SMART HIGHWAYS & VAN GOGH BICYCLE PATH

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Categories: Daan Roosegaarde, No Density, Project, Senseable Technologies, Technology and fabrication, Territory and mobility

Tags: Active Public Spaces, Agency of Urban Organization, Art&technology, Connections, Design, Eindhoven, Infrastructure, Lighting design, Mobility, New technologies, Project, Responsive technologies, Smart infrastructure, Soft infrastructures, Technological Approach, Technopoetry, Territorial Approach, The Netherlands, Urbanism

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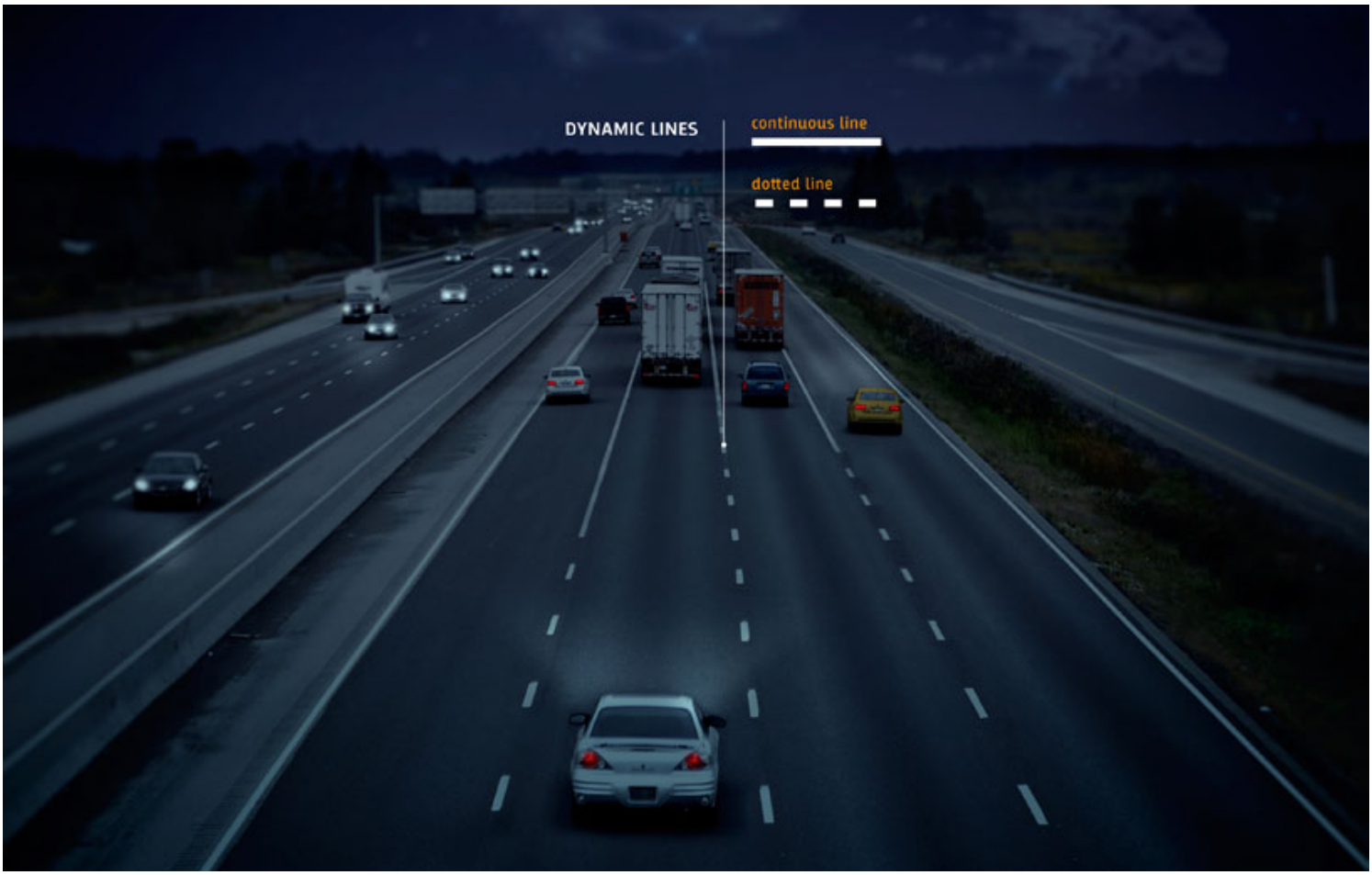
Smart Highway are interactive and sustainable roads of today. Designer Daan Roosegaarde and Heijmans Infrastructure develop roads that are sustainable and smart by using new technologies and designs.



Dynamic Lines

Smart Highway

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Dynamic Paint

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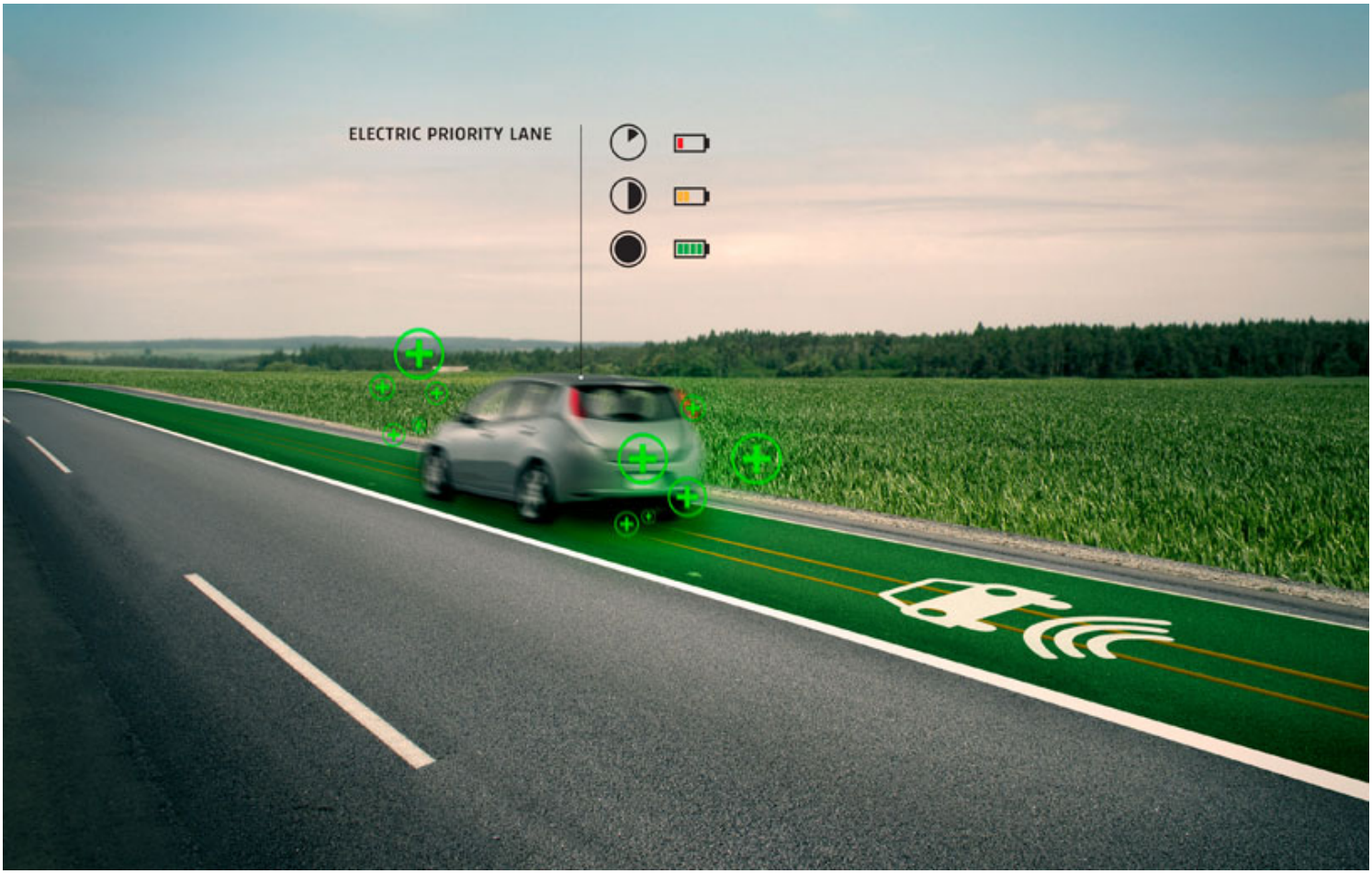

Electric Priority Lane

Smart Highway is an innovative concept for smart roads of tomorrow. A programme of innovation that links a different way of looking at things with innovative ideas that apply the opportunities offered by new technologies in smart ways. Smart Highway is the result of intensive collaboration between builder and developer Heijmans and designer Daan Roosegaarde. The themes sustainability, safety and perception are key to the concept and are manifested in the form of the newest technologies in the area of energy and light.

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Glowing Lines

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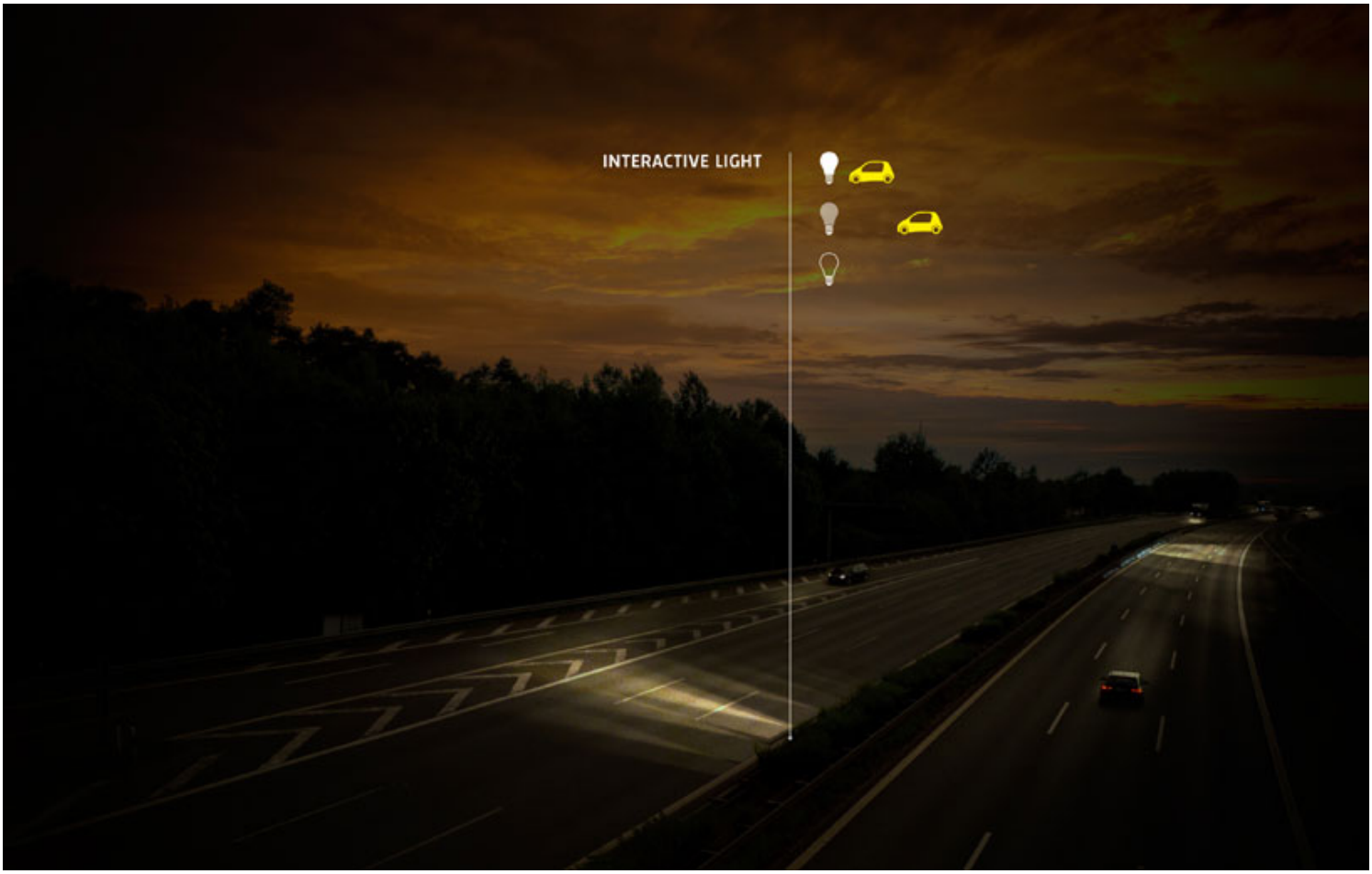

Interactive Light

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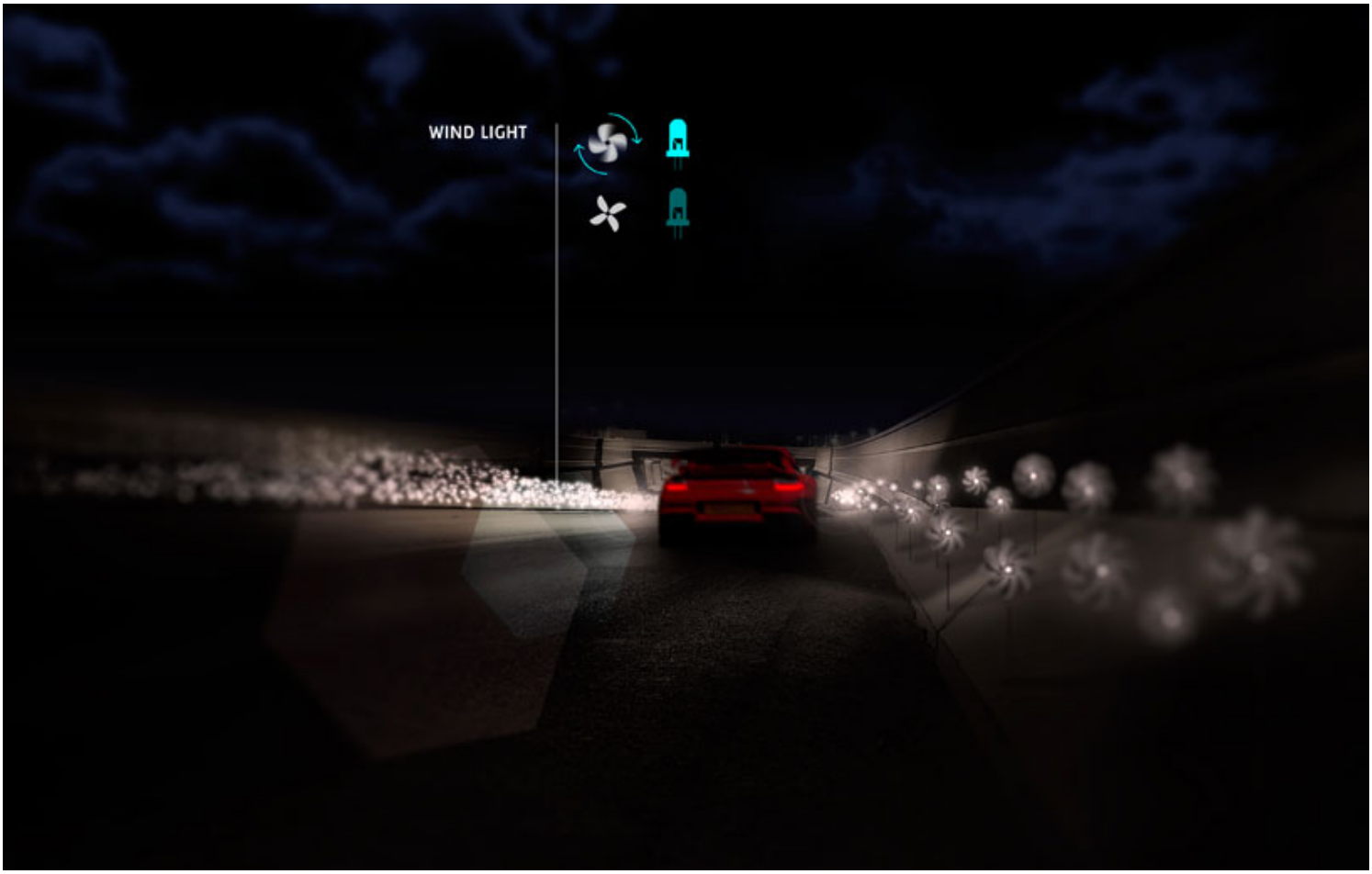

Wind Light

Lots has been written about intelligent highways since the eighties. However, until now the focus of innovation was on the car. Heijmans and Studio Roosegaarde tackle this issue on a large scale by innovating the road deck with designs such as 'Glow-in-the-dark Lining', 'Dynamic Paint', 'Interactive Light' and 'Electric Priority Lane'. Together they want to make the road sustainable and interactive through means of smart lighting, harvesting energy, and traffic signs that adapt to the road situation. The design and the interactivity of Studio Roosegaarde and Heijmans' specialized knowledge and experience brings out the best of two worlds. Although the differences between the two companies are major, they share their most important goal: innovating the Dutch landscape. Smart Highway is gaining worldwide interest and appreciation. For example, the concept has been designated as the

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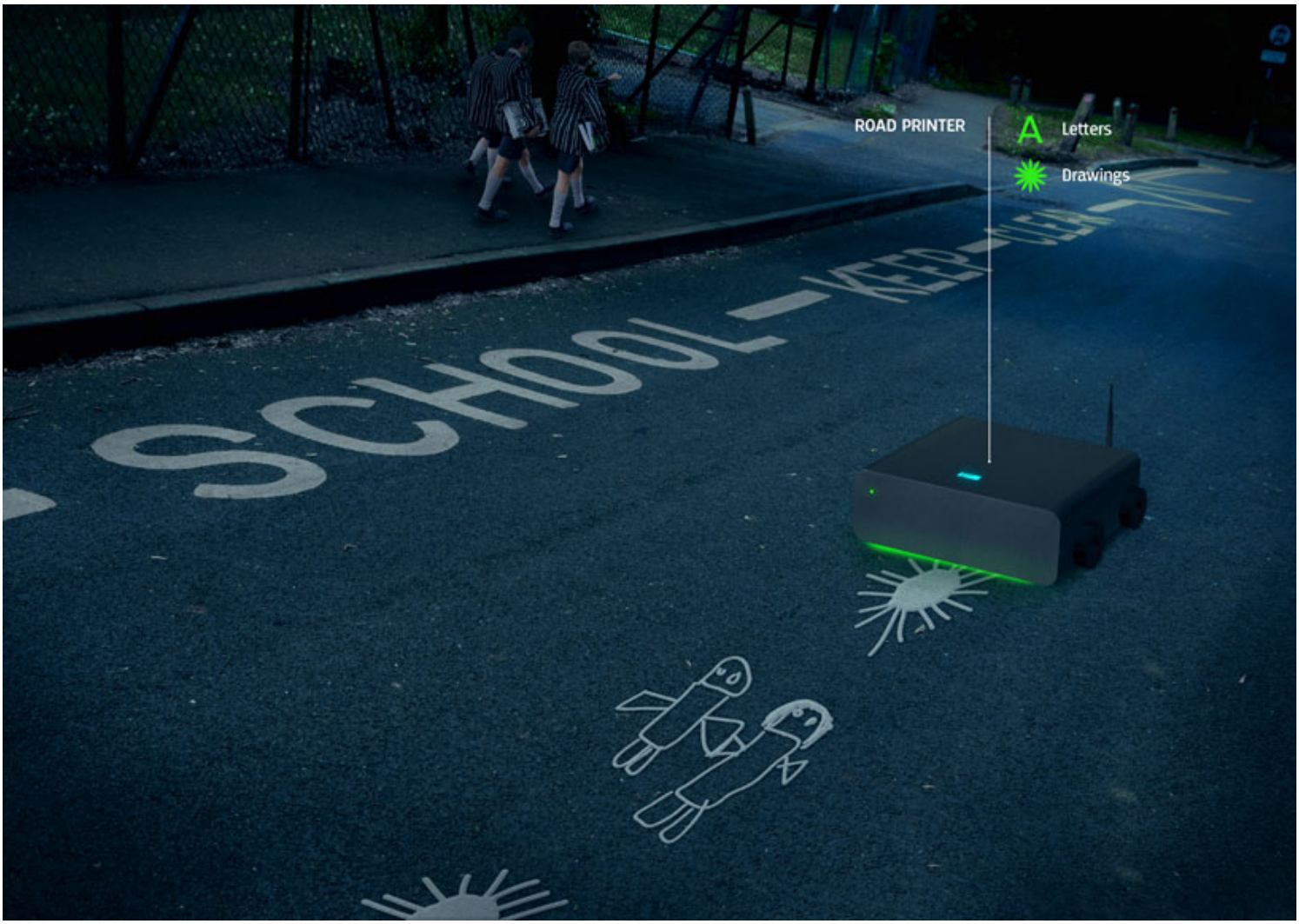
'Best Future Concept' by the 2012 Dutch Design Awards and is one of the finalists for the INDEX Award 2013, the most prestigious, international prize in the area of design.



Road Printer

Glowing Lines

The first Smart Highway design are Glowing Lines which are lines that charge at day-time, and glow

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at night up to 10 hours. Here the landscape becomes energy-neutral and a poetic experience.

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In this part of the road glow in the dark lines are installed, called Glowing Lines. These lines collect energy during the day and give light in the evening. Here the landscape becomes an experience of light and information. As a result this increases visibility and safety. Roosegaarde and Heijmans launched the Smart Highway concept at the Dutch Design Week. Since then the technical development of the idea has started and several versions have been tested in durability and user experience. This comes now to result in Oss as a matured design. When driving in the dark Roosegaarde describes it as **'**going through a fairy tale**'**!

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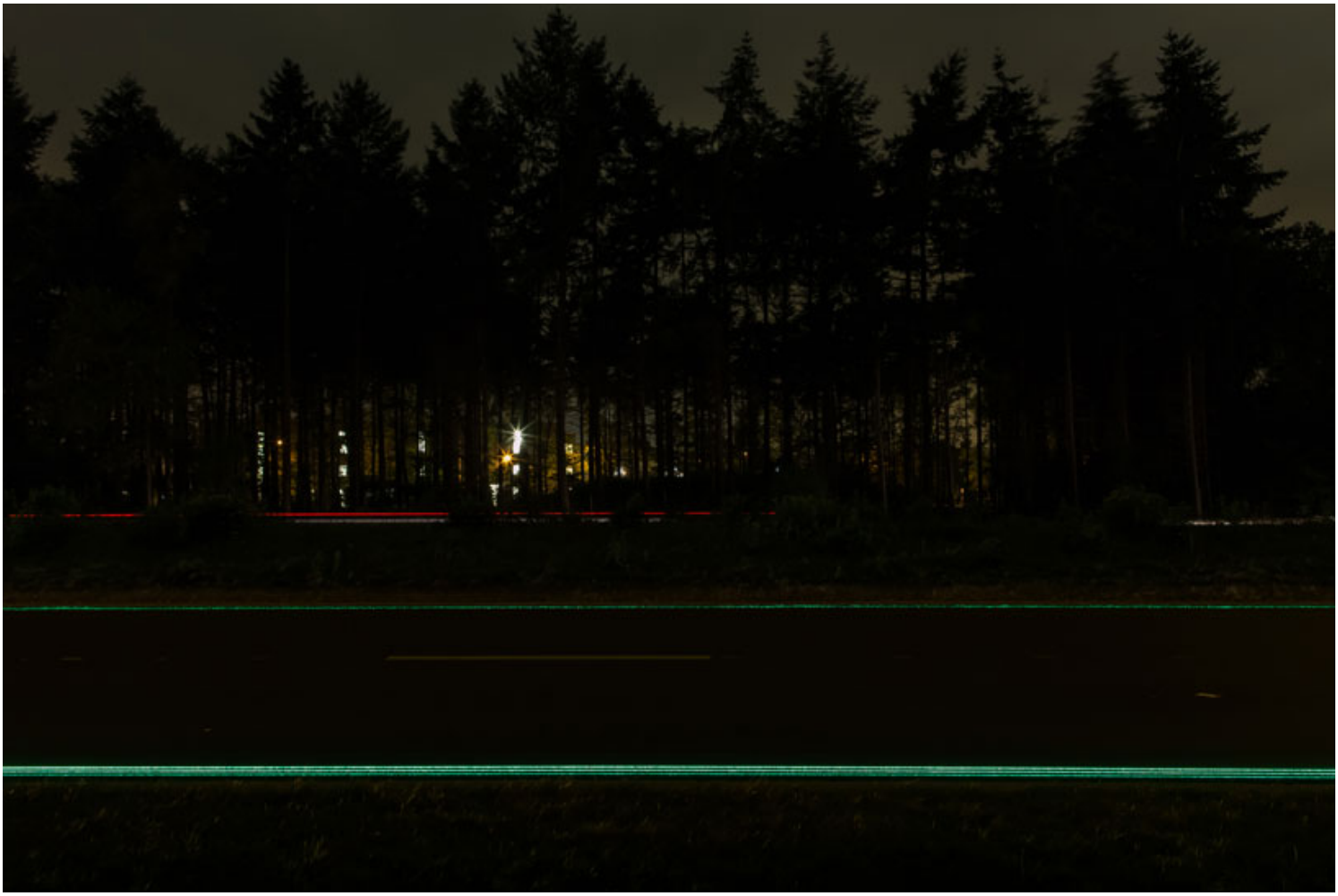

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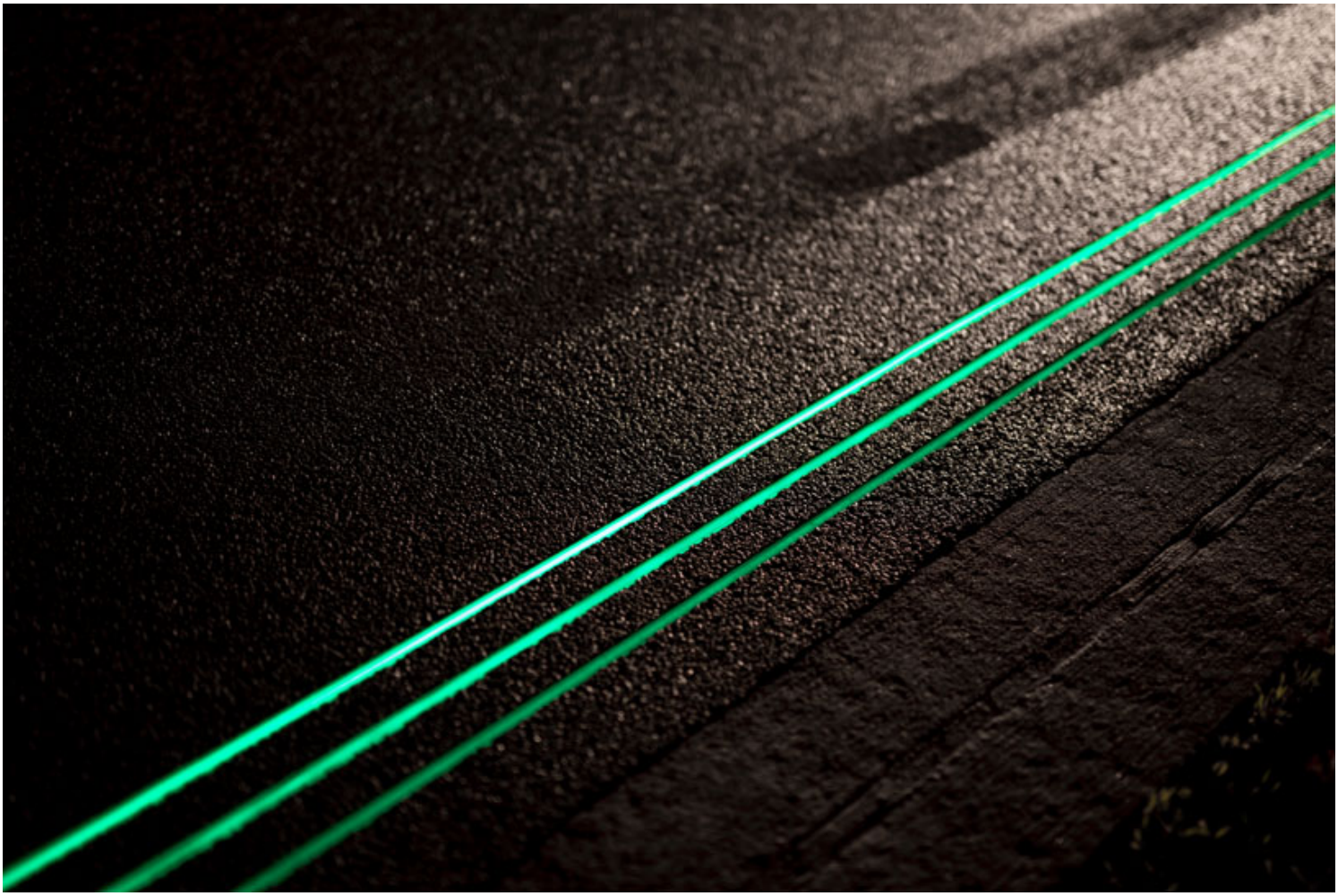

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Watch the first visitors in action here! The Glowing Lines can be experienced every night at the N329 in Oss, the Netherlands.

Van Gogh Bicycle Path

The Van Gogh-Roosegaarde bicycle path is an innovative path, inspired by Van Gogh's masterpiece

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'Starry Night and designed by Daan Roosegaarde. The path is illuminated by thousends of twinkling stones, giving visitors an experience of poetry, design and interaction.

The path charges at daytime and emits light during the night. It is supported by LED light to ensure safety, quality and light during the whole night. Cultural heritage and innovation merge in this new, public landscape. The bicycle path is 600 metres (656 yards) long and is part of the Van Gogh

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cycling route.

Technopoetry

The Van Gogh-Roosegaarde bicycle path is set up as a cultural and recreational Route, based on the light-emitting techniques developed for the Smart Highway. The bicycle path transforms cycling at this site into a wonderful experience. Furthermore, this approach lights up the path in a sustainable way without disturbing the existing ecology. As a tourist attraction, the bicycle path also offers economic added value to the Eindhoven region: visitors can experience the pathway in the evening and therefore will likely stay in the region longer.

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