

## Technology Offer

# Automated cleaning and cooling system for solar photovoltaic panel

## Summary

*A Korean research institute specialized in infrastructure technology has developed an automated solar photovoltaic panel cleaning and cooling system. The institute is looking for license agreement and/or commercial agreement with technical assistance.*

<b>Creation Date</b>	24 June 2016
<b>Last Update</b>	29 June 2016
<b>Expiration Date</b>	29 June 2017
<b>Reference</b>	TOKR20160624002

## Details

### Description

A Korean institute is a government-sponsored research institute responsible for establishing government policies and performing R&D to enable convenient, safe, and high-quality land development for the nation. Since its foundation, the institute has achieved outstanding research outcomes that contribute to addressing the nation's pending projects and social issues. In the area of highways, it has developed and is currently operating intelligent traffic systems and facilities maintenance system targeting major national infrastructures such as roads (pavement), bridges, and tunnels.

The system keeps photovoltaic solar panels clean and cool by utilizing the robotic operation. With this, it reduces the energy loss about 18%. The system helps overcome the inconvenience and risk of cleaning for approximately 25 years of the usual life span of panels optimizing production efficiency and catalyzing the break-even timeframe on the solar energy investment. The system can operate in water-use or water-less mode, and it is ideal for large-scale commercial and utility scale solar installations, but is also available for residential applications. The systems can be incorporated into new solar farms from conceptualization and construction, and existing solar farms can be retrofitted to integrate the cleaning and cooling device as well.

The research institute is looking for innovative companies interested in the exploitation of the know-how and the commercialization of the product via licensing agreement or via commercial agreement with technical assistance.

### Advantages and Innovations

- Water-less cleaning and water use cleaning capability
- Snow removability
- 4-season operational
- Installation flexibility
- All solar photovoltaic system size adaptability : Utility scale, Commercial scale, Residential

## Stage of Development

Available for demonstration

## IPR Status

Other

## Profile Origin

EUREKA

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## Keywords

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### Technology

004008	Energy efficiency
01001001	Automation, Robotics Control Systems
02002001	Cleaning (sandblasting, brushing)
04002008	Cooling technologies
04002012	Other energy related machinery

### Market

08002001	Energy management
08002004	Robotics
08003007	Other industrial equipment and machinery

### NACE

C.27.9.0	Manufacture of other electrical equipment
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## Network Contact

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### Issuing Partner

EUREKA Secretariat

### Contact Person

Frederic Bouyges

### Phone Number

+32474316560

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**Open for EOI :** **Yes**

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## Dissemination

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**Send to Sector Group**  
Intelligent Energy

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## Client

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### Type and Size of Organisation Behind the Profile

Industry >500

### Year Established

1983

### Already Engaged in Trans-National Cooperation

No.

### Languages Spoken

English

### Client Country

South Korea

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## Partner Sought

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### Type and Role of Partner Sought

Type of partner sought

- SME and larger company

Specific area of activity of partner

- Solar Panel, Energy Efficiency

Tasks to be performed by the partner sought

- Partner should commercialize the product and bring it to market by licensing agreement or via commercial agreement with technical assistance.

### Type and Size of Partner Sought

SME 11-50, SME <10,>500 MNE, 251-500, SME 51-250, >500

### Type of Partnership Considered

License agreement

Commercial agreement with technical assistance

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## Attachments

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Panel1.jpg



Panel2.png

