

# UNMANNED VEHICLE SYSTEMS (UVS) ROADMAP

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## Overall Strategies

### Human Resource

- Air Traffic Control and Danger, Prohibited and Restricted Airspace Information Training/Seminars
- Unmanned vehicle and systems design training with simulations
- Training for flight control and ground control system software programming
- Operations and maintenance training

### R&D Technologies

- Unmanned Vehicle Systems Platform Design and Development
- UVS Enhanced Capabilities, Functionalities and Applications
- Communications Security

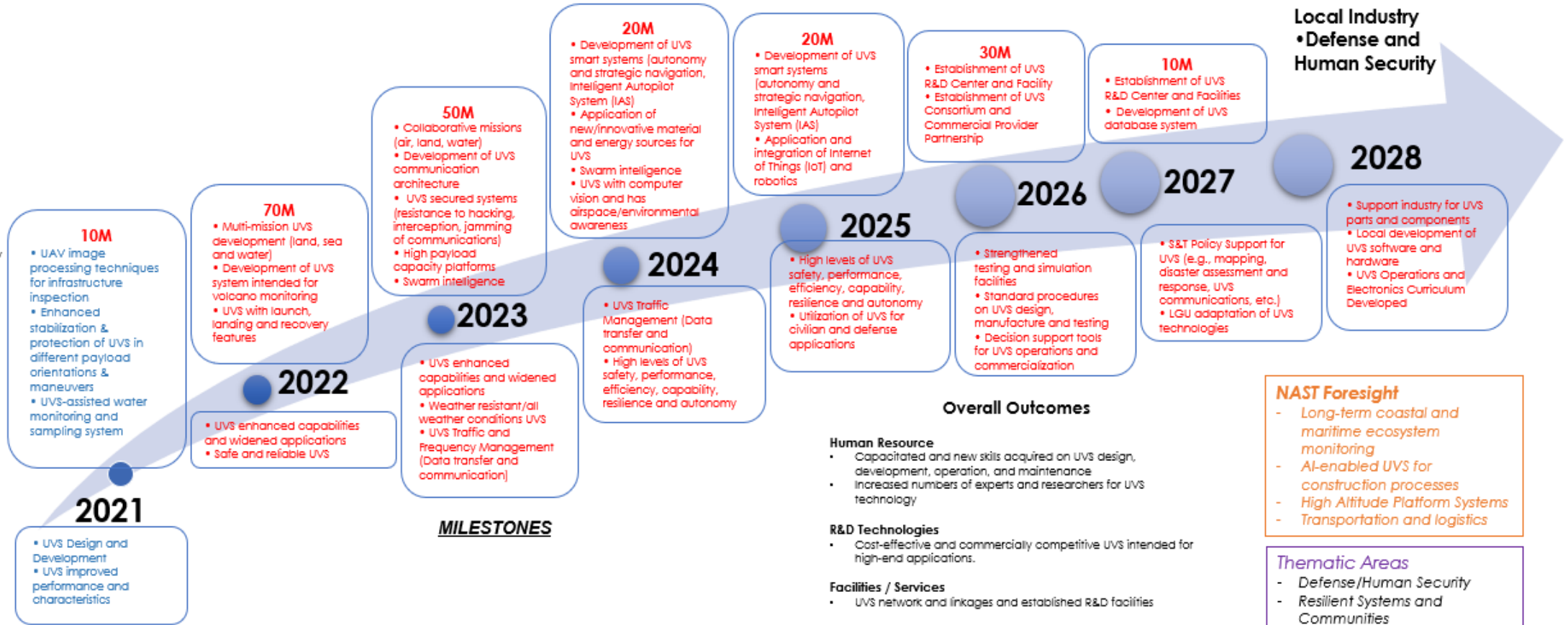
### Facilities / Services

- Simulation, modeling, and system programming laboratory
- Fabrication and Maintenance, repair and overhaul (MRO) facility for UVS parts and components
- Indoor and outdoor (wind tunnel) facility for UVS flight/underwater tests
- UVS Data Center

### S&T Policies

- Frequency and bandwidth availability, link security, link ranges and network infrastructure for operational/mission support of UAS
- Standard reference or classification of categories for UVS
- Airspace utilization, management, deconfliction and control
- UVS education/curriculum for Industry 4.0 development

## POSSIBLE SOLUTIONS



## VISION

- Sustainable UVS
- Local Industry
- Defense and Human Security

## Overall Outcomes

### Human Resource

- Capacitated and new skills acquired on UVS design, development, operation, and maintenance
- Increased numbers of experts and researchers for UVS technology

### R&D Technologies

- Cost-effective and commercially competitive UVS intended for high-end applications.

### Facilities / Services

- UVS network and linkages and established R&D facilities

### S&T Policies

- Policy recommendations on UVS technology utilization and applications

## NAST Foresight

- Long-term coastal and maritime ecosystem monitoring
- AI-enabled UVS for construction processes
- High Altitude Platform Systems
- Transportation and logistics

## Thematic Areas

- Defense/Human Security
- Resilient Systems and Communities
- Industrial Applications
- Air, Water, Land UVS technology



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