

Communication Protocols

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Paris, February 17th
2020

Elaadnl






A non-profit Knowledge & Innovation
Centre in the field of
(smart) charging infrastructure

Founded in 2009
and funded by the Dutch DSOs and TSO

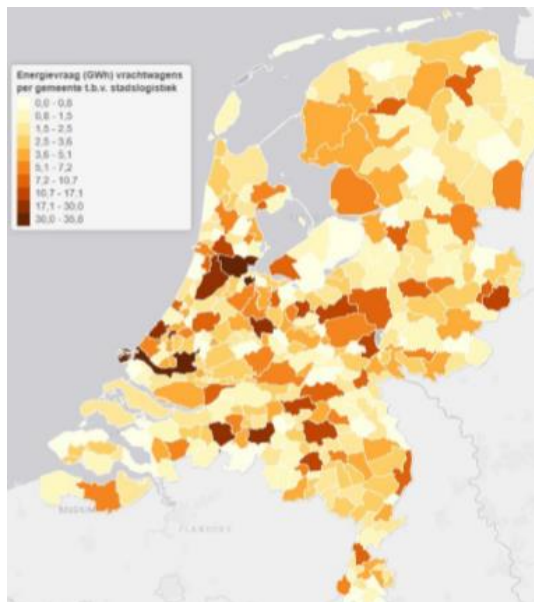


ElaadNL works on the smooth integration of
electric vehicles to the power grid
by making full use of renewable energy

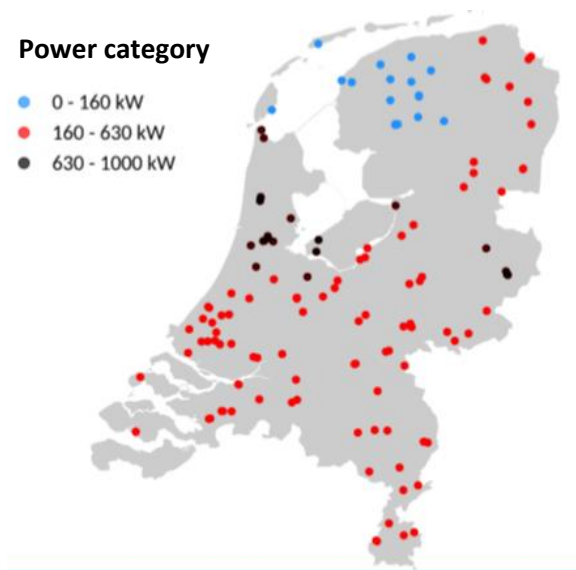


ElaadNL Outlook City Logistics

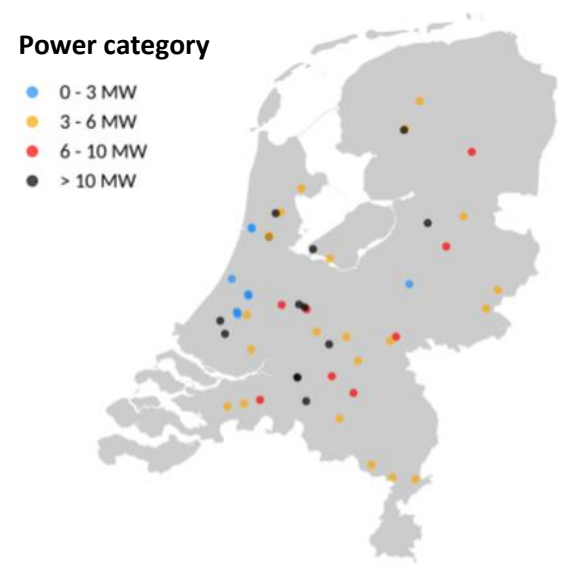
Energy demand



Power demand supermarkets

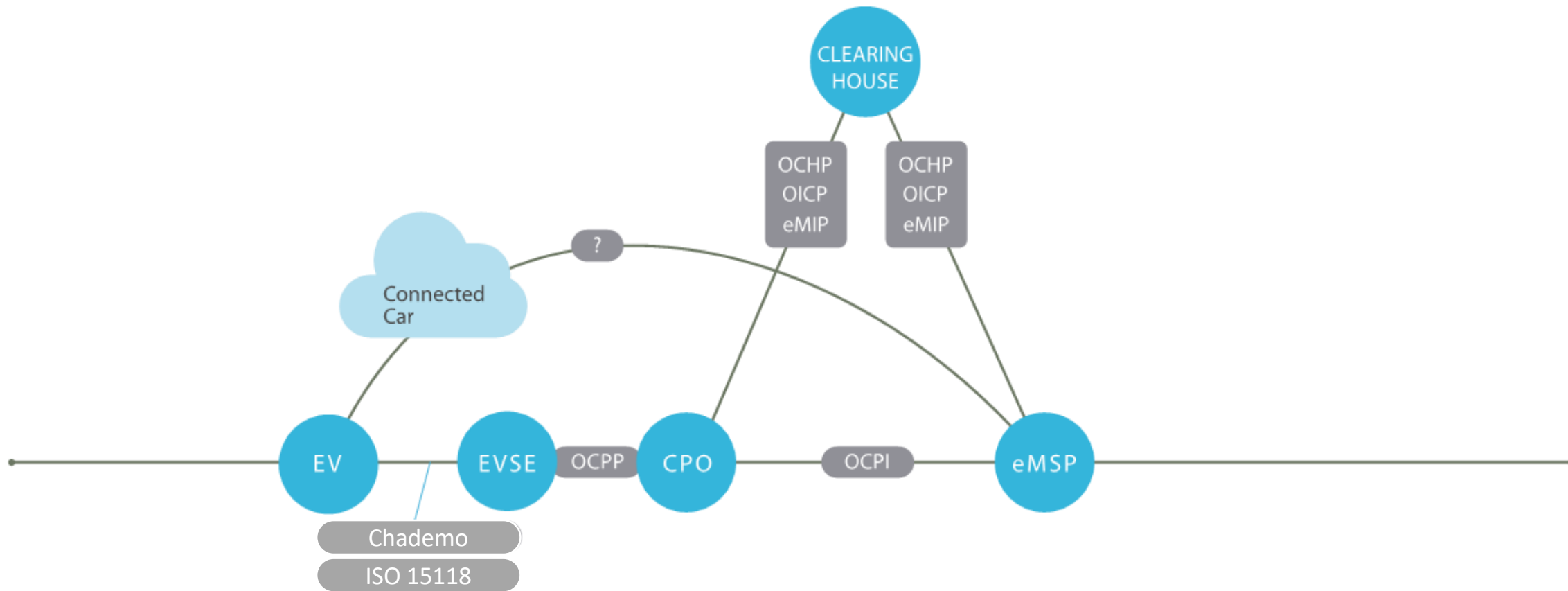


Power demand waste disposal

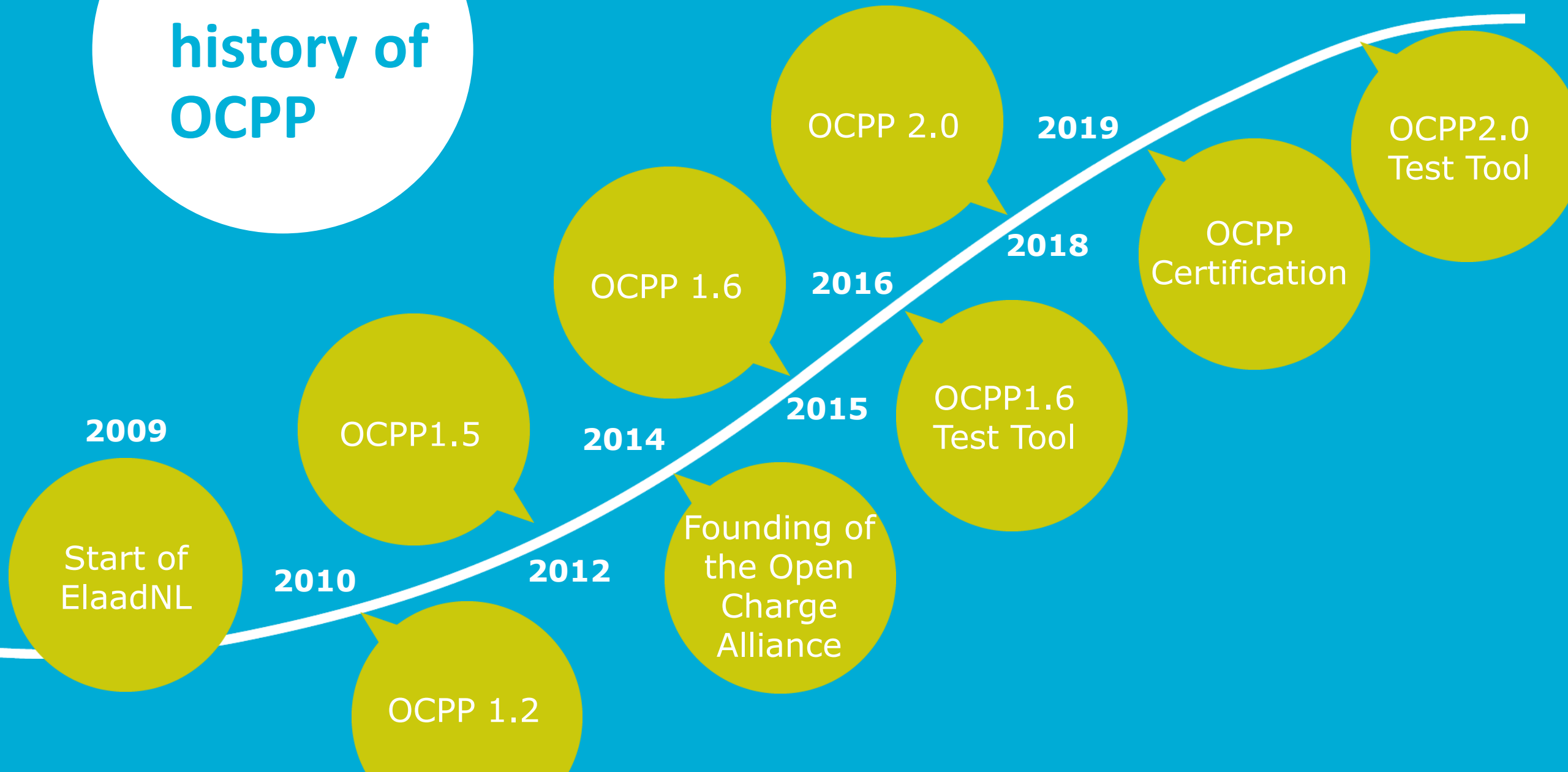


Communication standards





The history of OCPP



Introduction to OCPP and the Open Charge Alliance



OCPP is the communication protocol between Back end system and Charging Station



OCPP

- Developed following the need of the growing industry and incorporating field experience
- Open, patent and royalty free with no cost or licensing barriers
- OCPP is a trademark and is protected by copyright license

Governed by the Open Charge Alliance

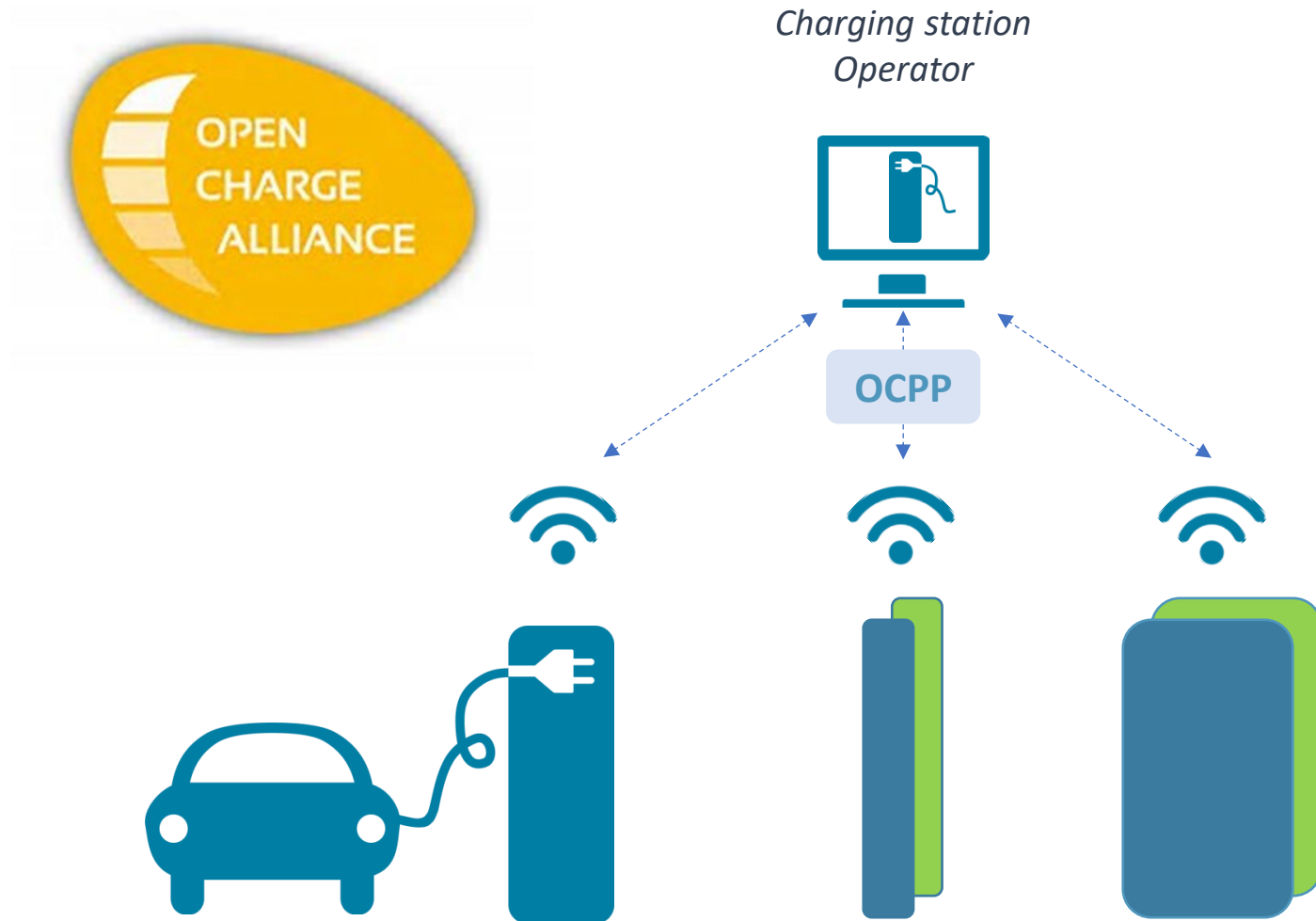
- A non-profit organization
- Dutch Foundation founded in January 2014
- 160 members currently
- Everyone is welcome to join

OCA activities

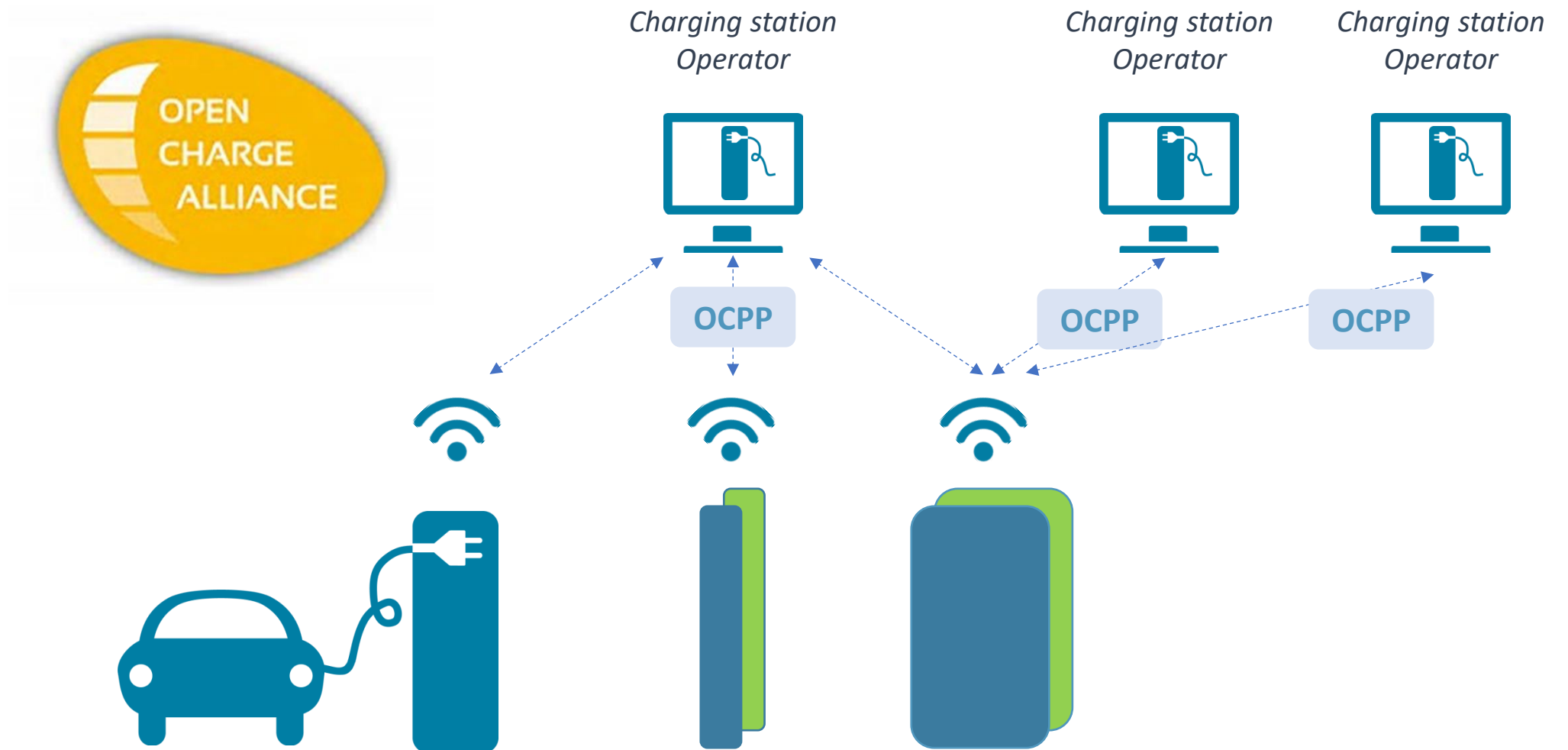
- Development of the OCPP protocol
- Development of compliancy testing and certification
- Coordination of formal standardization
- Promotion of OCPP

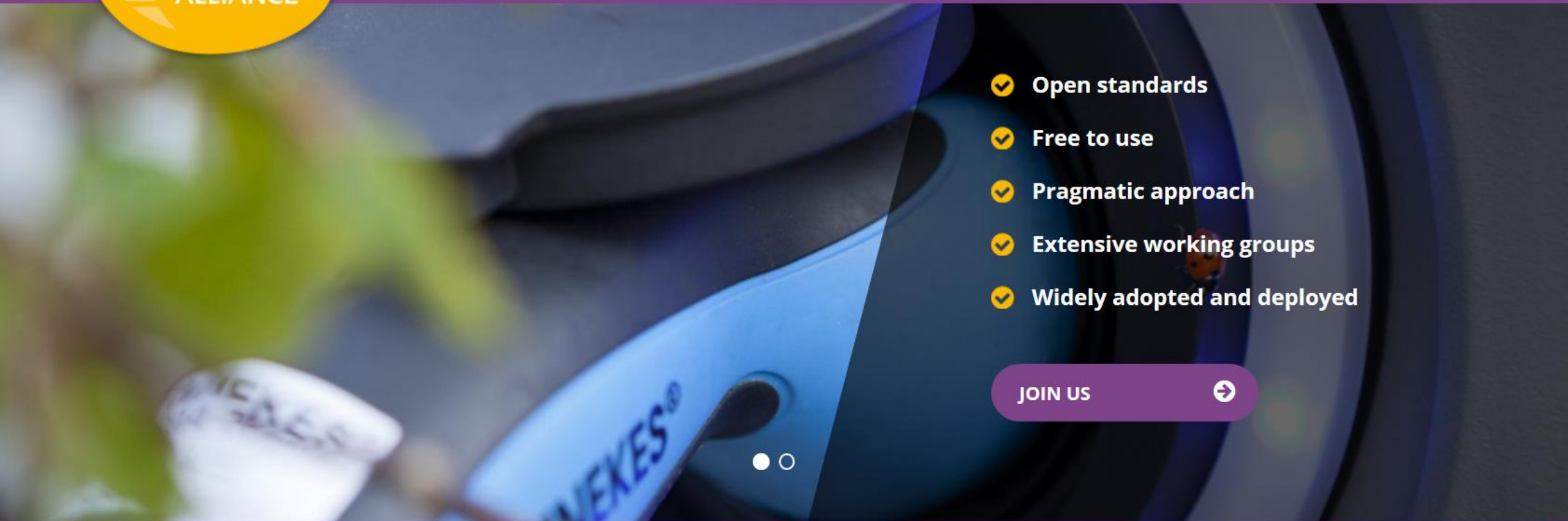


Open standards to enable vendor independence for charging network operators



Open standards enable vendors to offer their products easily to many different Operators





- ✔ Open standards
- ✔ Free to use
- ✔ Pragmatic approach
- ✔ Extensive working groups
- ✔ Widely adopted and deployed

JOIN US →



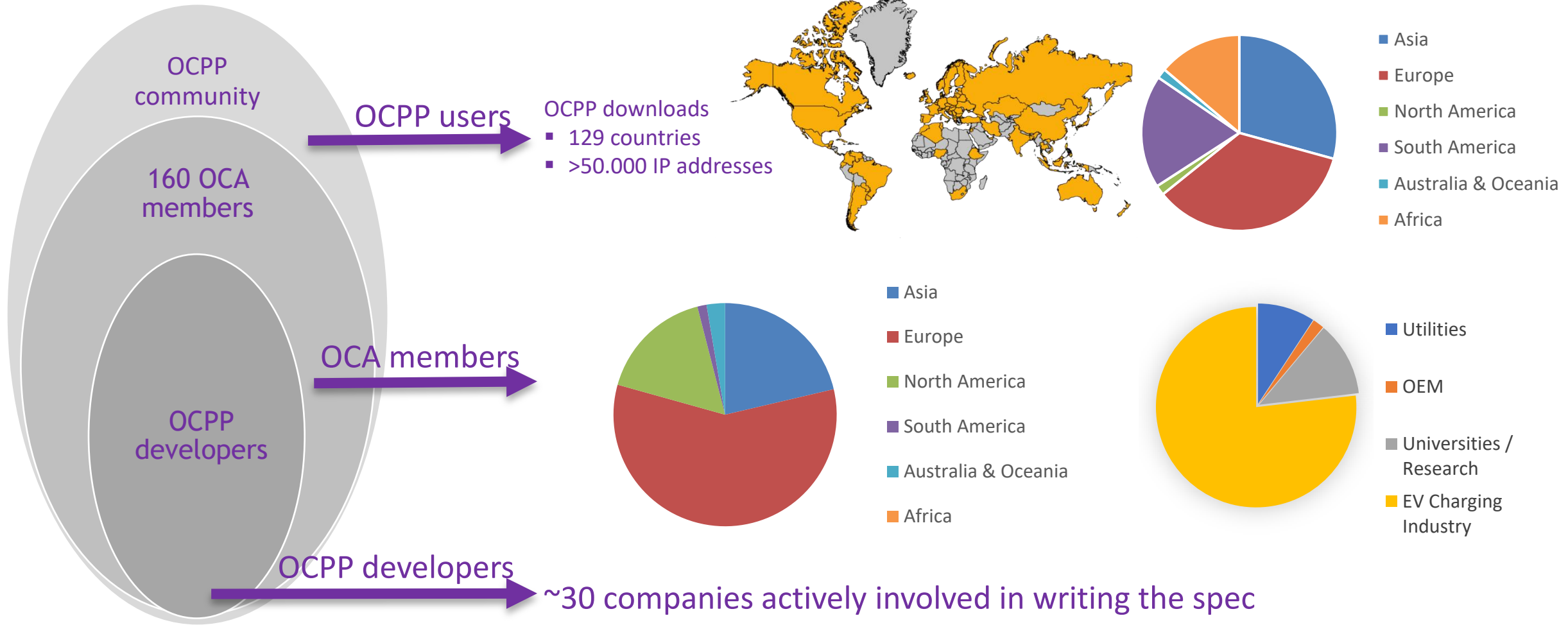
DOWNLOAD
PROTOCOLS

OCPP 2.0 ▾

FILE OCPP 2.0 (all files) ▾

DOWNLOAD ↕

The OCPP community



Overview: OCPP versions

OCPP 1.5

June 2012
SOAP

24x2 messages
42 data types
15 configuration keys

OCPP 1.6

October 2015
SOAP & JSON

60 use cases
28x2 messages
49 data types
43 configuration keys

OCPP 2.0

April 2018
JSON

116 use cases
65x2 messages
129 data types
85 configuration keys
260 test cases

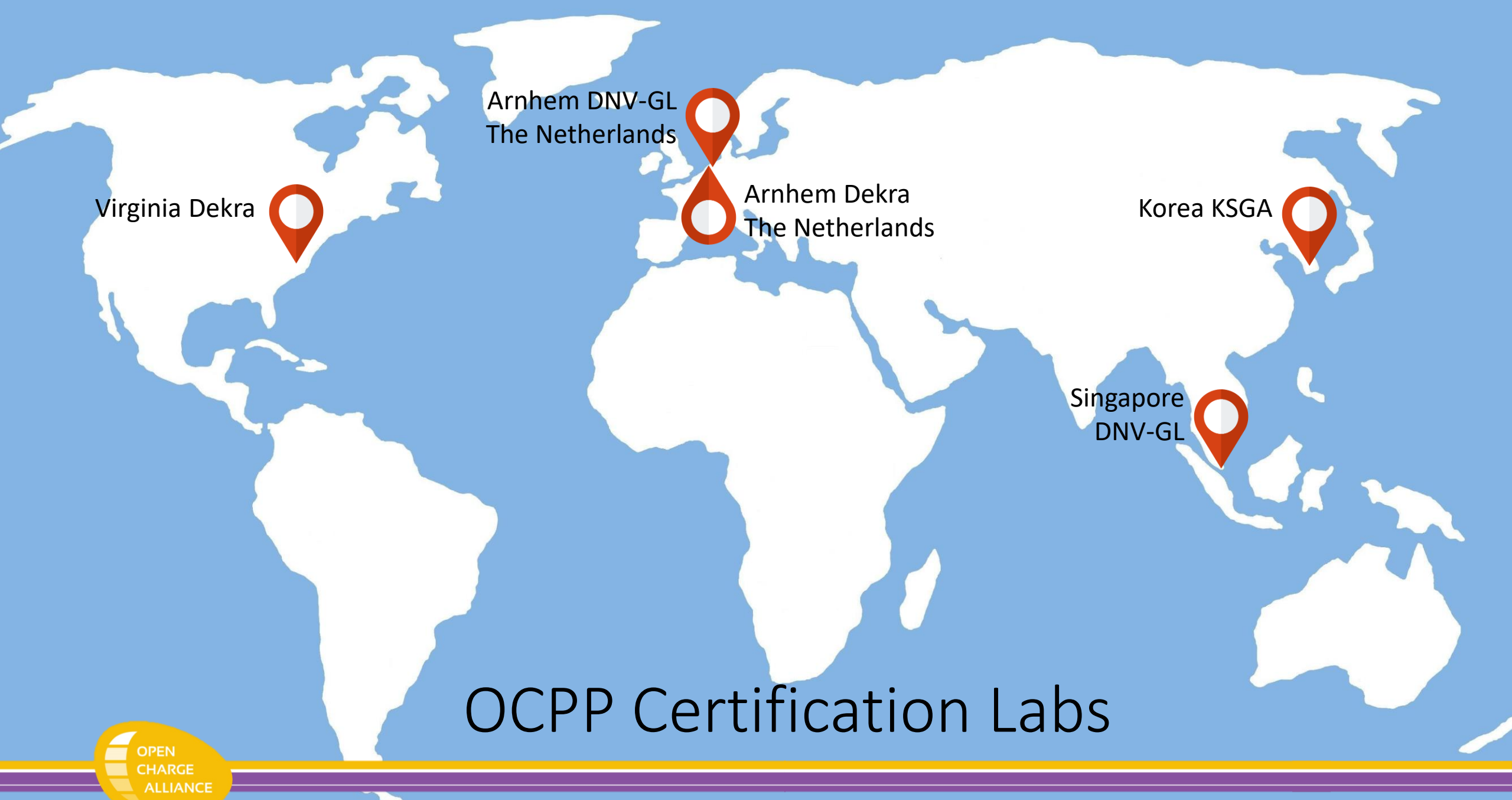
- + Improvements
- + Smart Charging
- + JSON support

- + Improvements
- + Better documentation
- + More functionalities



OCPP plugfests





Virginia Dekra

Arnhem DNV-GL
The Netherlands

Arnhem Dekra
The Netherlands

Korea KSGA

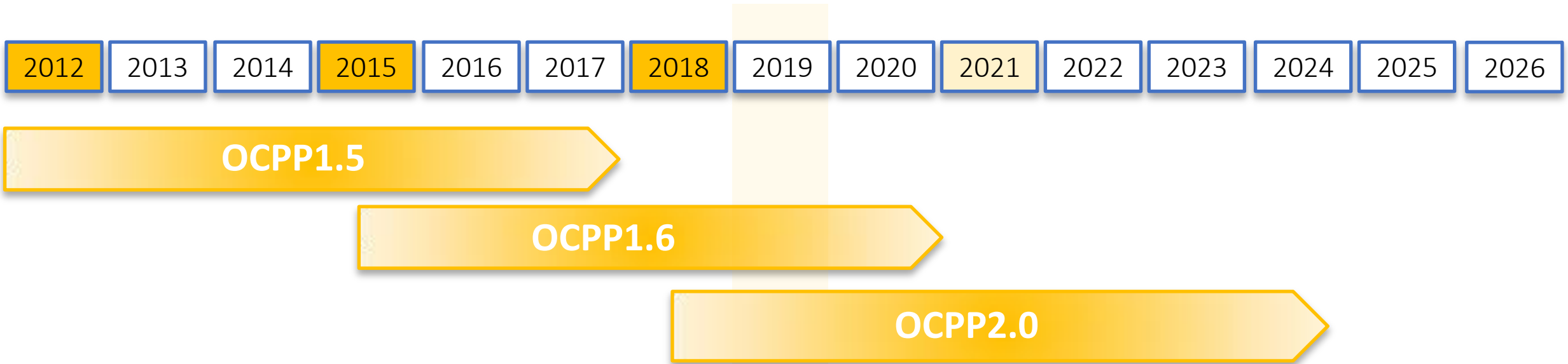
Singapore
DNV-GL

OCPP Certification Labs



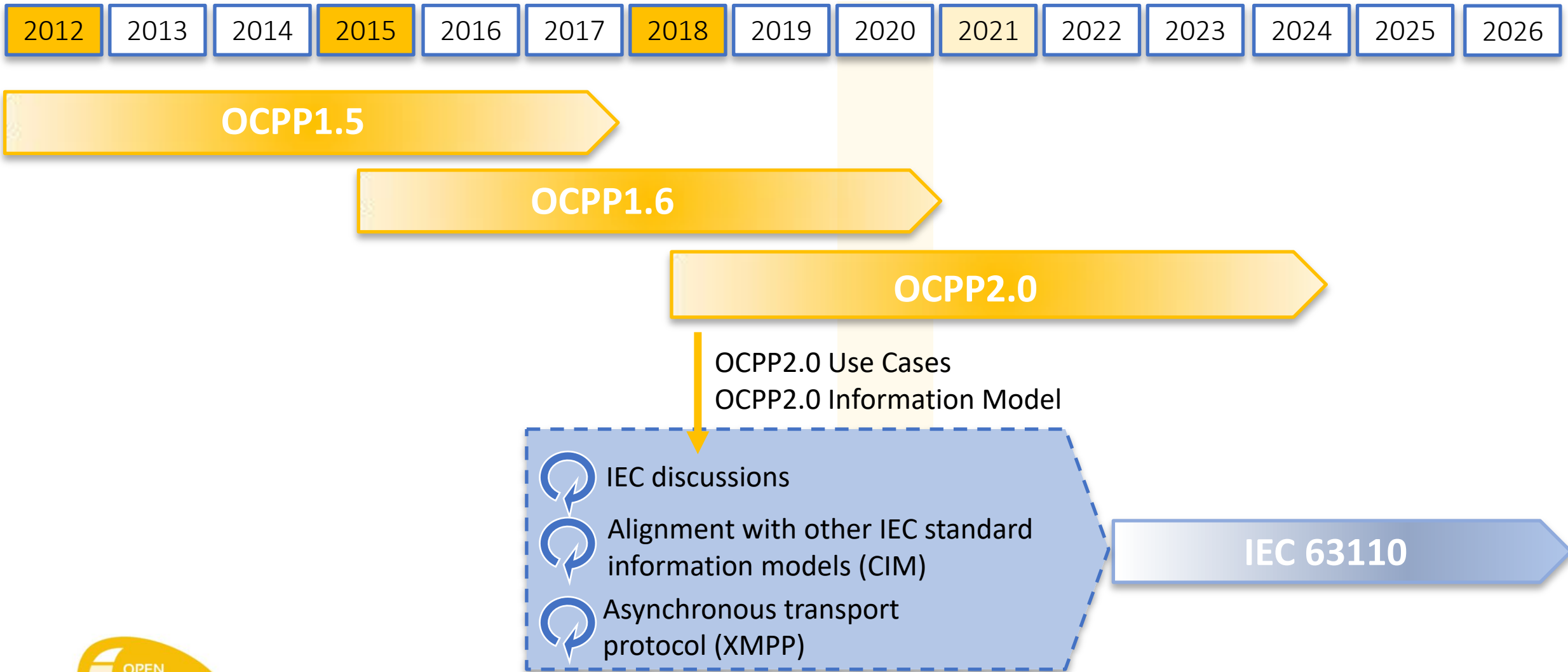


Market adoption of OCPP

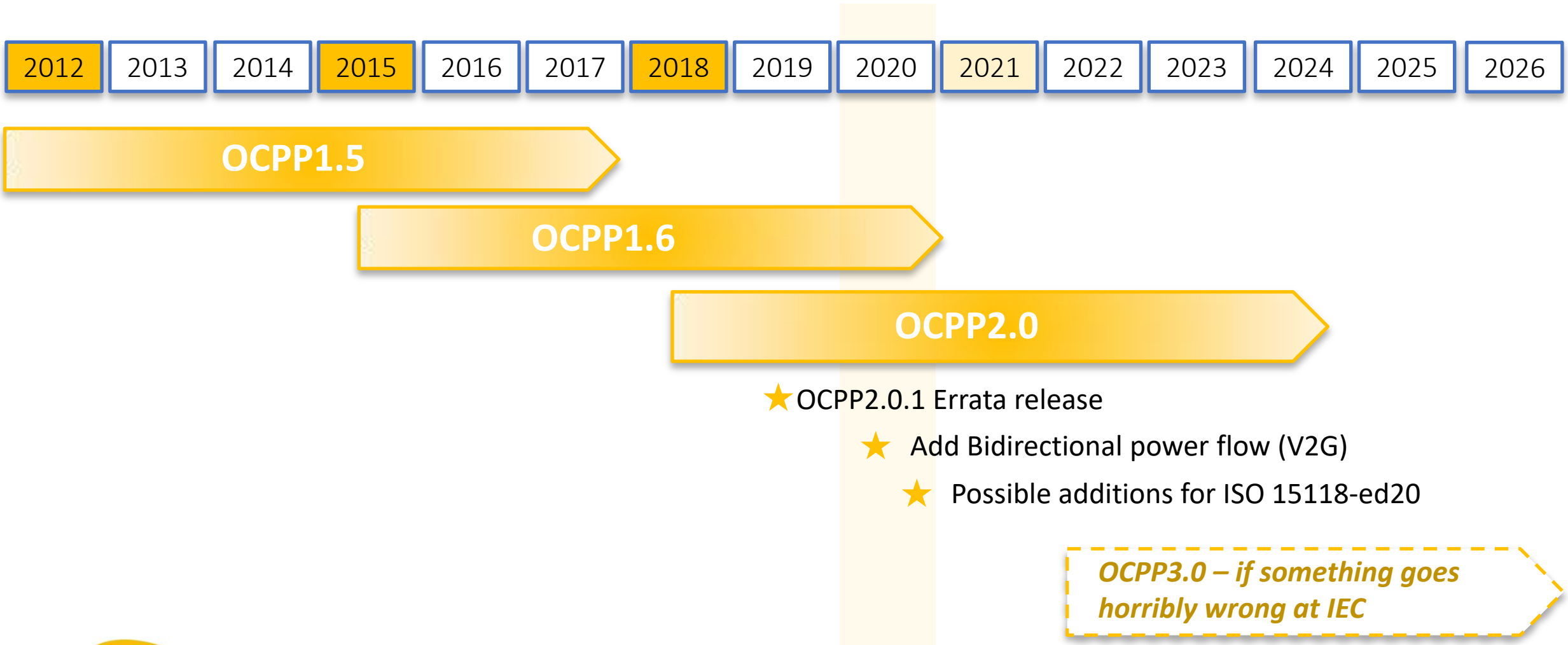


Market adoption of OCPP2.0 will depend on the need of various markets for the added features

Standardization at IEC



In the mean time, we'll keep OCPP up to date





Are you talking to me?
Talk OCPP!

Are you talking to me?
Talk OCPP!

OPEN
CHARGE
PLACEMENT



Thank you!



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