



# ASCEND ARID & ASCEND SHIELD

## Accelerator Programs

### Frequently Asked Questions

NSF ASCEND Engine · Colorado & Wyoming

## 1. Program Overview

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### Q: What are the ASCEND ARID and ASCEND SHIELD programs?

ASCEND ARID and ASCEND SHIELD are eight-month accelerator programs operated under the NSF ASCEND (Advanced Sensing and Computation for Environmental Decision-making) Engine in Colorado and Wyoming. Each program accepts 7–10 companies and is designed to help early-stage companies move from prototype to commercially viable product. Participants receive structured curriculum, mentorship, access to test facilities, and the opportunity to compete for cash prizes.

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### Q: What is the ASCEND Engine?

The NSF ASCEND Engine is a place-based innovation ecosystem in Colorado and Wyoming focused on transforming the Mountain West's advanced environmental sensing capabilities into scalable, real-world solutions. The Engine leverages the region's gold-standard sensing assets and world-recognized reference datasets to accelerate the development of physical AI and digital twin technologies that protect communities and drive economic growth.

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### Q: What is the difference between ARID and SHIELD?

The two programs focus on different environmental challenge domains:

- ASCEND ARID focuses on extreme weather prediction and natural hazard preparedness and response, with an emphasis on wildfire preparedness, response, and recovery. Sub-topics include power and water systems, smoke and air quality monitoring, wind monitoring in complex terrain, continuous asset stress monitoring, transportation infrastructure management, and insurance and reinsurance planning.
- ASCEND SHIELD focuses on soil health and water management. Sub-topics include adaptive livestock grazing management and watershed and water quality management as related to soil health.

Companies apply specifically to the program that aligns with their technology domain.

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### Q: Where is the program geographically based?

The geographic core of the NSF ASCEND Engine spans a corridor from Cheyenne and Laramie, Wyoming, through Fort Collins, Boulder, and Denver, Colorado, and down to Colorado Springs and Pueblo, Colorado. Combined workshops are primarily delivered via Zoom, with select sessions held in person at Innosphere's headquarters in Fort Collins, CO.

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## 2. Eligibility & Requirements

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### Q: Who is eligible to apply?

To be eligible, applicants must:

- Be a for-profit company, non-profit entity, or institution of higher education.
  - Be located and/or doing business in the United States.
  - Have at least one person fully dedicated to building a sustainable business (e.g., a CEO or CTO).
  - Have a technology at or above TRL 6 (system-level prototype tested in a relevant environment).
  - Demonstrate alignment with the ASCEND framework: leveraging or advancing environmental sensing, transforming data through advanced analytics/AI/ML, and developing actionable decision-support tools.
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### Q: Can companies outside Colorado or Wyoming apply?

Yes. Out-of-region applicants are welcome to apply to participate in the accelerator program. If the applicants are selected and choose to participate in the prize competition, they must include a concrete plan to invest awarded funds in the ASCEND Engine Region of Service (Colorado or Wyoming). In addition, companies accepted to the Accelerators are expected to utilize the available testbeds located in Colorado.

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### Q: What Technology Readiness Level (TRL) is required?

Applicant technology must be at a minimum of TRL 6, meaning the technology has been demonstrated as a system-level prototype in a relevant environment. Technologies below TRL 6 will not be considered.

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### Q: Are academic institutions or non-profits eligible?

Yes. Institutions of higher education, for-profit companies, and non-profit entities are all eligible, provided they meet the location and operational requirements.

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### Q: Are collaborations or multi-partner teams eligible?

Yes. Cross-sector collaborations are highly encouraged. We also welcome ambitious, testbed-type infrastructure concepts that can create a reusable flywheel for other teams to build upon in

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subsequent years. Applications that build upon previous ASCEND Engine-funded projects or enhance their success are also given favorable consideration.

### 3. Application Process

#### Q: What are the key dates and deadlines?

Milestone	Date
Applications Open	July 1, 2026
Application Deadline	<b>July 31, 2026, 11:59 PM MT</b>
Applicant Interviews	July 2026
Selection Notifications	July 20 – August 10, 2026
Program Launch	August 18, 2026
Prize Competition Opens	Early 2027
Program Completion	April 2027 (subject to test site availability)

#### Q: What does the application process look like?

The application process consists of three stages:

- Stage 1 – Application Submission: Submit your program application by the deadline.
- Stage 2 – Interview: Shortlisted applicants will be interviewed by a program Client Director.
- Stage 3 – Selection & Offer: Successful applicants receive an offer of participation from the ASCEND Engine team.

#### Q: How are applications evaluated?

Applications are reviewed by the ASCEND Engine team and external subject matter experts.

Evaluation criteria include:

- Technology relevance to the ARID or SHIELD program objectives.
- Competitiveness of the technology in the marketplace.
- Likelihood of success in reaching commercialization.
- Potential impact on communities and the environment.

#### Q: Where do I submit my application and who do I contact with questions?

For questions about the application process or program details, contact Bud Michael at [Bud@innosphere.org](mailto:Bud@innosphere.org). Application submission details will be provided when applications open on July 1, 2026.

## 4. Program Structure & Curriculum

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### Q: How long is the program and what does it involve?

The programs run for eight months, from mid-summer 2026 through early spring 2027. Participants can expect a structured schedule including workshops, Mastermind sessions, and hands-on test site access.

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### Q: What is the workshop curriculum like?

The curriculum is built on the proven accelerator model developed by Innosphere over more than twenty years. It includes:

- 13 combined workshops covering a broad range of topics designed to help companies maximize their transition from prototype to early commercialization. Most workshops are delivered via Zoom, with select sessions held in person at Innosphere HQ in Fort Collins, CO.
  - 8 Mastermind sessions (4 per cohort — ARID and SHIELD separately) for subject-specific discussion and peer learning among cohort members in the same domain.
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### Q: What is a Client Director and what role do they play?

Each participating company is assigned a dedicated Client Director who serves as the company's primary point of contact and liaison to all ASCEND Engine resources throughout the program. The Client Director provides guidance, tracks progress, and helps the company make the most of the program's offerings.

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### Q: What are the test facilities and how do participants use them?

Participants will have access to test facilities where they can conduct live environment testing and gather real-world use-case feedback for technology refinement and business model validation. Utilization of these test sites is a key component of the program and is factored into award evaluations.

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### Q: How much time commitment is required from participating companies?

Participating companies must commit to attending all workshops and Mastermind sessions, utilizing the available test sites, and completing program deliverables. At least one person per company must be fully dedicated to building a sustainable business (CEO, CTO, or equivalent). Following program completion, Award recipients must submit quarterly progress updates for twelve months.

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### Q: Can program completion dates shift?

Yes. The projected completion date of April 2027 may be adjusted depending on weather conditions and test site availability. Participants will be kept informed of any scheduling changes.

## 5. Awards & Prizes

### Q: What cash awards are available?

A total of \$300,000 in cash awards is available across both programs. Awards are given to the top 3 performers in each cohort (ARID and SHIELD):

Place	Award Amount	Available In
1st Place	<b>\$80,000</b>	ARID & SHIELD (each)
2nd Place	<b>\$50,000</b>	ARID & SHIELD (each)
3rd Place	<b>\$20,000</b>	ARID & SHIELD (each)

*Total available: \$300,000 (\$150,000 per cohort)*

### Q: How are award winners determined?

Award recipients are determined based on their overall participation and performance throughout the program. Evaluation criteria include:

- Workshop and Mastermind session attendance.
- Completion of program deliverables.
- Utilization of available test sites.
- Assessment by the assigned Client Director.
- Performance in investor presentations.

### Q: Are there eligibility requirements to receive an award?

Yes. To receive a cash award, the participating company must invest the funds in the ASCEND Engine RoS (Colorado or Wyoming). This includes for-profit companies, non-profits, and institutions of higher education.

### Q: What accountability is required after receiving an award?

Award recipients must submit quarterly progress updates for a period of twelve months following completion of the program. These updates track performance toward milestones mutually agreed upon by the company and their Client Director at the conclusion of the program.

## 6. Prize Competition

**Important:** The prize competition is a separate phase from the accelerator program itself and comes with specific requirements that distinguish it from most accelerator prize programs. Please read this section carefully.

### Q: What is the prize competition and how does it relate to the accelerator?

The prize competition is a formal competition open exclusively to companies actively participating in the ASCEND ARID or ASCEND SHIELD accelerator programs. It is not a standalone competition — you must be enrolled in the accelerator to be eligible.

#### The timeline works as follows:

- August 2026 – April 2027: Accelerator program runs, with structured workshops, Mastermind sessions, test site access, and ongoing Client Director support.
- Early 2027: The prize competition opens to accelerator participants. At this point, eligible companies may formally enter the competition by submitting additional required documentation explaining how they will expend the prize funds in a manner that is directly relevant to the NSF ASCEND Engine mission and support economic development within the Region of Service.
- April 2027: The accelerator program concludes and prize winners are announced.

### Q: What additional documentation is required to enter the prize competition?

Full details on required documentation will be provided to participants during the program. Companies should plan to prepare materials that demonstrate their progress, technology development, and business readiness in alignment with the program objectives.

### Q: How is this prize different from prizes in other accelerator programs?

This is an important distinction. In many accelerator prize programs, winners receive cash awards with few or no conditions on how the money can be spent. The ASCEND ARID and SHIELD prize competition is meaningfully different:

- Prize funding must be spent within the Region of Service (RoS) — specifically Colorado and Wyoming.
- This requirement ensures that award dollars directly benefit and remain in the communities the ASCEND Engine is designed to serve.
- Companies should plan accordingly — the prize is intended to support operations, technology development, hiring, or other activities conducted within the CO-WY region, not to fund activities outside of it.

*If you have questions about what qualifies as an eligible use of prize funds within the region, contact Bud Michael at [Bud@innosphere.org](mailto:Bud@innosphere.org) before applying.*

### Q: Can a company participate in the accelerator but choose not to enter the prize competition?

Yes. Participation in the prize competition is separate from participation in the accelerator. All accepted companies receive the full accelerator experience — curriculum, Client Director support, test site access, and Mastermind sessions — regardless of whether they enter the prize competition. The

prize competition is an additional opportunity available to accelerator participants who meet the requirements and submit the necessary documentation.

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### **Q: What are the prize amounts available through the competition?**

The same prize structure applies to both cohorts. For each program (ARID and SHIELD), cash awards are:

- 1st Place: \$80,000
- 2nd Place: \$50,000
- 3rd Place: \$20,000

**All prize funds must be spent within Colorado or Wyoming.**

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## **7. Technology & ASCEND Alignment**

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### **Q: What kinds of technologies are you looking for?**

Technologies must fit within the ASCEND framework and demonstrate alignment with three core pillars:

- Leverage or advance the state-of-the-art of environmental sensing assets in the Colorado-Wyoming region.
- Transform environmental sensing data through advanced data analytics, including AI and machine learning.
- Develop actionable decision-support tools with a viable pathway to operational or commercial adoption.

Technologies that do not address challenges at the intersection of environmental sensing, advanced computation, and decision-support are unlikely to be competitive.

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### **Q: What are the specific topic areas for ARID?**

ARID focuses on wildfire preparedness, response, and recovery. Relevant technology sub-topics include:

- Power systems resilience related to wildfire risk.
  - Water systems protection and recovery.
  - Smoke and air quality monitoring.
  - Wind monitoring in complex terrain.
  - Continuous asset stress monitoring.
  - Transportation infrastructure management.
  - Insurance and reinsurance planning and management.
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### **Q: What are the specific topic areas for SHIELD?**

SHIELD focuses on soil health management. Relevant technology sub-topics include:

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- Adaptive livestock grazing management.
  - Watershed and water quality management as related to soil health.
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#### Q: What if my technology spans both ARID and SHIELD domains?

If your technology has applications in both wildfire/natural hazard response (ARID) and soil health/water management (SHIELD), you should identify which program is the primary fit for your current stage of development and apply to that one. Contact Bud Michael at [Bud@innosphere.org](mailto:Bud@innosphere.org) if you are unsure which program is the right fit.

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#### Q: Are digital twin or AI-focused technologies especially relevant?

Yes. The ASCEND Engine aims to be a global leader in AI-supported digital twin technologies. Companies whose work contributes to physical AI systems, digital twins, or next-generation sensing and computation tools — particularly those with operational and commercial potential — are strongly encouraged to apply.

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## 8. Contact & Additional Information

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#### Q: Who do I contact if I have additional questions?

All program inquiries should be directed to:

**Bud Michael**

Email: [Bud@innosphere.org](mailto:Bud@innosphere.org)

Innosphere | Fort Collins, Colorado

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#### Q: Where can I learn more about the NSF ASCEND Engine?

The ASCEND Engine is an NSF-funded innovation ecosystem covering Colorado and Wyoming. For more information about the broader Engine programs, research infrastructure, and partner organizations, reach out to Bud Michael at the contact information above.

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*Administered by Innosphere · Fort Collins, Colorado*