

Master Key to the Unbounded **EV Life**

# PLUG & PLAY Business Introduction



# 01. Brief Introduction of Company



## Sunggyoo Geo CEO

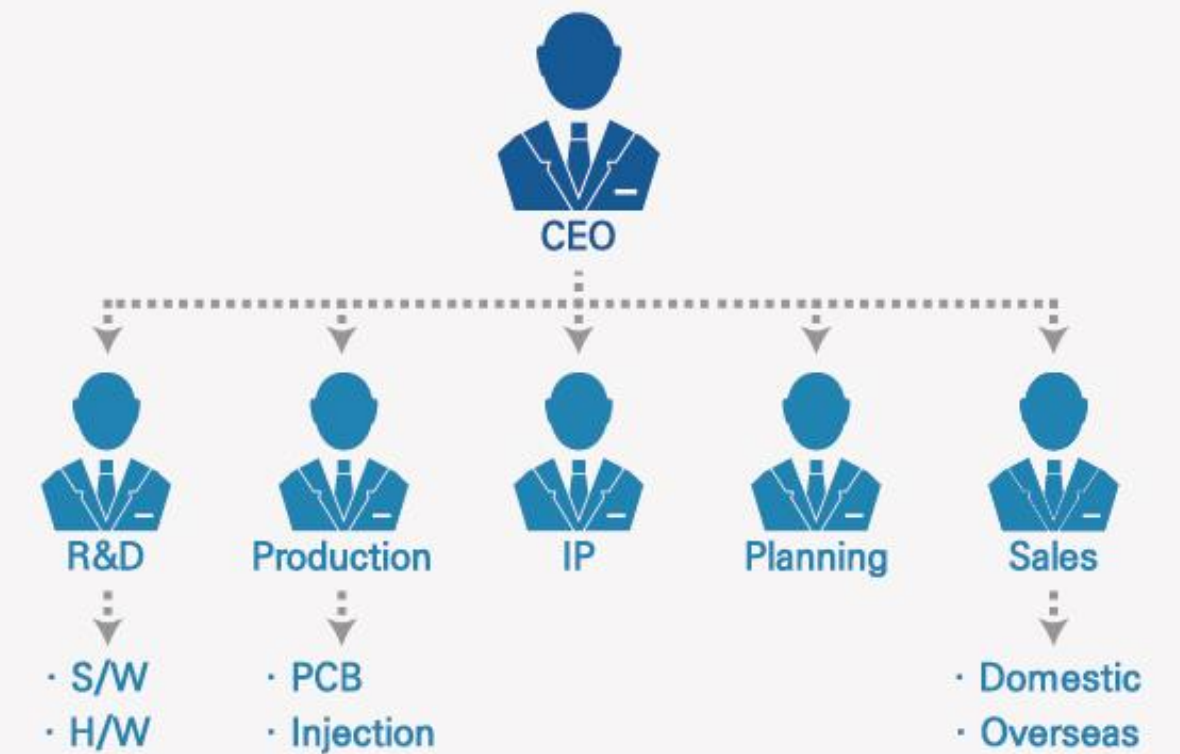
- 10 years R&D for P&P Smart Mobile EV Charging-Payment System
- 32 years study for Automotive area (ex RENAULT SAMSUNG & G.M. KOREA)
- 19 years for GREEN TRANSPORT (NGO), Director since 2018

### Pubilsh

1. 2025 THE FUTURE OF ELECTRIC VEHICLE, 2013
2. EV SPREAD STATUS AND IMPROVED POLICY: NATIONAL ASSEMBLY, 2013

### Expert

1. Mobile Charger Electric Safety Research @KSAE(Korean Society of Automotive Engineering)
2. Advisor to Many Government, Municipal & Research Organization



Company name	Geo-Line Co., Ltd.
Head Office	KAIST R&D Center, Cheomdan-ro 330, Jeju-si, Jeju, Korea, 63309
R&D / Factory	B-1211, Dusan-ro 70, Geumcheon-gu, Seoul, Korea, 08584
CEO	Sunggyoo Geo
Establish Date	May 21st, 2014

# 01. Brief Introduction of Company



**Incorporation**  
2014 – 2015

**2014.05**

Foundation Geo-Line Co., Ltd.

**2015.08**

Idea Start-up Grand-Prix [Creative Award]

– Ministry of Science, ICT & Future Planning

**2015.08**

First Selected Company to KB STARTERS VALLEY

– KB Financial Group

**2015.12**

UN COP21 Invitational Exhibition in Paris, France

– WIPO (The only in Automotive Area)



**Development**  
2016 – 2018

**2017.07**

Start Tel Aviv 2017 Korea [Award of Excellence]

– Israel Embassy

**2017.10**

Commendation

– Minister of Trade, Industry & Energy

**2018.03**

Selected for Zer01ne Start-Up Program

– Hyundai Motor Group

**2018.05**

Selected for K-Energy Start-Up

– Korean Electric Power Corporation (KEPCO)



**Launch**  
2019 – Present

**2019.04**

Service Launch @ Korea

**2019.04**

Export to Dominican Rep. Power Corps.  
and GLOBAL ROAMING PoC

**2019.11**

Official Charging Service Operator  
by the Ministry of Environment

**2019.12**

Selected for [1000 Efficient solution]

– Solar Impulse Foundation, Swiss

**2020**

Export to multiple EU Power Corps.,  
GLOBAL ROAMING TEST & LOI

## 02. Current Market Condition

### Outlet + Home Charger



**Paid Service  
: Impossible**

**Running Cost  
: Electricity for charging  
(Subsidized)**

**Lifetime ROI  
(Return On Investment)  
: 0%**

**1**

**Problems  
with conventional products**

**2**

### Fixed Charger



**Paid Service  
: Possible**

**Running Cost  
: Mobile telecom (SIM)  
24h Standby power  
Patrol & Maintenance**

**Lifetime ROI  
(Return On Investment)**

**: 8%**

**(Source Elektro Ljubljana, Slovenia)**

## 03. Service Demonstration



YouTube <https://youtu.be/YD86n6c9mr8>

# 04. Geo-Line Charging Solution

## Profitable Electric Vehicle Charging Exclusive Enabler



### How to use

- Connect a mobile charger to a socket
- ▶ Automatic payment service regardless of location

### Elements and Roles

- Authentic Socket : Auto Remote Authorizer w/o Standby Power
- Mobile Charger : Smart Charger & Authoring Communicator (SIM) with Meter
- PLUG&PAY Platform : Controller for Authorization, Smart Charging and Billing

### Benefit

- Share existing power facilities : Minimize installation cost
- 98% reduction in infrastructure costs : \$4,000 -> \$80 (Approx.)
- Change of running cost payment : Business Holder -> Customer

**YouTube** <https://youtu.be/8YafStSY4zY>

### Power company commercialization plan

DR(Demand Response) Ready : Incentive for Individual Level

# 05. Competitiveness – Technical Barrier

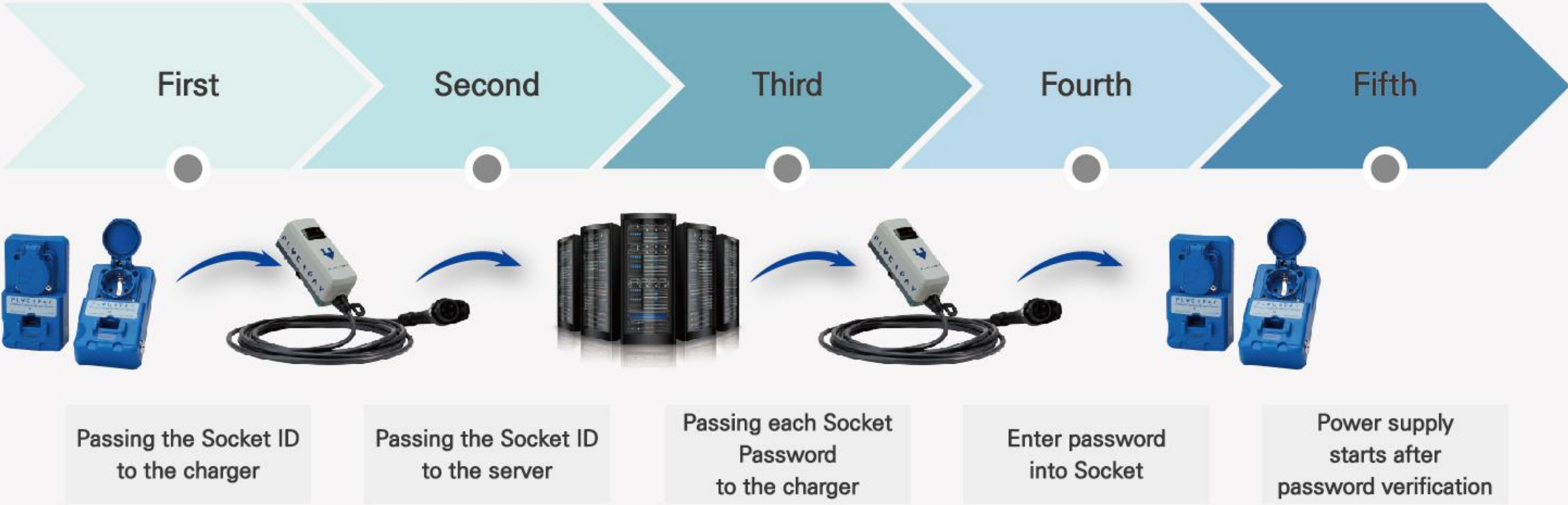
**WORLD ONLY** Automatic Payment Standby Powerless Security System

NO TELECOM | NO STANDBY POWER @ SOCKET  
**[ P L ↓ G & P ↑ Y ]**

- Mobile charger wake up Authentic Socket CPU.
- Mobile charger is the messenger between P&P Server and Authentic Socket for Authorization.

Geo-Line  
Technical features

- Powerless security
- Automatic payment
- Automatic recharge after power outage



# 06. Products Detail



## Mobile Charger Spec.

Model	PMC-K215	PMC-D332	PMC-3P32
Input/Output	100~240V 16A 50/60Hz	100~240V 32A 50/60Hz	3P400V 32A 50/60Hz
Max Power	3.7 kW	7.7 kW	22 kW
Accuracy	within $\pm 1.0\%$		
Communication	GSM, 3G, LTE, NBIoT, LoRA, SigFox		
Connector	Type1(SAE J1772, 5Pin) Type2(IEC 62196-2, 7Pin)	Type2(IEC 62196-2, 7Pin)	
Cable Length	7m		
Security	1. SPSS (Standby Powerless Security System) Ready for Anti-theft Electricity 2. PADLOCK Ready for Anti-theft Charger		
IP Class	IP55	IP66	
WxHxD	80x190x80(mm)	80x230x80(mm)	80x260x100(mm)
Weight	2.2 kg	4.3 kg	4.5 kg

## Authentic Socket Spec.

Model	SSO-216	SSO-332	SSO-3P32
Max Power	250V 16A	250V 32A	3P400V 32A
WxHxD	80x140x35(mm)	90x190x60(mm)	82x235x45(mm)
Security	1. SPSS (Standby Powerless Security System) Ready for Anti-theft Electricity 2. PADLOCK Ready for Anti-theft Charger		
IP Class	IP54	IP44	



# 07. Performance Record

## Domestic

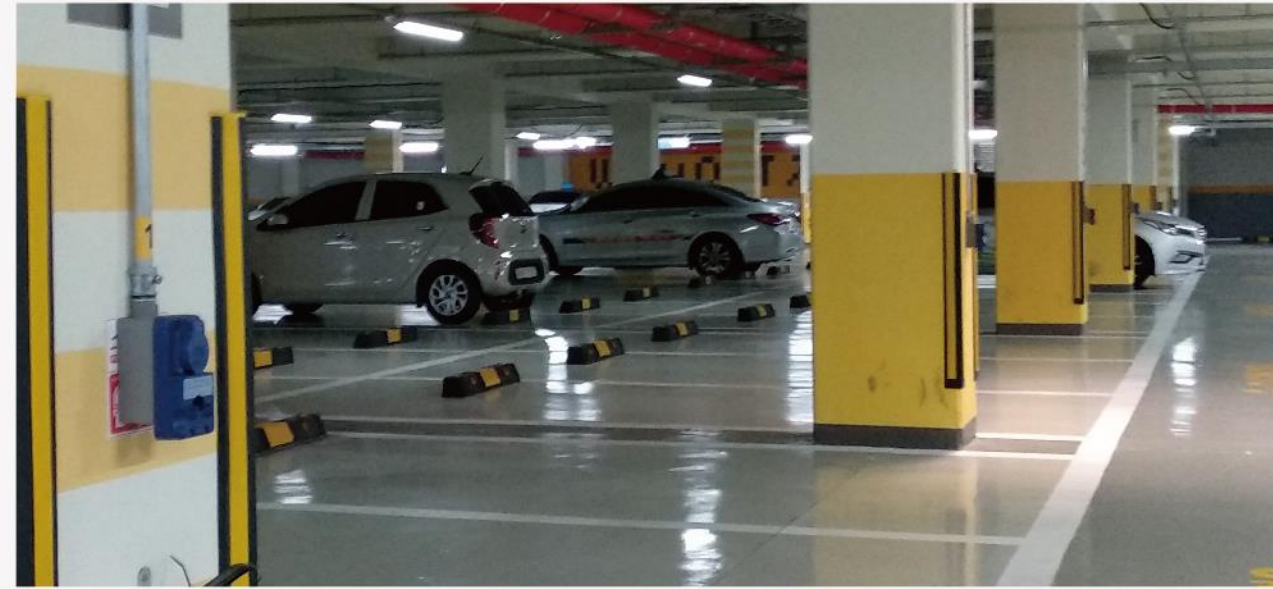


## Overseas



# 08. Strong Global Footprint

### Best Fit For Condominium



**Jeju** 제주특별자치도  
Jeju Special Self-Governing Province



 Elektro Ljubljana

### Robust Water Proof In Tropic



**ESD** 

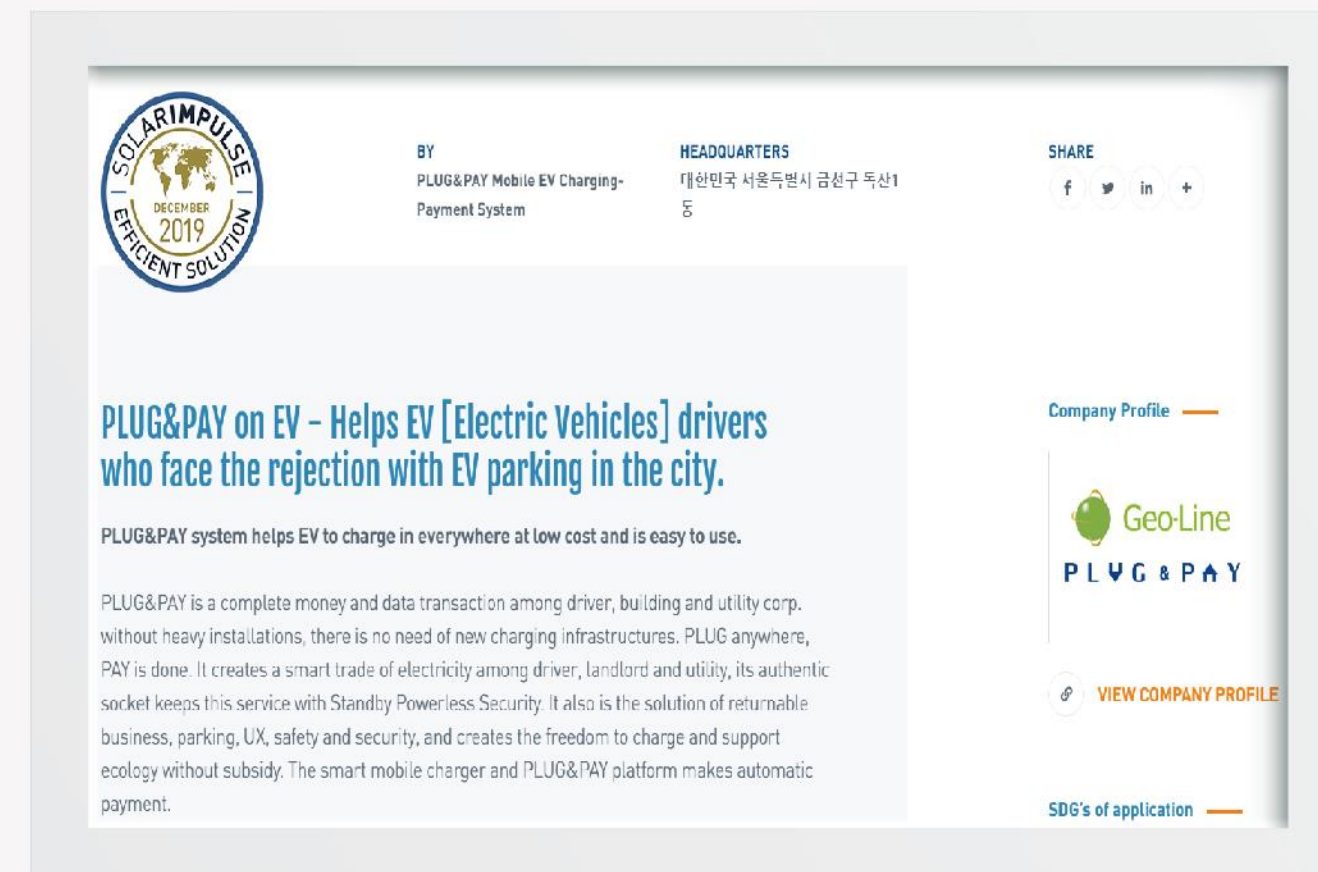
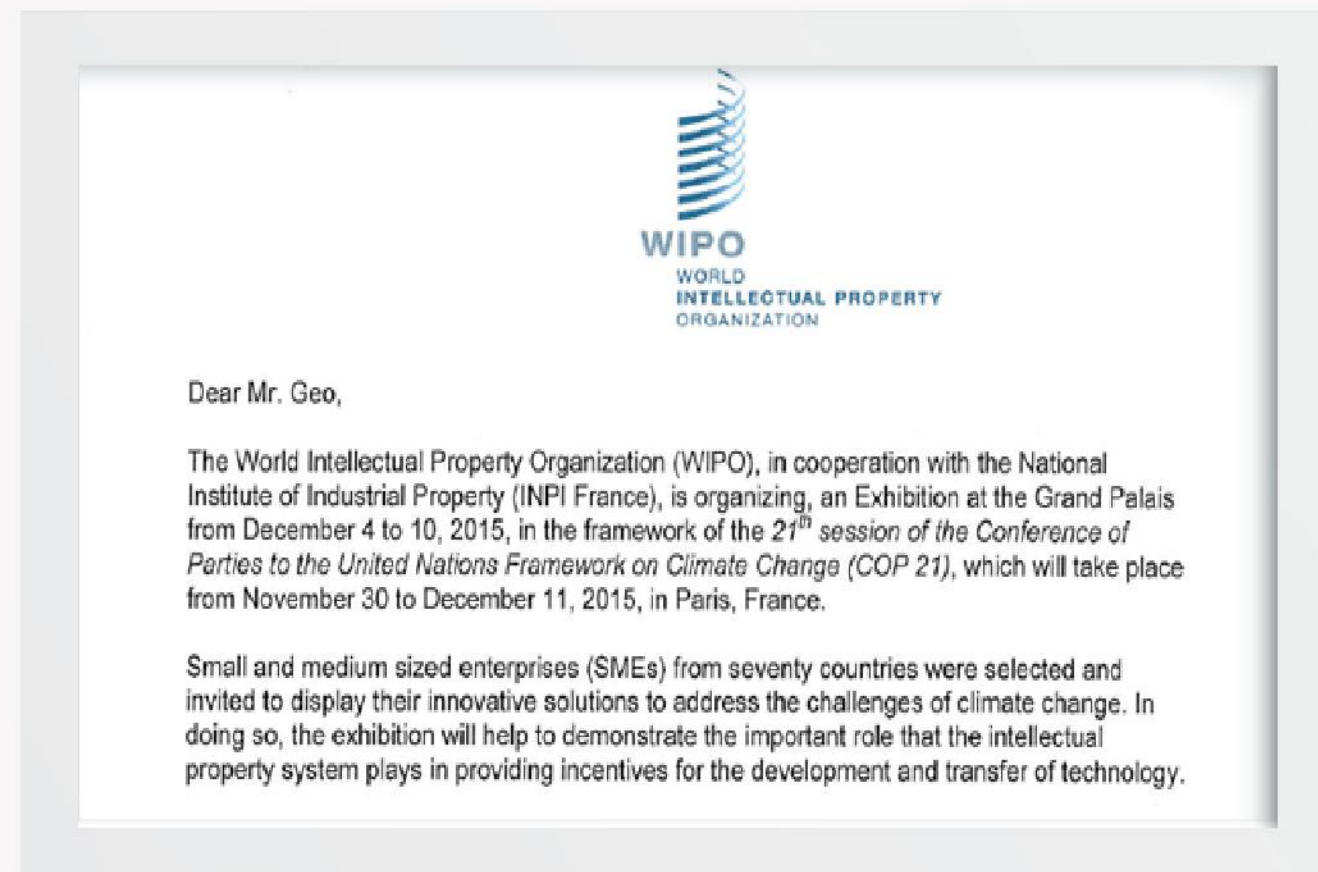
# 09. Accreditation



▶ SOLUTIONS COP21



▶ SOLARIMPULSE



# 10. Patents & Certificates

## Patents



## Certificates



## Awards



FOR THE SUSTAINABLE EARTH(GEO),  
SHARE THE ELECTRICITY ON(-LINE).

[geo-line.com](http://geo-line.com)

