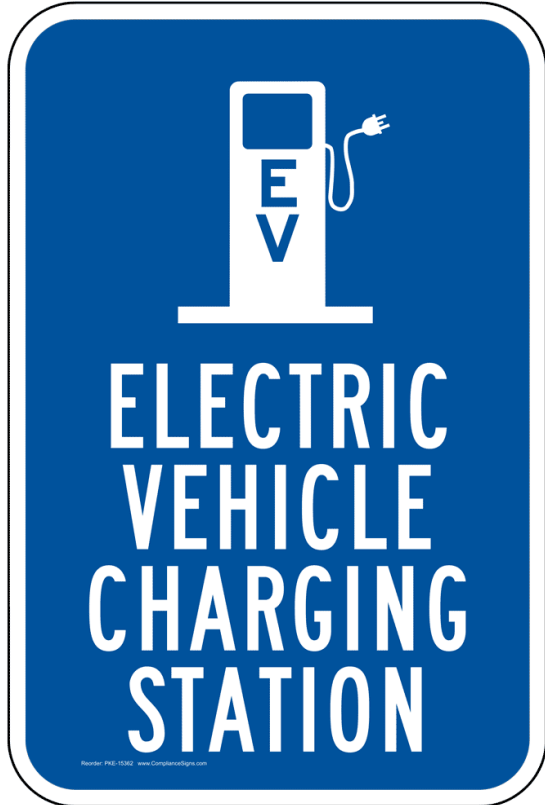


From National Infrastructure to Global Standards: The Evolution of OCA



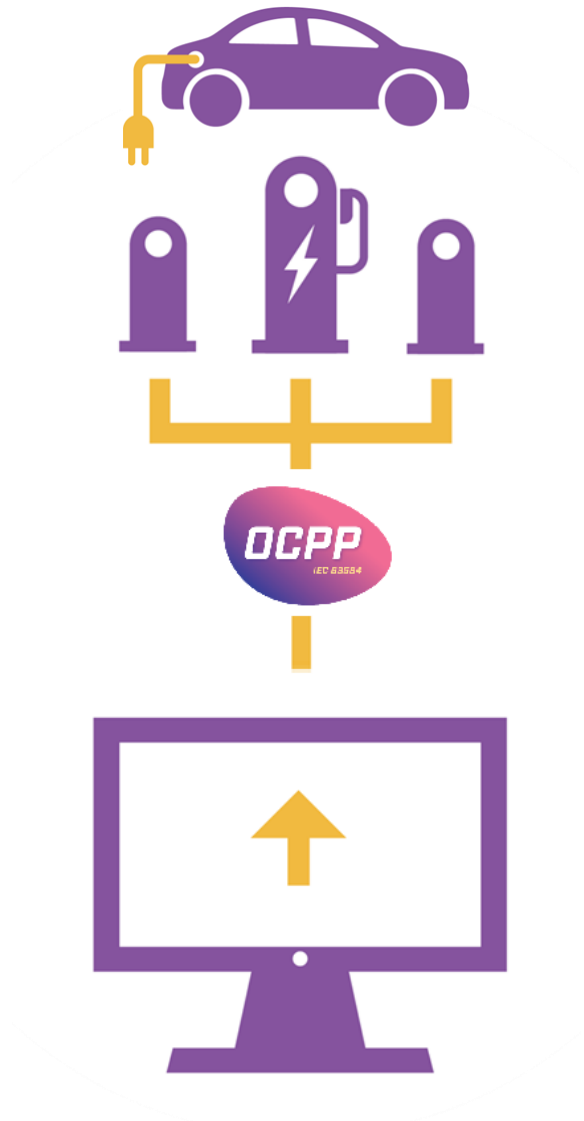
Peter Veale
ESB/ OCA Board member

Before OCPP, EV charging was fragmented



- Every charging station used proprietary interfaces
- Operators were locked into a single vendor
- Roaming and interoperability were difficult
- The industry needed a common language

OCPP (Open Charge Point Protocol)



OCPP is the common language that allows charging stations and management systems from different vendors to work together.



Where did OCPP come from?



- **2009** -> OCPP created by ElaadNL (Dutch DSOs)
- **2014** -> Open Charge Alliance (OCA) Established by



Energy for
generations



greenlots
A Member of the Shell Group

OCPP came first. OCA was created later to steward and accelerate its development.

How it all got started



Michiel Langezaal -
Fastned



Lambert Muhlenberg -
Alfen



Franc Buve – OCA





Who are the Open Charge Alliance?

- Independent nonprofit foundation
- Custodian of OCPP
- Drives:
 - Standards
 - Testing
 - Certification
 - Interoperability
- Goal is to help the EV charging industry accelerate
- Holds copyrights on the OCPP specifications and has made OCPP available under a Creative Commons Public License (“no derivatives”).



OCA community
now exceeds **400**
participants
globally





OCPP

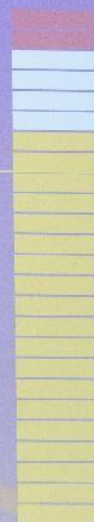
IEC 63584

In 2024 OCPP 2.x became IEC 63584

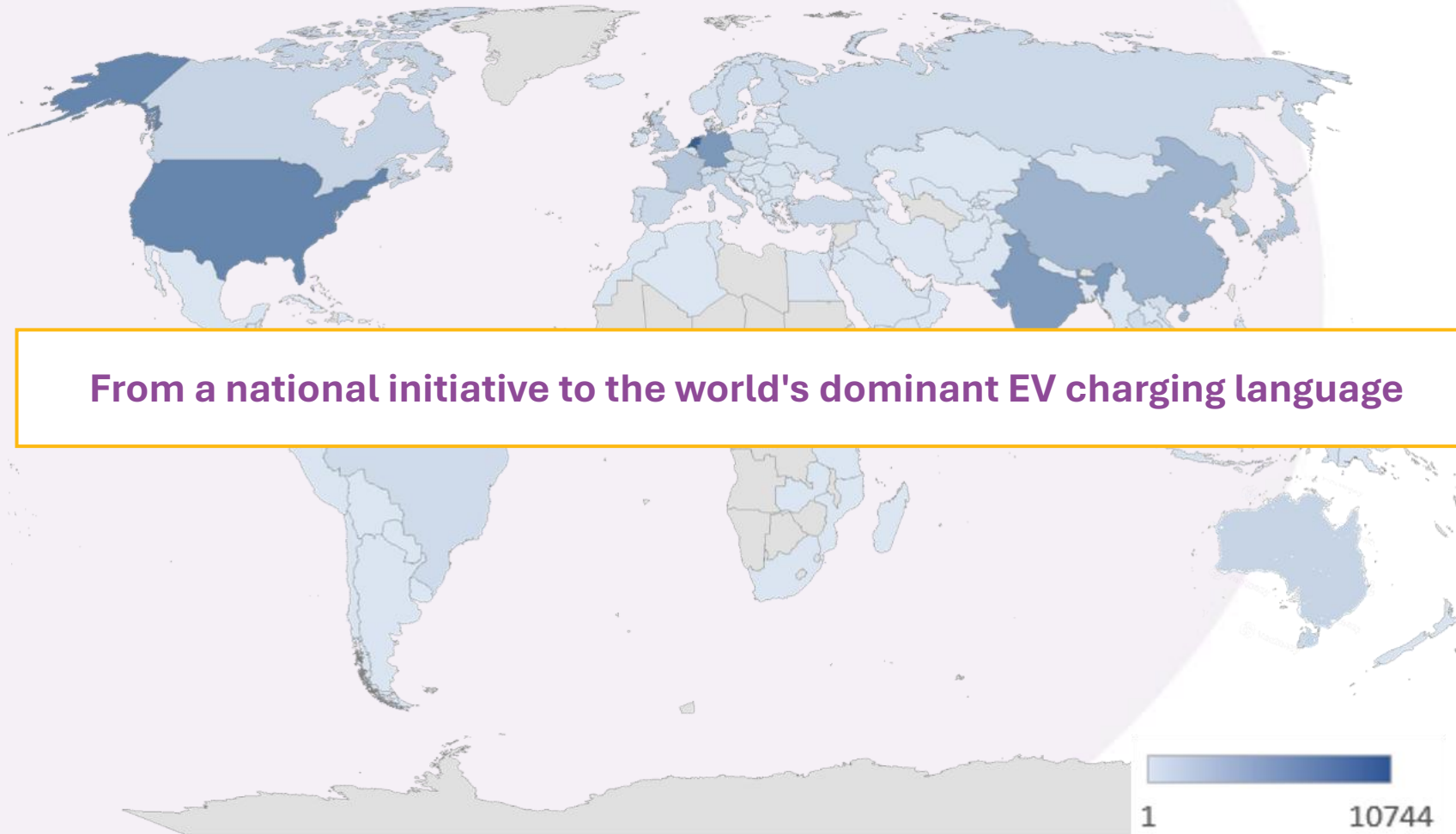
Evolving from an industry initiative into a **recognised international standard**

TC69 Participating National Committees

 Austria	✓	 Iran	
 Australia	✓	 Italy	✓
 Belgium	✓	 Jordan	
 Canada	✓	 Japan	✓
 Switzerland	✓	 Korea	✓
 China	✗	 Malaysia	
 Germany	✗	 Netherlands	✓
 Denmark	✓	 Norway	✓
 Egypt	✓	 Philippines	✓
 Spain	✓	 Poland	
 Finland	✓	 Russia	
 France	✓	 Sweden	
 United Kingdom	✓	 Singapore	
 Indonesia	✓	 Slovenia	
 Ireland	✓	 Turkey	
 Israel	✓	 USA	
 India	✓		



OCPP is used in 131 countries around the world



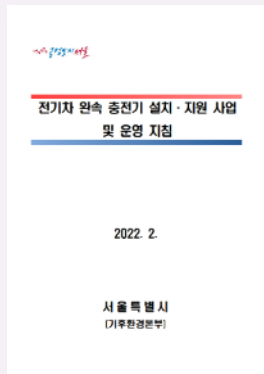
“OCPP isn’t just the “lingua franca” of the EV charging industry—it’s the accelerator for the global charging infrastructure.



From Market Adoption to Regulatory Adoption

- Industry adopted OCPP first
- Governments saw interoperability benefits
- OCPP began appearing in regulations and funding programmes

Korea



South Australia



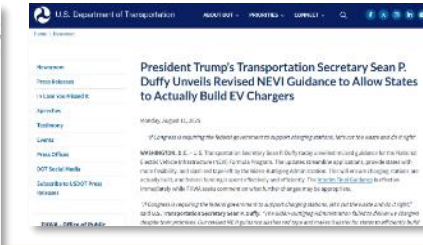
India



Russia



USA

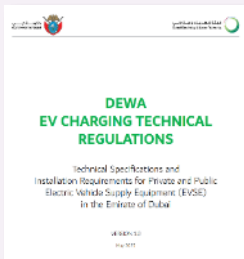


Japan



Governments increasingly view interoperability as public infrastructure

Dubai



California



New York State



NL



EU



Colombia



Reasons behind the success of OCPP

Open

- ✓ Free to Access
- ✓ No Licensing Barriers

Industry Led

- ✓ Built by practitioners
- ✓ Continuous real-world feedback
- ✓ Technical Editors funded by participants who research, draft proposals, write test cases

Agile

- ✓ Evolved with market needs
- ✓ Smart charging
- ✓ V2G
- ✓ Security

Trusted Governance

- ✓ Stable stewardship through the OCA
- ✓ Engage and reach out to the community, organize test events, publish whitepapers, set up a certification program

Ecosystem

- ✓ Open source implementations
- ✓ Global vendor support
- ✓ Government recognition
- ✓ Stable support network for more than 15 years (e.g. ESB, Dutch DSOs, Dutch Government, Linux Foundation, OIN and most important of all: the industry)

OCPP Ambassador



Riccardo M. Pagliardini





Energy for
generations

ESB's role in a global success story



For more than a decade, ESB has helped steward the development of OCPP through the Open Charge Alliance, supporting the growth of an open, interoperable and vendor-neutral charging ecosystem.

Today, that mission is more important than ever.

- Accelerating the electrification of transport
- Enabling large-scale decarbonisation
- Supporting competition and innovation
- Delivering secure and interoperable infrastructure
- Enabling smart charging and grid flexibility
- Creating the foundations for a Net Zero energy system

