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# Message from management

Aiming for sustainable growth and a sustainable society through technological strength and outstanding human resources

# Word of welcome

Air is something that surrounds us 24 hours a day. At Daikin, the future of the world's air is our greatest concern. We use our expertise about air, our feeling for innovation and our mastery of technology to improve the air we breathe. This is our mission.

For more information, visit daikin.eu



# Our promise

Our promise is to ensure that our customers can depend on Daikin for the ultimate in comfort, so that they are free to focus on their own working and home lives. We promise to dedicate ourselves to technological excellence, a focus on design and the highest quality standards so that our customers can trust and rely on the comfort we deliver. Our promise to the planet is absolute.

Our products are at the forefront of low energy consumption and we will innovate to further reduce the environmental impact of HVACR (Heating, Ventilation, Air Conditioning, Refrigeration) solutions. We lead where others follow. We will continue our global leadership in HVACR solutions, as our specialist expertise in all market sectors combined with over 90 years' experience enable us to deliver added value in long-lasting relationships based on trust, respect and credibility.

## Forward-thinking ethos

We promise to continue our forward-thinking ethos, treating challenges as opportunities to produce everbetter solutions. We will drive innovation and go the extra mile for our customers and our company. We will be smart and ready to do things differently. We will deliver on our brand's core values and enjoy sustainable success with continued growth.

## Responsibility

Responsibility to protect the environment in everything Daikin does. All our policies, practices and processes are developed and implemented with environmental sustainability at their heart.

## 1924

Akira Yamada founds Osaka Kinzoku Kogyosho Ltd., and Daikin is born 1933

Developed research for fluorine refrigerants

1935

Fluorocarbon gas is successfully manufactured

1938

First Daikin refrigerator

1936

"Mifujirator" refrigeration is used as Japan's first air conditioner for trains

1951

Daikin becomes the first Japanese manufacturer to mass produce self-contained and packaged air conditioning equipment 1957

Developed first Japanese rotary compressor



1966

Started production of centrifugal chillers

1958

Introduced first packaged heat pump air conditioner



1969

Developed first Multi-Split

<u> 1973</u>

Daikin Europe N.V. (production, administration and warehousing complex) is established in Ostend, Belgium

1982

VRV (Variable Refrigerant Volume) is launched on the Japanese market 1978

Sky Air air conditioner for light commercial applications is launched

1984

Daikin markets its first inverter type air conditioner

1994

Daikin Europe receives ISO 9001 quality assurance certificate

<u> 2006 </u>

Daikin Altherma launched

Ururu Sarara launched

1997

Daikin Europe N.V. introduces swing compressor

1995

Production of VRV, Sky Air and Multi-Split systems are transferred from Japan to Europe

2007

New roundflow cassette launched

2009

Daikin Emura launched Daikin Altherma HT launched

First manufacturer to receive the Eco-label for heat pumps with the Daikin Altherma IT

2010

Nexura launched - an indoor unit with radiant heat panel

Awarded Occupational Health and Safety Assesment Series (OHSAS) 18001 certificate

2015

VRV i-Series launched - the first VRV in the market split into 2 parts: heat exchanger and compressor <u> 2013</u>

First unit with R-32 refrigerant launched -Ururu Sarara Bluevolution 2(0)1 2 VRV IV launched

2015

2016

Worldwide free access to Patents for equipment using nextgeneration refrigerant R-32 The Italian Commercial Refrigeration manufacturer, Zanotti was acquired by Daikin Europe to extend the current Refrigeration range. Daikin Air Conditioning Egypt (SAE) was established.



# History of Daikin

## The air you live in

Air is essential to our existence, and our role in protecting it continues to expand.
Since we were founded in 1924, we have devoted

Since we were founded in 1924, we have devoted ourselves with unbridled passion to overcoming the ever-evolving challenges of air, to become the leading manufacturer of air conditioning equipment. Using our unique cutting-edge technology, we deliver outstanding products and system solutions to ensure comfortable and sustainable living environments for all people and regions of the world.

That has been, and always will be, the Daikin mission.

It was in 1924 when our passion for innovation started.

We believe innovation is part of our DNA, and is a factor that helps us not only to create and develop the best products in the HVACR market, but also to be a leader in delivering future air solutions.

2017

**FUTURE OF <b>DAIKIN** 

# Daikin around the world

# Daikin, a true leader in climate solutions all over the world

#### Being unique

Daikin is the only manufacturer involved in all facets of the manufacture, sales and servicing of a wide range of air conditioning products. Manufactures its own compressors and research in chemicals and refrigerants.

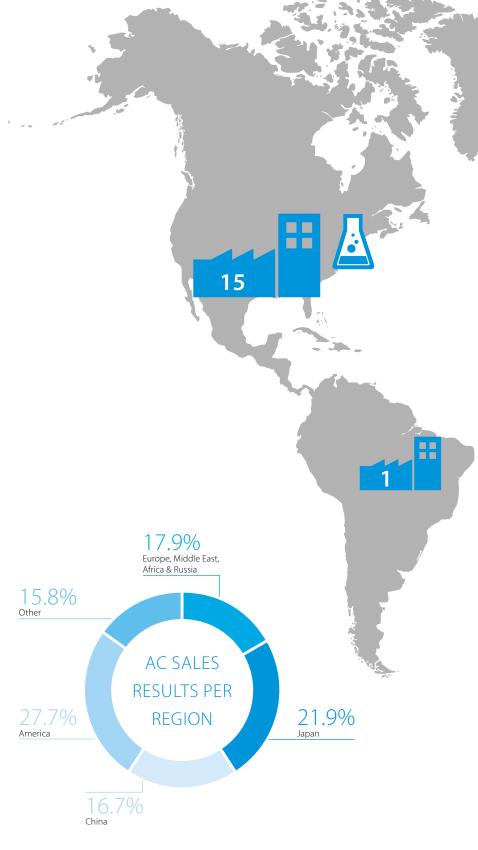
Our teams of specialists meet the needs of every region, climate and culture by providing control over the four elements of air including temperature, humidity, airflow and cleanliness.

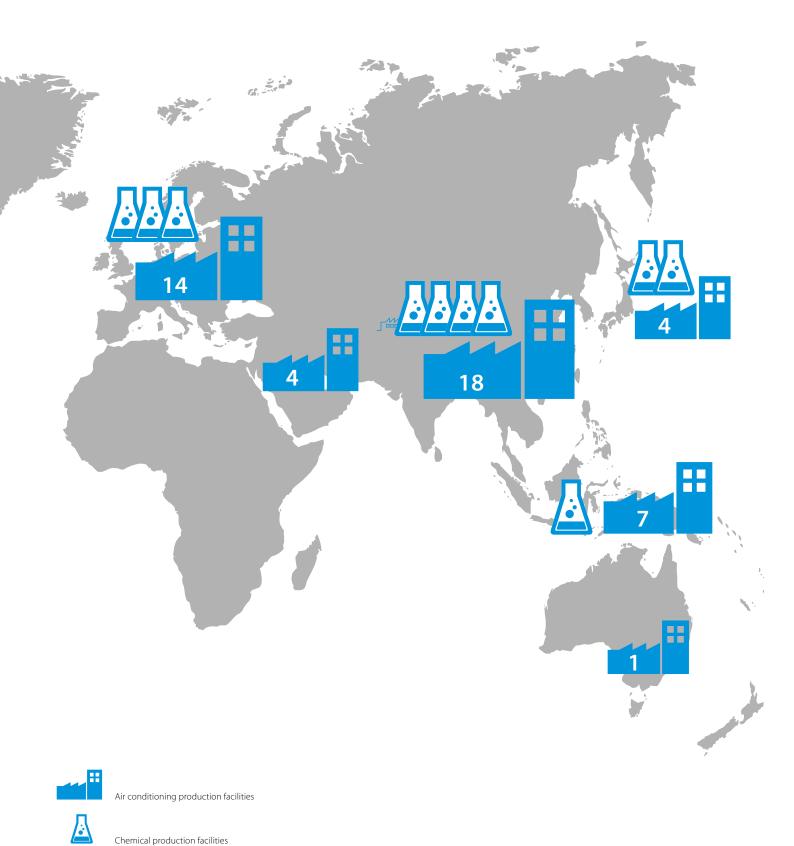
We have a worldwide presence in 145 countries. This gives us many advantages, not only in sales and manufacturing, but also in keeping in touch with local requirements and desires for the solutions that we provide. By being actively involved in all these regions and countries, we know what our customers want and can anticipate their needs. That is why we also manufacture in different regions all over the world.

#### Production facilities in detail

AC: stronger concentration in Asia Compressors: similar situation Chemicals: the headquarters for Europe is in Dusseldorf, with 2 production plants in Oss (NL) and Lyon (FR)

Recent acquisitions have resulted in new factories including: McQuay Cramlington, Cecchina and Milan, ROTEX (Güglingen GER), Zanotti and Tewis.





# Daikin's production in Europe

In addition to housing the European production and administration headquarters, Daikin Europe N.V. is home to the EMEA sales and marketing headquarters.

European production facilities in Pilsen and Brno (Czech Republic), as well as Cecchina and Milan (Italy), Cramlington (UK) and Hendek (Turkey) have added to capacity and optimised lead times to all

With the acquisition of the German heating manufacturer ROTEX GmbH, Daikin Europe N.V. has strengthened its offerings and expanded its market presence in the heating market. And the acquisition of the Italian manufacturer Zanotti and Spanish manufacturer Tewis enlarges the product portfolio in the refrigeration market.



Production Facilities



#### Daikin Europe N.V.

Factory size 26,000m<sup>2</sup> Production start Product range Daikin Altherma, Sky Air, VRV, Mini chiller, Refrigeration



#### **McQuay Cramlington**

14,214m<sup>2</sup> Factory size Production start 1966 Product range Air handling units



#### Daikin Applied Europe - Milan

Factory size 6.450m<sup>2</sup> Production start 2008 Product range Air handling units



#### **Daikin Applied Europe - Cecchina**

Factory size 21.000m<sup>2</sup> Production start 1969 Chillers + Compressors Product range



#### **ROTEX heating systems GmbH**

Factory size 14,970m<sup>2</sup> Production start Product range Heating, Solar panels, Storage tanks



#### **Daikin Industries Czech Republic**

Factory size 43,319m<sup>2</sup> Production start Product range Split, Sky Air & VRV, Heating



#### **Daikin Device Czech Republic**

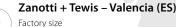
Factory size 24,361m<sup>2</sup> Production start 2006 Product range Compressors, Accumulators, Pressure vessels, BS-box, Hydrobox, Domestic hot water tank



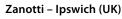
55,000m<sup>2</sup> Factory size Production start Product range Residential air conditioning, Air handling units, Boilers, Fan coil units, Panel radiators



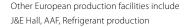
Factory size 38.000m<sup>2</sup> Production start 2016 Product range Refrigeration



Factory size 6,500m<sup>2</sup> Production start 2016 Product range Refrigeration



4,750m<sup>2</sup> Factory size 2016 Production start Product range Refrigeration







## Daikin has won the

# Factory of the Future award

We are proud to announce Daikin Europe N.V. (DENV) is the winner of the 2017 Factory of the Future award.

Among 265 participating companies, (65% of which are SMEs), DENV was one of five companies recognised for their substantial growth and commitment to delivering world-class production. The Factory of the Future award is presented by Made Different, a joint organisation that promotes the future of manufacturing in Belgium.

## Factories of the Future

What exactly defines a Factory of the Future? According to Made Different, a Factory of the Future embodies Industry 4.0 (the fourth industrial revolution), a vision based on seven criteria to measure the success of a manufacturing company in the 21st century. These seven criteria range from a factory's ability to incorporate world-class technologies, to developing smart and sustainable production with a focus on technology. Moreover, this vision also upholds a human-centric approach, viewing employees as a significant asset for the future development of a company.

## Embracing change

As the regional headquarters for the multinational Daikin Industries, Ltd., DENV's production site in Ostend, Belgium, is responsible for the development, digital connection, testing, production and commercialisation of climate solutions for Europe, the Middle East and Africa.

With the recent expansion of its Daikin Research & Development (R&D) Centre, DENV began implementing a "Factory Reform Plan," based on Kaizen, the Japanese philosophy of continuous improvement. Since starting the "Factory Reform Plan", DENV has achieved 30% higher productivity on the production line and in the press department, 30% reduced inventory, and a faster production plan. By focusing on change as the key to success, DENV strengthened its position as an innovation and development hub for Daikin Global.



# Ready for the future

The PRIDE and enthusiasm of each employee are the driving forces behind our group strategy

## Produce

- > Close to the market as a '3S' factory, strong against market changes
- > Smart, Simple, Slim

## Reduce

> The environmental impact of our products across the entire lifecycle

### Innovate

 Develop new smart products and solutions, focused on our customer' needs

## Diversify

> Expand the air conditioning business and invest in growth of heat pumps, refrigeration and applied products

## **Empower**

 Create a work environment where people work with enthusiasm and experience growth



# Facts & figures

# 70,263 shoulders supporting our enterprise

A company is only as good as the people who work in it. As a worldwide player, we have no fewer than 67,036 passionate employees working hard every day. Each of these employees is prepared to provide the best solutions to create the perfect climate for you, no matter where in the world you live.

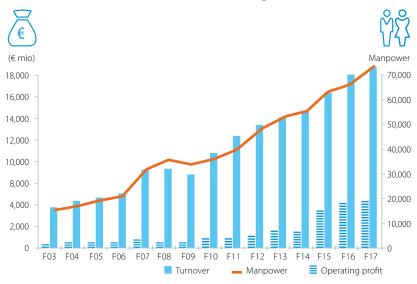
Daikin Europe N.V. is a part of Daikin Industries, Ltd. Turnover and employment have consistently risen over the years to meet the growing demand for Daikin products worldwide, as reflected in the most recent Daikin Industries, Ltd. and Daikin Europe N.V. figures.

## Daikin Europe N.V. at a glance (FY16)

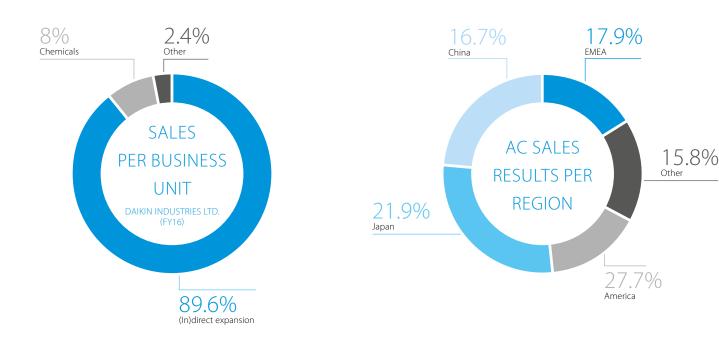




## Daikin Industries Ltd. at a glance (FY16)







# In all of us, a green heart Environment

# Our environmental policy is based on the following fundamental principles

- Taking the total product life cycle into account, we will design our products and processes to minimise the use of energy and resources. This includes recycling where possible, and limiting packaging waste.
- 2. Measures will be taken to efficiently manage refrigerant and to stimulate the design and manufacture of refrigerant-based products with a reduced environmental impact.
- 3. The necessary information and training will be given to employees in order to continually realise these policy objectives.
- 4. Our environmental management initiatives will be communicated in such a way that all levels of the organisation are well informed concerning its objectives and application.
- 5. These environmental management initiatives will be periodically evaluated via checks and audits in order to continuously improve our environmental performance.
- 6. All Daikin products, processes and services will meet at least the applicable legislation.





## Daikin Europe N.V. environmental objectives

#### Use energy sustainably

Daikin Europe N.V. is constantly looking for ways to reduce the energy consumption of its production facilities and to make use of sustainable energy sources.

# Reduce environmental impact from refrigerants and improve the energy efficiency of our products

Daikin Europe N.V. is committed to reducing its products' greenhouse gas emissions by reducing the impact of refrigerants and improving energy efficiency.

## Increase product recycling and waste reduction

Daikin Europe N.V. takes recyclability into account in the product development phase by making use of the principles of Lansink's ladder \*. This concern for recycling and waste reduction continues through all phases of the product (production, transport and logistics, installation, maintenance, etc.), up to and including dealing with the product responsibly at the end of its useable life.

## Manage chemical substances and preparations

Daikin Europe N.V. strives for optimum safety regarding the handling and storage of chemicals. This includes the search for newer and safer products to replace existing technologies.

## Develop products with reduced environmental impact

Daikin Europe N.V. is committed to complying with all environmental legislation. In addition, its green procurement guidelines further ensure that its products are state-of-the-art with respect to reduced environmental impact.

#### Continue efforts on a European level

Daikin Europe N.V. continually adapts its environmental policy to the changing global, European and local legislative frameworks. It stimulates and promotes the strict application of all relevant legislation and formulates recommendations to facilitate implementation.

#### Be a model of environmental responsibility

Daikin Europe N.V. intends to be a model company by providing training and information about the environmental impact of its activities. It supports and communicates with external organisations, its neighbours and the community at large, and is represented in working groups within the relevant industries.

<sup>\*</sup> Lansink's ladder: principles or methods of waste management established by a Dutch Member of Parliament, Ad Lansink, represented by a ladder with a number of rungs.

The rungs represent a hierarchy of increasingly better ways to deal with waste in an environmentally responsible manner.

## Increase of greenhouse gas emissions in the atmosphere

#### There is an increase of greenhouse gas emissions in the atmosphere on a worldwide scale.

- 65% of worldwide greenhouse gas emissions are caused by humans using fossil fuels and industrial processes.
- > 2% of worldwide greenhouse gas emissions are caused by the emission of fluorinated greenhouse gases (F-gases), such as the HFCs used in refrigerants (in addition to HFC but used for other purposes are PFC and SF6).

#### The main HFC sectors are:

- > Refrigeration (40-58%)
- > Air conditioning (21-40%)

The regions which consume the most HFCs are China, followed by the USA, the Middle East and Asia

While the share of F-gases is still small (2%), this number could increase by 4-5 times by 2050 if no measures are taken and there is an increase in the production of air conditioners and refrigeration products.

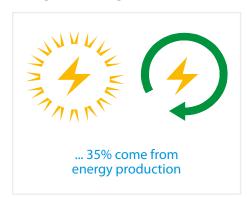
Reducing the use of fossil fuels and shifting to renewable energy are key actions for lowering the impact of climate change.

IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.

# We have a long history of continuously improving our products

The European Union's Eco-Design directive sets minimum efficiency standards for energy-related products. With seasonal efficiency, Daikin meets and surpasses EU environmental targets by developing more energy-efficient technologies and gradually phasing out older systems. Through this approach, we are able to reduce greenhouse gas emissions and improve the quality of our products.

#### of all greenhouse gas emissions ...



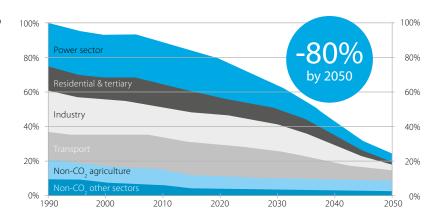




# The importance of energy efficiency

- > The European Union has established a roadmap to reduce greenhouse gas emissions by up to 80% before 2050.
- > This roadmap commits to reducing emissions by up to 20% by 2020, and by up to 40% by 2030.
- > This includes reducing emissions from the power (energy) sector, residential, tertiary and industrial applications. Lowering products' energy consumption while incorporating more renewable energy are key actions.
- > Emissions from refrigerants are small, but steps are already in place to lower their impact.

#### EU roadmap towards a low carbon economy





# Corporate Social Responsibility

Daikin has grown rapidly as a global corporate group. This expansion has brought with it greater demands from society and a need for greater Corporate Social Responsibility (CSR).

#### Our view of CSR

CSR helps us to fulfil our social responsibilities in all our relationships with our stakeholders, worldwide. It raises our corporate value and contributes to society's sustainable development. We will contribute to society via our business activities, based on legal compliance and ethics. We will be highly sensitive to the needs of every region while we make our contribution to society. We will make CSR a continuous and integral part of our business activities so that they contribute to better business performance. Our CSR activities will always be carried out through open, two-way communication with society and will ensure that we are always accountable for, and transparent in, everything we do.

#### **Key CSR themes**

Four key themes have been defined for the value we provide:

- The environment
- > New value creation
- > Customer satisfaction
- > Human resources

We have established five CSR themes fundamental to our business activities:

- > Corporate governance
- > Respect for human rights
- > Supply chain management
- > Stakeholder engagement
- > Communities

### Our Core Values

Daikin's foundation is based on three key corporate principles which are promoted strongly among our employees:

- > Absolute credibility
- > Enterprising management
- > Harmonious personal relations

We aim to evolve individually by challenging ourselves to accomplish our ambitious goals and by believing in our infinite potential. And together, we strive to become an overwhelmingly first-class global corporate group. A group in which our employees can have pride and enthusiasm, and where they are supported by deep relationships of mutual trust between management and employees.



# Experts through experience

We can safely say that we got to where we are today through years of experience. This concept of continuous improvement allows us to adapt and evolve as a company.

#### We are able to do so because:

- > We are the only manufacturer to produce (in)direct expansion, compressors and refrigerants.
- › Our aim is to always produce first-class products, which is only possible if we are supported by a premium quality policy, e.g. immediately testing during the production process.
- > We have a fully developed network of distributors, affiliates, dealers and installers supported by sales consultants.
- > We have a fully developed sales network supported by the Service Department.

It's because of each of these elements that we are able to have a strong and sophisticated network in the HVACR market.

# Technology and Innovation Center (TIC) in Japan

The Technology and Innovation Center (TIC) aims to create new value based on the world's best technologies and highly differentiated products. For this reason, people from diverse backgrounds gather across national borders from inside and outside the company to consolidate their strengths and passion in making TIC a venue for the challenge of realising collaborative innovation.

# Products from Europe, for Europe

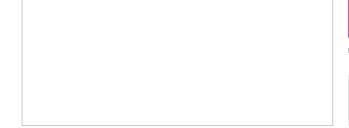
Daikin Europe N.V. has launched an extensive European Development Centre (EDC). The EDC will evolve in the future into an important European R&D centre, based in Ostend and with satellites in the Czech Republic and Germany.



Notes



 $\textbf{Daikin Europe N.V.} \quad \text{Naamloze Vennootschap Zandvoordestraat 300} \cdot 8400 \ \text{Oostende} \cdot \text{Belgium} \cdot \text{www.daikin.eu} \cdot \text{BE 0412 120 336} \cdot \text{RPR Oostende (Publisher)}$ 





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