

Using foresight-driven innovation to identify key technologies in a post-pandemic future

CHALLENGE

Hyundai Motor Company is one of the world's leading automotive manufacturers, and the fastest-growing automotive company by brand.

Hyundai is investing massively in innovation, and has defined strategic visions of the future which seek to re-invent mobility. In the wake of the COVID-19 pandemic, Hyundai Motor Company's Technology Innovation center asked for Rohrbeck Heger's assistance in identifying core technologies to promote and advance hygiene and safe travel in vehicles. In collaboration with research partners from South Korea's leading technology university, Rohrbeck Heger performed a foresight-driven technology scan.

IMPACT

Scenario development

We developed four detailed and plausible futures outlining how the COVID pandemic and demand for hygiene technology could develop in the next decade. Using our systematic scenario development method, we gave Hyundai an in-depth understanding of the key drivers and tipping points for the pandemic itself, and for the factors dictating consumer demand for hygiene-related solutions.

Technology Scan

Through in-depth research and numerous expert interviews, we identified over 80 emerging technology solutions that could deliver safer, more hygienic vehicle environments in the future. Together with our research partners, we developed a technology taxonomy/framework that provided an exhaustive overview of technological solution for hygiene/infection-related issues.

Prioritization of hygiene technologies

Hyundai selected 10 technology concepts to evaluate further in pilot studies/research. Using a systematic evaluation of the 80 shortlisted technologies against three plausible future scenarios, Hyundai was able to triangulate the most feasible and viable technologies to build future hygiene solutions. We validated the evaluation by bringing together internal and external expert assessments.

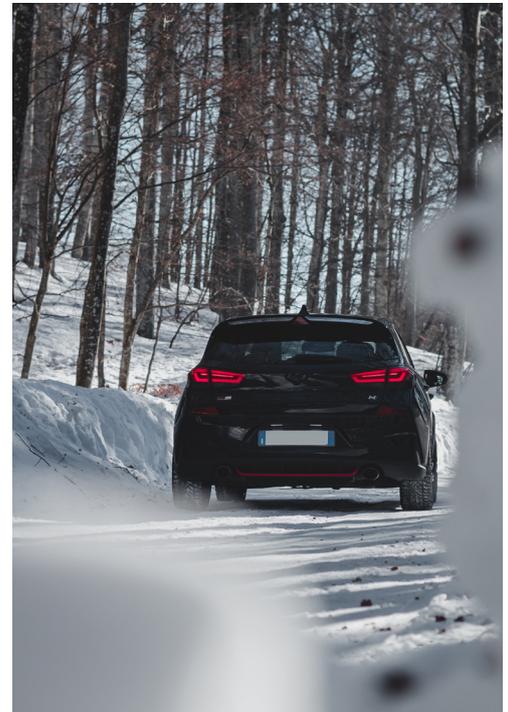
APPROACH

After scoping the focus of the foresight-driven technology scan together with Hyundai and our university partner, we began to conduct thorough research to identify relevant technologies and plausible scenarios.

Through predominantly external research and interviews, we identified key hygiene technology domains - creating a framework to further inform our search for specific technology innovations, ranging from final products to research and patents. We also performed a wide scan of emerging hygiene innovations, as well as a competitor analysis.

We followed our proven method for scenario develop to develop four hygiene mobility scenarios. Through validation with external interviews, we identified over 100 factors that could impact demand for hygiene mobility solutions. Further analysis and evaluation together with Hyundai employees, we developed key drivers of change and ultimately built four plausible scenarios.

Together with our university partner, we researched for new potential hygiene technologies that could be included in Hyundai's innovation pipeline. Together, we identified over 80 different technologies at varying levels of maturity. We performed a systematic evaluation of these technologies, including feasibility and viability, against different scenarios.



BENEFITS

✔ Future-Proof Technology Portfolio

By combining an in-depth technology scan with future scenarios, Hyundai made a much more informed decision in building their future technology portfolio.

✔ Increased Strategic Agility

The Hyundai team received a deep, systematic understanding of the drivers of hygiene technology solutions, including consumer preferences and regulatory requirements.

✔ Deeper Strategic Understanding

By identifying key drivers and tipping points, and modeling how these factors could play out in different scenarios, we gave Hyundai a clear and logical framework for understanding what could drive change in the demand for hygiene solutions.

ABOUT THE CLIENT



📍 Seoul, South Korea

€ >€200 billion

🌐 6 countries

👥 260000+ employees



For more information please contact:

TOBIAS HEGER

Founder & Managing Partner
theher@rohrbeckheger.com