IE Collaborative Engagements

ERCs are more than just a research center; they're really two-sided marketplaces:

- On one side: brilliant students, researchers, IP, and ideas
- On the other: organizations with capital, problems, and routes to market (one route to societal impact)

To ensure benefit to ERCs and to their industry members and center partners, engagements beyond just the minimum are essential.

Building interconnections, or "Collaborative Engagements", fosters this two-sided benefit and serves as a catalyst for additional collaborations in a virtuous cycle of engagement and mutual benefit.

To that end, here are structured ways companies and organizations can engage with ERCs to build robust Innovation Ecosystems, deepening the program through rich IE engagements and collaborations.

Talent & Workforce Pipeline

This is often the first door for a company, and often the most valuable. It's the highest ranked reason that a company renews their ERC membership.

Industry Members and Center Partners can:

- Recruit and hire ERC students full time
- Provide Internships and Fellowships
- Provide company visits/tours for a ERC visiting team
- Present at Industry-Student Seminars
- Serve as an Industry Mentor to a ERC student
- Provide guest lecturers, career panels, or mock interviews

- Co-design skill tracks aligned with industry needs (e.g., “Robotics for Manufacturing,” “Medical Devices,” etc.)
- Sponsor a Hackathon
- Provide Capstone and Master’s Projects

Value to Companies and Organizations:

They get pre-vetted, domain-specific talent trained on real robotic dexterity problems—not generic grads.

Applied Research & Prototyping

This is where ERC becomes a technical force multiplier. Members and Partners can:

- Sponsor specific research projects
- Fund graduate students or postdocs
- Provide real-world use cases for dexterous robotics
- Co-develop proof-of-concept prototypes
- Use ERC as an external R&D lab
- Participate in Project Voting
- White Paper collaboration
- Joint Journal Publication
- Data Collection project
- Input to a proposed seed project
- Donate / Loan equipment for a project completion

Value to Companies and Organizations:

They explore risky or long-horizon ideas without carrying all the cost internally.

Problem Sourcing & Challenge Programs

One of the most powerful but underused engagement models is providing relevant challenges and problems that ERC is in a good position to solve. Organizations can:

- Submit real engineering problems
- Sponsor a “Dexterity Challenge”
- Run hackathons or design sprints
- Provide datasets, parts, or hardware platforms

Value to the organization:

They get dozens of smart people attacking their hardest problems in parallel.

Testing, Validation & Benchmarking

ERC can become a neutral proving ground, helping fulfill one of our NSF goals to become a renown dexterity hub. Members and Partners can:

- Test their hardware or algorithms on ERC platforms
- Validate dexterous manipulation claims
- Compare approaches against others
- Run pilot deployments in controlled environments

Value to the Member or Partner:

They get independent, credible validation—which investors and customers care about.

Strategic Foresight & Research Intelligence

This is where ERC becomes a radar for the future of dexterous robotics in a way company's need. Members and Partners can:

- Join industry roundtables
- Participate in roadmap workshops
- Receive early insight into emerging tech
- Get briefings on student startups and new IP

Value to Companies and Organizations:

They see where dexterous robotics is heading before their competitors do.

Commercialization & IP Pathways

This turns research into revenue for companies. Members and Partners can:

- License ERC-developed IP
- Co-own patents
- Spin out joint ventures
- Acquire student startups
- Invest in ERC-connected ventures

Value to them:

They gain access to a pipeline of venture-ready robotics innovation.

Facilities, Equipment & Platforms

This is highly attractive for hardware companies. Organizations can:

- Donate or loan equipment
- Provide robotics platforms for students
- Set up testbeds or pilot lines
- Co-locate engineers at ERC

Value to them:

Their technology becomes the default platform students learn on.

Brand, Visibility & Thought Leadership

This is huge and often undervalued. Organizations can:

- Sponsor events, demos, or showcases
- Be featured in ERC publications
- Host workshops, committee / working group meetings
- Speak at conferences with ERC
- Be associated with breakthroughs
- Be a Panel Speaker, Event Judge, etc.

Value to them:

They get positioned as not just vendors, but as co-leaders in advanced robotics.

Ecosystem Building & Accessing Expertise

ERC becomes a networking and expertise hub. Organizations can:

- Introduce customers or suppliers
- Form consortia
- Create joint proposals for federal or commercial funding
- Build cross-industry partnerships (healthcare, logistics, manufacturing, defense)
- Advisory Board positions (IAB, SAB, EWAB)
- Collaborate on Summits, Conferences
- Receiving Education from ERC experts
- Attending Seminars, Workshops by ERC presenters
- Network with other companies and organizations along with Center faculty and students

Value to them:

They become embedded in a powerful innovation ecosystem with deep networks instead of operating alone. ERC provides a valuable pre-competitive space.

Mission-Driven Engagement & Funding Opportunities

This matters significantly to both ERC and the company. Members and Partners can:

- Support diversity and workforce development
- Enable students from underserved communities
- Sponsor STEM outreach tied to ERC
- Align with national competitiveness goals
- Perfect Pitch and Hackathon Judging
- Sponsor a Contest
- Sponsor an Event (Hackathon, etc.)

Value to the company:

They strengthen their brand, talent pipeline, and public impact simultaneously.