



Public Private Partnerships (“PPP”)

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Agenda

- **PPP overview**
- **Key challenges for IntelliDrive in PPP context**
- **Key to attracting private sector participation/involvement**
- **Potential PPP business models**

PPP overview

What is PPP?

- **“... a contractual agreement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility. “**

The National Council for Public-Private Partnerships

■ **PPP objectives**

- Utilize private sector expertise and resources to address public needs or to meet political goals
- Resolve problems through solutions that capitalize on the combined strengths of the public and private sectors

PPP overview

Typical PPP business structures

■ **Design-Build (DB)**

- Private partner provides both design and construction of a project
- Provides opportunity to share certain project risks with private sector partner and obtain stronger warranties/guarantees
- Public sector retains ownership and responsibility of the operations/maintenance

■ **Design-Build-Finance-Operate / Design-Build-Finance-Maintain (DBFO/DBFM)**

- Responsibility for the spectrum of designing, building, financing, and operating and/or maintaining the project are bundled together and transferred to the private sector partner
- Private sector responsible for operating/maintaining the asset over a long-term lease
- Wide range of structures available that involve different levels of public sector funding responsibilities
 - “Availability model” – private sector compensated by public sector based on meeting pre-defined performance standards
 - “Shadow tolling” – private sector compensated by public sector based on number of users of the facility

■ Full concession

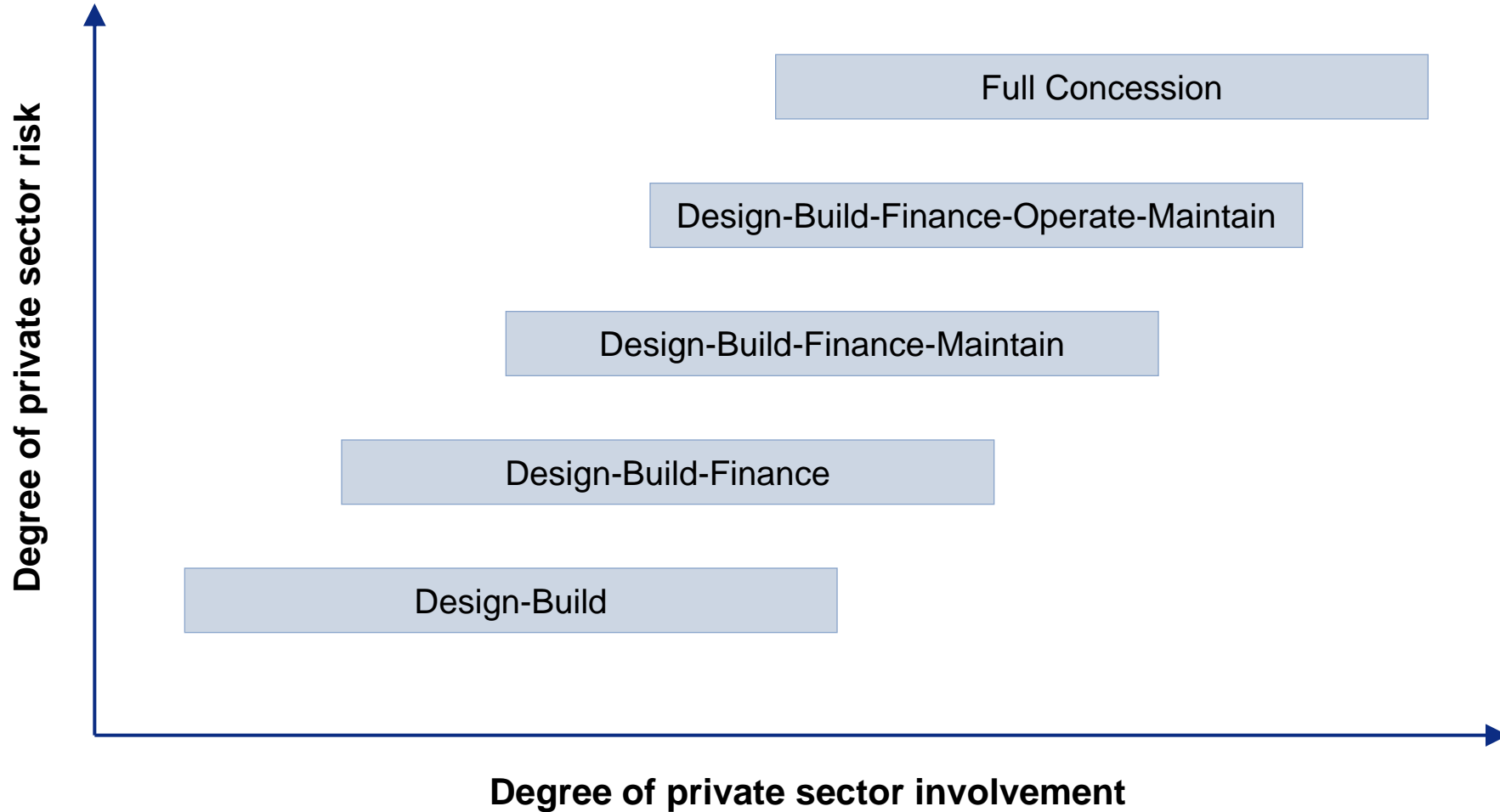
- Public sector and private sector enter into a long-term lease/license agreement that gives the private partner exclusive right to operate the project
- Most of the risks and rewards of operating the project are transferred to the private sector

Toll road example

- Long-term contract whereby the private sector is responsible for designing, building, financing, operating and maintaining the toll road (project terms are typically 50 to 75 years)
- Private sector collects revenue from tolls to pay for the costs of operations, maintenance and financing
- Road reverts to public sector at the expiry of the contract term
 - ❖ Contract typically includes 'handback' conditions to ensure the road is maintained to a minimum standard at the end of the lease term

PPP overview

Risk Transfer & Private Sector Involvement



PPP overview

Potential PPP benefits

- Access to new sources of capital
- Optimization of economic development / value extraction opportunities
- Risk-sharing opportunities
- Potential to reduce costs / improve revenues
- Access to new skills and innovative ideas
- Improved accountability for performance

Key challenges for IntelliDrive in PPP context

■ High cost and uncertainty of deployment strategy

- Uncertainties regarding funding structure and deployment plan is a significant concern for the private sector

■ Length of deployment process

- Anticipated length of the research process and subsequent deployment is an obstacle for private sector involvement in the short term

■ Risk of technological obsolescence and technology “leap-frogging”

- Due to the pace of advancements in mobile phone / smart phone and after-market GPS system technology, some of the commercially valuable IntelliDrive applications may be replaced by alternatives
- Risk of technological obsolescence would be considered a major risk from the perspective of the private sector

■ Commercial value of IntelliDrive mobility vs. safety applications

- Mobility applications (traveler alerts/information, traffic advisories, navigation aids, etc.) likely to have higher commercial value than safety applications and requires lower level of penetration

Keys to attracting private sector participation/involvement

■ Expedite deployment

- Commercial value / success of IntelliDrive concept is time-sensitive
- Consider multi-phased deployment
 - Division of safety applications (requiring high levels of penetration) from mobility applications (ability to leverage existing technology and infrastructure)
 - Regional deployment with increased coverage over time

■ Development of a defined scheme and business model

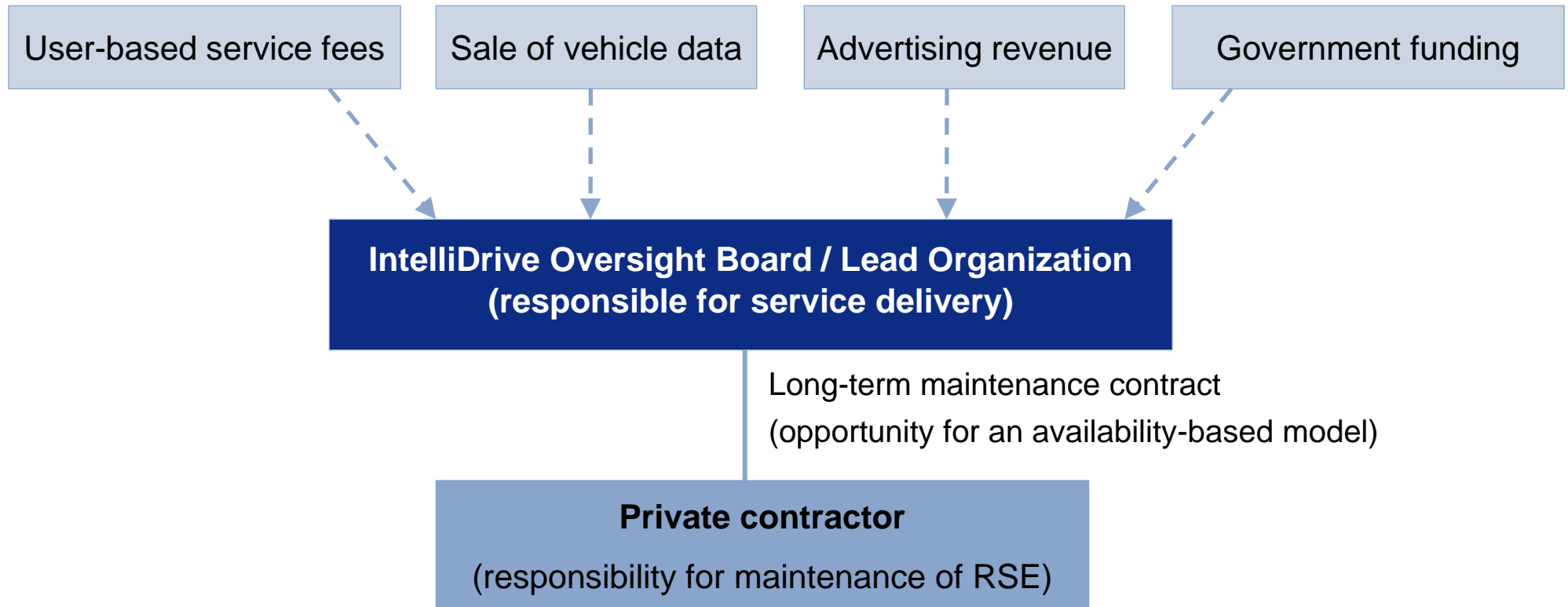
- Announce a structure with a clearly defined scope and division of responsibilities between public sector / private sector
- Address funding structure concerns

■ Commercial exploitation opportunities

- Business structure must have a clearly defined scope with quantifiable costs
- Business model would ideally be structured to provide opportunities for the private sector to realize economic benefits through innovation

Potential PPP business models/options

Option #1 – Long-term maintenance contract

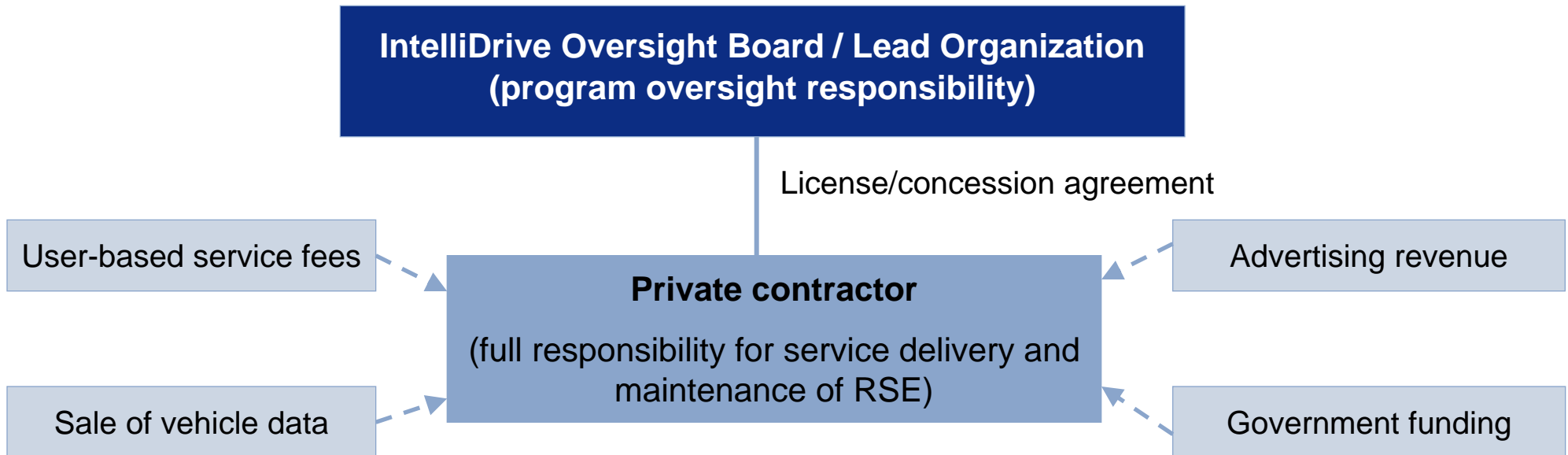


Notes:

- Financing installation of RSE could be divided between up-front funding and financing of long-term payment stream (will require government support / appropriations)
- Government / IntelliDrive Oversight Board takes on full revenue/demand risk

Potential PPP business models/options

Option #2 – Operating license / Concession agreement



Notes:

- Many structuring alternatives/variations available within this framework
- Enhances ability to extract value from IntelliDrive applications and provides revenue incentive to private sector to minimize % downtime
- Financing installation of RSE could be divided between up-front funding and financing of long-term revenue stream (will require government support / appropriations)
- Partial or full transfer of revenue/demand risk from Government to private sector