

Interreg



North Sea Region

SEEV4-City

European Regional Development Fund

Lessons learnt in procuring smart charging technologies



Northumbria
University
NEWCASTLE



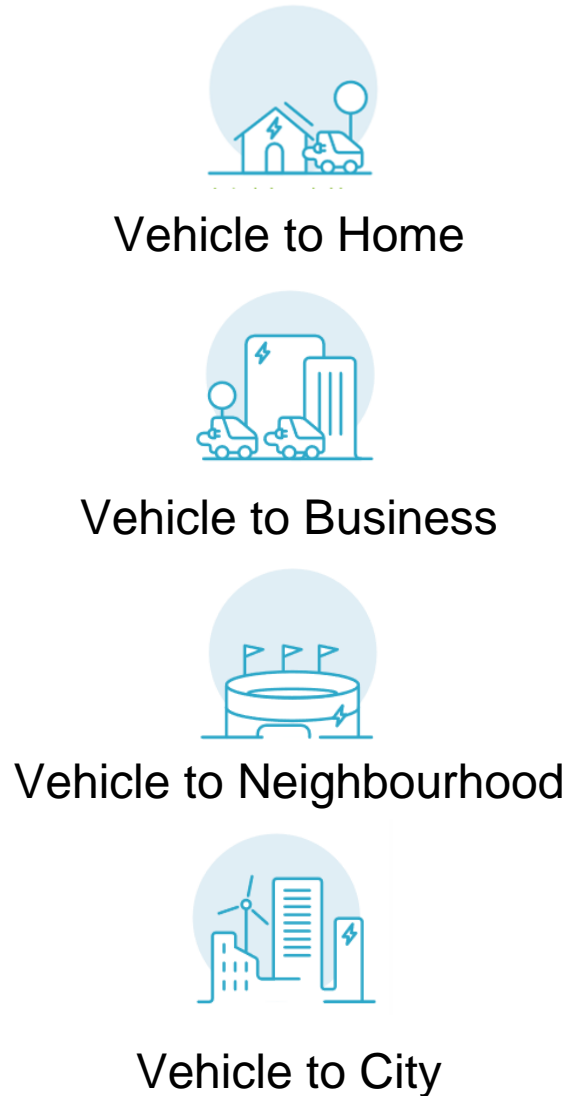
Amsterdam University
of Applied Sciences

Webinar 03-12-2020

ing. Jorden van der Hoogt MSc
Cenex Nederland







Scale

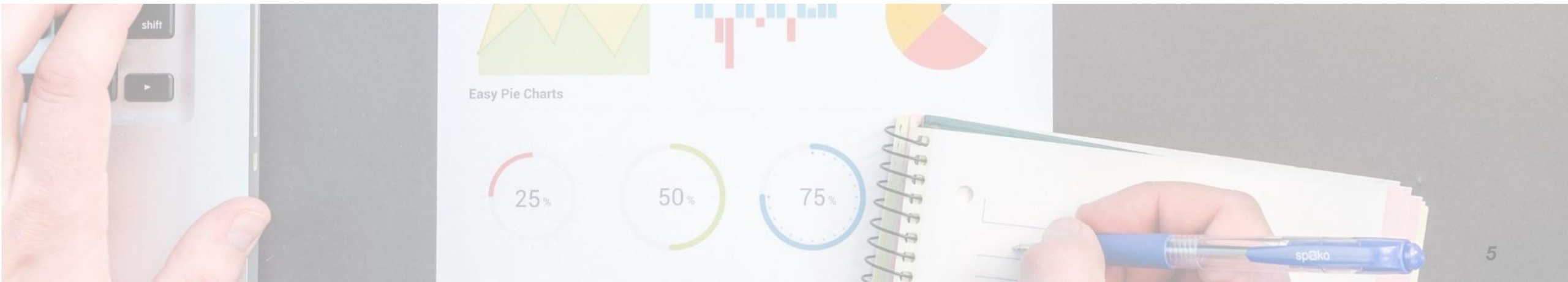
- Loughborough/BuT (UK)**
Cenex UK employee home owner
- Kortrijk (BE)**
The City Depot of Kortrijk
- Leicester (UK)**
Leicester City Hall
- Amsterdam (NL)**
Johan Cruyff Arena
- Oslo (NO)**
Vulkan Real Estate
- Amsterdam (NL)**
FlexPower Amsterdam



Lessons Learnt

from six operational pilots
with different scales

- ① **Technology: the V2X market is not fully mature**
- ② **Configuration: tailor-made projects**
- ③ **Procurement: knowing the market is key**
- ④ **Business models: V2X requires customised BMs**



Technology



Technology in development

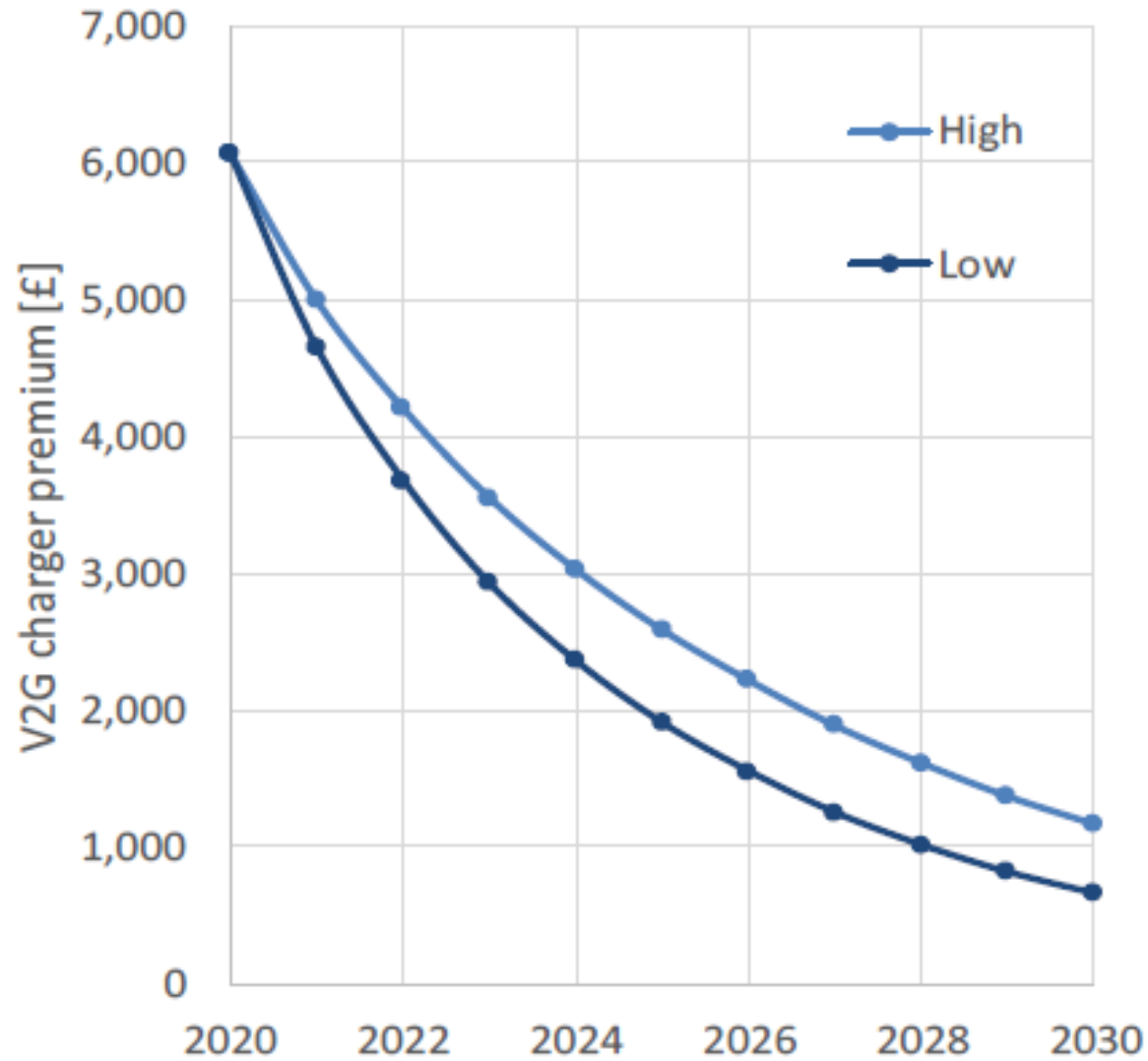
Procurement and installation may change

Fully mature



Expensive

V2X units are currently very expensive

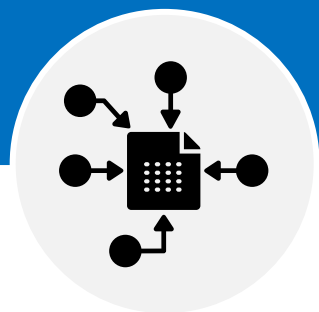


Source: ElementEnergy, V2GB – Vehicle to Grid Britain



2

Configuration: tailor-made projects



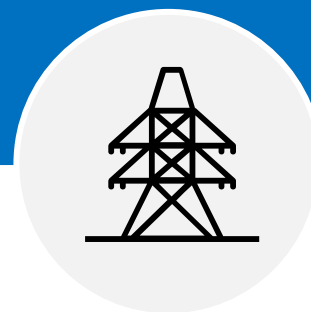
Merge different data collection systems

Pre-existing installations such as PV



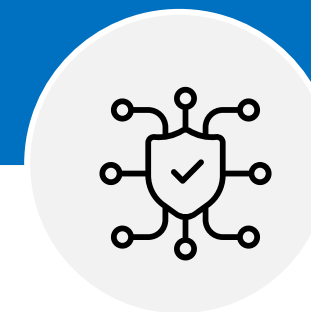
Technical issues

Communication and compatibility



DNO requirements

Installation and operation behind the meter



Data security and privacy

Be mindful with the access to collected data



3

Procurement: knowing the market is key



Total system suppliers

Consortia for installation and operation



Procurement time planning

Components may have long lead-times



Investment in human capital

Invest in knowledge training



Know what suppliers offer

Product specifications and terms of supplier



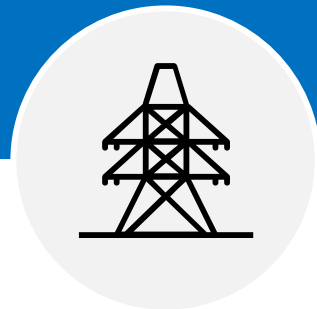
4

Business models: V2X requires customised BM



Tariffs and type of consumer

Different regions and project purposes



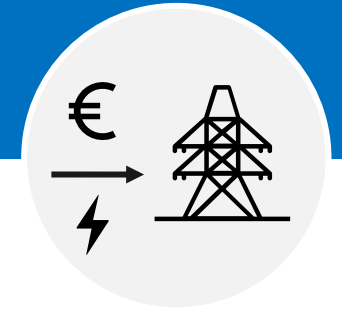
Avoided grid investments

Location and network specific



Smart charging currently a better business case

Less expensive units and wider applicability



V2G may become more rewarding

If Feed-in-Tariffs are altered in the future



Key takeaways

PRIORITIES

Price and the availability of bi-directional charging units are key barriers

PROCUREMENT

Compatibility of the technology in general is poor

PERSPECTIVE

Smart Charging currently favourable, but V2X still holds potential

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Thank you for your attention

Team Cenex

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Questions?

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