

Holistic approach to V2X

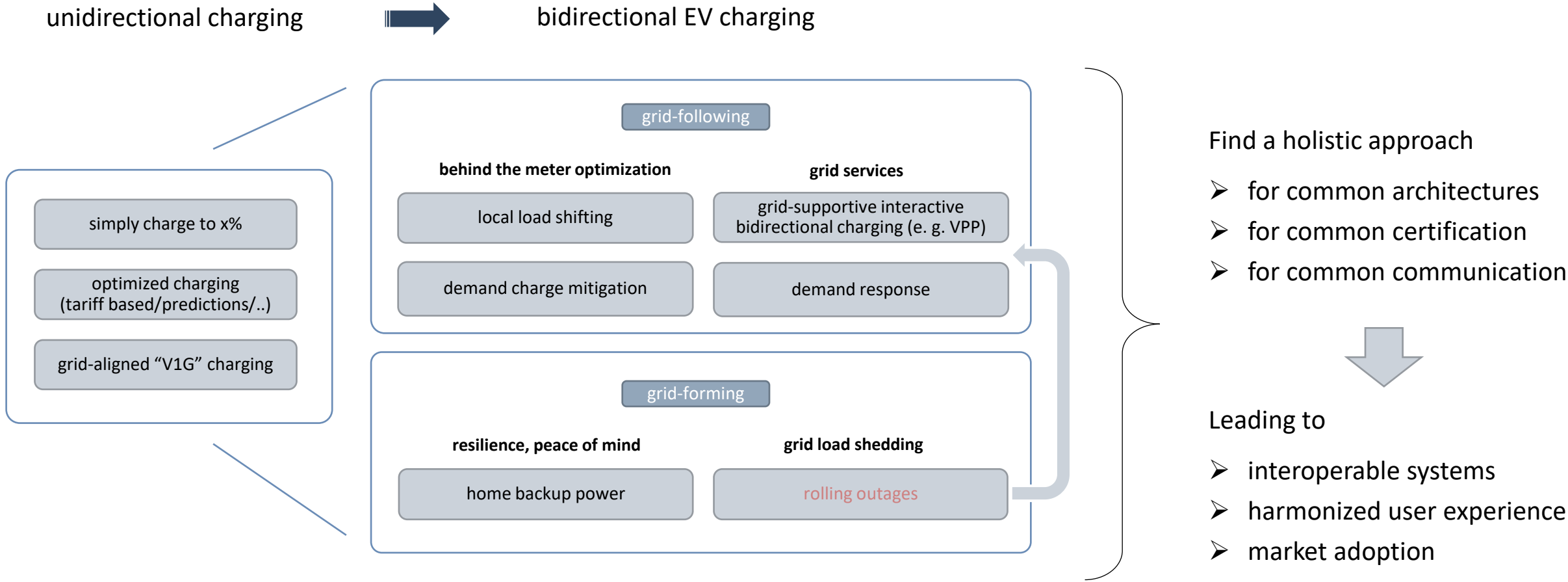
CEC and ElaadNL Webinar on Vehicle-to-Grid

Feb 8th, 2023



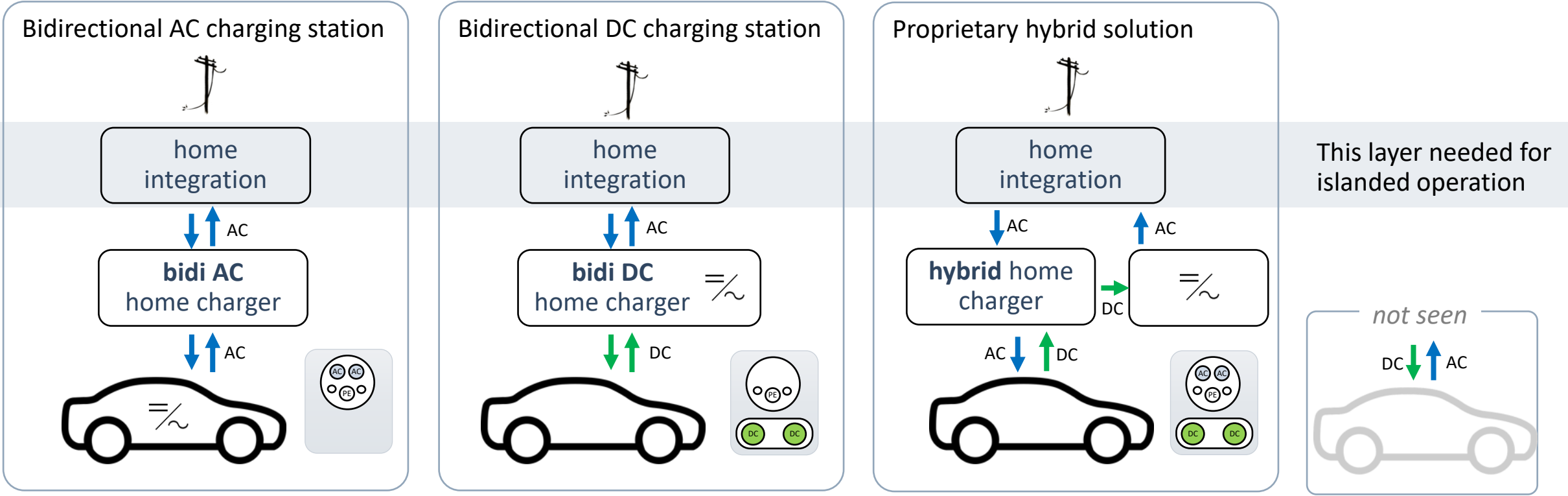
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Selected customer use cases – leveraging bidirectional EV charging



(not showing use cases with home energy storage or solar integration)

AC/DC combinations for bidirectional vehicle power transfer for grid-interactive and grid-forming use cases



Leanest customer setup, low-cost
 → scales best for large rollouts
 → customer friendly
 synergetic with onboard charger
 grid-codes are location-specific

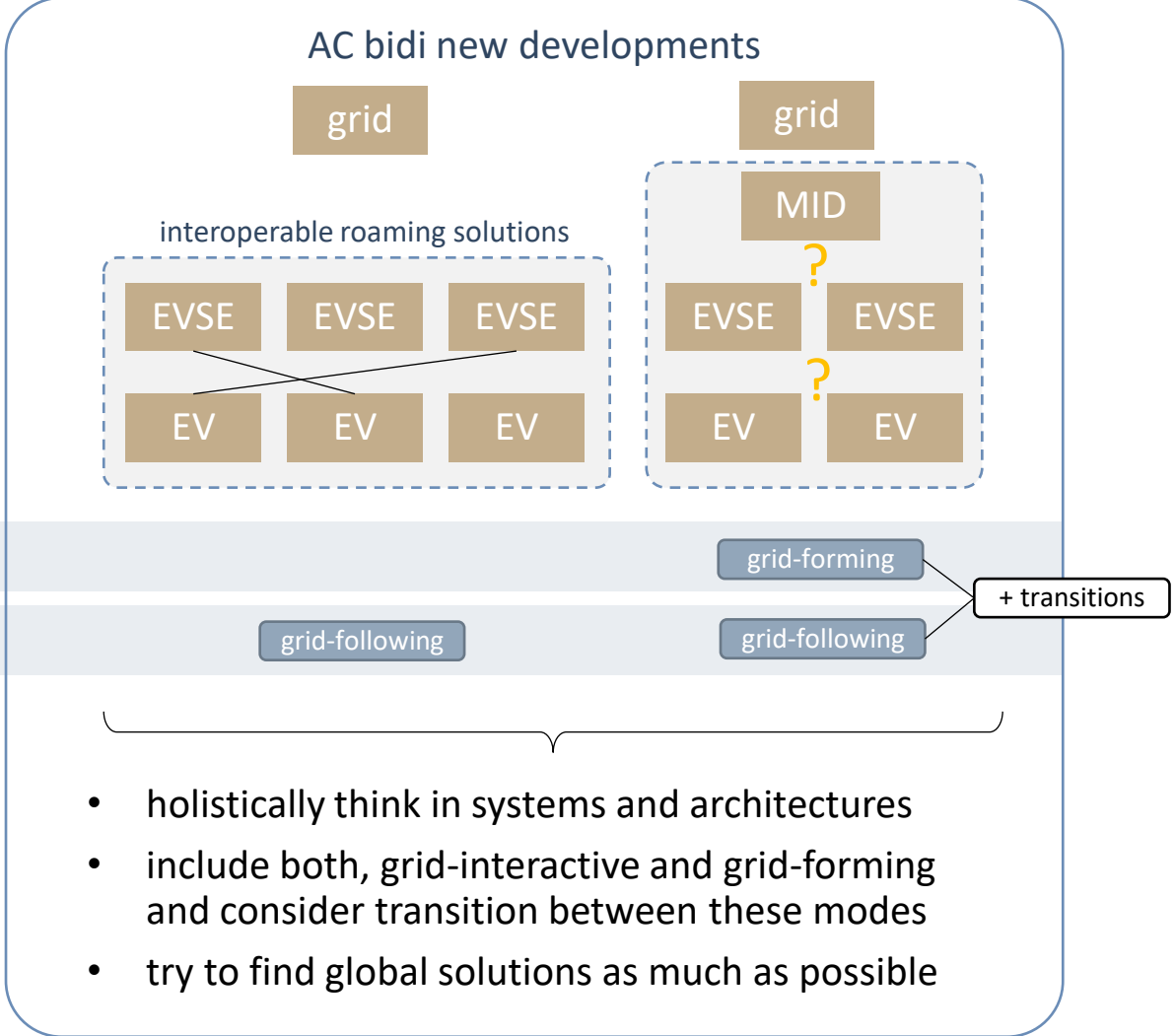
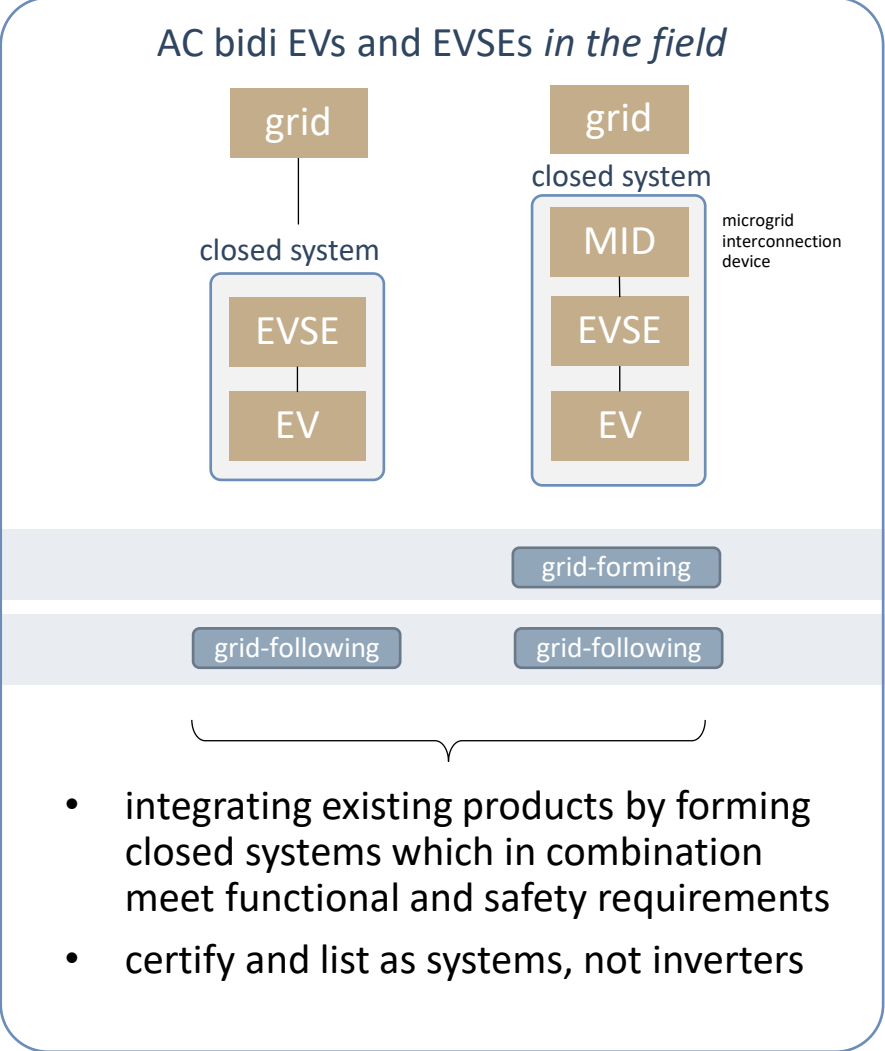
higher cost due DC charger

proprietary hybrid solutions

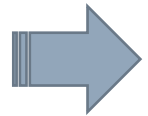
charging cable more bulky and potentially shorter
 avoids challenges with mobile inverter, grid codes are static

▬ AC Power
▬ DC Power
 inverter

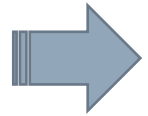
AC bidirectional: System constellations and inclusive migration path



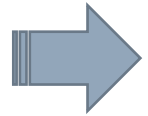
Key take-aways



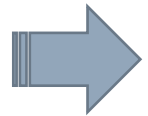
Consider grid-interactive together with grid-forming!



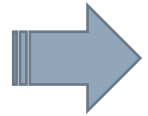
See AC-bidi as a technology with huge scaling potential!



Think in systems! Not inverters!



Enable existing fleets to participate!



Try to find global solutions!

LUCID
