECUTION



Fibre Optic Networks	Care	Parking	Tunnel & Infra	Marine & Offshore	Machine Vision	Tire Building
Market share growth France / Germany / Nordics / Poland	Internationalization Homecare & Community platform	Differentiation via smart-sensor / CCTV to 'frictionless' parking	Airfield Ground Lighting-technology based on CEDD-technology	Connectivity-solutions for subsea	High market growth 2D-inspectie in combination with innovations	Market share growth within Top 5- tire manufacturers
Robot solutions for patching - SAODF	Internationalization of integrated vision & security solutions for hospitals	Internationalization of integrated vision & security solutions for parking garages	Internationalization of integrated vision & security solutions for tunnels	Internationalization of integrated vision & security solutions	High market growth 3D-inspection in combination with innovations	Market share growth 'tire component preparation', Truck Tires & 'Light Truck tire manufacturing'
Smart security solutions for POP's	Blistering-technology for pharmacy – INDIVION	Market growth and TKH positioning North-America / Europe / Australia / Middle East	Market share growth Benelux / Nordics	Internationalization of connectivity-solutions	Market share growth North-America / Europe / Asia	New tire building platform UNIXX & MILEXX
	Dispenser-technology for medicines			Special portfolio 'mission critical' communication	Medical and tire building inspection systems	Increase share in turnover Service & Spare parts business

# GOOD PROGRESS OF EXECUTION OF PLANS LEADS TO UPGRADE OF TARGETS

Turnover (in € millions)	2012	2016	2017	Growth scenarios	
Fibre Optics Network	80	109	127	175	200
Parking	20	55	47	75	100
Tunnel & Infra	30	43	48	100	150
Marine & Offshore	20	53	58	100	125
Care	30	43	52	70	100
Machine Vision	95	111	127	250	300
Tire Building Industry	175	259	297	450	550
<b>Growth verticals</b>	<b>450</b>	<b>674</b>	<b>756</b>	<b>1,220</b>	<b>1,525</b>

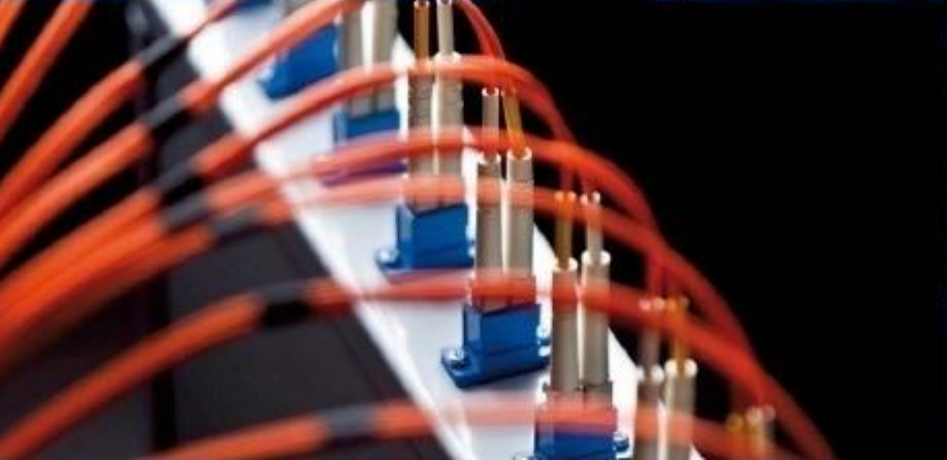
- Continuation internal investments in Machine Vision, Tunnel & Infra and Tire Building, but on lower level than in recent years - based on growth opportunities
- Expansion production capacity in 2018 for fibre optic networks and high-grade industrial cable systems - based on identified opportunities to increase market share
- Adjusted growth target bandwidth:
  - Fibre Optic Networks to € 175 - € 200 million - increased global market demand with growth acceleration in Europe - strong market positions
  - Machine Vision to € 250 - € 300 million - market demand increases rapidly for applications with vision technology - breakthrough in consumer electronics market - positive feedback on potential embedded 2D camera technology
- Expectation that turnover in 7 vertical growth markets can grow by € 300 - 500 million over the next 3-5 years - mainly organic growth > 80%
- Focus vertical growth markets - acceleration realization ROS and ROCE target - medium-term targets adjusted upwards

	2016	2017	Previous targets	Updated targets (mid term)
ROS	10.9	10.2	11 -12%	12 - 13%
ROCE	20.1	19.8	20 - 22%	21 - 23%
NET debt / EBITDA	1.0	0.9	<2.0	<2.0

# ANNEX I: CORE TECHNOLOGIES



Innovative technology  
makes the difference

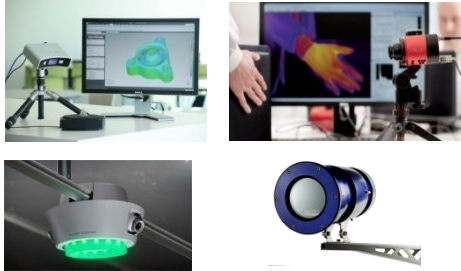




# CORE TECHNOLOGIES

## VISION & SECURITY:

- Video surveillance
- safety cameras (explosion proof)
- Video management and –analysis
- Guiding & lighting systems
- Access control & registration systems
- Industrial inspection & automation
- Robot control and diagnostics
- Quality control systems



## COMMUNICATION

- Optical fibre systems
- Mission critical communication
- Intercom systems
- (Personal) alarm systems
- Evacuation systems
- Emergency systems
- Building management & monitoring
- Public address
- Audio systems



## CONNECTIVITY

- Sub-sea cable systems
- Marine cable systems
- Optical fibre connectivity
- Contactless energy & data connectivity
- Specialty cable systems for robot, medical & machine building
- Drag chain systems
- Multi-Media-Connect
- Energy, building & Infra and installation connectivity



## MANUFACTURING SYSTEMS

- Medicine distribution
- Tire assembling
- Tire component systems
- Passenger & Truck tire systems
- Vision inspection
- Product handling
- Production automation
- Scada systems



# ANNEX II: VERTICAL GROWTH MARKETS



# TKH – VERTICAL GROWTH MARKETS – FIBRE OPTIC NETWORKS



## Growth drivers

- Data use through the impact of information and communication technology on the way we live our lives continues to grow
- Internet has become a basic service, like gas, water and electricity
- Developments such as the 'Internet of Things', 'Industry 4.0' and 'Internet of Vehicles' will require a high (mobile) internet speed - emergence of 5G internet
- 24-hour availability is becoming more established and accepted
- Several European countries have announced investment plans for rollout of FttH projects to meet the strong increasing need for bandwidth

## Position

- Integrated solutions – connectivity – security
- High knowledge level of network requirements customers
- Cost leadership
- Strong innovative power
- Resources prepared for growth with available and exiting capacity

## Fibre optic networks



## Growth drivers

- Life expectancy is continually increasing and healthcare spending will increase sharply due to more and better, but also more expensive care – therefore, the demand for technologies for care solutions is increasing
- Changing healthcare funding: shifting from the government to the institutions and healthcare insurers
- Innovation in the field of domotics, diagnostics, e-health and self-testing for prevention and screening, provide new business in the sector.
- Shortage of skilled workers
- Informal caregivers play an important role and, together with the client and the healthcare professionals, are equal partners - technology support is necessary for the required information exchange
- The demand for medicines (volume) has been growing as a result of demographic developments, while the cost of care will have to be lowered
- Increase central task of preparing medicines in a remote location - acceptance of robotics in pharmacy wholesale

## Position

- Smart Care concept with centralized management and community platform
- End to end, modular care platform including service concept with data hosting to increase care efficiency and quality
- Viedome is leading care concept in NL with increasing service model – selected international roll-out (Germany, France)

## CARE

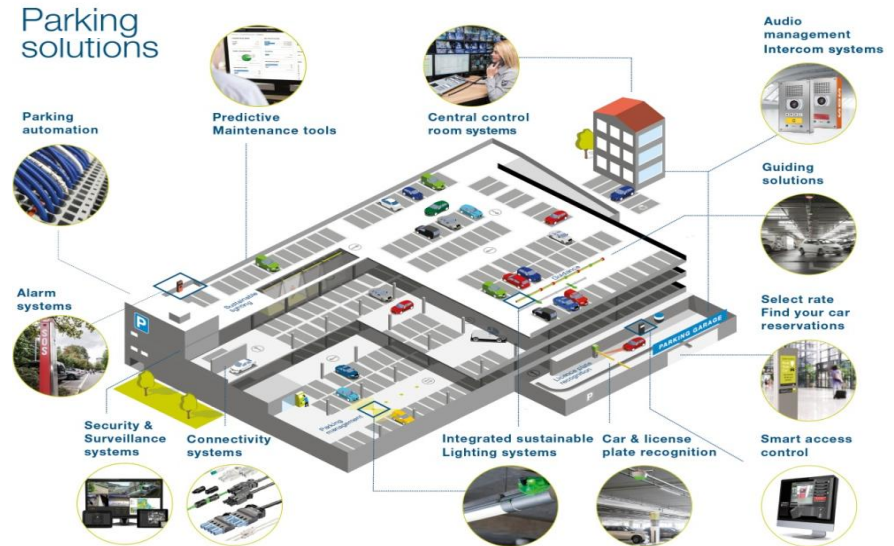


## Growth drivers

- Revenue from car parks is under pressure due to low supply and mobility - need to reduce OPEX
- Demand for providing a visual dashboard with parking information - managers and car park operators can react faster and more efficient to current situations
- Increase capacity utilization and revenues by means of differentiated parking fee
- Demand for comfort and convenience for parkers
- Use of technologies to improve safety, access and payment possibilities
- Emergence of demand for frictionless parking can be achieved with new technology solutions

## Position

- Efficiency through centralization, smart maintenance, yield management, modular parking solutions
- Expand leading position in North America, Australia and Europe with integrated parking solutions and address top locations ME
- Strong position with parking operators as well as hospitals, airports, retail and event locations



# TKH – VERTICAL GROWTH MARKETS – TUNNEL & INFRA

## Growth drivers

- In Europe, investment in tunnel technology for new and existing tunnel are planned for the next few years
- Due to strict legislation and regulations in the field of security, ever increasing demands are made on the technical equipment
- Increasing demand for technologies in order to comply with strict requirements: evacuation - communication - detection - identification – security
- Principals are shifting responsibilities to the contractors - formation of alliances between principals and contractor so that parties have a common interest in cost control
- Availability infrastructure - tunnels, airports and roads - is increasing by the TKH advanced technologies that require less maintenance with more efficiency

## Position

- Increasing demand for highly integrated security designed solutions for infrastructure tunnels
- Total security concepts (video and communication) for tunnels
- Disruptive airfield lighting concept based on CEDD technology
- Number 1 position in Benelux for tunnel security concepts

## Tunnel & Infra solutions



## Tunnel & Infra solutions Airport



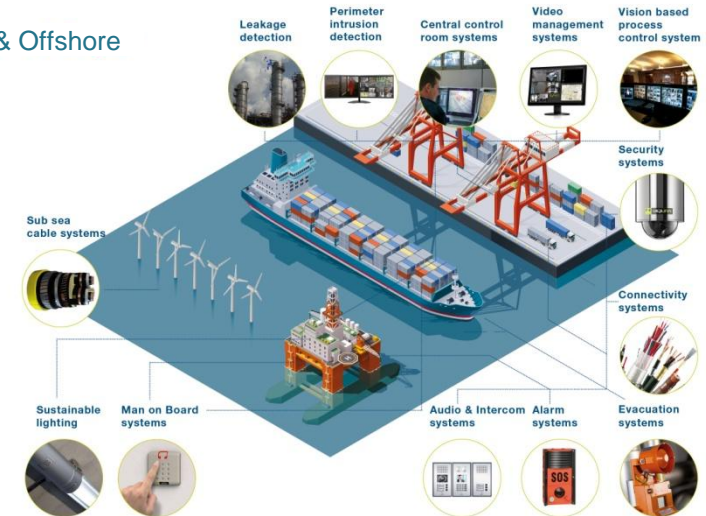
## Growth drivers

- Large increase global generated power by wind power
- Demand for larger cargo ships and need for efficient external site management
- Increase in the building of quality ships, cruise liners and luxury yachts
- Increase of remote control and secure of unmanned operations on platforms
- A lot of attention for safety on platforms via special 'zone' certification.
- Modification of supply chain due to limited storage capacity on shipyards and platforms and high cost of downtime
- High demands on system availability under various environmental conditions, such as extreme temperatures, humidity, oil, salt water

## Position

- Addressing Safety & Security in certification rich environment
- Vessel attendance system
- Subsea cable solutions
- Smart camera solutions incl. thermal, leakage detection, ATEX housing
- Mission critical communication
- Completing portfolio in data connectivity, power cables and safety
- Expanding in international large accounts

## Marine & Offshore



## Growth drivers

- Demand for vision technology is increasing due to trend towards industrial automation and robotics need
- Continue demand for more productivity and improvement of high quality of produced products
- Vision technology is a superior alternative for the inspection of production systems and for detection, inspection and identification that cannot be seen by the human eye
- Strong increase of new applications where vision technology will be applied
- Because of strict regulations to the quality of food and medicines, vision technology offers the solutions because of the 100% traceability and 'fail / pass' application

## Position

- Technology leadership in many application areas
- Market leader for high-end systems
- Strong innovation and R&D competence with breakthrough technology for 3D inspection
- Strong worldwide sales organisation
- Recognised by leading Industrial application companies worldwide as key supplier

## Industrial Machine Vision





# TKH – VERTICAL GROWTH MARKETS – TIRE BUILDING



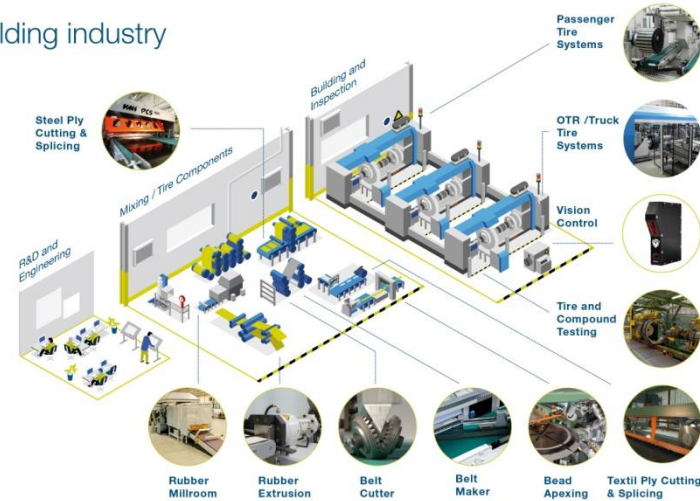
## Growth drivers

- High priority of the tire manufacturing industry to replace existing technology with an emphasis on high productivity, efficiency, waste reduction, quality improvement and smaller batches
- The number of types of tire for passenger cars has increased more than tenfold in recent decades. This calls for more flexible production methods
- The trend towards ever larger tire dimensions and towards safer, better-quality tires requires technological developments
- Local production - innovations have become essential to reduce the working capital requirement in the supply chain of the tire manufacturing industry
- Over 70% of the existing tire manufacturing systems are older than 15 years
- Due to the high prices of raw materials, there is a need for a more efficient use of materials in the production of tires which asks for high tech manufacturing systems
- Due to rising labour costs, demands for manufacturing systems with higher productivity and high operator independence – ‘eyes & hands off’ manufacturing

## Position

- Market share TKH in outsourced market: > 70%
- Total market share including top five tire manufacturers: > 20% – target >50%
- Technology leadership through high level of R&D - protected with patents and high innovation level
- Proprietary vision technology strong differentiator for the technology leadership

## Tire building industry





# TKH Group the solution provider <

## Disclaimer

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The forward-looking statements are based upon our current expectations, plans, estimates, assumptions and beliefs that involve numerous risks and uncertainties. Assumptions relating to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond our control. Although we believe that the expectations reflected in such forward-looking statements are based on reasonable assumptions, our actual results and performance could differ materially from those set forth in the forward-looking statements.