

PHILIPS



The Floor is Yours



Luminous Carpets™

A unique new way
to **interact** with people



A unique
new way...

To **interact**
with people

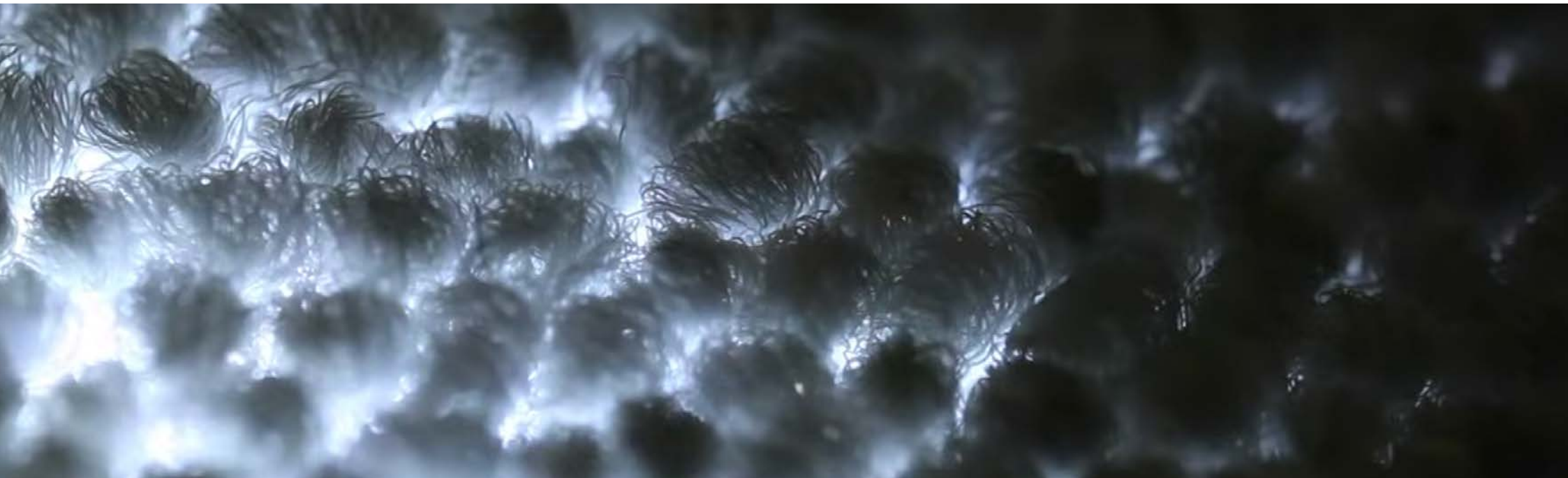
This unique, patented flooring solution combines robust LED lighting from Philips with light transmissive carpet specially developed by Desso.

It's an innovation that fundamentally transforms the way people interact with a space, turning flooring into a dynamic canvas that engages directly with our senses and our natural inclination to seek out light.

It brings a new found design freedom to architects and interior designers too, with countless application possibilities. Building managers can create different moods and settings instantly, altering décor and ambience at the touch of a button. And ...the carpets look good even when the LED lighting is off.

Content

How to apply	4
How it works	10



How to apply

Suddenly, carpeting takes on a new function

Innovative and active buildings set the trend in fusing form and function. Opening up unique new ways to make commercial and public buildings more efficient and enhance the lives of the people using them.

Now, the Philips and Desso Luminous Carpets™ solution adds an exciting new dimension to the interiors of offices, banks, conference centers, hotels.

The carpets update people with important and useful **information**. They **direct** people quickly and intuitively to other parts of a building. They **inspire** people wherever they gather. They help evacuate guests and staff **safely** in an emergency.



Information



Direction



Inspiration



Safety



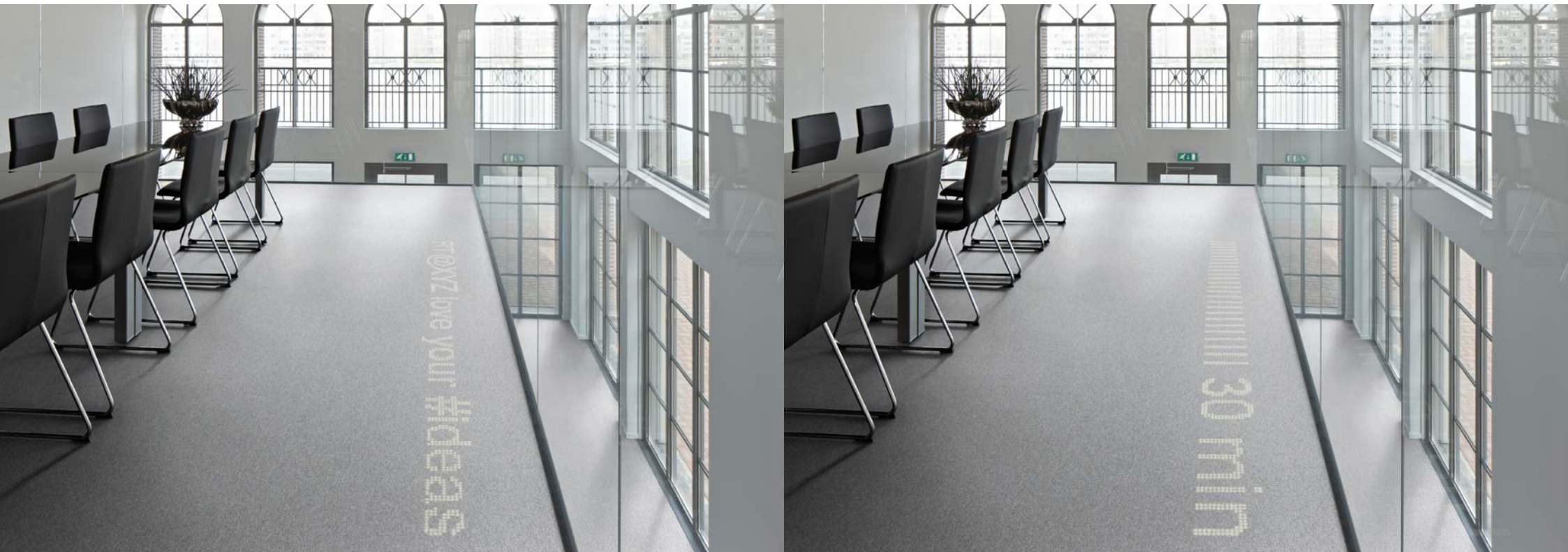


A unique new way... To **inform** people instantly

In the innovative buildings of tomorrow, live information streams will play a key role. From 'ticker-tape' news updates in modern offices to dynamic content in luxury hotels. We know you are always looking for new ways to create unique customer experiences. Here are some ideas...

Take offices for example. Whether purpose-built for open plan use or designed for rental purposes, today's office buildings are increasingly being occupied by a migratory, flexible workforce. Identifying who, what and where requires more and more signage. And that leads to clutter.

Luminous Carpets™ can rebrand an office in seconds, showing company logos or identifying people's workspaces. By limiting information to the floor, wall spaces are kept simple, uncluttered and attractive. Other possibilities include counting down the minutes to the end of a meeting, updating visitors on current waiting times, and displaying personal greetings to important guests.





A unique new way... To **direct** people intuitively



Simply finding your way can be hard in unfamiliar buildings. We've all wandered around trying to find an elevator, meeting or conference room, restaurant, hotel room, toilet or exit.

Luminous Carpets™ are ideal for route marking, with people being naturally guided by what they see on the floor. With color-coding and smart controls, the carpets can direct visitors without cluttering the space. In open-plan offices and creative workspace designs they put an end to all the wandering round looking for somewhere to meet. They can indicate whether multi-purpose rooms and workplaces are free or occupied. And in hotel rooms, they can provide guests with unobtrusive stumble lights.



A unique new way... To give people an immersive **experience**

Innovative building design is bringing new materials and new ideas to offices and hospitality buildings.

Luminous Carpets™ bring yet another – immersive – design element. Colors can change depending on the area's function, and time of day or time of year. Independent research shows that different types of light can have a fundamental effect on our moods, even our productivity and creativity. Luminous Carpets™ help you take advantage of that. The carpet panels can be used to show versatile and dynamic patterns, inspirational text, and even videos.



A unique new way... To guide people to **safety**

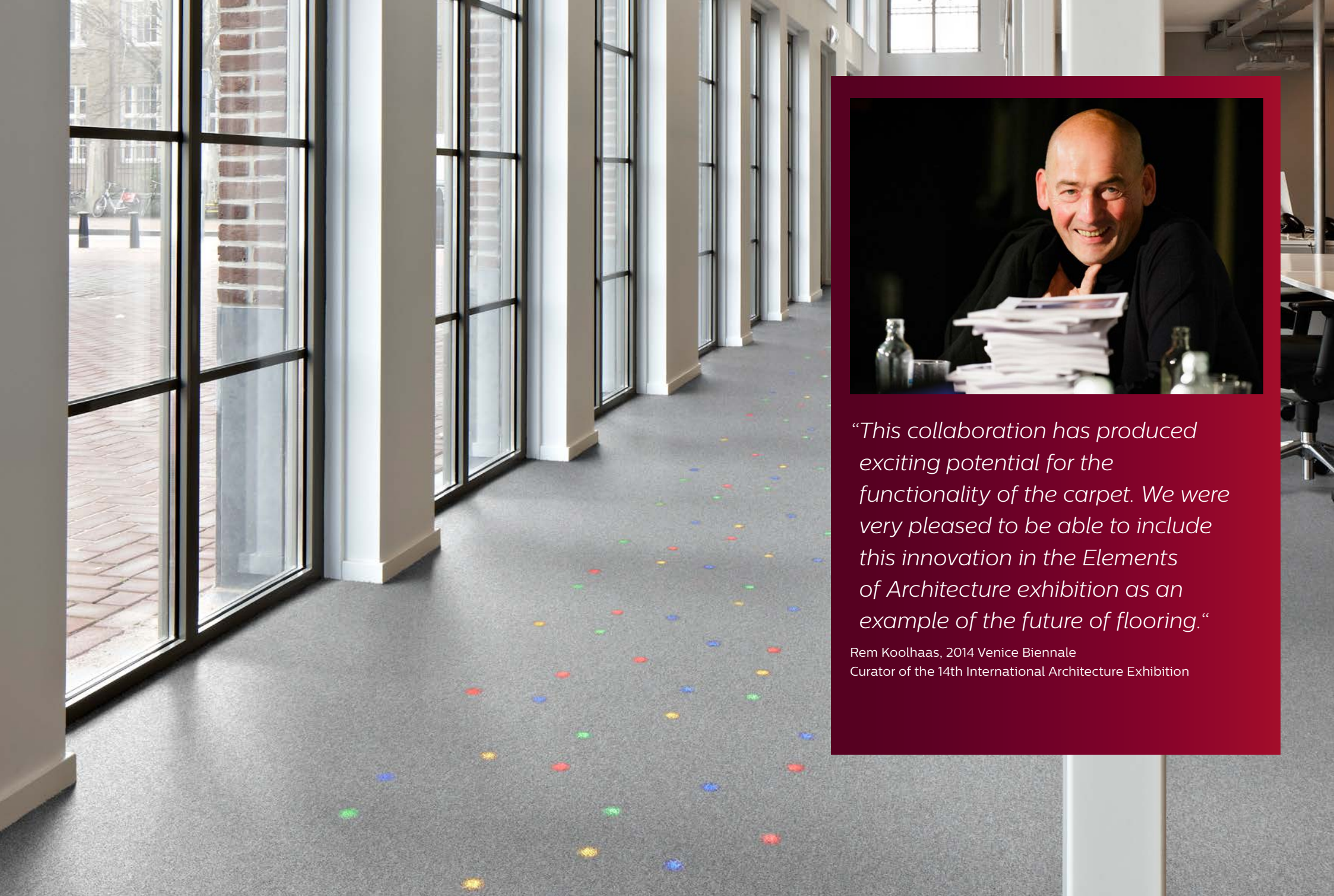


The emergency path marking signs demanded by national and European safety codes are normally located high up on walls, on ceilings and above emergency exit doors. Not a sensible place, since they are obscured by rising smoke during a fire, which can make them useless – and leave people directionless – exactly when they are most needed.

Low markings are already mandatory in airplanes and cruise ships, and several US states now also demand Low Egress Path marking in buildings of six stories and above. Luminaires or glow-in-the-dark strips are often placed at floor level, but these can themselves be easily obscured. They can be ugly, too, cluttering the clean design lines favored by architects and building/interior designers.

Fast evacuation is particularly difficult from complex buildings with open-plan offices, even when following safety codes. Dynamic path marking is starting to become a requirement for real-time responses in an emergency. Already mandatory in Shanghai, this is increasingly being discussed in Germany and elsewhere.

Luminous Carpets™ can point clearly to emergency equipment, and help to evacuate buildings. They can instantly give clear dynamic emergency path marking through even complex pathways. Unlike LED strips on airplanes, they even allow for an element of surprise when lit.



“This collaboration has produced exciting potential for the functionality of the carpet. We were very pleased to be able to include this innovation in the Elements of Architecture exhibition as an example of the future of flooring.”

Rem Koolhaas, 2014 Venice Biennale
Curator of the 14th International Architecture Exhibition

How it works

A unique technology

For innovators, the new Philips and Desso Luminous Carpets™ open up a world of exciting possibilities. From pointing out safety exits and giving people directions or information, to creating a fully immersive experience that inspires occupants and visitors alike.

While the concept is simple, the technology is advanced.

Great care was taken in the development of this solution to match the specific needs of the target locations, without disrupting essential processes like cleaning. For example, latest generation Philips LEDs emitting any color are built into units with the appropriate protection against the spilling of fluids. These are combined with robust office and hotel quality Desso carpets, specially developed for the purpose.

The end result is a unique combination of elements – and that means successful installation requires specialist expertise.



Installation made easy

There are three different installation possibilities, depending on floor type. They are easy to install on top of the raised access floors commonly found in offices, and can be recessed or routed into the concrete floors. Locations can be installed using an underlay that keeps the tiles flush with non-lit floor areas.

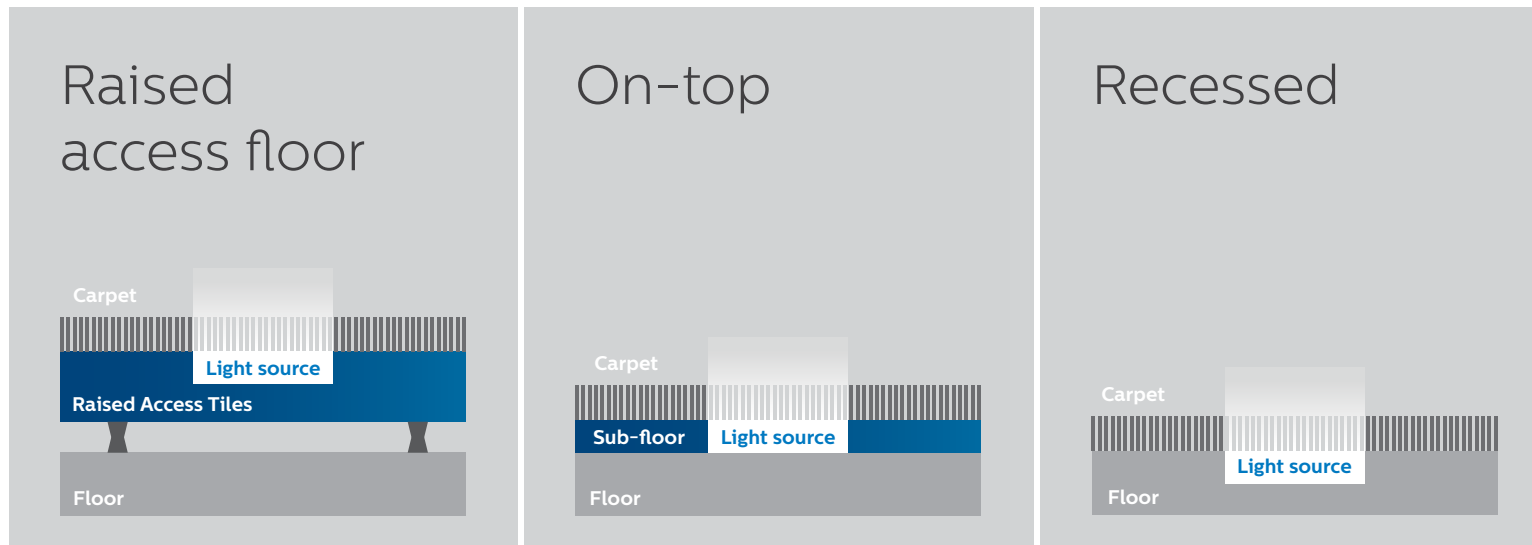
For all three options the carpet is installed on top of the LED units, so that it remains flush with the non-lit floor area. Keeping the LEDs separate from and below the carpet gives designers more flexibility and also makes for easy maintenance and replacement,

since the carpet is likely to be replaced more quickly than the LED units (which should last for at least 20 years).

Selected installers

With selected partners, we can help you prepare the location, design and install the system, link it to existing or new systems, and provide on-the-job training for your people. And over the lifetime of the installation we can set up a service agreement.

Three options for Installation



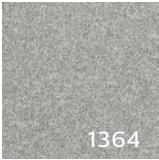



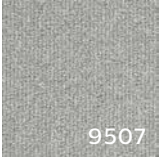
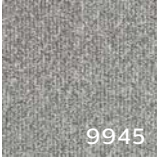

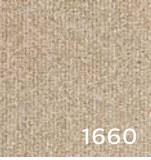

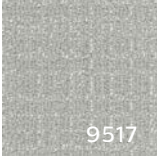




Specially developed carpets

The light transmissive carpet tile developed by Desso has been given a further engineered version of EcoBase™ carpet backing. A unique light transmissive backing allows the LED light to pass through, and replaces traditional backings. Unlike bitumen (which is a waste product of the oil industry) the composition is consistent and so recyclable – up to 400 times in Desso's own Refinity plant.

The Econyl yarn is made from 100% regenerated nylon from used carpet tiles and fishing nets. Four carpet textures are initially available from Desso's standard range: Stratos, Pure, Scape and Flow. There are fourteen neutral, contemporary colors available ranging from white and creams to mochas and greys. There is a choice of four textures with further product and shade options in development.

The tiles meet norms for dimensional stability and flatness to ensure a tight-fitting broadloom all-over effect throughout the carpet's lifetime. The carpets can be installed on a subfloor to give a completely flat surface, with the cables being routed through ducting and panels.

Carpet collection

Stratos	 1364	 9517	 1709	 2915
Pure	 9507	 9945	 1321	 1660
Scape	 1255	 9517	 2928	 2936
Flow	 9027		 9096	

Patented LED technology

The super thin LED panels and lights have been created using the latest LED technology. Together with the light transmissive carpets this patented solution is unique in the market today.

Installed underneath the carpet tiles, the LEDs are built into enclosed units that are strong enough to be walked on while still protecting against spillages without overheating. Producing a bright, sharp light in any color, they are entirely hidden from view when switched off - unlike LED strips on, for instance, airplanes.

Underneath it all

The LC Grid is a metal casing with 1024 high intensity LEDs specially designed for floormounting indoors and ready to be covered by light transmissive carpet tiles. The 1024 LEDs can be addressed separately, which makes it possible to display static and scrolling text on the panel.

The LC Grid panel can be installed in a concrete floor with a special floorbox mounted in the routed concrete. The LC Grid panel can also be installed in a raised access floor.



Controlling the display

Philips and Desso Luminous Carpets™ can be controlled in different ways. The content can be pre-programmed so it can run for longer periods; ideal for branding and other more permanent information like emergency path marking. Linking the Luminous Carpets™ to a building management system is also a possibility, since the units work with either Art-Net or KiNet protocol with input from external systems.

Some applications require more flexibility, even to the point that you may want to change the content on the spot. Combining Luminous Carpets™ with control software on a laptop or iPad is also possible. Change the text, the name or choose different content, without complex programming.

By choosing to use existing protocols and components we can now offer a range of possibilities to suit most applications. In addition, every customer has access to the extensive experience and broad portfolio of Philips Lighting.



Philips and Desso introduce Luminous Carpets™

A unique new way to make floor designs truly persuasive



Information



Direction



Inspiration



Safety



www.philips.com

© 2014 Koninklijke Philips N.V. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any timewithout notice or obligation and will not be liable for any consequences resulting from the use of this publication.

© 2014 Desso. All rights reserved. Desso reserves the right to make changes in specifications and/or to discontinue any product at any timewithout notice or obligation and will not be liable for any consequences resulting from the use of this publication.



www.desso.com

www.luminous-carpets.com