

# ADD

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TCR App Mobility is able [1] to prevent over 5 million road traffic injuries and [2] to save €500 billion in public spending - now originating every year from drowsiness, inattention and other health issues while driving

We are applying advanced AI in order to scrutinize driver's subconscious behavioural patterns manifested both outside of the vehicle and during a journey

By discovering unique trends, uncovering involuntary reactions and examining aware cognitive processes, we can accomplish unattainable otherwise standards of accident avoidance: research-proven 94% effectiveness after just 3 months of usage

All of that thanks to non-invasive monitoring of multiple health/perception-related parameters via embedded sensors of a smartphone

## CHALLENGE

Drowsiness, tiredness, inattention and accompanying medical conditions are directly responsible for over 25% of all road crashes worldwide annually, what ensues injuries to 5 million people: out of whom 275 thousand cannot be rescued. They are considered as the greatest health danger to children and young adults, especially in lower-income regions. Worldwide economy disburses the colossal sum of €500 billion per year for dealing with their disastrous consequences. Nonetheless, abrupt attention falls have to be attributed to human physiological traits, and hence cannot be avoided without scientifically-proven help (eye/lane-tracking cameras or self-control are completely ineffective). Within the next three decades, about 2 billion people will be affected by these formidable challenges.

#### **UNITED STATES**

395k persons injured/year, 328k attributed crashes

\*CDC/NHTSA

25% of all accidents assigned to tiredness while driving

AUSTRALIA

**\*AAA Foundation** 

Aforementioned problems are clearly identifiable within the international traffic safety statistics (e.g. provided by WHO or U.S. CDC) and were further corroborated through hundreds of B2B customer interviews (e.g. with international transport companies) performed by our venture.





## TECHNOLOGY

Outside of the vehicle, TCR App monitors user's everyday life [I] and (on the basis of machine learning technology) transforms registered data into the personalized model of his/her susceptibility to abrupt attention falls under the plethora of possible future circumstances. After entering the vehicle, TCR App analyzes multiple parameters associated both with driver's aware decisions and with subconscious reactions manifested by his/her organism [2]. By applying advanced AI, our system can subsequently combine the knowledge obtained beforehand with anticipated progress of the further journey.

As a consequence, we know what are the underlying circumstances of a given journey. We understand in what way the driver's organism behaves when the abrupt attention fall is approaching. Hence, we are capable of predicting the future thanks to our trailblazing algorithms. And as we are aware of what will happen, we can alter it through TCR App's individualized sound alerts designed to directly impact the driver's brain exactly when it is needed - what ensures that his/her level of attention will never drop to dangerously low magnitudes, attaining 94% effectiveness within less than 3 months.

[I] It encompasses variety of key information about user's background: e.g. sleep time/quality, level of health/fitness, work/leisure environment, physical activity, nutrition, triggering external factors, etc.
[2] It is reflected in vehicle trajectory fluctuations, acceleration changes, biometrical parameters and behavioural patterns. Every quantity in both models ([I] and [2]) is being measured fully automatically.

### IMPACT

According to WHO, road injuries are considered as a dominant life-threatening factor for children and young adults (aged 5 - 29). They are particularly harmful to those with limited financial abilities, as 85% of dangerous collisions afflict people from developing countries. We harness the power of AI in order to [I] protect health within the most vulnerable communities and to [2] reduce inequalities between different economic classes. By tackling traffic accidents with medical and perceptual origin (responsible for at least 25% of all crashes), our technology contributes to 3rd and 10th UN Development Goal.



After recent business consultations in Africa, we have supplemented our mobile-app-driven product with its **hardware-based counterpart** (oval-shaped tool, 2.6 centimeters in diameter, attached to the wristband). Hardware TCR App may be thus conveniently adopted by clients who are unable to use or purchase smartphones, what empowered us to embrace the entire spectrum of prospective customers.

#### TCR App can mathematically predict the future level of attention

FUTURE DRIVER'S ATTENTION LEVEL ATTENTION

TIME

and directly impact the user's brain via sound alerts emitted whenever dangerous tendency occurs (94% effectiveness)

#### PLANNED SOUND ALERT