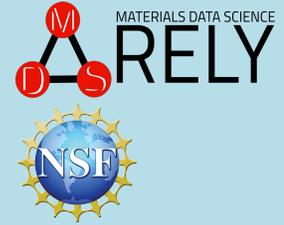




# Industry—University Cooperative Research Center Focused on Materials Data Science for Reliability

[mds-rely.org](http://mds-rely.org)

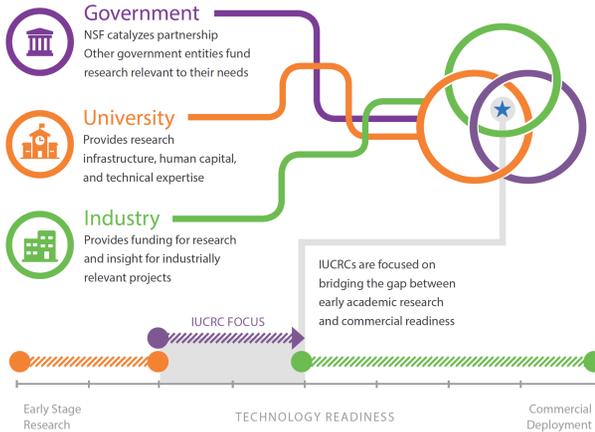


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## What is an IUCRC?

An IUCRC is a **National Science Foundation** Industry—University Cooperative Research Center that enables industrially-relevant, pre-competitive research via a multi-member, sustained partnerships among industry, academy, and government.

The thesis of the center is that **great innovation** is more likely brought about by the collaborative efforts of industry, government labs, and universities working together than from any community alone.



## Core Team

### Materials Data Science



### Metals: Traditional & Additive Manufacturing



### Polymers, Elastomers & Coatings



## Vision Statement

MDS-Rely seeks to apply **data science-informed research** to better understand the **reliability and lifetime performance** of essential materials

## Value Proposition



## Research Thrusts

- Reliability Study Protocols**
  - Tools & Evaluations
- Materials Data Science**
  - Statistics, Machine & Deep Learning
- Reliability and Durability Studies**
  - Applications, Codes & Datasets

## Facilities



- Solar Durability Lifetime Extension (SDLE) Research Center
- Materials for Opto/Electronics Research and Education Center
- Swagelok Center for Surface Analysis of Materials (SCSAM)
- Advanced Manufacturing and Mechanical Reliability Center (AMMRC)
- Laboratory for Advanced Materials at Pittsburgh (LAMP)
- ANSYS Additive Manufacturing Research Laboratory (AMRL)
- Peterson Institute of Nanoscience and Engineering (PINSE)
- University of Pittsburgh Medical Center (UPMC)

## Open Data Science



Obtain robust codes that have been tested across a variety of domains and benchmark datasets.



## Planning Meeting

- Over 70 people attended
- Over 30 companies



## Let's Connect!

- Develop project on research topics or questions you find exciting
- Get matched to professors with expertise in those topics of your interest