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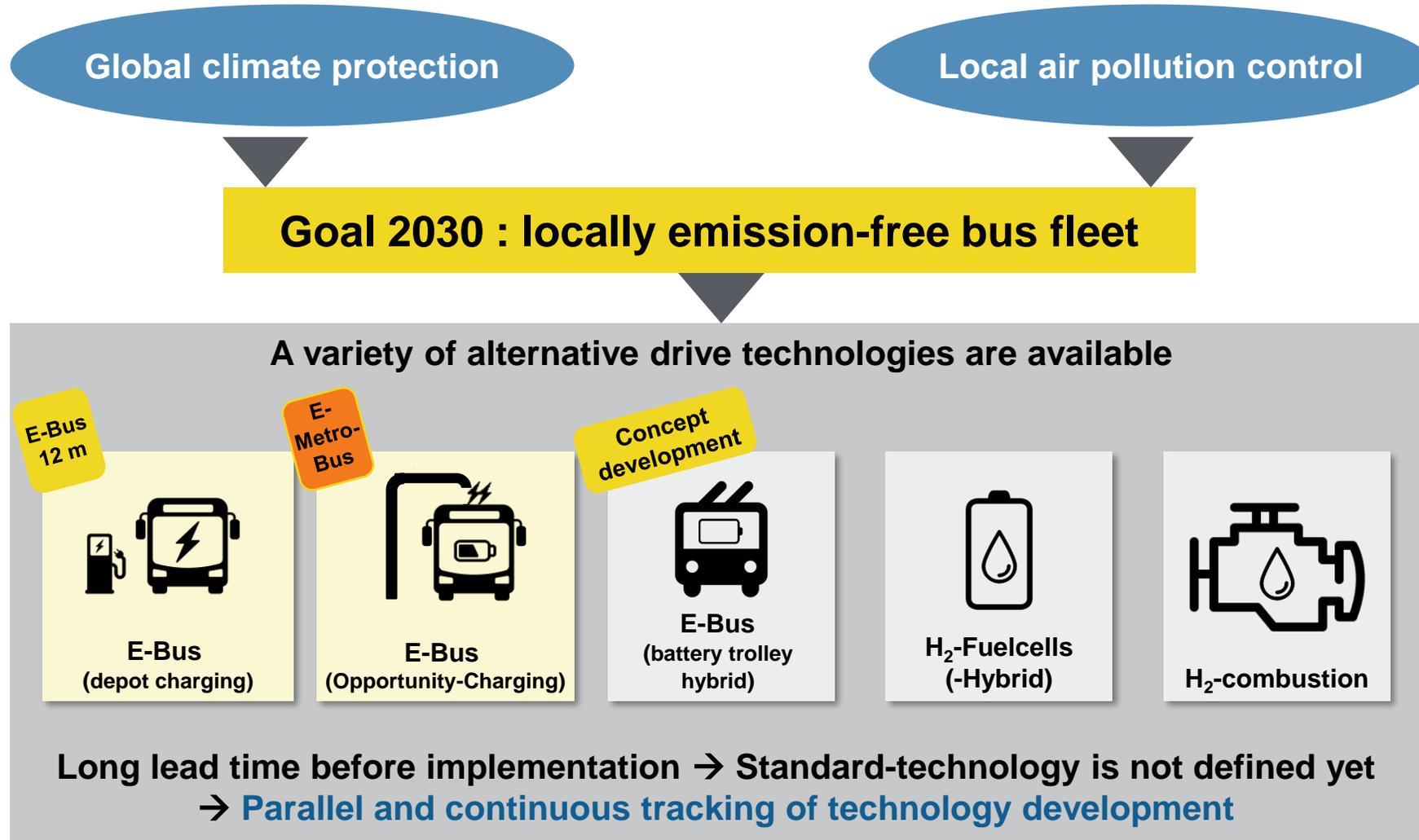
Current status electric bus implementation and IMC-trolley introduction in Berlin

Berliner Verkehrsbetriebe (BVG)

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

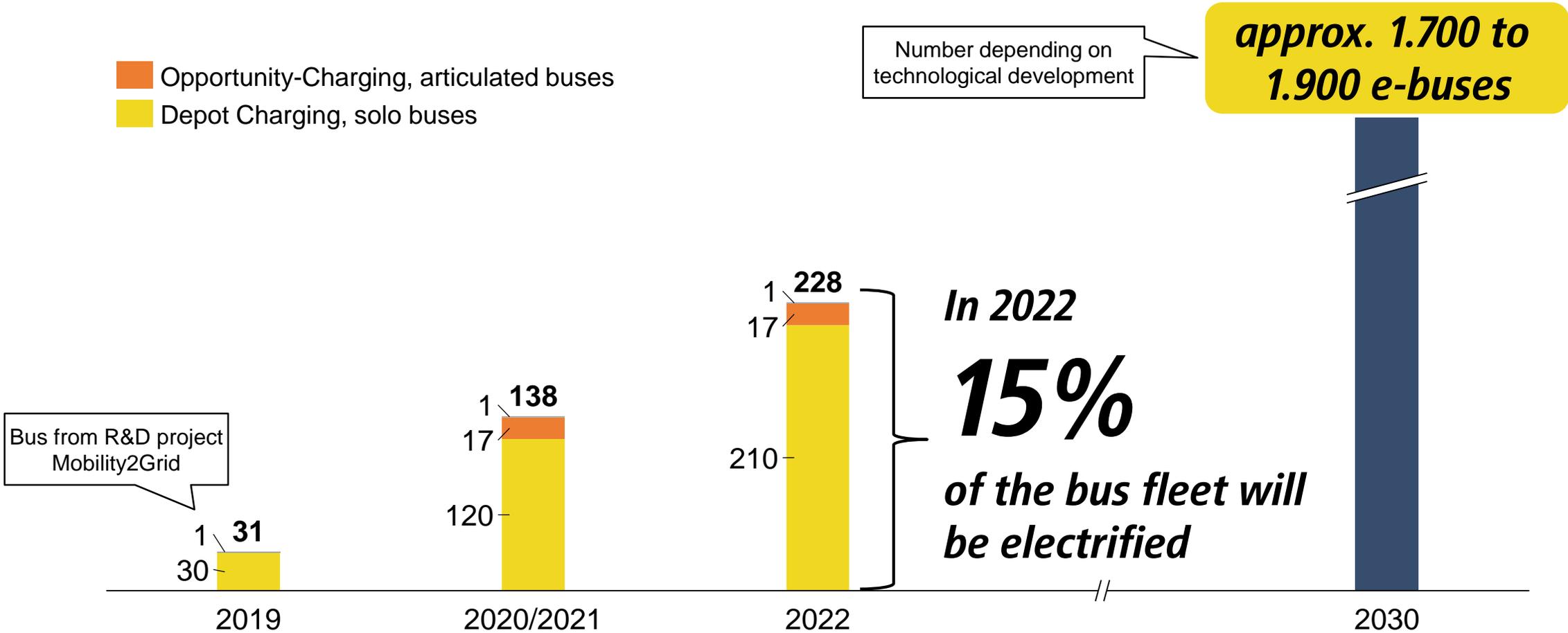
12. November 2020

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

- Opportunity-Charging, articulated buses
- Depot Charging, solo buses



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 agil 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*

17 articulated e-buses in 2020

**„MACH MAL HALBLANG“
WAR UNS ZU KURZ.**

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



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

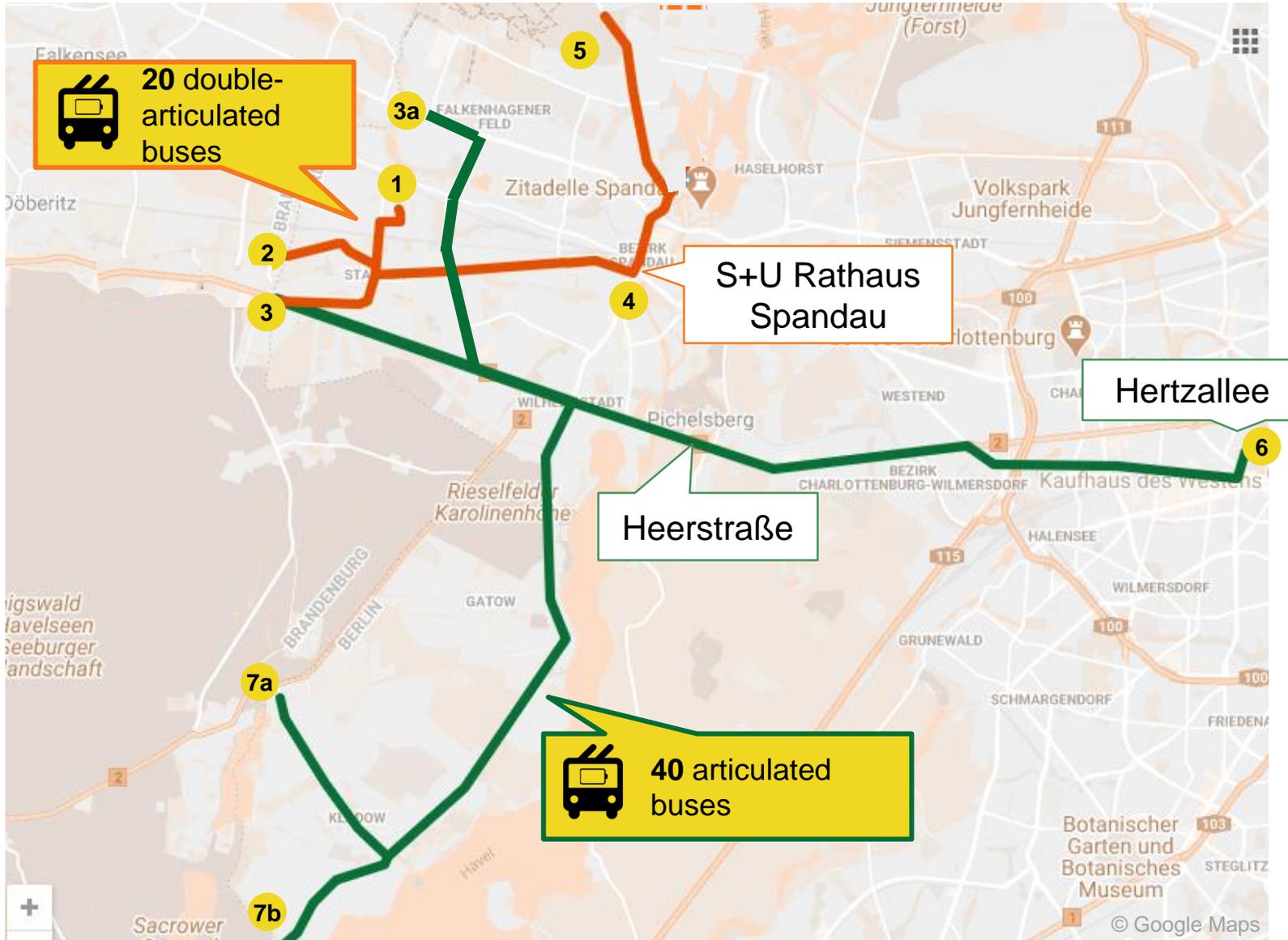


Main results

- 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



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



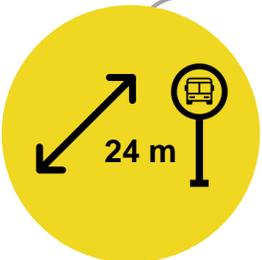
Plan and project approval procedures

- 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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