SOLVING ADVANCED MANUFACTURING CHALLENGES

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# VIPA Board Presentation

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March 04, 2021

CCAM
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# The Commonwealth Center for Advanced Manufacturing

**CCAM exists to help manufacturing companies solve real world problems**

- World class technology research & development to solve manufacturing problems
- In an ecosystem of collaboration with industry, government, and academia
- With a unique industry-friendly IP model
- Supporting innovative and demand-driven workforce education and talent solutions

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# CCAM – A Globally Recognized Advanced Manufacturing Ecosystem in the Commonwealth of VA

**Federal Funding / Collaborations**

**Commonwealth Center for Advanced Manufacturing**

**Industry**

**University Partners / Collaborations**

**Workforce Development**

**Licensing/ New Mfg Business Spin-outs**

**State Investments**

**Manufacturing Incubation Hub**

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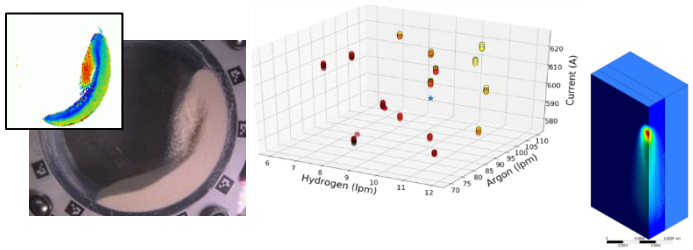
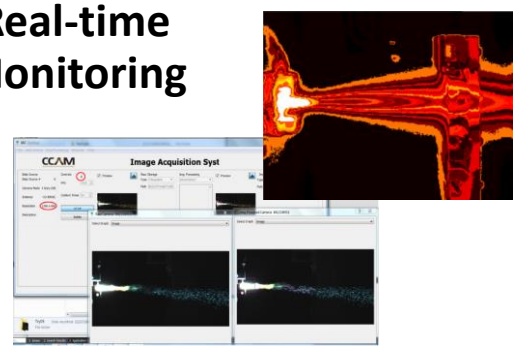
# Example – Developing Intelligence for Dynamic Coatings Processes

## Continuous process control

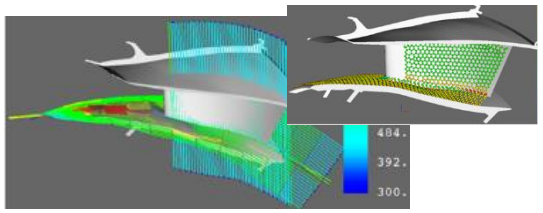
## Strong process understanding

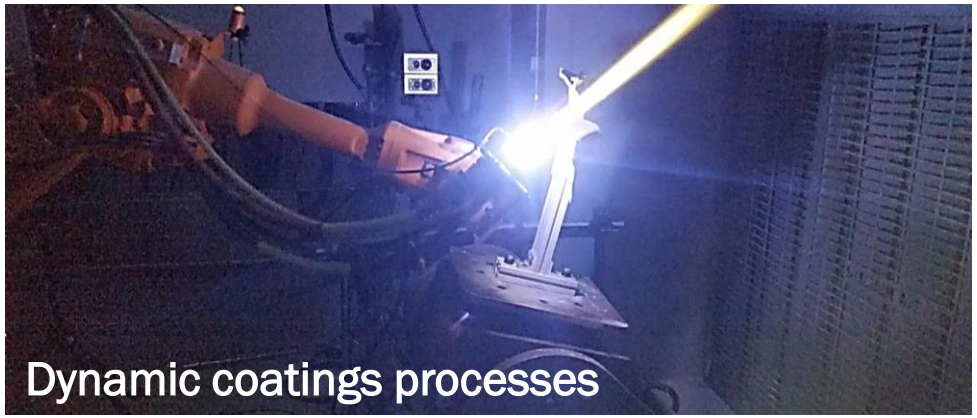



## Real-time Monitoring

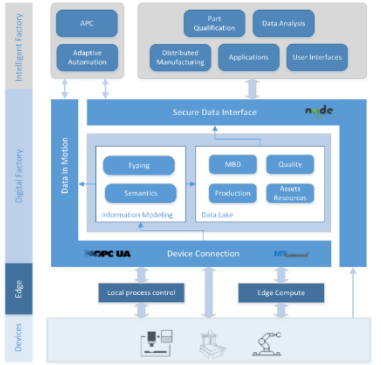



## Adaptive & batch adaptation

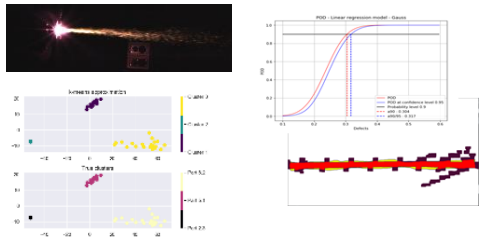


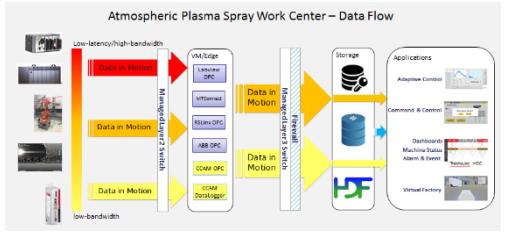

## Automated, integrated digital infrastructure



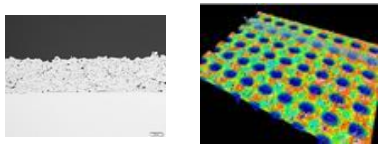

## Advanced data analytics



## Functional data flow




## Product quality KPPs



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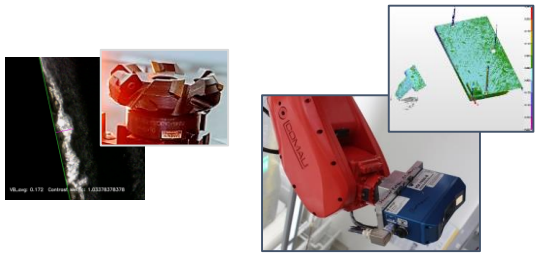
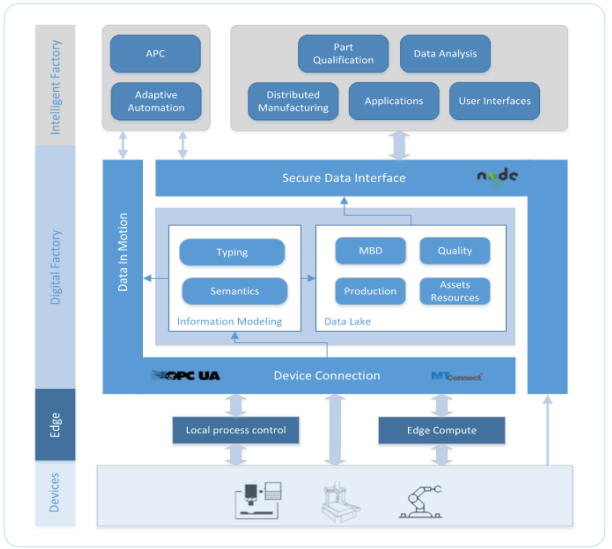
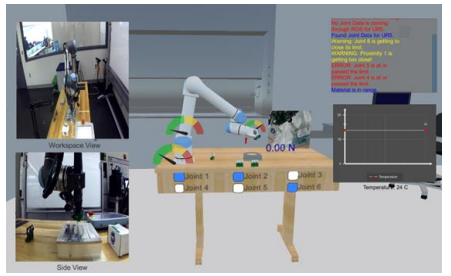
# Developing & Applying Digital Factory Technologies for Intelligent Processes

## Key research threads: applying intelligent factory technologies to make processes more intelligent

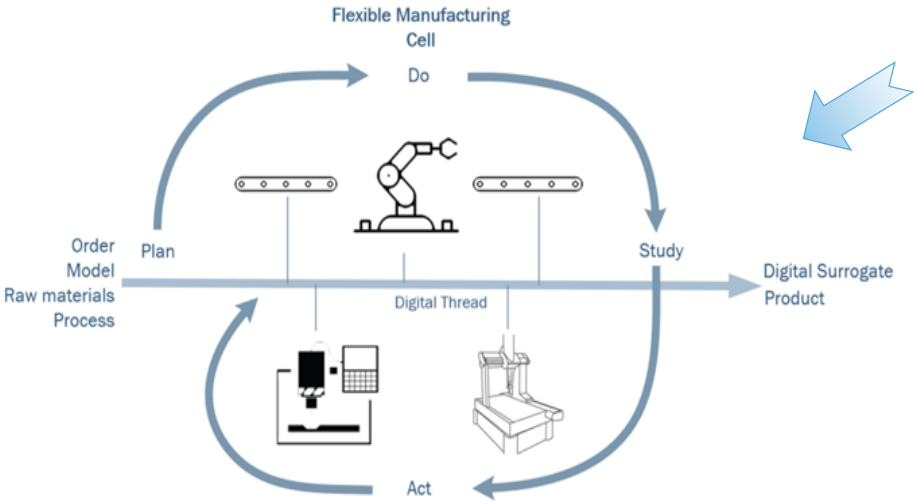


**Adaptive Automation**

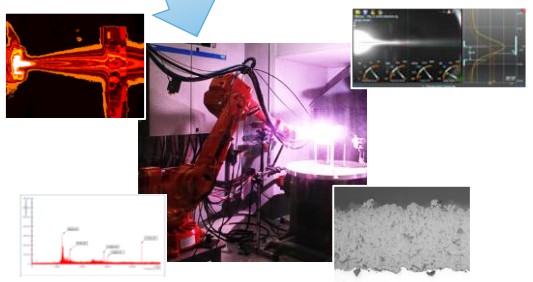


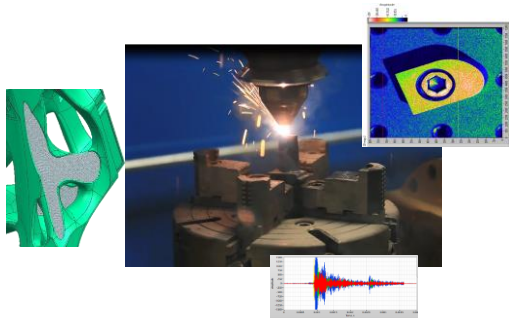
**Intelligent Cooperative Processes**




**Flexible & Distributed Manufacturing**



**Intelligent Dynamic Processes**



**Intelligent Repair & Remanufacturing**

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# Commonwealth FY22 Funding w/ VIPA Oversight

- Operations Funding: $0.925M (Down from $1.925M)
  - New re-allocation of CCALS unused bond enables co-location + CCAM relief on oversized building lease

- University Collaboration Innovation Funds: $600k
  - University professors and staff directly collaborate with CCAM staff on common interest projects
  - Pursue additional funding opportunities (industry and federal)

- Industry Incentive Funds: $1.1M
  - New Membership Incentives
  - Match funds for additional directed projects – only after their member dues are fully committed

- **Pursuit of Federal Funds: $1M (New request aligned with strategic blueprint)**

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# Thank you!

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