

# Sensirion Capital Markets Day

25 March 2021

A blurred background image showing a meeting table with several hands and pens, suggesting a collaborative business environment. The focus is on the hands and pens, with the rest of the scene out of focus.

**SENSIRION**

Please note that this event  
will be recorded.

# Today's presenters

Moritz Lechner

Felix Mayer

Marc von Waldkirch

Matthias Gantner

Andrea Orzati

Johannes Schumm

Andrea Wüest



**Co-Chairman of the Board**

- Co-Founder of Sensirion and Co-CEO until 2016
- PhD at ETH Zurich in Microelectronics and Detector Technology

**22 years**

**Co-Chairman of the Board**

- Co-Founder of Sensirion and Co-CEO until 2016
- PhD at ETH Zurich in Microtechnology

**22 years**

**Chief Executive Officer**

- CEO since 2016
- VP R&D 2011-2016
- PhD at ETH Zurich in Electrical Engineering

**15 years**

**Chief Financial Officer**

- CFO since 2012
- Dipl.-Betriebswirt, Pforzheim

**9 years**

**Vice President Sales & Marketing**

- VP S&M since 2013
- PhD at ETH Zurich in Electronics and MBA from EPFL and HEC Lausanne

**12 years**

**Vice President R&D**

- VP R&D since 2016
- PhD at ETH Zurich in Electrical Engineering

**10 years**

**Director IR and M&A**

- Director IR & M&A since 2018
- PhD at ETH Zurich in Physical Chemistry and MBA from Booth School of Business

**10 years**

**Years at SENSIRION**

Management team unchanged since IPO, combined >100 years at Sensirion (incl. VP Operations and VP Human Resources)

# Today's agenda

Indicative Time (CET)	Topic	Speaker
13:30 – 13:35	Welcome remarks	Andrea Wüest
13:35 – 13:55	Keynote of the Founders	Moritz Lechner / Felix Mayer
13:55 – 14:20	Sensirion at a glance	Matthias Gantner
14:20 – 14:40	Strategic achievements since the IPO	Marc von Waldkirch
14:40 – 14:50	Q&A	All
14:50 – 15:10	Break	
15:10 – 16:40	Strategy update	
	Strategic focus 1: drive technology and cost leadership in our core markets	Andrea Orzati
	Strategic focus 2: become market leader for the entire environmental market	Johannes Schumm
	Strategic focus 3: develop technologies for future growth	Marc von Waldkirch
16:40 – 17:00	Mid-term guidance	Marc von Waldkirch
17:00 – 17:30	Q&A	All

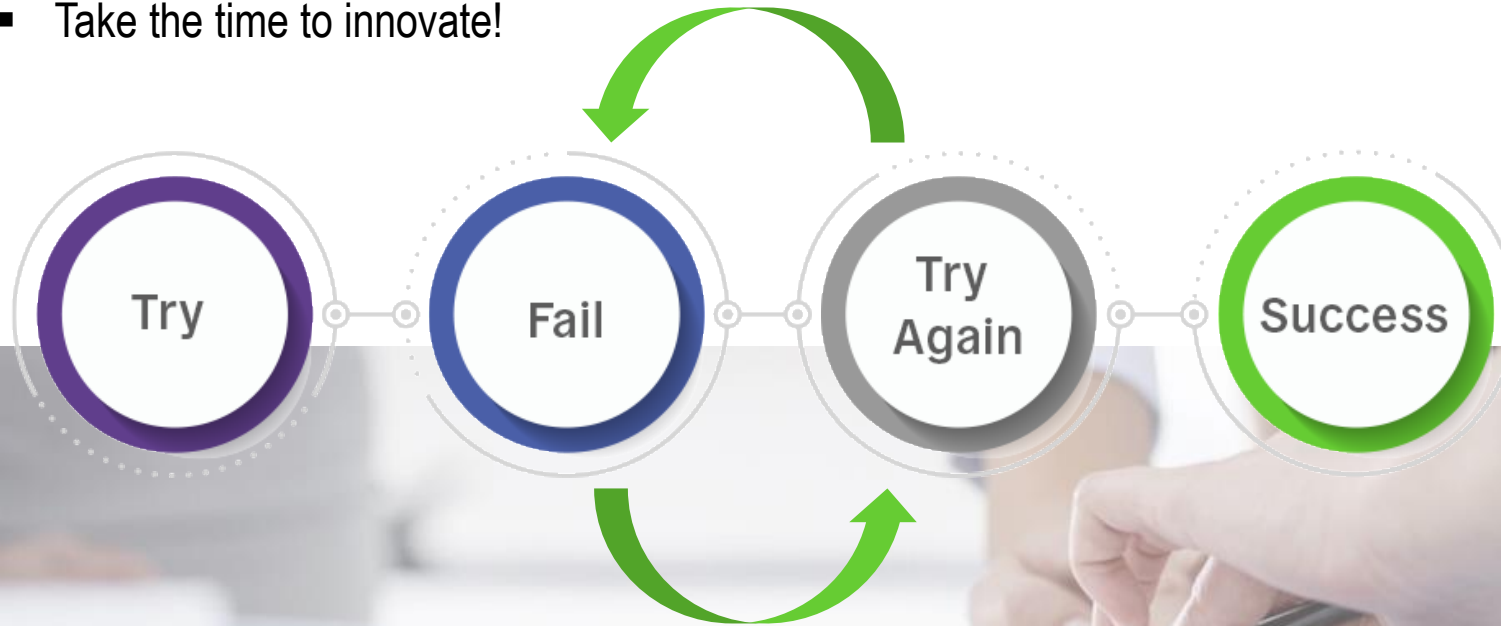
# Keynote of the Founders

# Intro, roles in the company, Sensirion today



# What is our DNA?

- Be curious, be hungry. Dare to take new steps.
- Continuously challenge and re-invent Sensirion.
- Take the risk to innovate!
- Take the time to innovate!



# An example of innovation

## Old technology



## Sensirion innovation

- All on one chip
- No offset



2003

Flop

- Smaller
- Lower cost
- More performance



2008

Success Medical  
Flop Buildings

- Smaller
- Lower cost
- New applications



2018

Success Medical  
Success Buildings



# An example of innovation

## Old technology



## Sensirion innovation

- All on one chip
- Smaller
- Smaller
- Lower cost
- New applications

**Innovation takes time**

**Innovation needs long-term thinking**

**Innovation can fail**



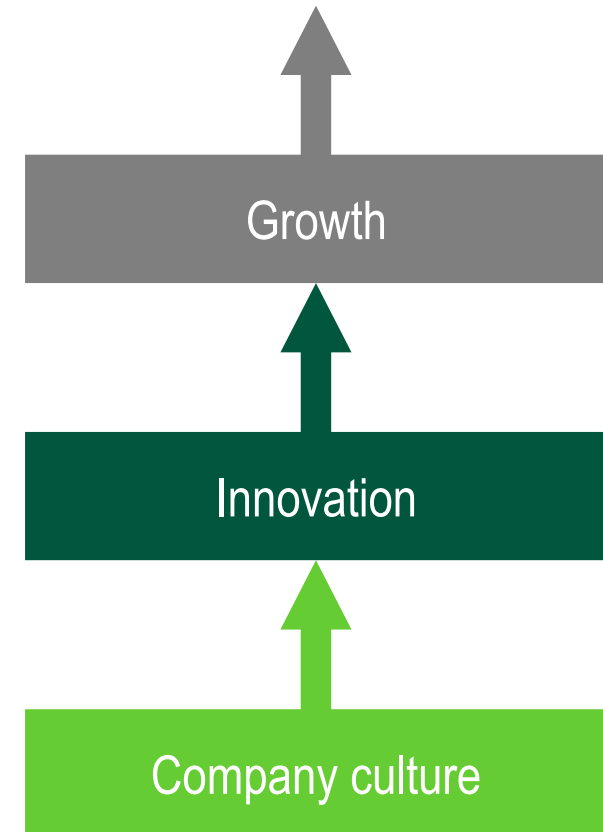
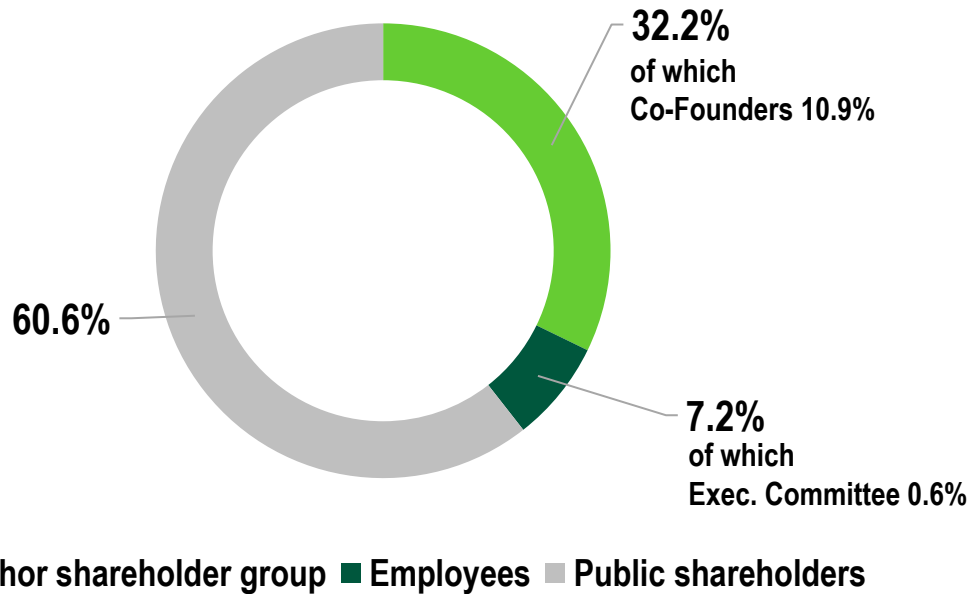
**Flop**

**Success Medical  
Flop Buildings**

**Success Medical  
Success Buildings**

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

## Shareholdings as % of outstanding shares



**Anchor shareholder group builds basis for long-term orientation, is unchanged since IPO, indicating long-term commitment.**

# Sensirion at a glance

# 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 254m revenue (2020), CAGR of 15% (2010-2020)

## Product lines

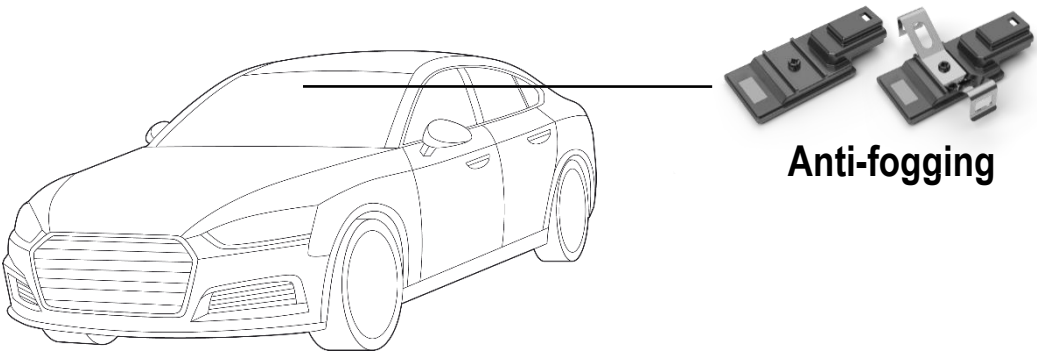


Environmental sensing solutions



Flow sensing solutions

# Solving complex problems everywhere



Anti-fogging

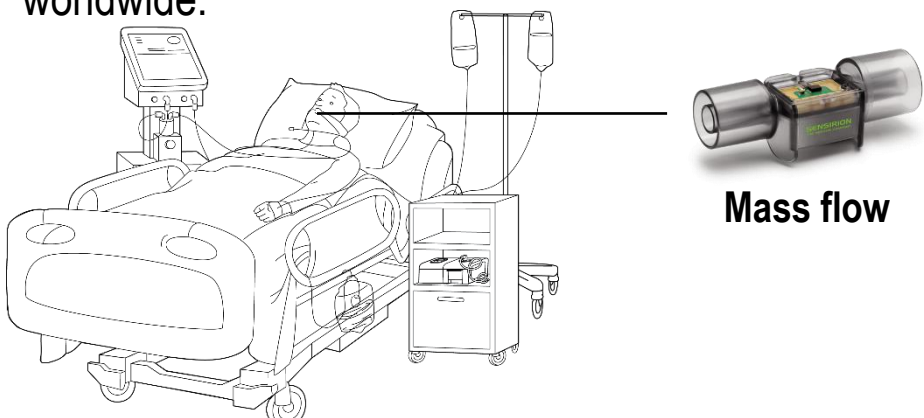
Providing antifogging, engine and climate control to approximately **one in three cars** manufactured worldwide.



Natural gas

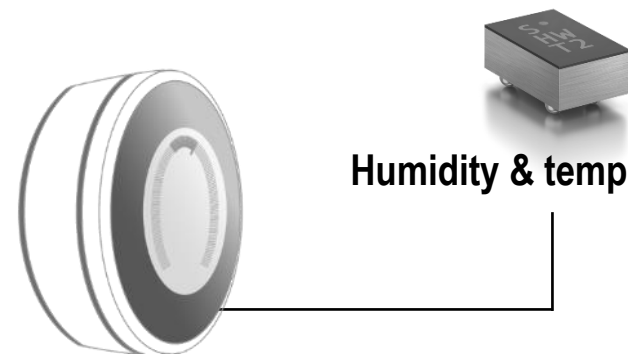


Reliable real-time monitoring of gas consumption for **more than 5 million** households.



Mass flow





















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



Humidity & temperature

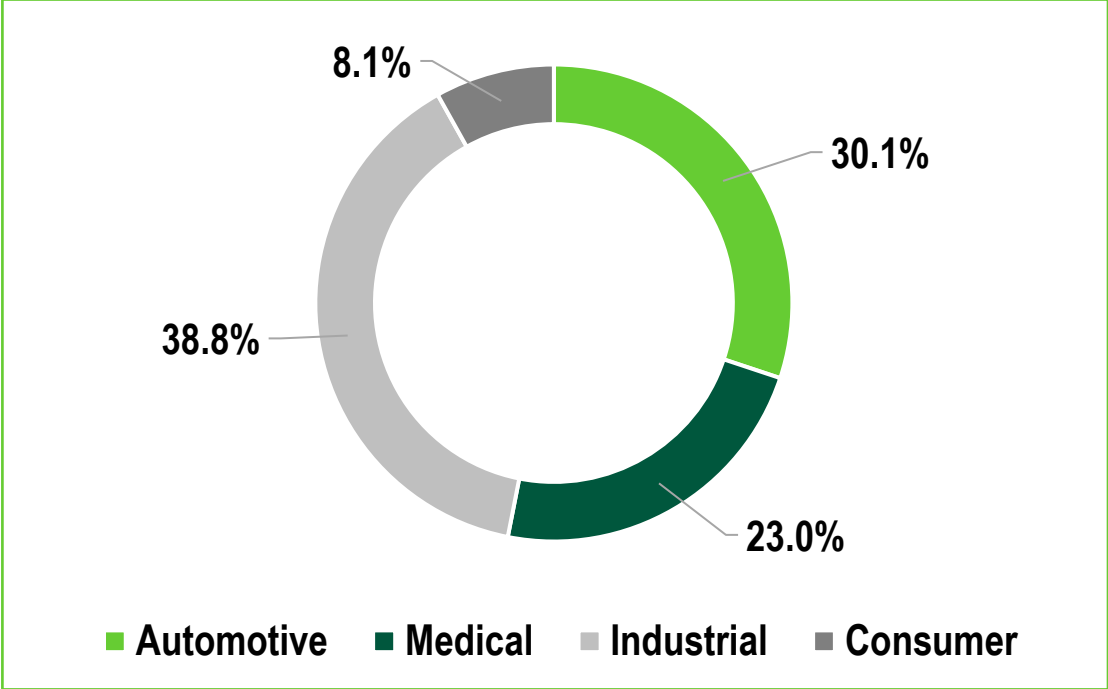
High precision monitoring of temperature and air quality for **millions** of households.

# Wide range of solutions across diverse end markets

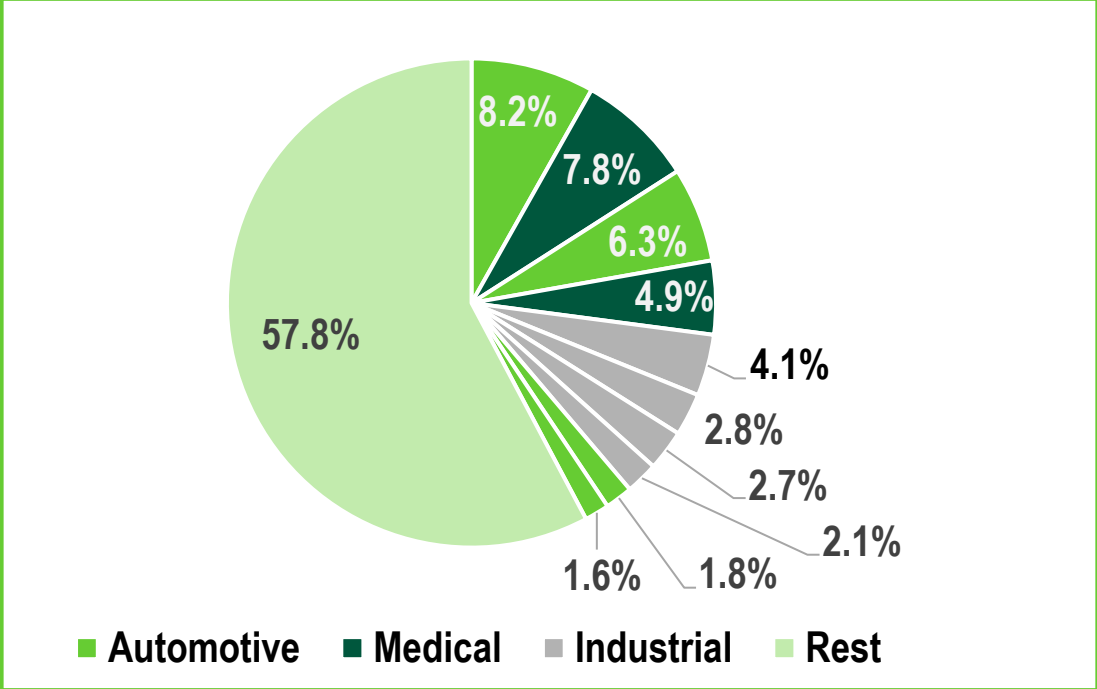
End market		Automotive	Medical	Industrial	Consumer
 <p><b>Environmental sensing solutions</b></p>	Humidity/temperature (RHT) 				
	Gas (VOC, formaldehyde) 				
	Carbon dioxide (CO <sub>2</sub> ) 				
	Particulate matter (PM2.5) 				
	Gas analyzers 				
	Automotive modules 				
 <p><b>Flow sensing solutions</b></p>	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 (FY2020)<sup>1</sup>



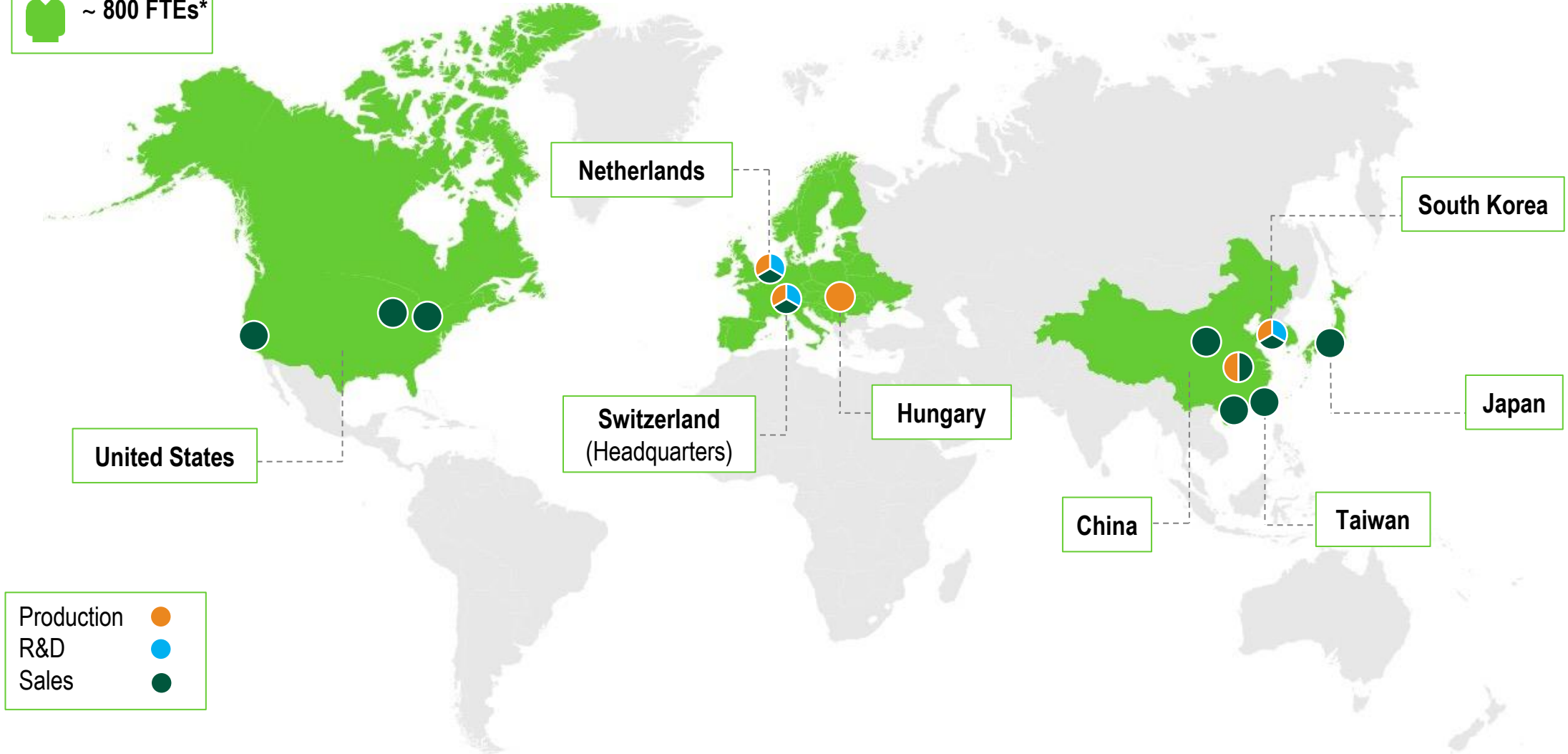
Top 10 customers contribute to 42.2% of revenue (FY2020)<sup>1</sup>



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

# Global footprint ensures customer proximity

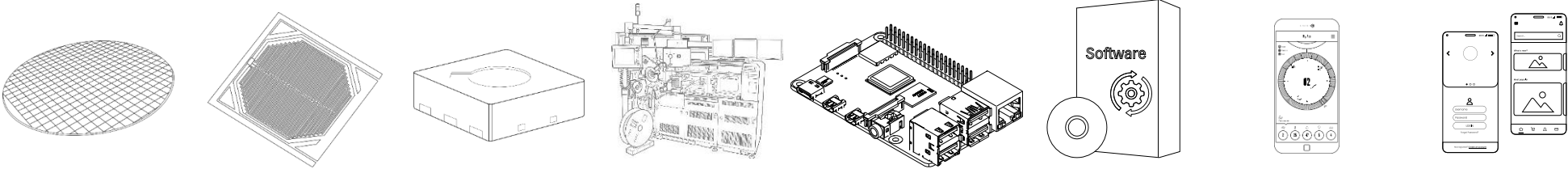
 ~ 800 FTEs\*



\* As of 1 March 2021



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

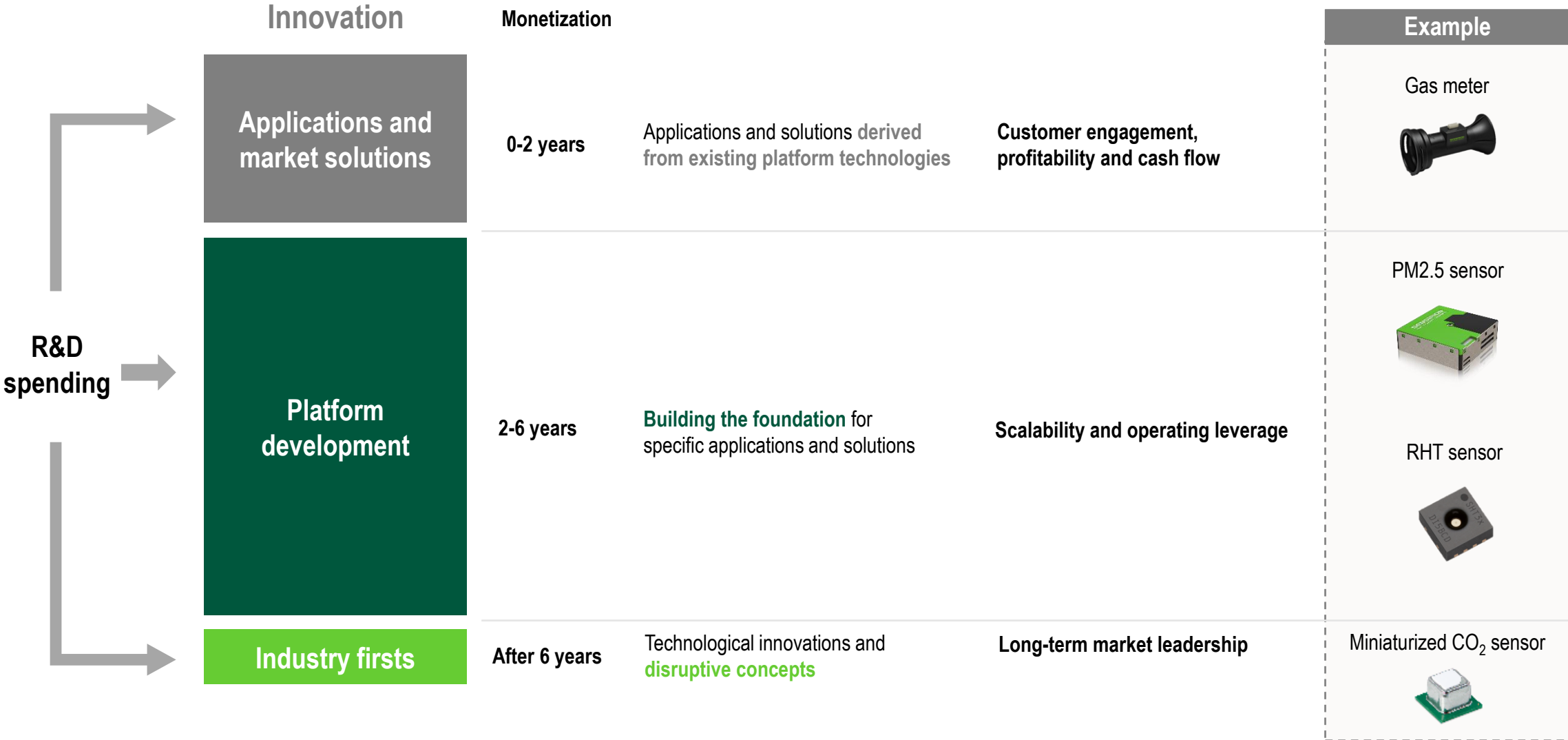


**SENSIRION**  
THE SENSOR COMPANY

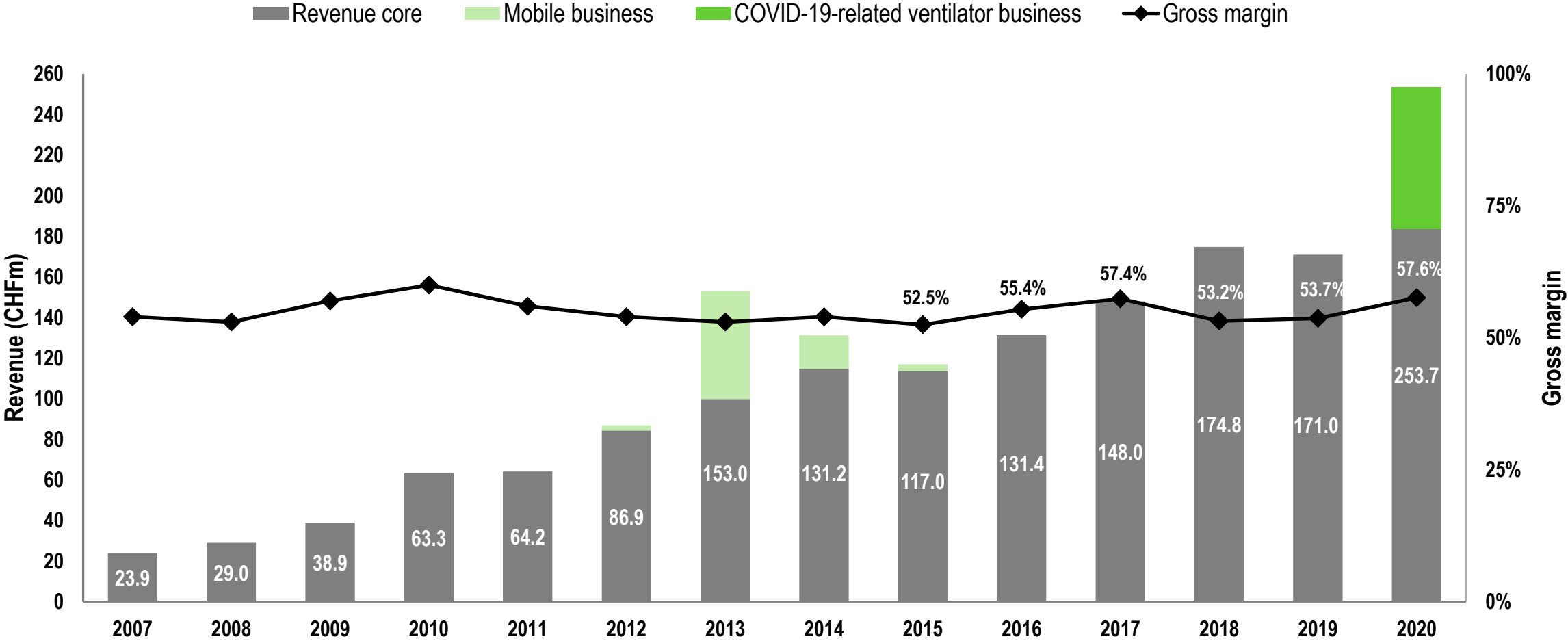


Wafer manufacturing is outsourced

# Sensirion drives innovation along multiple layers



# Strong growth with CAGR of 15% over 10 years based on innovation



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

# Revenue growth and cash generation since IPO

## Significant R&D to support future growth

	Average 2018 - 2020
Annual revenue growth	8.9% <sup>1</sup> (20.9%) <sup>1</sup>
Gross margin	54.8%
Adj. EBITDA margin	18.3%
R&D (as % of revenue)	21.0%
D&A (as % of revenue)	8.4%
Capex (as % of revenue)	7.8%

## Strong balance sheet

- ✓ Strong cash generation increased net cash position  
CHF 32.8m (30 Jun 2018) → CHF 78.2m (31 Dec 2020)
- ✓ Equity / total assets 72.5% (31 Dec 2020)

<sup>1</sup> Without (with) COVID-19-related ventilator business, excl. FX effects

# We are committed to our environmental and social responsibility

## Environmental commitment and responsibility



Our innovative sensor products significantly contribute to **more energy-efficient processes** and applications in many areas.



We focus our efforts on an **environmentally friendly production** that avoids waste, increases material efficiency, and uses natural resources thoughtfully and as sustainably as possible.

## Social commitment and responsibility



We aim to offer our employees an **inspiring and safe working environment** and optimal conditions for personal and professional development. Pillars of this commitment are equal opportunity, diversity, non-discrimination; health and safety; training and education, work-life balance, and our unique corporate culture.



We want to take on social responsibility by **giving back to the community** through corporate volunteering.

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

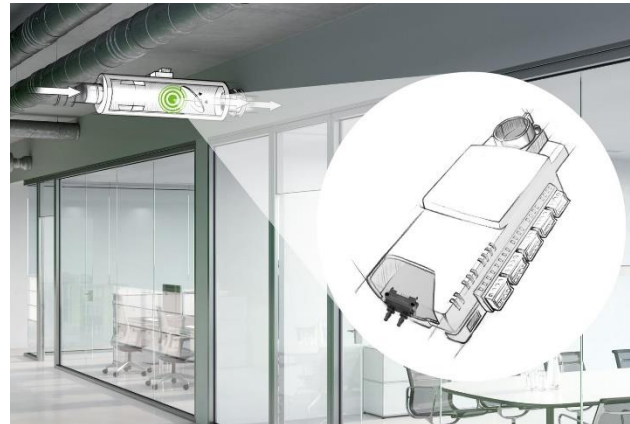
## Environmental contribution

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**

# We are committed to our social responsibility

## Social responsibility: corporate volunteering



In 2020, we supported Swiss schools with **free CO<sub>2</sub> monitoring sensors**. Our internally developed CO<sub>2</sub> monitoring sensors were installed in **2,500 classrooms** in the canton of Zurich.

The CO<sub>2</sub> monitoring sensors help **reduce the viral transmission risk** of COVID-19 by supporting regular, effective ventilation.



In summer 2020, we organized a **collective event** under the motto “moving matters”. Our employees worldwide covered as many kilometers as possible in one day: on foot, by bicycle or inline skates.

For every kilometer completed, a sum of money was **donated to support COVID-19 charity organizations**.



# Strategic achievements since the IPO 2018

# Main strategic achievements since the IPO



Broadened product offering towards a full range of environmental sensors



Established automotive tier 1 business by successfully integrating and leveraging the acquired AIC business

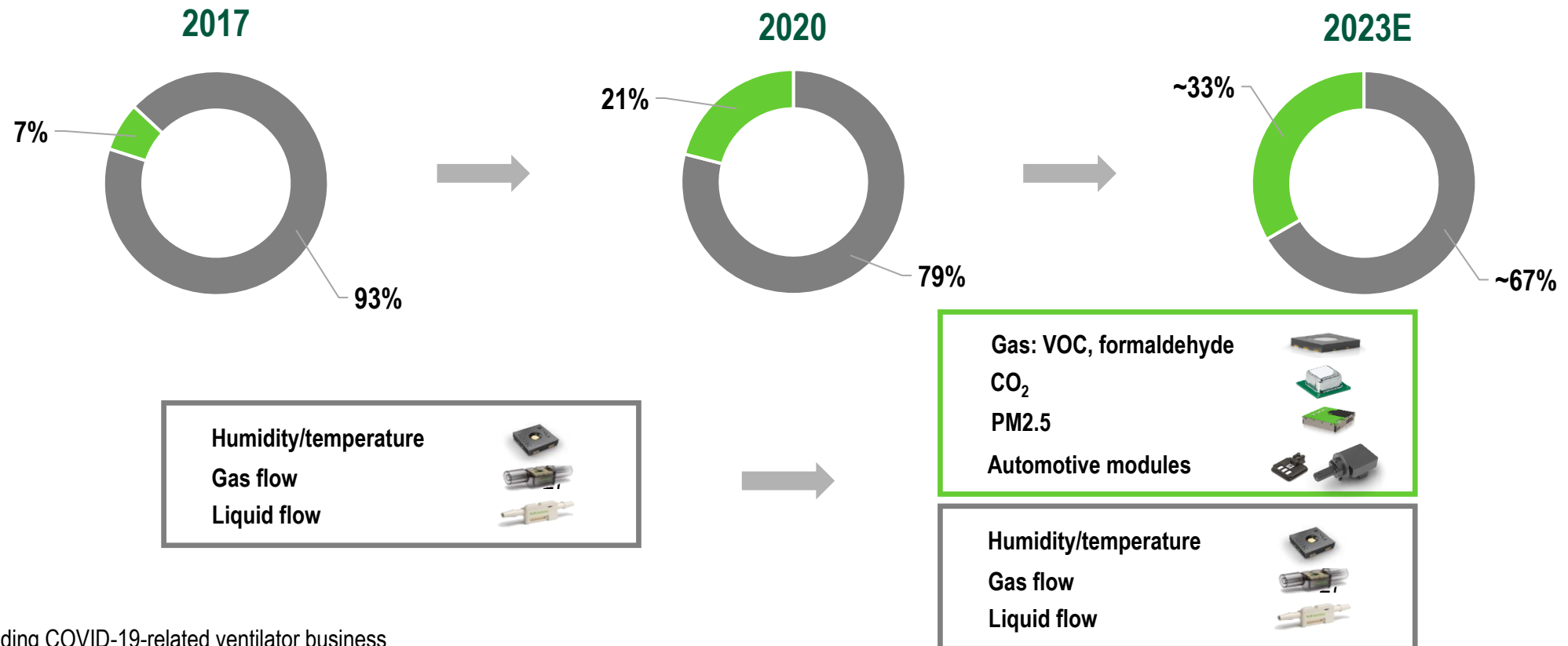


Expanded global operational footprint

# Broadened product offering towards a full range of environmental sensors

Since 2018, Sensirion successfully established several new product lines in the market, strongly contributing to growth.

Contribution to group output (in % of revenue) <sup>1</sup>



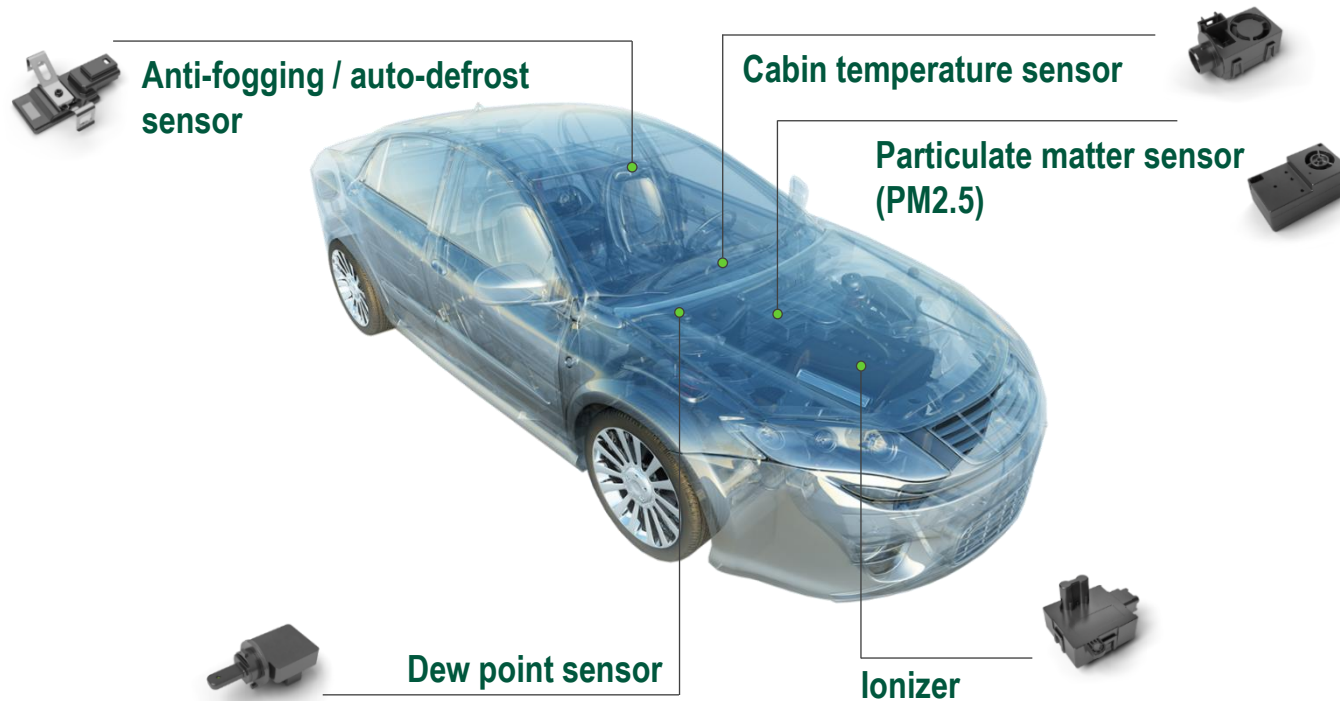
<sup>1</sup> Excluding COVID-19-related ventilator business

# Established automotive tier 1 business

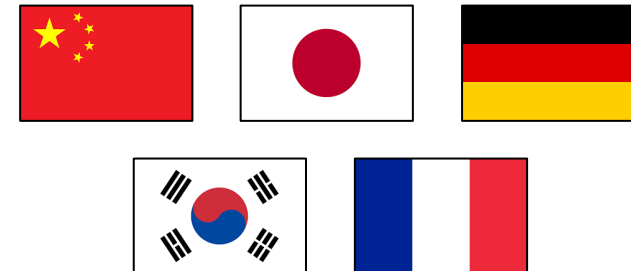


The integration of AIC, which was acquired in 2017, has been successfully accomplished. The former AIC sites in Asia now operate as "Sensirion Automotive Solutions" as a successful and growing tier 1 supplier.

## Broad product portfolio



## Nominated supplier for world-leading automotive OEMs

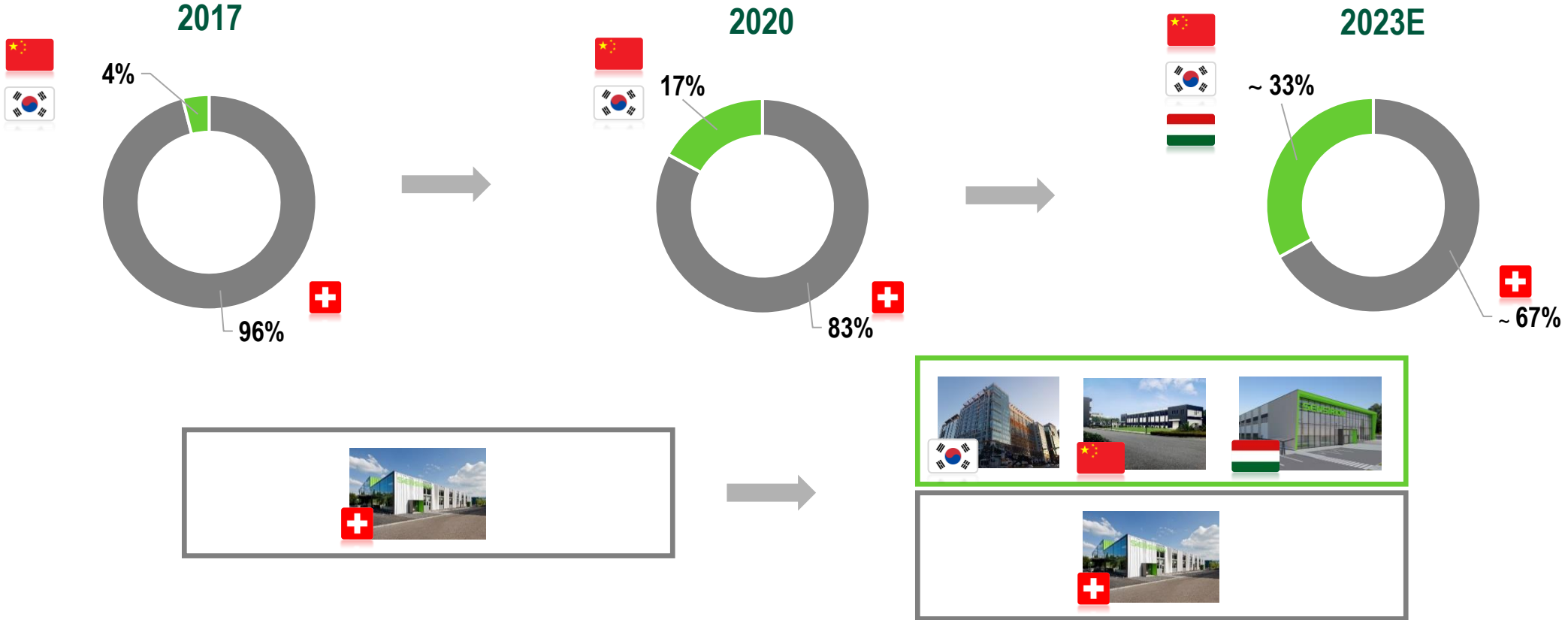




# Expanded global operational footprint

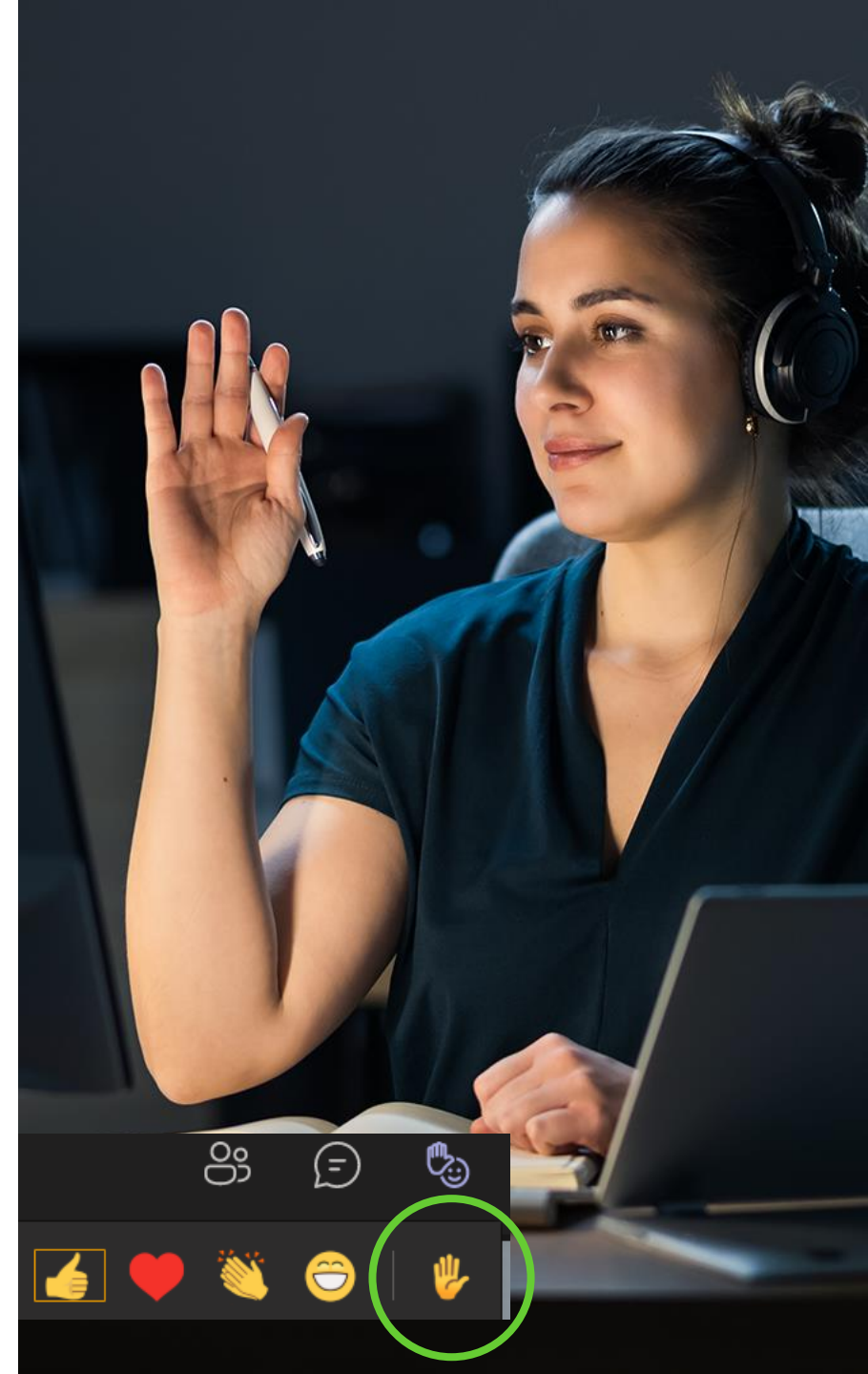
Sensirion's operational footprint is expanding strongly to Asia and Eastern Europe

Contribution to group output in % of revenue (excl. COVID-19-related ventilator business)



# Q&A

- To register a question, please use the “raise hand” function.
- Wait for the moderator to ask you to speak.
- Please unmute yourself and turn on your camera (video).
- Please state your name and affiliation before asking your question(s).
- Afterwards, mute yourself, turn off your camera, and lower your hand.
- Thank you very much.

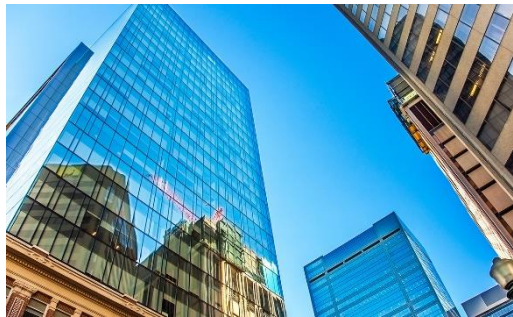


# Strategy update

# Increasing penetration of sensors driven by secular megatrends

## Energy efficiency

- Scarcity of resources
- Governmental and societal initiatives



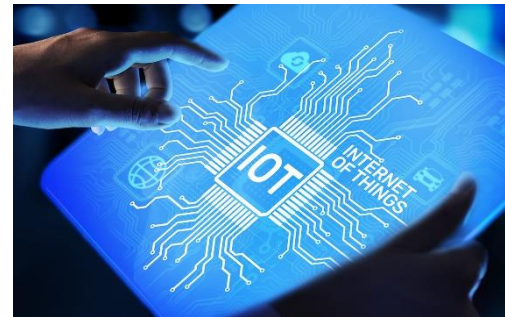
## Quality of life

- 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

# 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

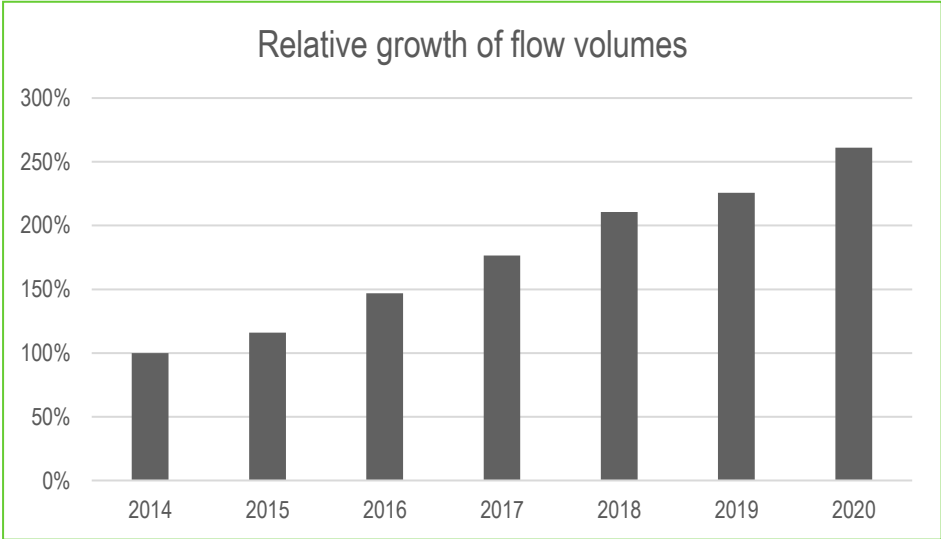
“SensiSpirit”: unique culture of innovation and entrepreneurship

# 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**



# Flow sensor market development

All values are Sensirion estimates



## High market share in certain applications



- The flow sensor market is very fragmented.
- Sensirion has a **high market share in certain flow applications**, e.g. CPAP devices and engine control.



Sensirion supplies to all **major CPAP** (sleep apnea) manufacturers, covering more than 90% of the market.

## Increased market share in other applications



- Sensirion **has increased its market share in additional applications**.
- Sensirion targets to further gain market share based on product innovations and customer relationships.



Applications for which Sensirion has increased market share include:

- **Demand-controlled ventilation (HVAC)**
- **Medical ventilators**
- **Gas metering**
- **Photoresist dosing**

# Flow sensor market development



## Development of new flow applications



- We are developing **additional flow applications** to address new market trends and emerging needs.



Examples include **miniaturized flow sensors for medical smart inhaler** applications as well as **biogas & H2 in “power to gas”** applications.

## Development of new applications: «more than flow»



- Based on its available flow technologies, Sensirion is developing **new applications with «more» functionality** than pure flow measurements to create additional growth.



- Examples include **gas concentration analysis and determination of calorific value.**

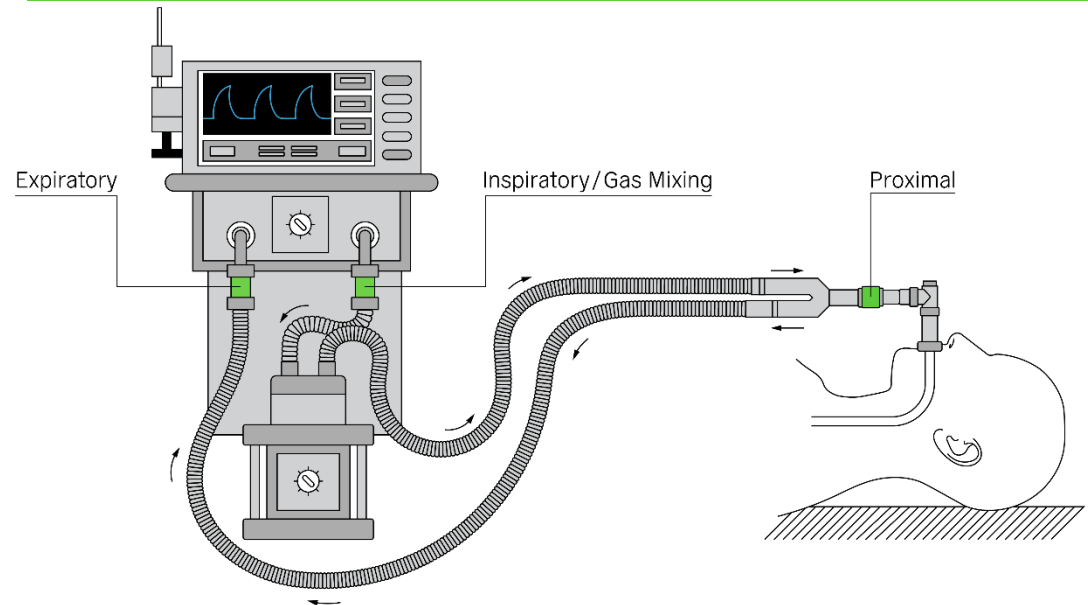
# Supporting and capturing the short-term opportunity

Beyond the strategic lines, we are ready and committed to capture short-term opportunities

## Example: COVID-19-related demand increase for ventilator sensors

- The demand for sensors for ventilators multiplied within weeks: from CHF 7.0m in 2019 to CHF 77.0m in 2020.
- A dedicated task force worked at full stretch to increase production capacity more than tenfold within six weeks, even during a worldwide lockdown.
- Thanks to the great dedication and enthusiasm of numerous employees and a long-term partnership with upstream suppliers, we managed to cope with this despite all the corona-related restrictions.

## Application of gas flow sensors in medical ventilators



The number of gas flow meters in ventilators varies from 1 up to 3.

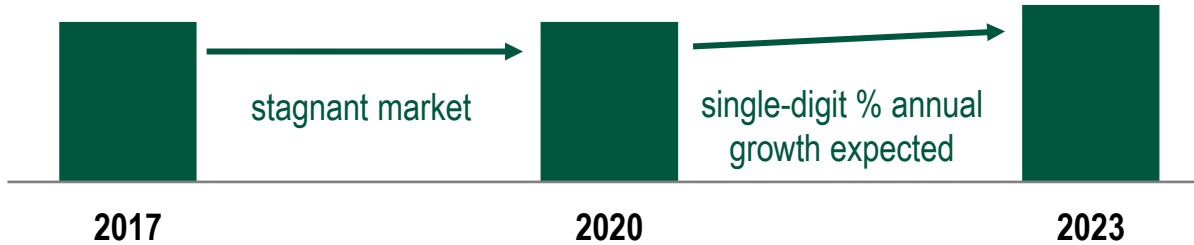
- Expiratory Air flow out of patient, measured in device
- Inspiratory Air flow into patient, measured in device
- Proximal Measured close to the patient

# RHT-sensor market development

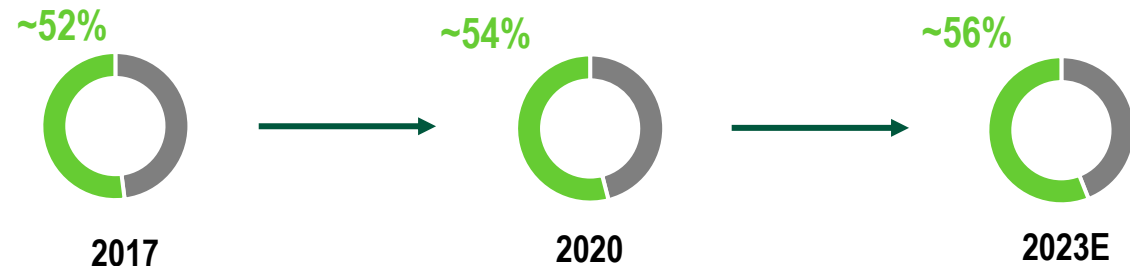
All values are Sensirion estimates



## Market growth



## Sensirion's market share



- The humidity sensor market **has been more or less stagnant for the time being due to the geopolitical crisis and the pandemic.**
- Growth in upcoming years likely but limited to single-digit percent per year.
- **Increase in Sensirion's market share** based on enabling new applications and winning customer projects from competitors.
- Sensirion also entered partnerships with former competitors.

## Profitability and applications

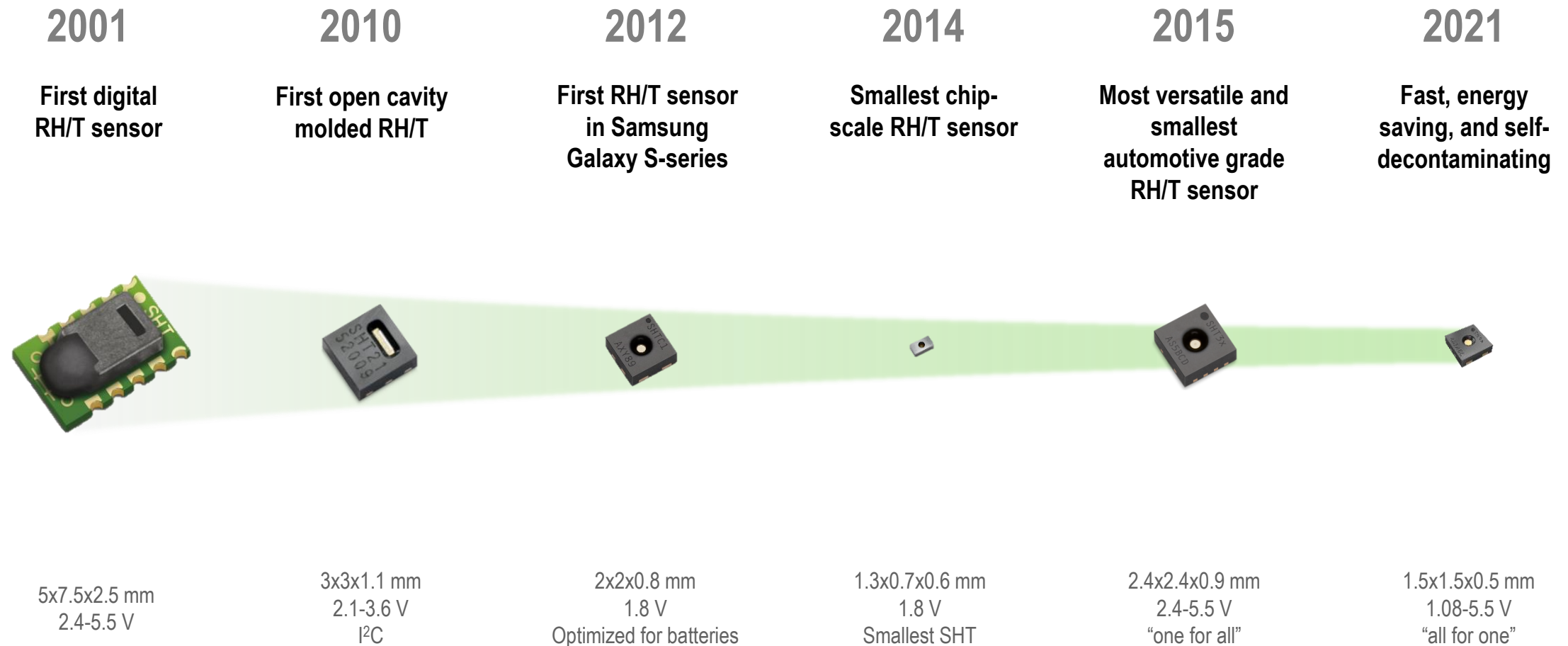


- **Gross margin stable** because of productivity gains and the introduction of new product generations.



- RHT-sensors have been employed in **premium applications**, e.g. certified temperature sensors for logging during transport of pharmaceuticals and vaccines.

# 20 years of pioneering digital humidity and temperature sensors





# 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

# 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

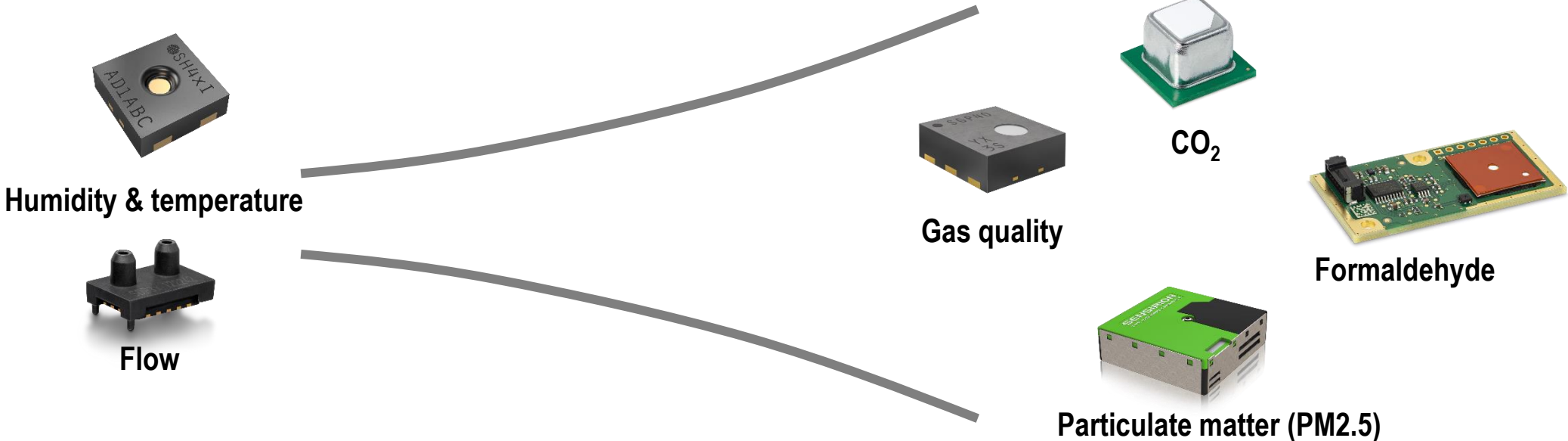
Drive market and cost leadership in our core markets of RHT and flow

Fundamentals

“SensiSpirit”: unique culture of innovation and entrepreneurship

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

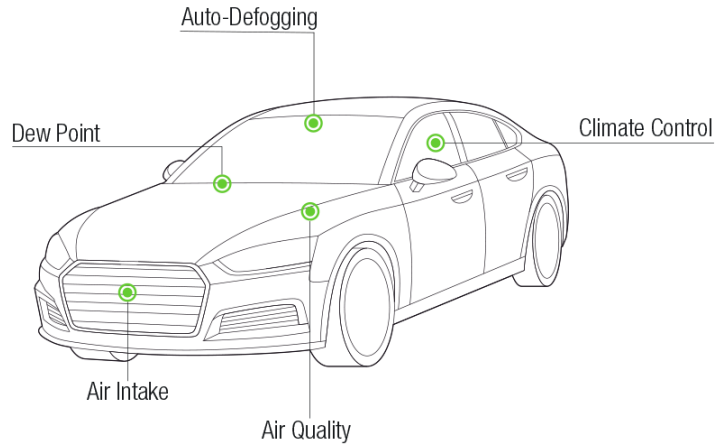
Our leading market position in humidity & temperature as well as in flow markets is a good entry point to expand to the entire environmental market



# Content increase driven by environmental sensing solutions

## Realized business opportunities from different end markets

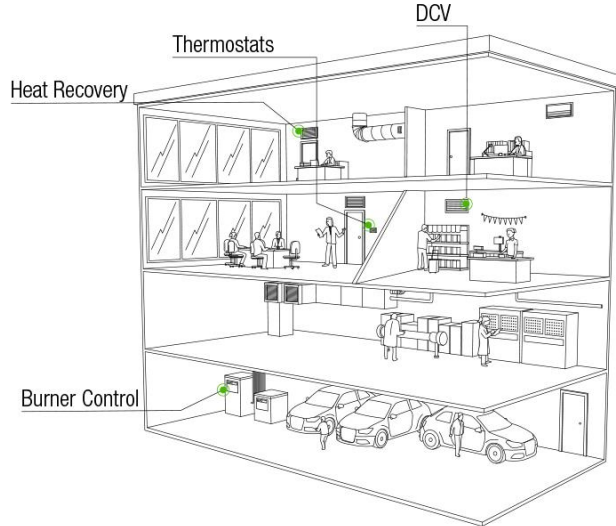
### Automotive



#### In-cabin climate control

RHT → RHT, PM2.5

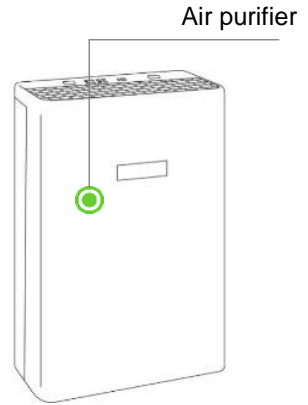
### HVAC



#### Demand-controlled ventilation (DCV)

DP → DP, RHT, CO<sub>2</sub>

### Home appliances






#### Air purifier

RHT, VOC → RHT, VOC, PM2.5




RHT: Relative Humidity and Temperature, DP: Differential Pressure, VOC: Volatile Organic Compounds, CO<sub>2</sub>: Carbon Dioxide, PM2.5: Particulate Matter

# Multi-dimensional growth opportunities in environmental sensing

## Expand market share

-  Expand range of applications
-  Expand customer base in existing applications
-  Increase penetration rate in existing business

## Drive innovation and expand portfolio



-  Further gas parameters
-  Combo sensors
-  Miniaturized 2<sup>nd</sup> generation

 <p>Start base</p>	 <p>In-cabin climate control</p>	 <p>Demand-controlled ventilation</p>	 <p>Air purifier</p>
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# Two-step approach to the strategic goal

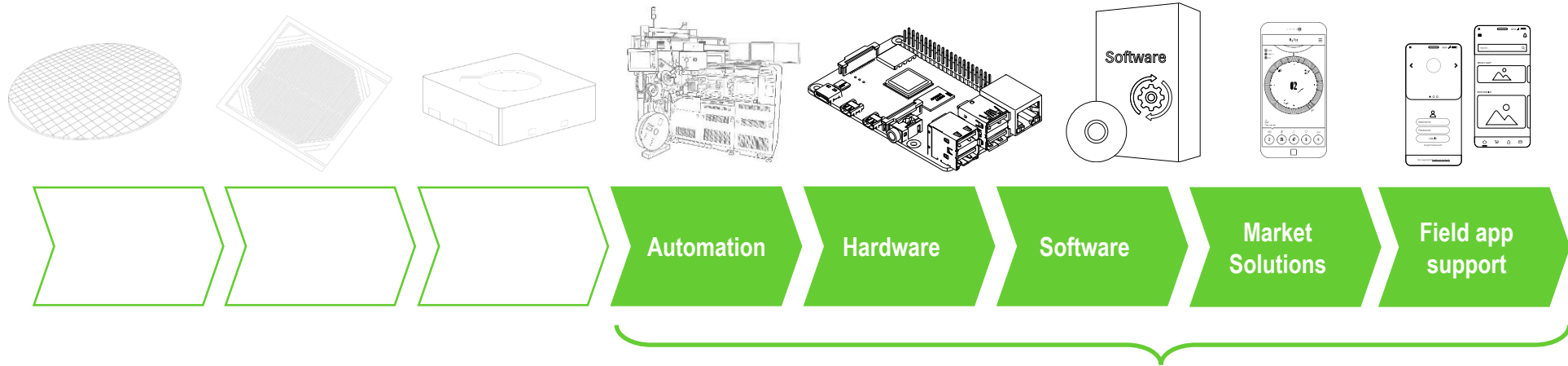


In the development of new products, there is a **trade-off** between time-to-market and innovation depth.  
→ Sensirion employs a **generation approach** to optimize both as much as possible.


	<b>1<sup>st</sup> product generation:</b> “Fast market entry with innovation light” 	<b>2<sup>nd</sup> product generation:</b> “Innovation drives miniaturization” 
<b>Priority</b>	Time-to-market	Innovation depth
<b>Goals</b>	Test the market and gain market share quickly.	Secure and expand market share.
<b>Approach</b>	Use existing technology platforms to accelerate development. Feed back learnings into the development of the second generation.	Use full technology value chain (including ASIC and MEMS) to generate as much innovation and competitive advantage as possible. Reduce size to decrease cost and increase margins.

# 1<sup>st</sup> product generation: “Fast market entry with innovation light”

✓ **First step accomplished: all new product lines now contribute to the topline**



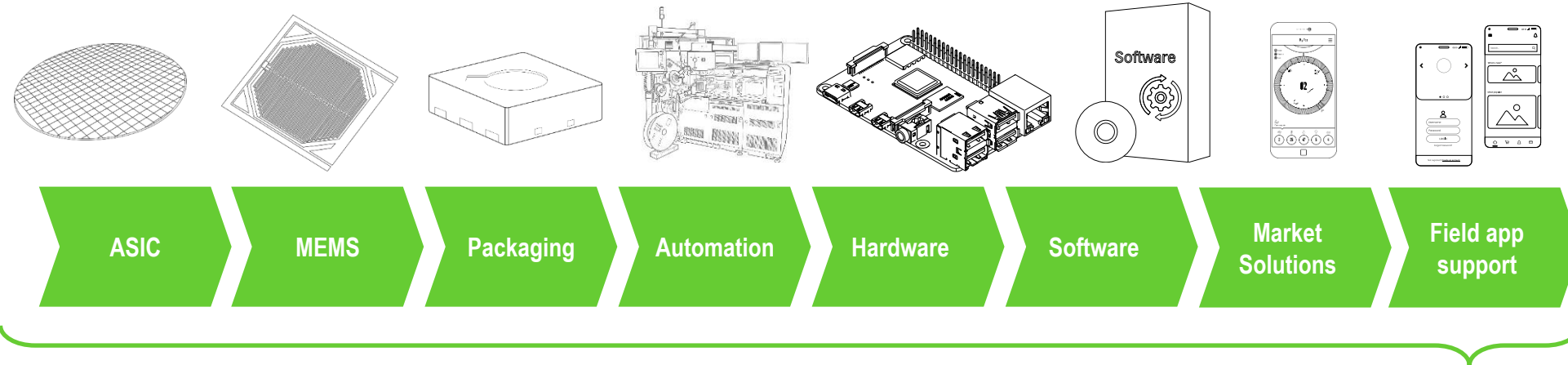
- Priority on time-to-market, market entry and first project wins (rather than miniaturization)
- Sensirion’s technology value chain partially leveraged to enable an “innovation light” approach

<b>Carbon dioxide</b>		<b>2018</b>
<b>Particulate matter</b>		<b>2018</b>
<b>Formaldehyde</b>		<b>2021</b>

# 2<sup>nd</sup> product generation: “Innovation drives miniaturization”



Second step on good track: new product developments for all three categories started



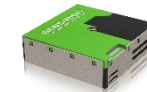
- Priority to secure and expand sustainable business
- Priority on miniaturization and disruptive innovation
- Leverage Sensirion’s whole value chain to generate disruptive improvement
- Typically component, integrated form factor (mm-cm)

**Carbon dioxide**



2021

**Particulate matter**



2023

**Formaldehyde**



2023

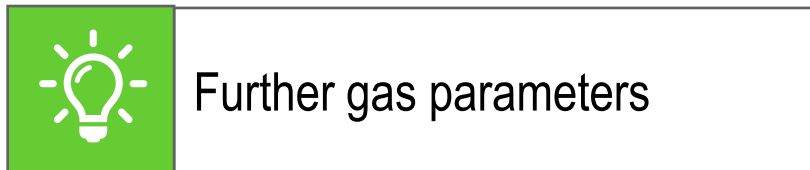
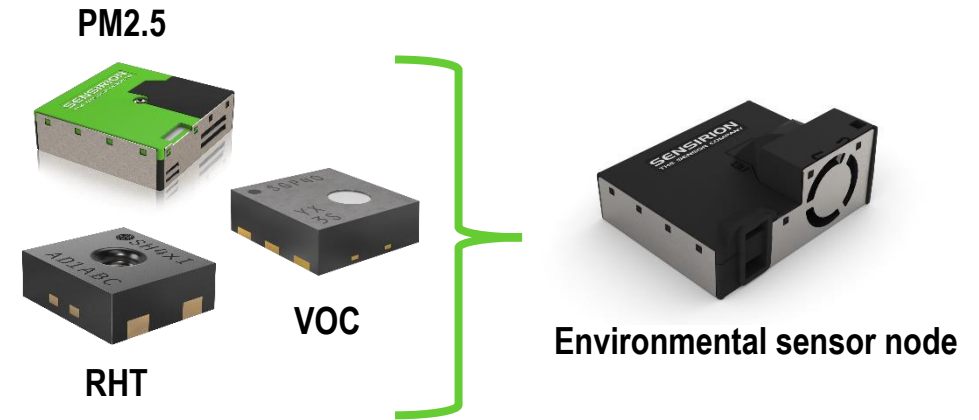


# Growth provides new strategic advantages

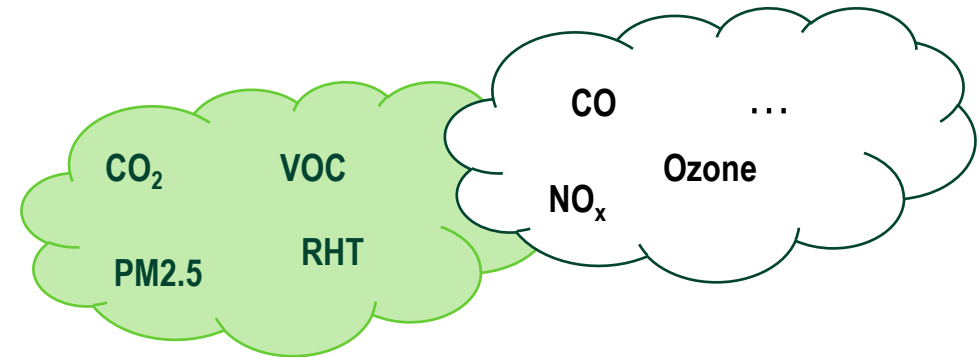


Combination of environmental sensors

- lowers integration costs
- drives strategic relationship with customers



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

# 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

# Increasing penetration of sensors driven by secular megatrends

## Energy efficiency

- Scarcity of resources
- Governmental and societal initiatives



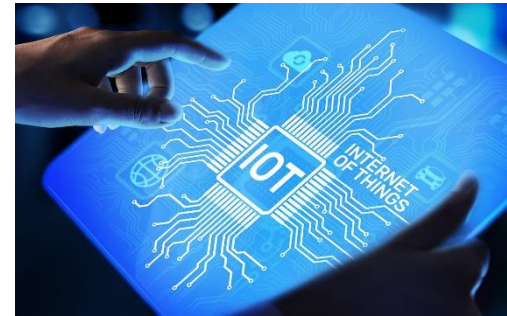
## Quality of life

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



## Digitalization and automation

- Industry 4.0
- Technological advancements
- Connectivity, IoT



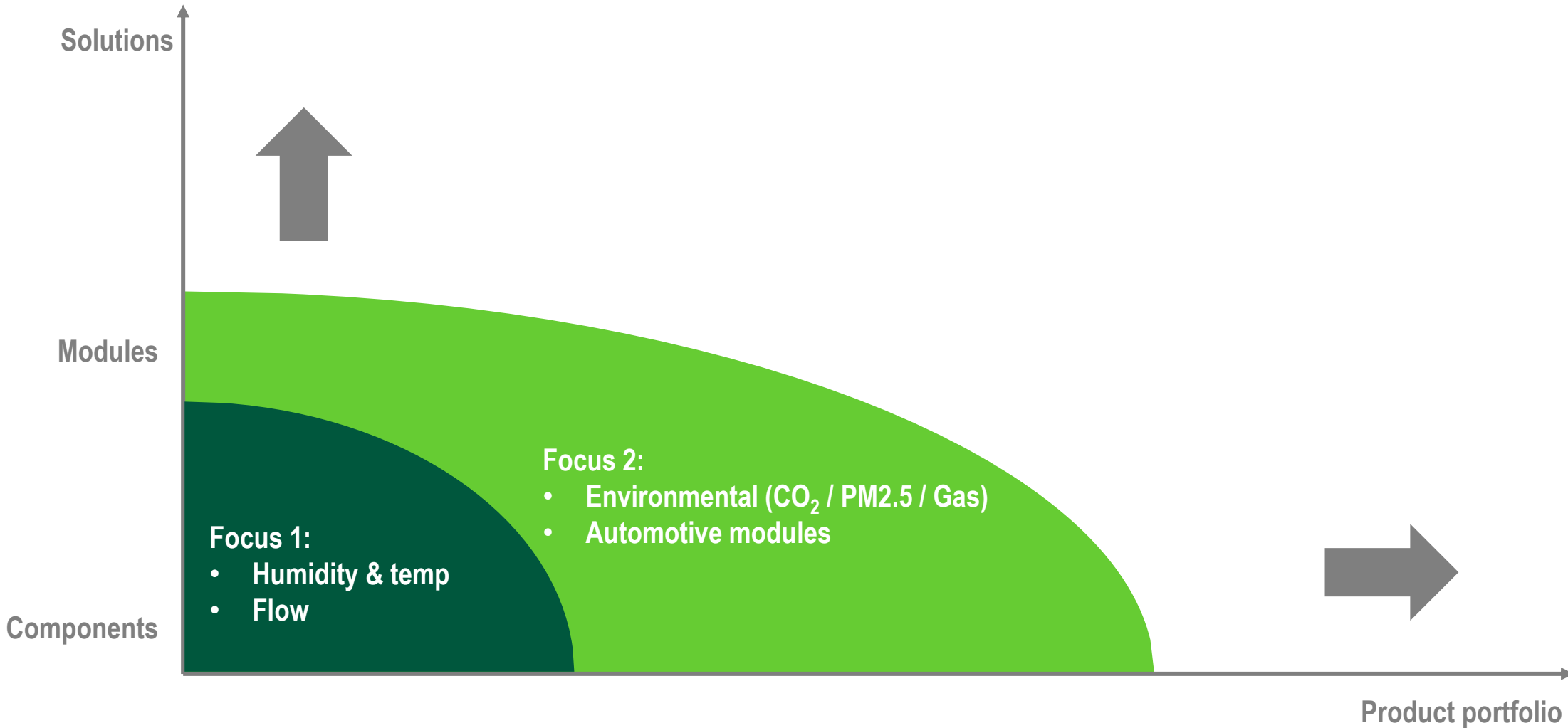
## Environmental protection

- Air quality
- Climate change
- Water quality

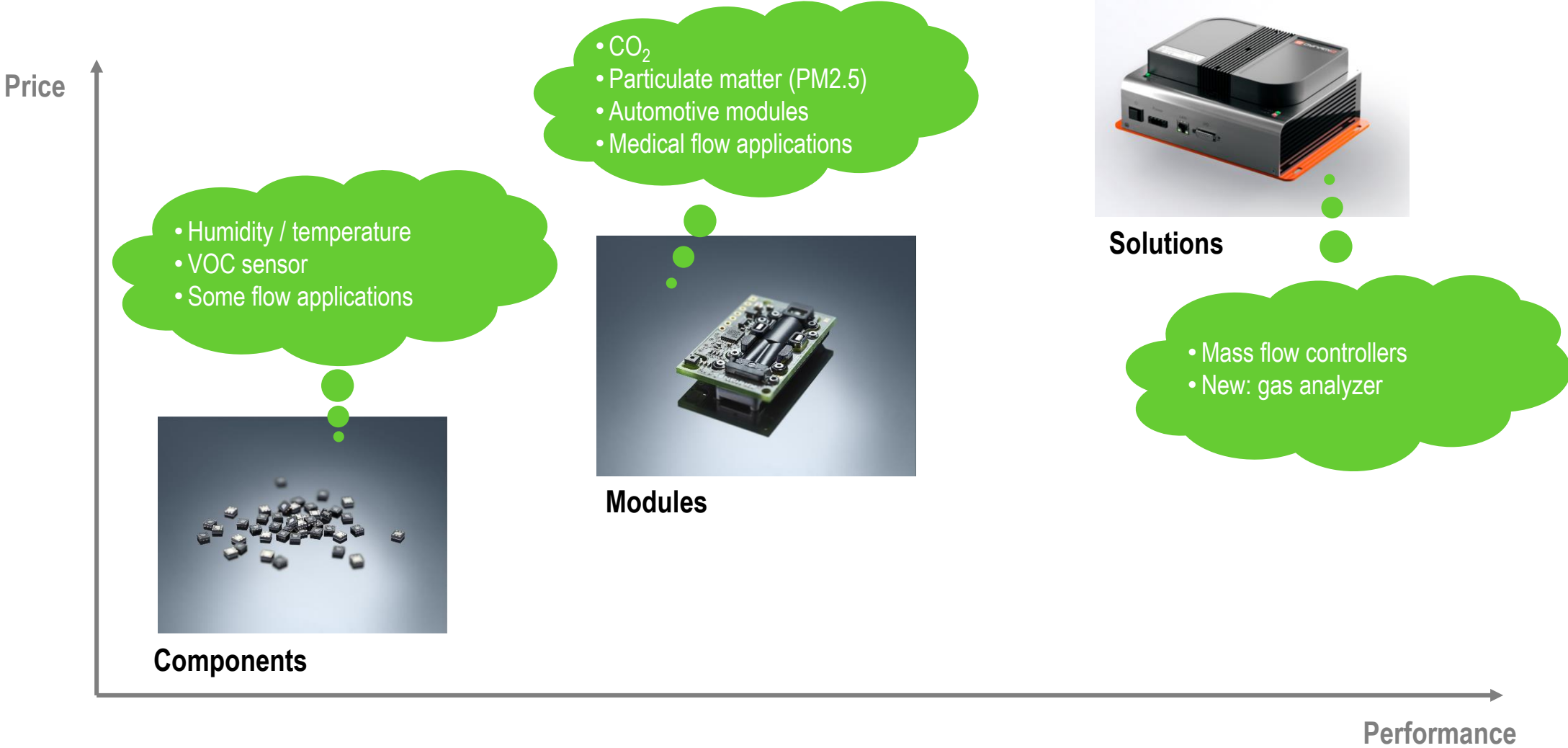


Sensirion's sensor solutions are critical for many applications across these megatrends

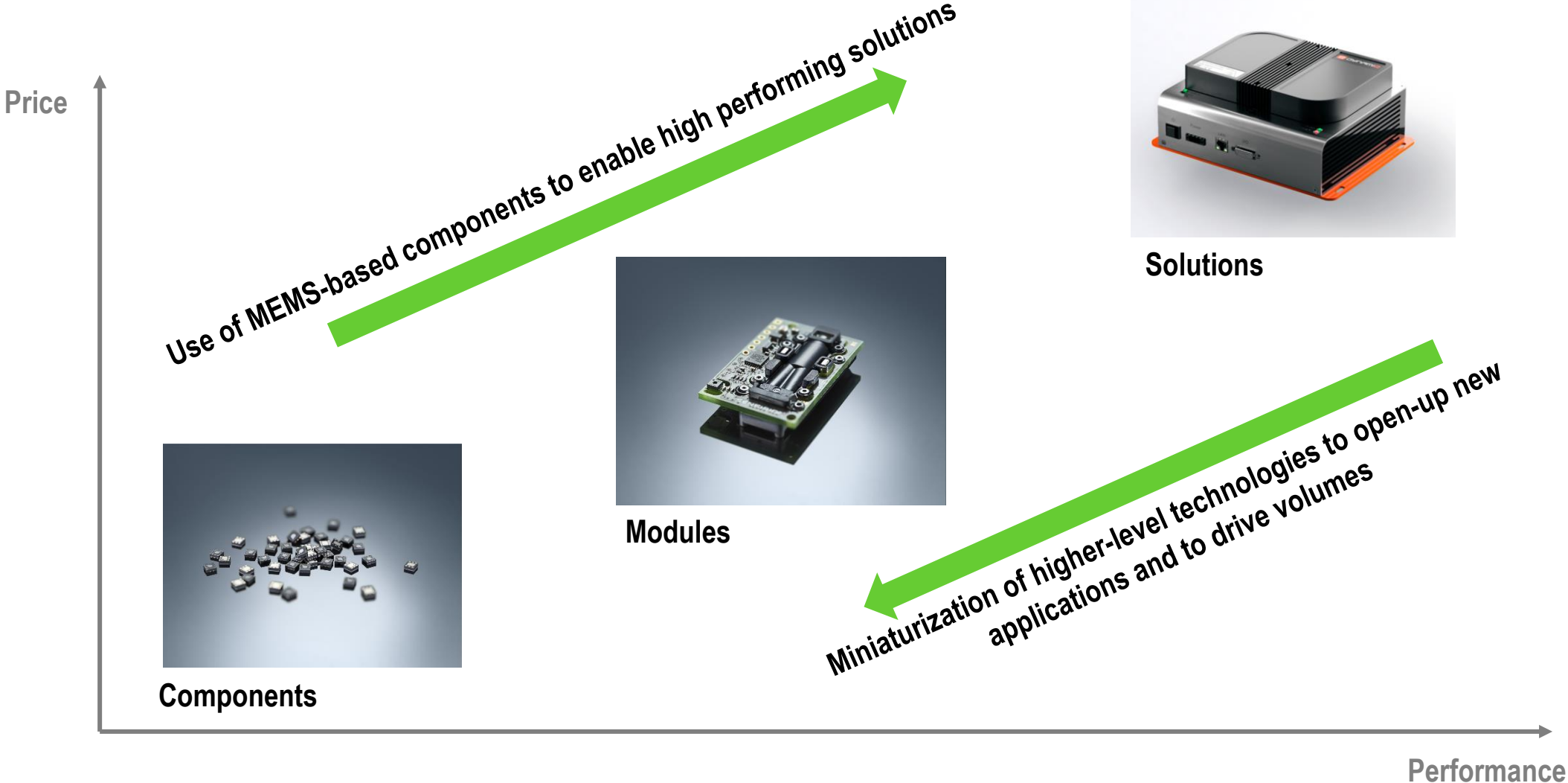
# Focus 3: laying the foundation for long-term growth in two directions



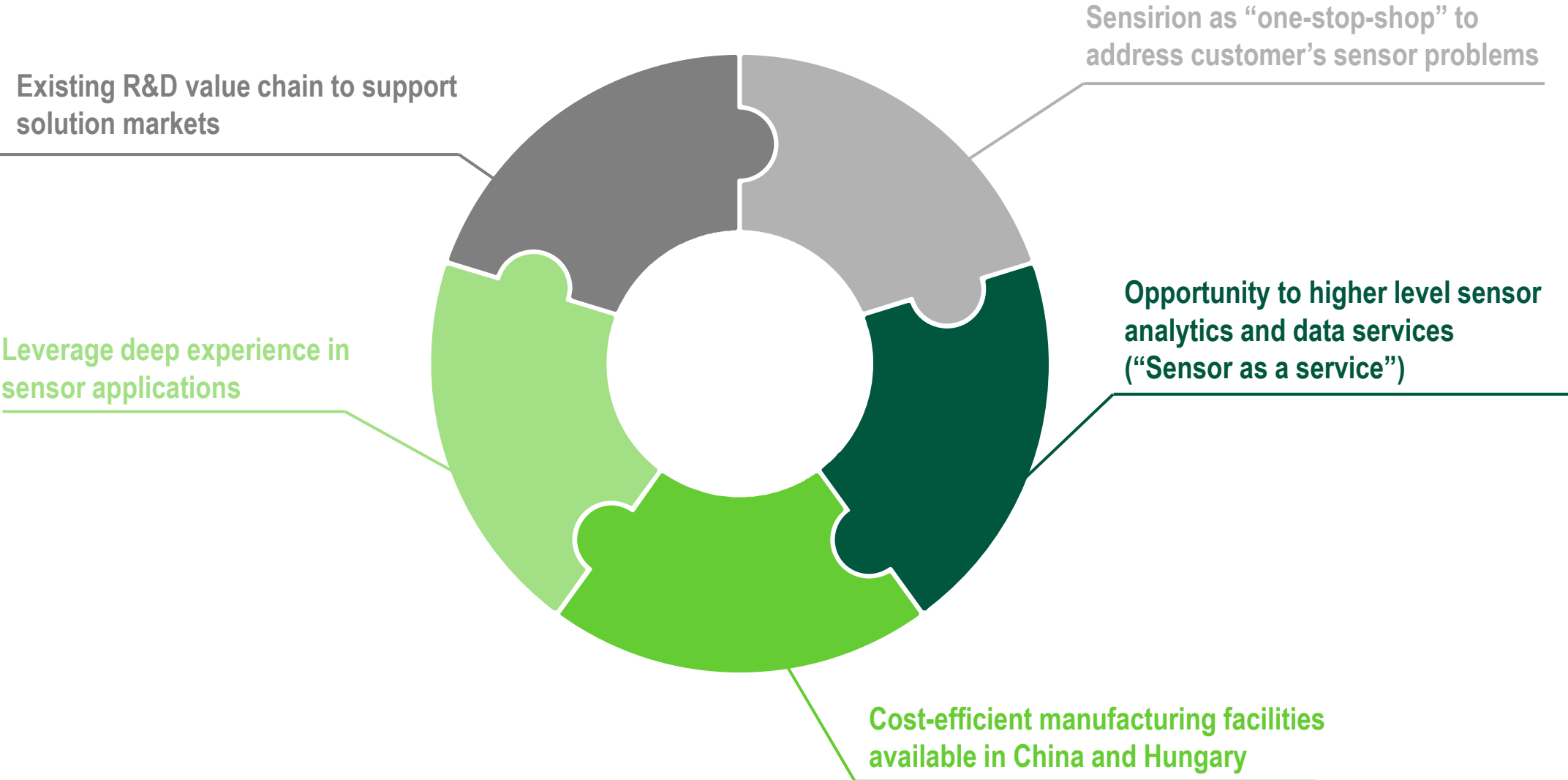
# Sensing on different levels of performance



# Sensing on different levels of performance

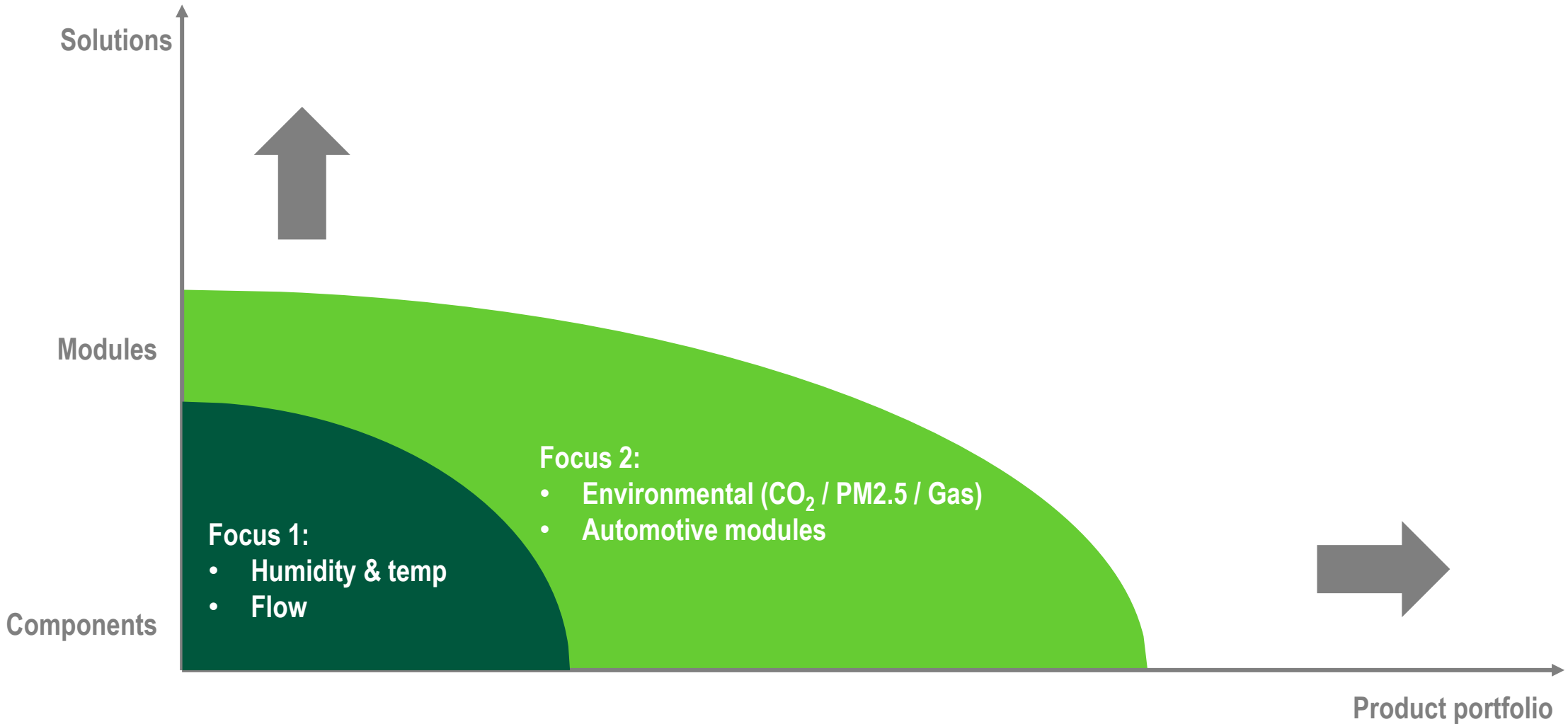


# Solutions: leverage strategic advantages of Sensirion



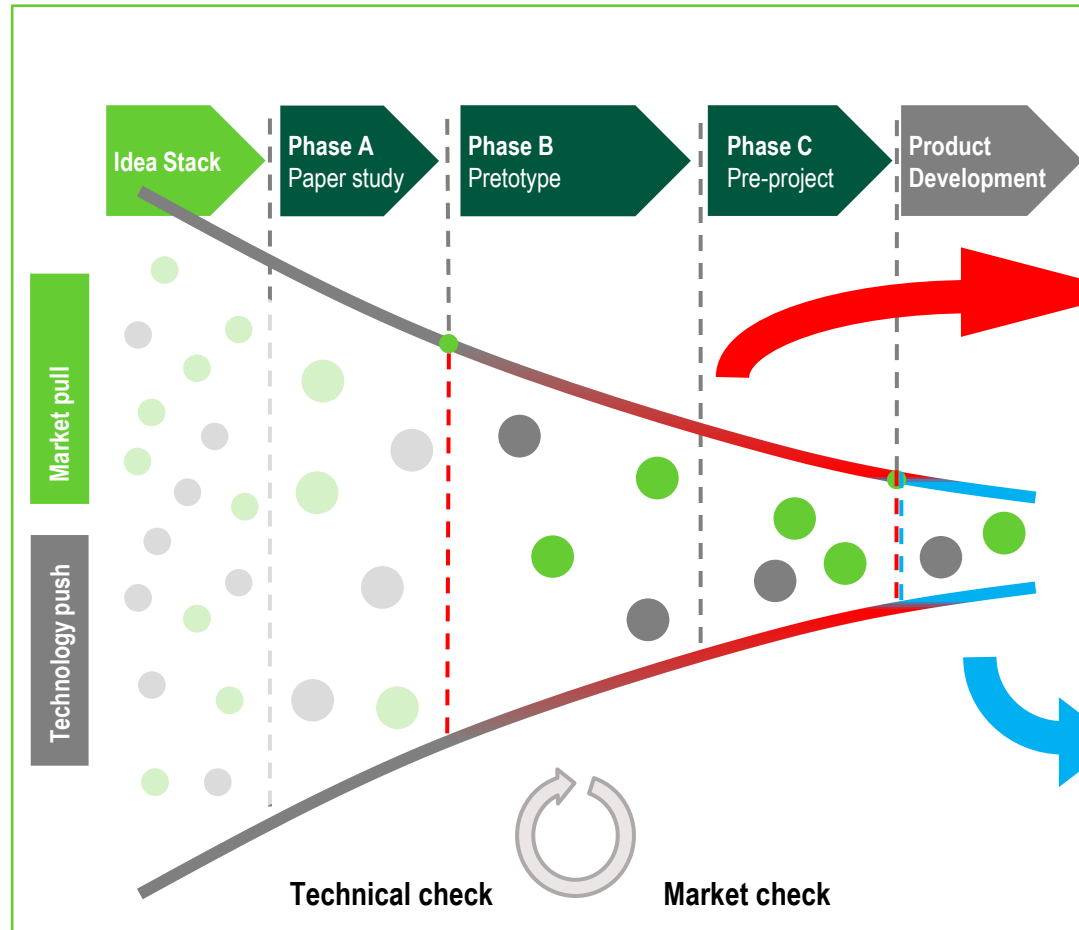


# Focus 3: laying the foundation for long-term growth in two directions



# Our innovation is embedded in a structured process

We have a full pipeline of new product ideas at different stages of maturity



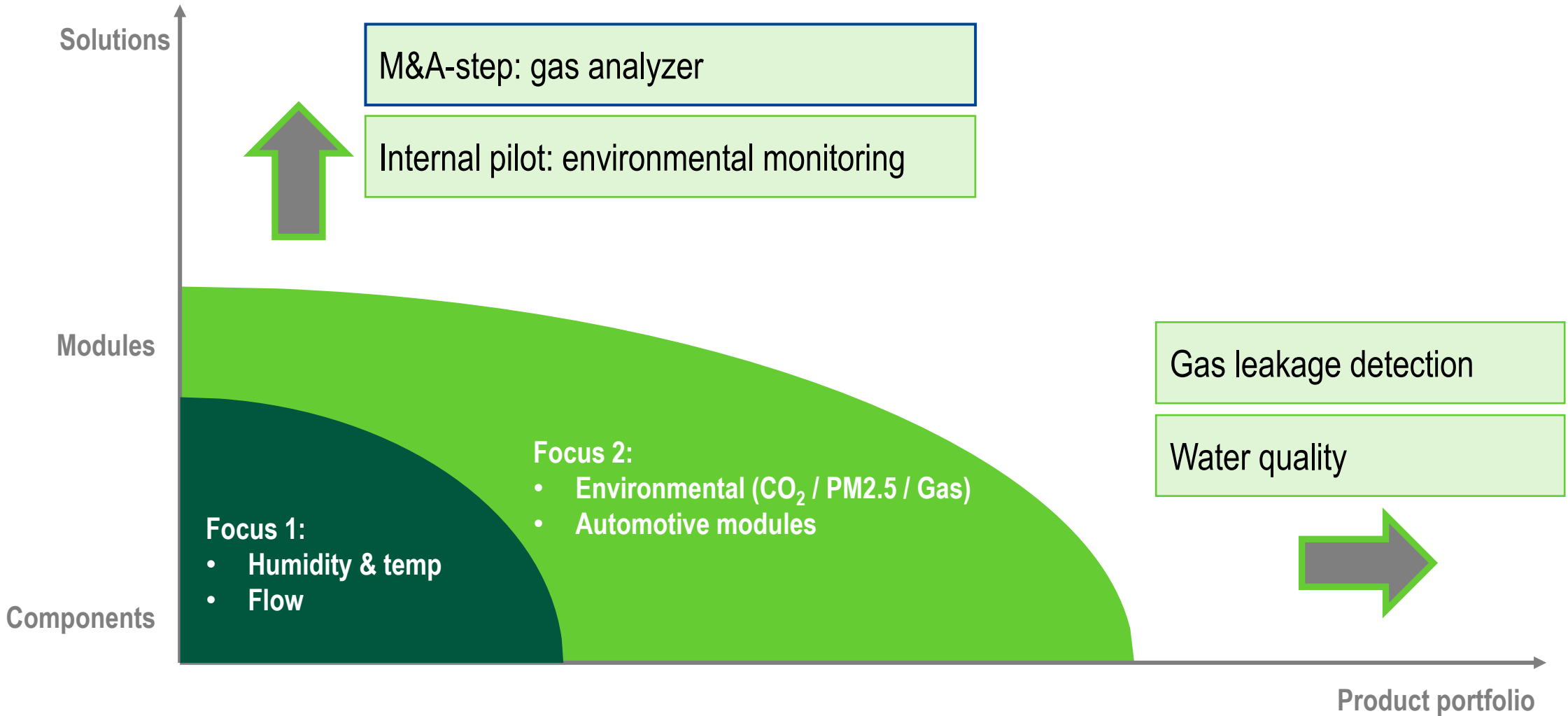
## Several projects in phases B and C

- Currently, several promising product ideas are in phase B (prototype) and phase C (pre-project).
- It is too early to call and to disclose due to competitor and M&A reasons.

## New product ideas in first development stage

- M&A-step: gas analyzer
- Internal pilot: environmental monitoring
- Gas leakage detection
- Water quality

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



# High-end applications in gas sensing: selectivity matters

## Sensor challenge for high-end gas sensing

### Today's gas sensing portfolio:

**Sensitivity** ✓

**Selectivity** ~

Measuring smaller concentrations of harmful gases in an unknown mixture with other gases is challenging.





## The solution

- Micro-gas chromatograph (GC) technology leverages existing gas sensor solutions:
  - A gas chromatograph separates the gases before measurement.
  - The measurement can be executed by existing component-based gas sensors.

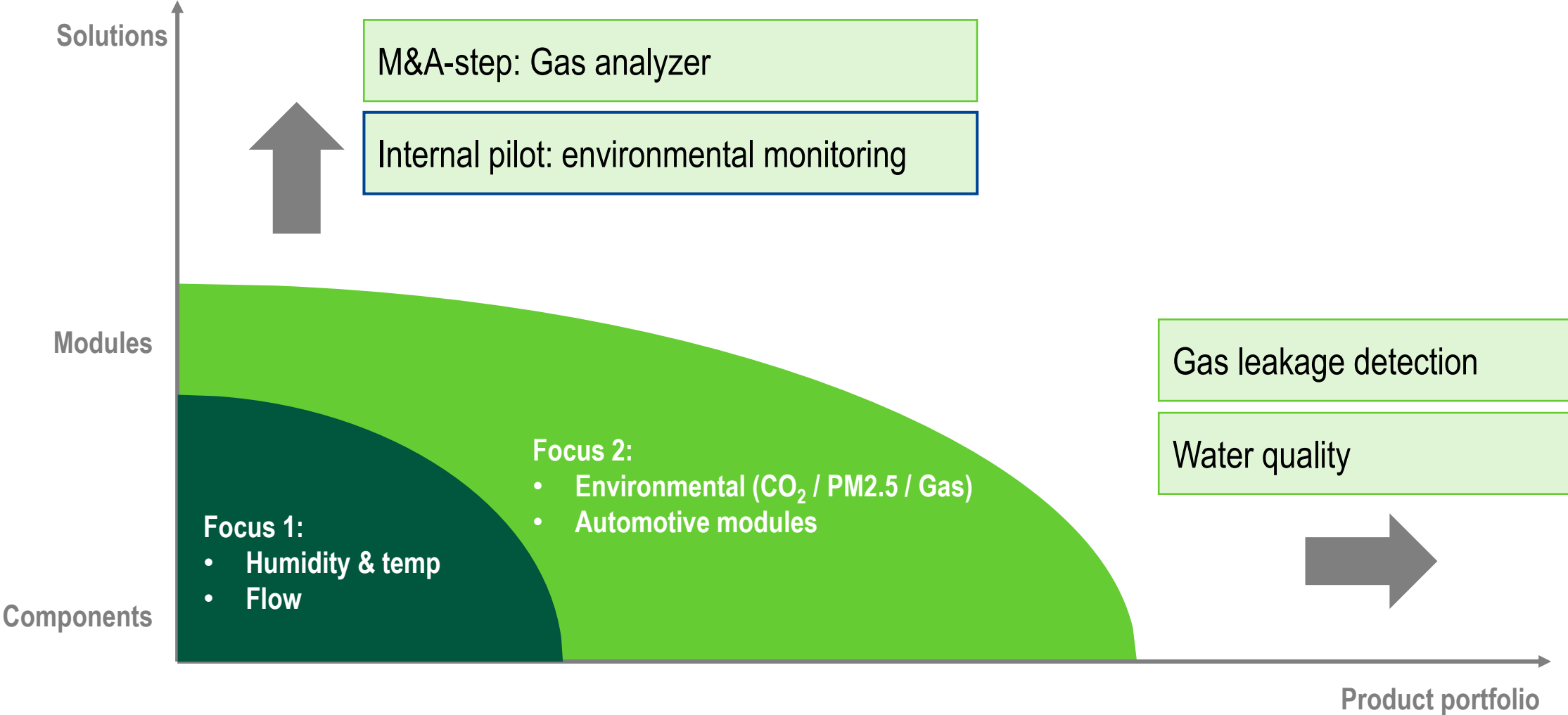
# Gas analyzer market segments

**Our vision:**  
**Bring the gas analyzer to the samples instead of the samples to the gas analyzer. This saves time and cost.**

**We are targeting industrial and environmental applications**

			
<b>Gas (natural, bio)</b>	<b>Factory automation</b>	<b>Environmental monitoring</b>	<b>Others</b>
<ul style="list-style-type: none"> <li>▪ Calorific value</li> <li>▪ Odorization</li> <li>▪ Biomethane</li> </ul>	<ul style="list-style-type: none"> <li>▪ Chemical industry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fenceline monitoring</li> <li>▪ Smart city</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transformer oil (TOGA)</li> <li>▪ Greenhouses</li> <li>▪ Medical</li> </ul>

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



# Megatrend: air pollution – *the new tobacco*<sup>1</sup>



4.2 million early deaths per year<sup>1</sup>



\$5.7 trillion or 4.8% of global GDP - cost of air pollution<sup>2</sup>



8% increased COVID-19 mortality per  $1\mu\text{g}/\text{m}^3$  PM<sub>2.5</sub><sup>3</sup>




4.4 billion persons can't access open air quality data<sup>4</sup>




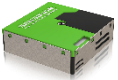




Only 1 monitoring station per 200'000 citizens in Europe<sup>5</sup>

<sup>1</sup> WHO, <sup>2</sup> World Bank <sup>3</sup> Harvard University <sup>4</sup> OpenAQ <sup>5</sup> European Environment Agency

# Internal pilot: environmental monitoring



-  **Barometric pressure**
-  **Temperature**
-  **Humidity**
-  **Particulate matter**

-  **Sensor algorithm**
-  **Connectivity**



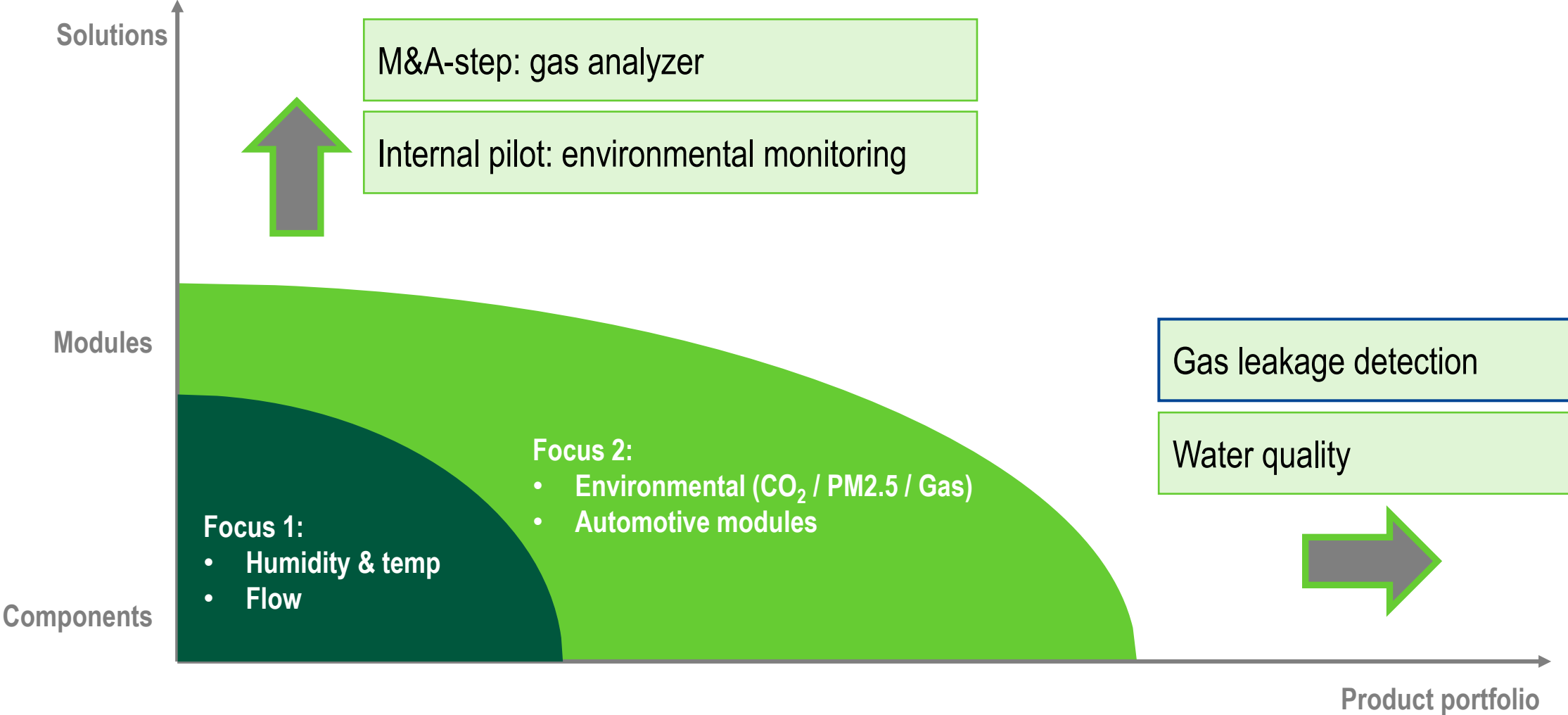
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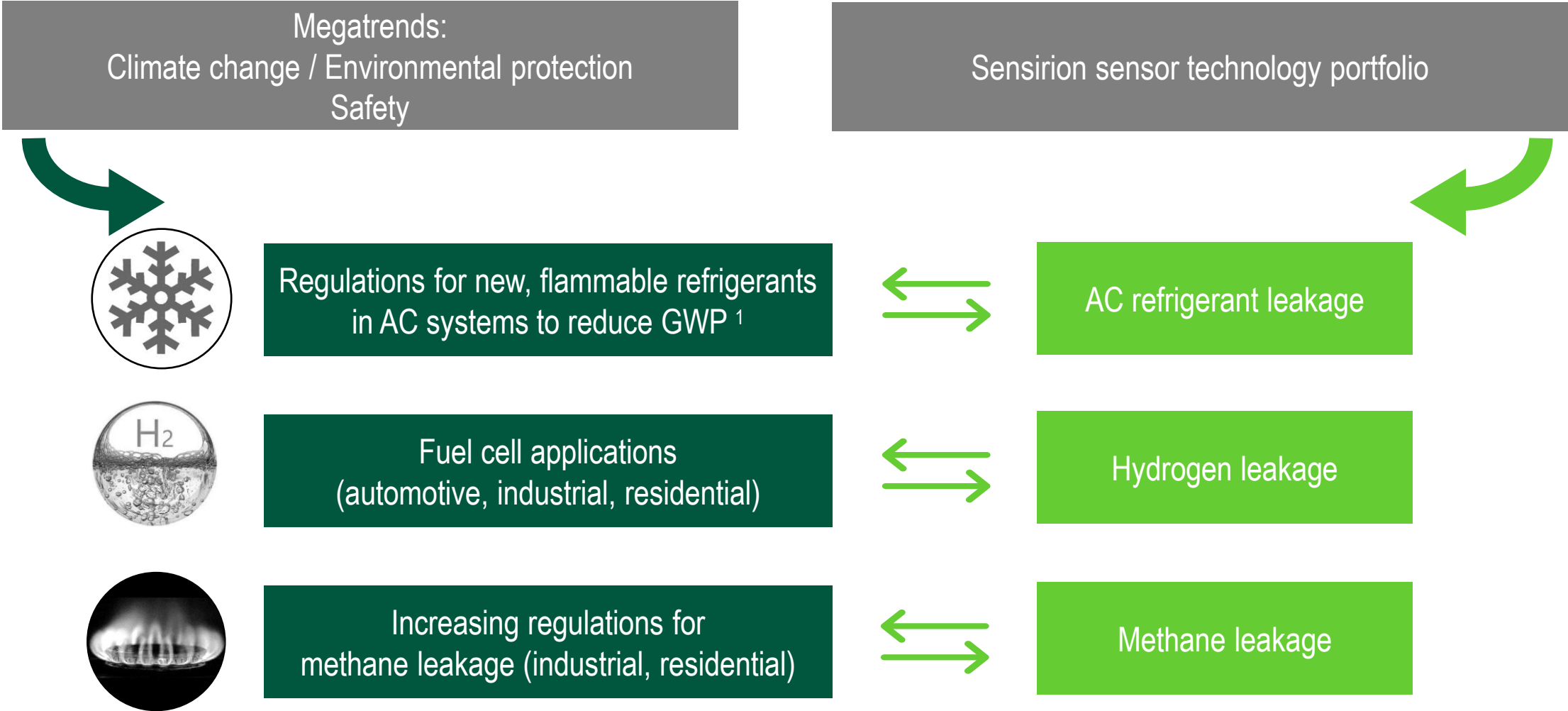
**End-to-end IoT solution for:**  
**cost-effective** yet  
**reliable** monitoring of  
**localized** ambient air quality



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

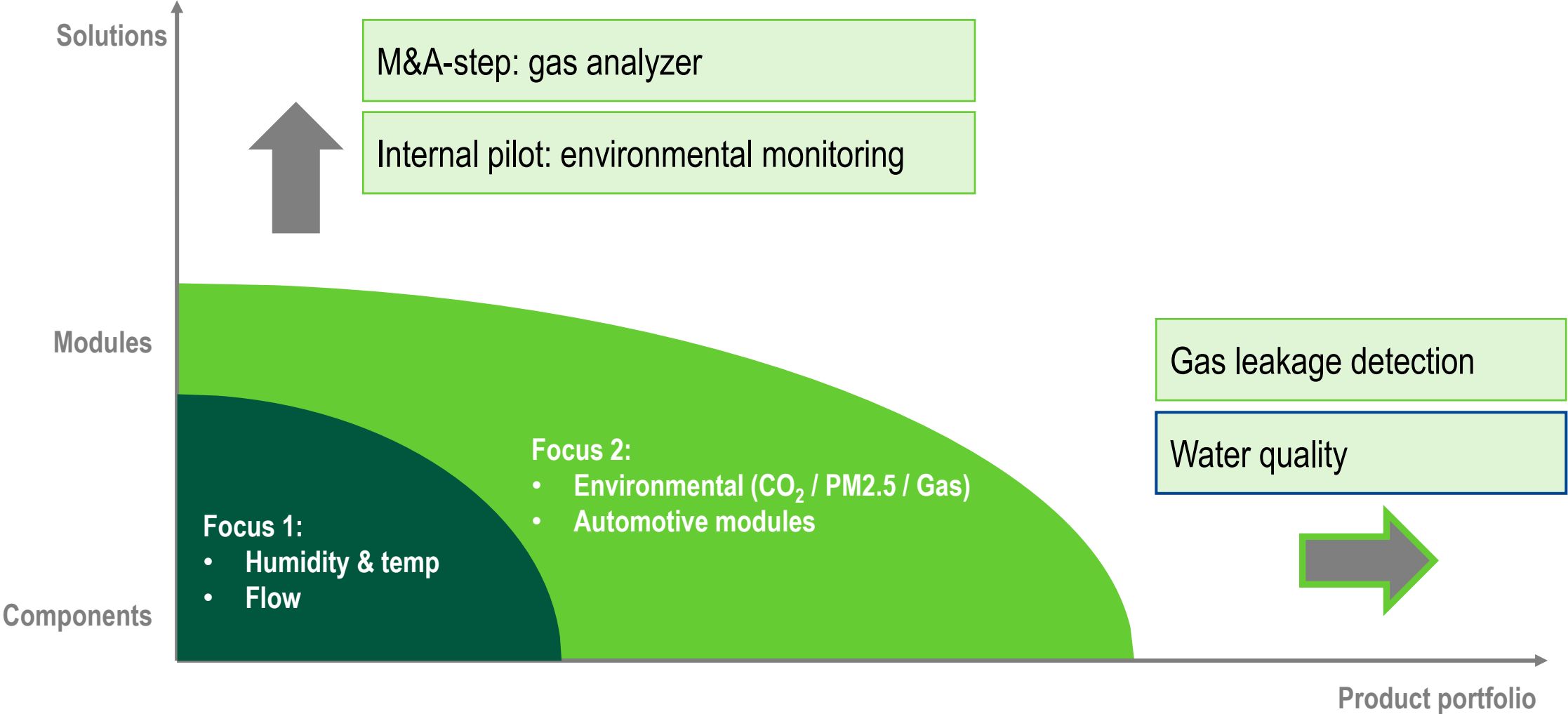


# Product portfolio expansion: gas leakage detection



<sup>1</sup> GWP = global warming potential: the new refrigerants (e.g. R32) have a significantly lower GWP compared to common refrigerants

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



# Water quality as next global megatrend

“**Climate change, increasing water scarcity**, population growth and urbanization will pose challenges for water supply systems” <sup>1</sup>

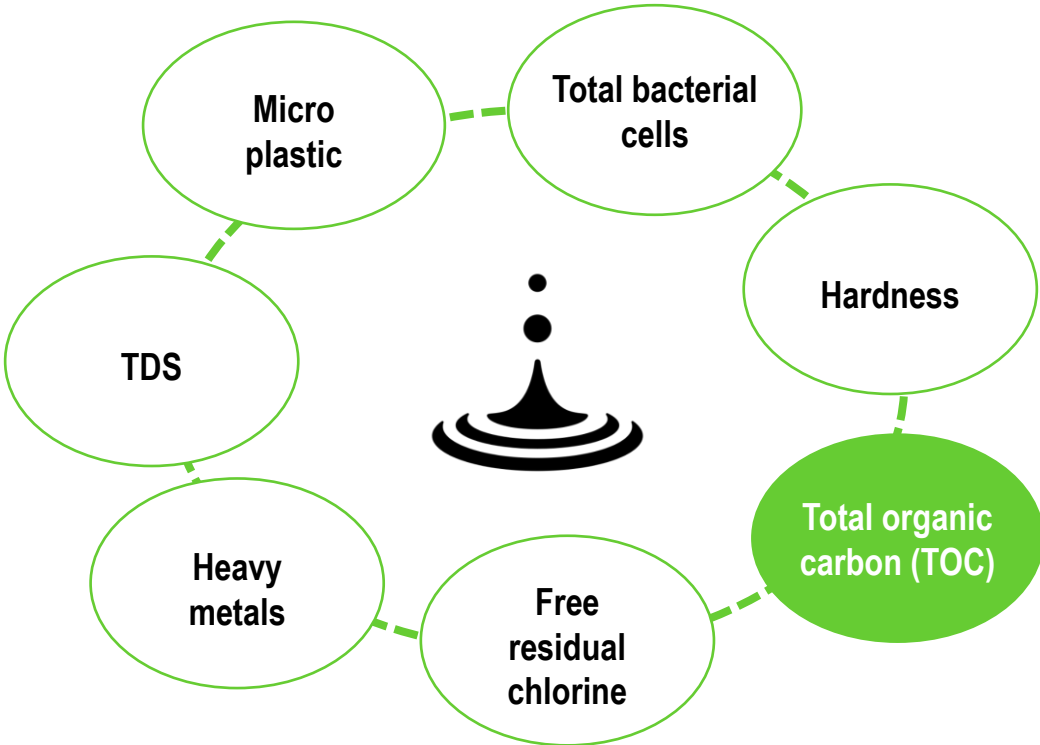
“By 2025, half of the world’s population will be living **in water-stressed areas**” <sup>1</sup>

“Every year, more people die from **unsafe water** than from all forms of violence, including war” <sup>2</sup>

<sup>1</sup> WHO, <sup>2</sup> UNO

# Water quality is a broad field for long-term growth

## Water quality is a multi-parameter market



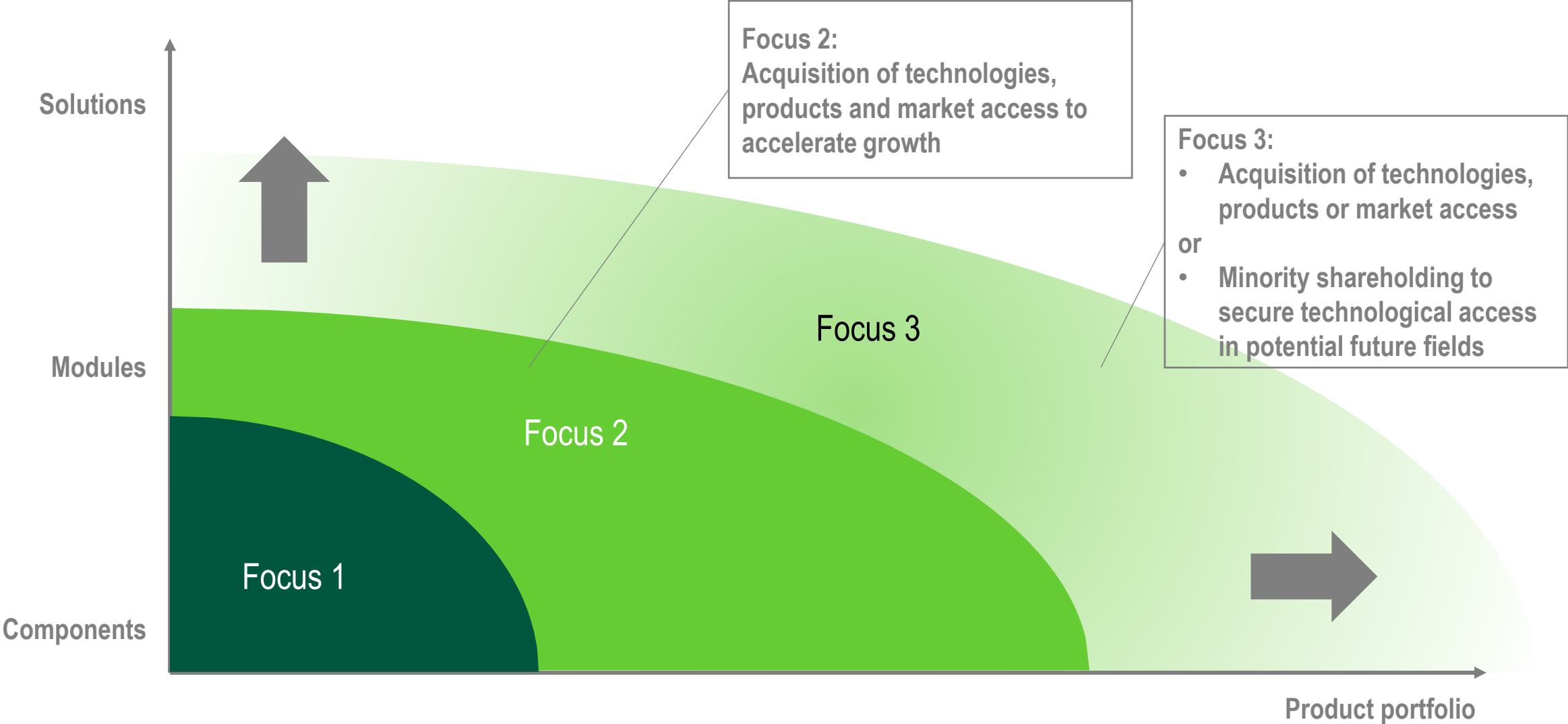
## Core market close to our existing markets



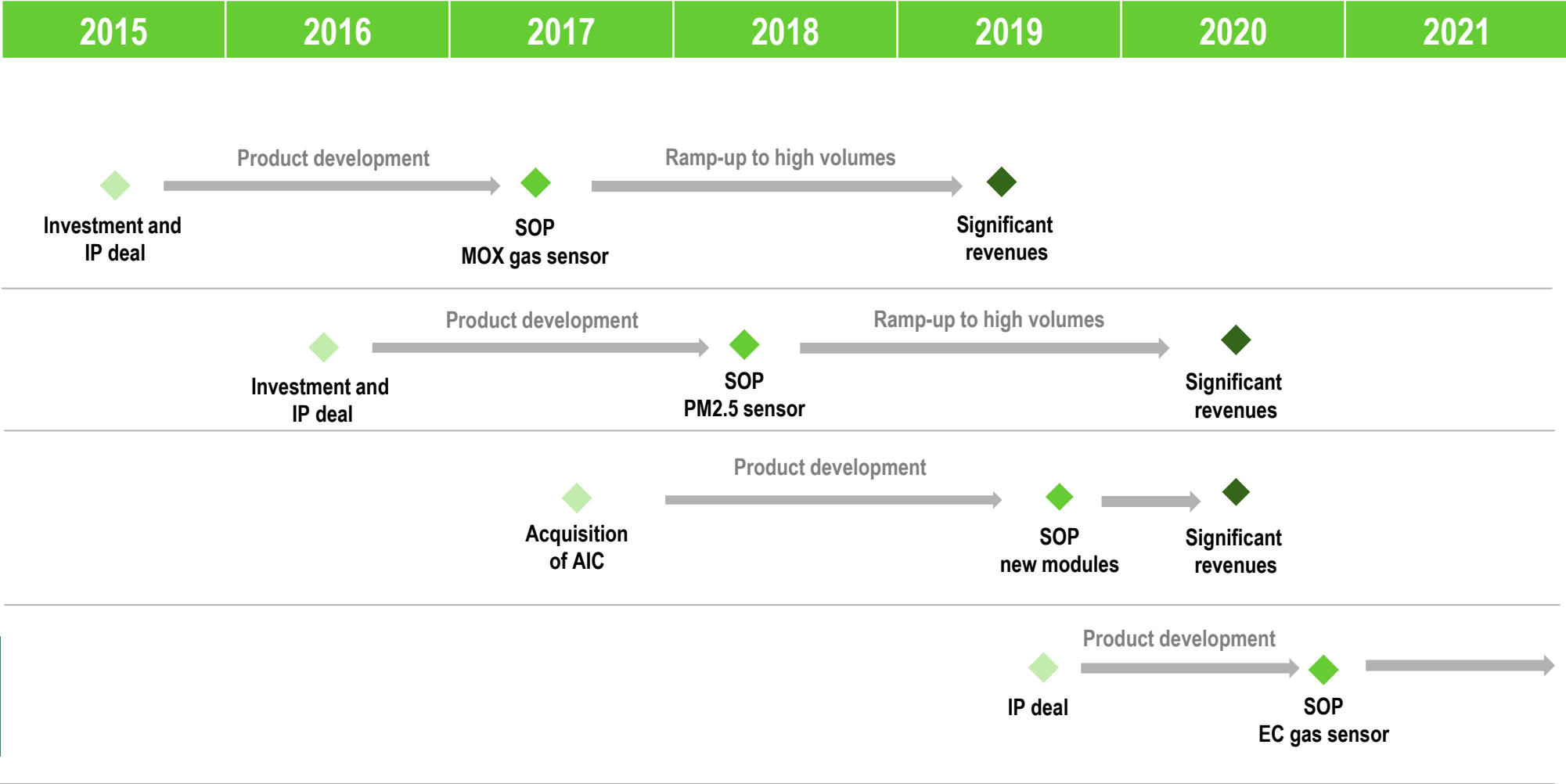
Water purifiers in appliances



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







# Focus 2: M&A successfully supported growth initiatives



# Focus 3: secure promising technologies in fields of interest

- Acquisition of technologies, products or market access or
- Minority shareholding to secure technological access in potential future fields

Solutions: gas analyzer	Optical technologies		Bio sensing technologies
			
Full acquisition (2021)	Minority shareholder (2017)	Minority shareholder (2020)	Minority shareholder (2018)



# 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.

# 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

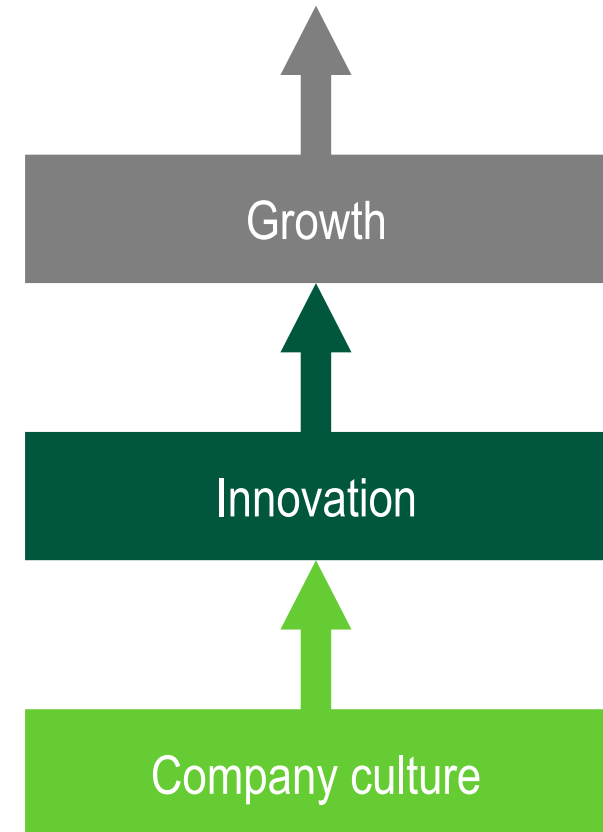
Fundamentals

“SensiSpirit”: unique culture of innovation and entrepreneurship

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

## Innovation needs a dedicated company culture

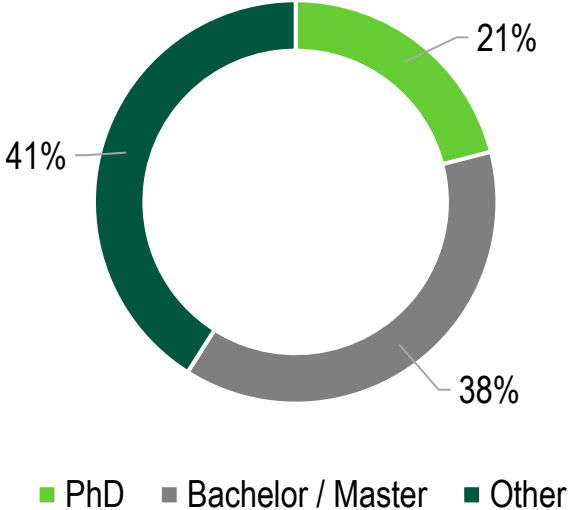
- ✓ A company culture dedicated to **long-term innovation**...
- ✓ ... with an **entrepreneurial mindset** to push limits...
- ✓ ... and built by **exceptional people**



# 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.



# Wrap-up and outlook

# Summary: growth along four strategic focuses

## Strategic focuses

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

## Sensirion strategically well positioned

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

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

- to continue the successful journey of expanding the product portfolio into environmental monitoring applications
- to target the leadership in the entire environmental market

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

- to further strengthen the market leadership in humidity and flow
- to monetize the leadership by economies of scale and innovation

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

- to attract best-in class employees on the basis of an extraordinary and award-winning company culture

# FY2021 and mid-term outlook

- We see many promising additional business fields in focuses 2 and 3
- To support this growth strategy, we intend to maintain the current level of R&D spending of 22-24% of revenue
- We continue to expense our R&D spending almost fully to the income statement
- As a consequence, we expect the mid-term averaged EBITDA level to be in the mid- to high-tens percentage range

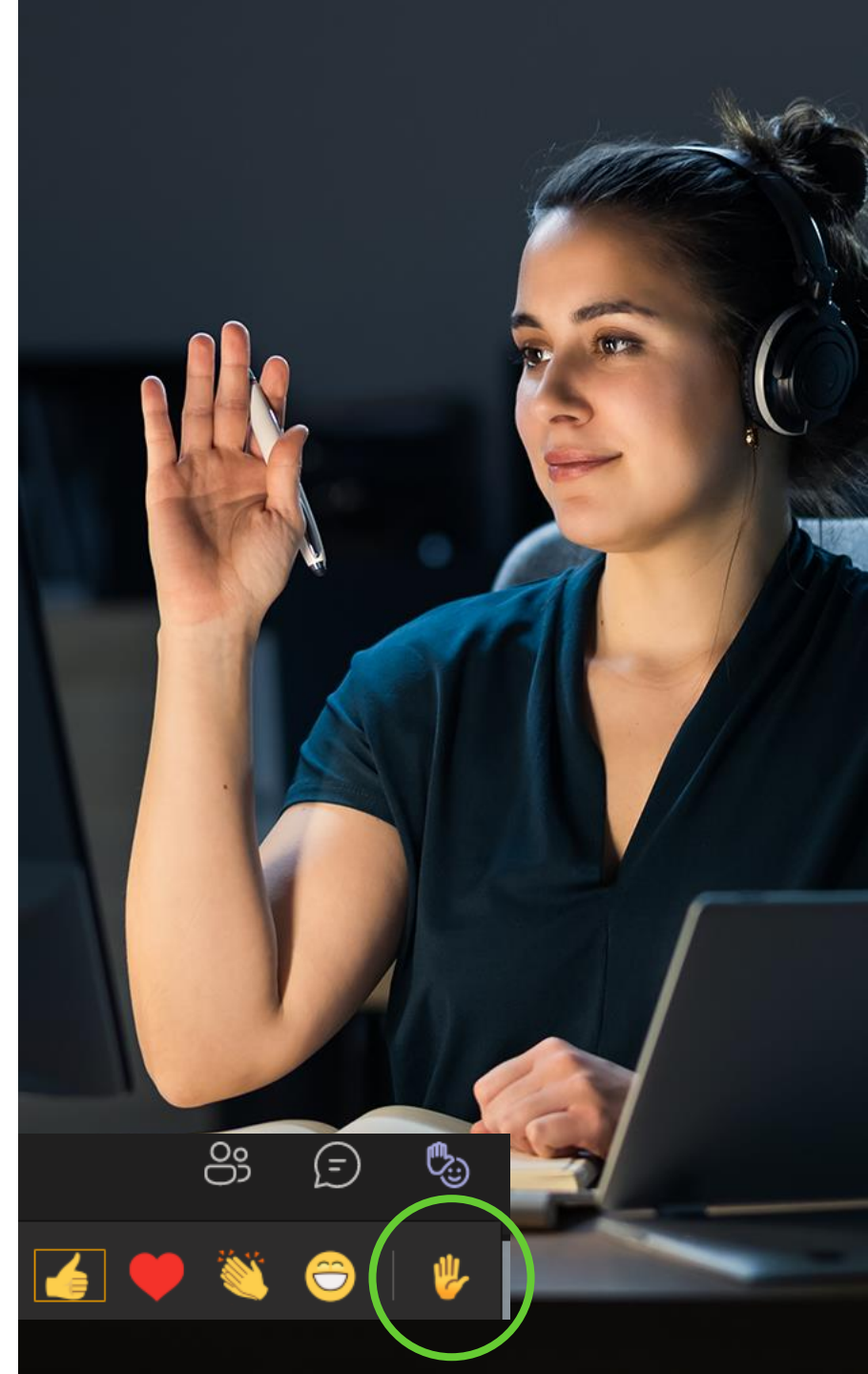
(CHFm)	<u>Avg 2018 to 2020</u>	<u>FY2021<sup>1</sup></u>	<u>Mid-term<sup>1</sup></u>	<u>Comments</u>
<b>Annual revenue growth</b>	9% <sup>2</sup> (21%) <sup>2</sup>	15 to 25% <sup>2</sup> (-3 to -11%) <sup>2</sup>	Low- to mid-tens %	<ul style="list-style-type: none"> <li>✓ Double digit-growth outlook for addressable market supports revenue growth</li> <li>✓ Sensirion aims to grow above market by leveraging its leading technologies and new applications</li> </ul>
<b>Gross margin</b>	55%	52 to 55%	Stable	<ul style="list-style-type: none"> <li>✓ Gross margin expected to be in-line with long-term historical average</li> </ul>
<b>EBITDA margin</b>	18%	18 to 22 %	Mid- to high-tens %	<ul style="list-style-type: none"> <li>✓ R&amp;D spending of 22-24% of revenue to support long-term technology development</li> <li>✓ We keep our conservative accounting principle to expense R&amp;D spending almost fully</li> </ul>

<sup>1</sup> At fixed foreign currency exchange rates; mid-term means "averaged target over 3-5 years"

<sup>2</sup> Without (with) COVID-19-related ventilator business

# Q&A

- To register a question, please use the “raise hand” function.
- Wait for the moderator to ask you to speak.
- Please unmute yourself and turn on your camera (video).
- Please state your name and affiliation before asking your question(s).
- Afterwards, mute yourself, turn off your camera, and lower your hand.
- Thank you very much.





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Technology at heart,  
future in mind.

# SENSIRION

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