



# TKH capital markets day

Alexander van der Lof, Chairman & CEO

18 December 2013

# Program

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- 1. Introduction and presentation  
TKH vertical growth market strategy**
- 2. Explanation Vertical Growth Markets -  
Building Solutions**
- 3. Demonstrations Experience Center - Parking, Tunnel, Care and Marine,  
Oil & Gas**

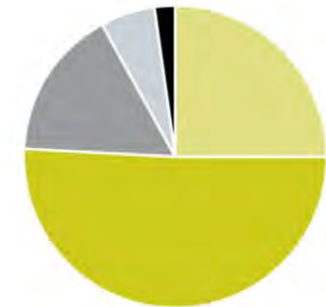
# Profile



- > Turnover 2012 € 1.1 billion
- > Number of employees (FTE) 4,736

## Geographical distribution of turnover (in %)

- > Technology company
  - > Four core technologies  
*Vision & security, communication, connectivity and production systems*
  - > The core technologies are combined with software and system integration within three business segments:



H1 2013	
Netherlands	25
Europe (other)	51
Asia	16
North-America	6
Other	2

	<u>H1 2013</u>
> Telecom Solutions	14%
> Building Solutions	41%
> Industrial Solutions	45%

# Mission statement

TKH intends to be an innovative and leading technology (niche) player in creating combinations of technologies to total solutions with whom customers are fully relieved and which lead to larger efficiency, more comfort and larger safety.

TKH aims to be an attractive employer, to continuously exceed customers' expectations by offering 'best in class'-solutions and to be a solid investment for shareholders.



# Strategy

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- > **Focus on four core technologies:**
  - > Vision & security, communication, connectivity, manufacturing systems
  
- > **Merge the four core technologies into specific solutions for identified niche vertical markets with special focus on high growth opportunities within the business segments Telecom, Building and Industrial Solutions:**
  - > Offer high level of service and integrated solutions
  - > Offer highly innovative 'best in class' systems
  - > Focus on efficiency, security and safety solutions and improvements that offer high return on investment to customers and substitutes labour for technology
  
- > **Focus on seven high growth vertical markets within the solution areas with growth potential of € 300 - € 500 million in coming 3-5 years:**
  - > Fibre Optic Networks - Care - Tunnel & Infra - Parking - Marine, Oil & Gas - Industrial Machine Vision - Tyre Building Industry

# Key elements TKH strategy



## TKH activities focus on high margins and high ROCE

- **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
- 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
- Focus on **high-growth markets** or **market share expansion** potential
- **Spreading risk** across a large number of product/market combinations
- **Geographic focus for *growth***: North-West-Central-Europe and Asia; limited number of export focus areas outside the before mentioned territories



# Solutions based on four core technologies

Segment   Sub segment	Revenue share	Business model					Markets
		R&D and System engineering	Inhouse Manufacturing	Outsourced Manufacturing	Assembling	Service	
<b>Telecom Solutions</b>	<b>14%</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 Systems	4%						
Fibre Network Systems	7%						
Copper Network Systems	3%						
<b>Building Solutions</b>	<b>41%</b>						<ul style="list-style-type: none"> <li>• Building and construction</li> <li>• Retail &amp; logistics</li> <li>• Government &amp; financial institutions</li> <li>• Traffic/tunnel/rail infrastructure</li> <li>• Care institutions</li> <li>• Parking organisations</li> <li>• Marine and offshore</li> <li>• Energy companies</li> </ul>
Building Technologies	8%						
Vision & Security Systems	19%						
Connectivity Systems	14%						
<b>Industrial Solutions</b>	<b>45%</b>						<ul style="list-style-type: none"> <li>• Machinery building industry</li> <li>• Process industry</li> <li>• Tyre building industry</li> <li>• Medical industry</li> <li>• Robot industry</li> <li>• Automotive industry</li> <li>• Can making industry</li> </ul>
Connectivity Systems	21%						
Manufacturing Systems	24%						

# Core technologies

## Vision & Security



Explosion safety cameras



Video surveillance



Robot steering and diagnostics



Video management and -analysis



Lighting & guiding systems



Industrial automation



Electronic access systems



Access control and registration systems



Industrial inspection



Building & infra



Marine, oil and gas



Medical industry



Data / telecommunication



Energy distribution



Robot / machine building industry



Drag Chain systems



Connectivity systems



MultiMediaConnect

## Connectivity



Optical fibre systems



Public address



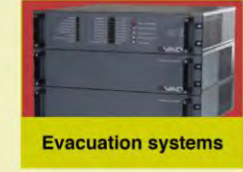
Audio systems



Alarm systems



Intercom systems



Evacuation systems



Emergency systems



Building management and -monitoring



Personal alarm systems

## Communication



Medicine distribution



Tyre assembling



Product Handling



Tyre component manufacturing



Vision inspection



Production automation



Control cabinets



Connectivity

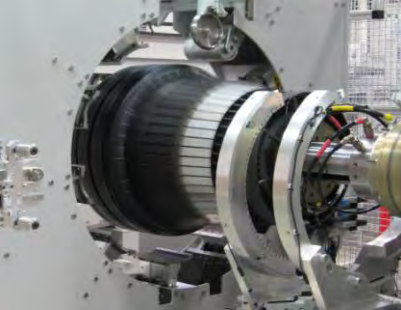
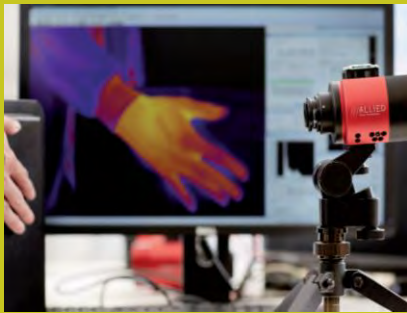


Scada systems

## Manufacturing systems



# TKH- Vertical high-growth markets have a growth potential of € 300 – € 500 million in the coming 3-5 years



# TKH – vertical growth markets – growth drivers

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## Advantage of focus on defined vertical growth markets

- 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 and return targets per segment
- Executive Board directly involved in realisation targets via Solution responsibility
- 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

# Medium term goal:

## Vertical market focus areas with >15% annual TKH growth potential

<u>Vertical high growth markets (in € millions)</u>	<u>2012</u>	<u>Growth scenarios</u>
Fibre optic network :	80	120 - 150
Care solutions :	30	70 - 100
Infra & Tunnel solutions :	30	50 - 75
Parking solutions :	20	50 - 75
Marine, Oil & Gas :	20	50 - 75
Industrial Machine Vision :	95	130 - 150
Tyre Building Industry :	<u>175</u>	<u>300 - 350</u>
<b>Total vertical growth markets :</b>	<b>450</b>	<b>770 - 975</b>

- **Realistic turnover target for growth in 3- 5 years : € 300 - € 500 million**
- **Mainly organic growth >80%**
- **Capital employed increase : € 60 - € 100 million in 3–5 years**
- **Effect on EBITA margin (ROS) TKH:**
  - € 300 million additional turnover with margin 12% : + 0,8% ROS TKH + € 36 million EBITA
  - € 500 million additional turnover with margin 15% : + 2,1% ROS TKH + € 75 million EBITA

# Conclusion – TKH - High growth verticals strategy and focus

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- Accelerates the increase of the ROS and ROCE
- Creates substantial growth for TKH both in result and turnover
- Creates a better understanding of the TKH strategy in the TKH investor base
- Creates much better execution of growth opportunities
- Brings TKH into a new phase of synergy implementation
  - Combination of the four technologies into high growth verticals
  - Clustering of activities into vertical markets and technologies



## Zooming in on Vertical Markets

Capital Market Day - TKH Group NV  
Arne Dehn – member of the Executive Board

# Zooming in on vertical markets



**TKH's vertical market propositions will give a great leverage for further growth:**

- Fundamentally embedded in core processes of the industries
- Based on passion for customer intimacy and entrepreneurship
- Feature driven with mature core technology competence
- Disruptive in its proposition to drive value add in a win – win solution

**Great position in vertical markets  
with room to grow**

# Zooming in on vertical markets

External factors drive growth opportunities

- Changing demand in infrastructure/building management
- Continuous demand for security, communication and comfort
- Increasing regulations in more complex environment

Growth propositions are build on

- Clear and measurable impact on end market business models in its core operations
- embedded solutions with market specific functionalities and features instead of system selling

Winning strategy is based on disruptive propositions

- Innovation remains key
- Building scale in defined niches
- Multiple routes to market for leading positions

## Building sustainable and successful growth path

# From Core Technology to Vertical Markets Solutions



## CORE TECHNOLOGY BS



Vision & Security



Communication



Connectivity

## INTELLIGENCE

- Data capturing
- Data centralisation
- Data handling
- Data mining
- Data analytics

## USER EXPERIENCE

- System planning
- System configuration
- System handling & maintenance
- User interface
- Availability



Infrastructure



Healthcare



Parking



Marine, Oil & Gas

## Sticking technology together to real customer needs





# Parking solutions



Audio- & Intercom systems



Connectivity systems



Reservation / e-paying



Switchpark



Alarm systems



Central control room systems



Access control systems



Sustainable lighting and park management systems

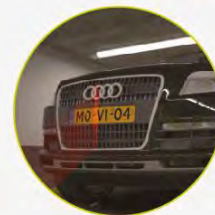


Payment

Sustainable lighting and park management systems



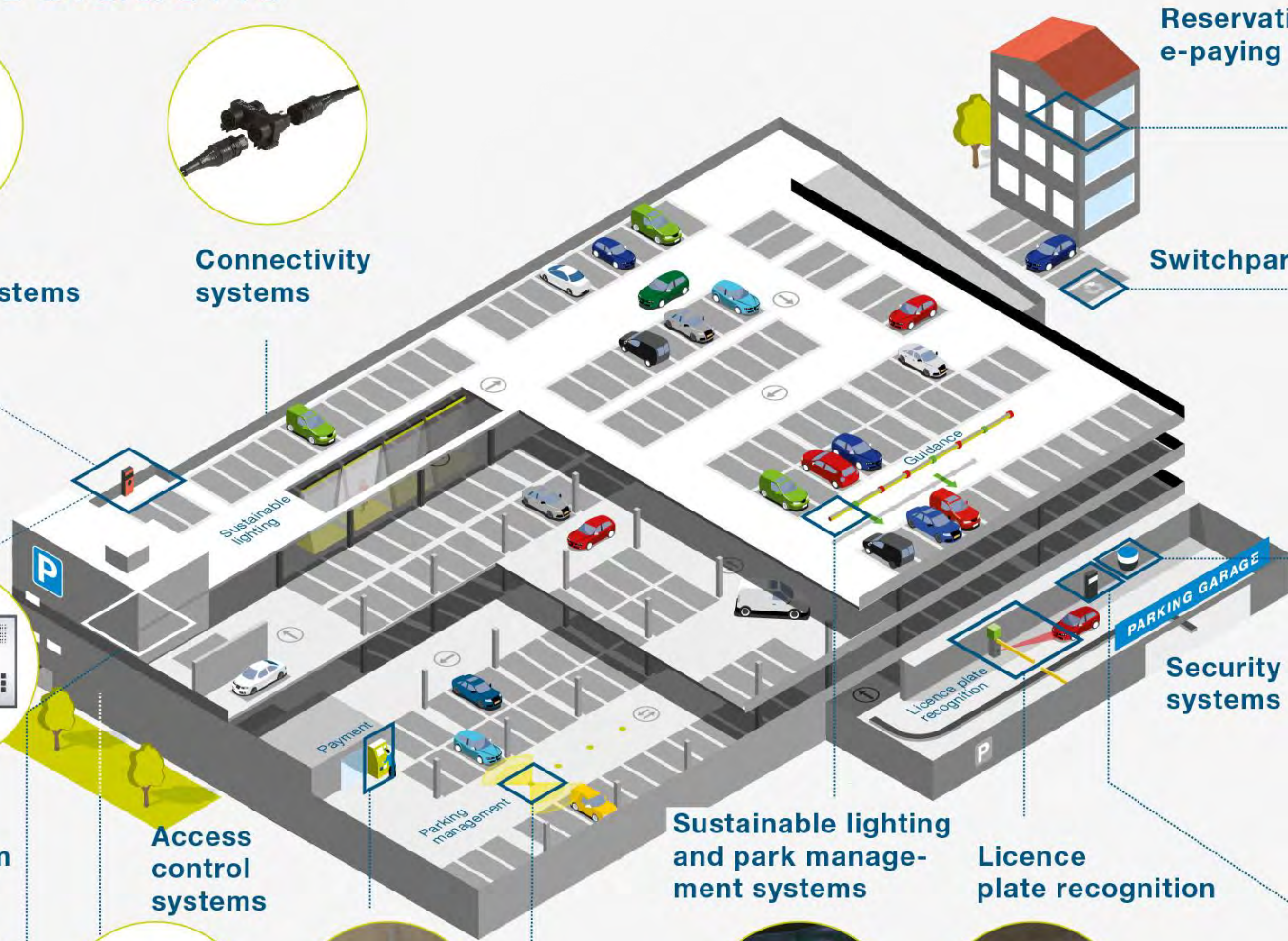
Licence plate recognition



Security systems



Revenue control systems



# Trends in Parking

## Consumer behavior with differentiated needs

- Transportation
- Comfort & Security
- Information & Communication

## Building Management with continuous pressure for efficiency

- Operational cost for service and maintenance
- Energy
- Sustainability

## Change Retail - Business models

- Need to combine retail with e-tail
- Soft economic climate
- Demographics and impact on real estate market

## Trends:

- Innovative technologies to improve access control and payment automation
- Demand for cashless or electronic payment
- Real-time communication of pricing and availability
- Collaboration between parking, transportation
- Need greater parking revenue
- “Visual dashboard” parking info
- “Green” / sustainable solutions
- Improved customer service
- Shortage of qualified employees
- Alternate use of parking facilities during off-peak hours
- Improve facility security

# Straight forward implications for Parking

## Customer data is key success factor

- Know exactly what is going on in parkings
- Understand needs from customers
- Liaise with business partners (eg retail, event, online)
- Centralize and own the data

- Frictionless – comfort
- No barrier / no cash / no ticket
- Meet differentiated needs (size of car, payment, online, security)
- Centralize and optimize customer fulfillment process

## Optimized operations

- Smart operations & maintenance
- Occupancy driven cost
- Reduced total cost of ownership
- Optimized staff management
- Green & Sustainable

- Move from proprietary to open infrastructure
- Centralize and manage intelligent devices
- Feature not technology driven

**Building Technology is not devices but data to optimize the business model and positively impact P&L**

# End – to end proposition in Parking

- Centralized customer fulfillment with audio & vision interfaces
- Data based value add customer services for differentiated needs

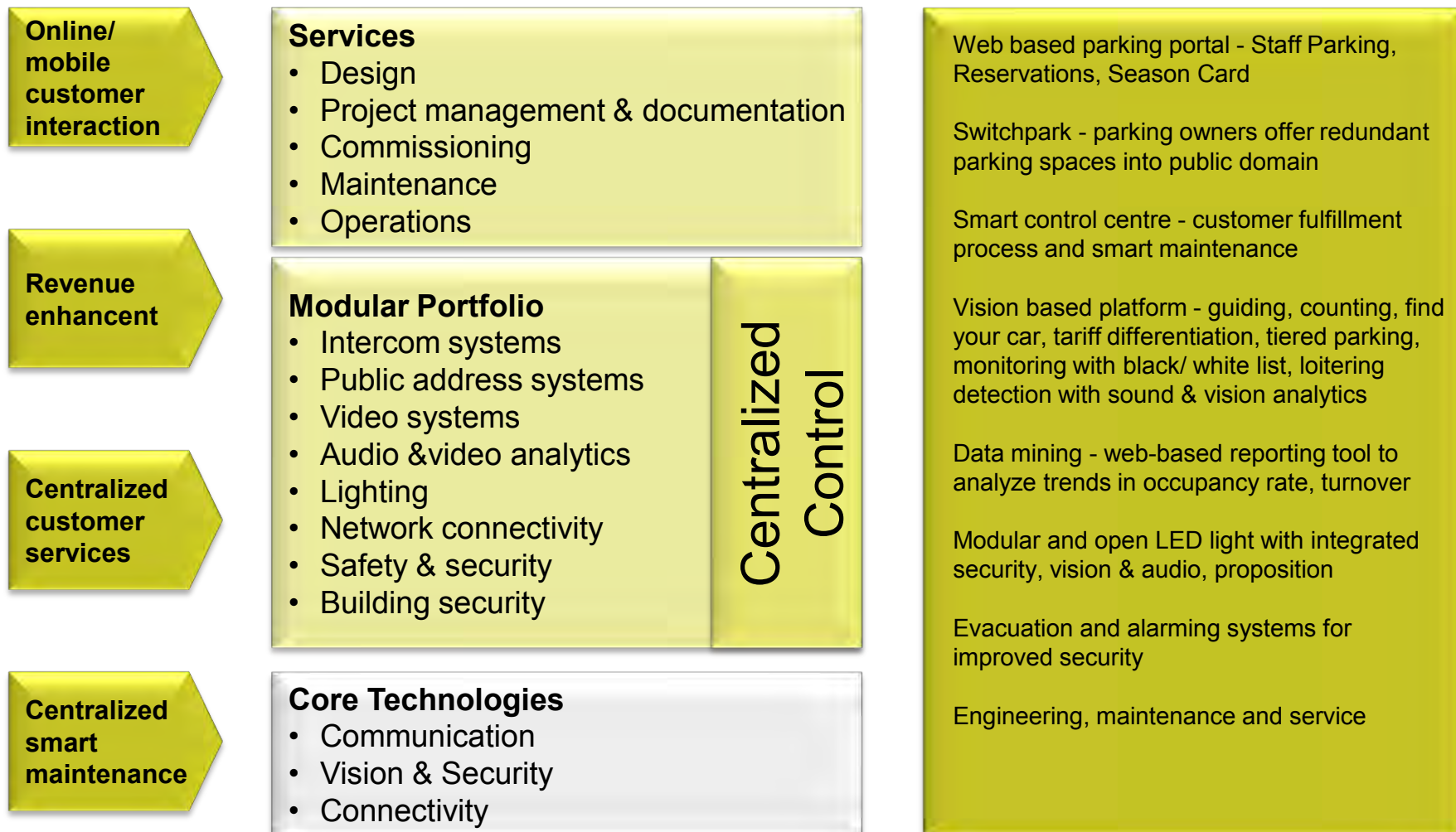


- Mobile/web apps to offer value features also in combination with surrounding commerce
- Enabling personalized onsite services through intelligent interfaces
- Smart onsite maintenance

- Intelligent interfaces to devices
- Data base moved to higher level away from proprietary systems
- Managed devices at optimized cost

- Centralized smart maintenance and operational services (big data)

# Vertical Market: Parking



# Vertical Market: Parking

Web based parking portal - Staff Parking, Reservations, Season Card

Switchpark - parking owners offer redundant parking spaces into public domain

Smart control centre - customer fulfillment process and smart maintenance

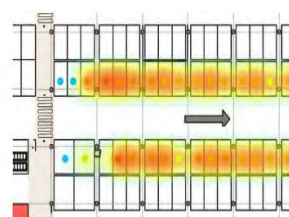
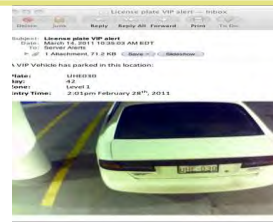
Vision based platform - guiding, counting, find your car, tariff differentiation, tiered parking, monitoring with black/ white list, loitering detection with sound & vision analytics

Data mining - web-based reporting tool to analyze trends in occupancy rate, turnover

Modular and open LED light with integrated security, vision & audio, proposition

Evacuation and alarming systems for improved security

Engineering, maintenance and service



# Vertical Market: Parking

- Web based parking portal
- Switchpark
- Smart control centre
- Vision based platform
- Data mining
- Modular and open LED light
- Evacuation and alarming systems
- Engineering, maintenance and service

**30% reduced energy cost**

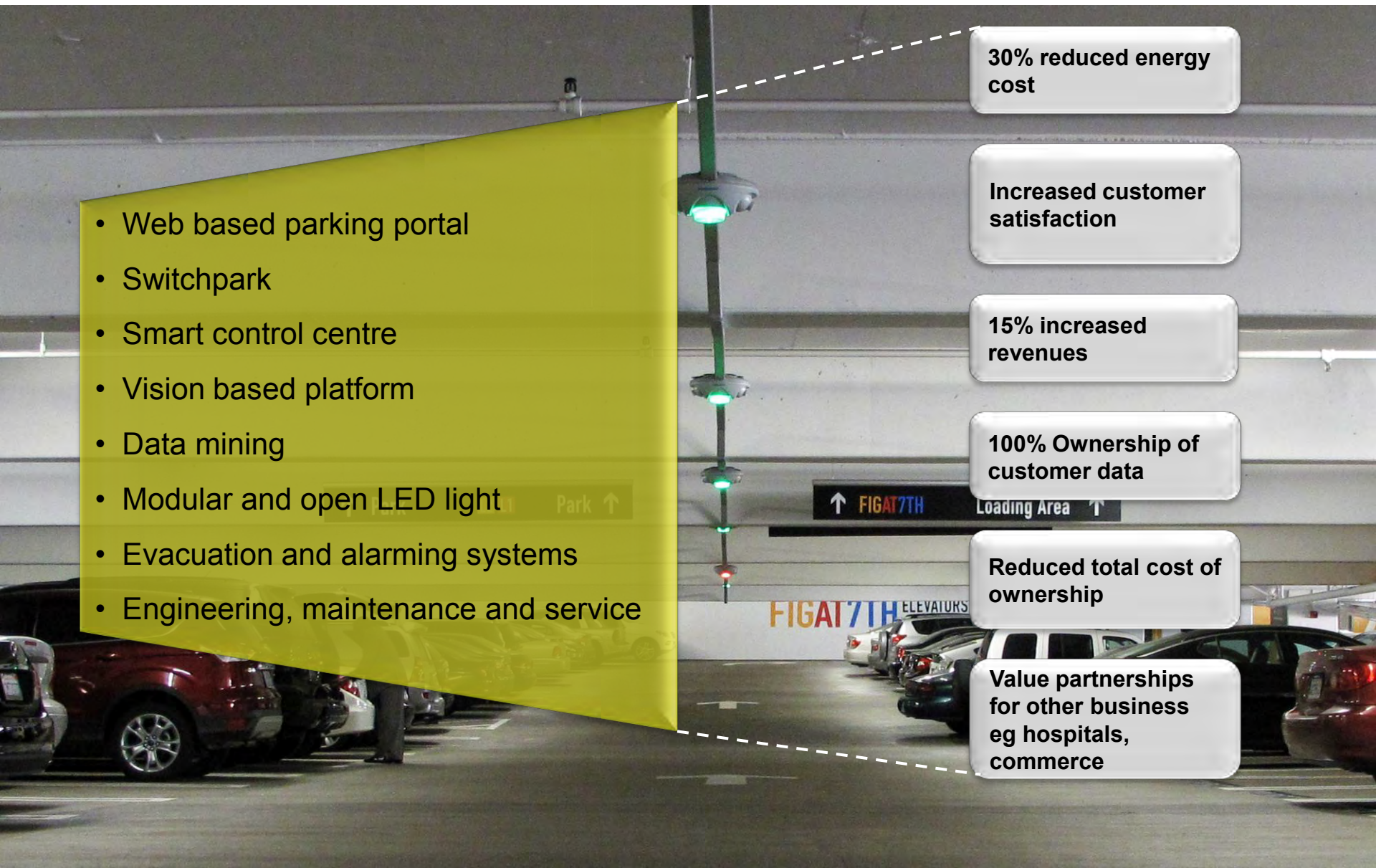
**Increased customer satisfaction**

**15% increased revenues**

**100% Ownership of customer data**

**Reduced total cost of ownership**

**Value partnerships for other business eg hospitals, commerce**





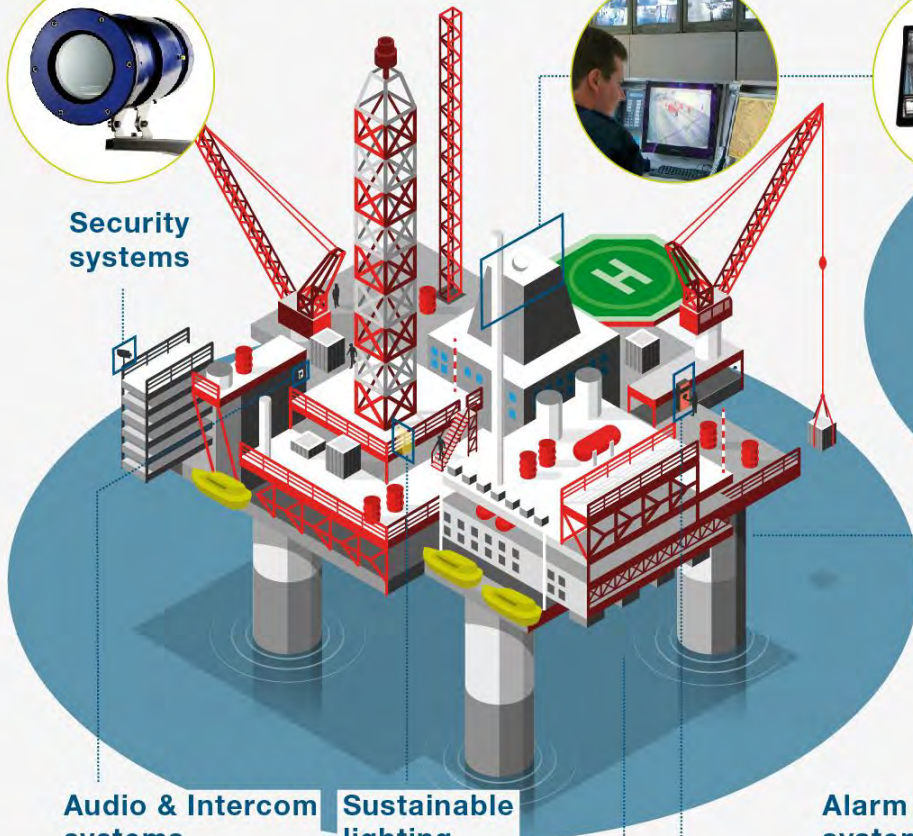
# Marine - Oil & Gas

Central control room systems

Video management systems



Security systems



Connectivity systems

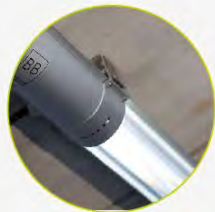
Audio & Intercom systems

Sustainable lighting

Alarm systems

Evacuation systems

Access control systems



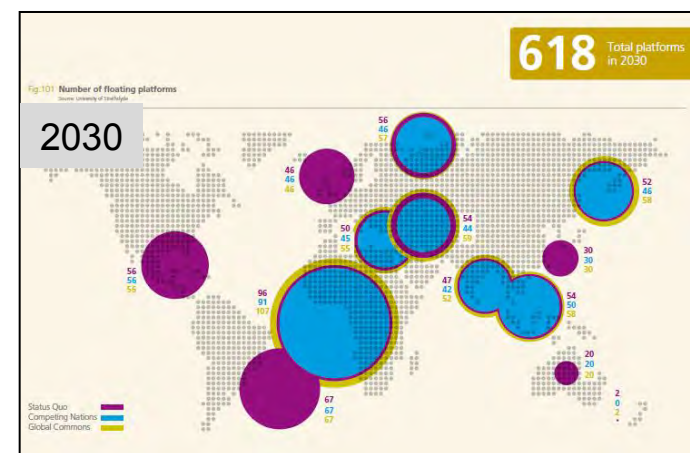
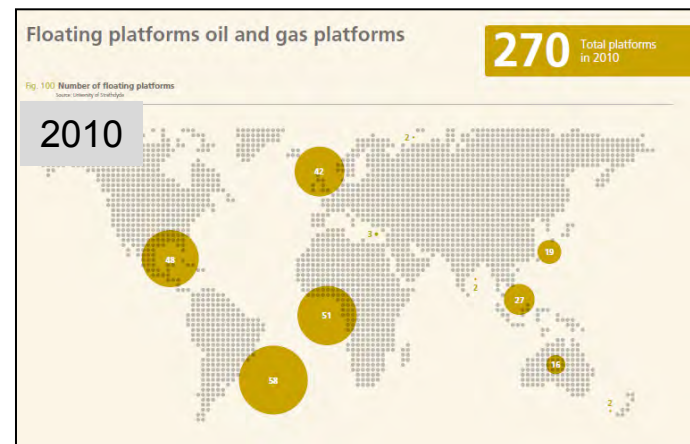


# Vertical: Marine, Oil and Gas

## Changing industry landscape

- > New multi-polar world economic configuration emerges with profound impact on marine and natural resources exploitation industry and renewable energy
- > Ports and its facilities have to accommodate higher/bigger commodity vessels and cargo ships,
- > Technology enables efficient remote site management
- > Increasing focus on building high-value ships and cruise ships / luxury yachts
- > Security and regulations remains high driver with challenges of extended lifetime and retro-fitting needs

## Major opportunities for high value offerings



Source: Global Marine Trends 2030  
QinetiQ, Lloyd's Register, Univ. Strathclyde

# Trends Marine, Oil and Gas

## Industry requires specific solutions

- Situational awareness is key
- Remote site management for unmanned operations
- Reducing risk of human error

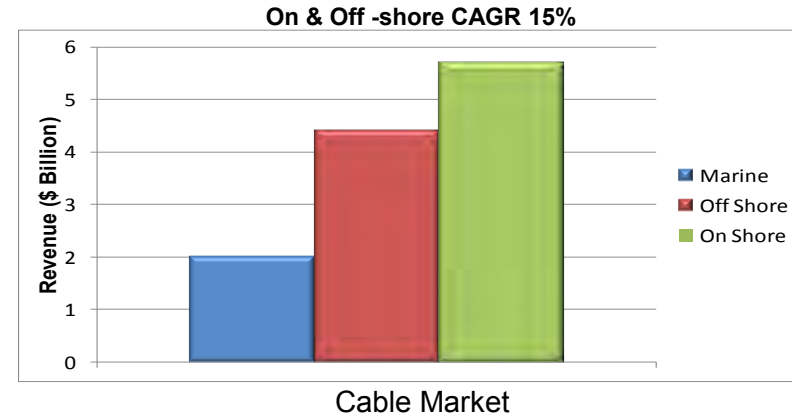
## Regulations & Certification

- High Health, Safety and Environment (HSE) standards and reporting require dedicated quality & security measures
- Products require marine as well as special zone certification (e.g. IECEx/ATEX – explosion protection equipment, cable: NEK606, IEEE, BS)

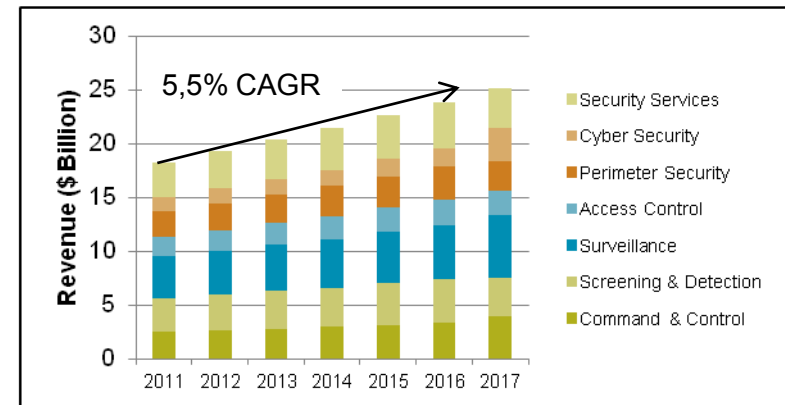
## Disruptiveless operations

- Adapted supply chain because of limited storage and high interruption costs
- High system availability in defined environmental conditions (temperature, humidity, oil, salt water)

**Vision & Security, Communication, and Connectivity are key**



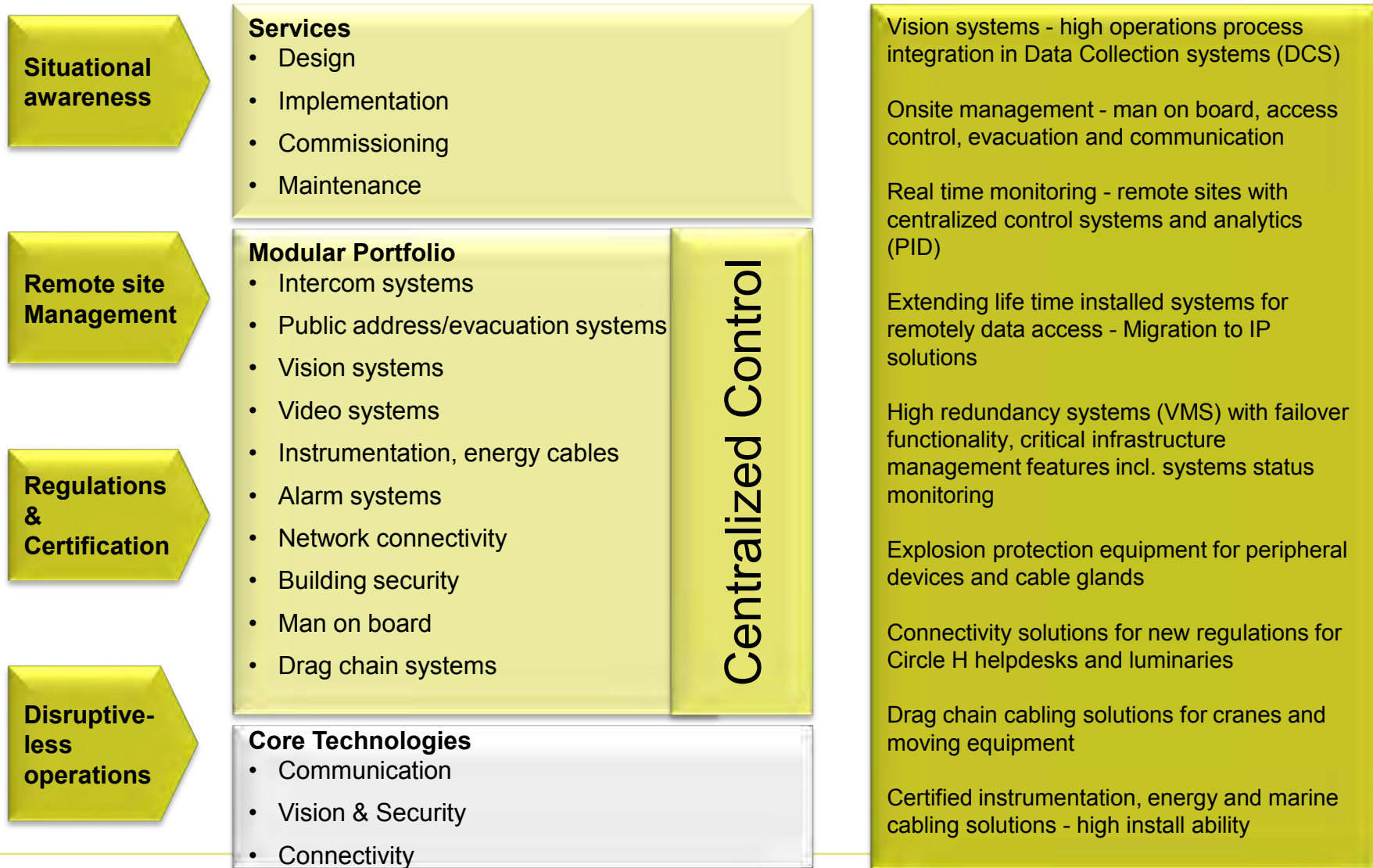
Source: TKH Group



Security Industry Market

Source: Frost & Sullivan, December 2012

# Vertical: Marine, Oil and Gas



# Vertical: Marine, Oil and Gas

Vision systems - high operations process integration in Data Collection systems (DCS)

Onsite management - man on board, access control, evacuation and communication

Real time monitoring - remote sites with centralized control systems and analytics (PID)

Extending life time installed systems for remotely data access - Migration to IP solutions

High redundancy systems (VMS) with failover functionality, critical infrastructure management features incl. systems status monitoring

Explosion protection equipment for peripheral devices and cable glands

Connectivity solutions for new regulations for Circle H helpdesks and luminaries

Drag chain cabling solutions for cranes and moving equipment

Certified instrumentation, energy and marine cabling solutions - high install ability



## Vertical: Marine, Oil and Gas

- Vision systems
- Onsite management
- Real time monitoring
- Remotely data access
- High redundancy systems (VMS)
- Explosion protection equipment
- Connectivity solutions
- Drag chain cabling solutions
- Instrumentation, energy and marine cabling solutions

**10% reduction in cable installation cost**

**Reduced human errors by unmanned operations**

**Centralized control room for 100% situational awareness**

**Extended lifetime with improved ROI**

**Design of cable weight reduction in 10% to competitive solutions**

**High flexibility in design and supply chain**



# Care solutions

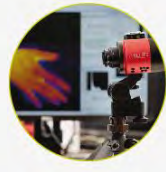
Therapy  
loyalty:  
medicine  
dispensing

Remote  
care:  
video  
observation

Video care:  
commu-  
nication  
systems

Video  
management  
systems

Medicine  
distribution

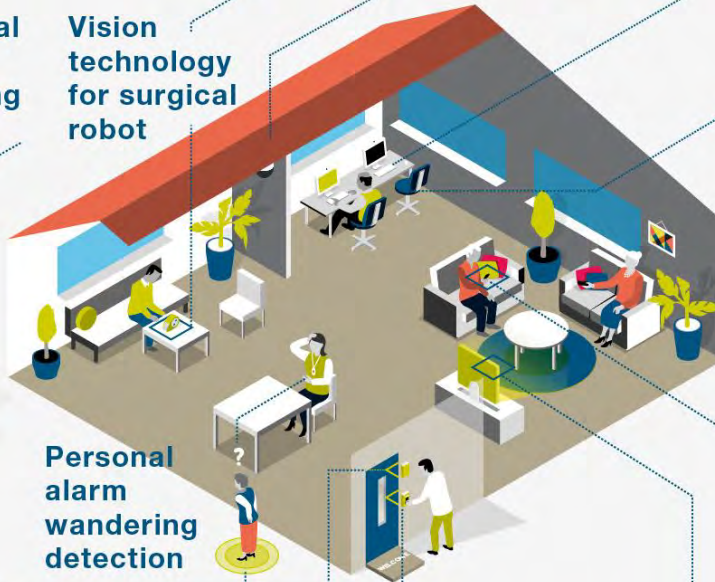


Nurse call  
systems

Connectivity  
systems

Medical  
3d  
imaging

Vision  
technology  
for surgical  
robot



Instalcare:  
Installation  
concept  
medical  
rooms

Time and  
attendance  
registration  
systems

Intercom  
systems

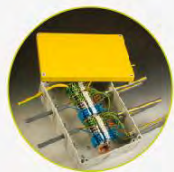
Personal  
alarm  
wandering  
detection

(Keyless) access  
control systems

Care TV

Care  
technology  
social alarm

Medicomaat:  
Medicine  
dispensing point



# Trends in healthcare

## 4<sup>th</sup> structural wave in healthcare is leading its way to find solutions

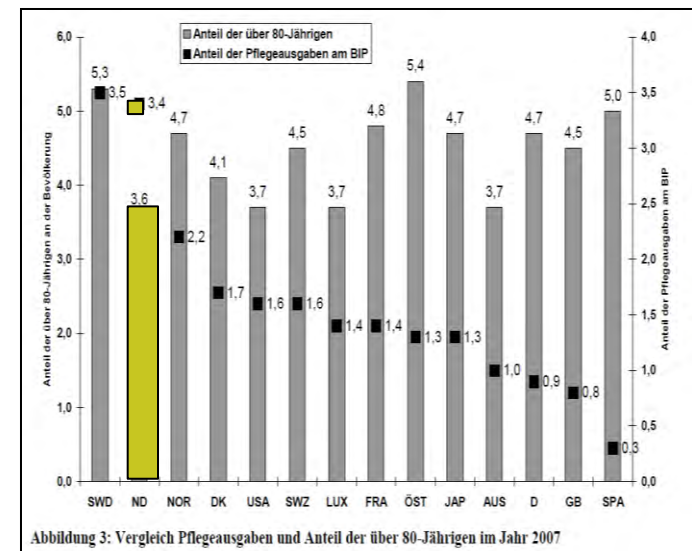
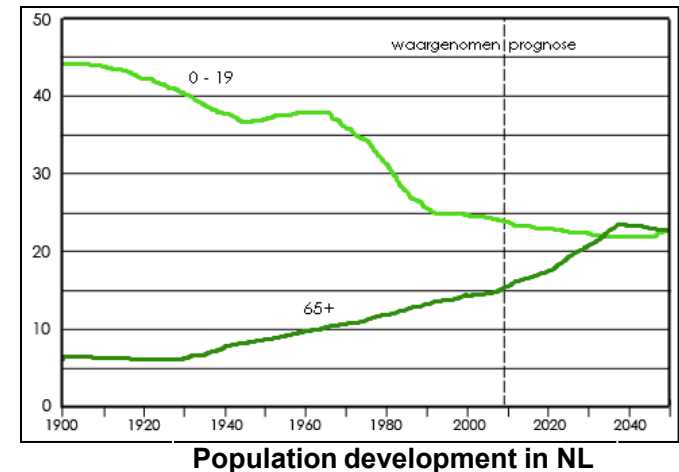
- Increasing burden of increasing aging
- Necessary cost reductions and efficiency improvements
- The aim for better care with a high scarcity of nursing staff

## Continued need for new business models in a connected Cure & Care landscape

- Reduction of stationary days and increase in short stay / day care
- Steep increase in chronically diseases
- Require a flexible and efficient process in hospitals
- Increasing importance for care from distance

## Efficient documentation and process quality getting more and more in focus

# Continuous need for innovation



Comparison Care cost and % of 80+

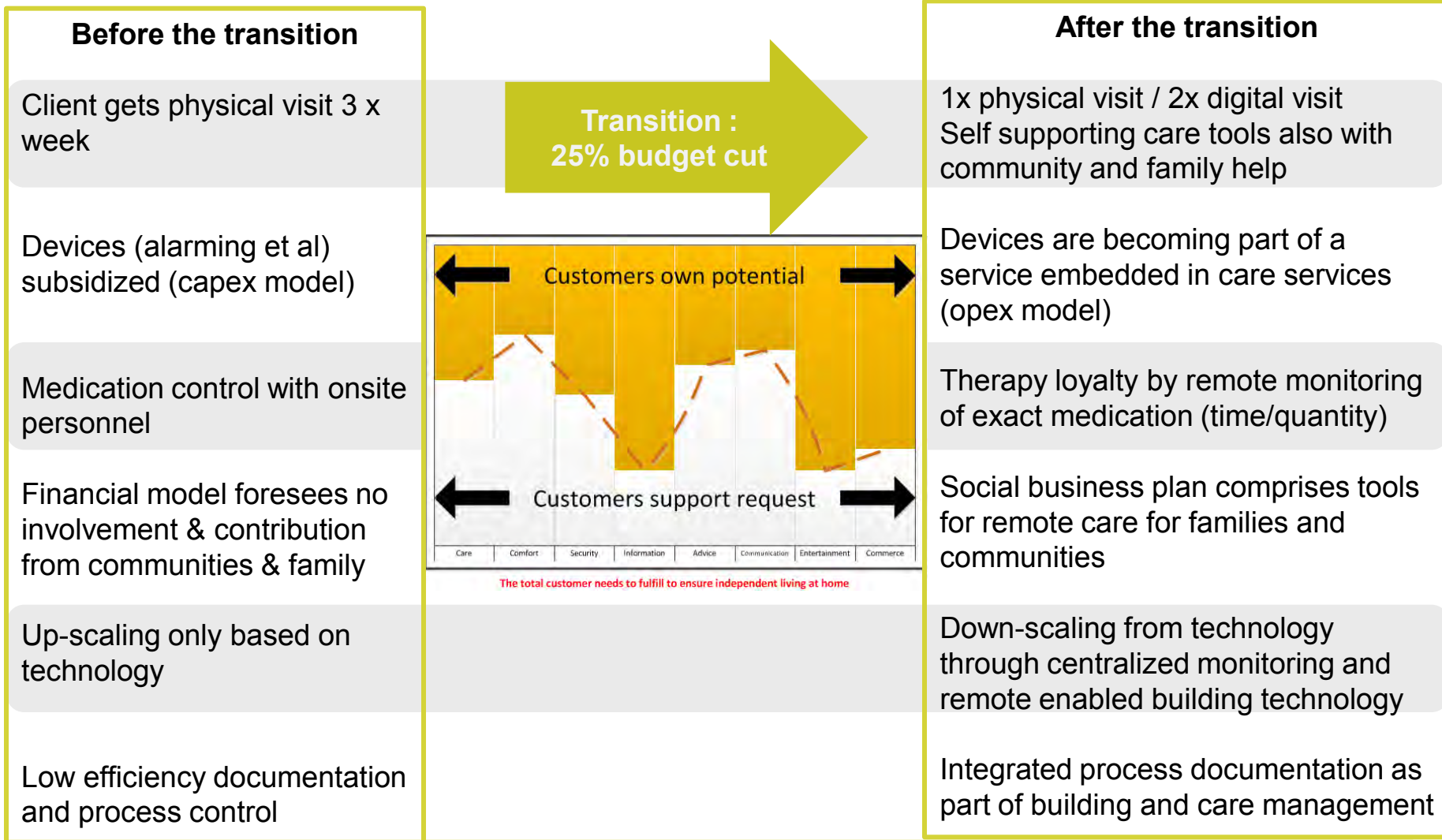
# The transition in care



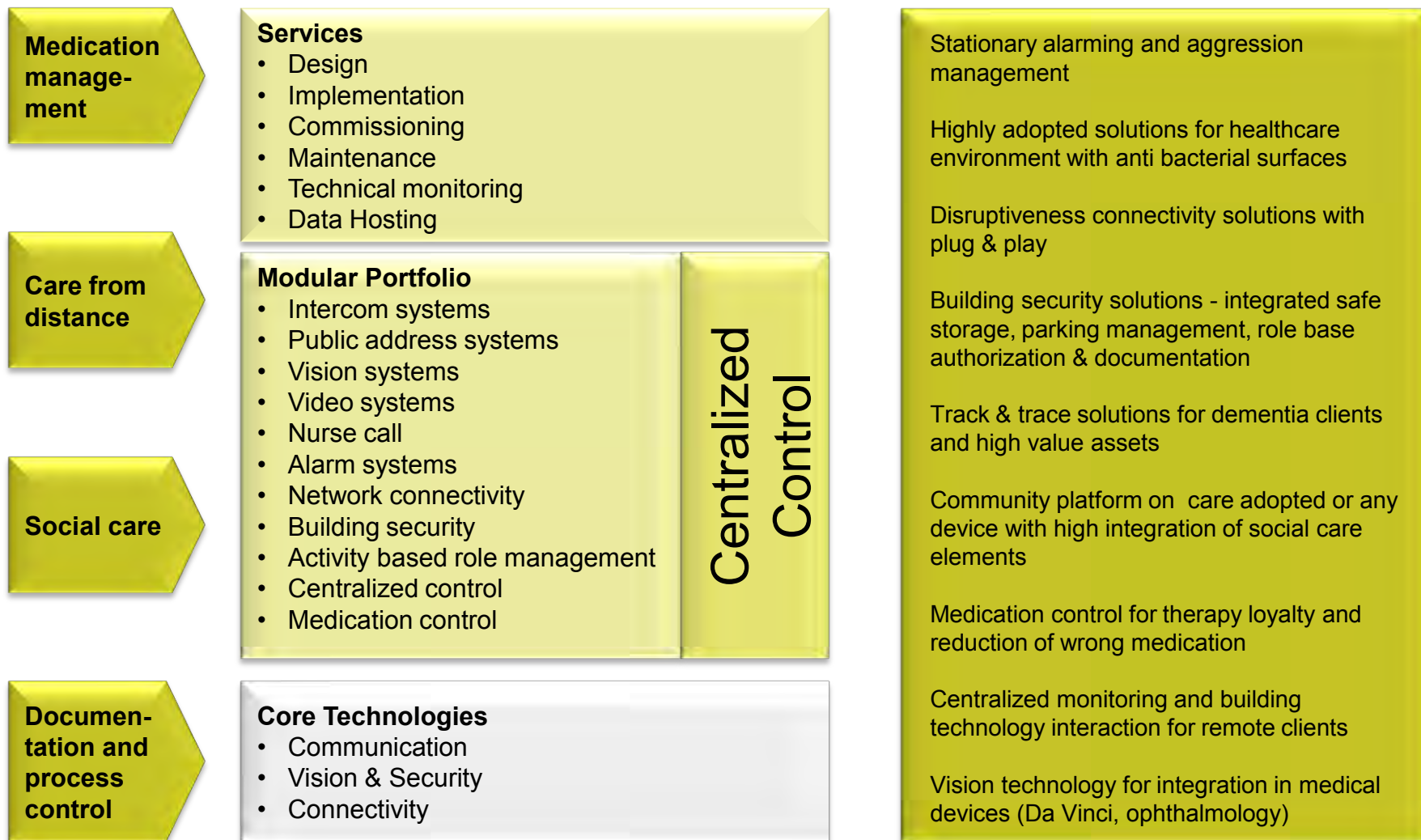
- Responsibility transferred from national government towards municipal government - budget reduction 25%
- From welfare state to the civil society:
  - Transition of care from ABWZ to WMO
  - Transition of youth work
  - Introduction of the participation law
- Care category (ZZP) 1, 2, 3 and 4 for clients with light mental disability or dementia are eliminated
  - Live independently at home with care from a distance
- From institutionalized care to living independently at home embedded in community solutions and family tools for care from distance



# Vertical Market: Healthcare



# Vertical Market: Healthcare



# Vertical Market: Healthcare

Stationary alarming and aggression management

Highly adopted solutions for healthcare environment with anti bacterial surfaces

Disruptiveness connectivity solutions with plug & play

Building security solutions - integrated safe storage, parking management, role base authorization & documentation

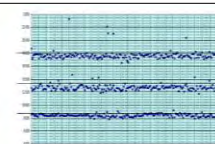
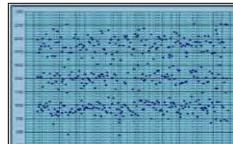
Track & trace solutions for dementia clients and high value assets

Community platform on care adopted or any device with high integration of social care elements

Medication control for therapy loyalty and reduction of wrong medication

Centralized monitoring and building technology interaction for remote clients

Vision technology for integration in medical devices (Da Vinci, ophthalmology)



# Vertical Market: Healthcare

- Alarming and aggression management
- Highly adopted solutions with anti bacterial surfaces
- Disruptiveness plug & play connectivity solutions
- Building security solutions
- Track & trace solutions
- Community platform
- Medication control for therapy loyalty
- Centralized monitoring / building technology interaction remote clients
- Vision technology for integration in medical devices

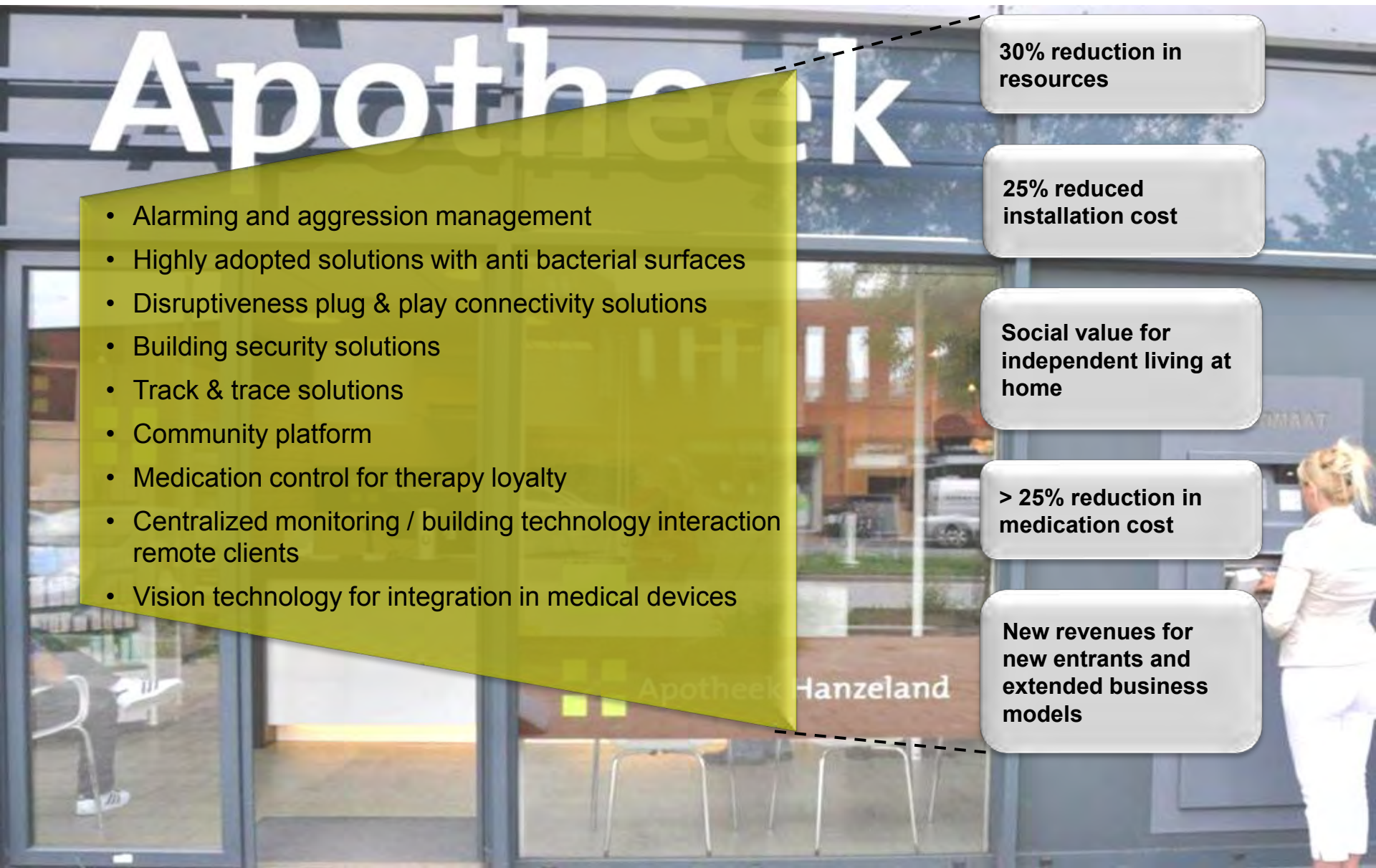
**30% reduction in resources**

**25% reduced installation cost**

**Social value for independent living at home**

**> 25% reduction in medication cost**

**New revenues for new entrants and extended business models**





# Tunnel & Infrastructure solutions



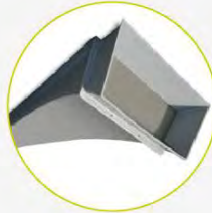
Audio & Intercom systems



Video management systems



Sustainable lighting



Evacuation systems



Alarm systems



Emergency telephone

Tunnel management systems



Access control systems



Video surveillance



Connectivity systems  
- fire-resistant  
- fibre optic  
- data transmission

Wegbewitzeringssystemen / guidance

Alarm

# Trends in Tunnel & Infrastructure

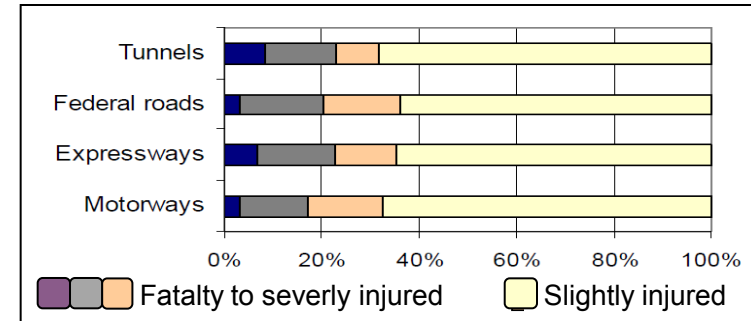
## Tunnels are important infrastructures

- Considered as critical infrastructure in overall EU long-distance transport and the development of regional economies concepts
- Accidents can have dramatic consequences and can be extremely costly in terms of human life, increased congestion, pollution and repair costs

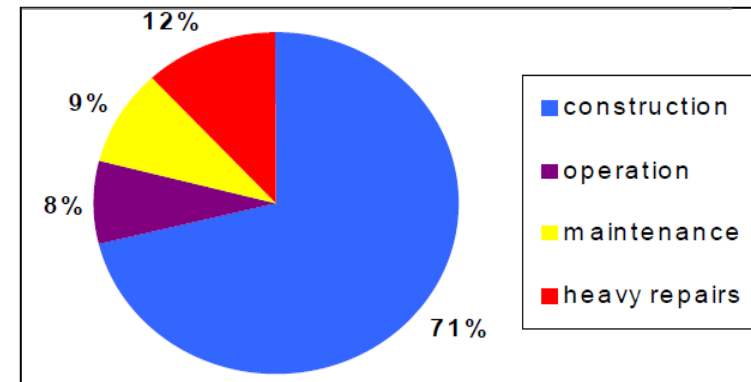
## New EU Regulations have caused changes

- Directive 2004/54/EC (landelijke standaard) on minimum safety requirements trans-European road network tunnels and critical infrastructure
- Assigned by design, build, maintain & operate contracts in combination with system engineering
- Designs with more performance based functional requirements instead of definition of products following prescriptive standards

Complex infrastructure with high cost impacts



Total cost of ownership 30 years



## Fulfiller of a set of functional requirements

# Vertical Market: Tunnel & Infrastructure

Key determinates for tunnel design:

- Traffic flow
- Dangerous goods
- Operating conditions
- Emergency services
- Tunnel characteristics (urban/length etc)

## Traffic Management

Safe and steady flow of traffic and a 'as good as reasonably possible' prevention of incidents and response to disruptions in traffic

## Incident Management

Educated and trained personnel and adequate, reliable (technical and organizational) facilities to minimize the consequences of incidents

## Self rescue

Available Safe Egress Time is sufficient for people who are able to get themselves to safety

## Emergency assistance

Emergency assistance can be given effectively

**Ensuring high operations and safety**

# Vertical Market: Tunnel & Infrastructure

## Structured combinations of performance based requirements to:

- optimize the project from a technical and financial aspect
- reduce the technical, financial and environmental risks
- guarantee the required level of safety for tunnel users

## Setting standards for all infrastructure concepts

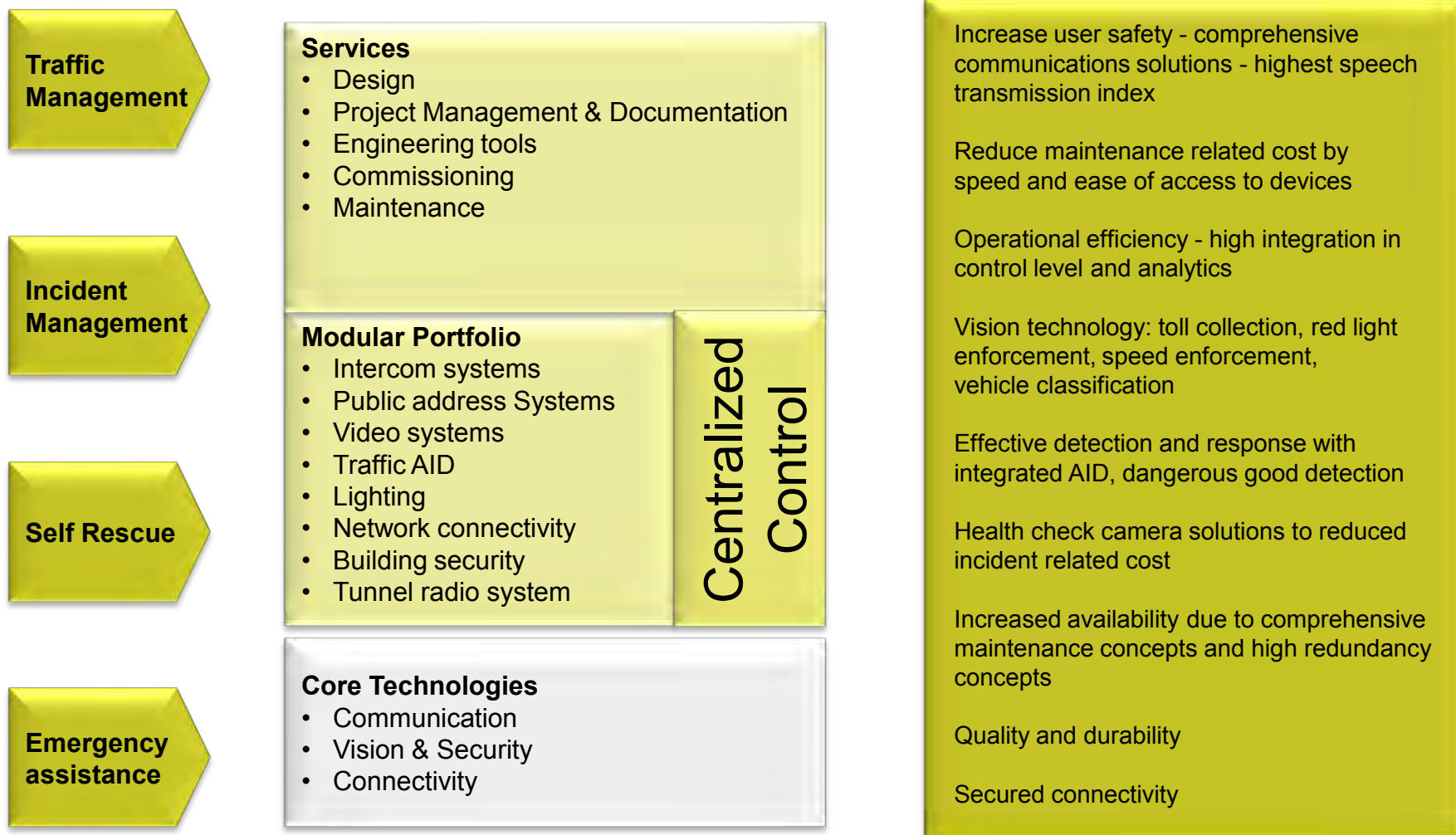
- opens way to safe design validation will find its way into design & construct contracts
- all type of tunnels: road, rail, size, configuration complexity, traffic type and volume
- regulations for rail tunnels will follow road tunnel
- further opportunities in sea and river locks, bridges

## Tuning between organizational and technical measures





# Vertical Market: Tunnel & Infrastructure



# Vertical Market: Tunnel & Infrastructure

Increase user safety - comprehensive communications solutions - highest speech transmission index

Reduce maintenance related cost by speed and ease of access to devices

Operational efficiency - high integration in control level and analytics

Vision technology: toll collection, red light enforcement, speed enforcement, vehicle classification

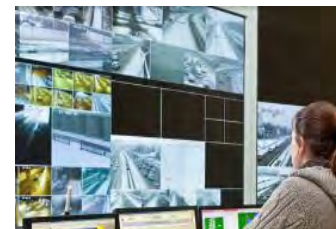
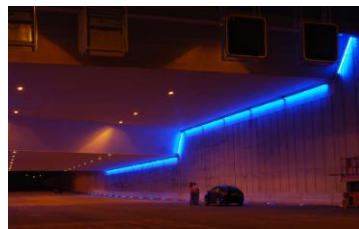
Effective detection and response with integrated AID, dangerous good detection

Health check camera solutions to reduced incident related cost

Increased availability due to comprehensive maintenance concepts and high redundancy concepts

Quality and durability

Secured connectivity



# Vertical Market: Tunnel & Infrastructure

- Increase user safety
- Reduce maintenance related cost
- Operational efficiency
- Vision technology
- Effective detection and response
- Health check camera solutions
- Comprehensive maintenance concepts and high redundancy concepts
- Quality and durability
- Secured connectivity

**Improved speech intelligibility (+15% STI)**

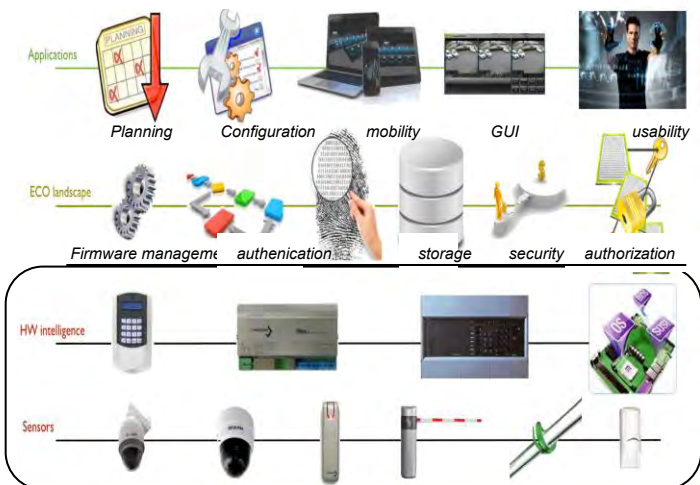
**Matching availability requirements cost optimized**

**Centralized operations with highest situational awareness**

**One stop shop for end-to-end solution communication & video security, connectivity**

# Driving innovations for further growth

## Next Gen Platform



*CEDD: contactless data and power transmission*

### Enable step-up developments on solution level

- Develop solution functionality for disruptive propositions
- Align core SW architecture with common modules to be utilized in decentralized solutions

### Drive speed and time-to-market through cooperation

- Ensure solution integration on defined integration platforms
- Security management
- Building management
- Technical cooperation for ITS camera solutions

### Maintain key priority on individual roadmaps

- Drive innovation per field of expertise, use creativity
- Support common themes (IP technology, development methodology SCRUM)
- Provide in-house engineers (SW development centre) to balance need and keep know-how in-house

## Leveraging the competences for further innovations

# Zooming in on vertical markets



**TKH's vertical market propositions will give a great leverage for further growth:**

- Fundamentally embedded in core processes of the industries
- Based on passion for customer intimacy and entrepreneurship
- Feature driven with mature core technology competence
- Disruptive in its proposition to drive value add in a win – win solution

**Great position in vertical markets  
with room to grow**



TKH Group the solution provider <

# TKH – vertical growth markets – growth drivers

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## > **Fibre optic networks**

- > High priority from telecom-operators for upgrading networks
- > Successful FttX-projects proof high return on investment
- > Telecom operators are able to gain or defend market share through fibre optic technology
- > More and more parties request of total systems – opportunity for TKH to increase the scope of delivery – increase market share
- > Various European countries have announced large investment plans for FttH-projects

## > **Strong position TKH :**

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



# Fibre optic networks



Handholes



Fibre Optic Cable



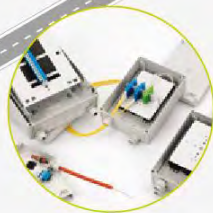
Modular Cables & Duct



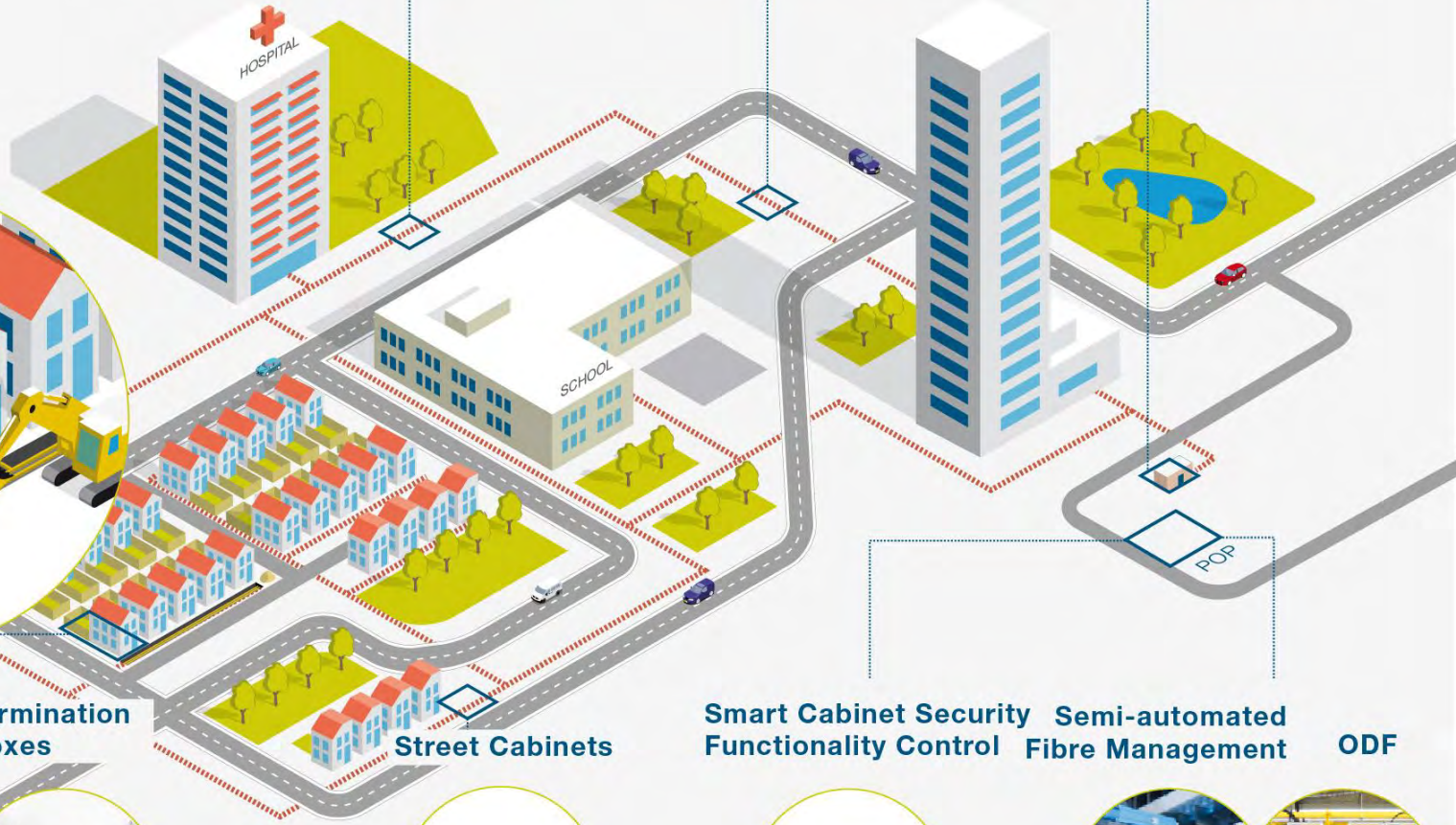
Distribution Boxes

Termination Boxes

Street Cabinets



Smart Cabinet Security Functionality Control    Semi-automated Fibre Management    ODF





# TKH – vertical growth markets – growth drivers

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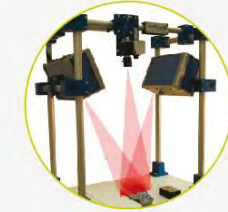
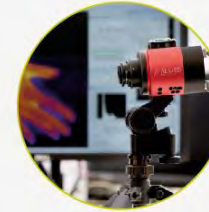


## > Machine vision

- > Extensive industrial automation and robotising responds to high productivity and quality of manufactured products
- > Vision-technology is a superior alternative for steering and control of manufacturing systems and for the human eye in the area of detection, inspection and identification
- > Based on the advanced TKH-technology market share growth will be realised
- > Strong increase in the number of applications where vision-technology will be adopted



# Industrial Machine Vision



Automotive assembly

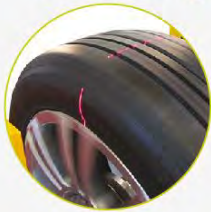
Surgery robot

Medical 3d imaging

Medical Inspection



Camera tire building



Tyre scanning



Wood processing

Automated product validation

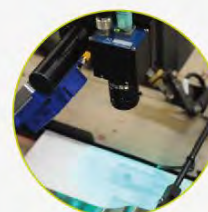
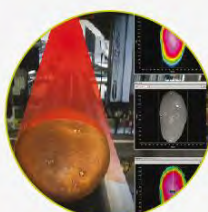
Quality control

Industrial inspection

Mailing (logistics) system

Medicine distribution

Tablet Inspection



# TKH – vertical growth markets – growth drivers

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## > Tyre building industry

- > High priority in tyre building industry for replacement existing technology with drivers: high productivity – less waste – improved quality – smaller batches – more regional production
- > Advanced TKH-technology responds to these drivers – perspective for market share growth within top five tyre manufacturers
- > More than 70% of equipment older than 15 years
- > Large investment programs announced within industry since 2011
- > Market share TKH in outsourced market: 60-70%
- > Total market share including top five tyre manufacturers: 18-20% – target 30-40%



# Tyre building industry

