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SBD Automotive's experts provide the reader with insight on today's automotive VPA market and how it is likely to shift over the next five years, based on expert industry knowledge and consumer views across three continents.

#207

SAFE

SAFE

Health & Wellbeing in Automotive

Following the outbreak of COVID-19, health and wellbeing have become a priority for consumers and OEMs alike. With consumer concerns surrounding health and wellbeing potentially affecting buying habits, OEMs must ready their vehicle line-ups for a post pandemic market. Consumers increasingly expect carmakers to implement health and wellbeing technologies and adapt to a changing landscape. COVID-19 has accelerated interest in protective features in the vehicle, while wellbeing improvement is moving beyond the luxury brands.

Following SBD's 2021 Health & Wellbeing in Automotive report, this all-new 2024 edition provides a full quantitative consumer survey update on their preferences around, and propensity to purchase, automotive health and wellbeing technologies. While profiling the main technologies and types of systems available on the market today (divided by measure and influence, health and fitness, and comfort and emotion) the 2024 edition offers an updated roadmap that highlights the level of maturity and expected deployment of health and wellbeing solutions overall.

COVERAGE



GLOBAL



NA



CHINA



EUROPE

FREQUENCY



ANNUALLY



QUARTERLY



ONE-OFF

PUBLICATION FORMAT



PDF



POWERPOINT



EXCEL



ONLINE

PAGES



183

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Key questions answered

- > What are the main technologies used for health and wellbeing in automotive?
- > What are OEMs, suppliers and other players introducing to the market in terms of health and wellbeing?
- > What are consumer preferences around health and wellbeing, and how willing are they to pay for such features?
- > How do consumer preferences vary by market?

This research supports



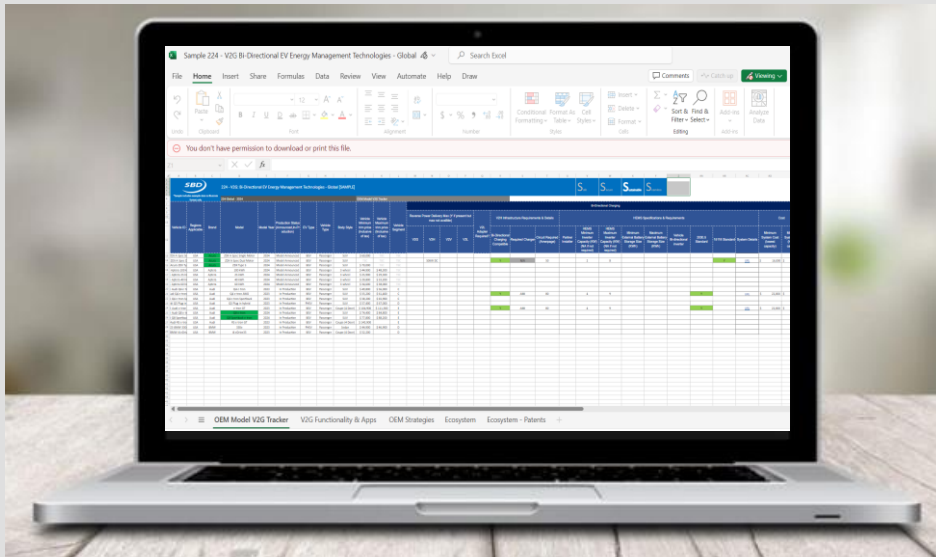
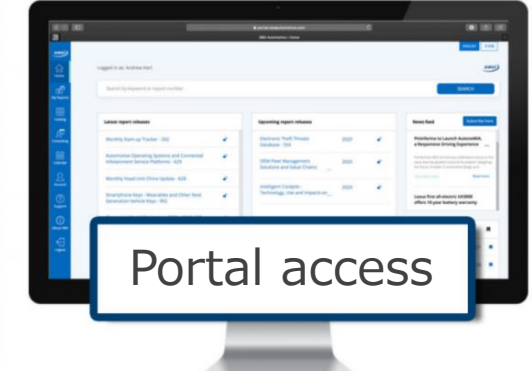
Product Planners



Marketing

Do I have access?

100+ Reports published per year
50k+ Slides of insights, forecasts & data
4,000+ # of auto professionals who access our reports



View Excel Data Sheet Sample

Health & Wellbeing in Automotive

For in-depth consumer survey results & data across 5 major markets

> 10,000
datapoints

50 OEMs & 50
Technology Suppliers

Click for Sample



Weather
22°C ☁

Driver



12:11

Meditation



Breathing
Exercise



My Health

NIBP - SYS/DIA (MAP)
126/76
(63)



Start

Pulse

77

Resp

18

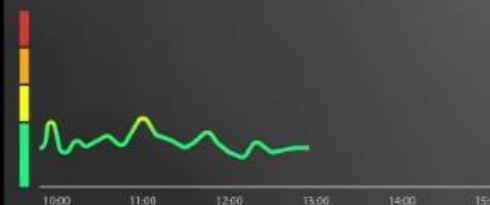
BP

80

Temp

36,6

Air Quality **GOOD**



March 2024

HEALTH AND WELLBEING IN AUTOMOTIVE

Technologies, market landscape and consumer interest

207 – Health and Wellbeing in Automotive

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Data Deep Dive
View and analyze deep data in your own way





Customer Feedback
Provide your feedback to SBD regarding this report





Introduction



Chapter Introduction

The buyers of modern cars have come to expect a healthy in-cabin environment and stress-free driving experience powered by a host of health and wellbeing features. The expectations have been further fueled since the onset of COVID-19 so much so that these features are slowly becoming commonplace. The automotive industry is actively pursuing a confluence of health technologies with connectivity/autonomy advancements to give a holistic driving experience to users.

This report offers a detailed overview of the automotive health and wellbeing market and how it is likely to shape up over the next five years, based on expert industry knowledge and consumer preferences across three major markets. Through these considerations this report identifies the major drivers and barriers for the **six key OEM motivations for Health and Wellness**.



Safety



Consumer Demand



Revenue Flexibility



Reduced Fatigue



New Segments & Industries



Shared Mobility

What are the key findings of this report?

- What are the main technologies used for health and wellbeing in automotive?
- What are OEMs, suppliers and other players introducing to the market in terms of health and wellbeing?
- What are consumer preferences around Health and Wellbeing and their willingness to pay for such features? How do these preferences vary per market?

Section	Content
Birds Eye View	An overview of the key findings from SBD's view of what's important on Health and Wellness, Cockpits, and Consumer Experience
Executive Summary	Presents key highlights and conclusions from the report.
The Basics	Definition of all the health and wellbeing features covered throughout this report with their maturity stages.
What's New	Major announcements in the health and wellbeing space.
Market Analysis & Consumer Interest	Inferences from the consumer survey data and highlights their technology preferences, willingness to pay, understanding of the features, COVID-19 impact etc.
OEM Summary Tables	Overview of each OEM's health and wellness offering.
Supplier Summary Tables	Overview of health and wellness offerings and stages in development.
Other Key Players	Overview of health and wellness offerings and stages in development.
Ecosystem	Offering, acquisition and patent insights for key non-OEM stakeholders
Future Outlook	Four OEM personas are considered against drivers and barriers into the future to understand when health and wellness benefits will be truly realized
Next Steps	Can SBD help you with any unanswered questions?



We Listened and Invested In Our Report to Align to Your Goals



You Said...

"I sometimes struggle to relate conclusions from research reports to the Outcomes and KPIs that we are working towards..."

"I would like to see what has recently changed within a forecast or domain to help decide if any changes to strategy need to be made..."

"I want to know where we stand 'head-to-head' against the competition on major industry trends..."

"I can find it difficult to take actionable next steps on Guides without assessing the future direction of the industry..."

"It would be helpful to identify disruptive companies and start-ups to keep an eye for partnerships in the future..."

"I would like the topics to be more 'forward looking' to help with future planning and take advantage of enabling technologies..."



We Did...

Added a **CONSUMER EXPERIENCE BIRDS-EYE VIEW** chapter with a high-level overview of all our CX, Health and Wellbeing, and Cockpit reports.

Enhanced **CROSS-REFERENCING** with considerations of our CX principles and insights from our Connected Services Forecast.

Introduced a **FUTURE OUTLOOK** chapter with motivations such as reducing fatigue, and its drivers and barriers over time.

More **DATA-DRIVEN ANALYSIS** through our Summary Table analysis, our market survey, and Executive Summary.

Created a **HEALTH AND WELLNESS OEM RANKING** and an **ECOSYSTEM** chapter with offering, acquisition and patent insights for key non-OEM stakeholders.

Pushed boundaries to add the disruptive **NEW TITLE HEALTH AND WELLBEING IN AUTOMOTIVE**

Example slides from the report



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Consumer survey – Questions asked

Screeners:

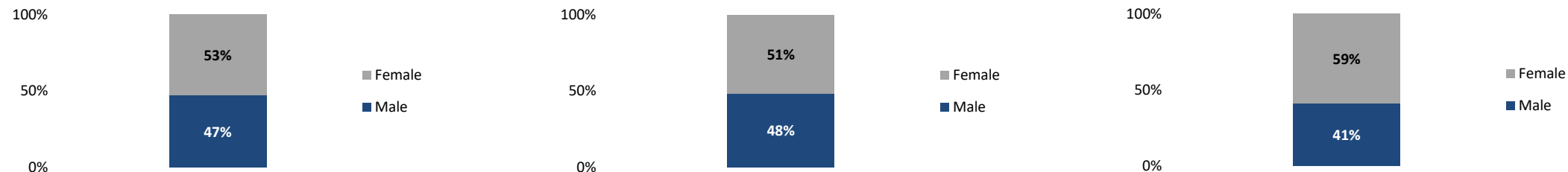
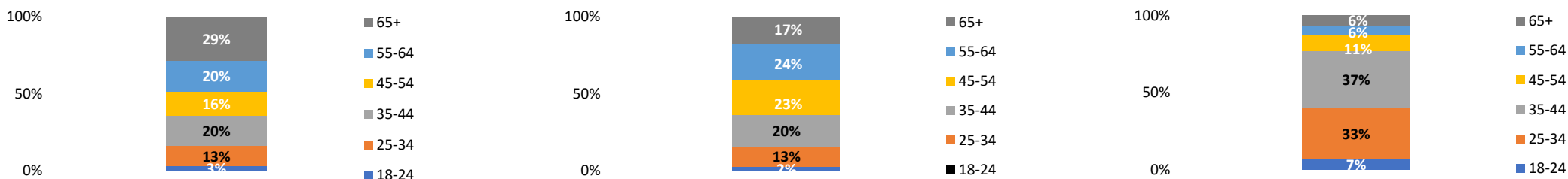
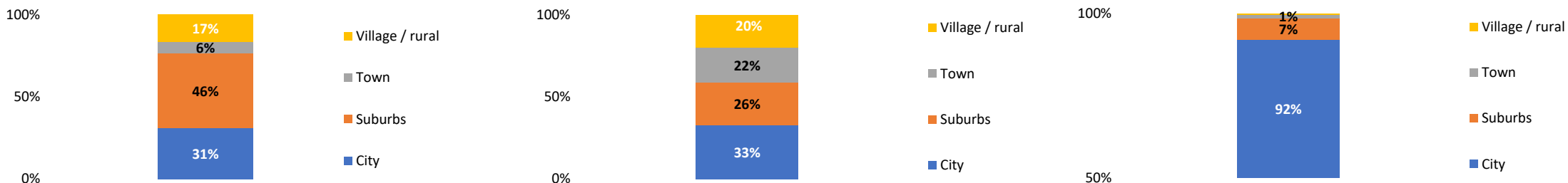
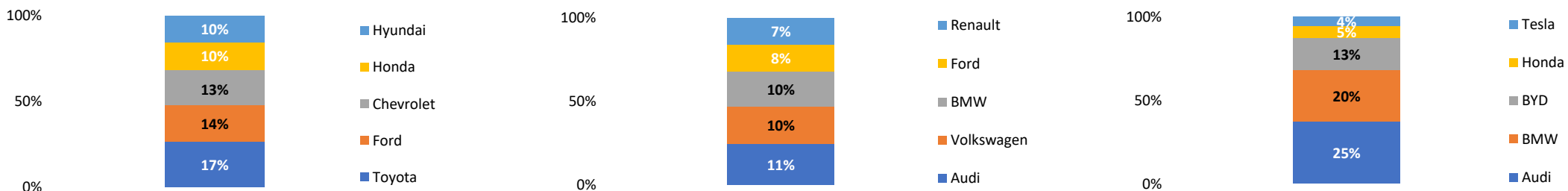
- S1 - Which of the following professions do you, a close family member or a close friend work in?
- S2 - What brand, or brands, of cars do you currently own?
- S3 - Which would you say is the car you drive most often?
- S4 - And did you buy this car from new or used?
- S5 - When you bought your car, how involved in the decision to select that car were you?
- S6 - Which of the following powertrains is your car?
- S7 - When do you think you will buy or lease your next vehicle?
- S8 - How likely are you to consider purchasing or leasing any of the following types of vehicles within the NEXT 5 years?

Questions Asked:

- **Section A:** Evaluates car feature importance, retrofit interest, health impact, and benefits if bought as optional additions.
- **Section B:** Explores payment preferences, interest in feature packs, pricing sensitivity, dealership service packages, and willingness to switch car choices.
- **Section C:** Assesses car brands for health features, importance of feature integration, and rationale behind these opinions.
- **Section D:** Examines COVID-19 impact on behaviors, concerns, and opinions.
- **Section E:** Covers demographics, living area, driving habits, personal circumstances, and additional opinions

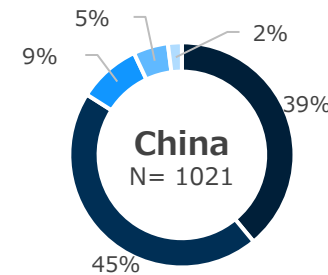
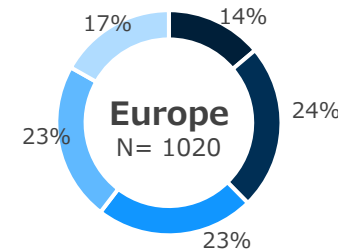
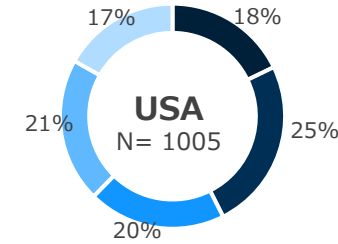
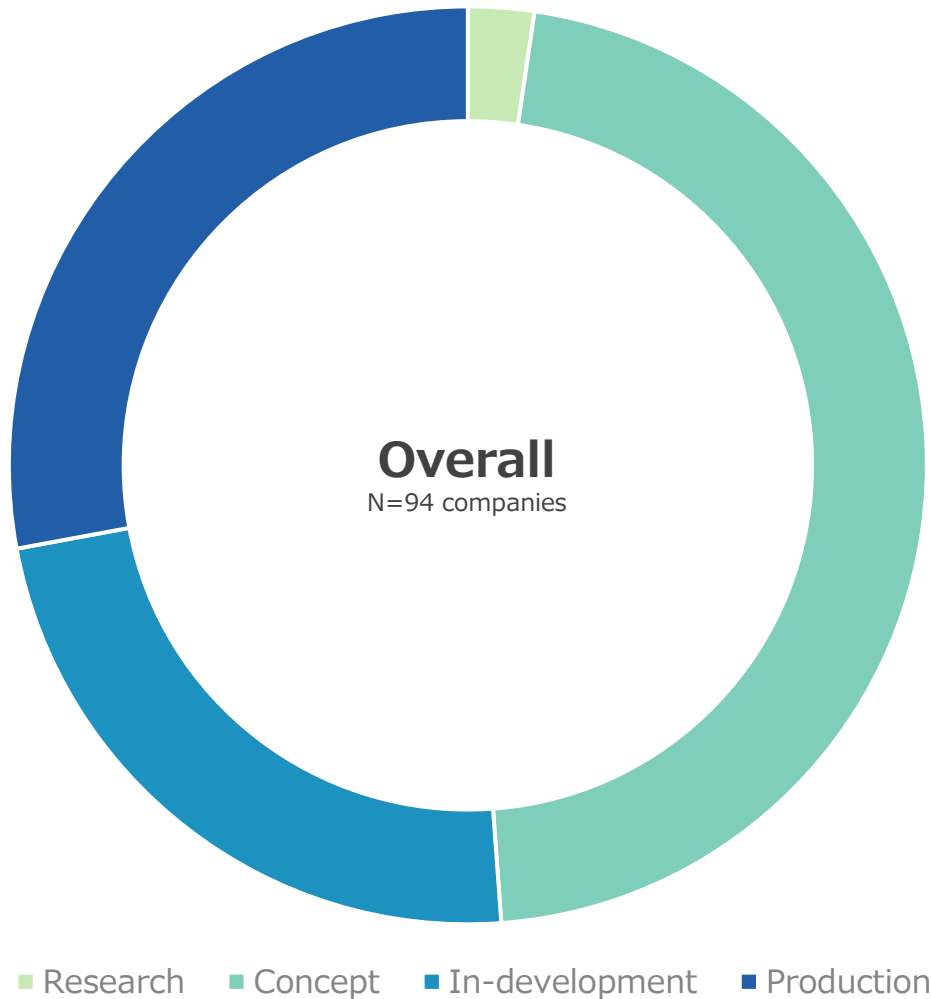


Demographics summary

USA n= 1,005**Europe n= 1,021****China n= 1,021****Gender****Age****Location****Most owned brands**



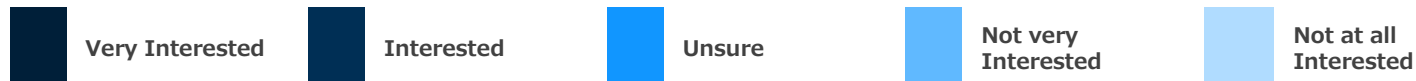
Heart rate monitor likely to enter mass production



Key highlights

- Among the health features targeted towards 'measuring humans', **heart rate/ECG monitor is becoming a popular feature**. Many OEMs and suppliers have production-ready solutions and others have tested the concept and **now preparing for the development stage**.
- Usually, the heart rate monitor uses a specialized steering wheel that is designed to monitor the driver's heart rate and detect any abnormalities that could affect his driving abilities.
- The steering wheel is fitted with an ECG sensor that captures the driver's heart rate from the hands gripping the wheel. Since the steering wheel is a 'dual contact' surface, the **same wheel can have more sensors to track other vital parameters of the driver**.
- In addition to the industry, **consumers are also interested in seeing heart rate monitoring as part of the technology offered in the cars. 84% of Chinese potential car buyers** have an interest in buying a car equipped with a heart rate monitor, **with nearly 40% of them being "very interested"**, whereas this is 18% and 14% in the USA and EU, respectively.

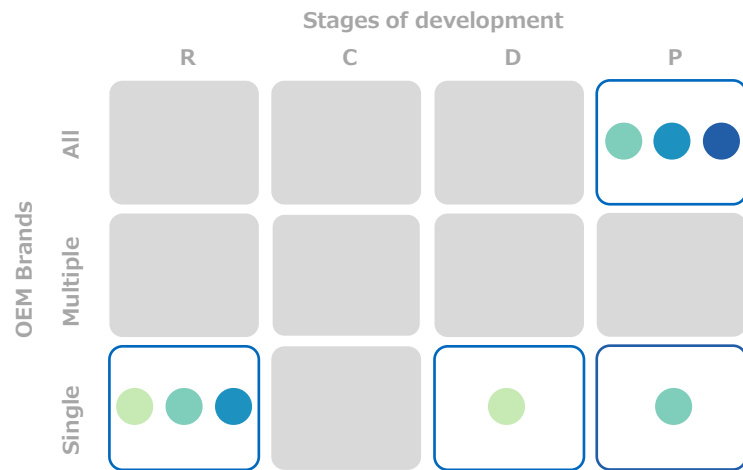
Question A3_8: How interested would you be in having Heart rate monitor on the next car you buy?





Ford Motor Company

Health/wellness features vs Development phase



AQI monitoring in Ford Escape (China)



		List of features	Stages	Brands
Health	Measuring Human	Heart rate	In-development	Ford
		Blood pressure		
		Skin conductance		
		Brain waves	Research	Ford
		Body temperature		
		Breath analyser		
	Altering Surrounding	Blood alcohol level	In-development	Ford
		Air purifier	Production	Ford, Lincoln
		Air purifier with AQ sensors	Production	Ford
		Air purifier w/o AQ sensors	Production	Lincoln
		Negative ion generator		
		UV lighting		
		CO2 detection	Research	Ford
		Anti-bacterial coating		
		Disinfectant solution		
		Heating for disinfection	Production	Ford
	Wellbeing	Breathing pattern		
		Facial expression	Research	Ford
		Voice volume		
		Ambient lighting	Production	Ford, Lincoln
		Fragrance diffuser	Production	Ford, Lincoln
		Ozone generator		
		Cabin overheat protection		
		Sound-proofing	Production	Ford, Lincoln
		Advanced sound system	Production	Ford, Lincoln
		Active Noise Cancellation	Production	Ford, Lincoln
		Quiet tuning technology		
		Relaxation mode		
		Smart sleep mode		
		Airflow massage seats		
		Muscle therapy	Production	Ford, Lincoln

Overview

Health

- Ford's Police Interceptor Utility models use **heating to disinfect the vehicle interior** in the United States, Canada and other markets. The system maintains a temperature of 56 degrees (C) for 15 minutes. The solution was developed in **collaboration with the Ohio State University**.
- Ford "Smart Shield" uses PM2.5 sensors in the car and **air quality sensors (AQS)** outside the car to monitor the air quality in real time. Ford is working with **3M to develop commercial-grade air purifiers for passenger vehicles**.
- Lincoln has a rather conservative approach in terms of health feature innovation and **limited offerings (only air purifiers)**. Lincoln doesn't have any clear plans to further include or research health technologies in the short term.

Wellbeing

- The Lincoln Corsair allows to adjust **ambient lighting featuring seven colours**. **Lincoln Nautilus MY 24 offers a fragrance diffuser**,
- Lincoln also offers **sound-proofing technology** in some of its models along with a **Revel advanced audio system**
- Also, Ford has a partnership with **Bang & Olufsen to include advanced sound systems** in some of its models. B&O audio solutions are specifically tailored for each Ford model.
- Some Ford models include **ambient lighting feature with 8 colours**. The Ford Mondeo includes a Multi-Contour Seat with massage, heating and cooling functions

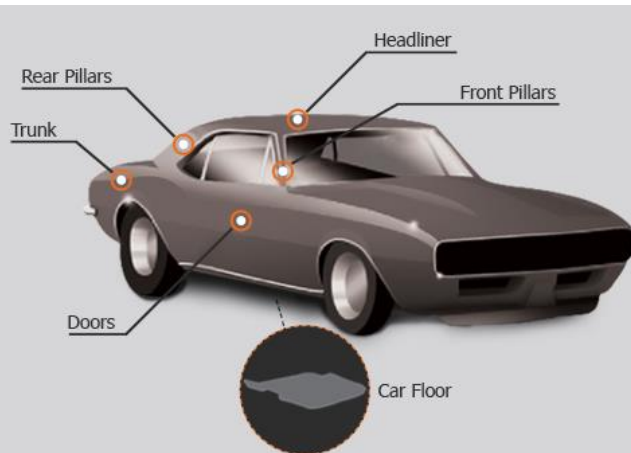


3M

Health/wellness features vs Development phase

		Stages of development			
		R	C	D	P
Feature Count	High 15+				
	Medium 8 - 14				
	Low 0 - 7				

3M's Acoustics Solution Treatment



		List of features	Stages
Health	Measuring Human	Heart rate	
		Blood pressure	
		Skin conductance	
		Brain waves	
		Body temperature	
		Breath analyser	
		Blood alcohol level	
	Altering Surrounding	Air purifier	Production
		Air purifier with AQ sensors	
		Air purifier w/o AQ sensors	
		Negative ion generator	
		UV lighting	
		CO2 detection	
		Anti-bacterial coating	
		Disinfectant solution	Production
		Heating for disinfection	Production
Wellbeing	Measuring Human	Breathing pattern	
		Facial expression	
		Voice volume	
		Ambient lighting	
		Fragrance diffuser	
		Ozone generator	
	Altering Surrounding	Cabin overheat protection	
		Sound-proofing	Production
		Advanced sound system	
		Active Noise Cancellation	
		Quiet tuning technology	
		Relaxation mode	
		Smart sleep mode	
		Airflow massage seats	
		Muscle therapy	

Overview

Health

- 3M products on disinfection and sterilization systems could potentially be used in automotive. **3M worked alongside Ford to develop and manufacture air-purifying respirators for front-line workers**
- 3M is collaborating with various companies to test decontamination systems on 3M's N95 face mask.
- Three of the decontamination companies obtained authorization by the Food and Drug Administration (FDA) to decontaminate respirators during the COVID-19 pandemic.

Wellbeing

- 3M's wellbeing solutions are quite limited in range. 3M acts more as a Tier-2 or Tier-3 supplier for wellbeing technologies. It is unlikely that in the short-term **3M will provide any innovative wellbeing technology other than noise insulation materials.**
- 3M offers a set of sound insulating materials. For e.g., Non-woven sound absorbing fibers** create a quieter vehicle environment while **hydrophobic fibers** resist moisture, mold and mildew.



Explore the data in our accompanying Data Deep Dive

This guide gives an overview of the key activities being carried out by OEM groups, the supply base and other key players.

It is accompanied by an associated database with a more exhaustive data set.

[Click for Sample](#)

How can the accompanying spreadsheet help you go deeper?

- View OEM by OEM offerings
- Investigate the results of the market survey

Column %	China	USA	Europe	Global
I expect this to be a standard feature on my new car	40% ↑	30%	26% ↓	32%
I would pay for this feature on my new car as an optional extra, paid when you buy the car	36% ↑	25% ↓	22% ↓	28%
I would pay for this feature after I had bought the car as a subscription	13% ↑	7% ↓	10%	10%
I would not pay for this feature on my new car	11% ↓	38% ↑	42% ↑	30%
Column n	1021	1005	1020	3046

Total sample; Unweighted; base n = 3046
Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)



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HEALTH AND WELLBEING IN AUTOMOTIVE
Technologies, market landscape and consumer interest

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Do you have any questions?

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Book a meeting

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