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REFINERY

What is the Refinery?

The Refinery is the AFWERX “**Innovation Accelerator**” for Airmen and Guardian Innovators

Definition: **Accelerator** *(Accelerates both Capabilities AND People)*

Accelerator: Structured program that mentors, educates, connects, and possibly invests in a team project to make it more likely (but not guaranteed) to:

- 1) succeed (in a market) and
- 2) ready for investment



remove uncertainty, determine (*Enterprise*) viability

Why does the DAF need an Accelerator?

- Gain and/or improve capabilities for the warfighter
- Scale or transition capabilities faster
- Decrease drag/costs/waste
- Develop repeat Innovators

The Refinery model helps Bridge **THE VALLEY OF DEATH**

Grassroots
Idea

Institutional
Adoption

Strategic docs
Guidance
Policy docs
AFIs
Regulations
Law

Staffs (MAJCOM, Air,
etc)
Program offices
Funders
Customers
Requirements owners
Commanders
Users
Project Team

Mature Product
Engineering/Test
Traction/Users
Prototype
Product-Market fit
Problem-Solution fit

Sustainment
Maintenance
Operations
Training
Funding
Business-Case Fit

Policy

People

Product

Procedure



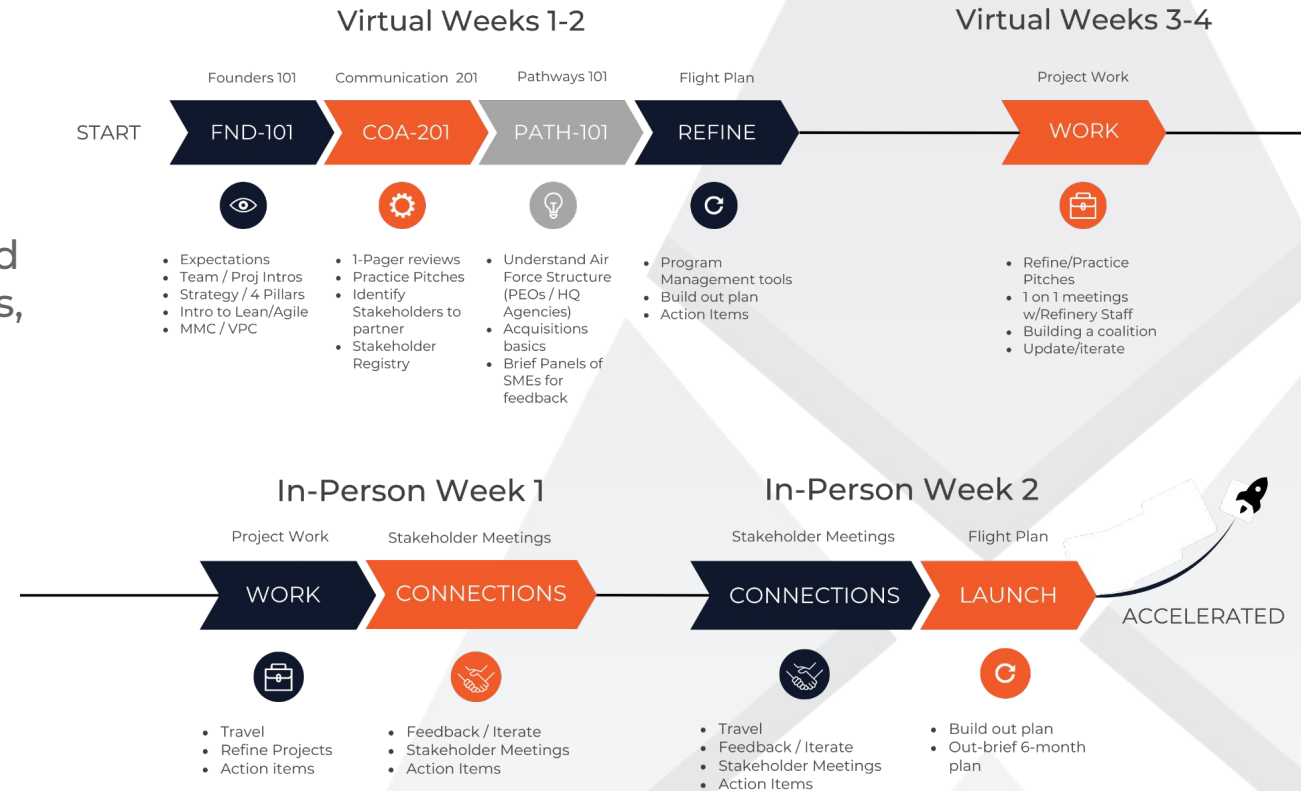
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Curriculum

Curated to support DAF innovators like company founders

- Incorporates **best-practices from industry accelerators** and government prototyping organizations.
- Revolutionary hybrid program **designed specifically for the DoD ecosystem.**
- **User-centric curriculum** connects Airmen and Guardians with DoD innovation organizations, engineers, strategic stakeholders, policy/requirements owners, and acquisition experts.
- **Custom-curated curriculum** maximizes unique project requirements within a full 6-week program or accelerated 2-4 week program.
- Accelerates tactical prototypes & ensures **the right operational capabilities are transitioned into the larger force.**



*actual curriculum may vary based on project needs

Definition: “Transition”

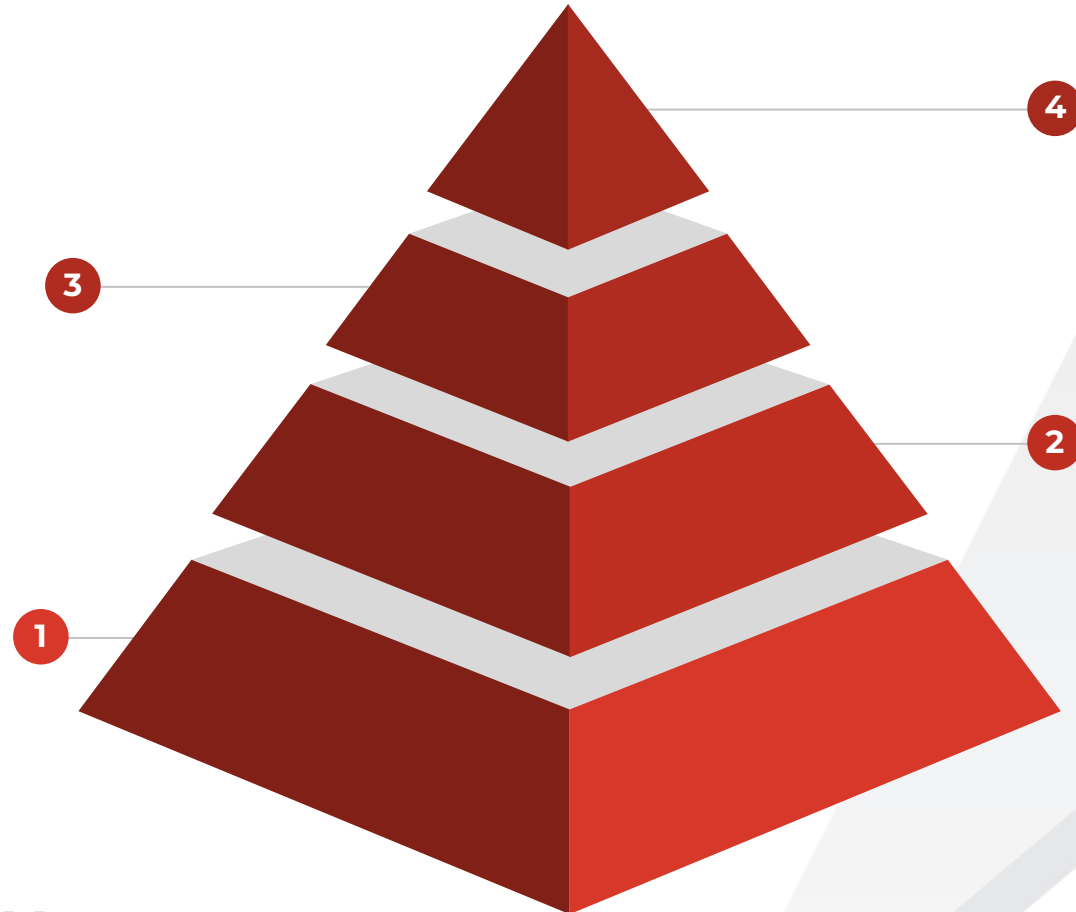
What does that even mean? It depends...

Provided, not sustained

The Innovation is now “adopted,” and provided to users, but no sustainment office or funding has been allocated.

Possible

Policy barriers are removed, approved for use, etc



Sustained by Program Office

The Innovation is now “adopted” and provided to users with all the supporting sustainment infrastructure and funding. It’s now fully funded, or “POM’d for.”

Available

Available for purchase or acquisition. This might be a DLA stocklisting, or now commercially available.



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Project Example

Battle Management Training Next

“Building better students faster through AI/ML”

1

PROBLEM

HAF A3 declared a critical shortage with battle managers manned at 56%. Current training pipelines cannot meet current peacetime demand, let alone during a peer conflict

2

SOLUTION

Portable Data-driven AI/ML kit that removes 84% of current manpower needs with real-time grading and full debrief.

3

ROI

Surge training capacity & quality by decreasing dependence on human instruction to tackle present & future manning challenges



Operational Imperatives:

- OI #2 Operationally Focused ABMS
- OI #3 Moving Target Engagement
- OI #4 Tactical Air Dominance
- OI #5 Resilient Basing
- OI #7 Readiness to Deploy and Fight

PROJECT SUMMARY

VoxC2 is Vectrona’s AI/ML enabled training system that provides students and operators sustained, high-quality, low-cost iterative training.



It has the potential to expedite battle manager delivery to the CAF. In previous trials students were able to rapidly progress through increasingly challenging command and control scenarios without an instructor – all graded against the current Joint Force standards. We want to scale this to our Formal Training Units to meet current peacetime demand and be ready for peer-conflicts to support our Battle Management and Moving Target operation imperatives.

QUESTIONS?

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AFVentures Org Boxes (for Small Businesses):

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