



# OFFICE OF STRATEGIC INNOVATIONS

Hari Sripathi, P.E.

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# Team



## Hari Sripathi

**Director**

Division: Office of Strategic Innovation

✉ [hari.sripathi@vdot.virginia.gov](mailto:hari.sripathi@vdot.virginia.gov)

☎ 703.259.2223

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## Amy McElwain

**Program Delivery Manager**

Division: Office of Strategic Innovation

✉ [amytang.mcelwain@vdot.virginia.gov](mailto:amytang.mcelwain@vdot.virginia.gov)

☎ 703.259.1782



## Virginia Lingham

**Connected & Automated Vehicle (CAV) Prog Mgr**

Division: Office of Strategic Innovation

✉ [virginia.lingham@vdot.virginia.gov](mailto:virginia.lingham@vdot.virginia.gov)

☎ 804.692.0455



## Murali Rao

**Director of Technology Strategy and Cybersecurity**

Division: Office of Strategic Innovation

✉ [murali.rao@vdot.virginia.gov](mailto:murali.rao@vdot.virginia.gov)

☎ 804.786.9702

# 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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