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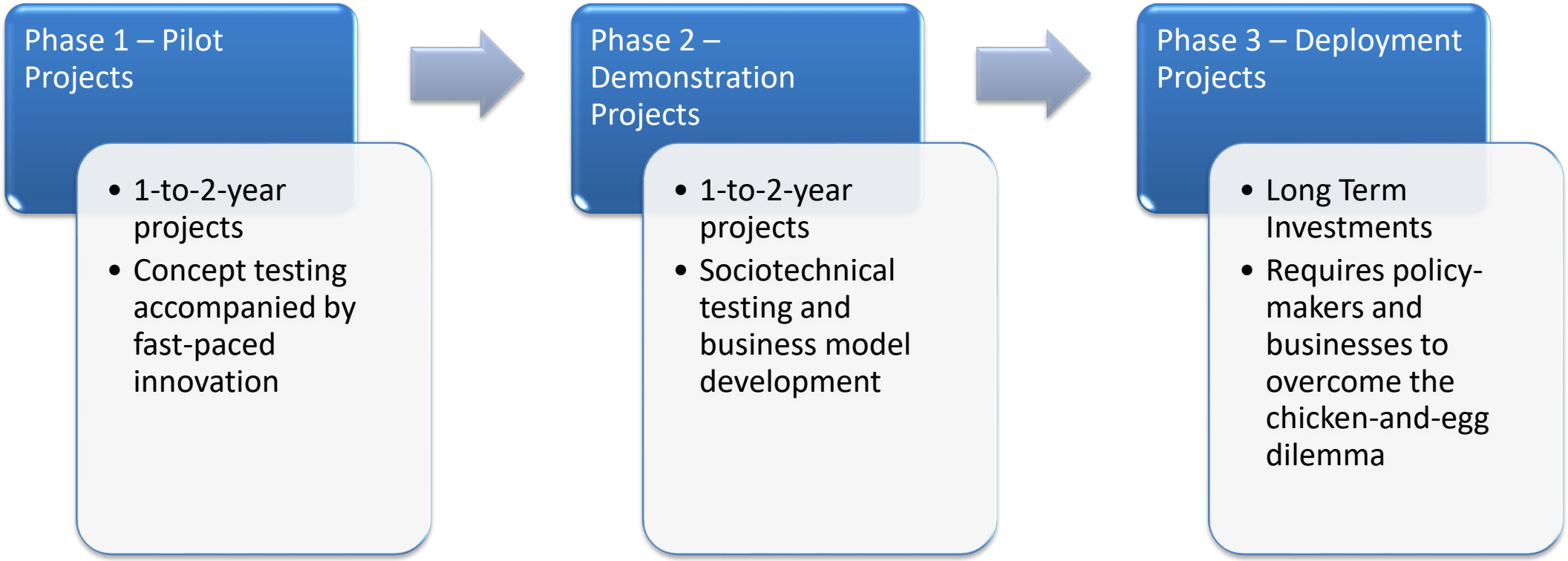
Advancing Sustainability through Powered Infrastructure for Roadway Electrification

Proposed Business Models & Stakeholders' Views

Konstantina (Nadia) Gkritza
Professor & ASPIRE Campus Director
Lyles School of Civil Engineering
Purdue University

A Timeline for Electrified Roadways



https://electric-road-systems.eu/e-r-systems-wAssets/docs/publications/CollERS-1-Business-models-Ownership-and-Financing-Strategies.pdf

Possible Business Models for Electrified Roadways

Business Model	Value Creation	Funding Source
Electrified Roadways as a classic highway	Provide an electrified roadway with open access to vehicles	Taxes (indirect)
Electrified Roadways as a service		
Advanced as-a-service mod	infrastructure, vehicles, and energy into one service	fees, pay per use models

The Future of Managed Lanes:

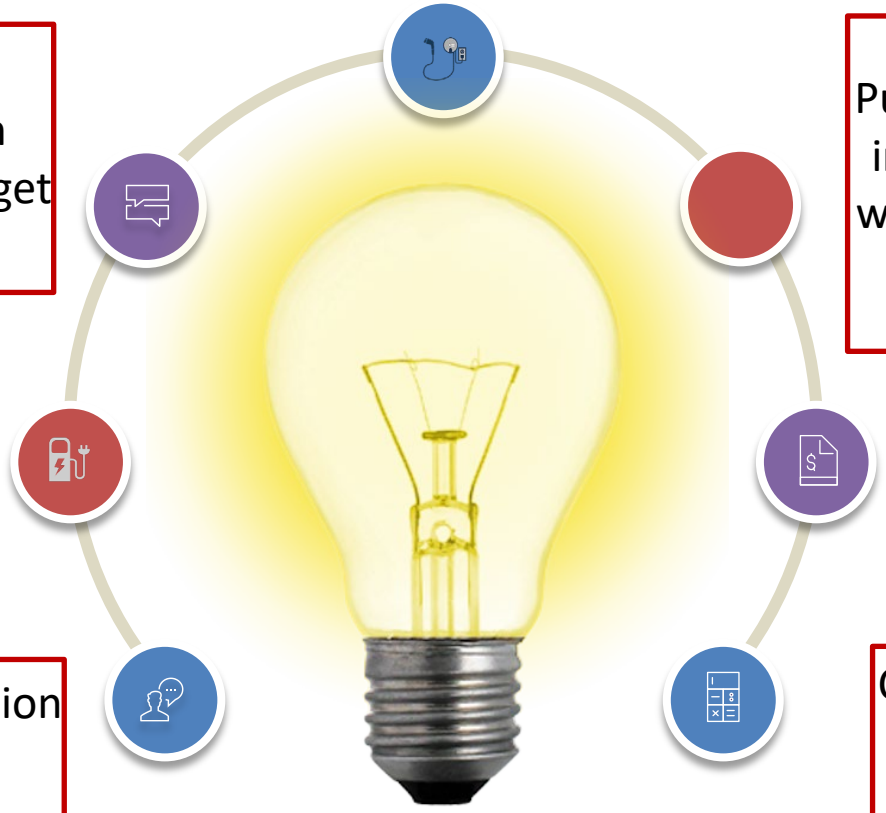
- Autonomous Vehicle Infrastructure
- Electric Vehicle friendly & charging
- Speed Management & ITS Infrastructure
- Fee-structure for reliability for goods & services

Stakeholders' Views about Business Models

Level 2 charging infrastructure is not necessarily owned by utilities, but operational data is needed in order to inform their plans and offer a reliable grid at an optimal cost.

Operation and deployment of charging infrastructure is not an industry that OEMs are willing to get involved.

Public sector can offer direct or indirect incentives especially for fast charging, which may not be financially feasible at low utilization rates.



Utilities, public sector and charging network providers are the main players in fast charging.

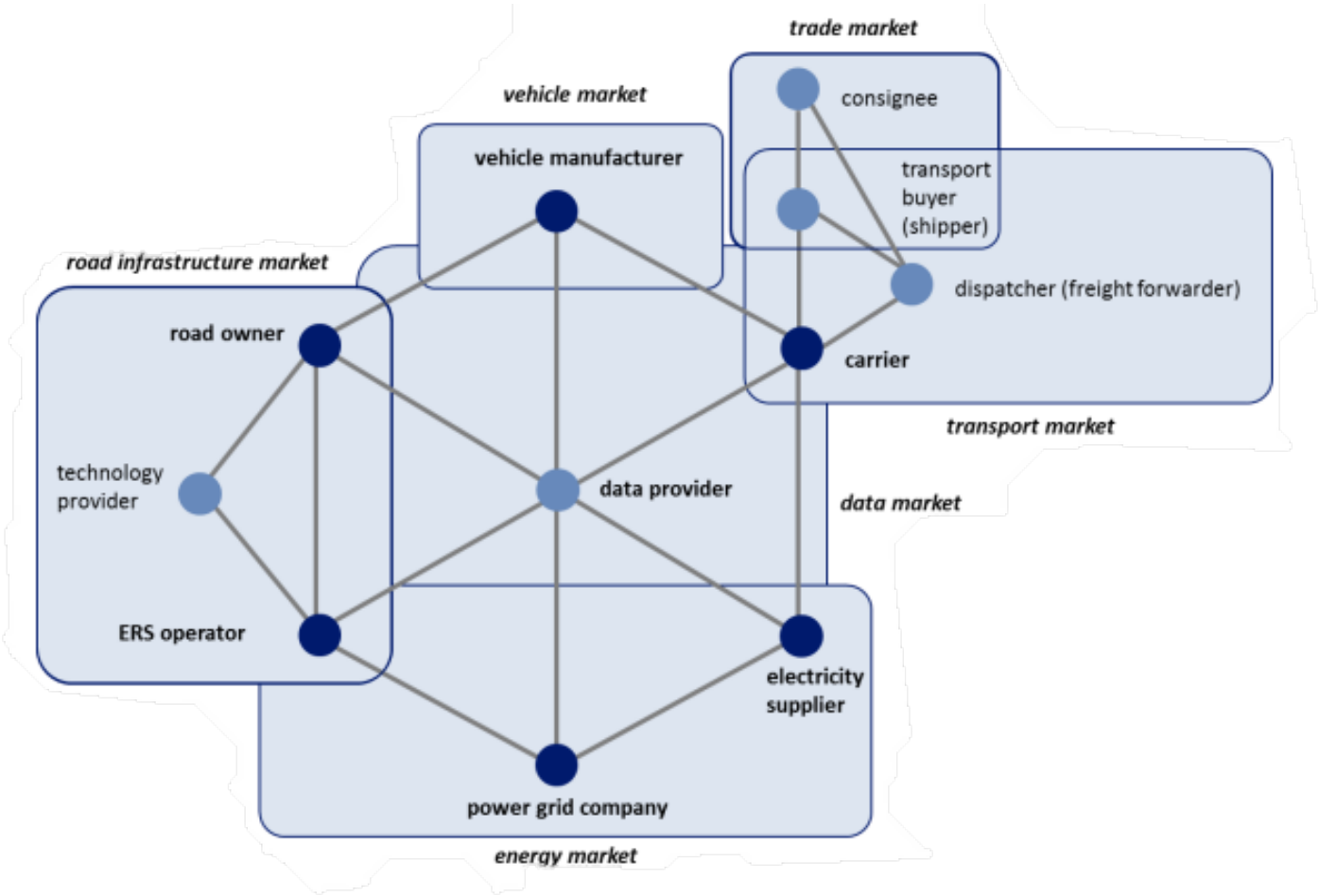
Proposing an appropriate business model for commercial fleets is complex.

Private involvement for the provision of charging infrastructure is essential.

Charging as a service with payments for the use of charging infrastructure was proposed.

Moving Past Pilots – The Future of ERs

- In practice, ERs will require collaboration between many different stakeholders to be successful and a change from a “station-based” to a “system-based” energy supply



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Konstantina "Nadia" Gkritza

Purdue Campus Director

Purdue

Contact Information

Email nadia@purdue.edu

Website