

## PRESS RELEASE

KOITO MANUFACTURING CO., LTD.

**KOITO's LED Compact-Bi-function Won  
 "Prizes for Science and Technology of the 2018 Commendation for Science and Technology by the  
 Minister of Education, Culture, Sports, Science and Technology"**

KOITO MANUFACTURING CO., LTD. ("KOITO") (Head Office: Minato-ku, Tokyo; President: Hiroshi Mihara) announces that five engineers of KOITO were awarded "Prizes for Science and Technology of the 2018 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology", in the Development Category, for their achievements in developing LED Compact-Bi-function, a standardized compact unit which helps to accelerate the use of LED headlamps.

The Prizes for Science and Technology of the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology are intended to applaud those involved in science and technology who have made remarkable achievements in research and development, thus motivating their followers to come in helping raise the level of science and technology in Japan.

This is the third time for KOITO to win this prize, the first being in 2013 for the development of the mercury-free discharge headlamp, the second being in 2015 for the development of the world's first LED headlamp.

"LED Compact-Bi-function" switches the high-beam and low-beam by using a single LED, thus realizing smaller size, lighter weight, and higher power-efficiency. KOITO started its mass-production for the first time in the world in 2014.

LED headlamp features lower power-consumption, instant-lighting, long-life, and provides fine visibility with its vivid white glow. However, so far, the high-beam and low-beam functions of LED headlamps had to use respective separate LED unit (therefore 2 LED units were required).

By innovative optical system, minimizing and unifying the unit components, LED Compact-Bi-function materializes both high-beam and low-beam functions with a single LED unit. This standardized compact unit can be equipped to various types of vehicles, thus greatly increased the number of vehicles installing LED headlamps, and contributed to safer night drive.

KOITO is committed to further pursue the cutting-edge technologies and to develop "customer-first" products in order to enhance the safety and comfort of motorization society.

[Outline of the prize awarded to KOITO]

1. Subject: Development of LED Compact-Bi-function, standardized compact unit which helps to accelerate the use of LED headlamps
2. Winners: Masayasu Ito, Akihiro Matsumoto, Takashi Inoue, Tetsuya Suzuki, Satoshi Kikuchi
3. Description of the development:

KOITO succeeded in mass-producing the world's first LED headlamp unit, capable of switching the high-beam and low-beam with a single LED.

Recognized as compact, lightweight, and power-saving LED unit with superior photometry performance, this product is now being used in a wide variety of vehicles, ranging from compact cars to luxury cars in all over the world.

