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# Objectives:

- *Description of LED Matrix Headlight.*
- *Analysis of LED Matrix Headlight's properties.*
- *Their Advantages.*

# New Innovation In Car Lighting Technology: LED Matrix Headlight



# Hella Has Developed The Technology

## HELLA Develops Unique Matrix LED Headlamp System With Audi



**PR Newswire**

A UBM plc company

PLYMOUTH, Mich., April 15, 2014 /PRNewswire/ -- HELLA, a leading global supplier of automotive lighting and electronics, has developed an industry-first headlamp system that automatically adjusts high-beam light patterns for other traffic and pedestrians.

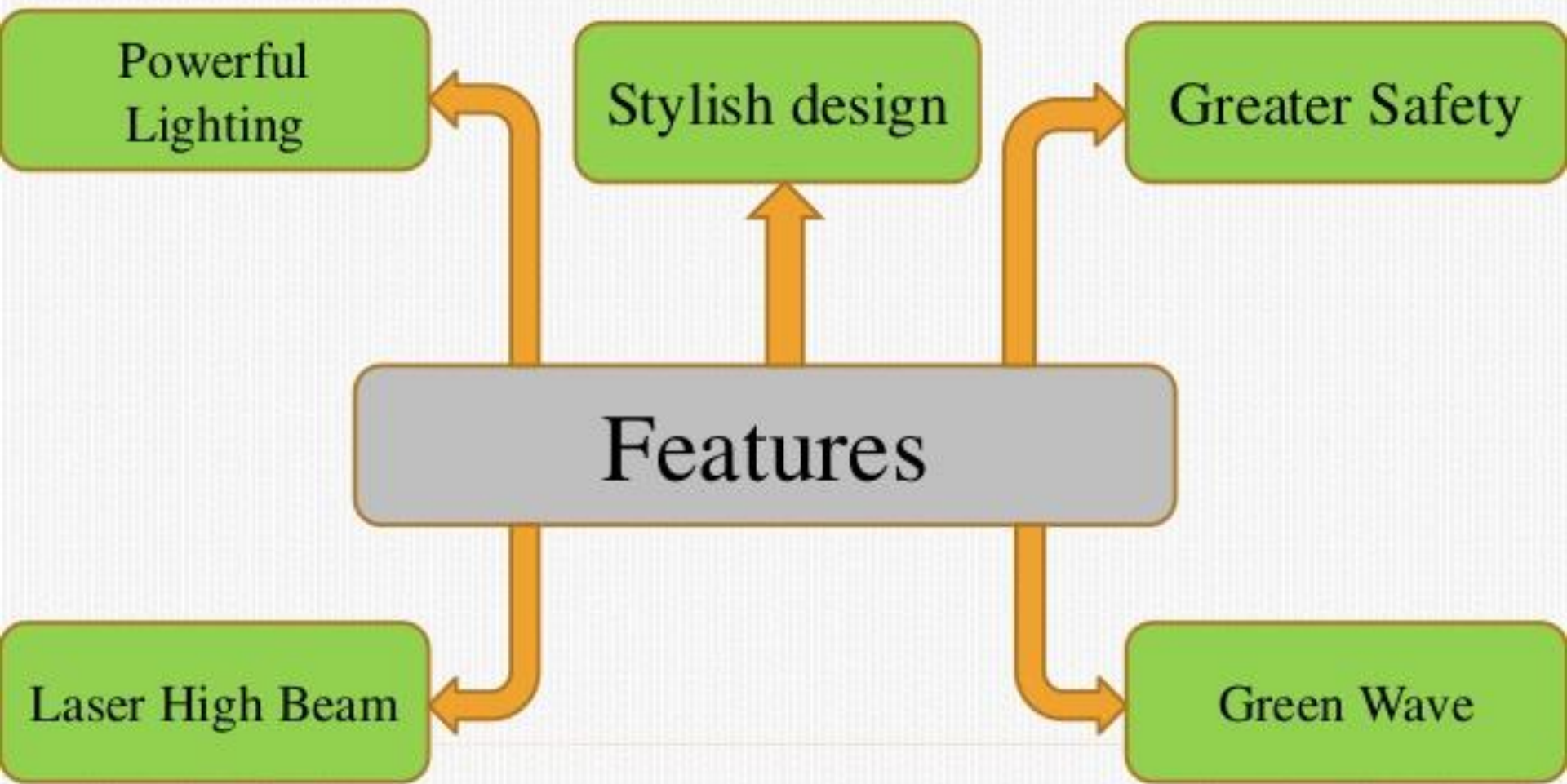
Recently introduced on the Audi A8 in Europe, HELLA's Matrix LED headlamp system uses camera-based technology to create glare-free "tunnels"

in front of a vehicle. The system allows car owners to continually use their high beams without fear of blinding other drivers.

**So.....What Is  
LED Matrix  
Headlight**

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Powerful  
Lighting

Stylish design

Greater Safety

Features

Laser High Beam

Green Wave

# Stylish Design

- ❖ LED matrix head light looks like **three dimensional, dynamic and interactive.**



# Powerful Lighting

- ❖ The new Matrix LED technology is activated from a speed of 30 km/h outside built-up areas and from 60 km/h in towns and cities.
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# Greater Safety

- ❖ The Matrix LED headlights also function as a cornering light .
  - ❖ Using predictive route data supplied by the **MMI navigation plus**, the focus of the beam show bends when driver turns the steering wheel.
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# Laser High beam

- ❖ The combination of the **laser high beam with Matrix LED technology** improves visibility and consequently safety standards significantly.
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# Green Wave

- ❖ The LED Matrix headlights completely eliminate that with its amazingly innovative sensor technology just in case drivers forget.
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## Requirement

Technology innovations are always followed by some changes in the design of automobiles.

LED lights are very efficient at converting electricity into visible light.

These lights are solid state components and also resistant to damage from external vibrations.

## Description

```
graph LR; A[Description] --> B[High tech LED head lights are called matrix head light.]; A --> C[These type of lights are automatically brighten and getting dim in presence or absence of other vehicles.]; A --> D[The Matrix LED system can independently activate groups of them in a way that eliminates the need for entire lamp.];
```

High tech LED head lights are called matrix head light.

These type of lights are automatically brighten and getting dim in presence or absence of other vehicles.

The Matrix LED system can independently activate groups of them in a way that eliminates the need for entire lamp.

## How It Is Used In Audi

```
graph TD; A[How It Is Used In Audi] --> B[LED head light looks very smart in Audi.]; A --> C[In Audi, LED matrix head lights don't have any switch.]; B --> D[Audi's Matrix LED system works in conjunction with lenses and reflectors in the lamp to optimize lighting in any situation.]; C --> D;
```

LED head light looks very smart in Audi.

In Audi, **LED matrix** head lights don't have any switch.

Audi's Matrix LED system works in conjunction with lenses and reflectors in the lamp to optimize lighting in any situation.



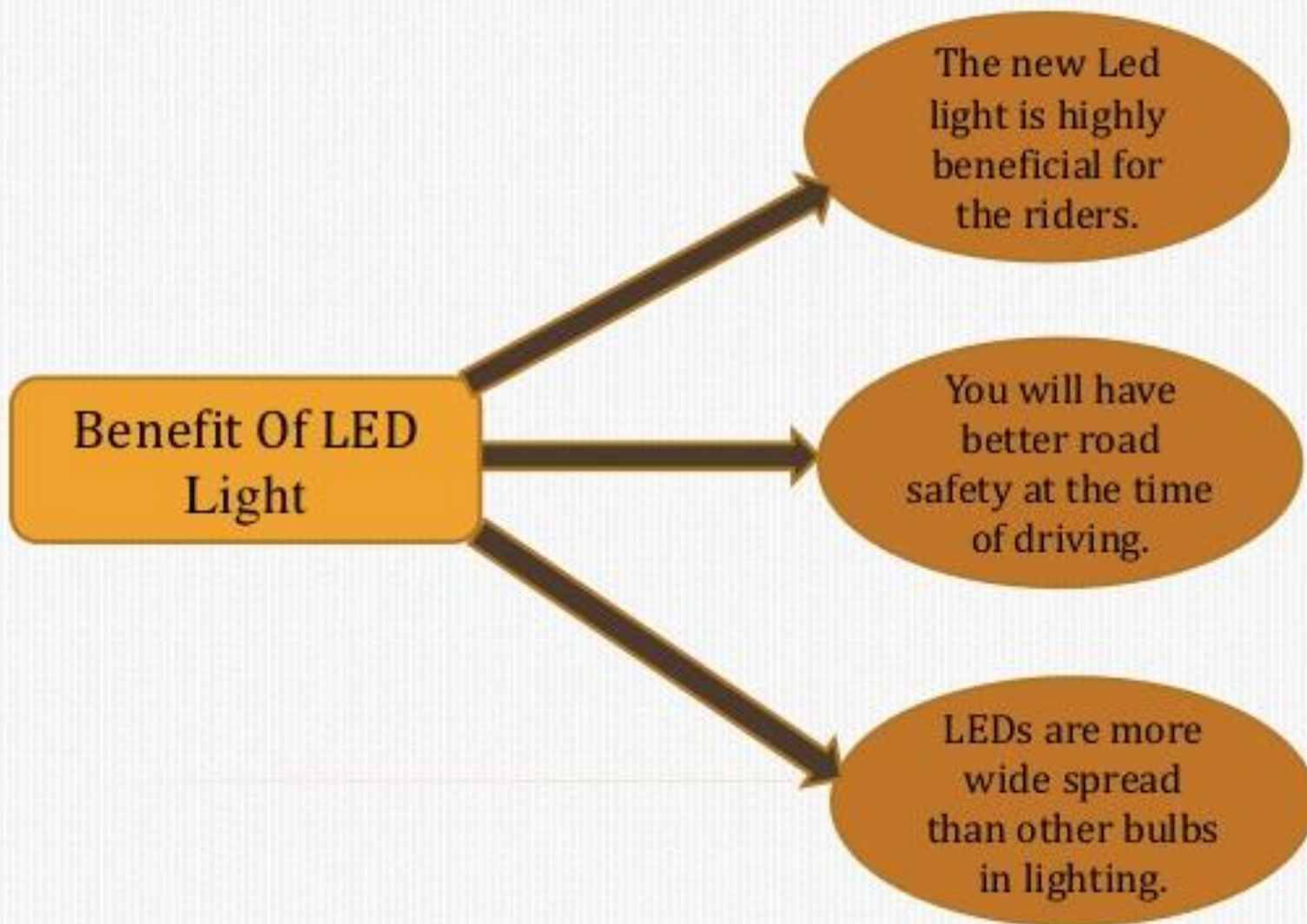


## Facts About LED Light System

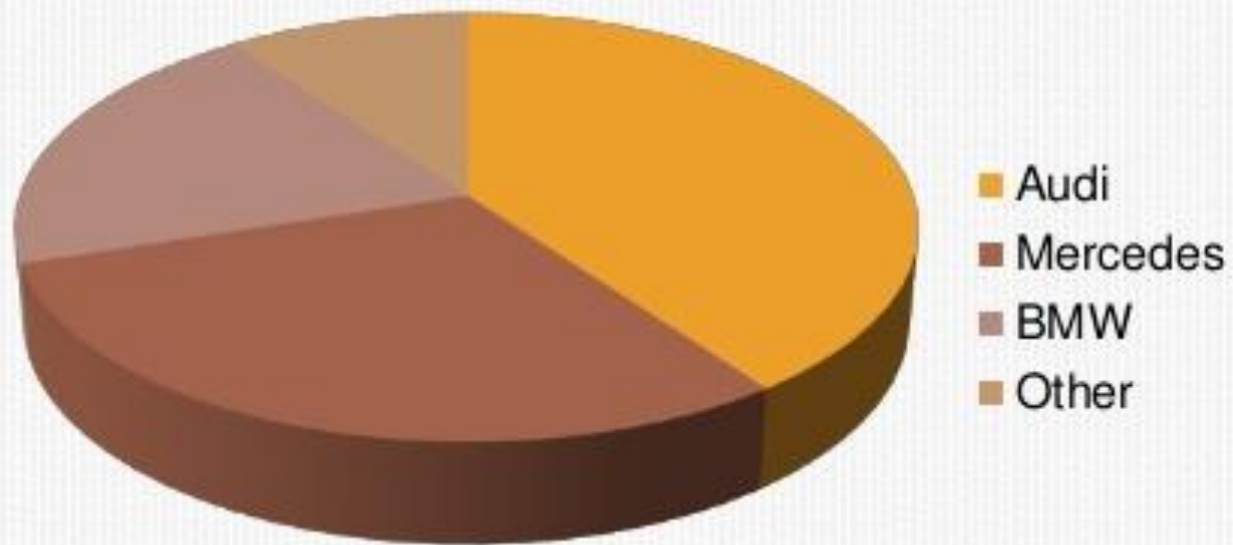
```
graph TD; A[Facts About LED Light System] --> B[It can give bright or dim light as per weather condition and can adjust brightness in presence of another vehicle on the road.]; A --> C[These type of innovative things give benefit on the road for all and give better driving experience.]
```

It can give bright or dim light as per weather condition and can adjust brightness in presence of another vehicle on the road.

These type of innovative things give benefit on the road for all and give better driving experience.



## Use Of LED Light





Thanks for your attention.