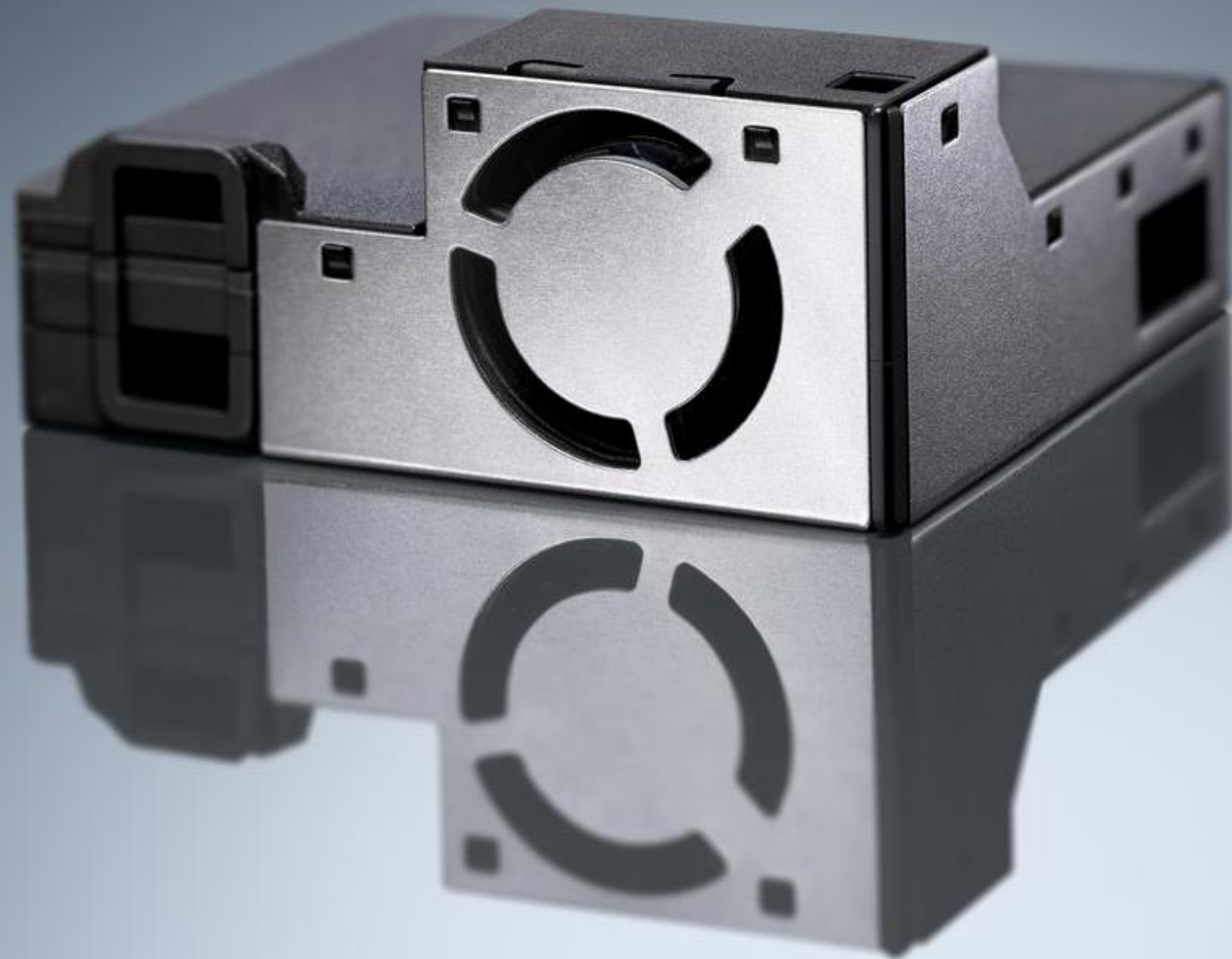


# Sensirion Investor Presentation

H1 2022



# Sensirion at a glance

# Facts & figures



**1998**  
founded

**2018**  
public



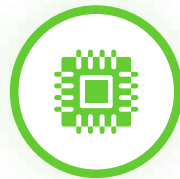
**974\***  
Full-time equivalents (FTEs)



**287.5M CHF**  
Revenue (FY21)



**> 200**  
Patent families



**1 Billion sold**  
600k sensors produced/day



**16%**  
Of revenue invested in R&D

**SENSIRION**

# Sensirion at a glance

## Overview

- ✓ A pure-play sensor company, driven by mega trends for long-term growth
- ✓ A deeply anchored mindset of innovation: it's in our DNA to continuously seek new challenges and to drive disruptive innovation
- ✓ SensiSpirit: our dedicated and award-winning entrepreneurial culture to attract and retain best talents
- ✓ Leading position in environmental and flow sensors, highly diversified in end markets
- ✓ Global footprint to ensure customer proximity
- ✓ ~600,000 sensors produced per day, almost 1 billion sensors sold worldwide
- ✓ CHF 287.5m revenue (2021), CAGR of 15% (2010-2021)

## Product lines

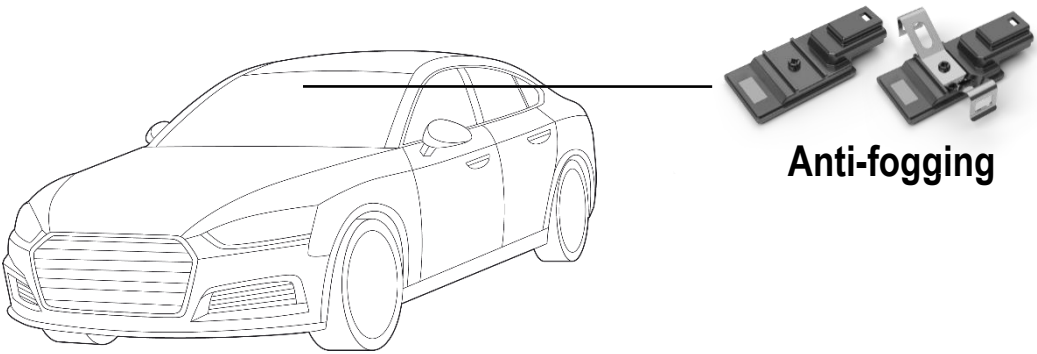


Environmental sensing solutions



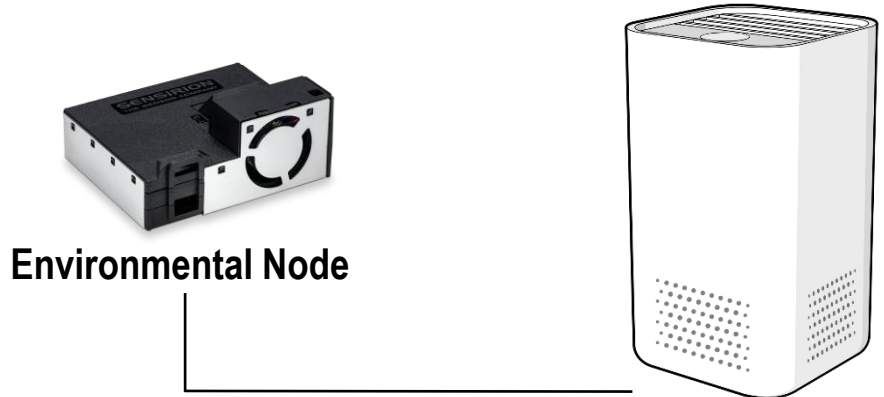
Flow sensing solutions

# Solving complex problems everywhere



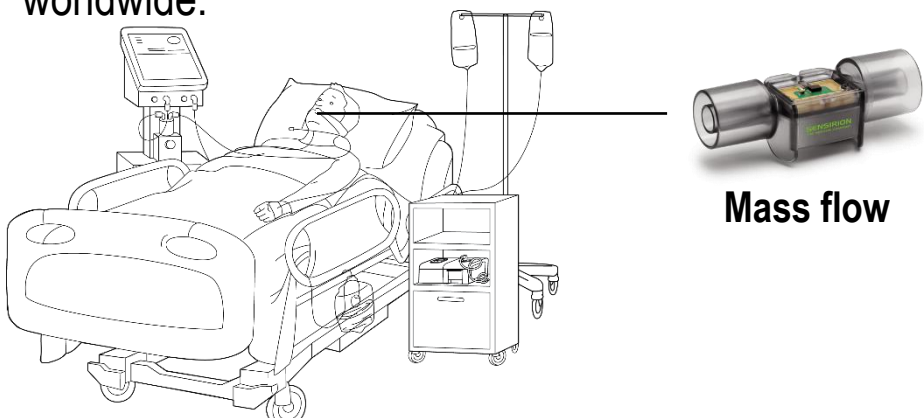
Anti-fogging

Providing antifogging, engine and climate control to approximately **one in three cars** manufactured worldwide.



Environmental Node

Real-time monitoring of various harmful gases for automated control of Air Purifiers **in several million** households.



Mass flow













Monitoring the breathing of **more than 10 million** patients in hospitals and at home.



Humidity & temperature

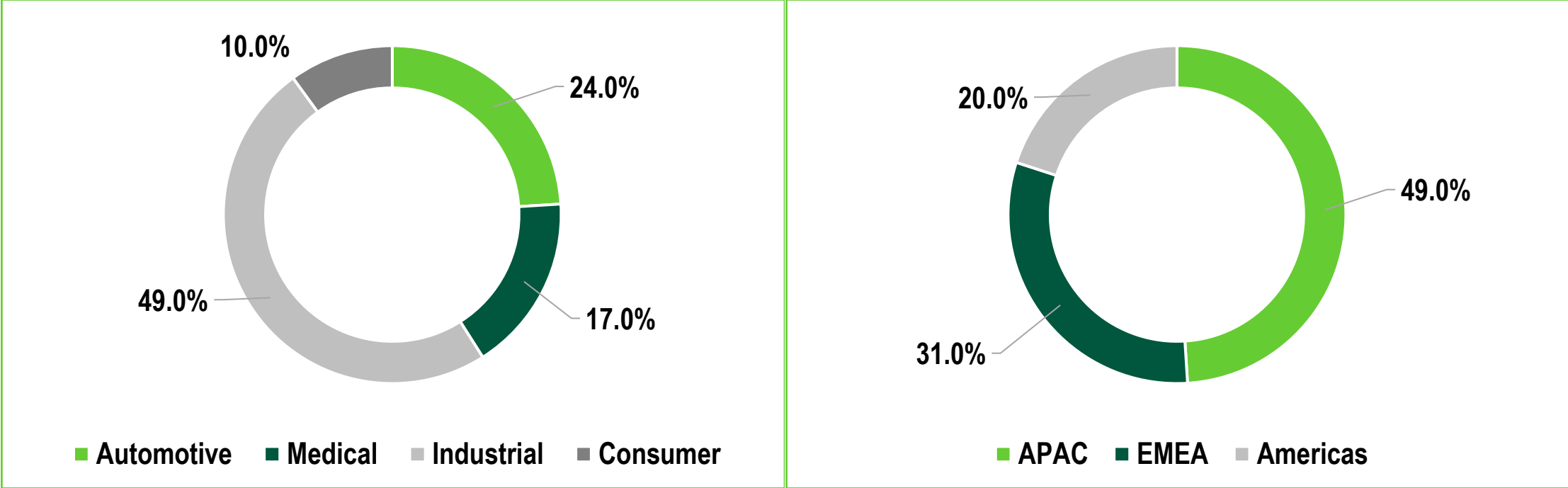
High precision monitoring of temperature and air quality for **millions** of households.

# Wide range of solutions across diverse end markets

End market		Automotive	Medical	Industrial	Consumer
<b>% of FY 2021 revenue</b> <small>(excl. COVID-19-related ventilator business)</small>		24%	17%	49%	10%
 <b>Environmental sensing solutions</b>	Humidity/temperature (RHT) 				
	Gas (VOC, formaldehyde) 				
	Carbon dioxide (CO <sub>2</sub> ) 	✓	✓	✓	✓
	Particulate matter (PM2.5) 				
	Gas analyzers 				
	Automotive modules 				
 <b>Flow sensing solutions</b>	Differential pressure 				
	Mass flow 	✓	✓	✓	✗
	Gas metering 				
	Liquid flow 				
<b>Key applications</b>	<ul style="list-style-type: none"> <li>Auto defogging</li> <li>Air quality</li> <li>Engine control</li> </ul>	<ul style="list-style-type: none"> <li>CPAP (sleep apnea)</li> <li>Ventilators</li> <li>Anesthesia</li> </ul>	<ul style="list-style-type: none"> <li>Air purifiers, air exchangers, refrigerators</li> <li>Gas metering</li> <li>Building ventilation</li> </ul>	<ul style="list-style-type: none"> <li>IP/security cameras</li> <li>Consumer gadgets</li> <li>Smart thermostats</li> </ul>	

# Stability through strong market und customer diversification

Highly diversified in end markets and regions<sup>1</sup>



<sup>1</sup> excluding COVID-19-related ventilator business

# Global footprint ensures customer proximity

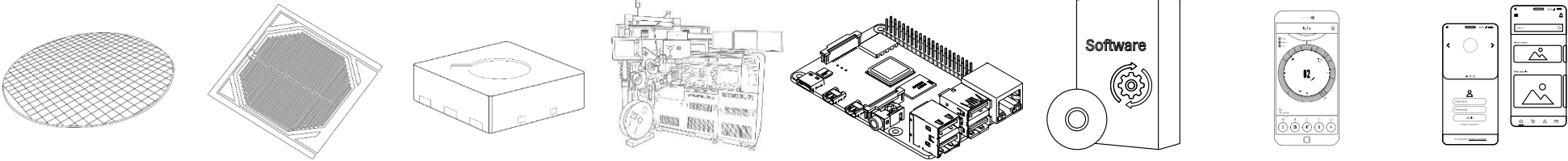
 974 FTEs\*



\* As of 31 Dec 2021



# Our advantage is built on our expertise across all relevant fields of the technology value chain

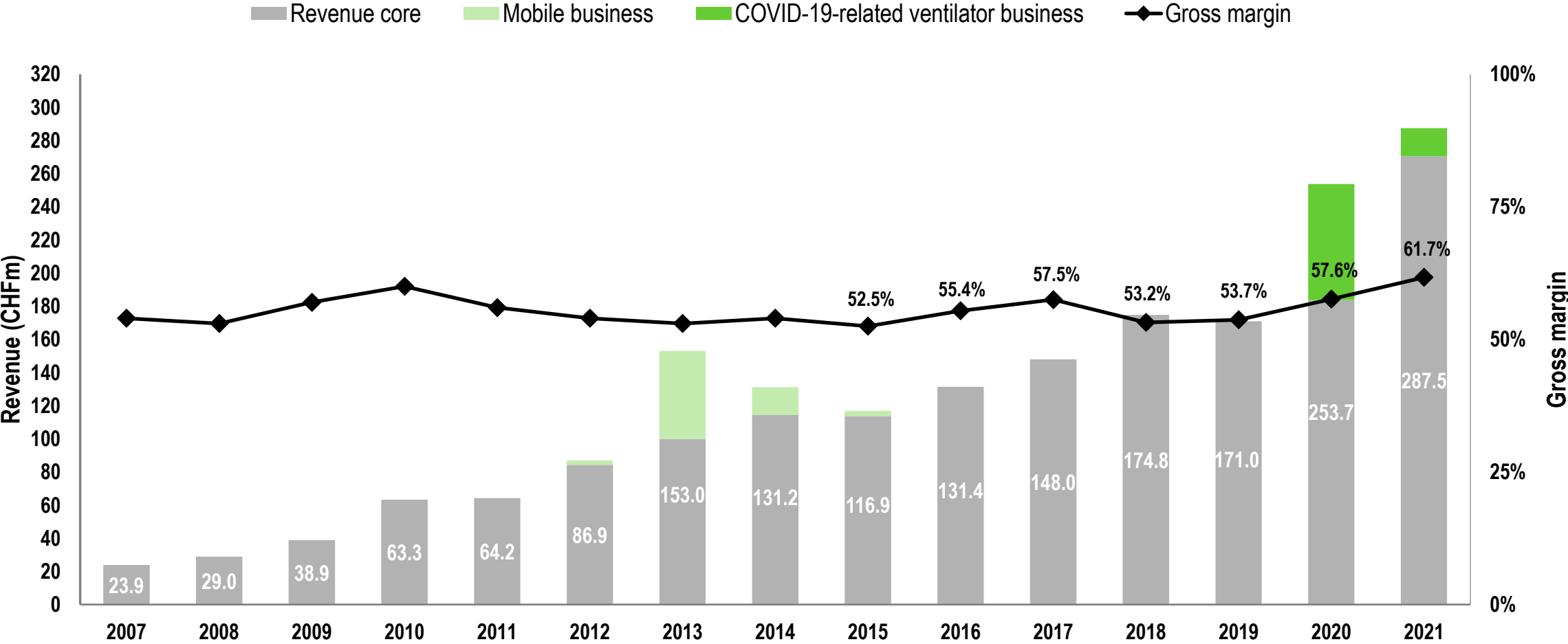


**SENSIRION**  
THE SENSOR COMPANY



Wafer manufacturing is outsourced

# Historical revenue and gross margin development



Note: revenues and gross margin from FY 2007 to FY 2014 according to Swiss GAAP FER, from FY 2015 to FY 2019 according to IFRS, and from FY 2020 onwards according to Swiss GAAP FER.

# Sensirion drives innovation along multiple layers



# Our sensor solutions help to reduce CO<sub>2</sub> emissions worldwide

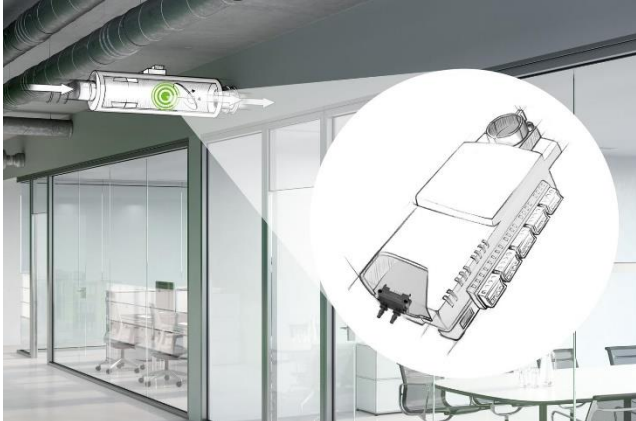
## Environmental contribution

In many applications, Sensirion's sensors help to reduce energy consumption and, in turn, CO<sub>2</sub> emissions.

## Application examples



Humidity and temperature sensors employed in anti-fogging and climate control in cars enable a more optimized use of the AC unit.



Differential pressure sensors used in demand-controlled ventilation (DCV) in buildings help to reduce energy consumption.



Humidity and temperature sensors incorporated in smart thermostats permit an improved heating and ventilation of residential homes.

### Significant CO<sub>2</sub> reduction

We have estimated that our sensors in the field help to avoid around **~2 million tons CO<sub>2</sub> per year<sup>1</sup>**. This corresponds to **~1/3 of the CO<sub>2</sub> emissions of the canton of Zurich with 1.54 million inhabitants<sup>2</sup>**.

<sup>1</sup> Sensirion estimate based on various sensors applications and number of sensors in the field  
<sup>2</sup> [https://www.stadt-zuerich.ch/gud/de/index/umwelt\\_energie/energie-in-zahlen/co2-statistik.html](https://www.stadt-zuerich.ch/gud/de/index/umwelt_energie/energie-in-zahlen/co2-statistik.html)

# We actively fulfill our environmental responsibility

## Environmental responsibility

As a manufacturing company, we aim to minimize our environmental impact from operations and business travel.



Our production sites in Switzerland, China, and South Korea are certified according to **ISO 14001:2015**.

Sensirion compensates all CO<sub>2</sub> emissions from business flights with **MyClimate**. In 2020, we **offset 148 tons of CO<sub>2</sub>** from business travel.

All of Sensirion's products meet the **RoHS** and **REACH** criteria regarding hazardous substances.

In 2020, we could **reduce the impact** at our production site in Stäfa.



At our **new site in Debrecen, Hungary**, we have opted for the realization of a sustainable building that will have a positive impact in the long term.

Operation **free of fossil energy** sources.

Heating/cooling with **reversible heat pumps**, in summer supported by free cooling.

**Heat recovery and storage** in 2 storage tanks of 60 m<sup>3</sup> each.

**State-of-the-art insulation** and windows.

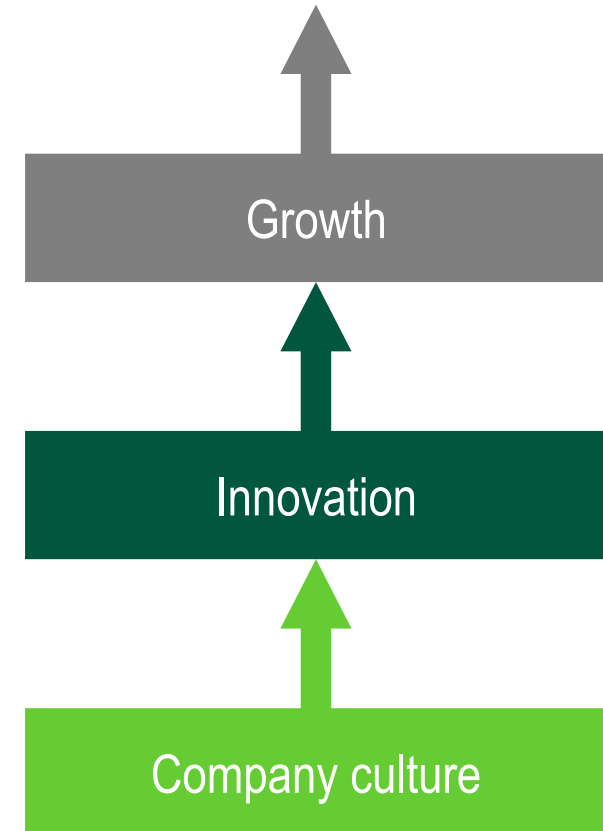
**Reduction in 2020 at production site Stäfa (per sensor produced)**

**-17% water consumption**  
**-32% energy consumption**  
**-11% CO<sub>2</sub> emissions**

# “SensiSpirit”: a unique culture of innovation and entrepreneurship

## Innovation needs a dedicated company culture

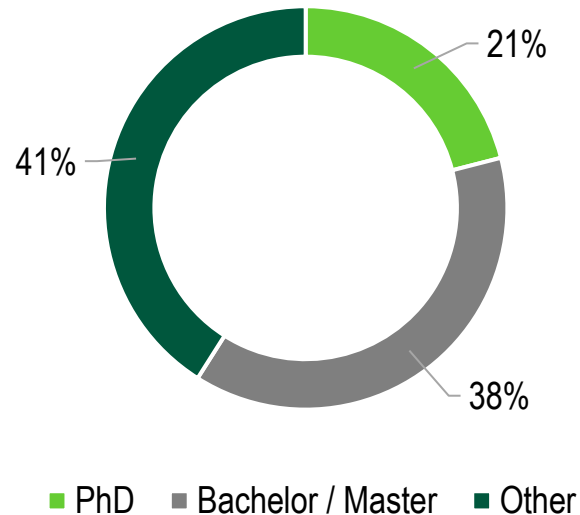
- ✓ A company culture dedicated to **long-term innovation**...
- ✓ ... with an **entrepreneurial mindset** to push limits...
- ✓ ... and built by **exceptional people**



# Strong entrepreneurial culture attracting and fostering talents

## Highly qualified workforce

Employees' qualification, Sensirion AG, per 31.12.20



## SensiSpirit

- ✓ Highly qualified employees attracted by a great company culture.
- ✓ High retention rate enables continuity.
- ✓ Company culture as foundation for innovation.
- ✓ Award-winning culture, widely recognized.



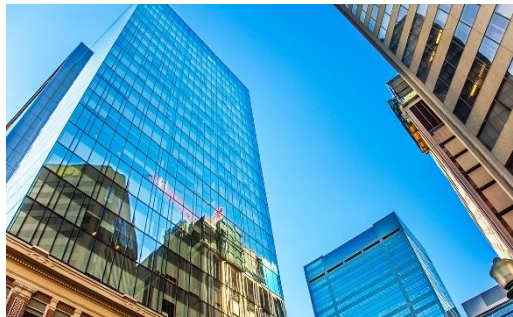
# Strategy



# Increasing penetration of sensors driven by secular megatrends

## Energy efficiency

- Scarcity of resources
- Governmental and societal initiatives



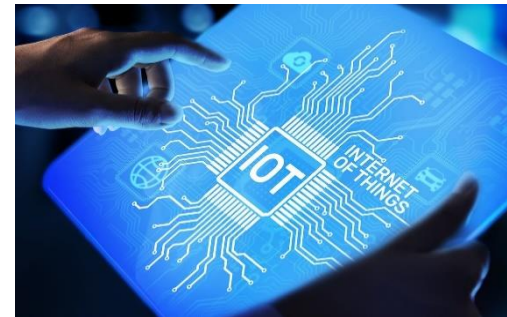
## Quality of life

- Economic development
- Increasing awareness around health, safety, comfort



## Digitalization and automation

- Industry 4.0
- Technological advancements
- Connectivity, IoT



## Environmental protection

- Air quality
- Climate change
- Water quality



**Sensirion's sensor solutions are critical for many applications across these megatrends**

# Growth along four strategic focuses

Strategic focus 3

Develop technologies for long-term growth

Strategic focus 2

Become market leader for the entire environmental market

Strategic focus 1



Drive market and cost leadership in our core markets of RHT and flow

Fundamentals

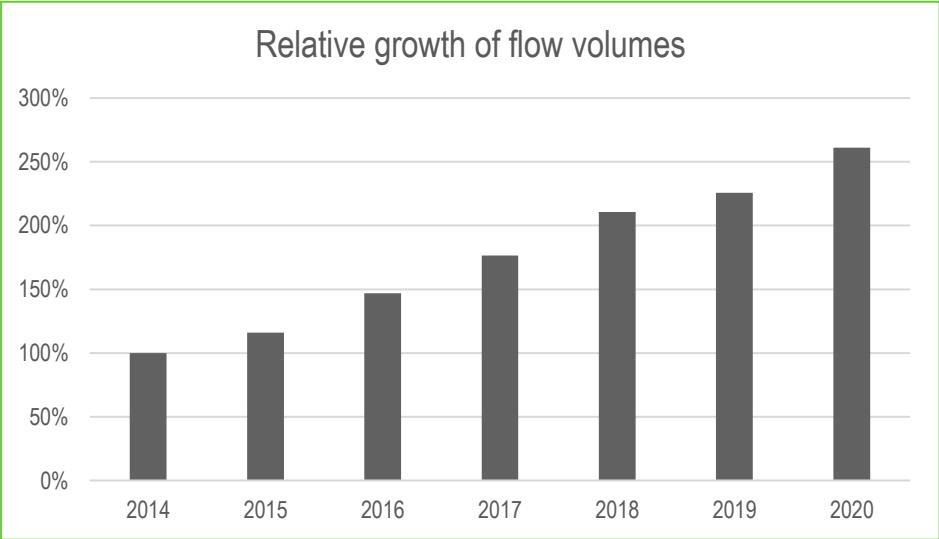
“SensiSpirit”: unique culture of innovation and entrepreneurship

# Focus 1: drive technology and market leadership in our core markets

High market diversity and technology leadership drives volumes and ensures stable base

End market	Automotive	Medical	Industrial	Consumer
Humidity & temperature 	✓	✓	✓	✓
Flow 	✓	✓	✓	

**Example “Flow sensors”:  
Volume increase by 2.6x since 2014 drives economies of scale**



# Summary “Strategic focus 1”

Drive market and cost leadership in our core markets of RHT and flow

## What we have achieved

We could strengthen our market leadership in humidity and flow

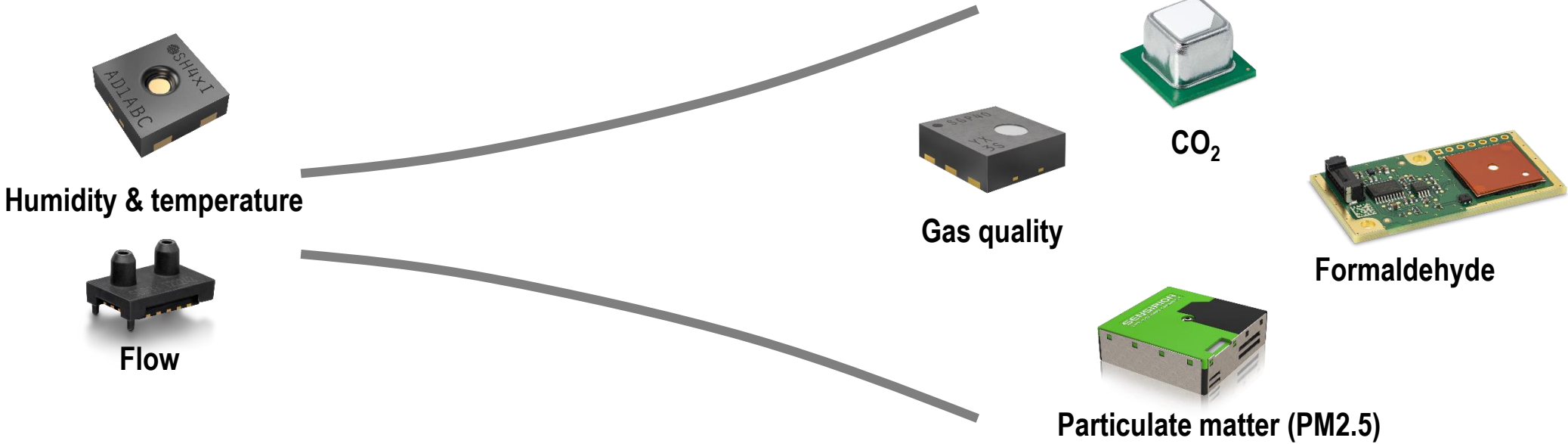
- by expanding our high market share in both core markets
- by addressing new applications in humidity & temperature and flow markets
- by capturing pandemic-driven short-term business
- by introducing next generation’s products to drive innovation and secure cost leadership

## Outlook: We are well positioned

- to further strengthen the market leadership in humidity and flow
- to monetize the leadership by economy of scales and innovation
- to continue to leverage our strong market position as entry point for additional environmental sensors

# Focus 2: become market leader for the entire environmental market

Our leading market position in humidity & temperature as well as in flow markets is a good entry point to expand to the entire environmental market

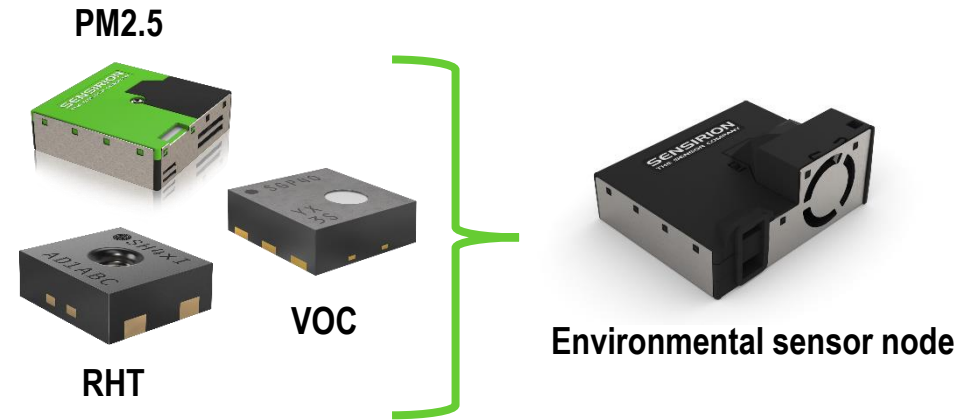


# Growth provides new strategic advantages

## Combo sensors

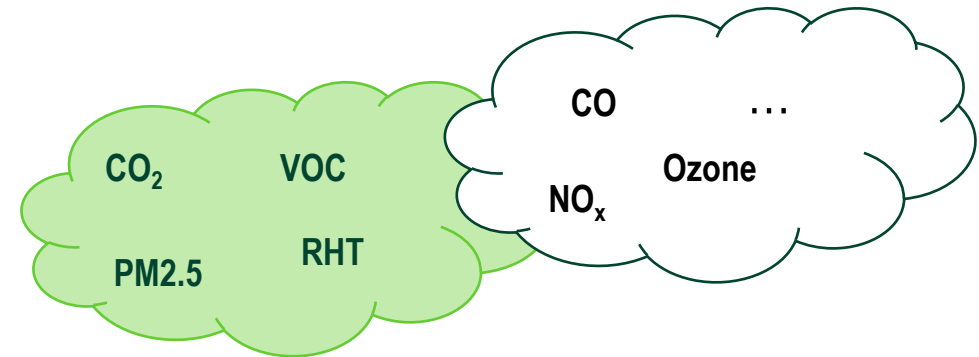
Combination of environmental sensors

- lowers integration costs
- drives strategic relationship with customers



## Further gas parameters

Sensirion's broad technology portfolio allows to react agilely to new environmental sensing market demands.



# Summary “Strategic focus 2”

## Become market leader in the entire environmental market

### What we have achieved

We have successfully accomplished the first step to become market leader in the entire environmental market

- by leveraging our strong position in humidity and flow sensing
- by introducing the first generation of CO<sub>2</sub>, PM2.5 and formaldehyde sensors, contributing already significantly to our growth rate
- by having a full innovation pipeline of disruptive, miniaturized sensors

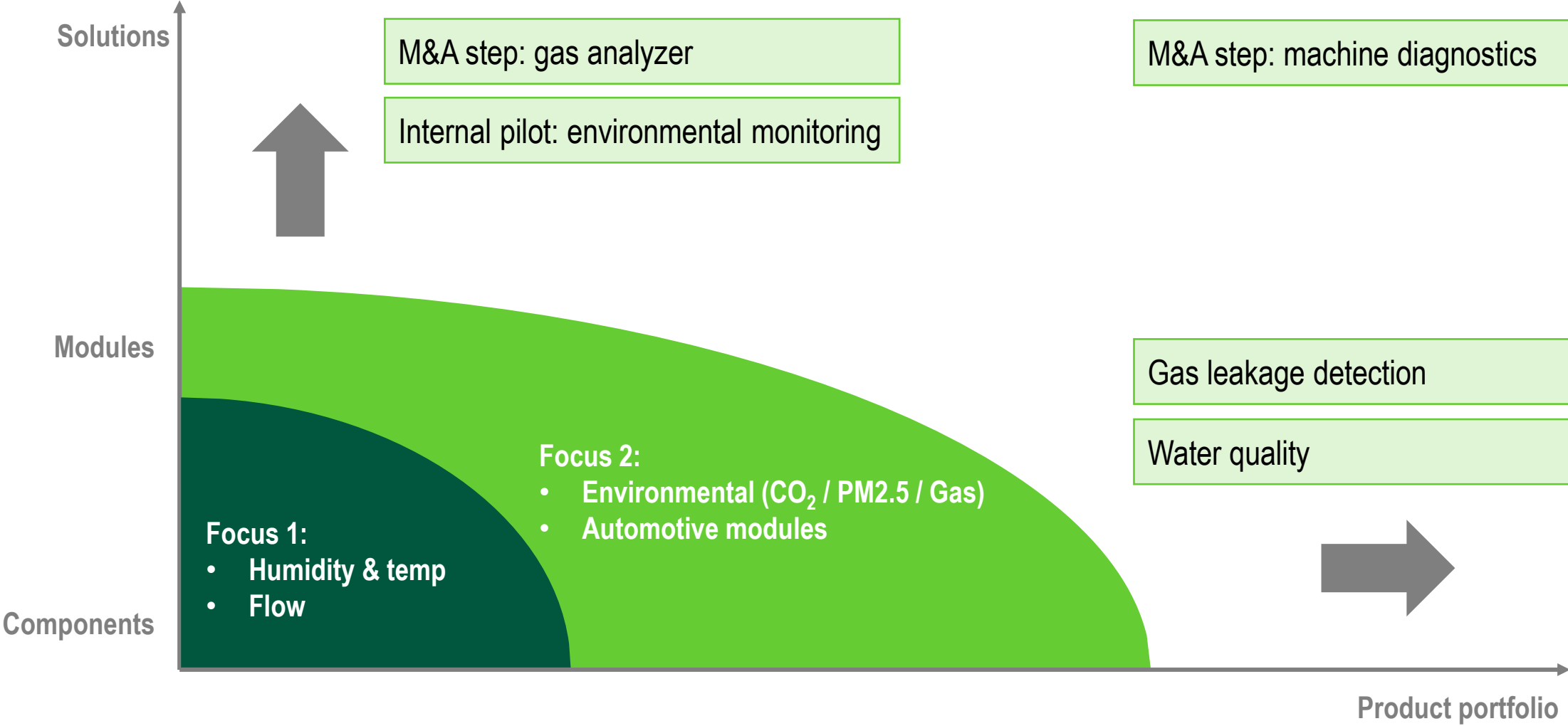
### Outlook: We are well positioned

to become market leader in the entire environmental market

- by our second generation of disruptive, miniaturized environmental sensors hitting the market in 2021-2023
- by combo modules of various environmental sensors enabling lower integration costs and strong customer relationship
- by enabling additional gas parameters to be measured quickly and reliably based on our broad technology portfolio

# Focus 3: laying the foundation for long-term growth in two directions

The green boxes indicate examples of developments to support growth





# Summary “Strategic Focus 3”

## Develop technologies for long-term growth

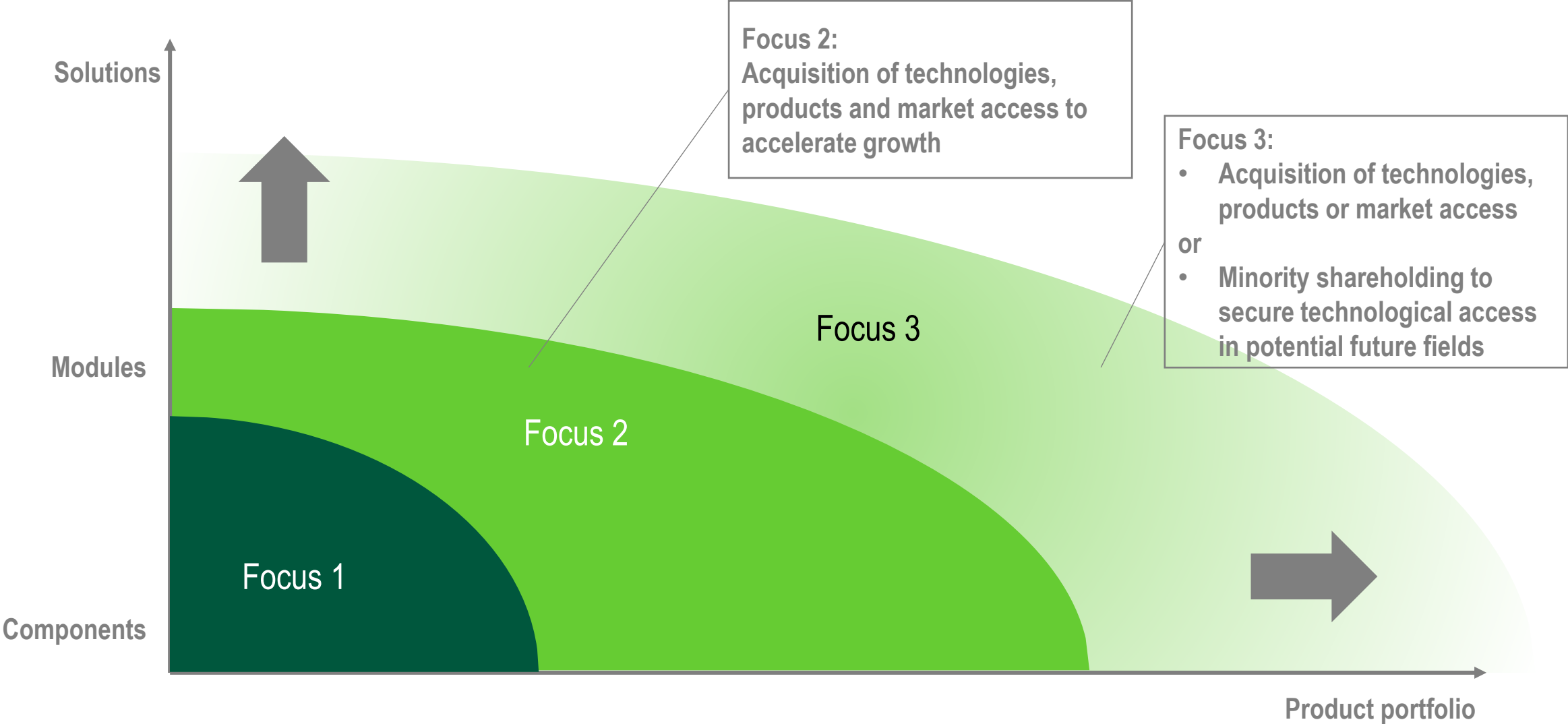
### What we have achieved

- We have a deeply anchored mindset of innovation: since Sensirion’s founding, it has been our DNA to continuously seek new challenges, take meaningful risks in order to push technological limits and, thereby, to drive disruptive innovation.
- We have a full pipeline of technology projects in different stages of maturity.
- We follow two main directions to secure long-term growth:
  - by expanding our product portfolio beyond flow and environmental sensing, leveraging our core expertise in the entire value chain
  - by expanding to high-end solutions in given fields
- We have established an efficient and disciplined M&A process to support the strategic growth fields.

### Outlook: We are well positioned

- to drive innovation and technology developments to address future megatrends.
- to secure long-term sustainable company growth.

# M&A in-line with Sensirion's three focuses of innovation and growth



# Strategic achievements 2021

## Strategic focuses

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**Focus 3:**  
Develop technologies for long-term growth

**Focus 2:**  
Become market leader for the entire environmental market

**Focus 1:**  
Drive market and cost leadership in our core markets of RHT and flow

**Fundamentals:**  
“SensiSpirit”: unique culture of innovation and entrepreneurship

## Strategic achievements

---

- Acquired micro gas analyzer company Qmicro B.V.
  - Completed full acquisition of IRsweep, provider of optical sensing solutions in the IR.
  - Acquired AiSight Inc., start-up company in the field of machine monitoring
- 
- New environmental sensor business generated >25% of total revenue.
  - Successful ramp-ups of the miniaturized CO<sub>2</sub> sensor, the formaldehyde sensor and an environmental combo sensor.
- 
- Maintaining reasonable delivery times despite the challenging allocation situation in the global semiconductor industry.
  - Launched the fourth generation of humidity sensors .
  - Delivered one billionth sensor.
- 
- The "SensiSpirit" and the close cohesion among the employees were decisive prerequisites for achieving the good results during the pandemic.
  - Recognized as second-best employer in category “large companies” in Switzerland and received special award for handling of pandemic by Great Place to Work.

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Certain statements in this document are forward-looking statements, including, but not limited to, those using words such as "believe", "assume", "expect" and other similar expressions. Such forward-looking statements are based on assumptions and expectations and, by their nature, involve known and unknown risks, uncertainties and other factors that could cause actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statements. Such factors include, but are not limited to, future global economic conditions, changed market conditions, competition from other companies, effects and risks of new technologies, costs of compliance with applicable laws, regulations and standards, diverse political, legal, economic and other conditions affecting markets in which Sensirion operates, and other factors beyond the control of Sensirion. In view of these uncertainties, you should not place undue reliance on forward-looking statements. Sensirion disclaims any intention or obligation to update any forward-looking statements, or to adapt them to future events or developments.

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# SENSIRION

[www.sensirion.com](http://www.sensirion.com)