LightMAT
Lightweight Materials
CONSORTIUM

LightMAT Technology Transfer

U.S. DEPARTMENT OF ENERGY | National Laboratory Impact Initiative

EMN Energy Materials Network

February 9, 2017

LightMAT Members

Streamlined Access

Single Point of Contact -
LightMAT.org/contact

Greater Access to National Laboratories

Partner with Ease

Boost Competitiveness

Non-Disclosure Agreement (NDA)

Execute a single NDA to share and receive information in a protected way without having to sign an agreement with each individual national laboratory.

- Pre-approved, partially executed NDA amongst all LightMAT national laboratories
- If a LightMAT NDA is needed, contact us at LightMAT.org/contact
- Pacific Northwest National Laboratory (PNNL) will administer the NDA on behalf of LightMAT

Cooperative Research and Development Agreement (CRADA)

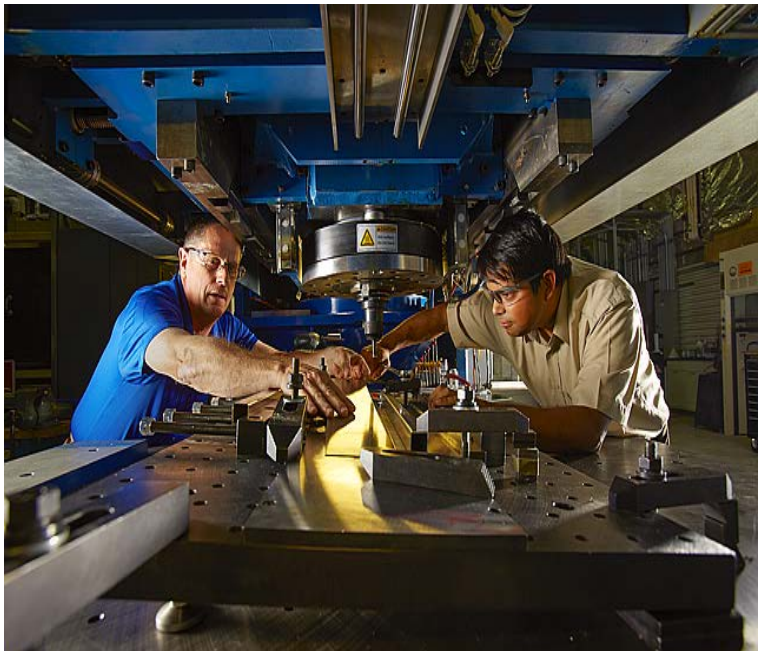
Partner with national laboratories through a streamlined Multi-Party CRADA in as little as 30 days

- If partnering with two or more LightMAT national laboratories, the LightMAT Multi-Party CRADA will be used

- If partnering with an individual national laboratory, select from the standard DOE contracting options:
  - Cooperative Research and Development Agreement (CRADA)
  - Agreement for Commercializing Technology (ACT)
  - Strategic Partnership Projects (SPP)

Working with LightMAT

- **Option 1: Department of Energy Funding Opportunities for Industry**, such as Funding Opportunity Announcements (FOA)
- **Option 2: Direct Funding Opportunities for Industry**
- **Option 3: Industry Funded Collaboration Opportunities**



Option 1: Department of Energy Funding Opportunities for Industry

- **Step 1:** Participate in workshops and provide feedback to inform the future direction and opportunities available under LightMAT to meet your needs. Contact us directly.
- **Step 2:** Stay tuned for upcoming LightMAT funding opportunities here.
- **Step 3:** If awarded and matched with a single LightMAT national laboratory, partner with your matched national laboratory through a variety of flexible agreements and select the option that best fits your needs.
- **Step 4:** If awarded and matched with multiple LightMAT national laboratories, partner with your matched LightMAT national laboratories through a streamlined single agreement in as little as 30 days.
- **Step 5:** Begin work and access LightMAT capabilities that accelerate advanced materials innovations that benefit you!

Option 2: Direct Funding Opportunities for Industry

- **Step 1:** Participate in workshops and provide feedback to inform the future direction and opportunities available under LightMAT to meet your needs. Contact us directly.
- **Step 2:** Stay tuned for upcoming LightMAT direct funding opportunities here.
- **Step 3:** If awarded and matched with a single LightMAT national laboratory, partner with your matched national laboratory through a variety of flexible agreements and select the option that best fits your needs.
- **Step 4:** If awarded and matched with multiple LightMAT national laboratories, partner with your matched LightMAT national laboratories through a streamlined single agreement in as little as 30 days.
- **Step 5:** Begin work and access LightMAT capabilities that accelerate advanced materials innovations that benefit you!

Option 3: Industry Funded Collaboration Opportunities

- **Step 1:** Contact us directly and we will help identify the LightMAT capabilities that best fit your needs.
- **Step 2:** If you select a single LightMAT national laboratory to work with, partner with your matched national laboratory through a variety of flexible agreements and select the option that best fits your needs.
- **Step 3:** If you select multiple LightMAT national laboratories to work with, partner with your matched LightMAT national laboratories through a streamlined single agreement in as little as 30 days.
- **Step 4:** Begin work and access LightMAT capabilities that accelerate advanced materials innovations that benefit you!

Intellectual Property & Licensing

Characterization

Extreme Environment Testing
Evaluation of materials in environmental, chemical, electrical and mechanical combined conditions

Mechanical Behavior of Materials
Evaluation of mechanical performance across strain rates, surface conditions, and geometric constraints

Microscopy
Visualization & characterization techniques ranging from advanced optical to x-ray and beam specific equipment

Non-destructive Examination
Methodologies for evaluation of properties, processes, and materials without destructive testing

Computational Tools

Data Tools
Materials data mining, discovery, information management, and analysis tools

Materials Processing
Predictive simulation capabilities for deformation, joining, solidification

Process-Structure
Mechanism based process to structure prediction

Structure-Properties
Continuum or discrete prediction of effective properties

Processing/Manufacturing

Fabrication & Synthesis
Material development across scales from synthesis to scalable production

Joining
Advanced joining development including multi-material, solid-state, fusion and fastening

Shaping & Forming
Evaluation of materials formability limitations, rate sensitivity, tool life, and effects of shaping

Thermo-mechanical Processing
Development of heat treatments, thermo-mechanical processing, and microstructural modification techniques

Thank you!

Visit LightMAT.org

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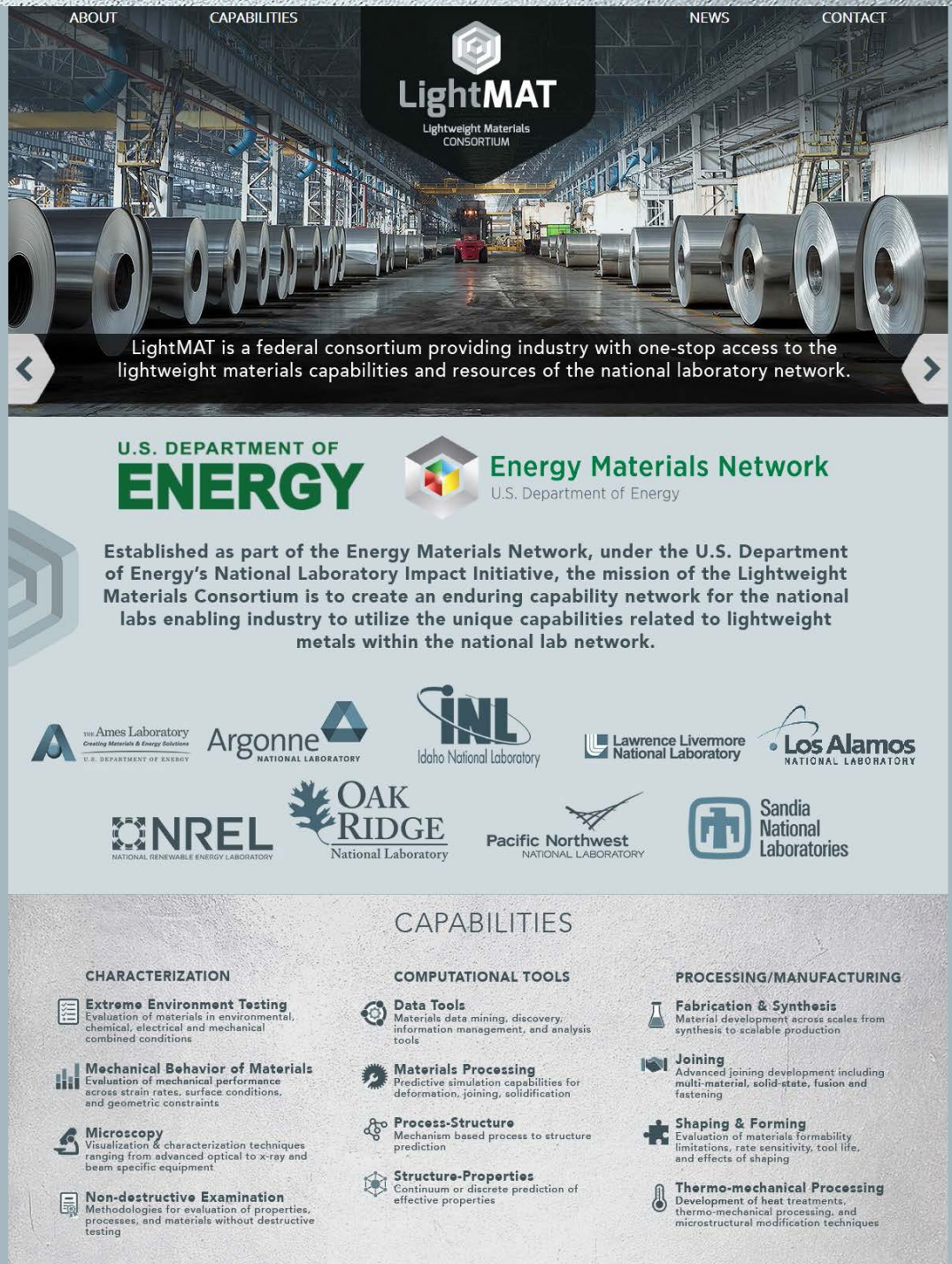

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