SC Fraunhofer USA Alliance

What is the SC Fraunhofer USA Alliance?

The South Carolina Fraunhofer USA Alliance (SCFUSA) is a collaborative effort between The South Carolina Council on Competitiveness (The Council), the South Carolina Department of Commerce, and the Fraunhofer USA network. The alliance was created to advance applied research across the state of South Carolina with the Fraunhofer USA network and South Carolina research institutions. Examples of research foci include artificial intelligence, Industry 4.0, machine learning, wearables and other advanced digital technologies.

The work of the alliance and the research it supports give South Carolina a competitive edge in advancing applied research and increasing the competitiveness of South Carolina based organizations.

Now Accepting New Proposals

The South Carolina Department of Commerce has made significant funding available to match private sector funding for applied research projects between South Carolina's universities and Fraunhofer USA to promote applied research that improves the competitiveness of South Carolina companies and results in a positive economic impact within the state. Effective immediately we are accepting project proposals to collaborate with the South Carolina Fraunhofer USA Alliance. Eligible applicants (see qualifying criteria) can apply for matching funds and must commit a cash match to be eligible.

Eligibility Requirements

Project proposals will be assessed using seven criteria and each criteria is weighted – resulting in a cumulative score. Criteria and its respective weighting as follows:

Assessment Criteria

Weight	Criteria	Scoring to be done by:
30%	Does the project enhance the client's competitiveness and lead to additional job creation? If yes, how will competitiveness be improved and how many possible new jobs could result?	Proposers/Client
20%	Does the proposed project match the Alliance's collective competencies/capabilities?	FhUSA
15%	Does the project offer other positive secondary impacts? For example: Is a supply chain strengthened? Will employee skills be enhanced and justify higher wages?	Proposers/Client
10%	Is the organization operating and/or have a substantial investment, presence, workforce in South Carolina? The more direct the impact on SC economy, the better the project	SC Dept. of Commerce
10%	Does the project offer strategic benefits to any of these overall State goals: 1) supporting small and medium enterprises 2) supporting rural-based companies 3) supporting growing technology sector 4) Other	SC Dept. of Commerce
10%	Does the project address one or more of South Carolina's strategic industries targeted for expansion by Commerce? Projects that build success stories in Manufacturing, Healthcare, or Shipping and Logistics are preferred.	SC Dept. of Commerce
5%	Can the project serve as a economic development showcase to attract new domestic and international business to South Carolina?	SC Dept. of Commerce

Recent Collaboration

The ultimate goal of the South Carolina Fraunhofer USA Alliance is to make South Carolina operations more competitive, more successful and to have a statewide impact on growing companies, jobs, and the economy.

The primary focus is to support digital transformation, innovation and new product and systems development.

An overview of projects underway or recently completed can be found below:

Innovation Projects Supported by the South Carolina Fraunhofer USA Alliance					
Completed Projects			**Ongoing Projects**		
Project Title	**SC Companies/Agencies**	**Lead Institute/Other**	**Project Title**	**SC Companies/Agencies**	**Lead Institute/Other**
Assembly Defect Detection Using Wearables	BMW	Fraunhofer, Clemson	Telehealth & Data Analytics	(agency)	Fraunhofer, U of SC
Production Line & Workflow Optimization	(company)	Fraunhofer, Clemson, (other)	Fuel Cells Manufacturing	JTEKT	Fraunhofer, Clemson
Wire Harness Automation	S	Fraunhofer, U of SC, Clemson	Biomanufacturing of Enzymes & Protein Catalysts	IMCS	Fraunhofer, Clemson
Cloud-based Data Platform	DATOS Technologies, (company)	Fraunhofer, U of SC, Clemson	Advanced Visual Inspection	Gestamp	Fraunhofer
Machine System Integration	SIEMENS, Heraeus	Fraunhofer, U of SC, Clemson	AI - Training, Competence Development & Knowledge Transfer	BOSCH	Fraunhofer, (college)
Advanced Visual Inspection System	SAMSUNG	Fraunhofer, Clemson	Industry 4.0 Data Transformation, Machine Learning & AI (Operations)	FIBER INDUSTRIES, DELTA BRAVO	Fraunhofer, WINTHROP UNIVERSITY
Development of Cloud-Based AI Platforms	(company)	Fraunhofer, Clemson, (other)	AI Models, Predict Satellite Anomalies, Space Weather Events	Blue Eye Soft	Fraunhofer, U of SC
Implementing Industry 4.0	Rexroth Bosch Group	Fraunhofer, Trident Technical College	Proactive & Automated Material Control	BMW	Fraunhofer, U of SC
Robotic Guided Fixture Loading	RMF	Fraunhofer, U of SC, Clemson	Production of Metallic Bipolar Plates for PEM Fuel Cells	JTEKT	Fraunhofer, Clemson
Predictive Analysis of Manufacturing	BMW	Fraunhofer, Clemson	Separator Technology for Rechargeable Lithium Metal Batteries	Soteria	Fraunhofer, U of SC
Business Readiness for Vaccine Production	nephron	Fraunhofer, U of SC			

History of the SC Fraunhofer USA Alliance

The establishment of the SC Fraunhofer USA Alliance marks the first in the South applied research initiative with the prestigious Fraunhofer network and is a direct result of South Carolina's sister-state relationship with Rhineland-Palatinate, Germany. The sister-state relationship came about in the mid-1990s as a result of the Charleston Naval Base closing and American military base closings in Rhineland-Palatinate. A sister-city relationship then developed between Columbia and Kaiserslautern, Germany (where Ramstein Air Base is today) and the home of the Fraunhofer Institute for Experimental Software Engineering. Today, we can partner with any of the centers/institutes within the Fraunhofer network and we look forward to building, developing and growing this unique relationship.

Learn more about the SC Fraunhofer USA Alliance

Suzanne Dickerson, *Director of the SC Fraunhofer USA Alliance, SC Council on Competitiveness*

sdickerson@sccompetes.org | (864) 901-4796 | www.sccompetes.org/fraunhoferusa

SC COUNCIL ON COMPETITIVENESS
www.sccompetes.org

South Carolina Department of Commerce
Just right for business.
www.sccommerce.com

Fraunhofer USA
www.fraunhofer.org