



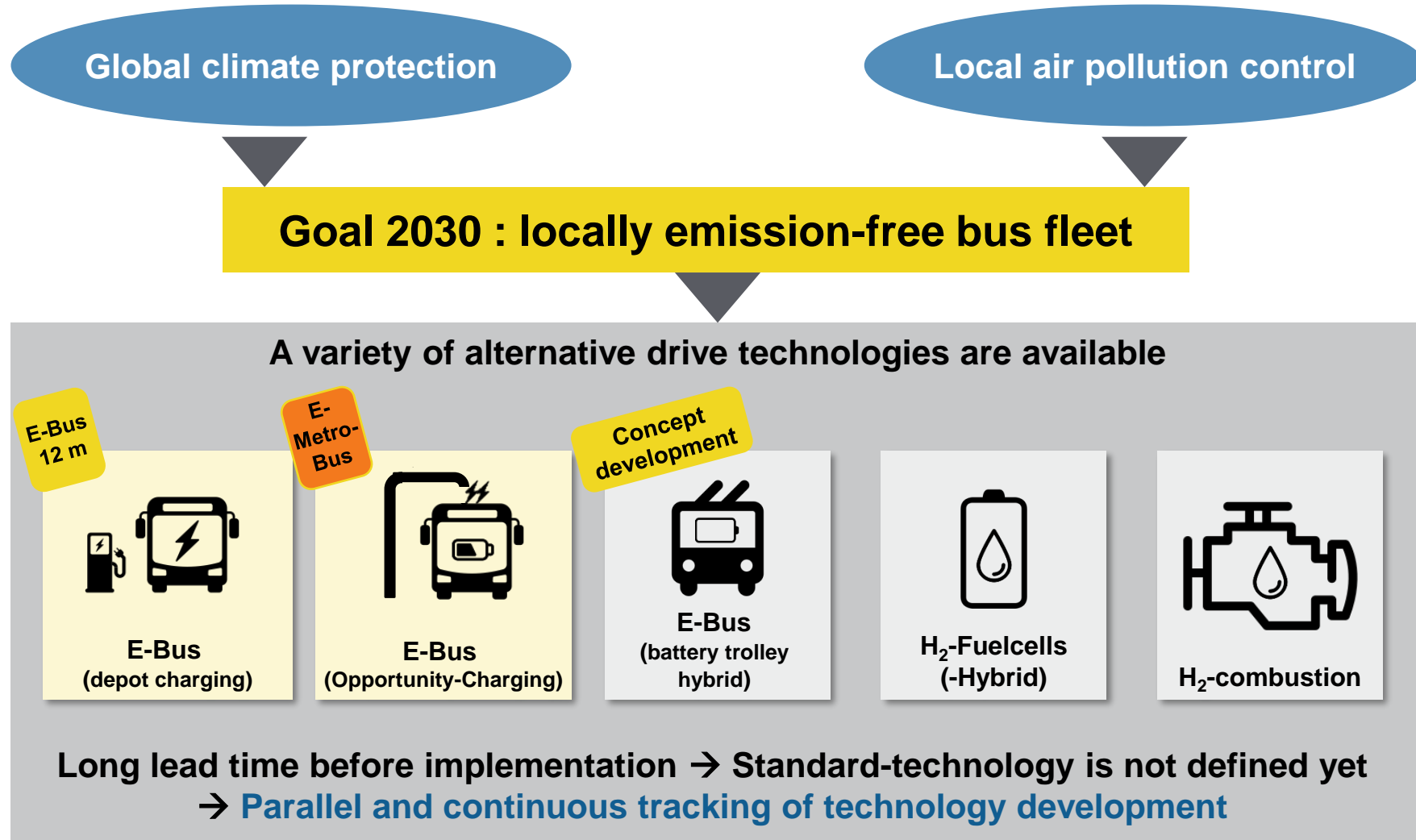
Current status electric bus implementation and IMC-trolley introduction in Berlin

Berliner Verkehrsbetriebe (BVG)

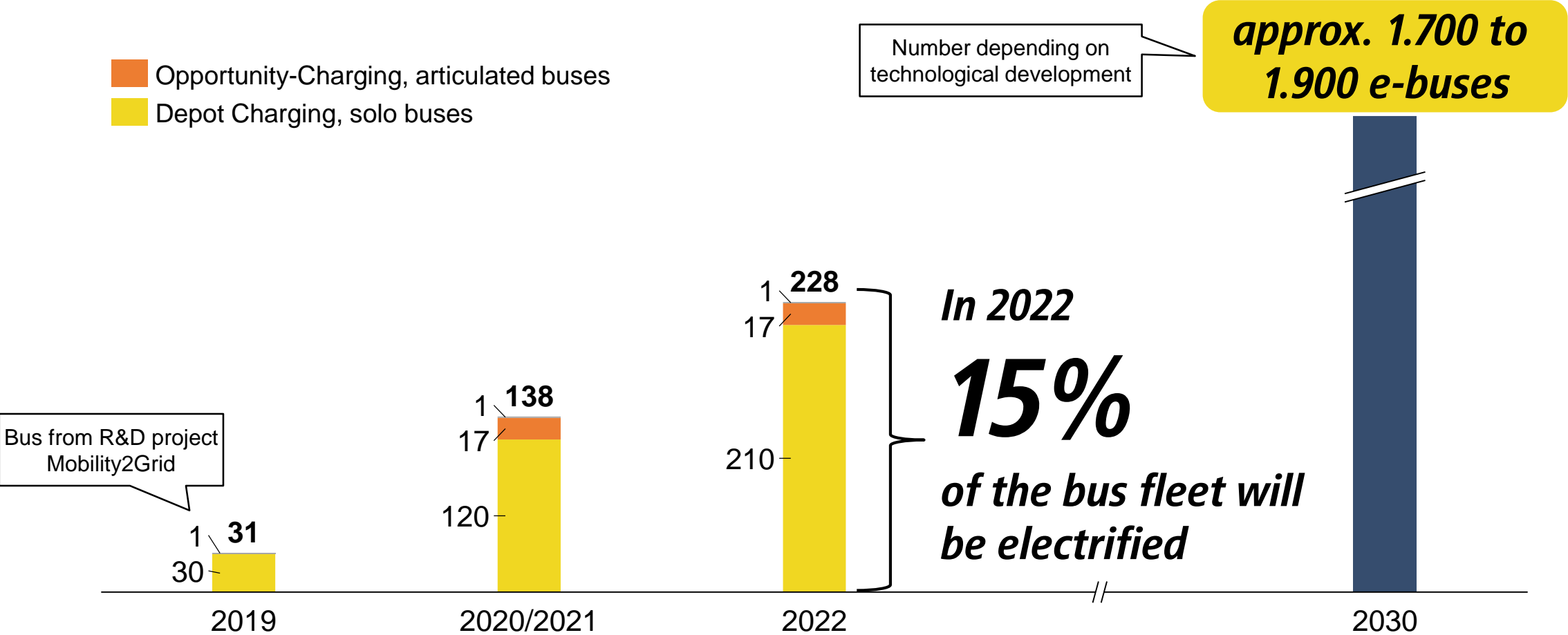
New Mobility Division | J.H. Denny Chen, *Project and Strategy Advisor*

12. November 2020

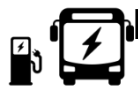
The BVG follows a path into a locally emission-free public transport system deploying different technologies



Till 2030 our bus fleet will be completely converted



210 electric solo buses will be in service till 2022



More than 100 buses
in service now



High technical availability
On average >91%



Mileage by far:
► More than 2 Mio. km



Fast and agile realization, partly
with improvised solutions

*17 Solaris
new urbino 18 electric*

*2 x 2 Siemens high power
chargers (450 kW) at both ends
of the inner-city line 200*

**"MACH MAL HALBLANG"
WAR UNS ZU KURZ.**

Die neue E-Bus-Flotte. Superleise. Abgasfrei.

17 articulated e-buses in 2020

The trolley-battery-hybrid technology enables the electric operation of double-articulated buses and might reduce operating costs

BVG



Main results

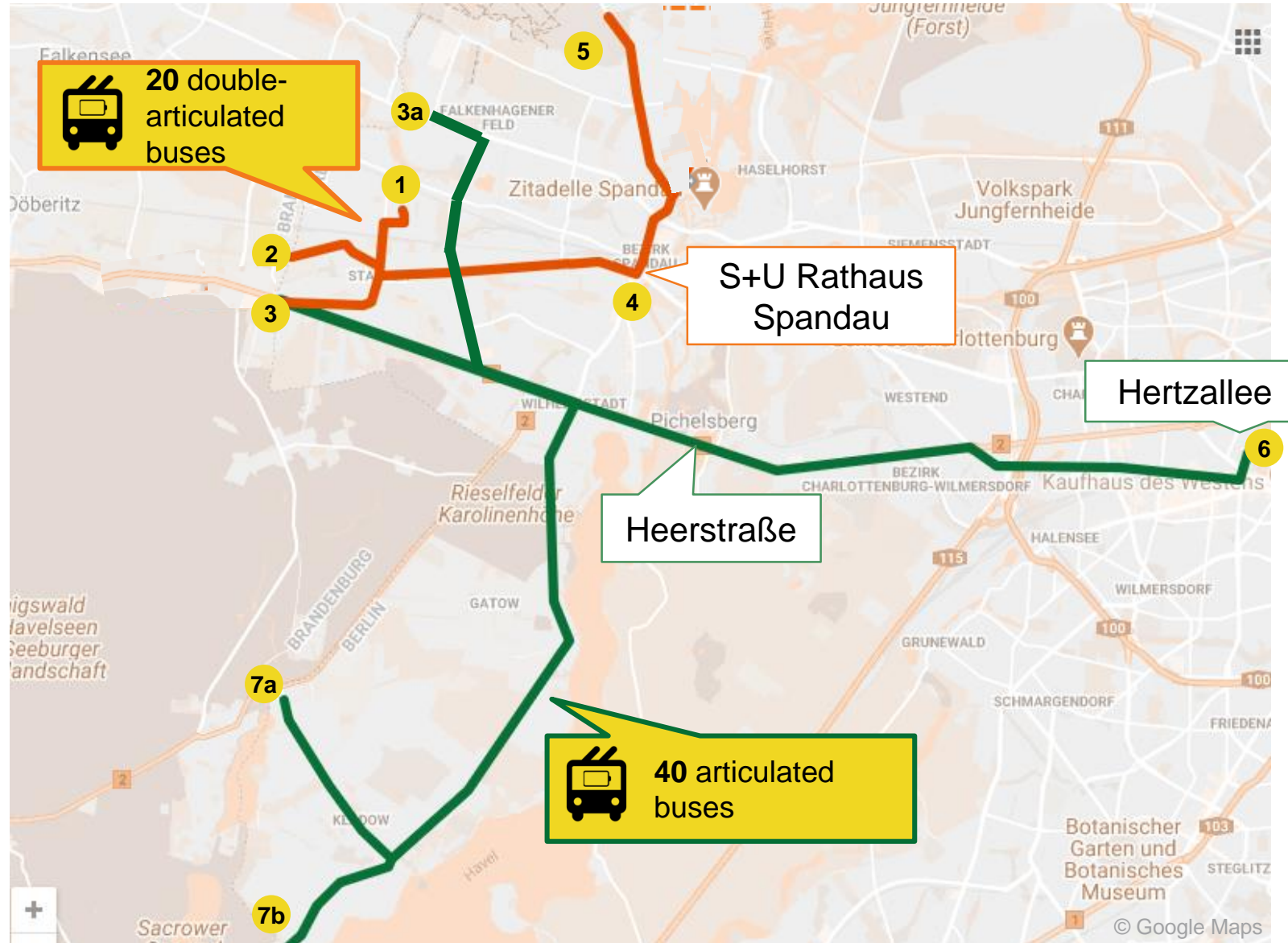
- The trolley-battery-hybrid technology enables the electric operation of **double-articulated** buses
- The Spandau network can be operated with **approx. 60% catenary**
- The **initial investment costs** are about 50% higher than the ones for other e-bus technologies
- From a **30 years-perspective** the annual **total costs are similar**. However with the operation of double-articulated buses the total costs per passenger can be reduced
- If necessary the infrastructure can be used for **future tramway projects**



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In the next months we will start with the pre-design of two pilots on lines with a high passenger demand

BVG



1st Pilot – Line M32

Staaken Heidebergplan ¹ /
 Brunsbütteler Damm/Stadtgrenze ² /
 Heerstr. / Nennhauser Damm ³
 <> S+U Rathaus Spandau ⁴
 <> Spandau Johannesstift ⁵

2nd Pilot – Heerstraße corridor: Linie M49/X49

S+U Zoologischer Garten ⁶ <>
 Heerstr. / Nennhauser Damm ³
 Im Spektefeld ^{3a}

Linie X34

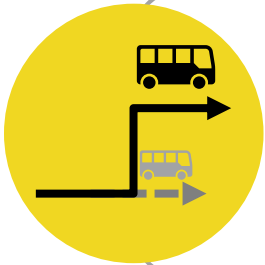
S+U Zoologischer Garten ⁶ <>
 Kladow, Gutsstr. ^{7a} &
 Kladow, Hottengrund ^{7b}

Towards an operation of trolley-battery-hybrid buses in Berlin-Spandau BVG deals with several challenges



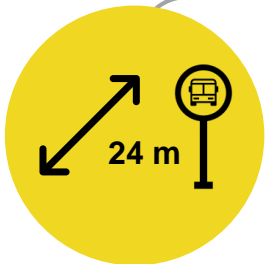
Plan and project approval procedures

- Challenge: In Germany the implementation of catenary systems is subject to a plan approval procedure by law. The number of objections is unknown.
- First steps: Informal public participation before the plan approval procedure



Operation of express bus lines

- Challenge: Two express bus lines are part of the second pilot. The buses on these lines will overtake buses on regular lines at several bus stops.
- First steps: Initiating industry dialogues on solutions for overtaking imc buses



Enlarging of bus stops and other street construction works

- Challenge: In order to operate double-articulated buses during the first pilot a big number of bus stops have to be enlarged
- First steps: Initiating dialogues with local administration offices and combining road construction works



***Thank you
for your attention.***

Contact

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