

JCATI OVERVIEW

What Prospective PIs and Project Partners Need to Know

A statewide program connecting Washington public university engineering faculty with aerospace and advanced manufacturing industry partners

jcati.org

PROGRAM OVERVIEW

What Is JCATI?

The Joint Center for Aerospace Technology Innovation (JCATI) is a **Washington State legislative program** that funds short-term, applied research partnerships between WA public university engineering faculty and aerospace/advanced manufacturing industry partners.

Headquartered at the UW, JCATI is a statewide economic-development program — not a UW-only initiative. It remains neutral across its consortium universities and presents faculty partners to industry without institutional bias.

CREATED BY THE WA LEGISLATURE

RCW 28B.155.010 established JCATI in 2012 to pursue joint industry-university research, enhance engineering education, and work directly with WA aerospace firms of every size. **Current authorization runs through June 30, 2030.**

ELIGIBLE PARTNER UNIVERSITIES

Washington State's public four-year universities and colleges

- University of Washington
- Washington State University
- Western Washington University
- Central Washington University
- Eastern Washington University
- The Evergreen State College

PROGRAM OUTLOOK

Where JCATI's Funding Stands

JCATI is not a permanent line item — it runs on a biennial state appropriation the Legislature must periodically renew.

Biennial

Funding mechanism
(WA State Proviso)

June 30, 2030

Current authorization
runs through

~2029

JLARC sunset review
begins

WHAT THIS MEANS

- Legislative funding is authorized through June 30, 2030. Continuing past that date requires reauthorization — a new funding bill passed by the WA Legislature, not an automatic renewal.
- A JLARC (Joint Legislative Audit & Review Committee) sunset review begins the year before expiration to evaluate program performance and inform that reauthorization decision.
- Every JCATI commitment — awards, staffing, the symposium — is contingent on continued state appropriation. This is also why JCATI tracks metrics closely for its annual JLARC report and biennial legislative report.

Questions about program continuity or the reauthorization process can be directed to the JCATI Program Manager.

GOVERNANCE

JCATI Board of Directors

A nine-member board — a nonvoting Chair plus eight voting members in fixed statutory categories — sets strategic direction and makes final project selections each May.

Program leadership: *Mehran Mesbahi, Executive Director, JCATI — a program administration role distinct from the nine statutory Board seats below.*

SEAT	MEMBER	AFFILIATION	STATUS
Chair (nonvoting)	**René Rintisch**	Korry Electronics	Through 6/30/27
Higher Education	**Haluk Beyenal**	Washington State University	Through 6/30/27
Higher Education	**Jihui Yang**	University of Washington	Reappointment in progress
Industry — Small	**Dale Goulding**	Forge Digital	**Open — term expired**
Industry — Medium	**Stefan Bieniawski**	Blue Origin	Through 6/30/27
Industry — Large	**Laila Elias**	Boeing Commercial Airplanes	**Open — term expired**
Labor	**Ryan Rule**	SPEEA, IFPTE Local 2001	**Open — term expired**
Industry Association	**Ryan Crompton**	Carbon Robotics	Through 6/30/27
Industry Association	**Michael Doyle**	Space Northwest	Through 6/30/27

BOARD RECRUITMENT

JCATI doesn't appoint its own board — all nine seats are appointed by the WA Governor's Office of Boards & Commissions (RCW 28B.155.010). Three seats are currently open, serving in holdover past term expiration: Industry (Small), Industry (Large), and Labor.

No Senate confirmation, no financial disclosure, no compensation — quarterly ~2-hour hybrid meetings. Nominate via self-application or third-party recommendation at governor.wa.gov/boards-and-commissions; applications are public record.

PROGRAM METRICS

JCATI by the Numbers

FY27 — CURRENT YEAR (IN PROGRESS)

14	$1.43M	17	$1.31M
Projects & Capstones Funded	JCATI Investment (FY to date)	Industry Firms Engaged	Pledged Industry In-Kind Support

SINCE INCEPTION — FY13–FY27

211	$19.3M	$40.7M	2.1x	993+
Projects Funded	JCATI Investment	Follow-on Funding	Leverage Ratio	Students Supported

Source: JCATI Metrics Dashboard — figures updated as FY27 final reports and in-kind letters are received. Leverage is a legislative reporting priority, not a per-project requirement.

STATEWIDE REACH

Counties Across Washington

JCATI industry partners are headquartered in 17 Washington counties — from the Olympic Peninsula to the Tri-Cities — reflecting the program's legislative mandate to serve WA aerospace of every size and region.

17

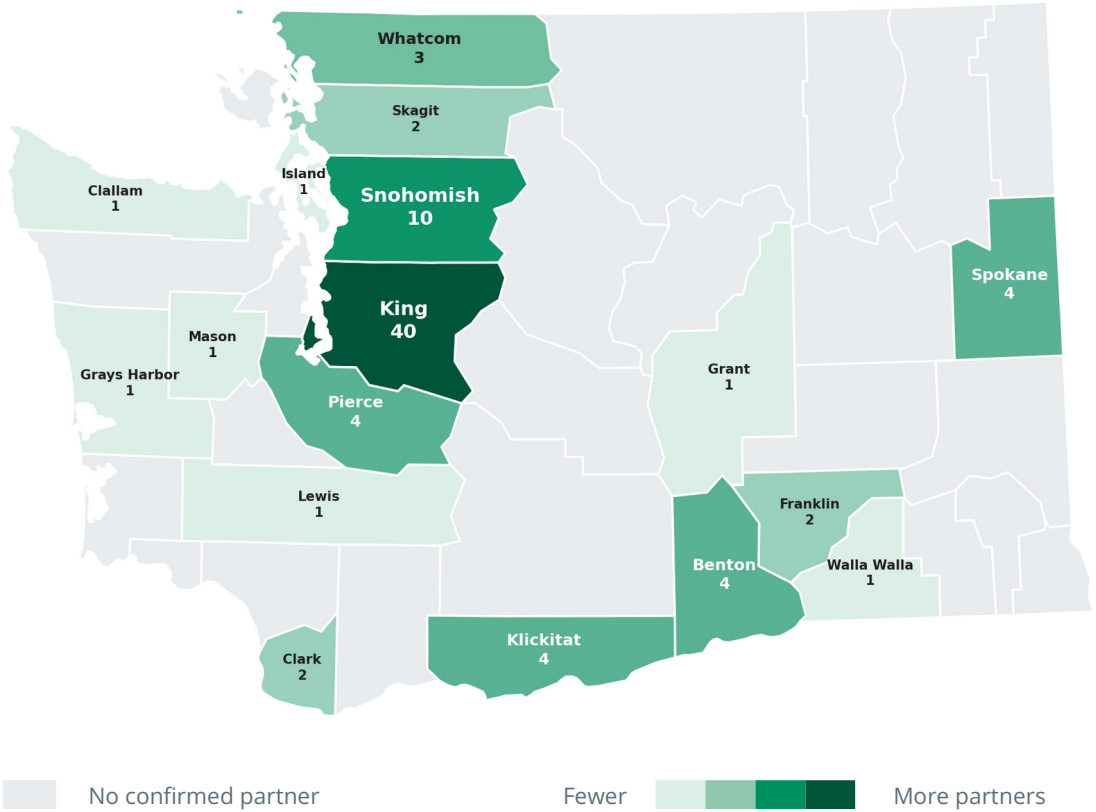
WA Counties Represented

82

Industry Partners Mapped

$10.9M

Delivered Industry In-Kind



Counts reflect confirmed industry-partner headquarters; 20 of 102 total partners have not yet been geographically confirmed.

WHERE JCATI FITS

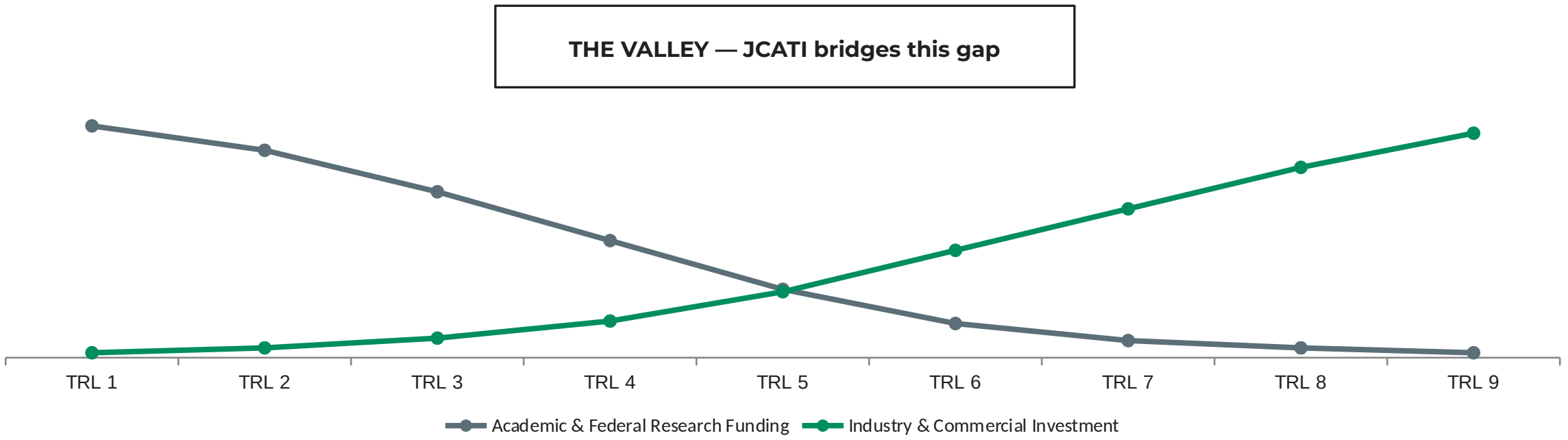
Bridging the “Valley of Death”

Many promising technologies stall between early research and industry adoption — not because the science fails, but because funding runs out before commercial investors step in.

JCATI FUNDING RANGE: TRL 4–7

1	2	3	4	5	6	7	8	9
Basic Principles	Concept Formed	Proof of Concept	Lab Validation	Relevant Env.	Prototype Demo	System Prototype	System Complete	Proven in Operation

WHY IT’S CALLED A “VALLEY”



TECHNOLOGY READINESS

Understanding TRL 4–7

JCATI proposals use NASA's TRL definitions to state a starting level and are expected to advance at least one full level within the one-year award.

4

TRL

Lab Validation

Core components work together in a controlled lab setting.

e.g. a benchtop demo of a new sensor algorithm

5

TRL

Relevant Environment

Components are tested under conditions that resemble real-world use.

e.g. a subsystem tested in a thermal vacuum chamber or wind tunnel

6

TRL

System Prototype

A representative prototype is demonstrated in a relevant environment.

e.g. a full-scale prototype tested on a stand or in flight-like conditions

7

TRL

Operational Environment

The prototype is demonstrated in the actual operational environment.

e.g. a flight test aboard an aircraft, or an on-orbit demonstration

PROGRAM FOCUS

What JCATI Funds

1

1-Year Applied Projects

Fund WA aerospace/advanced-manufacturing industry access to public university engineering expertise through joint, one-year projects (July 1–June 30).

2

A Specific Industry Pain Point

Projects address a short-term, concrete challenge an industry partner is facing — not open-ended exploratory research.

3

Real, Transitioned Deliverables

Results are designed to move from the academic lab back into industry use within the project period, ideally sooner.



UW field research — drone system testing

The primary aerospace industry partner must have a WA presence, and the majority of project work and impact must occur in Washington State.

FUNDING

Award Structure

$115,000	+$5,000	1 Year	$0
Base project award	Optional Undergraduate Scholars Program (USP)	Project period (July 1 – June 30)	University indirect costs (F&A) — none charged

Awards go directly to the PI — JCATI applications do not route through OSP and are not subject to university indirect (F&A) rates.

BEYOND THE BASE AWARD

- Industry in-kind support strengthens a proposal during review and is verified by the industry partner at project end. It's not a required cost-share — but the Legislature wants to see non-state funds leveraged, so JCATI documents it carefully.
- In select cycles, the Board has piloted optional Supplementary Option Funding (up to an additional $50,000) for projects showing strong potential for further impact — availability varies by RFP year.
- Graduate students on JCATI projects typically receive tuition waivers, funded separately from the award itself — added value on top of the full award amount, not deducted from it.

What the Award Covers

JCATI budgets follow seven standard categories. Most awards are salary- and fringe-heavy — typically 85–88% of a project's total budget.

A	**Senior Personnel**	Faculty summer salary — capped at 1 month for tenure-track faculty, up to 3 months for research faculty.
B	**Other Personnel**	Graduate and undergraduate student salaries — FTE cannot be split across multiple JCATI projects.
C	**Fringe Benefits**	Per each institution's standard benefit load rates.
D	**Equipment**	Purchases over $5,000 require a quote and written justification.
E	**Travel**	US travel only — no foreign travel. ~$750 for the PI's own symposium travel; JCATI covers student symposium travel separately.
F	**Other Direct Costs**	Materials, supplies, fabrication, and other project services.
G	**USP Funds (Optional)**	Up to $5,000 to support a meaningful undergraduate research role.

No carry-forward: unspent funds must be returned to the state by June 30.

REQUIREMENTS

Eligibility & Partnership Requirements

ACADEMIC SIDE

- JCATI funds only one proposal per PI per year
- UW-specific: no eGC1 required — do not submit to OSP
- UW does not allow postdocs to serve as PI
- UW Applied Physics Laboratory (APL) staff are ineligible to apply

INDUSTRY SIDE

- Primary aerospace industry partner must have a WA presence; majority of project impact must occur in WA
- Provide a Letter of Support describing any in-kind commitment (cash, materials, facility access, testing, consulting time, internships, etc.) — considered during proposal evaluation, not a required cost-share
- Verify any committed in-kind support was actually delivered at project end
- Review and sign the JCATI IP terms; the Collaborative Research Agreement itself is optional
- Sign the JCATI industry attestation form, confirming adherence to WA's anti-discrimination law (RCW 49.60.030)
- We hope you'll join us at the JCATI Symposium each April

WHY PARTICIPATE

What’s in It for Researchers

Full Award Value

No F&A/indirects means the entire award supports your research — not just an overhead-reduced share.

Student Support

Fund graduate and undergraduate researchers — plus tuition waivers for grad students, funded separately from and on top of the award.

Industry Access

Direct partnership with a WA aerospace or advanced-manufacturing company, plus JCATI’s statewide industry network.

Technology Transition

A structured path to move your research results into real industry use — not just a publication.

Statewide Visibility

Present your project at the annual JCATI Symposium alongside faculty and industry from across Washington.

Internship Pipeline

Project participation often opens direct internship and hiring pathways for your students with the industry partner.

WHY PARTNER

What's in It for Industry

Affordable Applied R&D

State funding covers the bulk of project costs. Any contribution you offer is typically in-kind (facilities, materials, expertise) and considered in review — there's no required cash match.

Direct Faculty Access

Work directly with WA public university researchers on your specific technical challenge — not a generic service contract.

A Talent Pipeline

Get to know graduate and undergraduate researchers first-hand; many projects lead directly to internships and hires.

Fast, Focused Turnaround

Projects run one year and target a specific pain point — not open-ended academic exploration.

Flexible IP Options

Negotiate a full Collaborative Research Agreement, or opt out entirely — either way, your background IP stays yours.

Statewide Network & Visibility

Present at the annual Symposium and connect with WA's aerospace ecosystem — including matchmaking outside the RFP cycle.

Every JCATI project must address a genuine WA aerospace industry need — the program exists to solve your problems, not just fund research for its own sake.

NEW REQUIREMENT

Intellectual Property Agreement

The IP agreement is between the industry partner and the university where the PI is employed — not JCATI itself. Each consortium university has its own office that oversees Research Agreements; at UW, that's CoMotion.

1

Review & Acknowledge

Academic and industry partner review the JCATI IP Terms together as part of proposal submission.

2

Pre-Award Notification

If selected, the PI's university IP office — CoMotion at UW, or the equivalent office at WSU/WWU/CWU/EWU — leads development of the full Collaborative Research Agreement.

THEN CHOOSE 1 OF 2

3A

Full Research Agreement

The partner and university negotiate and execute a complete Collaborative Research Agreement. The grant is awarded once it's fully executed.

3B

No IP Term Agreement

The university and industry partners formally agree not to enter into an IP agreement — each institution regulates its own IP independently.

Either path must be complete before award funds are released. Applications missing signed IP documentation will not be considered for funding.

WITHIN A FULL AGREEMENT

IP Licensing Options

If the parties proceed with a full Collaborative Research Agreement, the industry partner chooses one of three licensing options — selected when the Agreement is executed, not at proposal submission. Agreeing to the JCATI IP Terms up front only ensures everyone knows the options ahead of time.

1

Option to Negotiate a Commercial License

A 3-month window after disclosure to decide whether to negotiate a license, then 3 more months to negotiate and execute one on commercially reasonable terms.

No payment due unless a license is ultimately executed.

2

Pre-Paid Exclusive License

An upfront Exclusive Technology Fee — 10% of the JCATI-funded amount, or $15,000, whichever is greater — plus a 1% royalty on net sales above $20,000,000.

In exchange for an exclusive commercial license to the university's resulting IP.

3

Pre-Paid Non-Exclusive License

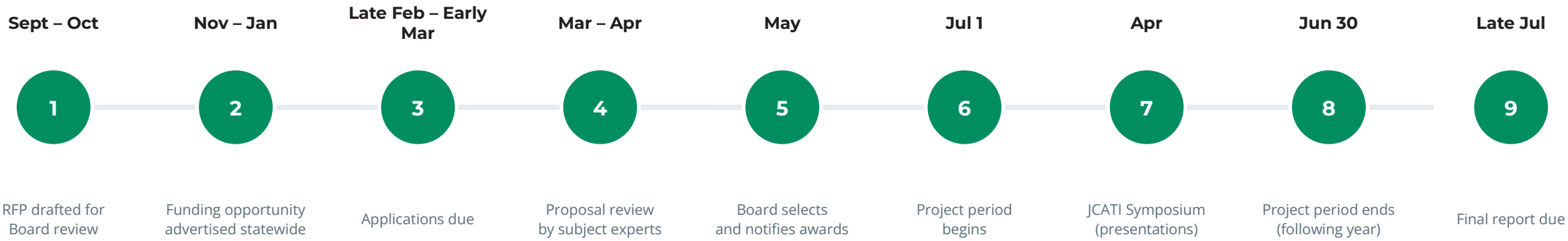
An upfront Non-Exclusive Technology Fee — 5% of the JCATI-funded amount, or $7,500, whichever is greater.

In exchange for a non-exclusive commercial license to the university's resulting IP.

Which option applies is negotiated directly between the industry partner and the specific research institution — full terms are in the JCATI IP Terms addendum.

PROCESS

Annual RFP/Award Timeline



PLANNING NOTE — SUMMER SALARY TIMING

Many faculty use JCATI's summer salary allowance (1 month for tenure-track, up to 3 for research faculty) to support this work. PIs are eligible to begin spending upon official award letter receipt, but worktags become available only once funds are received from the Legislature — as soon as possible after that, not on a fixed date. Keep that potential mismatch in mind when planning summer charging for both faculty and students, rather than assuming the July 1 project start date lines up with when funds are actually usable.

Full details, current deadlines, and application materials: **jcati.org**

CLOSING THE LOOP

Final Report & Close-Out

The RFP cycle ends where it began: a final report closes out the award and feeds directly into JCATI's required legislative reporting.

1	**Scientific Summary**	Status of deliverables and industry transition, plus any unanticipated events (2-page limit).
2	**Student Participation**	Every student who worked on the project, their level, and next step if graduating — only students listed here count toward legislative metrics.
3	**Industry Partner Letter**	Contact info plus a signed letter stating the actual cash/in-kind support delivered. This is the only source JLARC counts — not the PI's own estimate.
4	**Follow-On Funding & IP**	New grants, SBIR/STTR activity, patents, IP, or startups that trace back to the project.
5	**Transition Plan & Publications**	Current TRL, how the technology is transitioning to the industry partner, and any published (not just submitted) manuscripts.

Typically due in late July, shortly after the June 30 project end date — industry partners need advance notice to prepare their letter, so loop them in early.

FY27 PORTFOLIO

Who's Participating This Year

SCHOOLS (5)

- UW — 9 full projects
- WSU — 3 full projects
- WWU — 1 full project
- CWU — 1 capstone
- EWU — 1 capstone

14 total projects & capstones across the consortium

TECHNICAL AREAS

- Composites & composites manufacturing
- Propulsion
- Space systems, GNC & simulation
- Communications / radar imaging
- Metal additive manufacturing
- Materials reuse & circularity
- Biofuels / sustainable aviation fuel
- AI applied to materials & manufacturing

INDUSTRY PARTNERS (17)

- Blue Origin
- Boeing*
- Brinc
- Clean Vantage
- Electroimpact
- EOI Space
- Hypersciences
- IDD Aerospace / Safran
- Innovative Composite Eng.
- Parker Hannifin Exotic Metals*
- Qbic Materials
- ReUse Labs
- Sentecor Solutions
- SkyNRG Americas
- Starfish Space
- Sugino Corporation
- Toray Composite Materials

**anticipated capstone partner, TBD*

DEPARTMENT SPOTLIGHT

UW Aeronautics & Astronautics

21	50	$4.8M	FY13–FY27
A&A Faculty PIs	Project-Years	Total Investment	Continuous Participation

A&A is JCATI's largest single department by PI count — spanning propulsion, autonomy, composites, and space systems.

FACULTY	FOCUS AREA	KEY INDUSTRY PARTNERS	HISTORY
Carl Knowlen	Propulsion — rocket engines & ram accelerators	HyperSciences, Juno Propulsion, Systima	6 projects · FY15–FY27
Kristi Morgansen	UAV & spacecraft autonomy, controls	Boeing, Quicksilver Aircraft	7 projects · FY14–FY22
Marco Salviato	Composites manufacturing & recycling	Boeing, Sekisui Aerospace, CRTC, Chomarat	6 projects · FY19–FY25
Justin Little	Electric propulsion	Aerojet Rocketdyne, Eagle Harbor Tech, EOI Space	4 projects · FY22–FY27
Karen Leung	Autonomous UAS / search & rescue	FreeFly Systems, Avien Data (Parkalytics)	3 projects · FY23–FY25
Hermanson / Dabiri	Cryogenic propulsion & fluids	Blue Origin, Aerojet Rocketdyne	5 projects · FY15–FY26
Martin Nisser	Magnet array design for nanosatellite latches	Starfish Space	FY27 (new)
Taghvaei / Açıkmeşe	Energy-aware trajectory optimization for drones	Brinc	FY27 (new)

SUCCESS SPOTLIGHT: JUNO PROPULSION

Two consecutive awards with Carl Knowlen (FY26–FY27) on non-toxic rocket propulsion helped Juno Propulsion grow into a 5-person company with its own Tukwila facility, hire a UW graduate directly off the project, and win an NSF SBIR Phase II award — with an in-orbit demo flight planned as a SpaceX auxiliary payload.

BEYOND THE RFP CYCLE

JCATI as a Year-Round Matchmaker

Industry doesn't only reach out during the RFP cycle. Companies come to JCATI directly with early-stage ideas and technical challenges — and JCATI helps connect them to the right WA faculty expertise, whether or not it becomes a JCATI-funded project. JCATI also hosts pre-RFP networking events and information sessions each year to help spark these connections before the funding cycle even opens.

HELP US HELP YOU

1

Tell Us What You're Working On

Researchers: your active research areas, even outside a current award. Industry: what expertise you're hoping to engage — a one-pager we can circulate to engineering faculty across the consortium.

2

Flag Frontiers & Challenges

Emerging problems, advances, or open questions in your field that industry may not know to ask about.

3

Let Us Know You're Open to Intros

Even informal conversations with a company exploring an early idea, not yet ready for a funded project.

The more JCATI knows about your expertise, the more effectively we can position WA's research community as a resource industry turns to first — not just during proposal season.

ANOTHER PATH TO PARTICIPATE

Student Capstones: How They Work

Alongside full research awards, JCATI funds a lighter-weight track: a $5,000 award that plugs an industry challenge directly into a university's senior capstone/design course.

1 Industry Brings a Challenge

A company proposes a real, scoped engineering problem sized for a senior design team.

2 Students Take It On

An undergraduate capstone team adopts it as their required senior design course project.

3 $5,000 JCATI Award

Covers materials, fabrication, and testing costs for the build — no faculty research budget involved.

4 Symposium Poster

The team presents results at the April JCATI Symposium alongside full research projects.

	AWARD	TEAM	REVIEW PATH
Full JCATI Project	$115,000+	Faculty PI + grad/undergrad researchers	Full competitive RFP narrative review
Capstone Project	$5,000	Undergrad senior design team + faculty advisor	Lightweight application, submitted later in the cycle

CWU — Charles Pringle: a 7-year running partnership with Boeing recycling aircraft wing trimmings. **EWU — Matthew Michaelis:** first capstone in FY26, building tube-bender and chop-saw upgrades for Parker Hannifin Exotic Metals.

Capstone slots are intended to rotate across consortium universities over time, extending JCATI's reach to schools without a research-scale JCATI portfolio.

SHOWCASE EVENT

The Annual JCATI Symposium

April 6 · UW HUB South Ballroom, Seattle · a full day of panels, a keynote, student pitches, and a poster session showcasing every JCATI-funded project statewide. *The venue rotates each year — Spokane in 2026, UW this year — to connect with all participating universities and industry partners across the state.*

FOUR PANEL THEMES

1. Autonomy, Sensing & AI in Aerospace Operations
2. Advanced Composites Manufacturing
3. Sustainability: Circularity, Materials Reuse & Alternative Fuels
4. Space & Propulsion Systems

WHO'S IN THE ROOM

- JCATI-funded faculty and student research teams (required to present)
- Industry partner representatives from every funded project
- JCATI Board members and consortium university leadership
- State and economic-development representatives
- Prospective PIs and industry scouting the next RFP cycle
- Investor guests for the student pitch session

PAST JCATI SYMPOSIA





Full speaker lineup and schedule are finalized closer to the event — check jcati.org for the current program.

LOOKING AHEAD

Themes JCATI Is Watching for FY28

Exploratory themes staff are tracking from industry and policy signals — not finalized RFP language. Confirm current-cycle priorities directly with the JCATI Program Manager.

Rate Readiness & Supply Chain

Process monitoring, NDE, and digital-thread work that helps suppliers meet production ramp-up demands.

Workforce Pipeline

Knowledge transfer and training pathways addressing WA's aerospace workforce gap.

Certification for New Configurations

Certification methods for autonomy and advanced air mobility — precompetitive work industry won't fund alone.

SAF Feedstock & Supply

Sustainable aviation fuel feedstock, cost, and regional supply chain questions.

Composite Circularity

Qualification, inspection, and end-of-life reuse/recycling for composite materials.

Space Cluster Capability Gaps

Satellite servicing, reusable propulsion, and in-space manufacturing.

Dual-Use & Defense Demand

Problems validated by DoD sources (e.g. AFWERX/SpaceWERX) with civil aerospace relevance.

Applied AI & Autonomy

AI narrowly applied to design, inspection, qualification, and process control — not AI generally.

QUESTIONS?

Let’s Talk About Your Project

GET IN TOUCH

Mehran Mesbahi

Executive Director, JCATI

mesbahi@aa.washington.edu · (206) 543-7937

Brit Myers

Program Manager, JCATI

britm@uw.edu · (206) 685-8063

jcati.org

FOLLOW JCATI

LinkedIn: **Joint Center for Aerospace Technology Innovation (JCATI)** — the most active channel for project highlights, RFP announcements, and symposium updates.