

# Roadmap Discussion Implementation Strategies



# Allotrope Product Backlog – Items Under Consideration



## Product

### Product Focus

*Product Team backlog in the instrument domain (shared on Day One) and an initial model in the experiment domain*

### Domain Expansion

*Sample domain and deeper experiment domain modeling to support additional use cases*

### Technology

*Incremental investments in product and DevOps to help implementations. Is Allotrope technology AI/ML ready?*

### Guiding Use Cases

- Standardize context & structure across experiments, samples, and measurements
- Standardize context across experiments, samples, and measurements
- Exchange of instrument results
- Package key instrument results

## Implementation

### Federation

*Which public ontologies or standards do we need to be interoperable with? How does one create great data products using AFO and ASM content?*

### Strategic Partnerships

*Which are the key partnerships needed to achieve our goals?*

### Prototyping Solutions

*Are there opportunities to rapidly derisk or clarify issues for the community?*

### Scalability & Adoption

*How do we more effectively create understanding and awareness to drive adoption?*

Driven by Increased & More Diverse Community Engagement



## Drivers

- Reuse what exists, extend where needed
- Need to federate across diverse standards and content to use public content interoperability
- A unified and cohesive framework to federate ontologies (context) and data models (structure & format) is needed
- A community to promote federation and drive the work needed across organizations

# Federation

- **Ontology federation workshop** to discuss best practices and strategies across experts within a domain, across domains, and across standards.
- **Publish industry white paper** to offer strategies and identify the potential to create enabling public tools that help automate the federation ontologies and data model
- **Ontologies integration study** to provide an example of federation of AFO with another relevant ontology
- **Standards integration study** to select specific example(s) of federation across standards to deliver synergies and complement each other (e.g., GAMP5 - Good Automated Manufacturing Practice...)



## Drivers

- Increased end to end standardization across domains and solutions will enable solving real world problems
- Leverage network of pre-competitive experts to complement what Allotrope does well
- Focus on partnerships with the greatest potential to enable creation of connected, efficient, and highly interoperable laboratory

## Strategic Partnerships

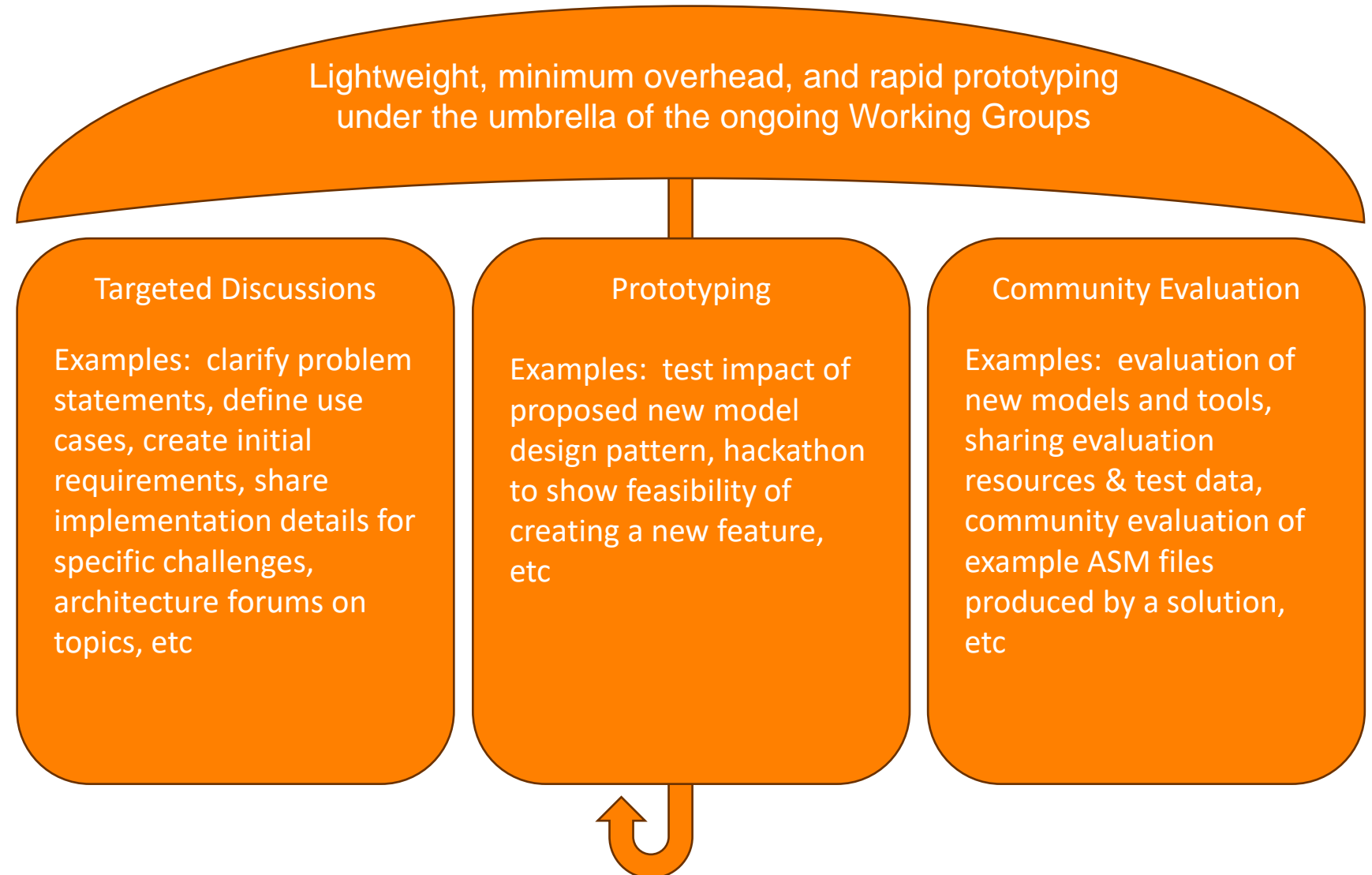
- **Spectaris-LADS (Laboratory and Analytical Device Standard):** focus on **Lab 4.0 (Digitization and Automation)** utilizing OPC-UA that provides communications and a complementary “placeholder” for Information Model (e.g., ASM)
- **Pistoia: Ontologies development** (IDMP, CMC process), **PoC Projects** (e.g. Chrom methods modeling)
- **USP:** A compendium of drug standards recognized by the U.S. federal government that can utilize Allotrope models to **digitize its monographs**
- **NIIMBL:** Advance **biopharmaceutical manufacturing** (Currently evaluating a proposal of Universal Connectivity for In-Process Analytics utilizing OPC-UA with ASM for Data Exchange)
- **Others?:** cloud providers, data science experts, software development / services organizations, etc ?



## Drivers

- Allotrope will continue to focus on its standard, existing products, and enabling tooling
- Allotrope will increase focus on public thought leadership on standards (publications and presentations)
- Allotrope will not focus on creating “last mile” MVP user solutions
- However, there’s a need for a community mechanism to collaborate more rapidly to keep up with science
- Proposal: begin to focus on very targeted & short-term workshops and prototyping to enable implementations

# Prototyping Solutions



## Drivers

- Overall Better Communication
- Sharing Success Stories
- Better Positioning of Allotrope Technology with key Decision Makers to create a compelling value proposition for adoption
- Expand and continue to diversify the community
- Expand active engagement of community experts
- Remove barriers to broader community adoption

# Scalability

- Showcase Allotrope contributions to real world problems
  - Conferences & Events with key industry partners (participate in each others regularly)
  - Publications demonstrating capabilities & value delivered for key use cases
  - Targeted communications & marketing targeted at multiple personas (experts, budget holders, thought leaders, etc)
- Expand active community of collaborators (new members, new partners, and new external users)
  - Create 360 degree view of barriers to adoption by mid 2025
  - Address the barriers Allotrope can impact on the Product Roadmap
  - Recruitment and Marketing strategy

