

*Promotion policies for*  
**LED Lighting Equipment**

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***KEMCO***

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**Industrial Structure**

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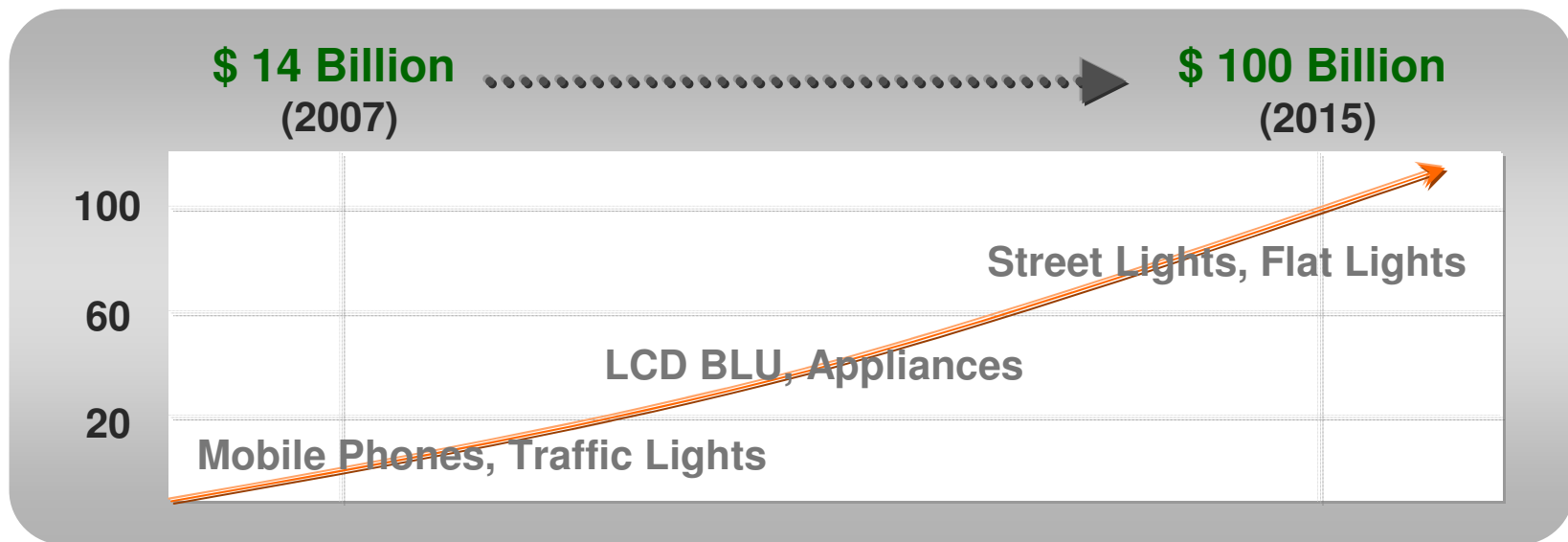
**\* Certification of LED Lighting Equipments  
: High Efficiency Equipment Certification Program**



# 1. Industrial Structure

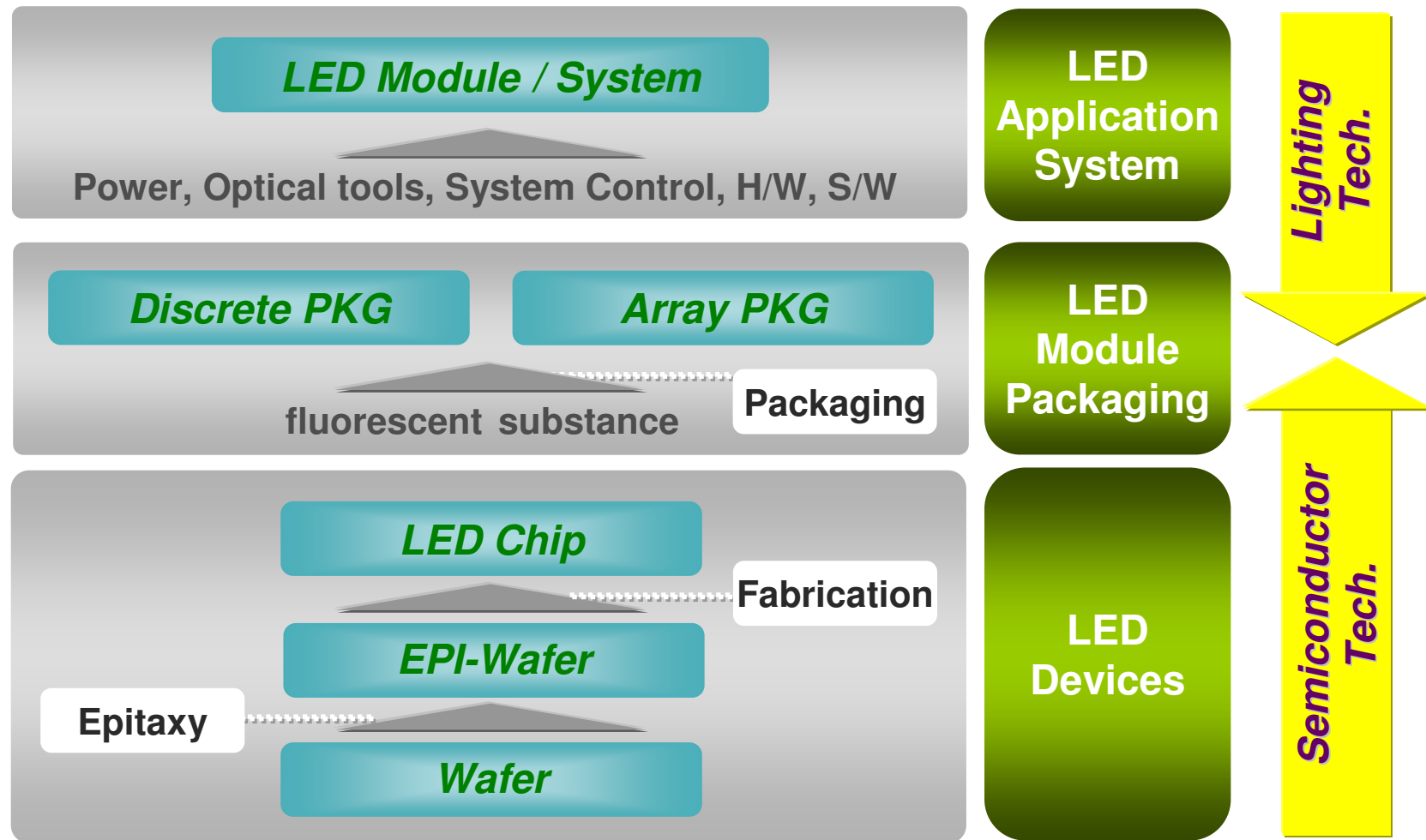
## ◆ Overview of LED Industry

- Rapid development of domestic LED Market caused by technical enhancement and increased investment
  - \$ 2 billion market with 450 domestic companies
- Average annual growth rate of global market is mounts up to 30%, despite recently recessed IT industry.



# 1. Industrial Structure

## ◆ Combined structure of various technologies



# 1. Industrial Structure

## ◆ Economic Influence of the Industry

- The development of whole LED industry is expected to be leaded by LCD TVs, automobiles, lighting equipments.

Categories	2008	2013	2018
Global Market (\$ Billion)	22	56	150
Domestic Production (\$ Billion)	1.4	9.0	30
Exportation (\$ Billion)	0.6	4.5	20
New employment (1,000)	6	30	60
Value-Added (\$ Billion)	1.2	9.0	30

Ministry of Knowledge Economy (MKE)



## 2. Current Challenges

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### ◆ Technical Development

- For penetration of the global market, getting more **patent** and **cross license** for cooperation is needed.
  - Attain to 80% of technical level of advanced countries

### ◆ Low deployment rate

- Low diffusion rate caused by **high price** and **lack of social understanding** about LED as the energy efficient product.
  - 10 to 100 times more **expensive** than general lightings
  - Considerable rate of dependence on imports of key devices

### ◆ Improvements of quality

- **Short Lifetime** caused by bad heat-resisting property
- Difficulty of Replacement of components



# 3. Promotion Policies

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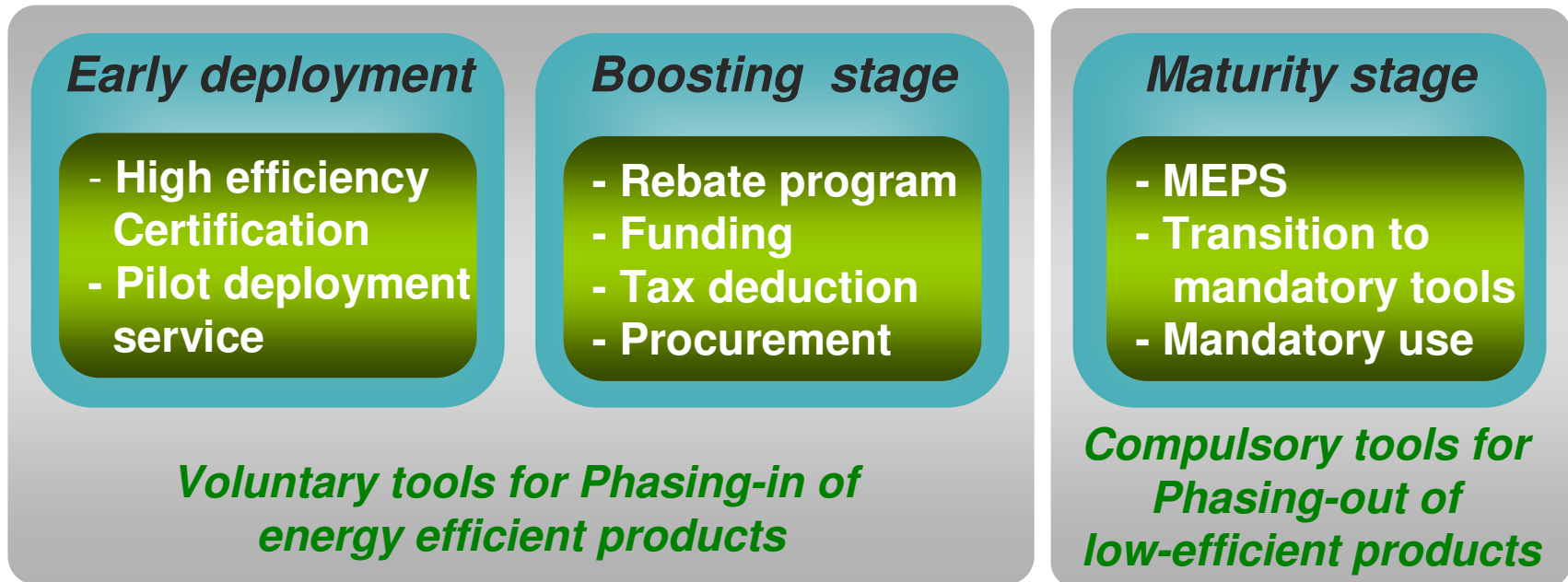
## ◆ Governmental promotion policies

- 15/30 LED Lighting Diffusion Project
  - Increase dissemination rate of LED to 30% by 2015 realizing solid-state lighting based society
  - Energy saving effects : 4 million TOE (\$ 1.6 billion)
- Strategy for development as national major industry
  - About 15% of whole global LED market share by 2012
  - The third leading countries in LED industries
- Firm basis for sustainable growth
  - New standardization for KS (Korea Standards) and High Efficiency Equipment Certification Program
  - Market formation through governmental preliminary promotion



# 3. Promotion Policies

- LED lighting promotion in public sector
  - Replacement of 30% of lighting products in whole public buildings with LED lighting products by 2012
  - Phasing out inefficient lighting products such as incandescent lamps and halogen lamps in public sector



# 3. Promotion Policies

## ◆ Promotion Scenario

- Implementation of proper promotion policies that consist of various intervention tools for market transformation

Categories	2007	2008	2009	2010	2011	2012	2013	2014	2015
Traffic Lights	Cert.('01), Deployment in local governments				MEPS				
Guiding Lights	Cert.	Pilot / Rebate						MEPS	
Substitutions for Halogen / Incandescent Lamps		Cert.	Pilot / Rebate					MEPS	
Substitutions for FLs, Guard / Sensor Lamps, etc			Cert.	Pilot	Rebate				
Street Lights				Cert.	Pilot	Rebate			

Cert. : Certification, Pilot : Pilot Deployment Service

# Certification of LED Lighting Equipments

: High Efficiency Equipment Certification Program

## ◆ Overview of the program

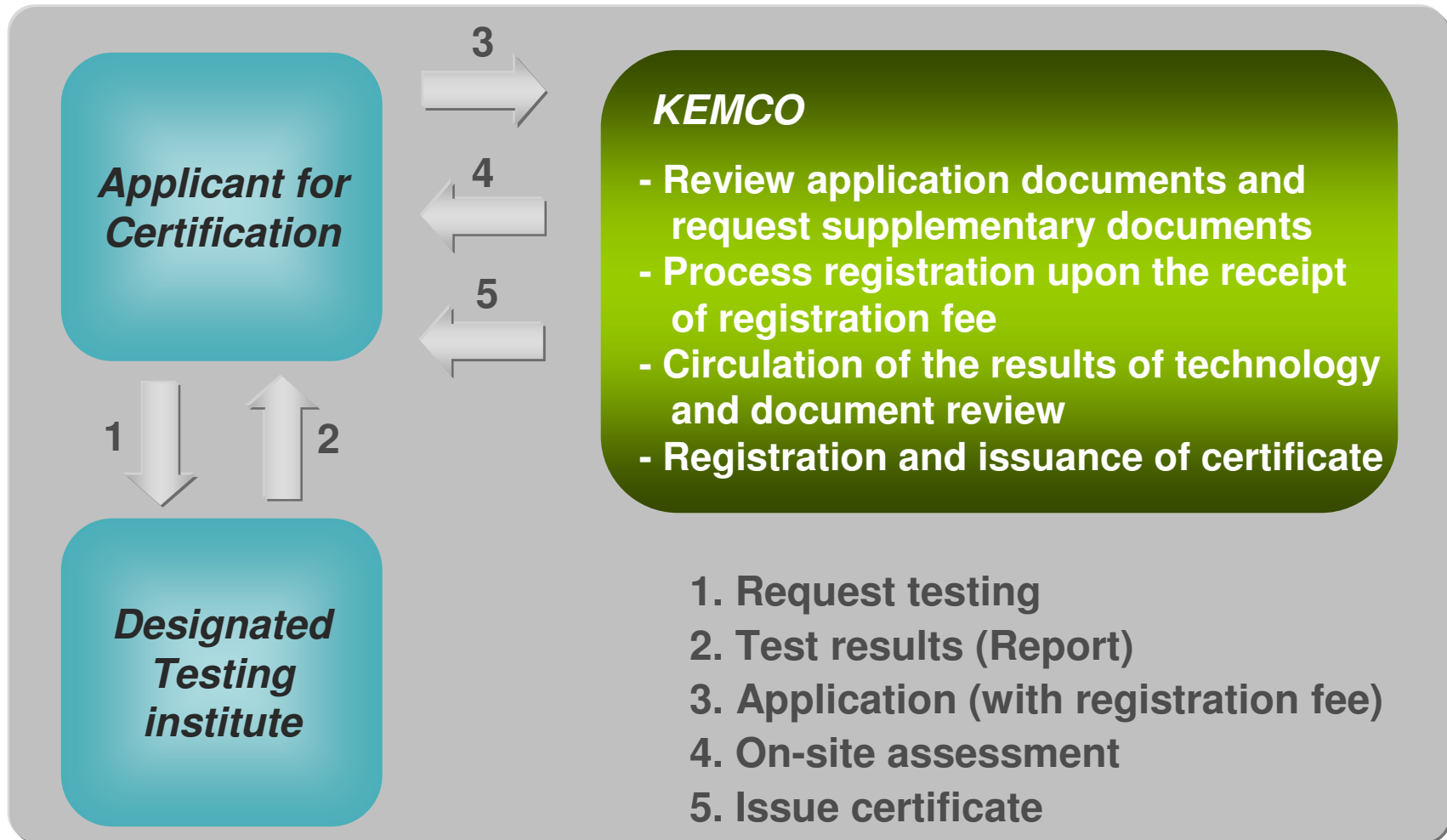
- Voluntary program to establish **early stage market** of high-efficiency products (since 1996)
  - Government guarantees the high efficiency of products with performance above certain standards by certification.
  - Attachment of High-efficiency Equipment Label and issue of High-efficiency Equipment Certificate
- Target products (41 items)
  - Industrial and building products with low deployment rate, but considerable energy conservation potential
  - Pumps, Fans & Blowers, Induction Motors, Transformers, general lighting equipment and **LED lighting equipments**, etc
  - New LED lighting equipments will be added as target products.



# Certification of LED Lighting Equipments

## : High Efficiency Equipment Certification Program

### ■ Procedure of certification



# Certification of LED Lighting Equipments

## : High Efficiency Equipment Certification Program

### ◆ Status and future plan

- Current LED target products
  - LED Traffic Lights : 65 Manufacturers, 587 Models
  - LED Guiding Lights : 9 Manufacturers, 61 Models

Categories	2001	2007	2008
Items	Traffic Lights	Guiding Lights	Substitutions for Incandescent / halogen lamps

- Prospective LED target products
  - Reflecting the rapid development of LED technology

Categories	2009	2010	2011
Items	Substitutions for FLs, Guard / Sensor Lamps, Converter	Street / Tunnel / Flood lights	Large size / Fish-luring lights

# Certification of LED Lighting Equipments

## : High Efficiency Equipment Certification Program

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### ◆ Promotion Policies

#### ■ Funding for rational utilization of energy

- Manufacturers or installers can benefit from funding offered for installation(20billion US\$) or operation(1billion US\$, small and medium enterprises only) of certified high-efficiency products.

#### ■ Mandatory use in public buildings

- Government agencies or public organizations should use certified high-efficiency products in their buildings.

#### ■ Preferential government procurement

- The Office of Supply should procure certified high-efficiency products as a top priority in governmental purchase.
- Appointment certified high-efficiency products as superior procurement products (reduction of fee by 10%)



# Certification of LED Lighting Equipments

## : High Efficiency Equipment Certification Program

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- **Mandatory use in new apartment buildings**
  - Builders must install certified high-efficiency products in new apartment buildings accommodating 50 households or more.
- **Tax deduction for investment in energy conservation**
  - Amounts up to 10% of total investment can be deducted from the income or corporation tax of installers of energy conservation facilities.
- **Supporting service charge for product testing for small and medium enterprises**
  - Small and medium enterprises can be provided with a service charge to test products up to two times a year.



# *Thank You !*

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