



OFFICE OF STRATEGIC INNOVATIONS

Hari Sripathi, P.E.

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Team



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Bring ideas to reality

- **Scan Innovations**
- **Bring Innovation and Apply to VDOT Business in an orderly fashion**
- **Work with VDOT business units and industry**
- **Champion and promote innovations in the Department**
- **Innovations**
 - **touch citizens**
 - **improve efficiency**
 - **foster economic growth**

Learn from the past



Some things do not go away but change

Learn from the past



Manhattan 1903 to 1913

Learn from the past



**An evolution – devices, applications, coverage
Glass half full or half empty?**



Paradigm shifts

Innovations — cone of vision

- **Automation - CAV, UAS**
- **Mobility as a service (MaaS) / Mobility on demand**
- **Electric vehicles with wireless charging**
- **Crowdsourcing and shared use culture**
- **VR/AR and voice commands**
- **Communications systems - 5G, LoRa, Small Cell Satellite etc.**
- **Data Analytics, Cloud computing, AI/predictive tools**
- **Cybersecurity**
- **Digital workplace**

Innovations — cone of vision

- **3D, 4D and 5D model based design and construction (EDC-2 and 3) and 3D printing (Ex., Bridges)**
- **Robotics in dull or dangerous work (chatbots, process automation, construction and maintenance)**
- **Nano technology and IoT**
..... and more

Path Forward

- **ITTF**
- **Business Plan**
- **Collaboration**
- **Adjust the cone of vision incrementally**



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