

# Presentation

Kingspan Light + Air  
Belgium



# Kingspan Group

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**5**  
Divisions

**+ 14 000**  
Employees  
worldwide

**+ 70**  
Countries

**+ 100**  
Production sites



Insulated Panels



Insulation



Access Floors



Water & Energy



Light + Air

World leader in high performance insulation and building envelope solutions.



# Kingspan Light + Air Belgium

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+ 100  
Employees

+ 4 500 / year  
Maintenance Contracts

+ 700 / year  
New Build Projects

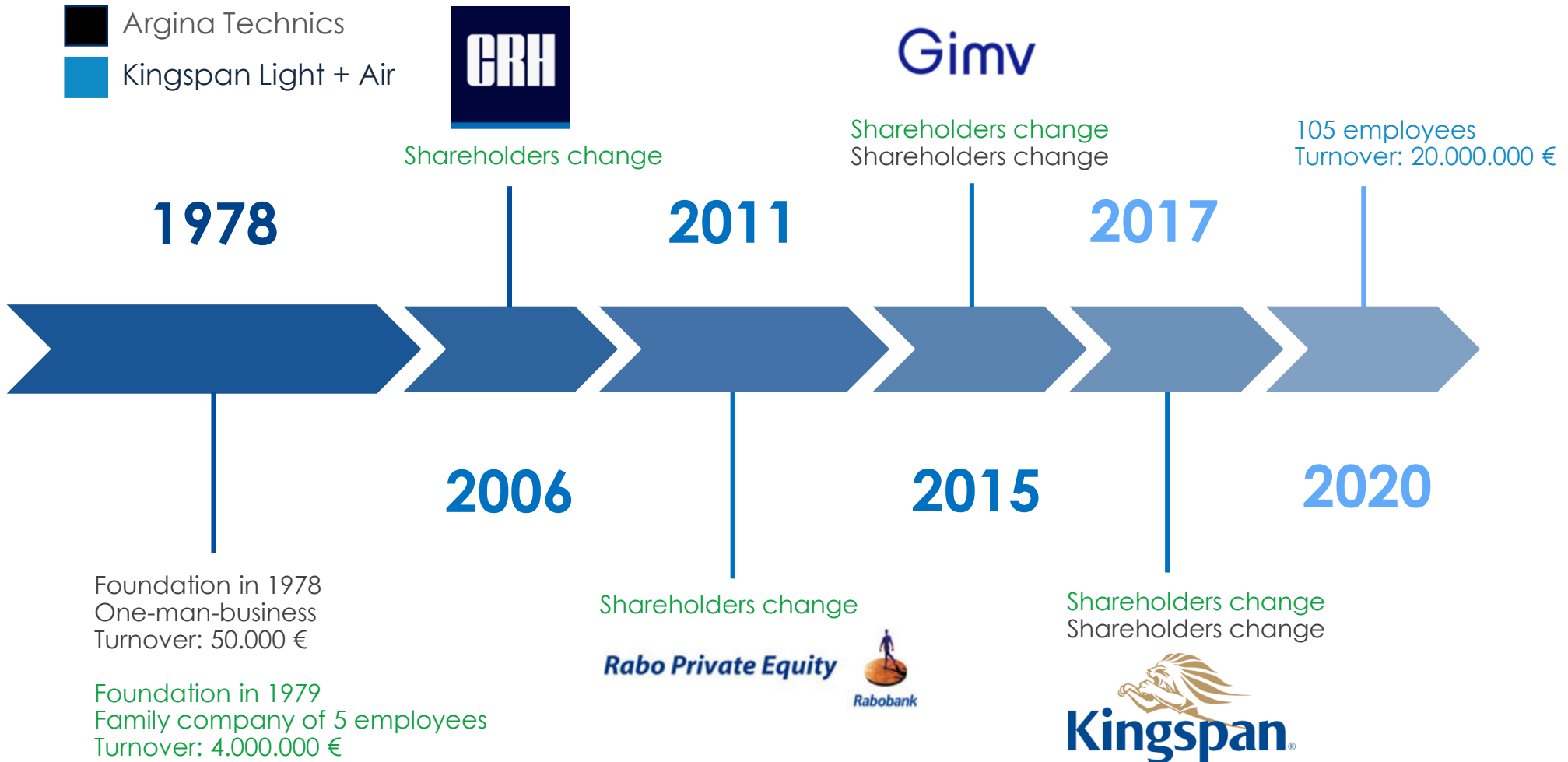
+ 55 000 / year  
Produced Fire Detectors

The expertise of a manufacturer and the experience of a combined service, installation and maintenance company.

# Timeline



-  Brakel Aero
-  Argina Technics
-  Kingspan Light + Air



*Utilizing our **unique blend of products, knowledge and expertise**, it is our mission to provide our clients with innovative, high quality daylighting, smoke management and ventilation systems (natural or mechanical).*

*Coupled with building security systems, we deliver solutions that provide unrivalled performance in energy efficiency, safety and comfort for our client's buildings.*

# Phases of a project



Price request/ Tender

- Specifications
- Plans

Calculation / Quotation



Customer contact / Order confirmation

Transfer between sales and engineering

- Technical dossier

On-site consultation

- Meeting with contractor
- Checking dimensions



Purchase of materials

Planning and installation

Commissioning

- Fire fighters
- Control agency
- Smoke tests



After-sale care

- Repairs
- Maintenance

# Our products

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## SMOKE MANAGEMENT SYSTEMS



## MECHANICAL VENTILATION SOLUTIONS



## NATURAL VENTILATION SOLUTIONS



## DAYLIGHTING SOLUTIONS



## BUILDING SECURITY SYSTEMS





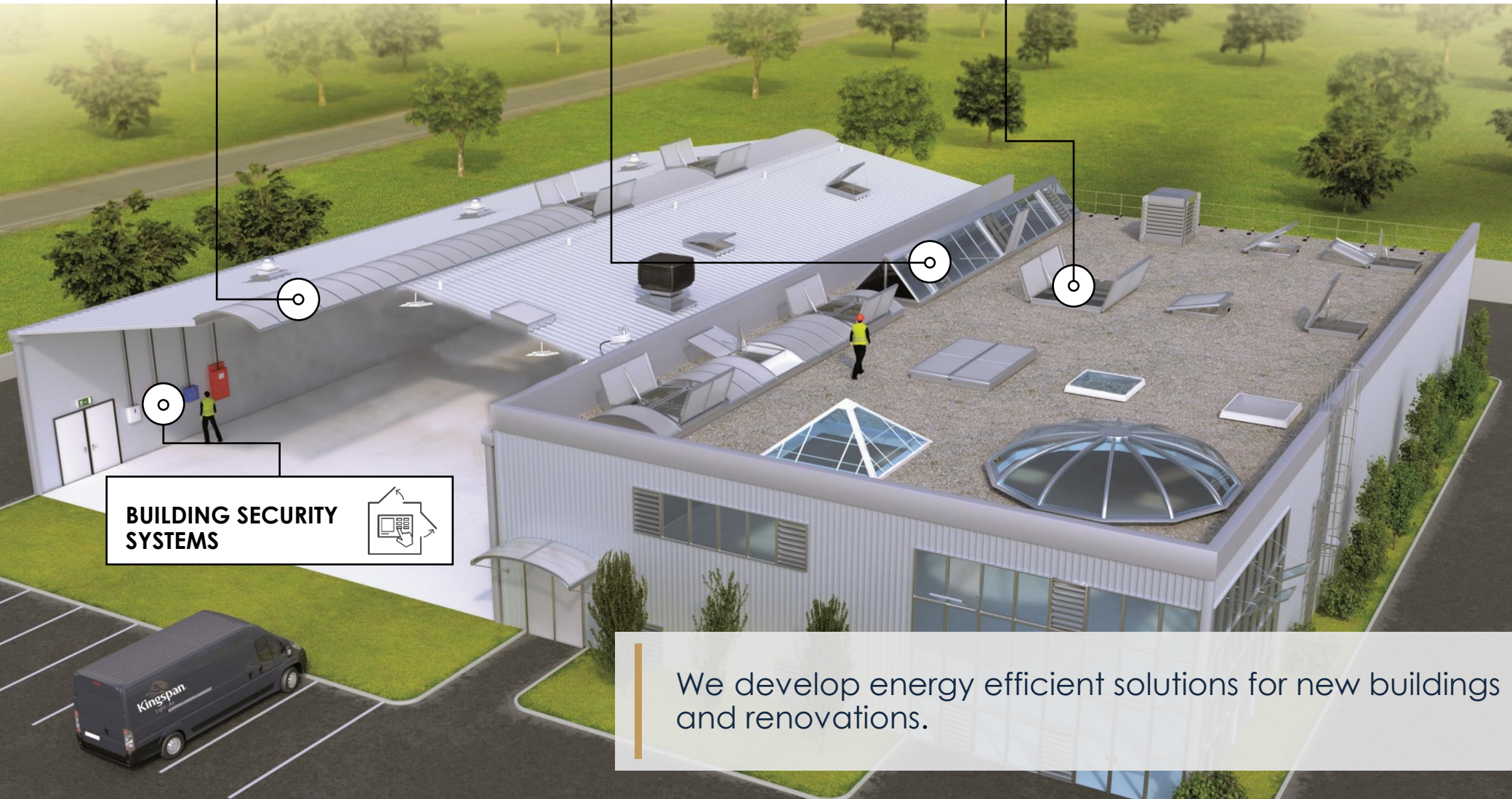
**DAYLIGHTING  
SOLUTIONS**



**NATURAL  
VENTILATION  
SOLUTIONS**



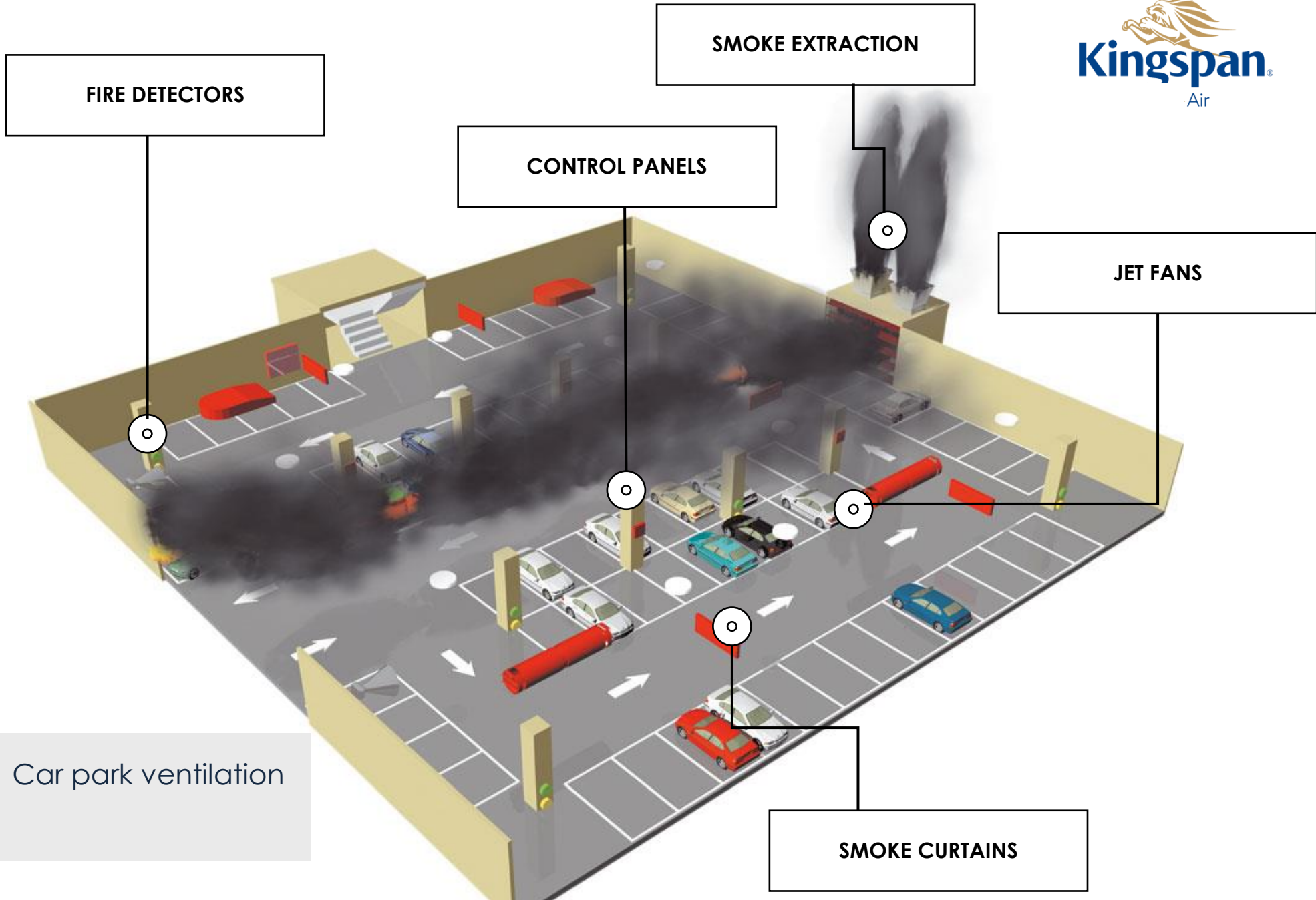
**SMOKE  
MANAGEMENT  
SYSTEMS**



**BUILDING SECURITY  
SYSTEMS**



We develop energy efficient solutions for new buildings and renovations.



Car park ventilation

**SMOKE CURTAINS**

# Smoke Management Systems

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Smoke inhalation is the primary cause of death for victims of fires.

- **Main reasons:**

- Smoke opacity
- Toxicity of fumes
- Heat
- Spread of fire

- **The role of smoke extraction:**

- Extract smoke and combustion gases as much as possible.

- **Goals:**

- Facilitate public evacuation and emergency response.
- To Limit the spread of the fire by evacuating heat and gas, limit damage.
- Save lives



# Explanatory Drawing

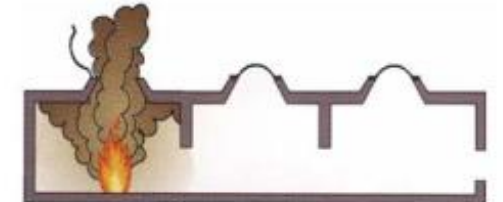
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**WITHOUT**  
SMOKE MANAGEMENT  
SYSTEM



**WITH**  
SMOKE MANAGEMENT  
SYSTEM



# Hold-open systems

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PNEUMATIC



MECANIC



ELECTRIC



# Our solutions

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EURA



OPTIMA



VENTRIA



DUOTHERMA



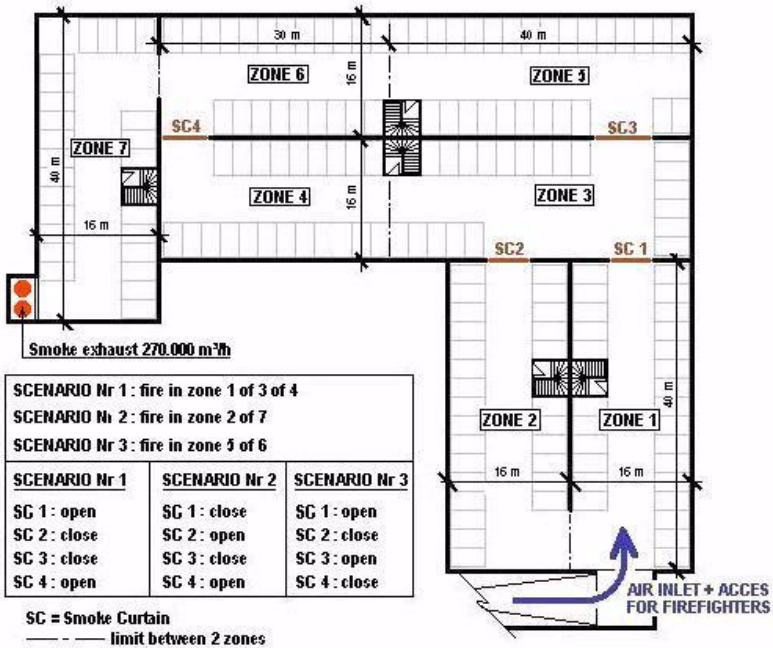
INOVA



FUMETICA



# Mechanical ventilation



Smoke inhalation is the primary cause of death for victims of fires.

- **Main reasons:**

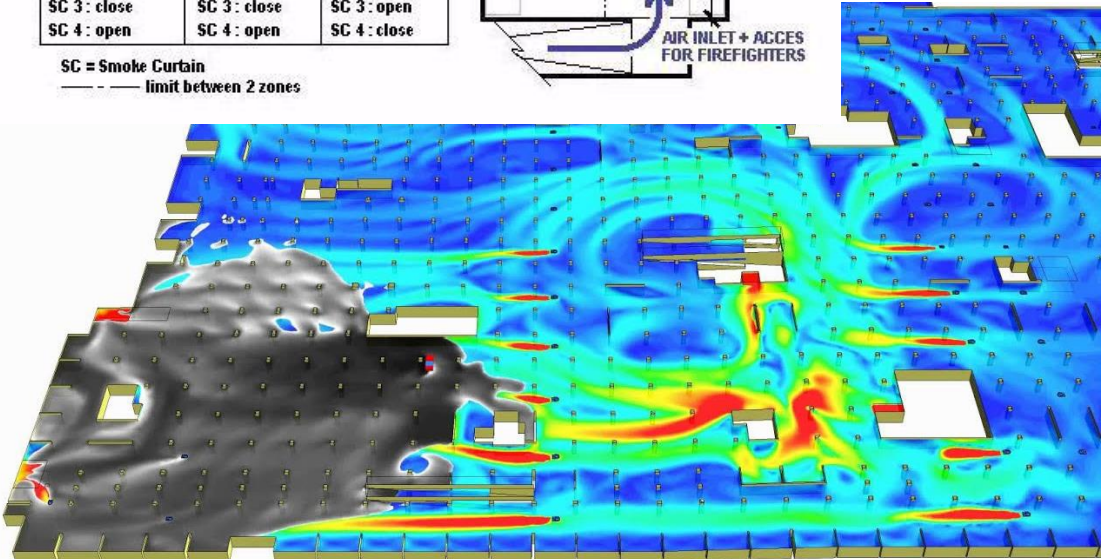
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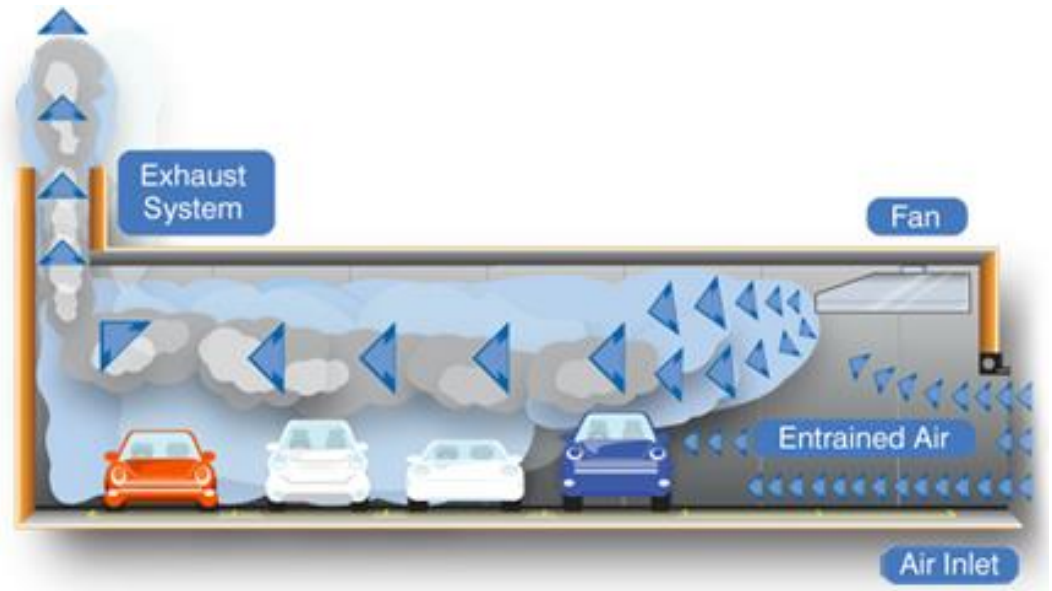
# Explanatory Drawing

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**WITHOUT**  
SMOKE MANAGEMENT  
SYSTEM



**WITH**  
SMOKE MANAGEMENT  
SYSTEM





# Our solutions

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Axial fans



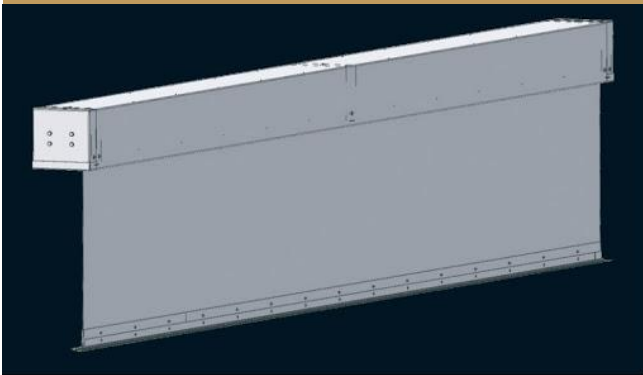
Impulse fans



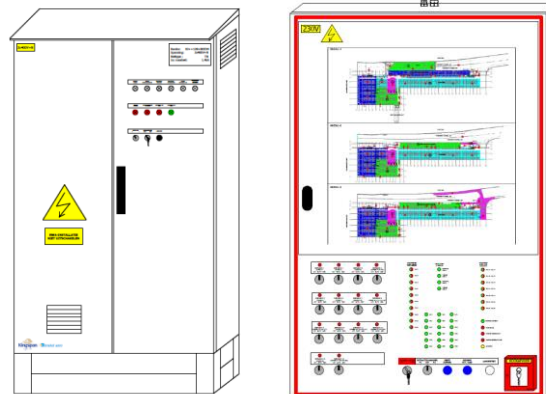
Smoke Dampers



Smoke screens



Electrical cabinets

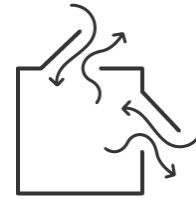


Gas sensors



# Natural Ventilation Solutions

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Prolonged exposure to poor air quality can negatively affect the health and wellbeing of building occupants.

- **Improving indoor air quality affects the health and working capacity of employees, students:**
  - Reduce eye-nose-throat irritation, the development of asthma, bronchitis and other more serious diseases ...
  - Healthy air improves efficiency at work: fewer headaches ...
- **Naturally reducing the indoor temperature saves energy.**

# Our solutions

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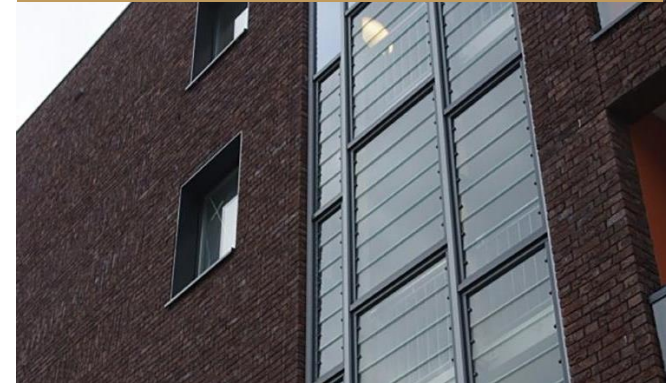
EURA



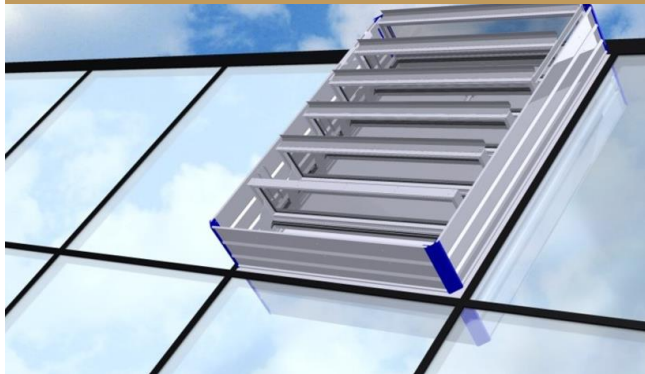
EURA R



ESTRA



OPTIMA



DUOTHERMA



FUMETICA



# Daylighting Solutions

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People spend approximately 90 percent of their time indoors. The use of daylight in buildings improves indoor visual comfort and working conditions.

- **Optimizing well-being inside your building :**
  - Maintain contact with the outside
  - Higher well-being of the occupants
- **Optimizing performance:**
  - Increased productivity
  - Less absenteeism and accidents
- **Reduce overall energy consumption, especially in artificial lighting**
- **Architectural freedom**

# Our solutions

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DAY-LITE KAPTURE



GREENLITE



ARCILITE



DURALITE



ARCADE



UNIQUAD



# Building Security and Safety Systems

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Security and safety are becoming increasingly important points of attention when designing a new building.

- **Difference between safety and security:**

- Safety= protection against unintended, accidental risks.
- Security= protection against risks or dangers caused by intentional actions.

- **Goals:**

- Safety:
  - Detect fire or gases early.
  - Activate smoke management and other systems (door release, elevator recall, compartmentation,...)
  - Notify occupants and the fire-fighters that there is an emergency.
  - Save lives and property.
- Security: protect buildings, property and assets against intruders.

# Our solutions

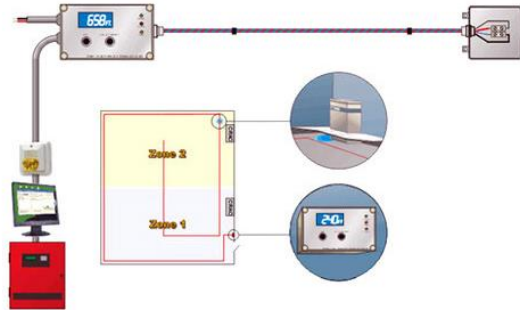
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## FIRE DETECTION



## GAS DETECTION



## ACCESS CONTROL



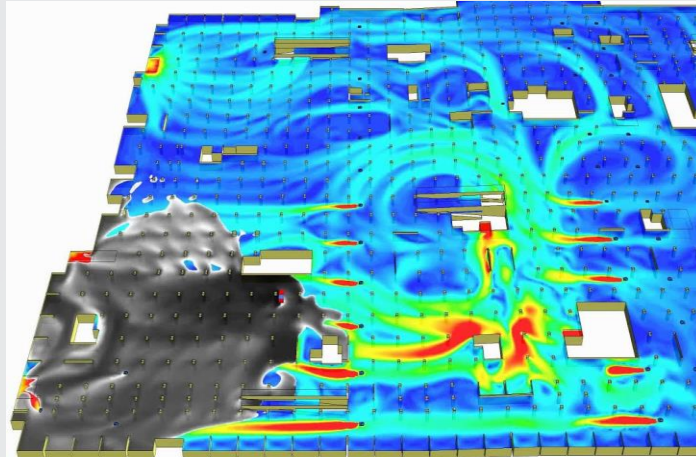
## CAMERA SURVEILLANCE



## BURGLARY PROTECTION



# Fire Safety Engineering

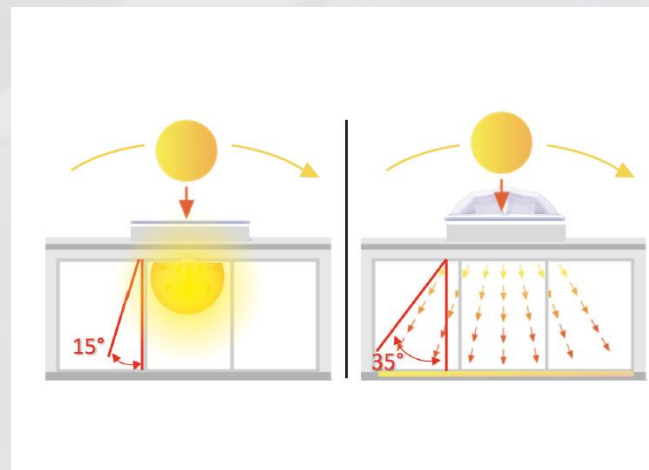
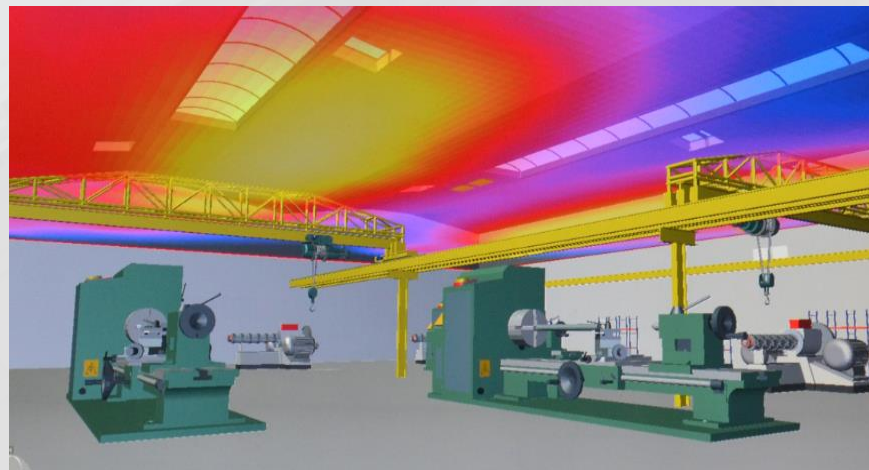


## Natural/mechanical ventilation and smoke management studies:

- Based on design standards
- Use of **Computational Fluid Dynamics**
- Submit derogation dossier if necessary

## Natural Daylight Studies:

- Determine recommended minimum lux levels
- Calculation software and daylight simulation
- Integrate and enhance natural daylight





# Service & Maintenance

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## OUR TECHNICIANS

- Qualified
- Well-trained
- Professional experts in their field
- Work by two



## SPECIALISED EQUIPMENT:

- Qualitative power tools
- Ladder
- Safety harness
- Fall protection
- Lifting equipment/ cranes



# Trained Technicians & Installers



## Training of our technicians and installers

- Regular Toolboxes
- Working in teams
- Mandatory trainings



GESTURE / POSTURES



WORKING AT HEIGHTS



FALL PROTECTION



MACHINERY / TOOLS

MANDATORY TRAININGS



LIFTING DEVICES



# Product Certification

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**ISO 9001** : Quality Management System



**VCA\*\*** : Safety, Health and Environment Checklist for Contractors



**FISQ**: the Fire Safety Quality certificate is a quality label for installers and installers of fire protection systems.



**BOSEC**: a voluntary certification mark that covers, among other things, installers of fire detection systems and smoke and heat extraction systems.



**CE marking** of all Kingspan fire alarm and detection systems, smoke and heat control systems and ventilation products.

# REFERENCES

**DAYLIGHTING SOLUTIONS**



**NATURAL VENTILATION**



**SMOKE MANAGEMENT**



**MECHANICAL VENTILATION**



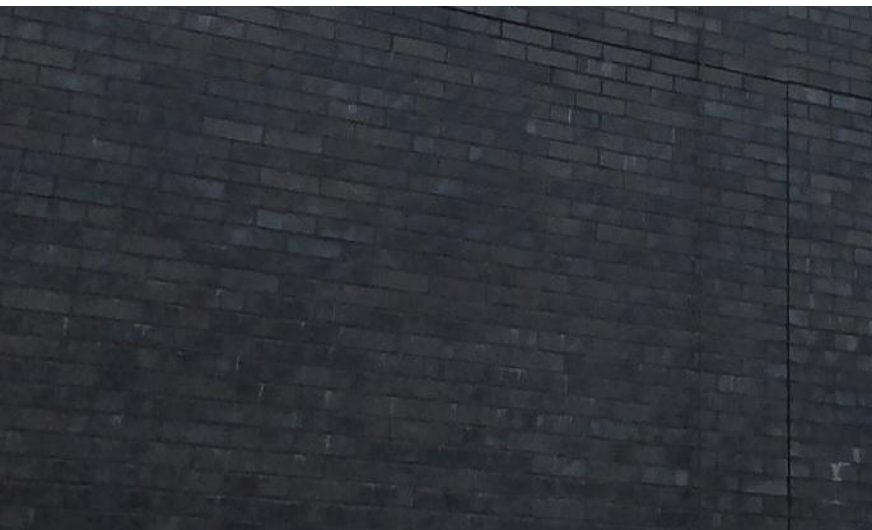
**BUILDING SECURITY  
SOLUTIONS**



# Smoke management

## *Decathlon, Charleroi*

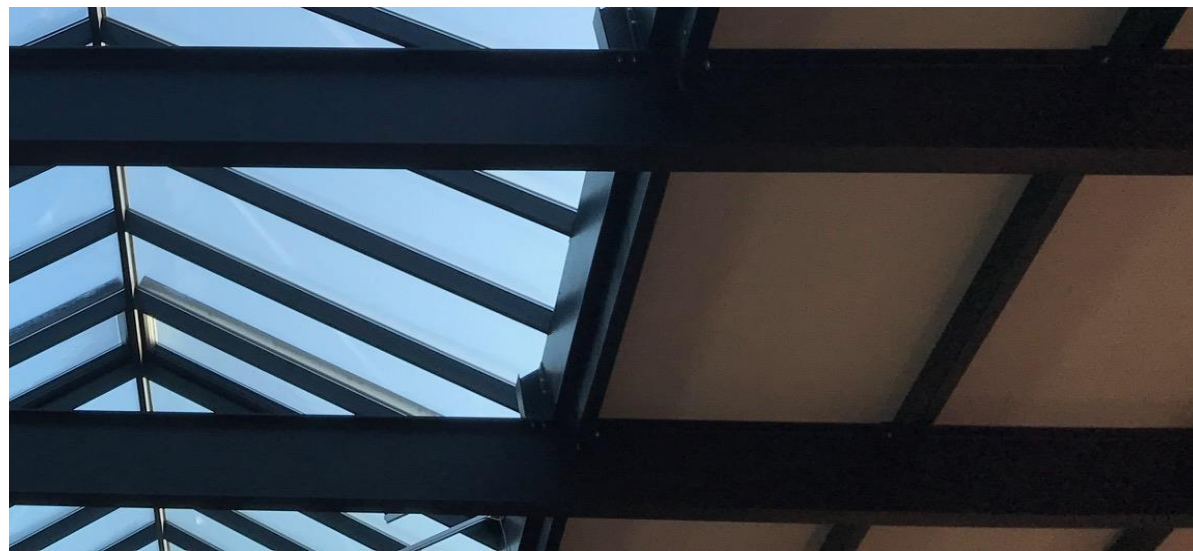
- 6 Eura NSHEV in façade
  - 2 Arcilite double pitch glass roofs
  - 18 integrated Ventría NSHEV
  - Smoke screens
- Pneumatic system



# Daylight Natural ventilation

## Begijnhoeve, Meeuwen

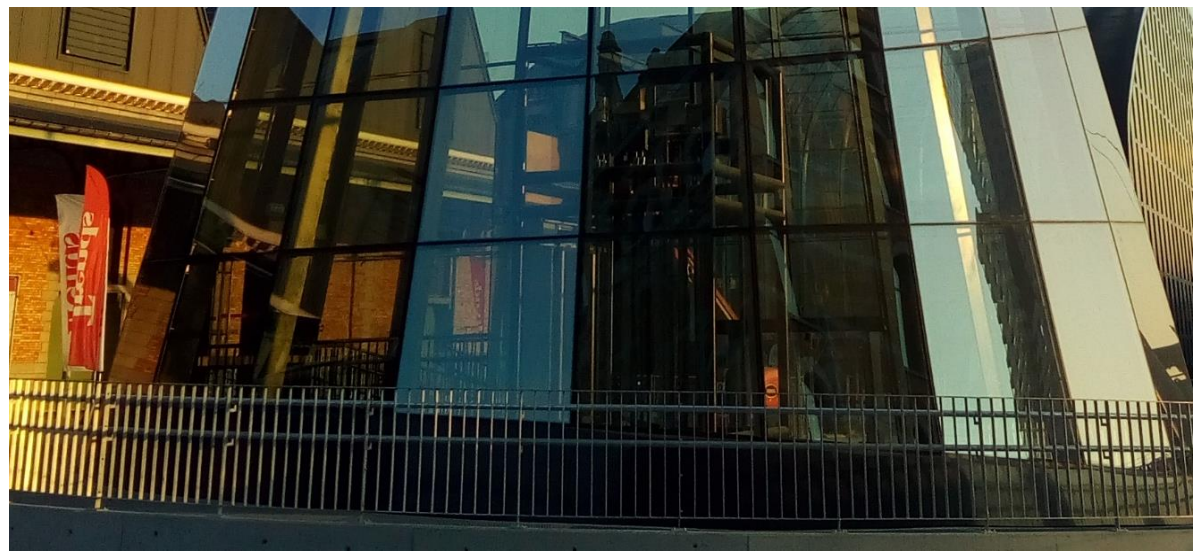
- 5 double pitch glass roofs
  - 20 integrated Ventría NSHEV's
- Electric system



# Natural ventilation Mechanical ventilation Smoke management

## *Tour & Taxis, Brussels*

- 3 Eura-R NSHEV's
  - 2 air handling units
  - Rain/wind/temperature sensors
- Electro pneumatic system



# Smoke management

## T2 Campus, Genk

- Atrium
- 20 Duo Therma NSHEV's
- Complete fire safety concept
- [700m automatic smoke screens \(movie\)](#)



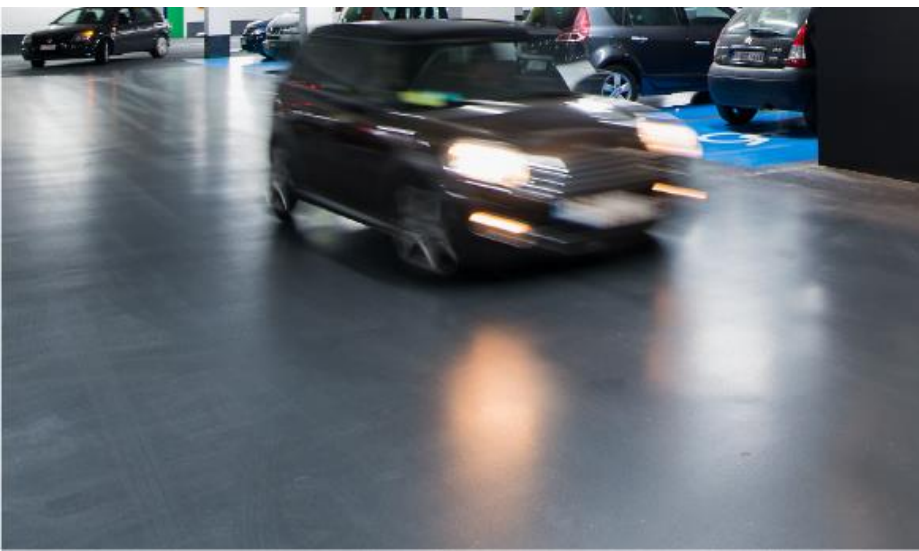




# Mechanical ventilation

## Dockx, Brussel

- 58.000m<sup>2</sup> - 2-layer carpark
- Complete CFD concept
- > 1 million m<sup>3</sup>/h air extraction
- > 300m automatic smoke screens
- [Hot smoke tests \(movie\)](#)



# Mechanical ventilation

## NMBS, Mechelen

- 3-layer carpark
- [Special developed Eura NSHEV's \(movie\)](#)
- [Hot smoke tests \(movie\)](#)



# Mechanical ventilation

## Brabo II, Antwerp

- Tunnel with 3-layer carpark
- CFD concept for exhaust gasses
- 12 tunnel jets
- 9 large axial fans
- 7 s.p.s. (staircase pressure systems)

