

Lighting Growth Strategy

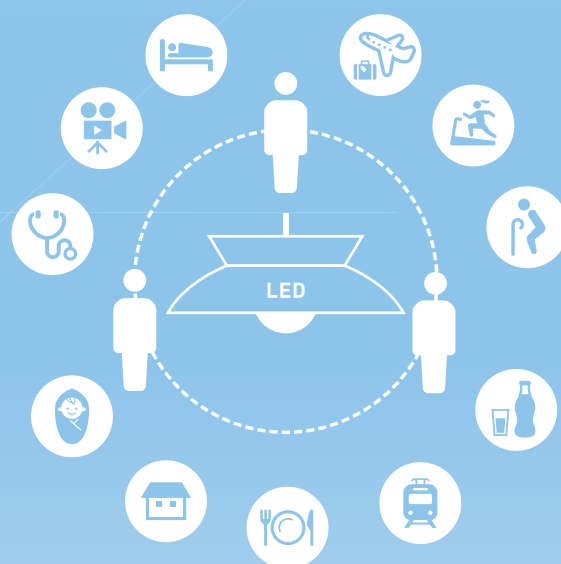
# *Lighting Vision 2030*

Improving Lighting Culture and  
Contributing to the Global Environment

Connected Smart Lighting



Human Centric Lighting



Japan Lighting Manufacturers Association

# Dissemination of “Connected Smart Lighting & Human Centric Lighting” 100% SSL rate in the market of existing luminaires in 2030

※SSL (Solid State Lighting) : Lighting using semiconductors such as LED, Organic EL and laser

## Improving Lighting Culture and Contributing to the Global Environment

### Vision

## Improving Lighting Culture and Contributing to the Global Environment

Aiming to Create New Lighting Value and Contribute to the Global Environment through Dissemination of  
“**CSL**” as an intelligent lighting that connects to a variety of things and matters, and  
“**HCL**” as a safe, comfortable and convenient lighting that is friendly to human.

### Mission

We will endeavor to disseminate environment-friendly and gentle lighting for realization of a safer and more comfortable living environment and for the improvement the global environment.  
As a representative of the lighting industry, we will contribute to the development of the lighting industry and to create a fair and sound lighting market through pursuing government growth strategies, disseminating information to domestic and overseas stakeholders, exchanging information, and conducting negotiations.

### Responding to Paradigm Shifts by “Connected Industries”

- Establishment of a business environment to promote “CSL and HCL”
- Organizational reform of the association in response to the paradigm shift



### Responding to Globalization and Borderless Economy

- Improvement of an environment for overseas market development
- Promotion of brand value of Japanese lighting products
- Maintaining and improving sound markets for fair and proper competition

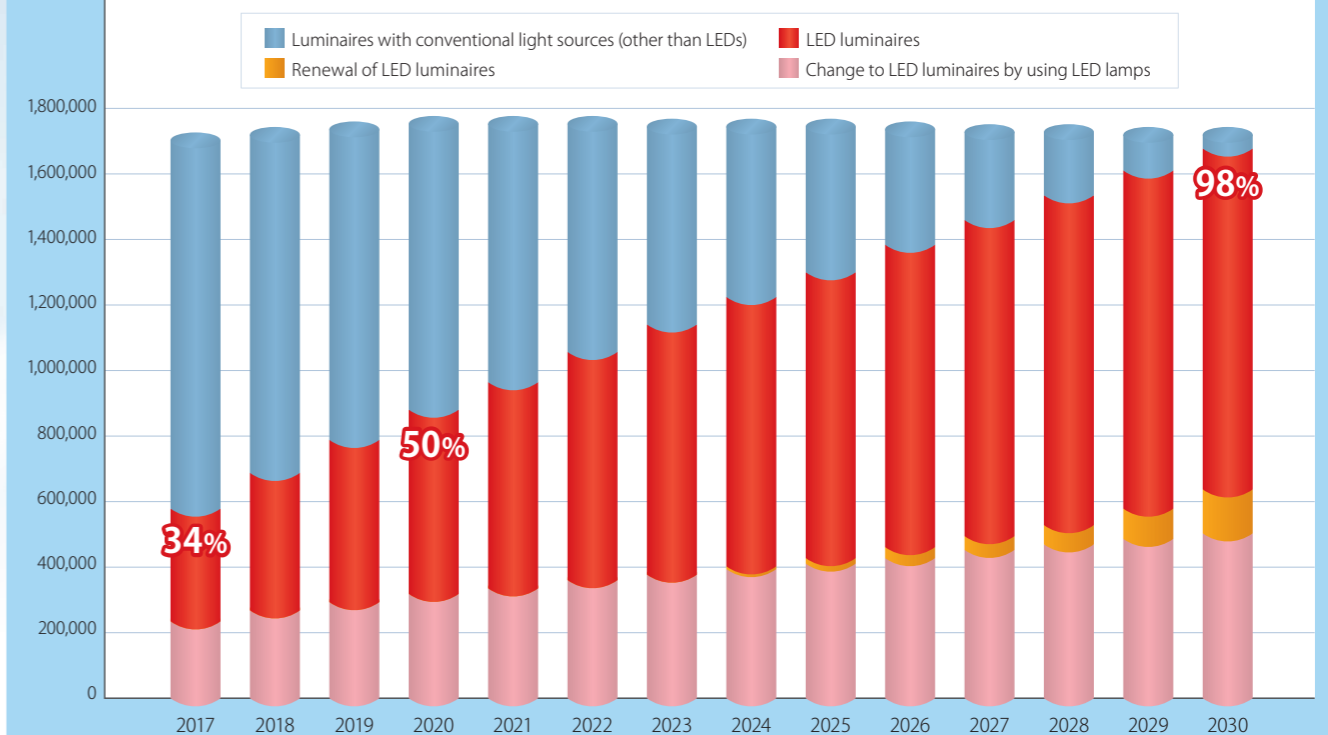
### Improving the lighting quality and contributing to SDGs

- Contributing to the global environment by accelerating the change to SSL in the existing luminaire market
- Creating New Spatial Value by Improving the lighting quality

※ SDGs:Sustainable Development Goals

### Plan for 100% SSL rate of existing luminaires in the domestic market

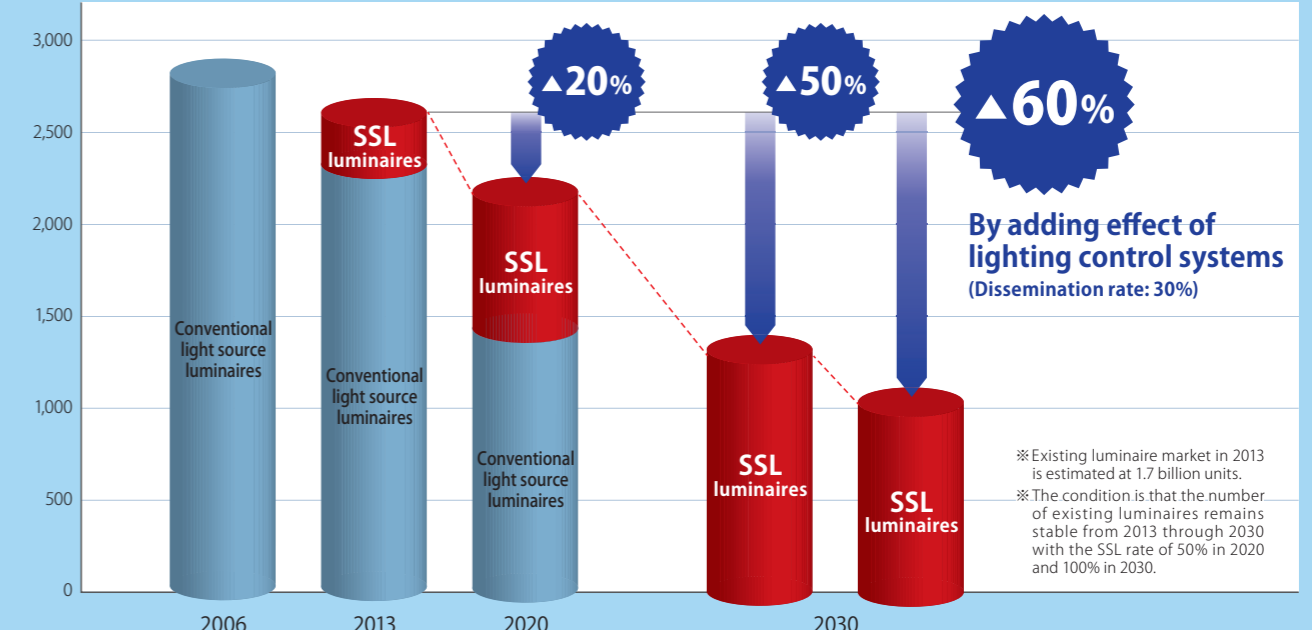
(Thousands of units)



The number of luminaires in the existing market is estimated to remain approximately 1.7 billion units.  
→ Accelerated dissemination of “CSL & HCL” in cooperation with related ministries and agencies is crucial for the achievement of the government target of 100% SSL rate.

### Reduction of power consumption (simulation in the case of 100% SSL rate in the existing luminaire market)

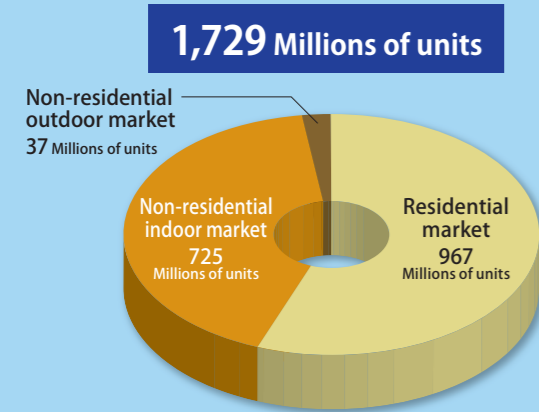
(100 Million kWh)



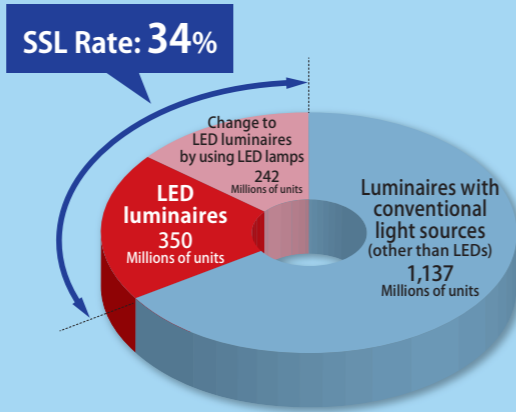
# Domestic and Overseas Lighting Markets and Future Issues

## 2017 Market Estimation of Existing Luminaires by Sector (Survey by Japan Lighting Manufacturers Association)

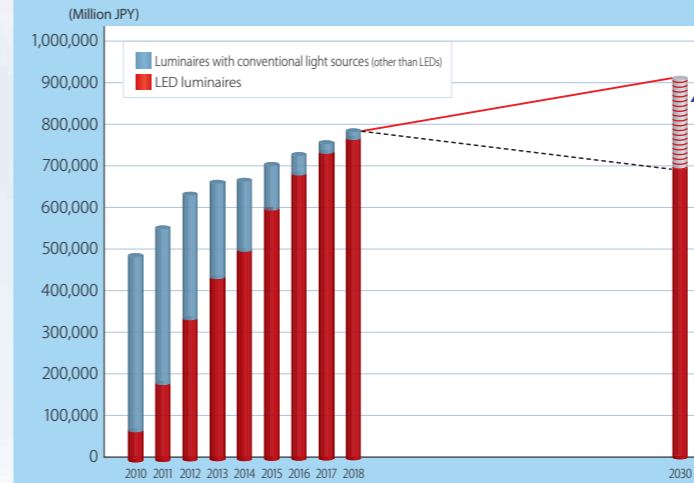
The number of existing units by market sector



The number of existing units by light source



## Shipment Result and Target of Luminaires in Japan (based on voluntary statistics of Japan Lighting Manufacturers Association)

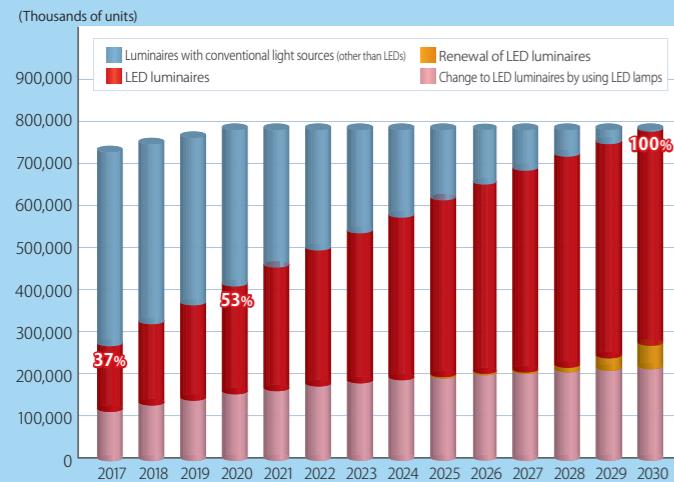


■ From market indices such as reduction in housing starts and population transition, the shipment number of luminaires, in particular residential luminaires, is expected to decline in Japan from 2019 onwards.

→ Generation and promotion of high-value-added products by "CSL & HCL" in the renewal market of LED luminaires as well as creation of new business

→ Business expansion in overseas market

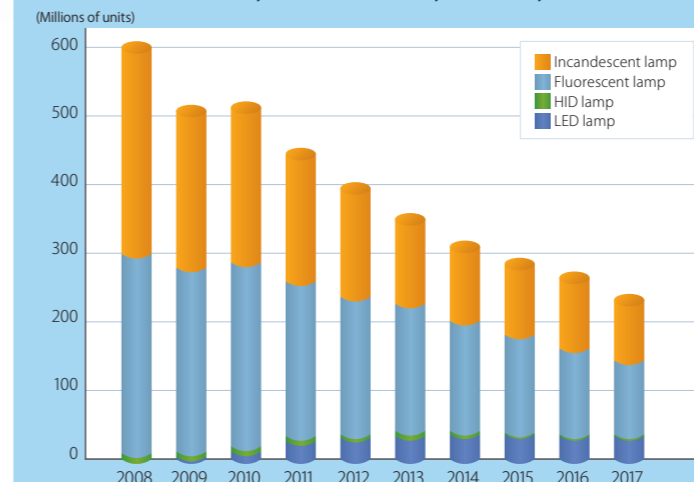
## Scenario for 100% SSL Rate of Existing Non-residential Luminaire Markets (Indoor and Outdoor)



### [Challenges to Achieve the Scenario]

- In order to accelerate the renewal of small and medium-sized properties and rental facilities for which it is difficult to generate capital investment costs, it is necessary to strengthen awareness-raising activities as well as to continue government support measures such as subsidies and tax incentives.
- New measures are needed to accelerate the introduction of lighting control systems in order to achieve further reductions in power consumption and improvements of spatial value.

## Shipments of Light Sources in Japan (based on Machinery Statistics of Ministry of Economy, Trade and Industry and voluntary statistics of Japan Lighting Manufacturers Association)

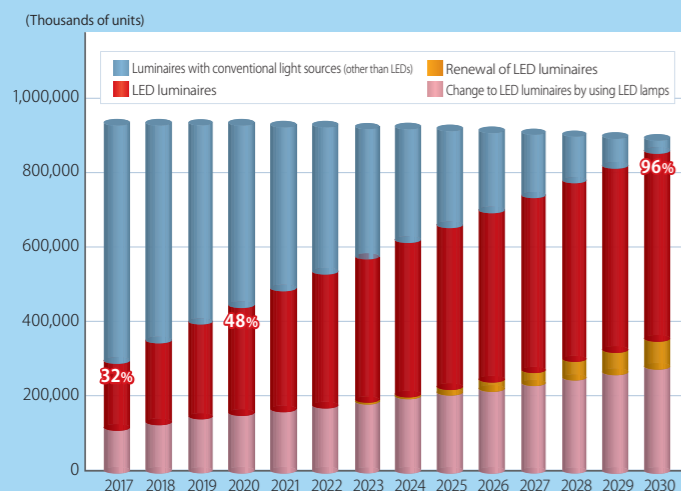


■ The light source business will continue to shrink due to longer life of the light source, longer lamp replacement cycles by partial use of lighting, and spread of LED luminaires that do not require lamp replacement.

■ The top runner system accelerates the shrinkage of the conventional light source market.

→ Creation of a new circulation-type business model  
→ Soft landing of conventional light source business

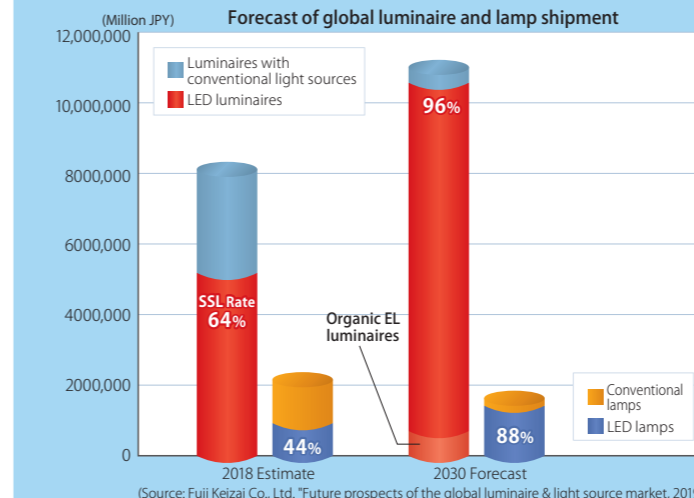
## Scenario for 100% SSL Rate of Existing Residential Luminaire Markets



### [Challenges to Achieve the Scenario]

- It is an important issue to increase SSL rate of luminaires in facilities that require electrical work. Especially for old luminaires, measures to promote the renewal of the luminaires are necessary instead of replacing the lamps in consideration of safety, including government support measures such as subsidies for the installation cost.
- Consumers tend to have a consciousness of "Still usable" and "Mottainai (Wasteful)", and they have little awareness of replacing luminaires other than at the time of moving or renovating the residences. Therefore, it is necessary to promote public relations activities that change consumers' awareness, such as appealing for electric power saving and danger due to long-term use, in cooperation between the industry and the government.

## Global Market Trends and Future Issues



■ The center of the global economy will shift from Europe and the United States to China, India, and Southeast Asia, and the global lighting market will be driven and expanded by emerging countries.

■ Luminaire shipment amount will increase 36% in 2030. The SSL rate also increase from 64% to 96%. On the other hand, the lamp shipment amount is expected to decrease slightly, and the LED rate is expected to rise to about 88%.

→ Accelerated support for entry into expanding emerging markets  
→ To discover opportunities to enter overseas high-value-added markets

■ The widespread use of LED products accelerates the borderless and globalization of lighting products.

→ Strengthening the market surveillance system to eliminate imports of poor quality

## Connected Smart Lighting & Human Centric Lighting

Promotion of multi-functional lighting that connects to a variety of things and matters as well as human-friendly, safe, comfortable and convenient lighting

	2018 Estimates	2020	2025	2030 Government Target
SSL rate target in the domestic existing luminaire market	40%	50%	75%	100%

### Priority Issues

#### 1 Responding to Paradigm Shifts through "Connected Industries"

In order to respond to various business models by "Connected Industries" using advanced technologies and to social changes, business environments such as standardization by collaboration with other industries beyond the field will be established together with the organizational development of the association structure that adapts to them.

##### 1. Establishment of a business environment to promote "CSL and HCL"

- 1-1-1. Promotion of standardization regarding "CSL & HCL"
- 1-1-2. Strengthening collaboration across industries centered on IoT, AI and big data

##### 2. Organizational reform of the association in response to the paradigm shift

- 1-2-1. Promotion of new entrants from different industries
- 1-2-2. Establishment of an organizational structure for committees and secretariats in response to Connected Smart Lighting

- Participation in new IEC projects, cross-sectional consortiums, etc.
- Promotion of standardization in the lighting software field by participating in ISO/CIE, ISO/TC274, etc.
- Expanding alliances with other organizations
- Expanding the number of members from different industries (support members)

#### 2 Improving the lighting quality and contributing to SDGs

In order to achieve an international commitment to reduce greenhouse gas emissions by 26% (compared with 2013 levels) and to contribute to improving the global environment, the government target of 100% SSL rate in the existing luminaire market by 2030 will be pursued.

##### 1. Contributing to the global environment by accelerating the adoption of SSL in the existing luminaire market

- 2-1-1. Promotion of visualization of trends in the SSL rate in the existing luminaire market
- 2-1-2. Promotion of replacement and renewal activities (promotional activities for renewal by market sector)

Create new spatial value by generating new functions and improving the lighting quality through the dissemination of "CSL & HCL" (multi-functional lighting that connects to a variety of things and matters as well as human-friendly, safe, comfortable and convenient lighting).

##### 2. Creating New Spatial Value by Improving the Lighting Quality

- 2-2-1. Promotion of high-value-added products through "CSL & HCL"
- 2-2-2. Promotion of Area Disaster Prevention Lighting Systems (in connection with Smart Cities, HEMS, etc.)
- 2-2-3. Research and study on "light influence"
- 2-2-4. Investigation and application of new light sources (OLED, laser illumination, etc.)

- SSL rate of existing luminaire market  
40% in 2018 ▶ 75% in 2025 ▶ 100% in 2030
- CSL & HCL conversion rate  
9% in 2018 ▶ 25% in 2025 ▶ 40% in 2030
- Dissemination and establishment of certification systems for residential and outdoor emergency lighting by promoting the Area Disaster Prevention Lighting Systems linked to smart cities, HEMS, etc.
- Dissemination of correct information on the effectiveness and influence of light, and promotion and enlightenment of new indicators of the quality of lighting

#### 3 Responding to Globalization and Borderless Economy

The shipment volume of luminaires for domestic new constructions is expected to decline due to a reduction in the population and a decline in the number of new housing starts. On the other hand, the global lighting market grows mainly due to population growth in emerging countries and the expansion of the middle class. Wide-area Asia will be the center of the global economy by 2030. With this area as a main target, environment for market entry and business expansion will be prepared, and Japanese lighting products will be promoted.

##### 1. Development of an environment for overseas market development

- 3-1-1. International exchange and information gathering with overseas governments and industry
- 3-1-2. Proper response as a lighting industry linked with intergovernmental trade and customs negotiations

##### 2. Promotion of brand value of Japanese lighting products

- 3-2-1. Collection of information through participation in overseas exhibitions and promotion of Japanese lighting products
- 3-2-2. Promotion for participating in overseas events and business matching activities

The widespread use of LED products accelerates the global and borderless transactions of lighting products. Market surveillance system will be strengthened to deal with the increase in imported overseas products that do not match the Japanese market.

##### 3. Maintaining and improving sound markets for fair and proper competition

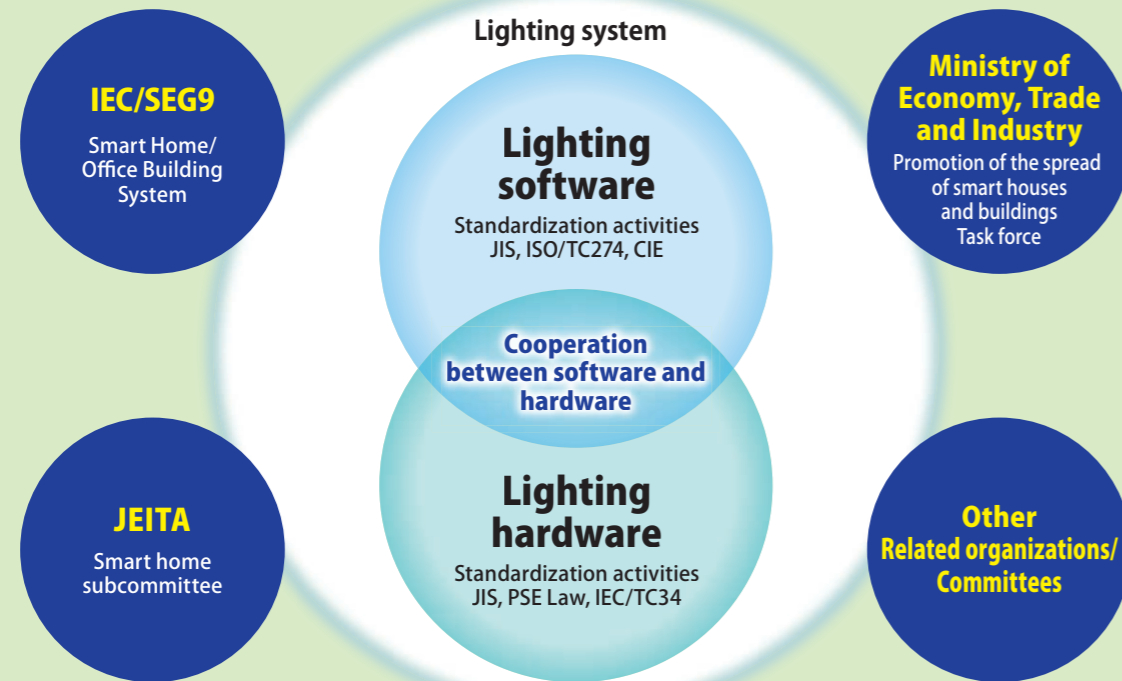
- 3-3-1. Strengthening market surveillance systems such as trial buying surveys

- Active interaction and information exchange with GLA and lighting industry associations around the world
- Strengthening cooperation with JETRO/JICA and other international organizations
- Support for overseas business expansion by PR of Japanese lighting products and business matching activities through active participation in emerging countries' events
- Maintaining and improving safe and sound markets by preventing the inflow of poor quality products from overseas

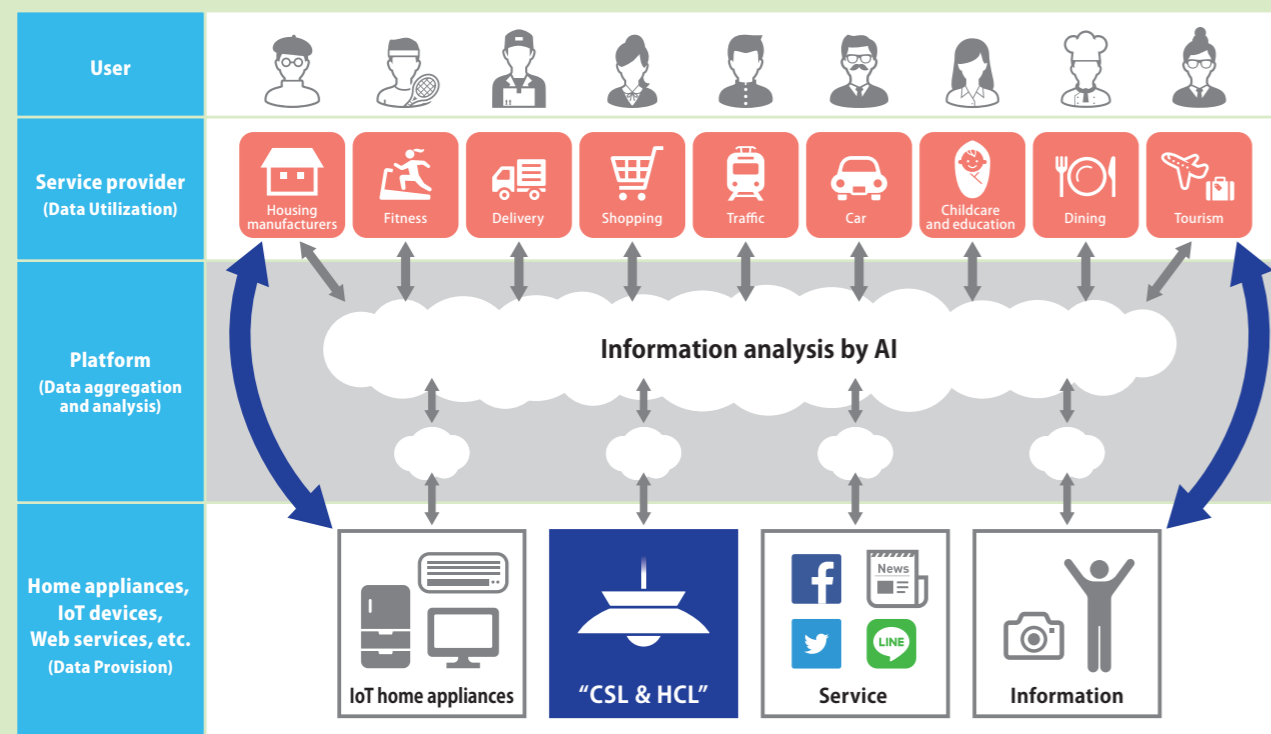
# Responding to Paradigm Shifts by "Connected Industries"

## ■ Promotion of standardization regarding "CSL & HCL"

Extended systemization utilizing advanced technologies such as IoTs, AI, Cloud, etc.



## ■ Strengthening collaboration across industries centered on IoT, AI, and big data

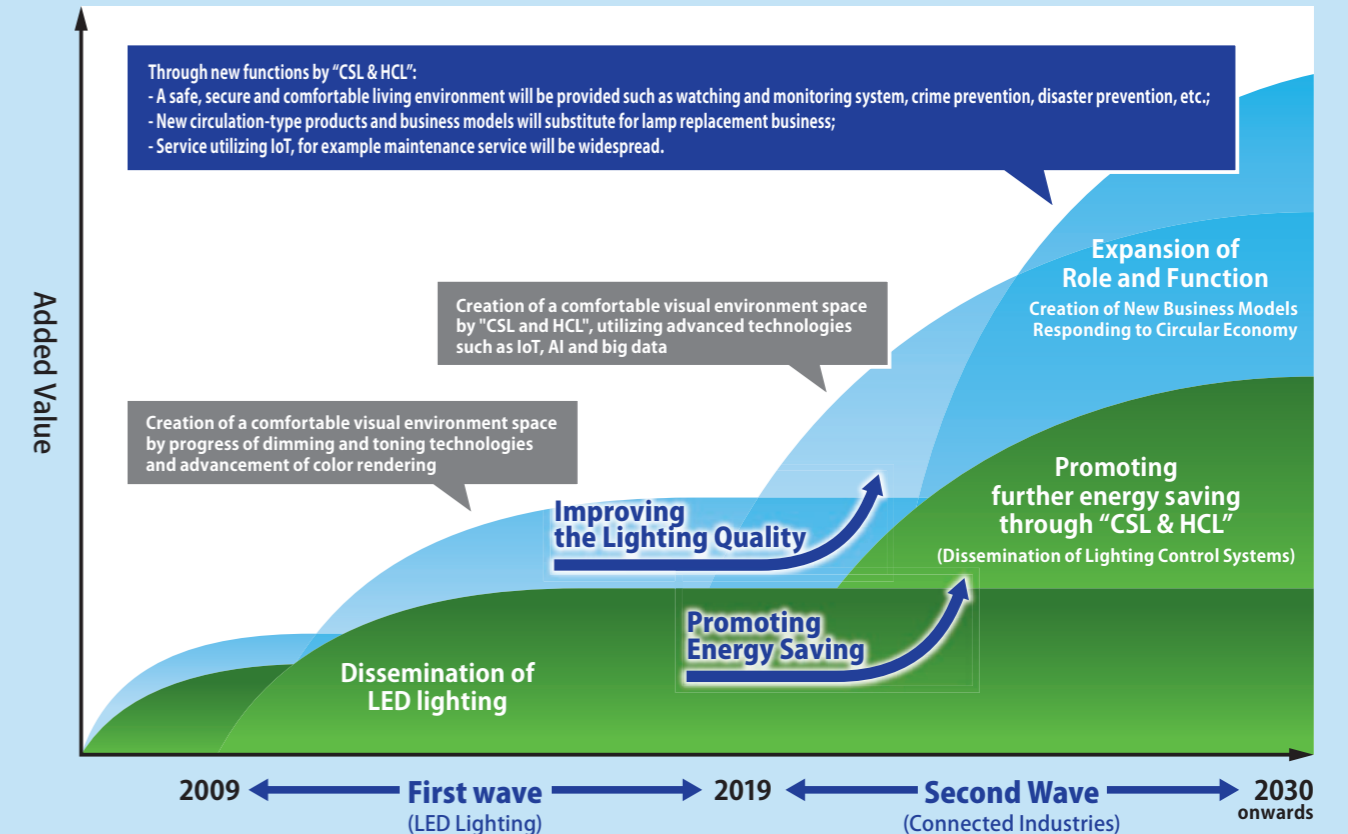


Prepared based on data from METI "Smart Life Policy" (February 2018)

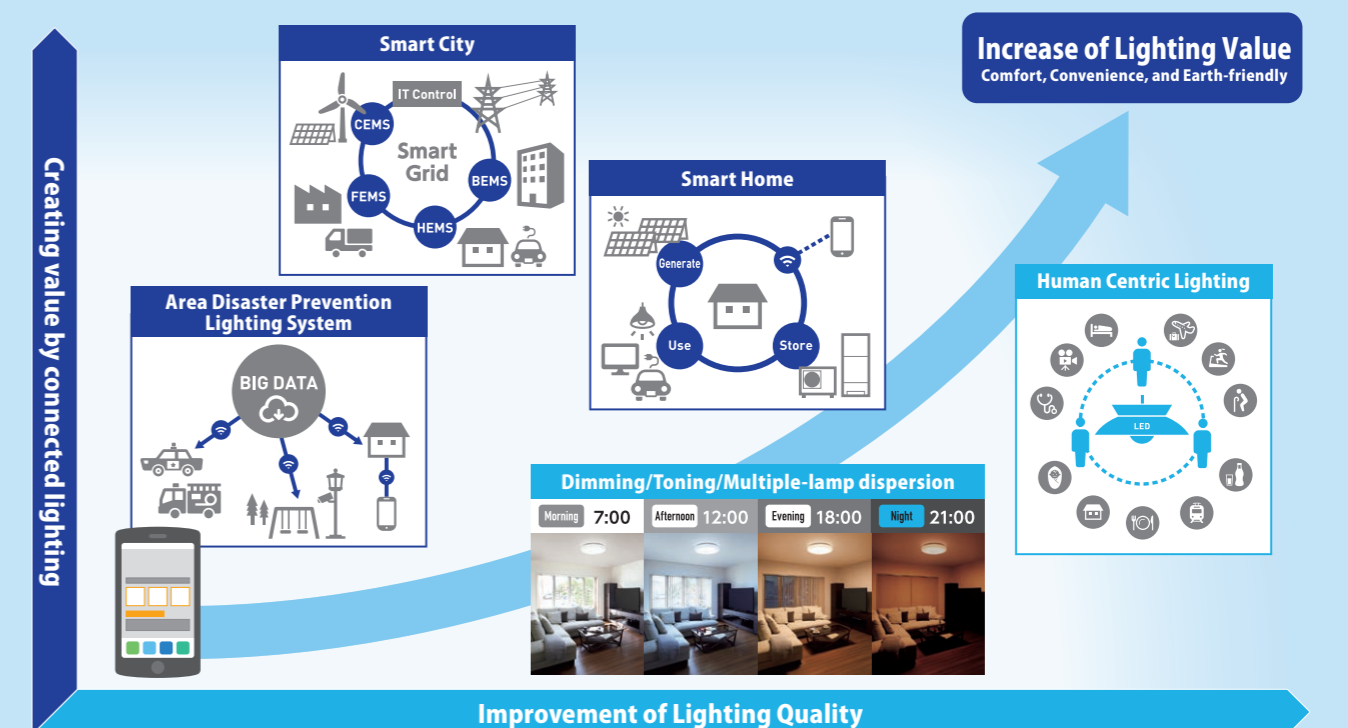
# Improving Lighting Culture and Contributing to the Global Environment

- Creating Spatial Value by Dissemination of "CSL & HCL" -

## ■ Expansion of Lighting Value and Role

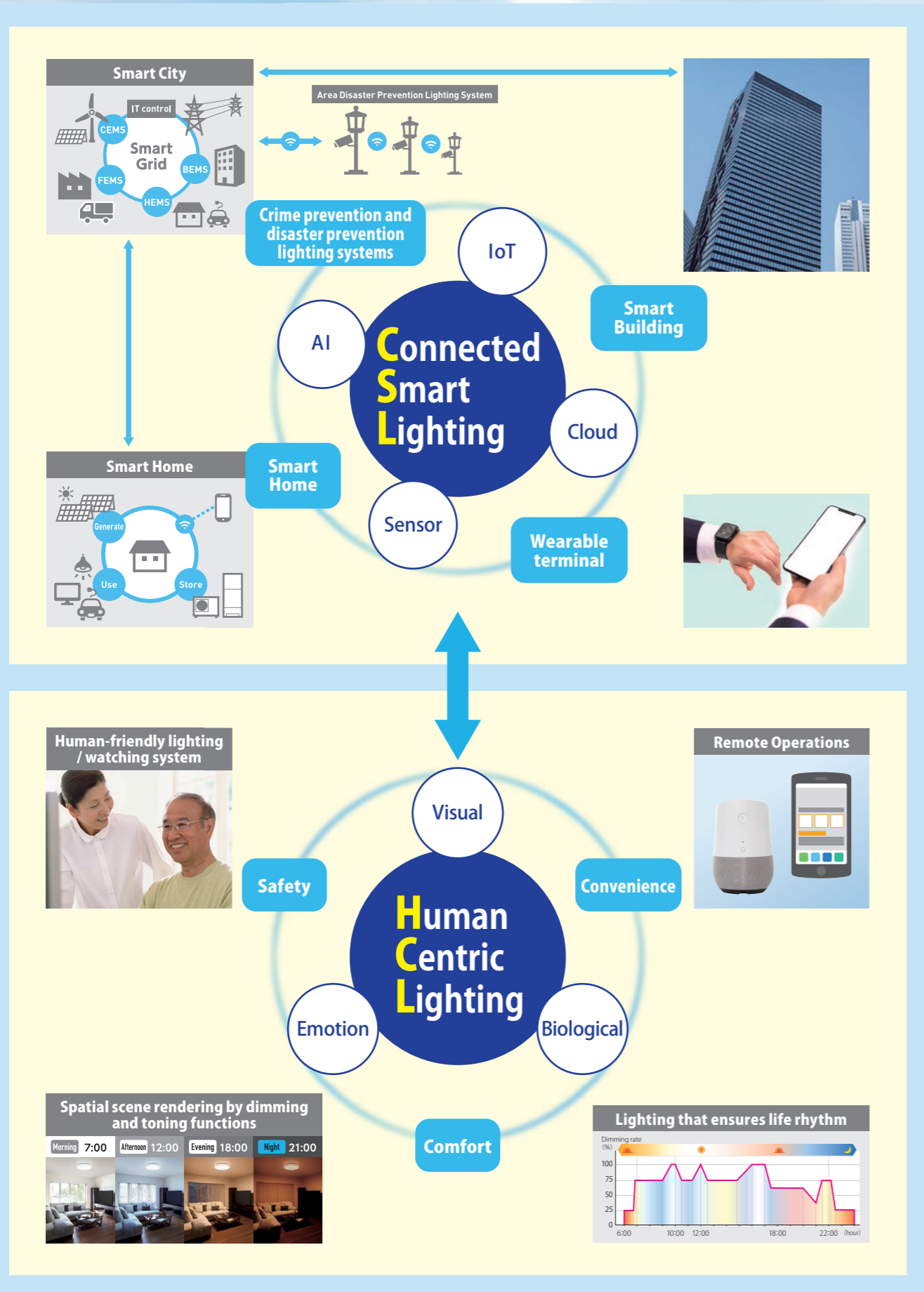


## ■ Enhancement of Lighting Quality and creation of spatial value through "HCL & CSL"



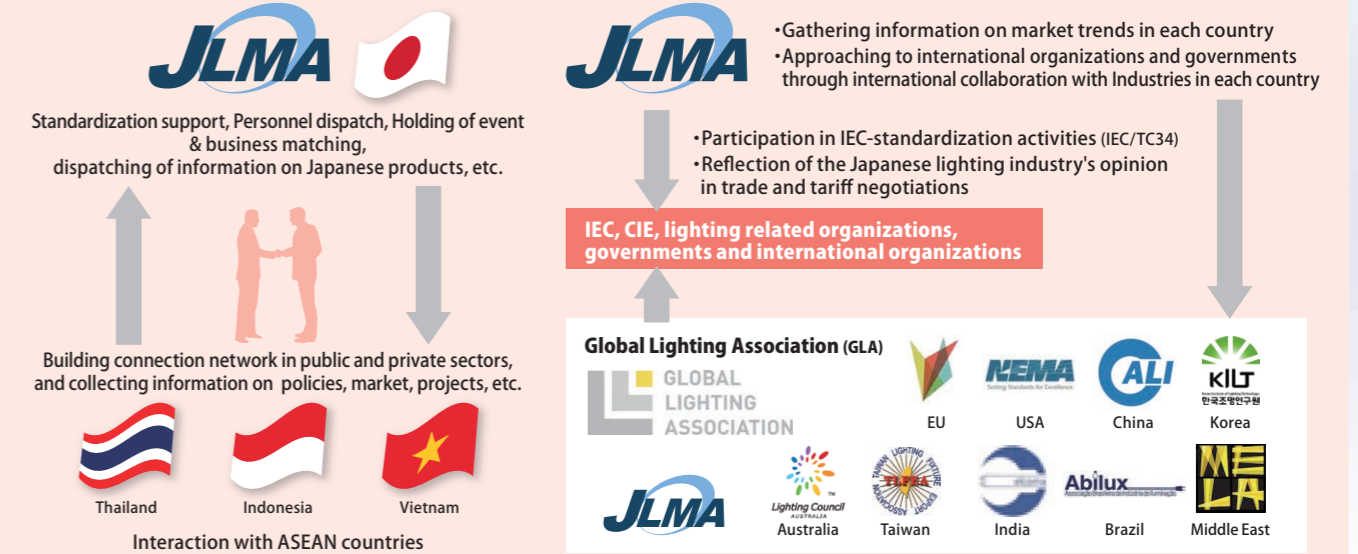
# Improving Lighting Culture and Contributing to the Global Environment

- Promoting Dissemination of "CSL & HCL" -



# Responding to Globalization and Borderless Economy

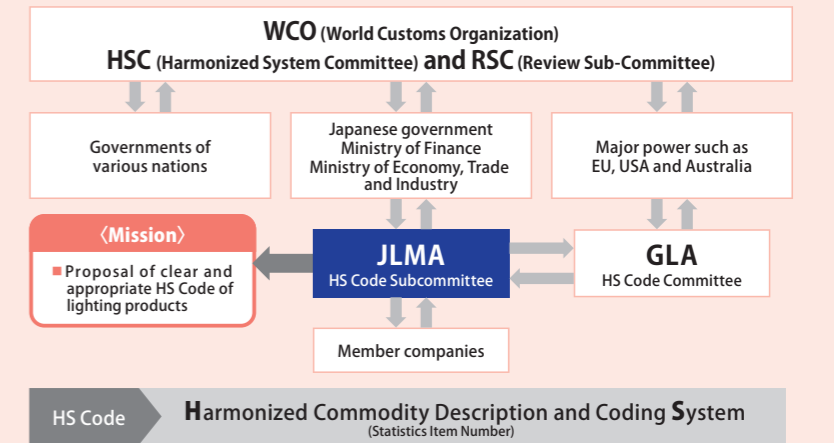
## International interaction and information exchange with governments and industries of various nations of the world



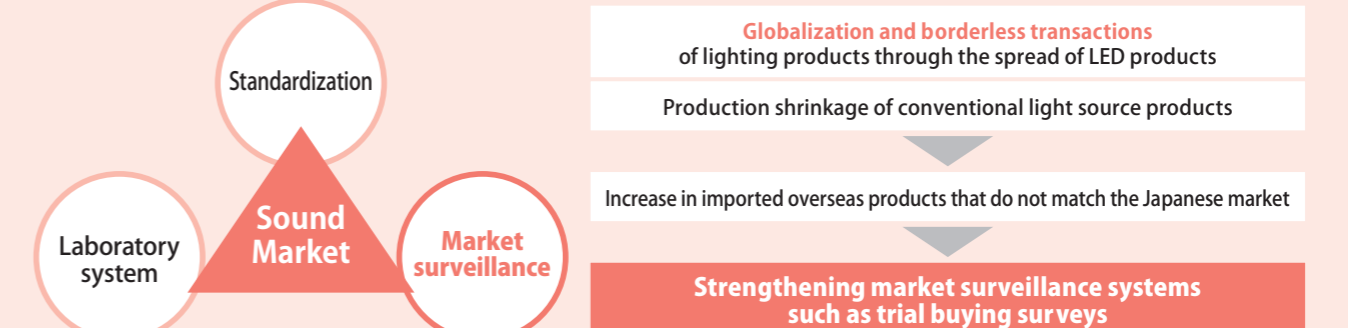
## Promotion of brand value of Japanese lighting products and business matching activities



## Responding to intergovernmental trade and tariff negotiations as Japanese lighting industry (Review and study of HS Code)



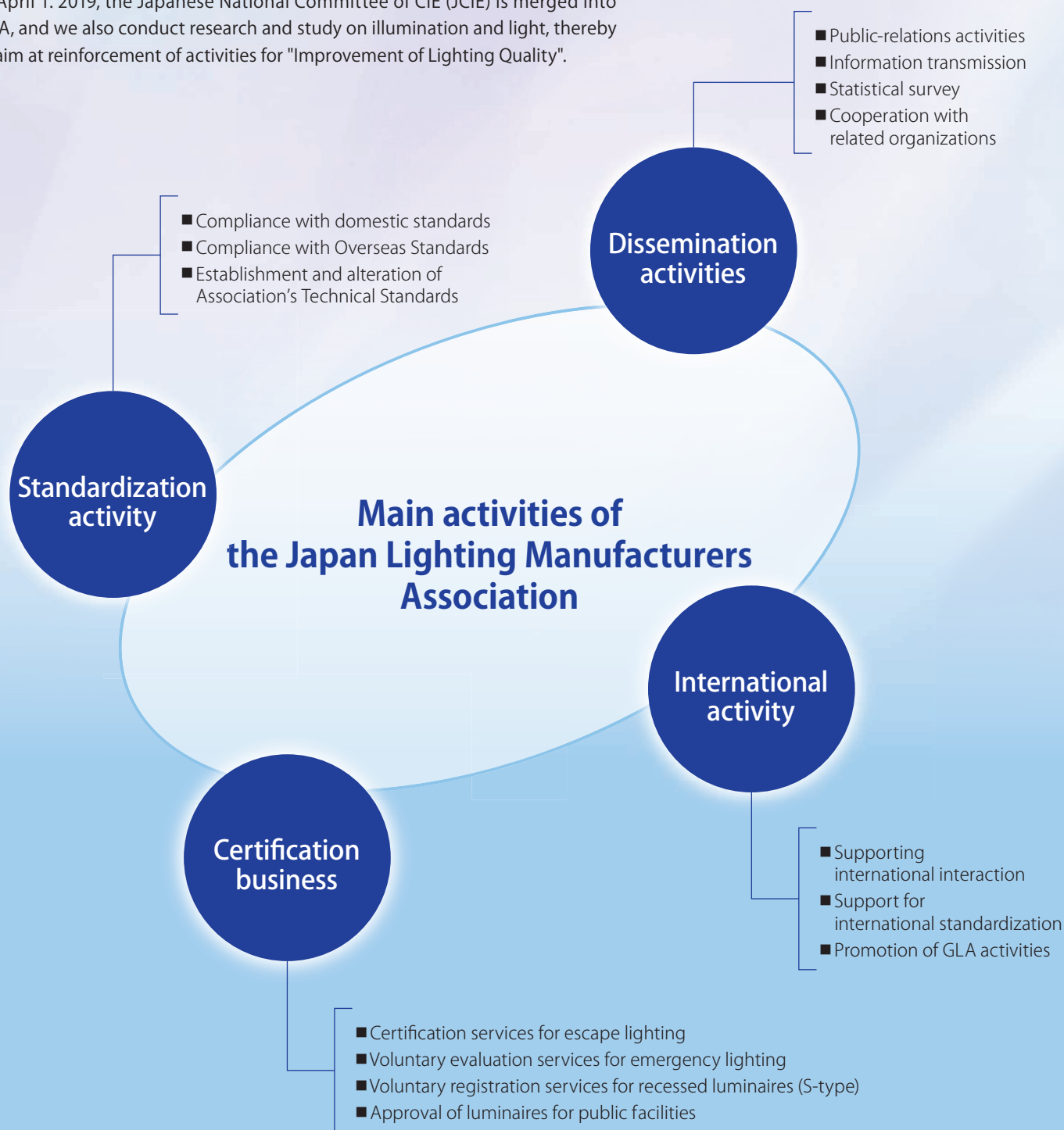
## Maintaining sound market for fair and proper competition



## Profile of the Japan Lighting Manufacturers Association

The Japan Lighting Manufacturers Association (JLMA) is promoting standardization, dissemination, accreditation business and international activities to contribute to the sound development of lighting equipment (light sources, luminaires, control devices, and components) and related businesses, the development of industry, as well as the assurance of safety in people's lives and the improvement of livelihood culture.

On April 1, 2019, the Japanese National Committee of CIE (JCIE) is merged into JLMA, and we also conduct research and study on illumination and light, thereby we aim at reinforcement of activities for "Improvement of Lighting Quality".



**Japan Lighting Manufacturers Association**

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to the future of lighting