e-Pavement

Want to know more?

Allan Lahi
Board Member
allan.lahi@e-pavement.eu
www.e-pavement.eu

BUSINESS OVERVIEW

e-Pavement

Turning road surface into active traffic participant! e-Pavement provides enhanced safety for pedestrians and bicyclists.

Smart Traffic Solution: In regulated crossings, our technology duplicates traffic lights directly on the road surface, capturing the attention of mobile device users and improving visibility for color-blind individuals. For bicycle and pedestrian crossings, our smart pavement solutions address safety challenges, creating a more secure environment for all road users. At unregulated crossings, our waiting area designs effectively draw the attention of both pedestrians and drivers.

Potential Applications

- Safer crosswalks: illuminated from the road surface, drivers can notice the pedestrians and better understand the traffic situation.
- Smart Road Infrastructure: On-site ICT infrastructure enables connectivity and communication within Smart Road networks.
- Energy Feed for Traffic Management: Harness renewable energy to power traffic systems efficiently.
- Enhanced Road Illumination: Our solution includes bottom lighting at road crossings for increased visibility and safety.

Innovation: 5th Generation Road Surface for Enhanced Safety of the Light Traffic

e-Pavement is thrilled to unveil our revolutionary 5th-generation road surface, designed specifically for light traffic roads and road crossings. Our cutting-edge e-brick technology sets a new standard in durability and functionality, boasting an impressive pressure resistance of at least 1000 kg/cm³. Remarkably, our brick outperforms traditional asphalt by five times in withstanding spike tires, ensuring a longer lifespan and lower maintenance costs.

Customer portfolio

Tallinn City Municipality, Ülemiste City, Viimsi Parish, business parks and trade Centers.

Advanced Features

- 3D Modeled Surface: Each surface layer is meticulously optimized to meet the specific operational environment requirements, enhancing performance and safety.
- IoT readiness: We have tested and demonstrated that our e-bricks may act as a participant of the Internet of Things
- Autonomous Energy Source: Unlike previous developments, our e-brick may act as an independent energy source for road infrastructure, integrating sensors and electronic components seamlessly into its design.

Product Specifications: The cornerstone of our innovation is the "smart road brick," measuring 10x20 cm. Each brick is embedded with LEDs, electronic components, and photovoltaic (PV) elements encapsulated in a thermo-reactive polymer. Our e-bricks can be integrated into panels, allowing for flexible installation and configuration. Depending on solar radiation conditions, these PV elements can operate autonomously or be connected to a grid.

Integration and Partnership: Our solutions include both software and hardware capabilities, allowing seamless integration with existing traffic infrastructure. We are actively seeking partnerships with traffic infrastructure companies and are eager to introduce our innovative solutions to road owners, including municipalities, traffic authorities, and industrial park operators.

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