

VI-BioTelemetry

FEELINGS-IN-THE-LOOP

MONITORING
ANALYZING
ACCEPTING



Challenges

MONITORING
ANALYZING
ACCEPTING

HOW DO YOU FEEL?

New technologies will make cars safer and more efficient than ever, however to get there a **major obstacle needs to be overcome: human trust and acceptance** of such technologies.

Cars have always and only been driven by humans, it is them who control car behavior. Today, ADAS technologies are responsible for the transition **from being the driver to being a passenger**, totally relying on the on-board computer: **this can be rather stressful!**

In order to achieve high acceptance rates, the automotive industry has to embrace all the factors that guarantee comfort to occupants of autonomous transportation. To reach this goal, **it is mandatory to monitor human reactions and perceptions**, while performing tests in a safe environment with specific representative, repeatable and controlled scenarios.



NEED TO UNDERSTAND

Need to understand factors that can guarantee comfort to human occupants in autonomous transportation, in order to converge to reliable protocols and objective indicators.



NEED TO MONITOR

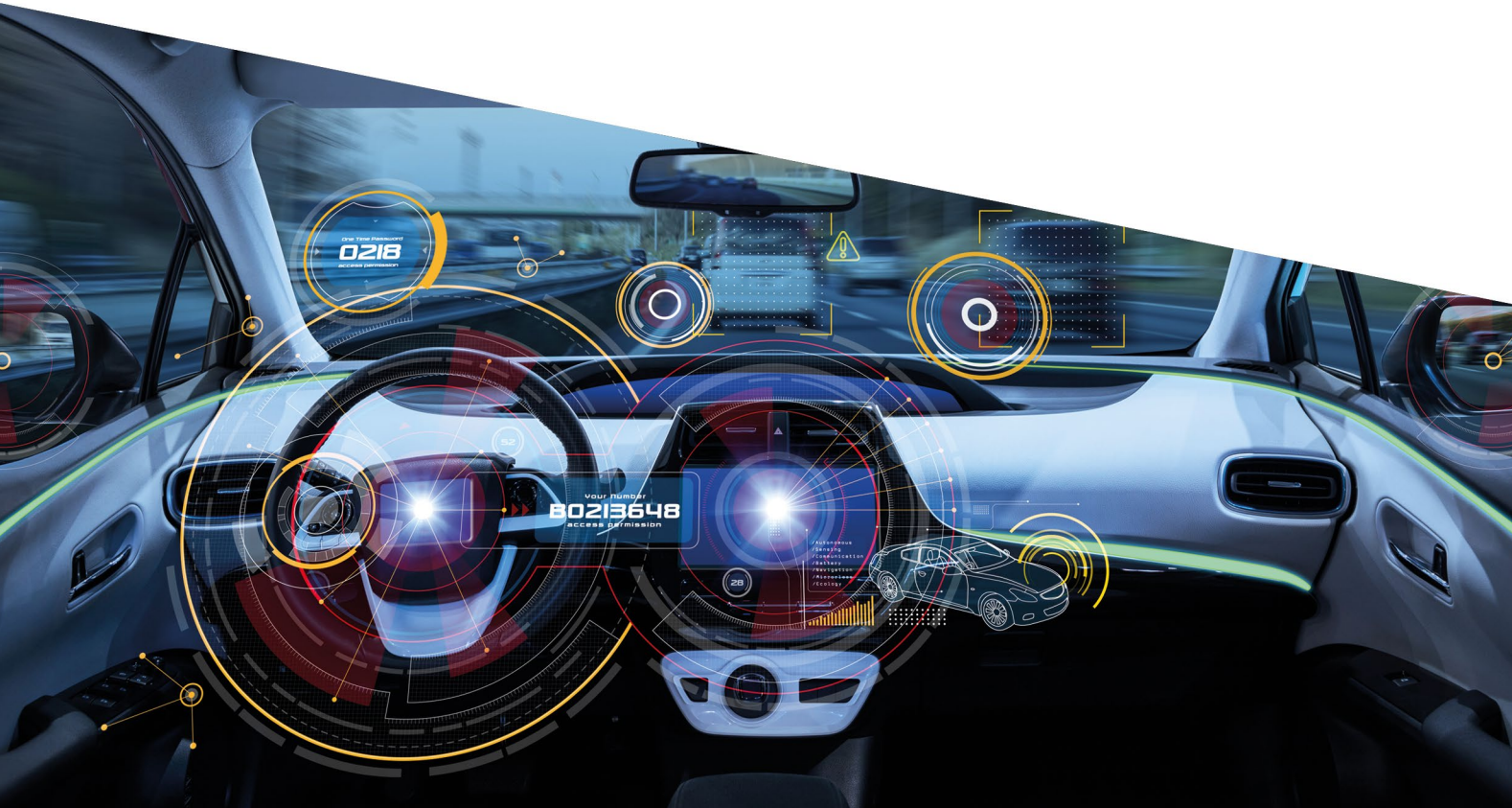
Need to monitor human reactions and perceptions during the tests, where not only phenomenological but also more complex physiological factors need to be taken into account.



NEED OF A SAFE ENVIRONMENT

Need of a safe environment to guarantee access to those specific scenarios which are representative, repeatable and under control.

Looking for
the best driving
experience ever



Solution

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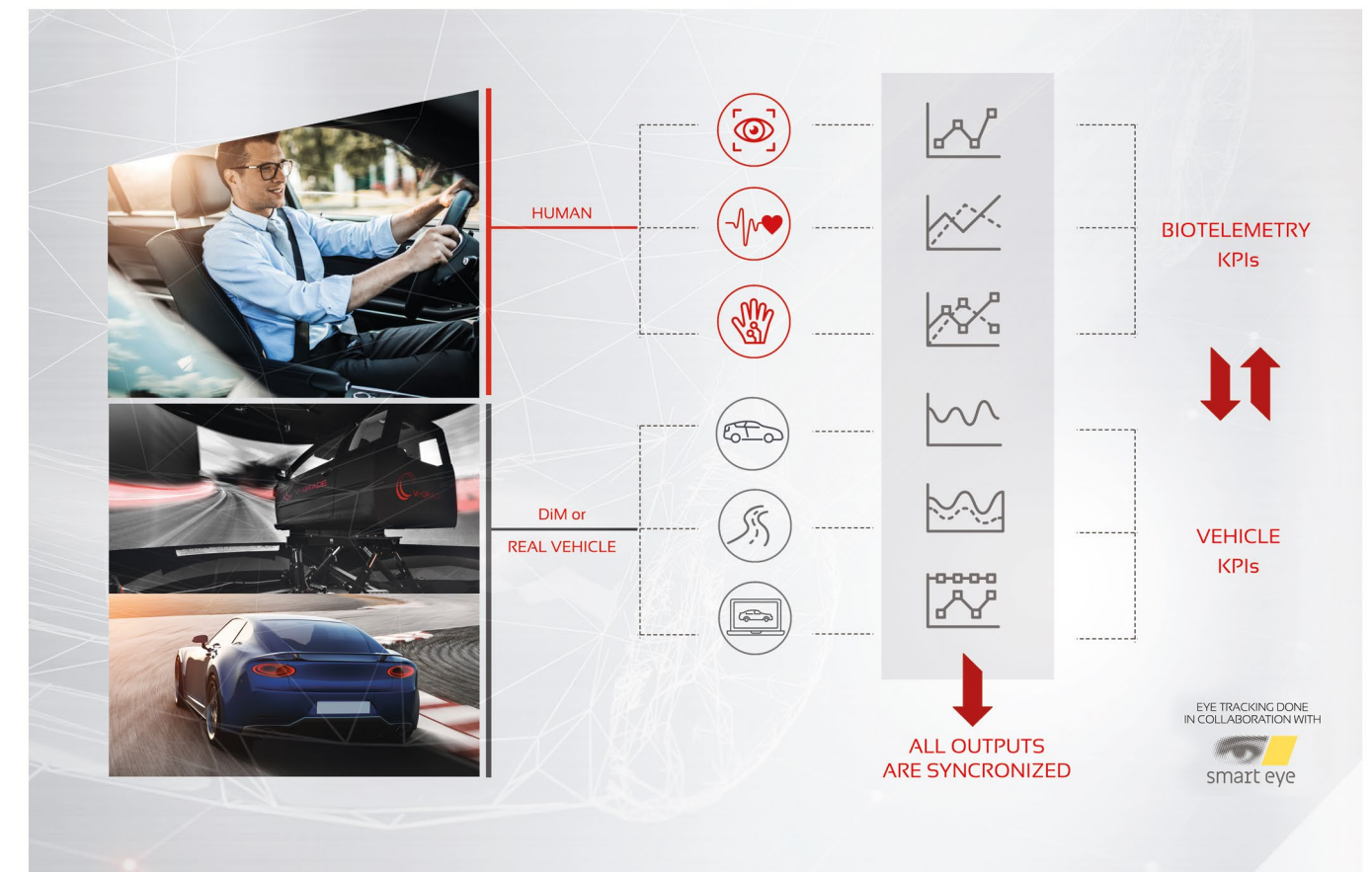
CHECK YOUR MOOD

Investigating and understanding in detail the levels of human acceptance of new driving technologies provides automotive engineers with essential data to design ever-better cars.

This is why **VI-grade** has designed and created an innovative set of tools capable of **recording and evaluating human reactions and body responses to a specific driving scenario**: we track your emotions!

To define the stress levels of driver and passengers, VI-BioTelemetry includes a series of cameras (supplied by **SmartEye AB**) located on the dashboard which record eye movement, a heart rate measuring device and gloves equipped with sensors that measure skin response.

VI-BioTelemetry **combines dedicated hardware and software equipment for data collection and processing**. These components are fully integrated within all VI-grade driving simulator solutions.



VI-BioTelemetry gets the data



FROM THE EYES

With a set of cameras that control eye activity



FROM THE HEART

With a complete set of sensors that monitor the heart rate



FROM THE HANDS

With special gloves that measure skin response

Benefits

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ENJOY THE JOURNEY

Entering the world of biotelemetry with VI-grade is easy and immediate.

Motorsport teams, car manufacturers and suppliers, universities, research and development institutes can all benefit from using VI-BioTelemetry.



TAKE IT EASY

Get access to a complete and comprehensive sensors package for human signal monitoring



BE ACCURATE

Implement a comprehensive set of tools for data treatment, analysis and interpretation



FEEL SAFER THAN EVER

Use VI-grade driving simulators to conduct safe surveys and human acceptance studies within a fully integrated solution



VI-BioTelemetry helps customers bridge the gap between testing and simulation by allowing engineers to evaluate driver's reactions and level of discomfort in all possible driving conditions both on the driving simulator and on the real vehicle.



**Are you ready
to evolve with VI-BioTelemetry?**

"VI-grade has more than ten years experience in the development of turn-key solution driving simulators and has been working for more than five years on a research project aimed to collect meaningful bio-signals from drivers during simulator sessions, in collaboration with university and research experts. More recently, a collaboration with the Human Inspired Technology Research Center of the University of Padua allowed the extension of this assessment at physio-emotional level, leading to a deeper understanding of driver and occupant feelings. **"**

Diego Minen, VI-grade CTO

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BRIDGING THE GAP

BETWEEN TESTING AND SIMULATION



Learn more at vi-grade.com/vi_biotelemetry