lightingforpeople
CONNECTING OPPORTUNITIES FOR INNOVATION

IN A NEW LIGHT

Accelerate SSL
Innovation for Europe

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LIGHTING FOR PEOPLE

With changing technology society has the chance to grasp a true win-win opportunity. Through the right investment in good lighting we can promote health and wellbeing, create dynamic and creative environments based on green values and at the same time reduce energy costs! The human centric Solid State Lighting is a game changer.

LIGHT BEYOND LIGHT

The last century people have been forced from naturally shifting daylight exteriors to static, artificially lit interiors. With evolution working slowly, humans are unarguably still designed to function best in a dynamic lighting surrounding. Modern lighting technology now brings the first true opportunity for people to create an adaptable humane environment – through Human Centric Lighting.

Modern lighting has great potential - far beyond supermarket bulb replacement solutions. In addition to actually being beneficial to people, it enables intelligent system functionalities.
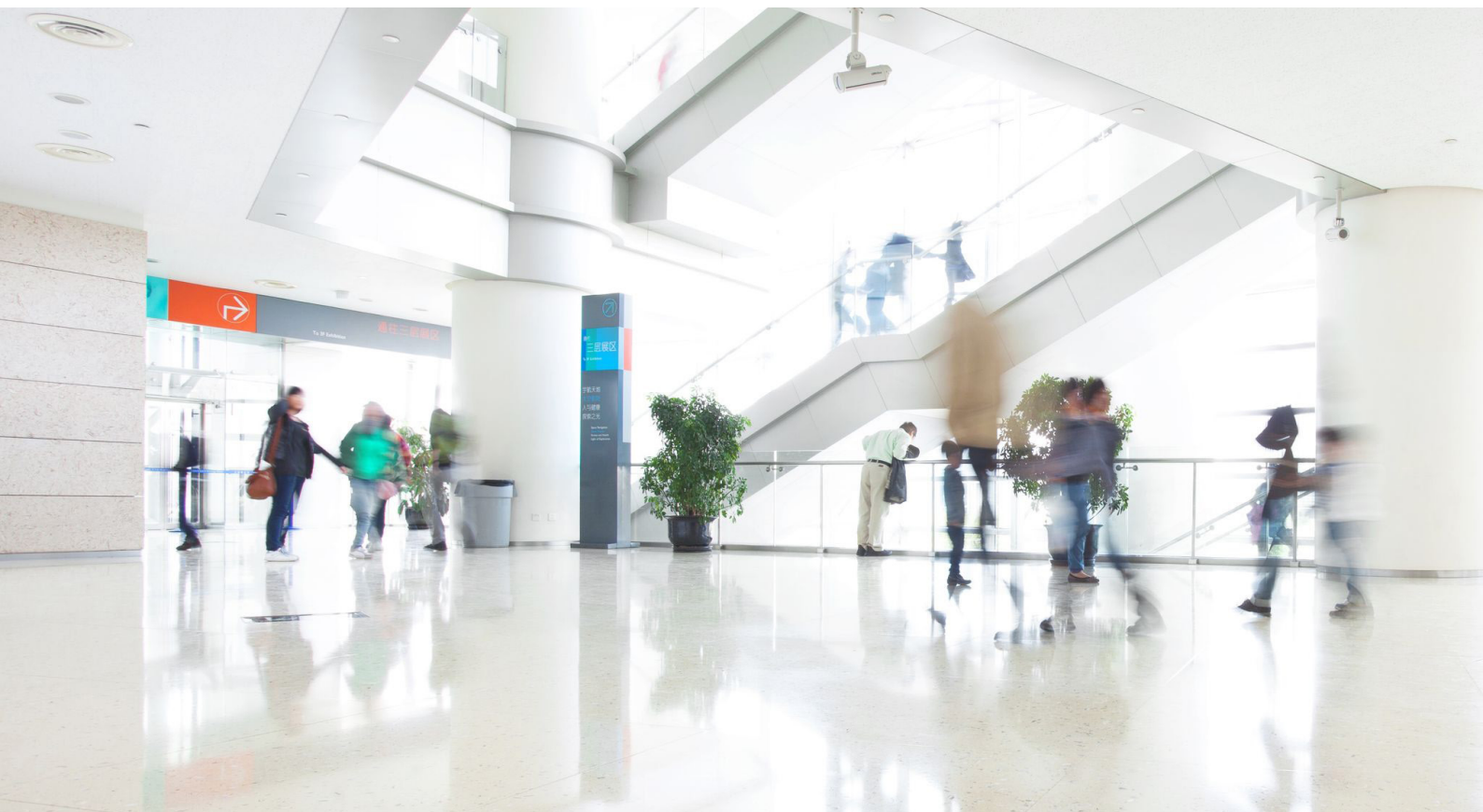
EFFECTIVE LIGHT

Human needs

Our body reacts to sunlight by producing regulating hormones that steer our inner clock. Disturbance of this inner cycle has been linked to chronic diseases such as insomnia, hypertension, diabetes, and depression. The risk for these symptoms is particularly high in closed environments with little or no daylight like elderly homes and schools. Today modern light technology can imitate daylight. For instance, artificial light variation can help people working in shifts, such as health care personnel, to manage their sleep cycles. We are able to work preventively against the hormonal disturbances. Far beyond light regulation through simple dimming or presence detection, this functionality actually serves the user on a physiological level.

Digital control

We are in the midst of a digital light revolution. Through modern LED lighting the light can now be adapted to the users needs, and as a result our use of light can become much more effective. We are saving energy though this intelligent light management, but even more importantly we are creating dynamic environments that support how we want to live. Through seamless light variation we can adjust artificial light levels to dynamically adapt to changing daylight conditions.

With modern lighting controls we are able to adjust the amount of light, its color and duration to imitate natural light variations. This technology has proven valuable for numerous applications, such as hospitals and schools, with a positive impact on wellbeing.

Adaptability

LED lighting offers a great flexibility. One single fixture can generate free variation of light colors and intensities, helping to create several uses for one space. A bright examination room at the hospital can be converted to a warm and welcoming office at the touch of a button. A day room at the elderly care center can be given a dynamic atmosphere at lunch to encourage activity, but imitate natural light shifts evening time and become a place of calm and meditation, helping the residents to come to rest.
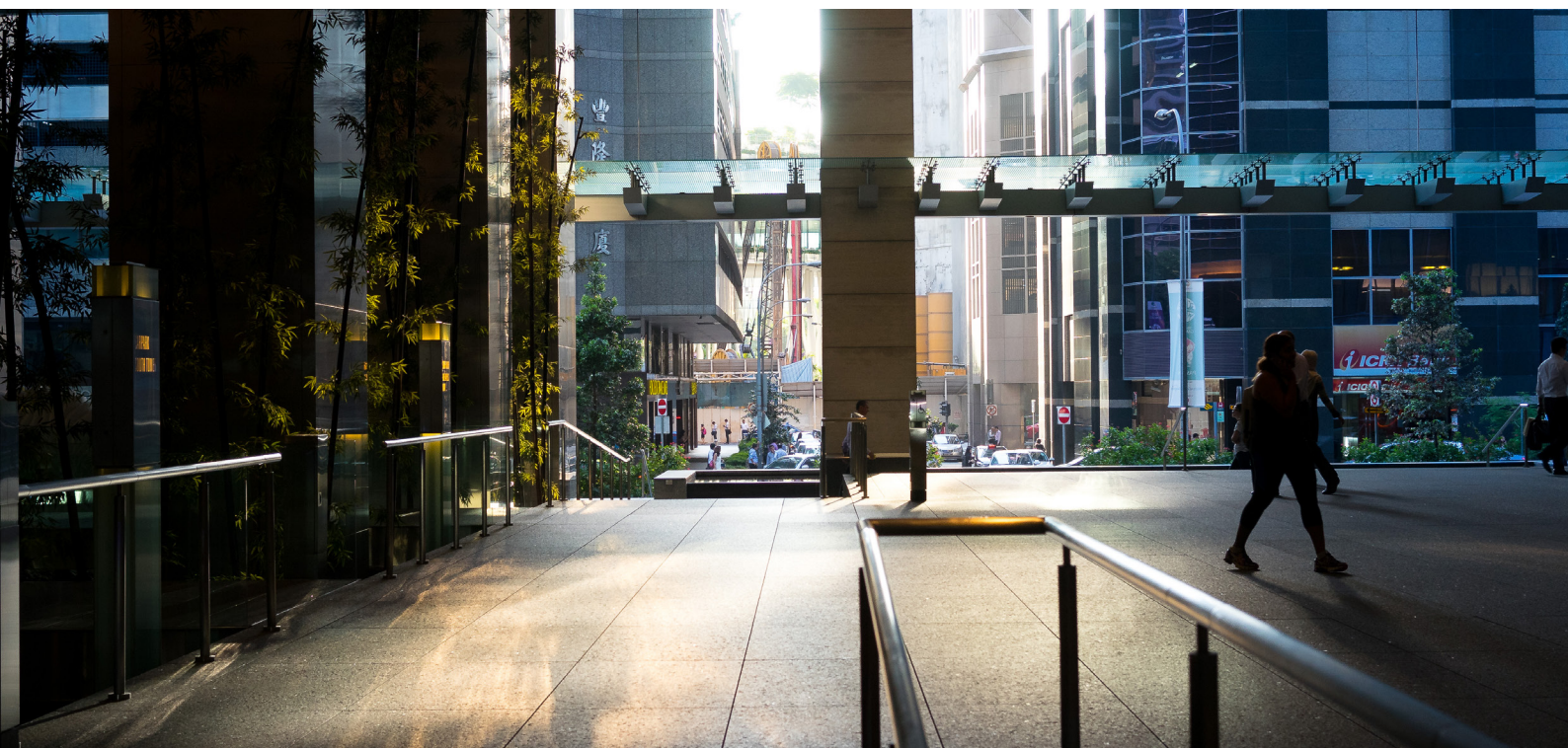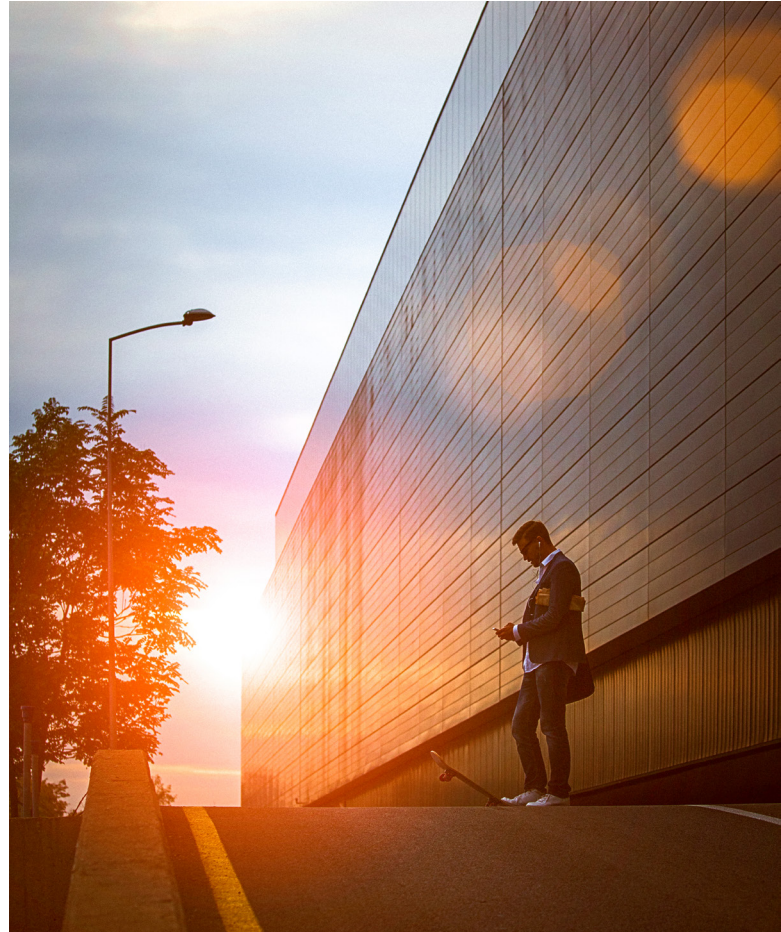
ENDLESS POSSIBILITIES

Open market

New lighting technology initially fell victim to its own rapid development. Regulators did not keep up, and as a result the new lighting products available on the market were often of poor quality. Many consumers were disappointed by the new lightbulbs which were much more expensive and had a terrible light. Now that the technology has matured, the bad reputation amongst consumers remains.

Development opportunities

New lighting technology has a much greater future than substituting an outdated solution. Would you base the design of 5G telephones on the functionality of public payphones? Although they both place calls they have little else in common. The new technology brings new applications. When we talk about light today we talk about colors we see and the color of the light. The old way of measuring light, comparing Watts, is not relevant any more.

What the individual fixture consumes is relative; it is the effectiveness that matters. These terms also describe better what the actual possibilities of new lighting technology are.

True qualities

So much effort has been spent making the new technology seem like the old lighting that the real capabilities of the new has been missed. Modern digital light doesn't have the shape of a light bulb, the fragile glass of a light bulb nor the limited lifespan of a lightbulb. The colors and shapes are infinite; it is a game changer!

Green light

The efficiency of new lighting technologies is one argument for a technology shift. When we control the light so that we get precisely what is needed and wanted and avoid all disturbing and useless light we can reduce the greenhouse gas emissions with at least 90%. These arguments appeal to a conscientious public. Good light design and intelligent systems using new technologies results in more attractive facilities, e.g. in schools and offices. In a tough competition for qualified personnel, a conscious green policy is favorable. Smart lighting can make a city more attractive and contribute to enhancing the city's reputation.

Recommendations

New technology requires new ways of thinking. Our role today is not to arrange quick fix remedies to aging light installations. By using retrofit solutions to renovate existing installations we are not addressing the need to make our indoor environments more suited for humans and we are not using the full potential of the technology. There is a need of technical guidance to bridge the knowledge gap between the existing and the new technologies. The role of holistic lighting professionals and system application engineers is essential in the implementation phase to ensure functional, attractive, durable quality solutions. Ensuring that we make use of the full potential of the new lighting technologies is a wise investment for the future. By embracing the digital aspect of SSL our benefits rise substantially.

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