



# TARDEC Dual Use Technology Programs



**Automation Alley**

**22 April**

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**Macomb Procurement Technical  
Assistance Center**

**6 May**



**April 2008**

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# NATIONAL AUTOMOTIVE CENTER



The primary mission of the National Automotive Center (NAC) is to serve as a catalyst linking industry, academia, and government in the development and exchange of automotive technologies that will benefit all sectors.



**USAutoPARTs**

US Automotive Partnership for Advancing  
Research & Technologies



**HTUF** hybrid truck users forum

- **Identify dual needs of the Department of Defense and automotive industry.**
- **Accelerate the exchange and implementation of technologies**
- **Foster relationships and cost-shared partnerships.**
- **Become the recognized leader in automotive technology for tomorrow's defense.**



# TECHNOLOGY TRANSFER MECHANISMS

- **Testing Services Agreements**
- **Education Partnerships**
- **Cooperative Research And Development Agreements (CRADA)**
- **Small Business Innovation Research (SBIR)**



# TESTING SERVICES AGREEMENT

- **Allows commercial entities to utilize Government labs**
- **Government reimbursed for operational and equipment expenses**
- **Government cannot compete with private industry**
- **Test data belongs only to customer**



# EDUCATION PARTNERSHIPS

- **Encourage and enhance study in scientific disciplines**
- **US non-profit educational institutions dedicated to improving science, math & engineering education**
- **Provide assistance by...**
  - **Loaning or transferring equipment**
  - **Making lab personnel available**
  - **Involving students and faculty in research**
  - **Providing academic and career advice**

# CRADA

## Cooperative Research And Development Agreement



# CRADA PROGRAM HISTORY & LAW

- **Created by Federal Technology Transfer Act of 1986**
- **Defined in U.S. Code, Title 15, Section 3710a**
- **Extends to all government-owned laboratories**
- **Not a procurement contract; Federal Acquisition Regulations do not apply**

# CRADA - OVERVIEW

- **Between Government Laboratories and commercial, academic, government or association partners;**
- **Facilitate technology transfer between the parties;**
- **Partner contributes personnel, services, property and funding;**
- **Government contributes all the above, except funding.**

# CRADA - FEATURES & BENEFITS

- **Quick - Typically established within 60 days of initiation.**
- **Flexible - Leveraging of resources; each party pays for their tasks under flexible Statement of Work (SOW).**
- **Mutually Beneficial - Encourages cooperative R&D; industry interests and technology transfer; partner has option to license technology Army invents under the CRADA.**
- **Safe - Proprietary information protected; all intellectual property developed under CRADA belongs to inventing party.**
- **Simple - Conditions and basic rights set forth in clear and simple language.**

# CRADA - MISCELLANEOUS

- Duration – **Typically 3 years; renewable.**
- Termination – **Upon expiration, by mutual consent, or unilaterally (with written notice).**
- Multiple CRADAs – **A partner may have more than one CRADA with TARDEC simultaneously.**
- Special Agreements
  - Master Agreement: many SOW's under one contract
  - 3-way: more than one partner
  - Foreign partner: requires approval from trade rep.

# CRADA – TARDEC CURRENT AGREEMENTS

General Motors  
Automation Alley  
Altair Engineering  
BAE Systems Controls  
Oakland County Sheriff  
Macomb County Sheriff  
Smiths Aerospace  
Technology & Maintenance  
Council  
of the American Trucking Assoc,  
Columbia University Medical  
School  
Wayne State University  
US FIRST  
Wayne County, MI  
Intrepid Defense & Security  
Dana Corporation  
Detroit Science Center  
MagneShock Div., Arre  
Industries  
MDOT/MTU  
Oshkosh Truck  
Aura Systems

Battelle Memorial Institute  
Thales-Raytheon Systems Company  
National Center for Manufacturing  
Sciences  
Lenawee County, MI  
FiberForm, Inc.  
Raser Technologies  
DTE  
Waltonen Engineering  
Link Testing Labs  
AeroVironment, Inc.  
Eaton Corp.  
Tyron Automotive Group  
Chevron Technology Ventures  
JADI  
NextEnergy  
Fontaine Trailer Co.  
Kettering University  
Michigan Molecular Institute  
International Military & Gov't  
PowerGenix  
ICRC  
Thixomat  
CMI-Equipment & Eng'g  
EMS Development  
Aluminum Chambered Boats  
GS Yuasa

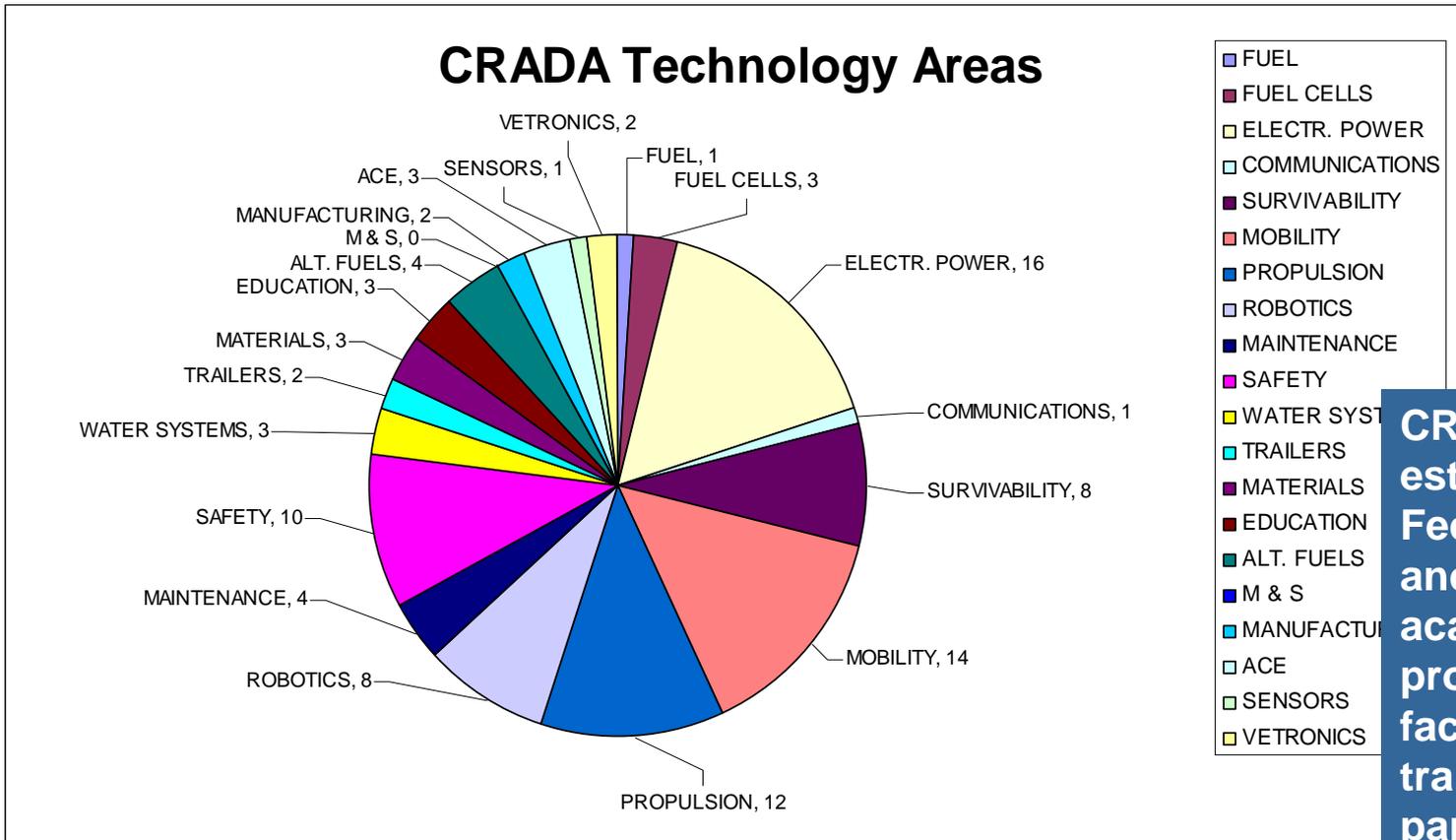
Brayton Energy LLC  
EnerSys Energy Products  
Univ. of Cincinnati / Applied Research  
Associates  
Raytheon Company  
Pearson Engineering Ltd  
SiNeramics, Inc  
California Motors  
Hybra-Drive Systems  
Lockheed Martin  
TechGuard Security LLC  
Real-Time Analyzers  
InvenTek  
University of Detroit Mercy  
GDLS / SAIC  
Sprung-brett RDI  
Hyundai America Technical Center  
AM General  
DefBar Systems LLC  
Stewart & Stevenson  
International Battery Inc.  
LaBarge products  
Kokam America  
Foster-Miller  
Remotec  
Pall Aeropower  
Volvo powertrain  
Qynergy

# CRADA – TARDEC MASTER AGREEMENTS

- **Automation Alley**
- **BAE Systems**
- **Battelle**
- **Chevron Technology Ventures**
- **Dana Corporation**
- **Fontaine Trailer**
- **NextEnergy**
- **BAE/ARL**
- **Raytheon**
- **GDLS**
- **Foster-Miller**
- **Link Testing Labs**

# CRADA –TARDEC TECHNOLOGY AREAS

## Cooperative Research And Development Agreement (CRADA) Program

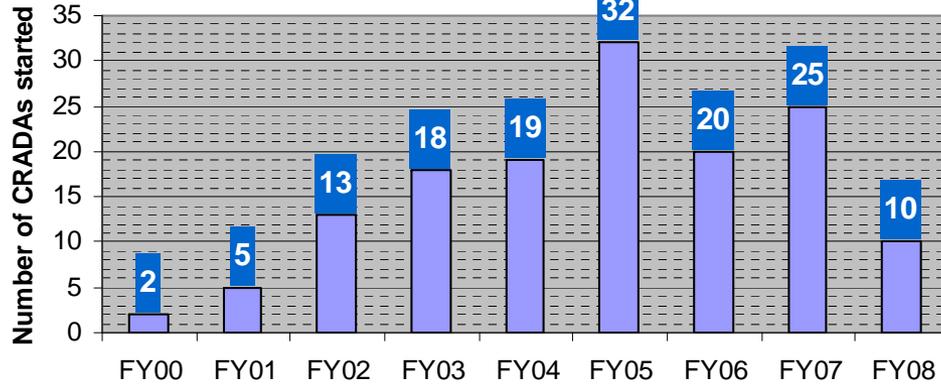


**CRADAs are established between Federal Laboratories and commercial, academic, or non-profit partners to facilitate technology transfer between the parties for mutual benefit.**

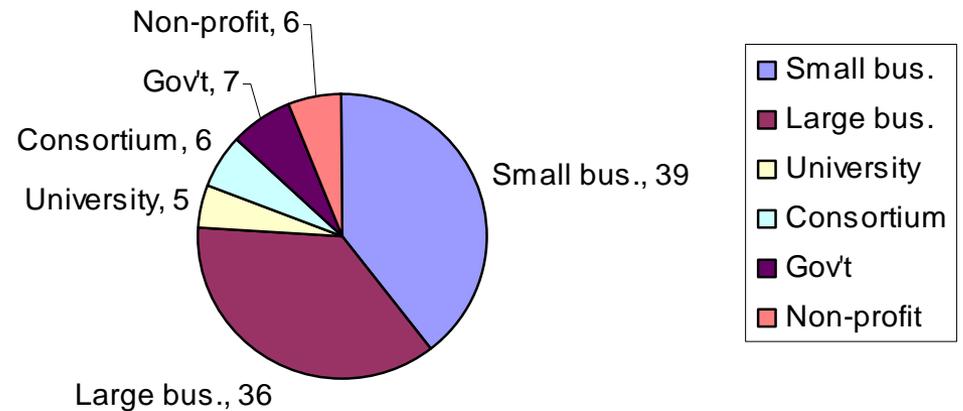
**92 Active TARDEC CRADA SOWs as of 4/11/08**

# TARDEC CRADA STATISTICS

## CRADA Starts by FY



## CRADA Partner Category



# CRADA/SBIR – TARDEC HOMEPAGE

**RDECOM**  
U.S. Army Research, Development and Engineering Command  
TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

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## National Automotive Center (NAC)

# NAC

Chartered by the Secretary of the Army 21 June 1993

**Mission**  
The Center will serve as the Army focal point for the development of dual-use automotive technologies and their application to military ground vehicles. It will focus on facilitating joint efforts between industry, government and academia in basic research, collaboration, technology, industrial base development and professional development.

**Introduction**  
The NAC, founded in 1993, is the DoD/Army focal point for collaborative ground vehicle research and development (R&D). The NAC, located at the Tank-automotive and Armaments Command (TACOM), is an integral part of the Army's Tank-Automotive Research, Development and Engineering Center (TARDEC). The NAC serves as a catalyst linking industry, academia and government agencies in the development and exchange of automotive technologies. The NAC leverages government, commercial industry and academia R&D investments, and initiates shared automotive technology programs. Its primary focus is to benefit current and future military ground vehicle systems through: performance improvements, service life extensions, and reduction in ground vehicle design/manufacturing/production/operation/support costs.

**Key Collaborative Mechanisms Used**  
The NAC employs several key mechanisms to leverage investments in automotive technology R&D and for initiating shared technology programs. These mechanisms include: Collaborative automotive technology contracts, Small Business Innovative Research (SBIR) contracts, Cooperative Research and Development Agreements (CRADA) and Cooperative Agreements. The NAC also sponsors an academic Center of Excellence for Automotive Research (Automotive Research Center).

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<http://tardec.army.mil/nac.asp>

TARDEC

# Points of Contact



## Mechanisms & Partnerships Team:

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## Unsolicited Proposals

E-Mail: [DAMI\\_Unsolicited.Proposals@conus.army.mil](mailto:DAMI_Unsolicited.Proposals@conus.army.mil)



# QUESTIONS?

