

Time	Topic	Briefer
7:45am	Doors Open/Registration	
8:00	Networking	
8:20	NAMC Welcome Remarks	Lia Lipar
8:25	Velocity Welcome Remarks	Paula MacPherson
8:30	Consulate of Italy in Detroit	Allegra Baistrocchi
8:45	The Michigan Manufacturing Technology Center	George Singos
9:00	GS Engineering SEKO Logistics Macomb Regional Apex Accelerator Automation Alley JEM Computers, Inc. NTL Industries Inc. ESPAS Inc. Triz MT, LLC - Military Technologies Congressman John James Office Chelton	Business Representatives
9:45	Closing & Networking	Lia Lipar
10:00	End of Program	

VELOCITY



NAMC

NATIONAL ADVANCED MOBILITY CONSORTIUM



NAMC

NATIONAL ADVANCED MOBILITY CONSORTIUM

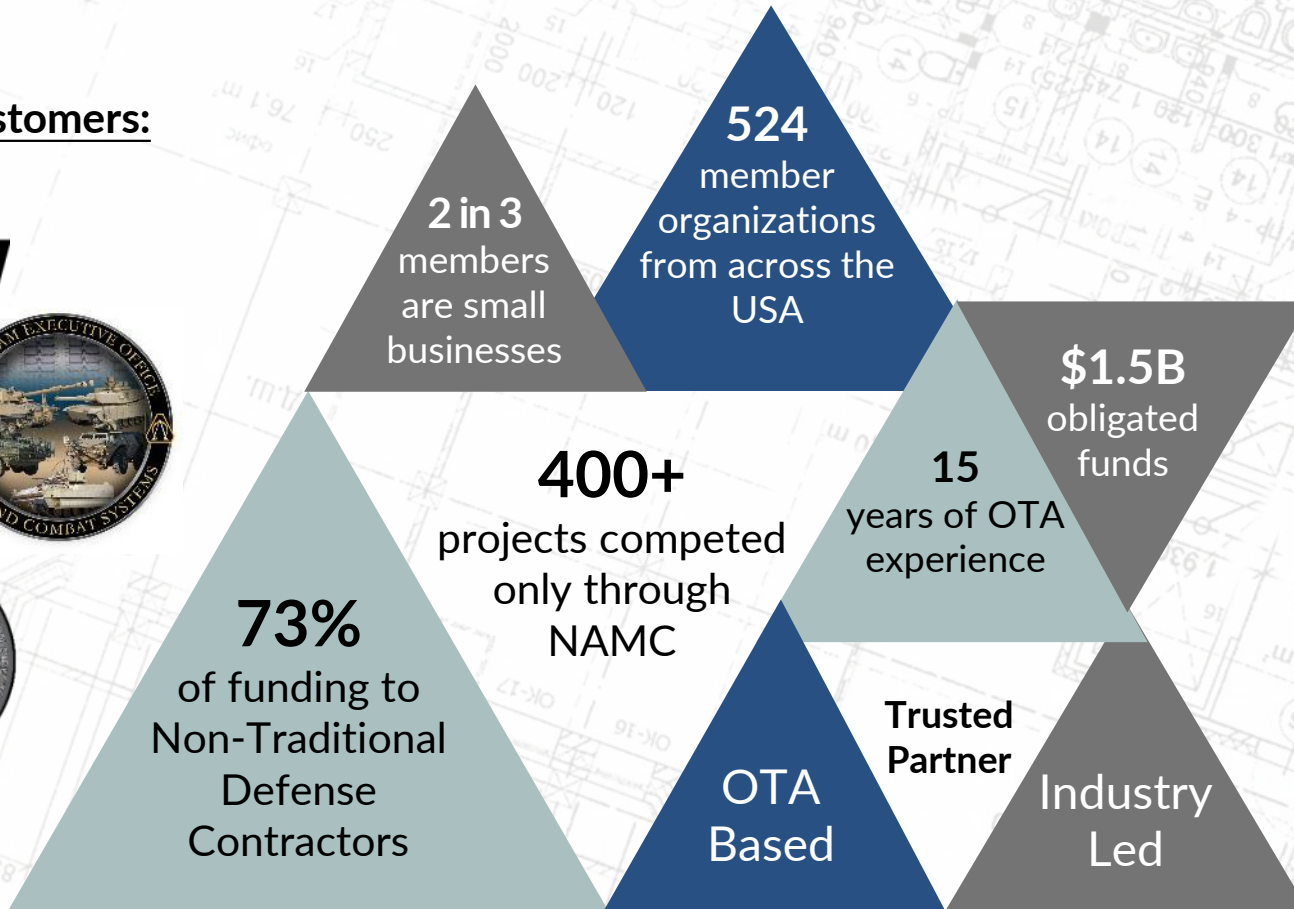
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The National Advanced Mobility Consortium (NAMC)

The National Advanced Mobility Consortium (NAMC) is a 501(c)(3) Non-Profit Corporation that is comprised of U.S. innovators dedicated to the development of ground manned and unmanned autonomy-enabled military technologies for the U.S. warfighter.

Primary Customers:



INNOVATION

Creative problem solving thru mission-focused, experienced, multi-functional staff



COLLABORATION

Lead collaboration efforts to embrace an ecosystem of experienced members



EDUCATION

Develop the industrial base to deliver best-fit capabilities meeting critical demands.

VELOCITY

INCUBATOR
ACCELERATOR
&
COWORKING SPACE

MIVELOCITY.COM





NATIONAL ADVANCED MOBILITY CONSORTIUM

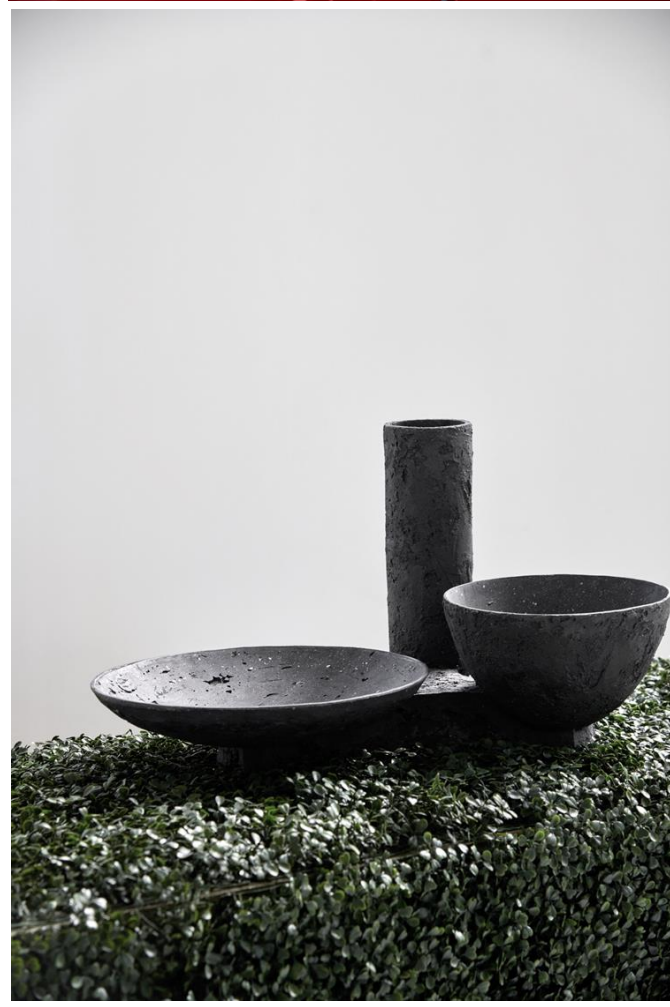
Consulate of Italy in Detroit

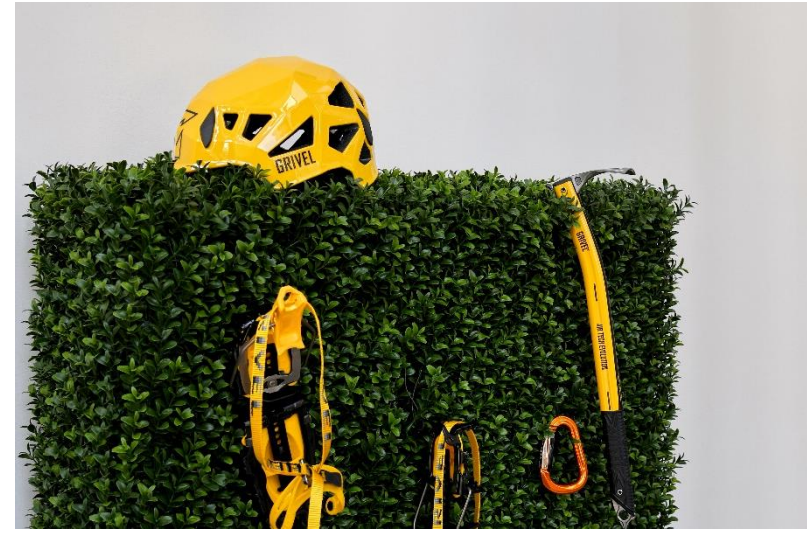
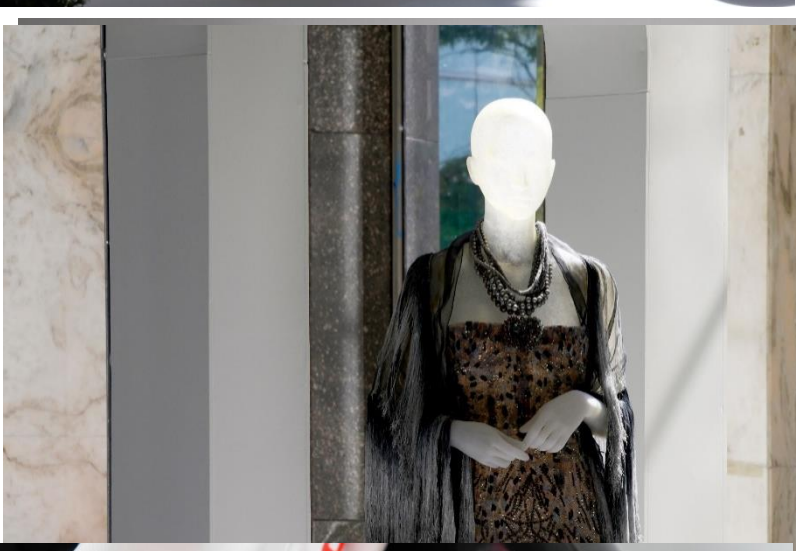
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Italian Innovation in Motion

A SNAPSHOT OF EUROPE'S THIRD
LARGEST ECONOMY, AND MAIN
EUROPEAN TRADING PARTNER OF THE
UNITED STATES







The Three F's

Fashion

Furniture

Food



Consolato d'Italia
Detroit

(Agri-) Food Sector

Innovation on the Table

- More than *3 times* the added value generated by the *automotive industry of France and Spain*
- More than *twice* the added value generated by the *aerospace of France, Germany and the UK* combined



Ferraris (Automotive Design)

Italian Roads to Global Success

- Ferrari: \$90 billion market value in 2024, Europe's top car manufacturer – Ferrari is ranked 5th globally
- Fiat: 1.2 million units sold worldwide in 2024, leading all Stellantis vehicles
- Italy has 14 active car manufacturers (vs. USA's 11)
- Legacy: Fiat (1899) predates USA's Cadillac (1902) as longest active car manufacturer.





Consolato d'Italia
Detroit

D I D Y O U K N O W . . .

Italy is the #1 pharmaceuticals producer in Europe?

Italy produces more than 50% of the world's superyachts? And circa 80% of all cruise ships?

Italy was the third country in the world to send a satellite into space

Italy is the country that is considered the #1 Cultural Influence in the World?



Italy is a lot more than that

- 8th economic power in the world
- 5th country in the world for manufacturing
- First country in Europe for investments by our companies in Research and Development
- Italy is a founding member of the:
 - European Union
 - Eurozone
 - OECD
 - G7, of which we had presidency in 2024
 - G20



Less than .5% of
the world – only
20% larger than
Michigan

Italy is a lot more than that

Due to its unique ability to combine tradition and innovation, Italy is also a world leader in numerous other sectors, such as:

- High-end Machinery
- Pharmaceutical
- Renewable Energy
- Aerospace





Italy is:

#3 in the world for specialization of space technologies

#4 in the world for exports of space vehicles, satellites, and launch pads

Machinery Automation and Components



Italy is one of the most automated countries in the world and is respected internationally for its quality production of machinery, components, and robots

Machinery is Italy's top export industry, accounting for a sizeable 18% of international trade

Italy is the #2 in EU and #4 global machine tool exporter



Machinery

b|Ties of excellence

With more than 5,000 companies Italy is a global leader in the supply machinery. We are #1 in Europe for number of Companies in the sector. How come? Because Italian production is well known around the world for its high technological standards and sales support. Machinery represents Italy's top export.

Italy



5th

**World exporter in
machinery**

Robotics

bItes of excellence

- Oversonic Robotics, that makes Cognitive humanoid robots able to work in industrial/medical environments;
- Alba Robotics, autonomous transportation devices for people and things;
- Comau, industrial automation products, systems and services for various industries;



Italy



6th



**World exporter
for industrial
exports**

Auto Parts and Components

b|Ties of excellence

One mission: to manufacture only the best and most reliable technologies. Italian excellence, dedication, and ingenuity keep bringing to life high-quality auto parts and components. With a selection of high- value materials and an esteemed production. With a selection of high- value materials and an esteemed production chain, the country's companies continuously reinforce Italian legacy of expertise and quality in the global market.

9th

**World exporter in
automobile sector**



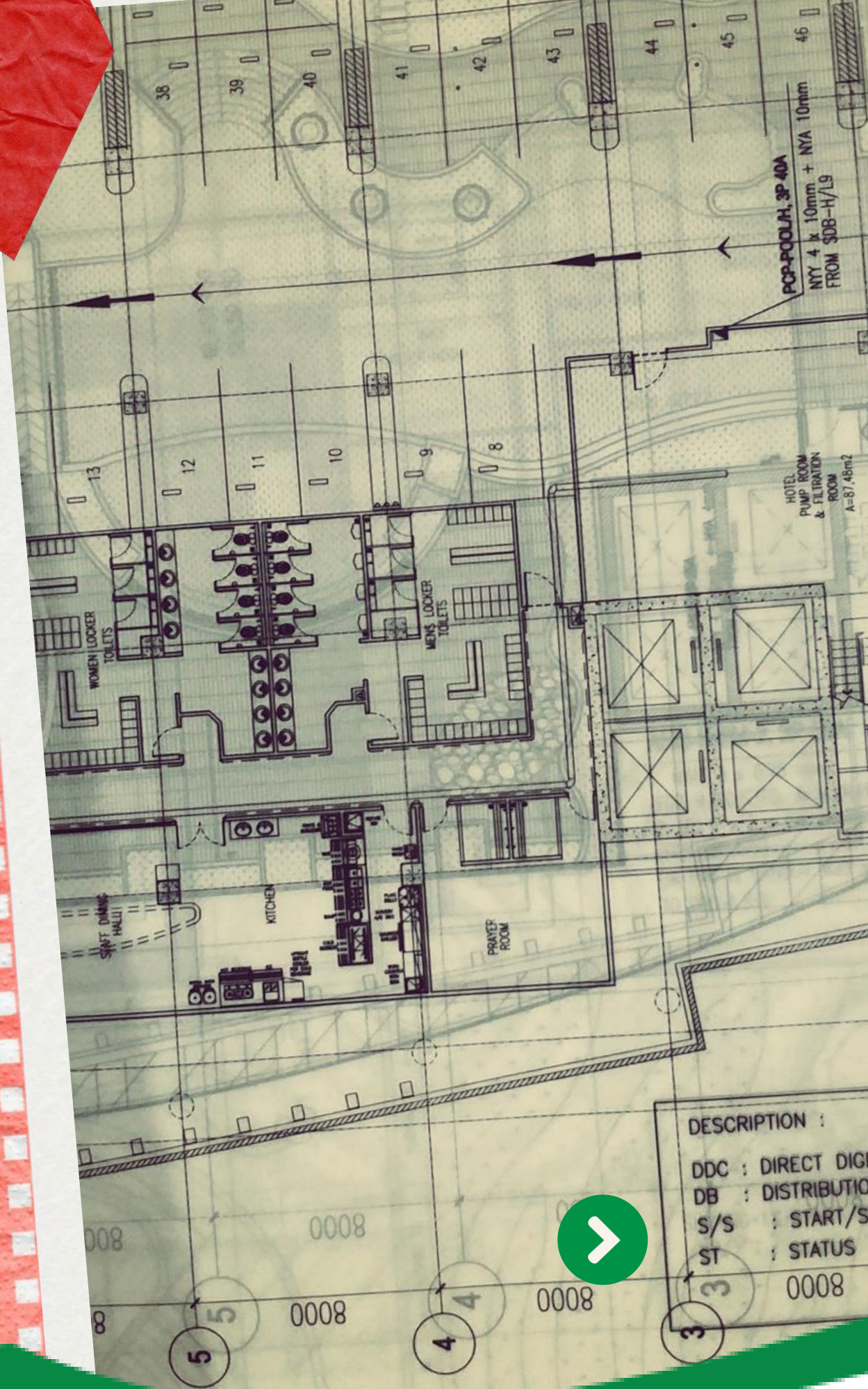
Engineering Components

blTes of excellence

Where do Italian professionals stand out for their expertise? You name it, you have it! The production of mechanical instruments and machinery components is a relevant field where Italy's numbers testify to the country's crucial role. In fact, Italy accounts for 80 billion euros of the world value of this sector. The strong export strategy allows for yearly growth.

9th

**World exporter of
metallic products**



Renewable Energy and Turbines

bITes of excellence

Choosing renewable energy is a matter of social and environmental responsibility. This is why Italy has opted to generate more than a third of its electricity from renewable sources: hydroelectric power has long been the most common, followed by solar photovoltaic, biofuel, wind power, and geothermal. In fact, Italy is a global leader in the field of renewable energy.



Engineering

bITes of excellence

Italy has always invested in engineering and specialized in a variety of fields, including territorial planning, transportation engineering, architecture, and urban planning, among others. Thanks to Italy's expertise in the field, it is recognized as one of the top three nations in the world for the number of firms and projects abroad.

Italy

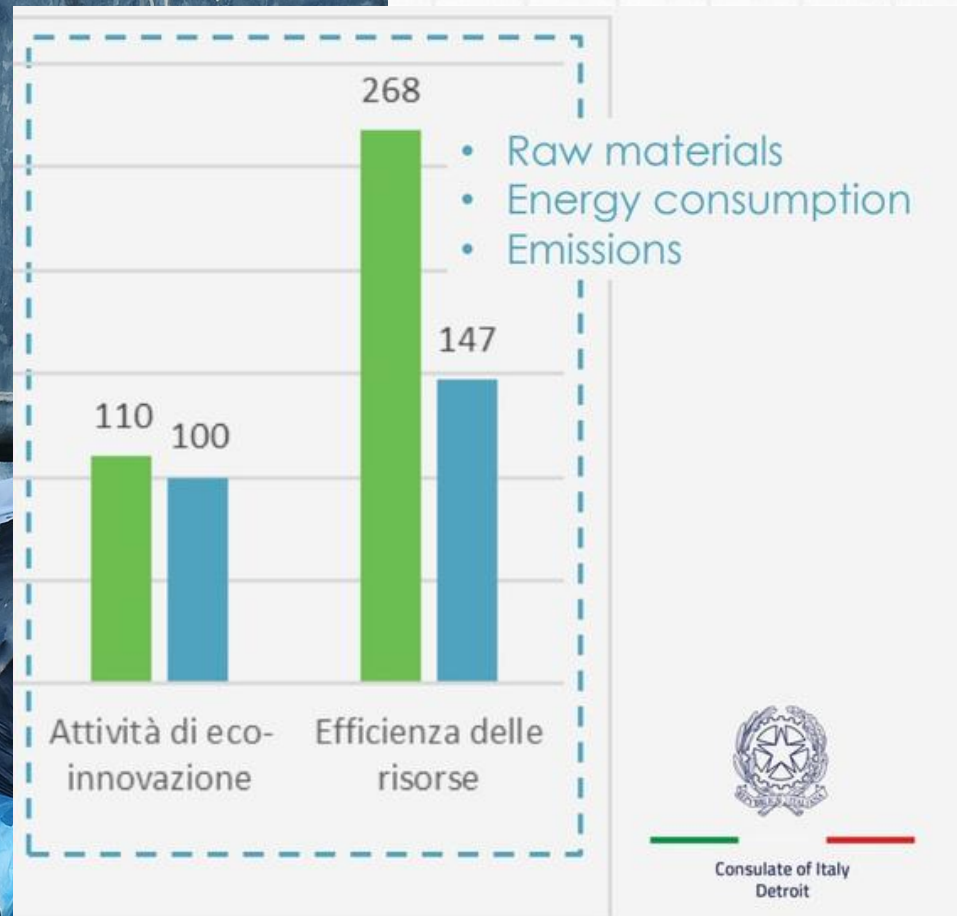


One of the top **three nations** in the world for the number of firms and projects abroad

Eco - facts

bItes of excellence

The European Union set the goal of recovering 65% of industrial and urban waste by 2025. Italy managed to already surpass it with an outstanding 83.4% saving millions of tons in equivalent oil. It is good for the climate and perfect to slim down the production process.



Italy is second in circular economy among the larger European countries

Italy is first in the EU for efficient use of resources index

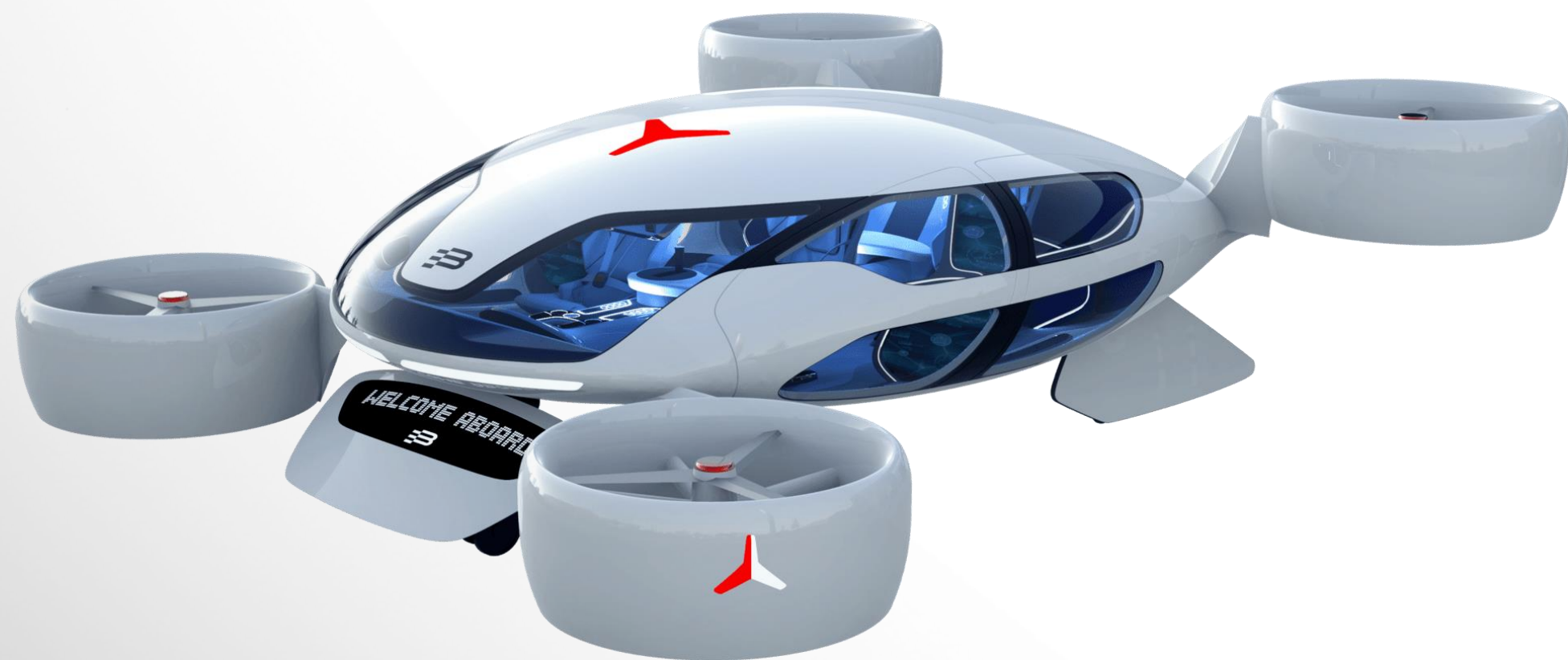
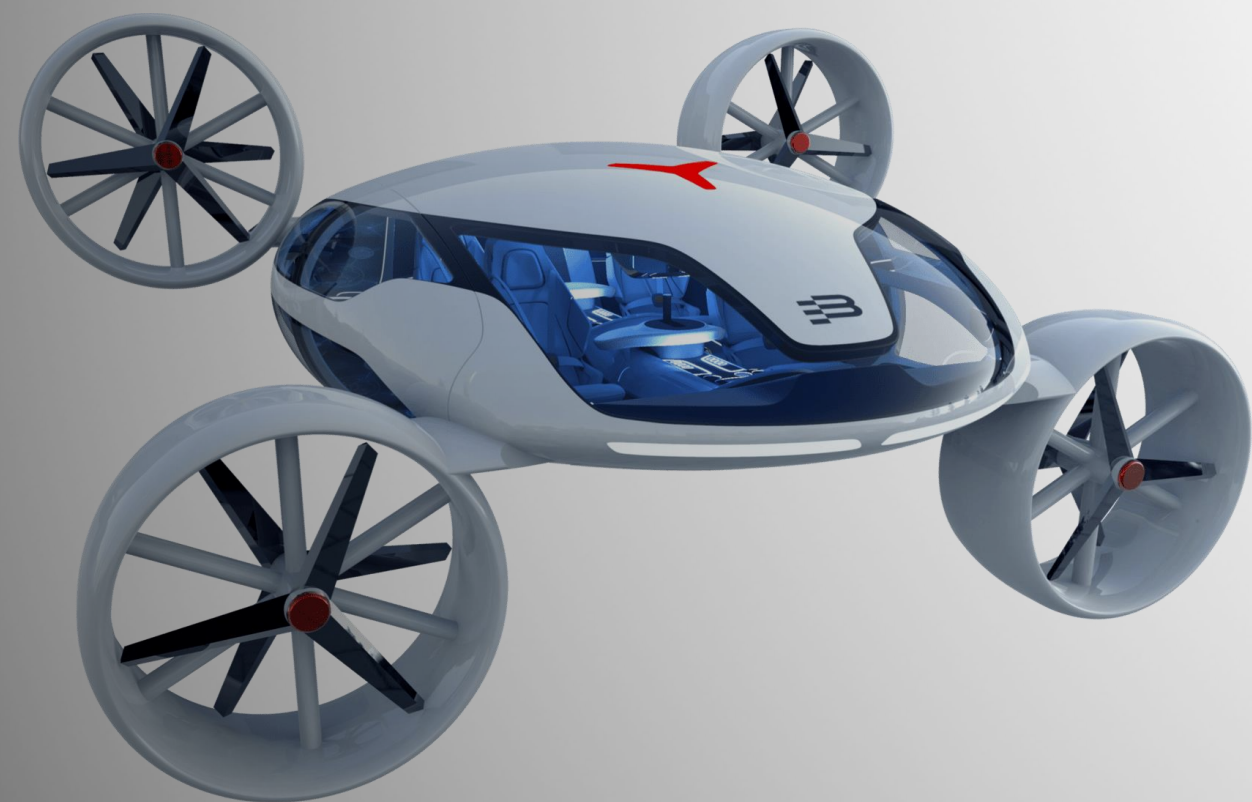
Engineering Excellence



- ItalDesign: Design meets engineering in iconic mobility solutions.
- Brembo: World-class braking systems, driving safety and performance.
- Marelli: Electrification and smart mobility tech.
- Persico: advanced manufacturing solutions for the automotive, marine, aerospace, and industrial sectors.
- Dallara: an engineering solutions and manufacturing company, sole manufacturer of racing cars for Indy, Nascar and Formula 2 & 3







2019
BARTINI
EVTOL

[<<< BACK TO CATEGORIES](#)



ITALDESIGN





dallara
USA





Aerospace Achievements



- Thales Alenia Space: Satellite technology and space station modules.



- Avio: European space propulsion and Vega launchers.



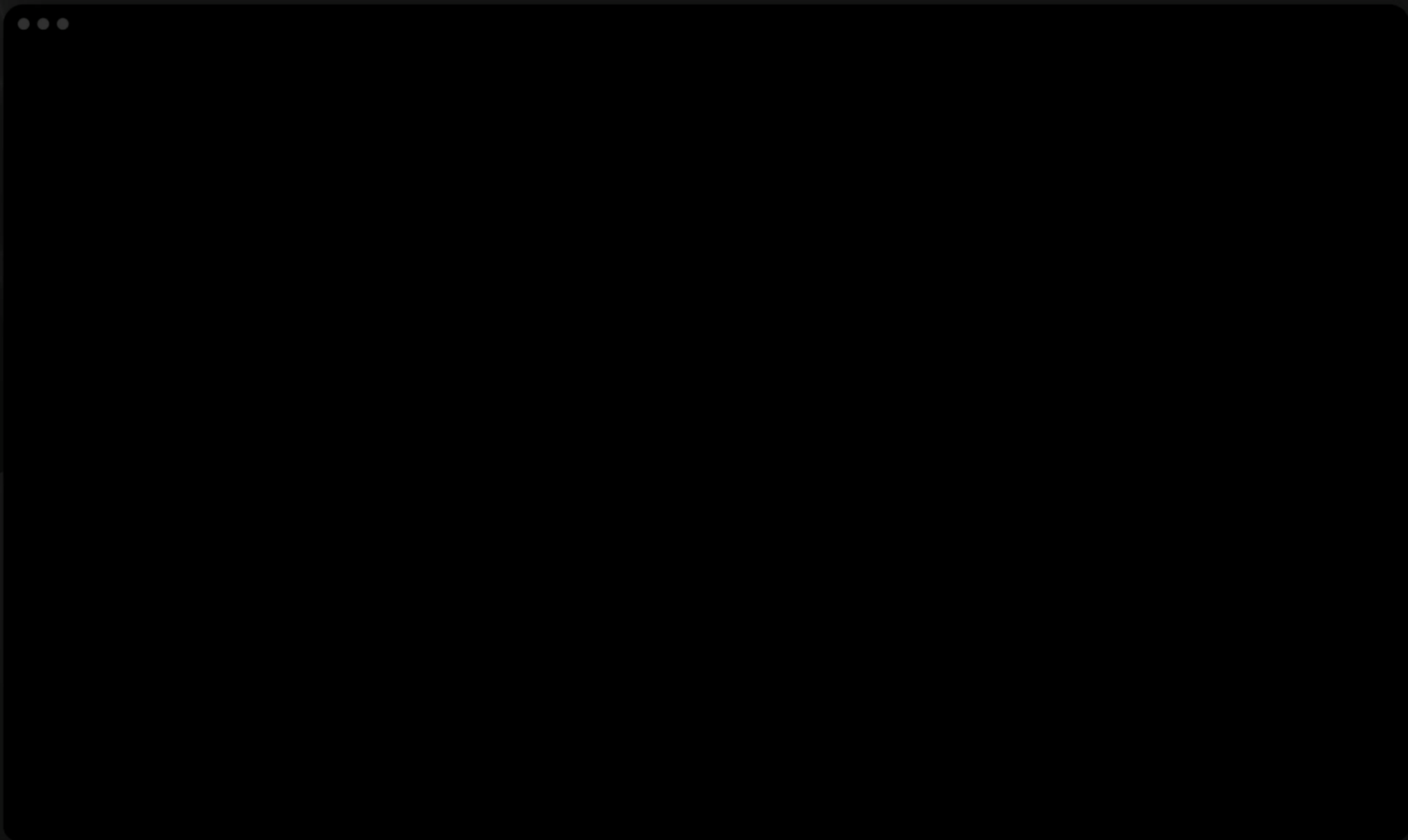
- Leonardo: Eurofighter Typhoon, helicopters, and satellite defense.

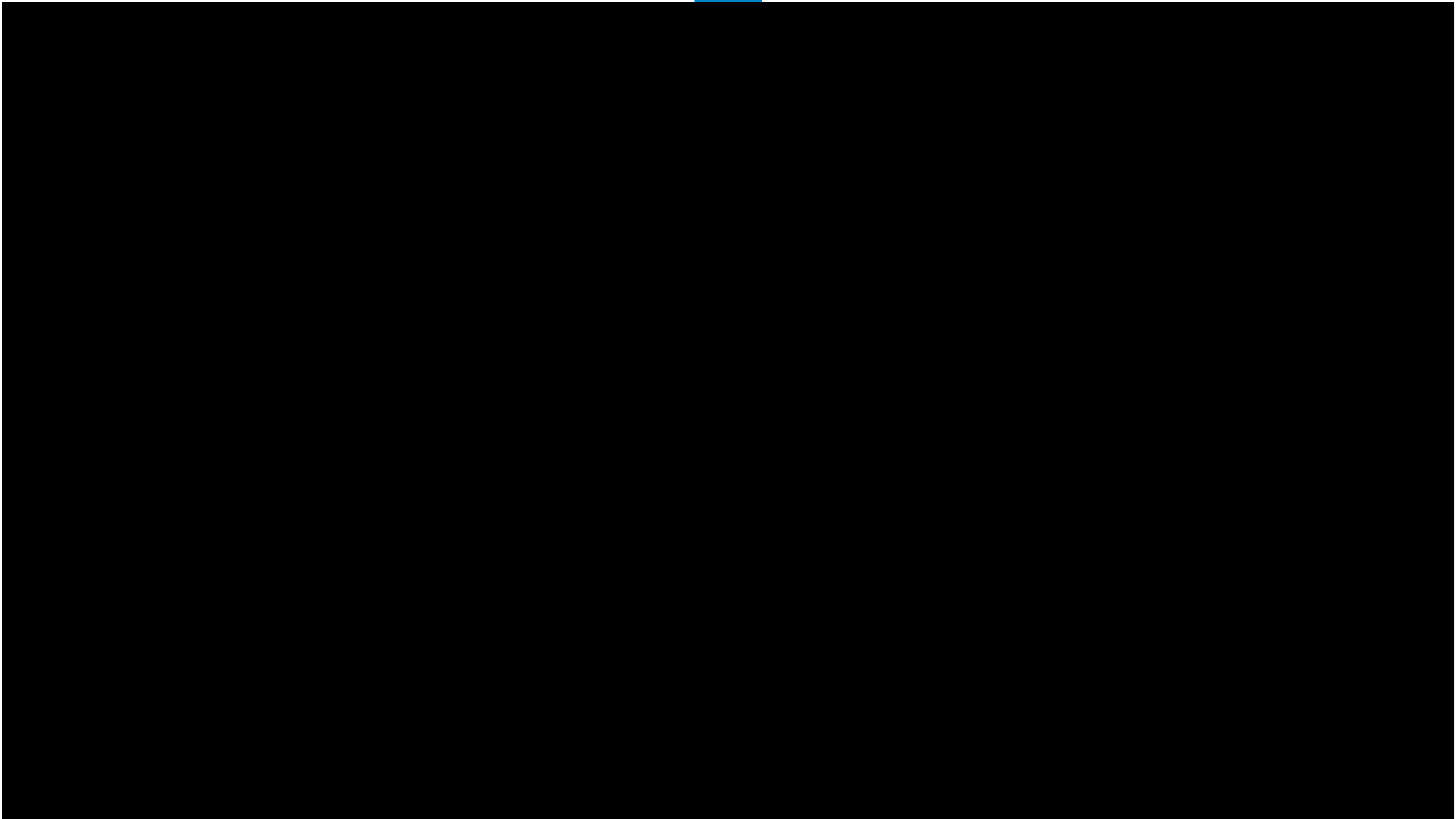


- Argotec: leading space technology company that designs, develops, and manufactures innovative solutions for the exploration and utilization of space.



- Wedoo: Digital Transformation Company designing custom digital solutions by combining technology & innovation + business acumen





FROM EARTH TO SPACE
PIEMONTE
IS LOOKING TO THE FUTURE



INFO

The Piemonte aerospace sector is the driving force
behind the remarkable journey to explore Space

Discover more about the technologies
developed by Piemonte companies and Thales Alenia Space

— 01
INTERNATIONAL
SPACE STATION
ISS

DISCOVER ISS 



— 02
GATEWAY
ARTEMIS PROGRAM

DISCOVER GATEWAY 



— 03
EUCLID
SATELLITE

DISCOVER EUCLID 



Defense Industry Leadership



- Fincantieri: Naval shipbuilding, now with advanced underwater systems.



- Beretta: A 500-year legacy in firearms manufacturing.



- Leonardo: Integrated defense systems, NATO contributions.

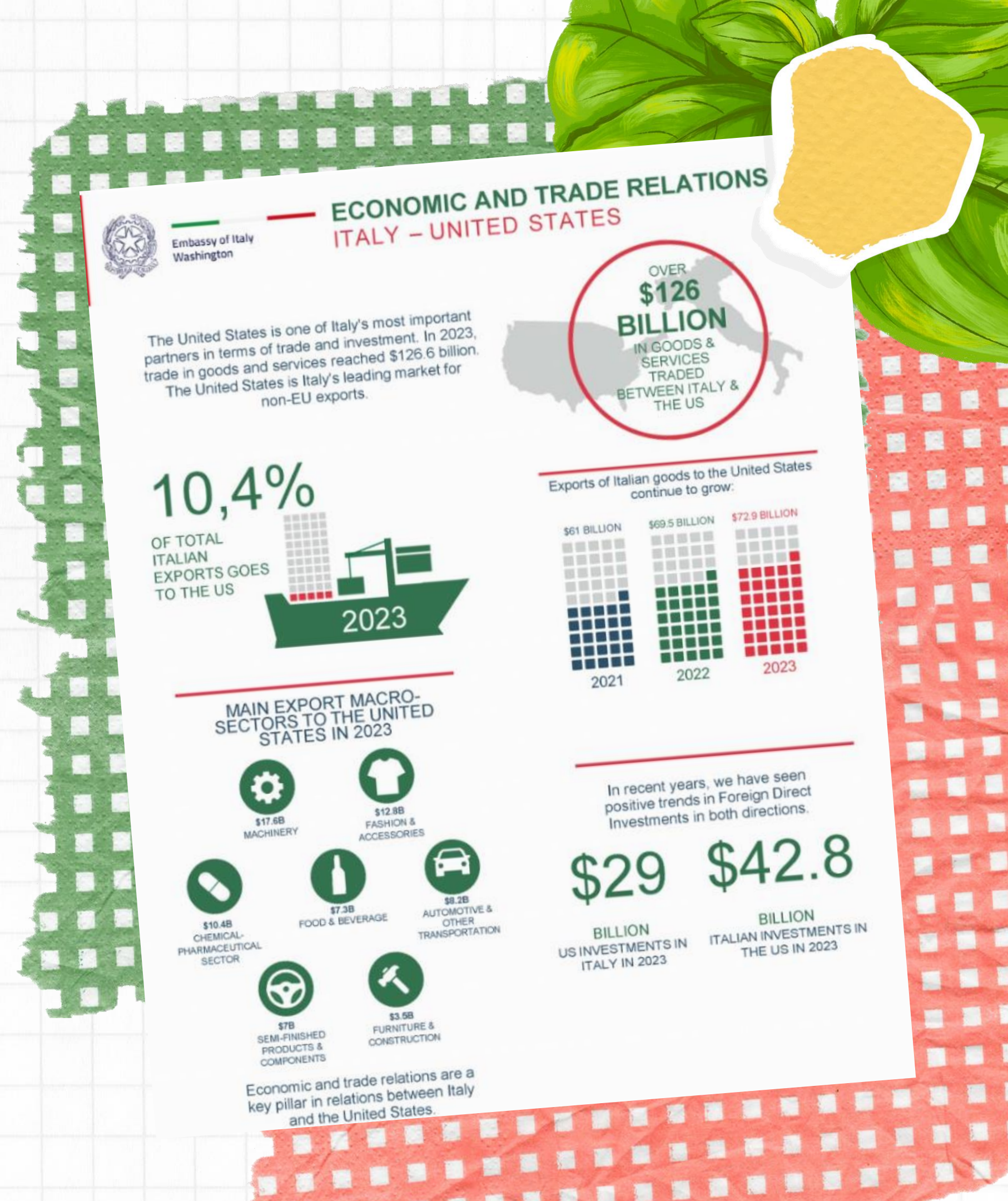
Trade Relations

For 2023: the goods and services traded between Italy and the US surpassed \$ 126.6 billion

The US is the Third trading partner of Italy overall
The United States is the #1 destination of Italian exports outside of the EU (\$74bn in 2024)

The flow of goods and services are growing in both directions

This is a perfect example of a win-win trade relationship





FDIS

- US investments into Italy =\$ 29 billion
- IT investments into USA =\$ 42.8 billion
- Creating also a significant number of jobs:
 - 260,000 Americans go to work in Italian-owned companies (turnover of \$144b)
 - 250,000 Italians go to work in American-owned companies

THANK YOU!

[HTTPS://CONSDETROIT.ESTERI.IT](https://consdetroit.esteri.it)

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INSTAGRAM: @ITALYINDETROIT





NATIONAL ADVANCED MOBILITY CONSORTIUM

The Michigan Manufacturing Technology Center

This Presentation is Unclassified

MICHIGAN

MANUFACTURING

TECHNOLOGY

CENTER



MANUFACTURING
EXTENSION
PARTNERSHIP

MICHIGAN MANUFACTURING TECHNOLOGY CENTER

BUILT ON A FOUNDATION OF PUTTING MANUFACTURING FIRST

AGENDA

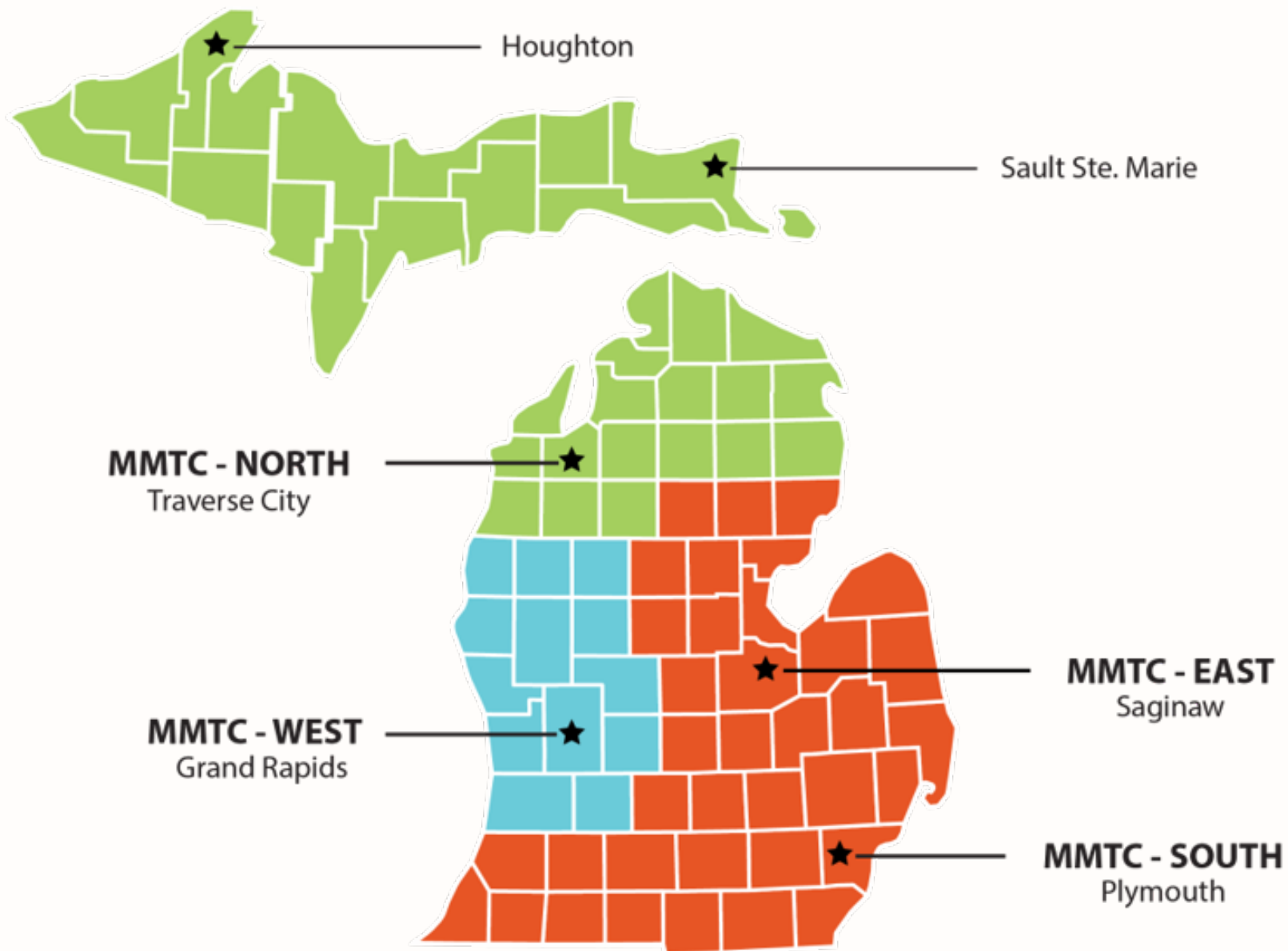
- ▶ INTRODUCTIONS
- ▶ MMTC OVERVIEW
- ▶ CLIENT ENGAGEMENT
- ▶ PARTNERSHIPS



MANUFACTURING
EXTENSION
PARTNERSHIP

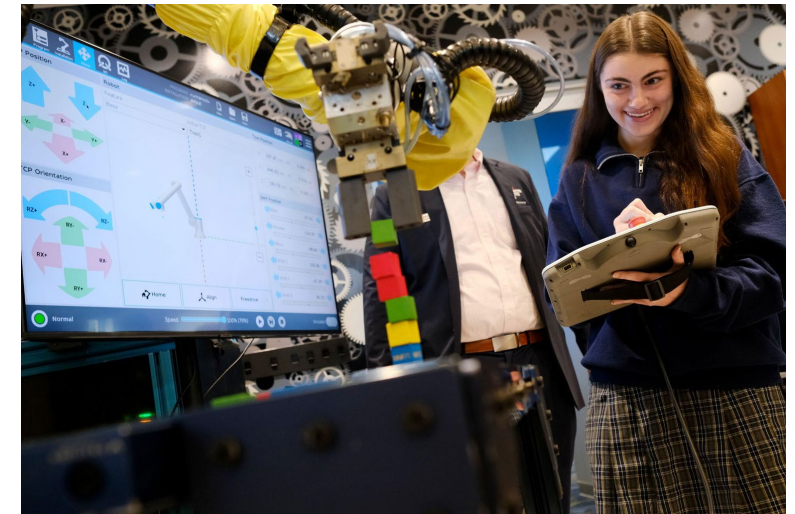
MMTC: COMMITTED TO MICHIGAN MANUFACTURING





MMTC Provides Valuable Support & Resources for Manufacturers & Stakeholders

- NIST MEP Center and Michigan's MEP National Network
- Supporting Small and Midsize manufacturers to compete and thrive



A FOUNDATION OF PUTTING MANUFACTURING FIRST.

During the past 12 months, **584** of our Michigan clients have seen...



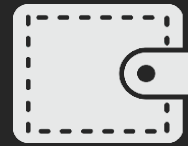
\$159M

Created Sales



\$449M

Retained Sales



\$29M

Cost Savings



4,949

New/Retained
Jobs



\$105M

Investments
Made

OUR SERVICES

Industry 4.0



ADVANCED MANUFACTURING TECHNOLOGIES



IMPROVING INFORMATION SECURITY THROUGH RISK MANAGEMENT



ENHANCED OPERATIONS MANAGEMENT



INTRODUCTION TO ADDITIVE MANUFACTURING



HUMAN MACHINE INTERACTION & DIGITAL PROCESS CONTROL



INTRODUCTION TO COLLABORATIVE ROBOTICS



OUR SERVICES

Leadership & Workforce



SUPERVISOR SKILLS 1-3



EMOTIONAL INTELLIGENCE



MANUFACTURING SKILLS
DEVELOPMENT



PROJECT MANAGEMENT
FUNDAMENTALS



FINANCE FOR THE
NON-FINANCIAL MANAGER



EMPLOYEE RETENTION
& ENGAGEMENT



OUR SERVICES

Lean Principles



5S TRAINING



EMOTIONAL INTELLIGENCE



PROBLEM SOLVING



LEAN MANUFACTURER TRAINING



6SIGMA BELTS
(Yellow, Green, & Black)









COST IDENTIFICATION & MANAGEMENT



OUR SERVICES

Lean Principles

-  SUPPLY CHAIN MANAGEMENT
-  TOTAL PRODUCTIVE MAINTENANCE
-  SUPPLY CHAIN MANAGEMENT
-  SET-UP REDUCTION (SMED/QCO)
-  VALUE STREAM MAPPING
-  LEAN OFFICE IMPROVEMENTS



OUR SERVICES

Quality Management



PROBLEM SOLVING



CORE TOOLS: APQP, PPAP, FMEA



AS / IATF INTERNAL AUDITING



CORE TOOLS: STATISTICAL PROCESS CONTROLS



LAYERED PROCESS AUDITING



CORE TOOLS: MEASUREMENT SYSTEM ANALYSIS



MICHIGAN

MANUFACTURING

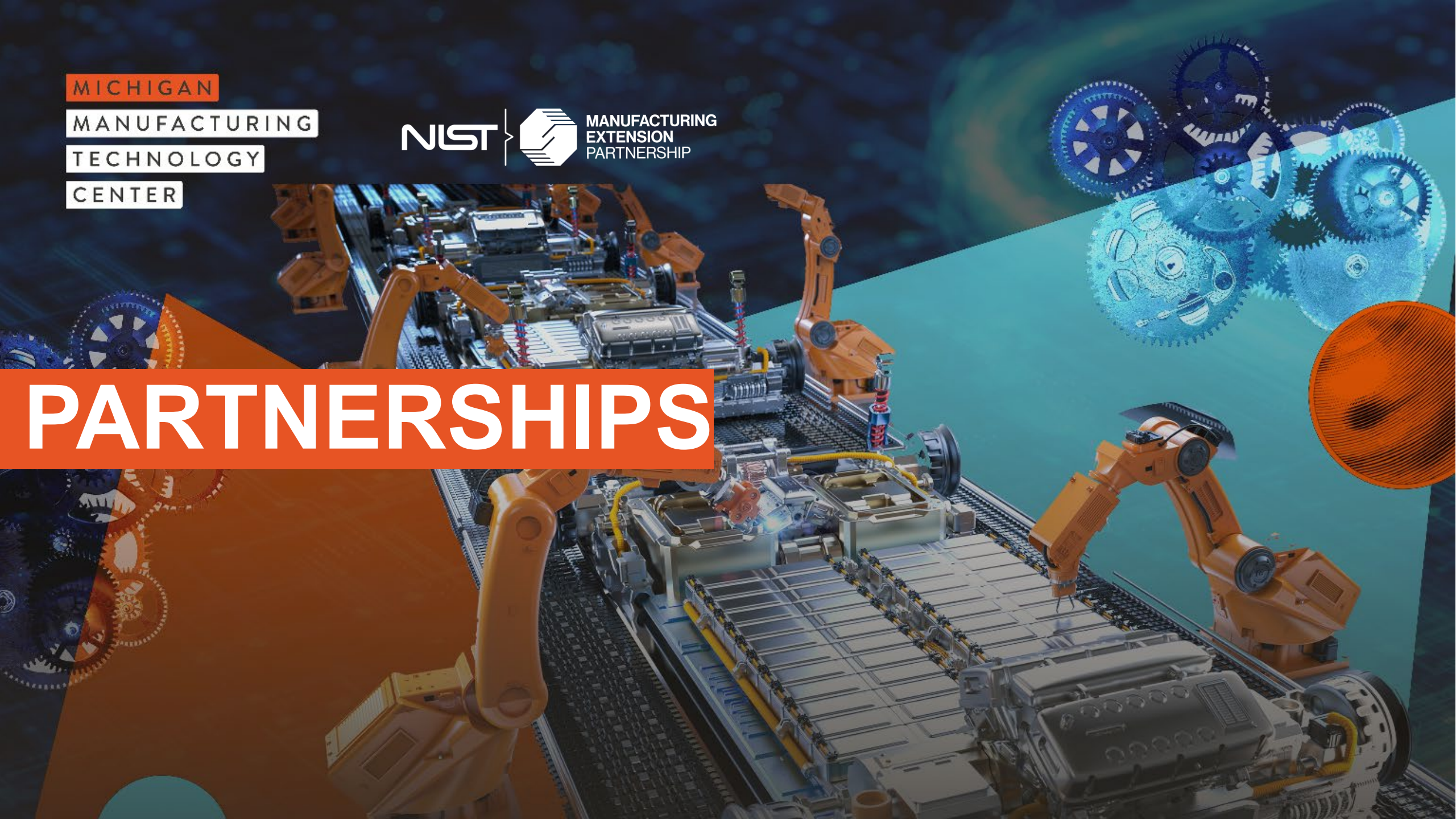
TECHNOLOGY

CENTER

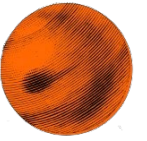


MANUFACTURING
EXTENSION
PARTNERSHIP

PARTNERSHIPS



U.S. ECONOMIC DEVELOPMENT ADMINISTRATION (EDA)



GLOBAL EPICENTER OF MOBILITY



- ▶ MMTC subrecipient of U-M EGI
- ▶ Support automotive SMMs pivoting from ICE to EV
- ▶ MMTC providing technical training and consulting services

MICHIGAN DEFENSE RESILIENCY CONSORTIUM



- ▶ MMTC subrecipient of U-M EGI
- ▶ Accelerate energy storage and battery manufacturing to support DoD's rapid transformation from ICE to EV
- ▶ MMTC providing technical assistance, technology acceleration, and workforce training initiatives

INDUSTRY 4.0 TECHNOLOGY OPPORTUNITY ASSESSMENT

- ▶ Evaluate manufacturer's technology adoption, lean principles, and quality systems to improve business performance and increase productivity
- ▶ Develop roadmaps for technology adoption, including ROI for capital investments

RE:MAKING MICHIGAN INNOVATION EXPOS

- ▶ Interactive exhibit aimed to prepare Michigan's SMMs for the future of manufacturing
- ▶ Raise awareness of the impacts of automation on future growth and long-term competitiveness
- ▶ Collaborating with universities and colleges to match manufacturers (potential employers) and students (potential employees) around the state

INDUSTRY 4.0 TECHNOLOGY IMPLEMENTATION GRANT

- ▶ Provides 50% reimbursement for I4.0 technology costs up to \$25,000
- ▶ Assist with needs assessment, manufacturing feasibility, and proof-of-concept (POC)



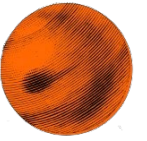
MICHIGAN DEPARTMENT OF LABOR & ECONOMIC OPPORTUNITY (LEO)



GOING PRO TALENT FUND (GPTF)

- ▶ Training that provides individuals with industry-recognized credentials and strong wages
- ▶ Aids employers in training, developing and retaining current and newly hired employees
- ▶ MMTC continues to serve Michigan's SMMs through the Going PRO Talent Fund (GPTF)
- ▶ 257 = # SMMs participating in 2024 GPTF Training & Consulting w/ MMTC
- ▶ 6,120 = # Individuals participating in 2024 GPTF Training & Consulting w/ MMTC

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)



SUPPLY CHAIN OPTIMIZATION INITIATIVE NETWORK (SCOIN)



- ▶ Map capabilities and interconnections within manufacturing supply chains
- ▶ Help organizations source domestic products and expand their capabilities
- ▶ Enhance resilience & reduce supply chain vulnerabilities for manufacturers
- ▶ Connect original equipment manufacturers (OEMs) with SMMs

CONNEX™ MICHIGAN



- ▶ Online supply chain and networking tool
- ▶ Scale-up and enhance the impact of supplier scouting services
- ▶ MMTC part of nationwide mission to connect manufacturers

SUPPORTING MICHIGAN'S DEFENSE INDUSTRY

- 
- ▶ **MEDC – DEFENSE & AEROSPACE INNOVATION:** Supports the growth of Michigan's defense and aerospace industry, increasing awareness of Michigan's capabilities and attracting businesses that support department of defense-related activities.
 - ▶ **NATIONAL DEFENSE INDUSTRIAL ASSOCIATION (NDIA):** The national defense industrial association is a trade association for the U.S. government and defense industrial base.
 - ▶ **WOMEN IN DEFENSE:** A non-profit organization dedicated to engaging, cultivating, and advancing women in all aspects of national security through networking, professional development, and career advancement.
 - ▶ **MICHIGAN AEROSPACE MANUFACTURERS ASSOCIATION (MAMA):** A member-supported organization that serves the interests of Michigan's aerospace and defense manufacturing firms with a unified voice, focusing on growing the state's aerospace industry through public-private partnerships and initiatives.
 - ▶ **AEROSPACE INDUSTRY ASSOCIATION OF MICHIGAN (AIAM):** AIAM is a platform for Michigan aerospace leaders to work together on a common set of priorities to strengthen and support the continued growth of the Michigan aerospace industry.

THANK YOU FOR JOINING US!

GEORGE SINGOS – gsingos@the-center.org
Business Solutions Manager – Macomb County
m (586) 747-5497



@manufacturinginmichigan



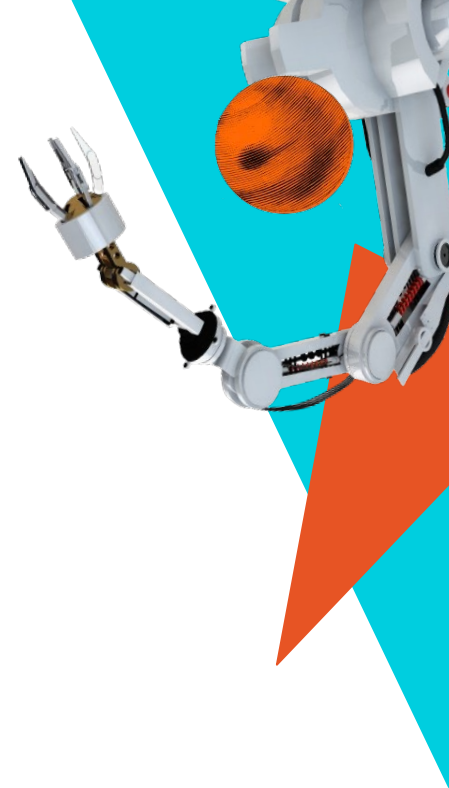
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Visit us at: www.the-center.org

MICHIGAN
MANUFACTURING
TECHNOLOGY
CENTER





NATIONAL ADVANCED MOBILITY CONSORTIUM

GS Engineering

This Presentation is Unclassified



**INNOVATION.
REALIZED.**



Who We Are

- Dedicated engineering professionals and leaders committed to solving complex problems in support of the Warfighter
 - Mechanical, electrical, systems, software, analysis product, program/project management
- Employee-owned small business, based in Houghton, MI
- Incorporated in 2001 under MTEC SmartZone program
- Successful history serving defense and commercial customers

United in Purpose.
Guided by Excellence.
Resolved to Succeed.

Our Values:

- We define sisu (grit).
- We solve tough problems.
- We adapt.
- We collaborate.
- We own it.



Capabilities Snapshot



- Platform development
- Tech insertion
- Lightweighting and structural optimization
- Obsolescence/reverse engineering
- Model-based systems engineering (MBSE)
- Modeling, simulation and analysis
- Immersive simulation
- Testing services and facilities

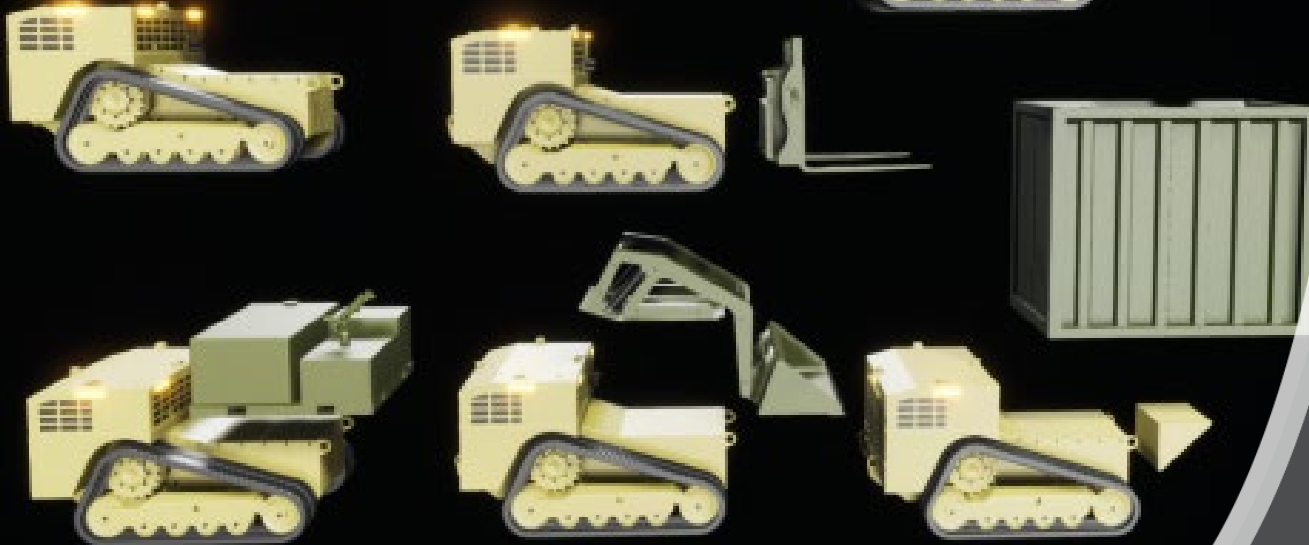
Turnkey Solutions Provider

Full Lifecycle Engineering:

- Requirements
- Initial concept
- Development through analysis
- Prototyping
- Testing
- LRIP and IDIQ production
- Project management:
 - Strategic planning
 - Resource allocation
 - Risk management
 - Stakeholder communication
 - Budget oversight
 - Quality assurance
 - Adaptability



Remote Expeditionary Autonomous Pioneer (REAPr) System



- Phase II SBIR physical prototype
- Digital engineering development approach
- Leveraged virtual prototyping in Unreal Engine
- Modular payloads enable adaptable capability – Universal Interlocking Baseplate
 - Gap defeat, exportable power, material handling, etc.
- Offloads human risk – Lead with attritable and autonomous-capable system
- Low cost and easily transportable



INNOVATION. REALIZED.

Thank you for your time!

GSENGINEERING.COM



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james.raab@gsengineering.com



NATIONAL ADVANCED MOBILITY CONSORTIUM

SEKO Logistics

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**GOVERNMENT
SPACE & DEFENSE**

YOUR TRUSTED
PARTNER FOR
**COMPLETE SUPPLY
CHAIN SOLUTIONS**

SEKOLOGISTICS.COM



A military helicopter, likely a Chinook, is shown in flight, hovering over a cargo area. The helicopter is green and has its landing gear down. Below it, there are several large metal cargo containers, some blue and some red. Several soldiers in camouflage uniforms are visible in the foreground, looking up at the helicopter. The background is a clear sky.

SAFELY DELIVERING CARGO TO THE **WORLD'S** **MOST SENSITIVE AREAS** WITH TOTAL **EXPORT** **COMPLIANCE**



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COMPLIANCE FIRST

Checked and vetted by our export compliance team, we only ever use approved carriers, subcontractors and secured warehouses - upholding the highest standards to become a trusted government approved logistics provider.

- ✓ **Customized CSOP's (client standard operating procedures)**
- ✓ **Denied Party Screening (OFAC) checks for all transactions**
- ✓ **ITAR, FCPA, and other internal training regimens for all parties touching shipments**



CERTIFIED TO HANDLE YOUR COMPLEX AND TIME-CRITICAL EQUIPMENT



- ✓ SCAC Codes: SEKW (FF Ground), SWOE (NVOCC), SKWE (FF Air), SWWB (Truck Broker), SQKW (Motor Carrier)
- ✓ FMC Licensed OTI & NVOCC (00483NF)
- ✓ FMC Compliance - Published Tariff for SWOE
- ✓ TSA Indirect Air Carrier (IAC)
- ✓ DOT FMCSA MC# 486602, DOT# 2232266,
- ✓ Freight Forwarder of Property (FF-7839-P), Carrier
- ✓ DOT Hazardous Materials Certificate of Registration
- ✓ SEKO Worldwide, LLC CTPAT Member Since 2004
- ✓ *AEO Certified (United Kingdom, Ireland, Netherlands, Denmark, France, South Korea)
- ✓ *DDTC "K" & "M" Registered with Department of State
- ✓ *DoD External Certificate Authority (ECA)
- ✓ *Surface Deployment and Distribution Command (SDDC)
- ✓ *Electronic Transportation Acquisition



SPECIALIZED IS WHERE WE THRIVE

For all goods subject to strict export and import controls, we can ensure a seamless end-to-end process - no matter how sensitive your shipment or challenging the destination.

- ✓ ITAR/EAR
- ✓ Ammunition and explosives (all classes of DG)
- ✓ Medical supplies
- ✓ Vehicles / Rolling stock
- ✓ Refrigerated cargo
- ✓ Classified materials
- ✓ HWH (high wide heavy) or OOG (out of gauge) cargo
- ✓ All Modes – 24/7



PROJECT CARGO



Unique, oversized shipments that require special handling are overseen by our Project Cargo group. Many of our global offices are specifically trained and equipped to move your largest assets, safely and reliably, nearly anywhere in the world.

TRUSTED BY THE LEADERS IN GOVERNMENT, SPACE & DEFENSE



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A worker wearing a dark cap, a high-visibility vest, and blue gloves is using a handheld device to scan a wooden crate. The crate has a label with 'BUI' and a barcode, and two red arrows pointing upwards. A clipboard with a document is also visible on the crate. The background shows a warehouse setting with wooden crates and a red diagonal graphic element on the right.

OFFERING THE FULL PACKAGE

Adhering to the strictest requirements when shipping your sensitive and high-tech equipment, our military spec crating and packaging is entirely fit for purpose.

Warehousing, Barcoding, WMS, ITV - in transit visibility, and other 3PL options are available as value added services



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OFFERING **GREATER COVERAGE THAN**
ANY OTHER LOGISTICS PROVIDER

150+ OFFICES
ACROSS **60+** COUNTRIES

**PRIMARY
LOGISTICS HUBS**

NORTH AMERICA

ATLANTA
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LOS ANGELES
NEW JERSEY
TORONTO

EUROPE

AMSTERDAM
DUBLIN
MILTON KEYNES
PARIS

ASIA & OCEANIA

BANGLADESH
HONG KONG
SHANGHAI
SYDNEY
TOKYO

 SEKO PRIMARY LOGISTICS HUB

 GSD CENTERS OF EXCELLENCE

 SEKO LOCATION

 AGENT LOCATION



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15 PRIMARY HUBS
OVER **5M SQ FT**
WORLDWIDE

SEKO LOGISTICS SCHIPOL AIRPORT

DC Security

- Class 4 secured warehouse
- Fence around the entire premises of SEKO warehouse
- Camera surveillance system (360° HD cameras)
- Alarm system and sprinkler system
- Infrared burglary detection system
- Registered entry only through electronic pass system
- Screened personnel

Certifications

- Class 4 AEO Certified and IATA Registered
- ISO 13485
- GDPR Compliant
- Building is BREEAM Certified



DC Security





DELIVER SENSITIVE
SHIPMENTS **ANY TIME,**
ANYWHERE



GAIN ENTRY INTO THE
MOST CHALLENGING
ENVIRONMENTS



NAVIGATE CUSTOMS
AND COMPLIANCE
THROUGH IN-HOUSE
EXPERTISE


WHY CHOOSE SEKO?



ACCESS A GLOBAL
NETWORK OF **VETTED**
CARRIERS AND
WAREHOUSES



SPECIALIST SHIPPING
OF AMMUNITION &
EXPLOSIVES



TRACK YOUR
TIME-SENSITIVE
ASSETS, MOVING
AROUND THE GLOBE



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THINK SPECIALIST. THINK SEKO.

To start your journey with us, connect with government@sekologistics.com today



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NATIONAL ADVANCED MOBILITY CONSORTIUM

Macomb Regional APEX Accelerator

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June 10, 2025

APEX Accelerator

Maureen Miller

Procurement Specialist

Macomb Regional APEX Accelerator

APEX ACCELERATORS
OFFICE OF SMALL BUSINESS PROGRAMS
U.S. DEPARTMENT OF DEFENSE

APEX Accelerator Program Overview

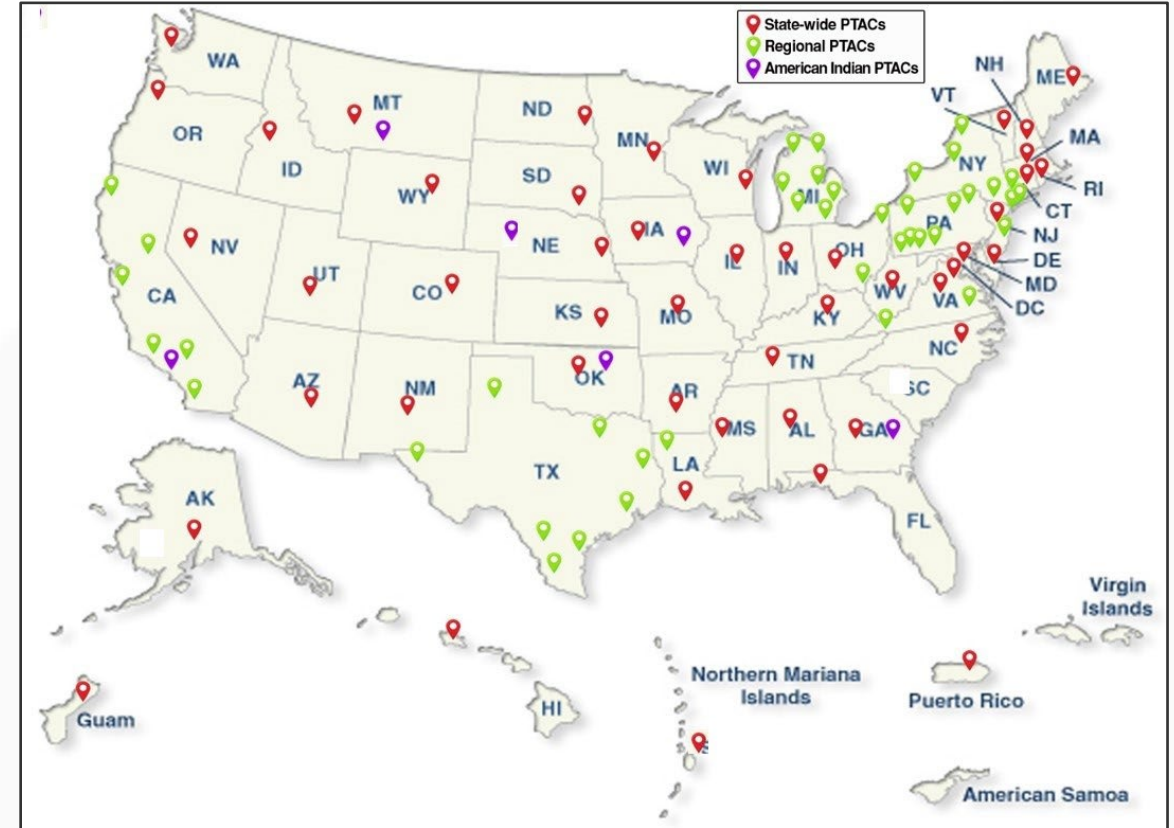
Important Facts About APEX Accelerators

Program established by DOD in 1985 with the goal to:

- Increase the number of small businesses capable of selling to the government.
- Create a Diverse Supplier Base = Increased Competition = Better Value to Taxpayer
- Provide education and training to ensure that all businesses become capable of participating in federal, state, and local government contracts.
- Assist businesses with selling their products and services to local, state, and federal units of government, public universities and hospitals, and to companies that are part of the government supply chain (primes and subcontractors)
- **Grant funded and most APEX services are provided at no cost.**

APEX Accelerators - Nationally

- 97 APEX Accelerators in 300 office locations across the U.S. and U.S. Territories.
- **APEX Accelerators Success**
(Jan 1, 2023 – Mar 31, 2024 statistics provided by OSBP)
 - New Businesses Served: 28K
 - Contracts awarded: \$99B
 - Training Events: 5,845
 - ROI: \$1,814 (for every federal dollar invested)
- To locate the APEX Accelerator that serves your area: <https://www.apexaccelerators.us/#/>

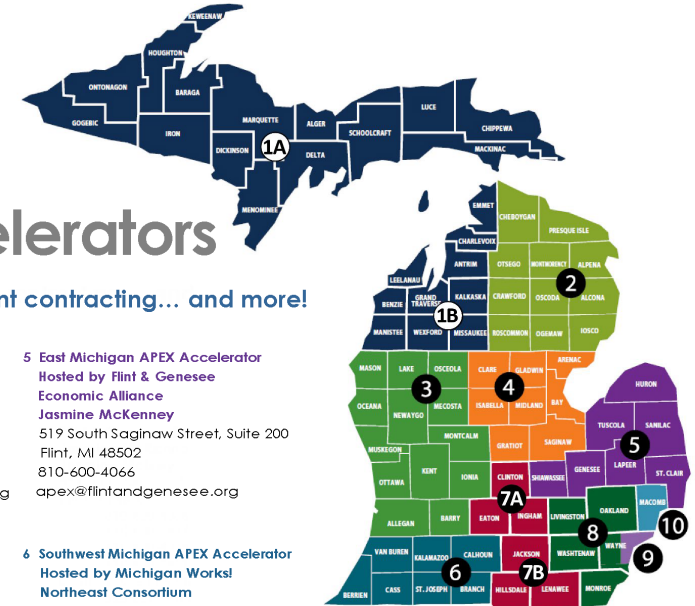


Michigan APEX Accelerators

- Funded by Department of Defense & the Michigan Economic Development Corporation (MEDC) to educate and assist businesses in **government** contracting.
- APEX Accelerator *Regional Programs* in Michigan: 8
- APEX Accelerator *Center locations* in Michigan: 13
- Michigan businesses find your APEX Accelerator: <https://www.miapex.org/>

Michigan Alliance of APEX Accelerators

Your first step to government contracting... and more!



1 (A) Northwest Michigan APEX Accelerator
Hosted by Networks Northwest
Upper Peninsula Office
Cathy Fairbanks
101 W. Washington St, Suite 13
Marquette, MI 49855
231-929-5036
apexaccelerator@networks-northwest.org

5 East Michigan APEX Accelerator
Hosted by Flint & Genesee
Economic Alliance
Jasmine McKenney
519 South Saginaw Street, Suite 200
Flint, MI 48502
810-600-4066
apex@flintandgenesee.org

(B) Northwest Michigan APEX Accelerator
Hosted by Networks Northwest
Cathy Fairbanks
600 East Front Street, Suite 205
Traverse City, MI 49686
231-929-5036
apexaccelerator@networks-northwest.org

6 Southwest Michigan APEX Accelerator
Hosted by Michigan Works!
Northeast Consortium
Kim Bournier
4717 Campus Drive
Kalamazoo, MI 49008
269-491-6585

2 Northeast Michigan APEX Accelerator
Hosted by Michigan Works!
Northeast Consortium
Tammy Moore
20709 State Street
Onaway, MI 49765
989-733-8540
apexaccelerator@nemcworks.org

7 (A) South Central Michigan APEX Accelerator
Hosted by the Enterprise Group of Jackson
Lansing Area Office
Mike Hindenach
500 East Michigan, Suite 200
Lansing, MI 48912
517-788-4680
mhindenach@enterprisegroup.org

9 Wayne State University APEX Accelerator
Hosted by Wayne State University
Abby L. Cheatham
5057 Woodward Avenue
Suite 3101
Detroit, MI 48202
313-577-0132
apex@wayne.edu

3 West Michigan APEX Accelerator
Hosted by Greater Muskegon
Economic Development
Kelsey Rhoda
380 West Western Avenue
Suite 202
Muskegon, MI 49440
231-722-7700
krhoda@westmiapex.org

(B) South Central Michigan APEX Accelerator
Hosted by the Enterprise Group of Jackson
Jackson Office
Mike Hindenach
One Jackson Square
Suite 1100
Jackson, MI 49201
517-788-4680
mhindenach@enterprisegroup.org

10 Macomb Regional APEX Accelerator
Hosted by Macomb Community College
Kathleen Stockman
43701 University Drive
University Center Building 3 (UC3), #107
Clinton Twp, MI 48038
586-498-4122
apex@macomb.edu

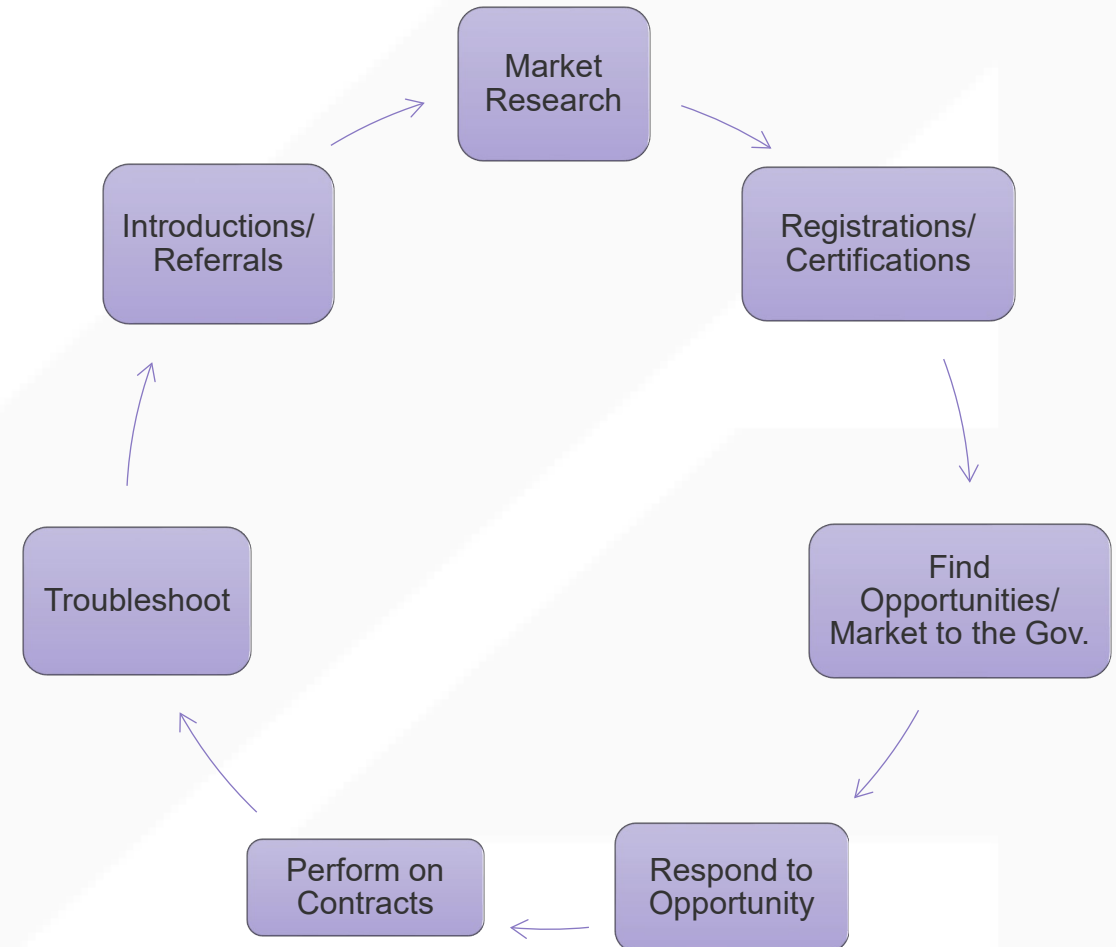
4 Saginaw Future APEX Accelerator
Hosted by Saginaw Future, Inc
Delena Spates-Allen
515 North Washington, Suite 300
Saginaw, MI 48607
989-757-2105
apex@saginawfuture.com

8 Schoolcraft College APEX Accelerator
Hosted by Schoolcraft College
Olga Martinez
18600 Haggerty Road
Livonia, MI 48152
734-462-4438
apex@schoolcraft.edu

What APEX Accelerators do!

Help businesses

- Complete registration with a wide range of databases necessary for them to participate in the government marketplace (e.g., SAM).
- Identify which agencies and offices may need their products or services and how connect with buying agencies and offices.
- Determine whether they are ready for government opportunities and how to position themselves to succeed.
- Develop government specific marketing material (ex. Capability Statement).
- Navigate solicitations and potential funding opportunities.
- Receive notifications of government contract opportunities on a regular basis (free bid match).
- Network with buying officers, prime contractors, and other businesses.
- Resolve performance issues and prepare for audit, only if the service is needed, after receiving an award.



Emphasis on DOD Initiatives

- Increasing the number of Defense Industrial Base (DIB) - ready and Government Industrial Base (GIB) - ready, including local and state governments - ready businesses.
- Increasing awareness & compliance with Foreign Ownership, Control, or Influence (FOCI).
- Improving Cybersecurity (NIST 800-171 & CMMC 2.0) of the DIB and GIB.
- Connecting innovative businesses to Government Innovation Programs (GIPs) such as SBIR, STTR, Science and Technology, and Challenge Programs.
- Supporting the Defense Production Act (DPA) Title III activities.

Learn more and Find APEX Accelerator Centers

Michigan Alliance of APEX Accelerators

<https://www.miapex.org/>

Department of Defense APEX Accelerators

<https://www.apexaccelerators.us/#/>

National APEX Accelerator Alliance

<https://www.napex.us/>



Questions?



Maureen Miller

Procurement Specialist

Macomb Regional APEX Accelerator

APEX ACCELERATORS

OFFICE OF SMALL BUSINESS PROGRAMS

U.S. DEPARTMENT OF DEFENSE



millerm266@macomb.edu



<https://www.macomb.edu/business/APEX>



NATIONAL ADVANCED MOBILITY CONSORTIUM

Automation Alley

This Presentation is Unclassified

Automation Alley & Project Diamond Overview



Automation Alley

Pete DiSante
Project Manager, Defense
disantep@automationalley.com

Automation Alley is a nonprofit **Digital Transformation Insight Center** and the World Economic Forum's **US Center for Advanced Manufacturing**.

With a global outlook and a regional focus, we facilitate public-private partnerships by connecting **manufacturers, tech companies, professional services, academia** and **government** to take on the latest **trends and challenges in industry**.

We do this through **Automation Alley Memberships** that allow organizations to connect in the spirit of collaboration on industry-wide issues. An **Essential Membership** with **Automation Alley** is **FREE** for small manufacturers.

Our Brands and Missions

Automation Alley – Overarching leadership among all entities, facilitates events, provides membership opportunities, provides the Digital Transformation Insight Center’s bank of knowledge in industry.

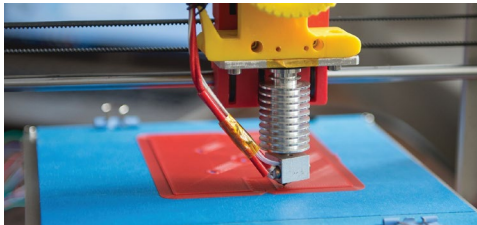
Integr8 – A year-long Automation Alley series that calls to action all members to discuss key issues in manufacturing, synthesizing a monthly Integr8 Playbook on a topic, and hosting an annual Integr8 Summit.

Project DIAMOnD – An initiative in partnership with Oakland County to create a software-driven distributed manufacturing network of 3D printers in Metro Detroit as well as a center for all manufacturers to access additive manufacturing technology.

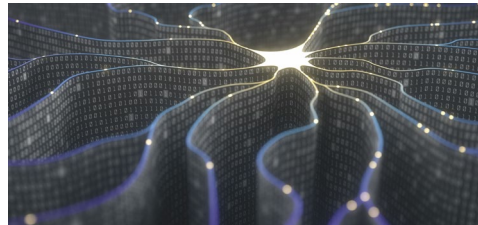
US Center for Advanced Manufacturing – Nationally focused organization committed to addressing innovation, sustainability, upskilling the workforce, and cybersecurity across the U.S.



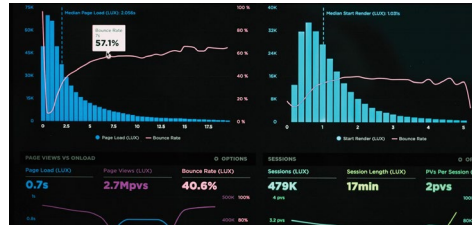
The convergence of physical and digital technologies on the factory floor.



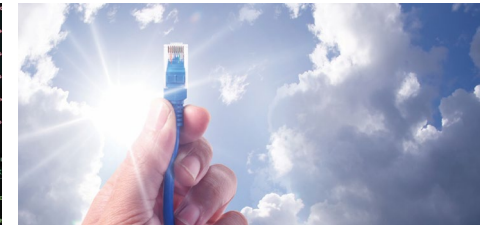
Additive
Manufacturing



Artificial Intelligence



Big Data



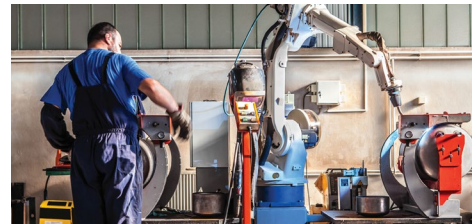
Cloud Computing



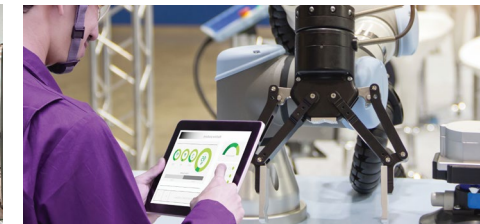
Cybersecurity



Modeling, Simulation,
Visualization &
Immersion



Robotics



Industrial Internet
of Things



Our Programs & Services

- Project DIAMOnD
- International Trade Missions
- International Business Center
- Integr8 Roundtable Series and Summit
- Integr8 Playbooks
- State-wide roundtable series for small manufacturers
- Cybersecurity Grant participation
- US Center for Advanced Manufacturing Events
- US Center for Advanced Manufacturing State of US Manufacturing Report
- Thought leadership at automationalley.com

INTEGR8 2025 PLAYBOOKS



Additive Manufacturing at the Tipping Point



Staying Ahead: Securing Industry From Cyber Threats



Boosting Productivity in the AI Frontier

ARTICLES



How Additive Manufacturing Will Help Industries Navigate New Economic and Geopolitical Realities in 2025



SME Accelerates Additive.



Additive Manufacturing at a Crossroads: Navigating Opportunity, Risk, and the Road Ahead



Key Takeaways – AM

<https://integr8series.com/integr8-2025-playbooks>

P R O J E C T
D I A M O N D

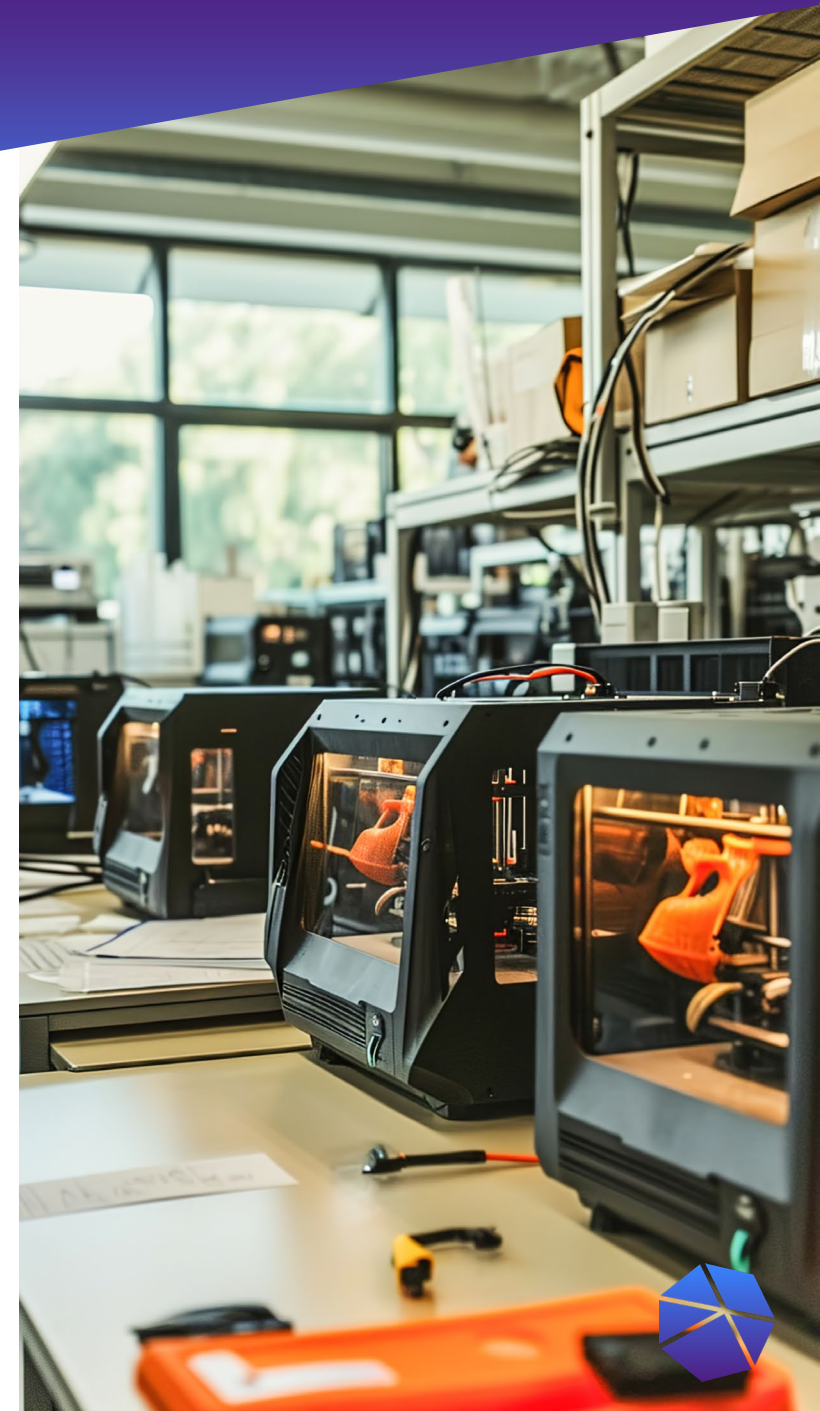
Project DIAMOnD: Empowering SMEs with Additive Manufacturing

March 2025



What is Project DIAMOnD?

- Project DIAMOnD is a program of Automation Alley and is funded by Oakland County, MI.
- The DIAMOnD stands for **D**istributed **I**ndependent **A**gile **M**anufacturing **O**n **D**emand, and is a first-of-its-kind initiative designed to digitally transform Michigan's manufacturing sector.
- Established in October 2020, it was initially funded through the CARES Act to support small and medium-sized manufacturers in adopting Industry 4.0 technologies.
- **The project provides participating businesses with industrial-grade 3D printers and training, allowing them to create on-demand parts, reduce costs, and enhance production flexibility.**



Development Milestones

Phase I

- 300+ 3D printers deployed in SE Michigan
- Produced tourniquets for Ukraine

Phase II

- Digital Transformation Centers (DTCs)
- Project DIAMOnD Academy
- Secure Digital Marketplace
- Broader equipment range (industrial polymers, metals, scanning, post-processing)



Who Qualifies for Project DIAMOnD?



- ✓ Small & Medium-Sized Businesses in Michigan
- ✓ Manufacturers, Engineering Firms, Tech Companies & IT Providers
- ✓ Committed to Digital Transformation & Innovation
- ✓ Eager to Integrate 3D Printing into Operations

Grant-funded program—No cost to participate!

Apply → Receive Printer → Get Trained → Start Innovating



Apply Today!

Join Michigan's Largest Digital Manufacturing Network!

Project DIAMOnD provides **grant-funded 3D printers, expert training, and a powerful network** to help small and medium-sized businesses embrace Industry 4.0.

- **Apply today**
- **Learn more**
- **Share with a business that could benefit**

Visit **ProjectDiamond.org** to get started!

PROJECT
DIAMOND



Michigan Receives \$1.9 Million in Federal Funding to Expand Project DIAMOnD

December 05, 2024

FOR IMMEDIATE RELEASE

December 5, 2024

Contact: MichiganInfrastructure@michigan.gov

Michigan Receives \$1.9 Million in Federal Funding to Expand Project DIAMOnD

Funding will scale up Automation Alley's unprecedented network of 3D printers, lower costs for businesses, and strengthen supply chain resilience

LANSING, Michigan — The Michigan Infrastructure Office today announced that Automation Alley's [Project DIAMOnD](#), a shared network of 3D printers, has received \$1.9 million from the Bipartisan Infrastructure Law to allow small- and medium-sized manufacturers (SMMs) to adopt smart manufacturing technologies. The project will enhance manufacturers' capabilities, helping them lower costs, increase production efficiency, reduce emissions, and strengthen supply chain resilience. This announcement builds on the governor's vision to expand the "Infrastructure for Innovation," shared technology and resources that entrepreneurs and businesses can leverage to grow in Michigan.

"Thanks to nearly \$2 million in Bipartisan Infrastructure Law funding, we're expanding Project DIAMOnD to ensure more small businesses across Michigan have access to cutting-edge tools that will help them grow their businesses, lower costs, and boost local economies," said **Zachary Kolodin, chief infrastructure officer and director of the Michigan Infrastructure Office**. "At the Mackinac Policy Conference, Governor Whitmer called on leaders in Michigan to expand Project DIAMOnD, and this funding delivers on that commitment. This investment is yet another step in building Michigan's 'Infrastructure for Innovation,' creating opportunities for entrepreneurs to succeed, building our manufacturing future, and driving economic growth in every community."

Today's funding announcement will support the expansion of Project DIAMOnD to 100 SMMs, with a minimum of 40% in disadvantaged or underserved communities across the state. Participating companies will have access to the Project DIAMOnD Digital Transformation Program and expert assistance at the [Project DIAMOnD Digital Transformation Center \(DTC\)](#) in Auburn Hills. Experts will work with program participants at DTC to deploy training and workforce development, product and process assessments, roadmapping, and direct technology implementation. This expansion and one-on-one expert support will enhance SMMs' capabilities in advanced manufacturing, energy efficiency, and emissions reduction, leading to significant energy savings and improved competitiveness across Michigan's manufacturing sector.

"This investment represents an important first step in our vision of scaling Project DIAMOnD statewide to empower small- and medium-sized manufacturers across Michigan," said **Tom Kelly, Executive Director and CEO of Automation Alley**. "Oakland County has been an invaluable partner in spearheading Project DIAMOnD, laying the groundwork for its success and proving the transformative potential of advanced manufacturing technology. With this new support from the state of Michigan, more companies will now have the opportunity to benefit from Project DIAMOnD's Digital Transformation Center. Together, with the Governor's leadership, we are advancing toward our shared goal of making Michigan the global leader in advanced manufacturing innovation."

Author:

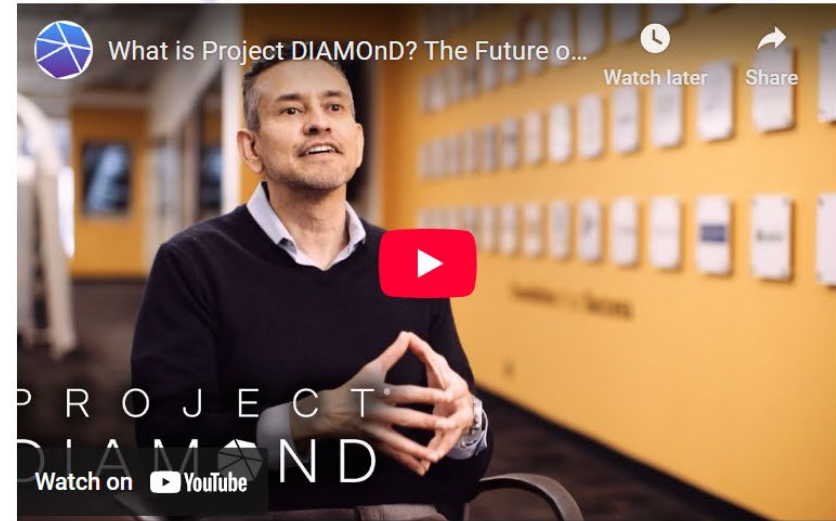
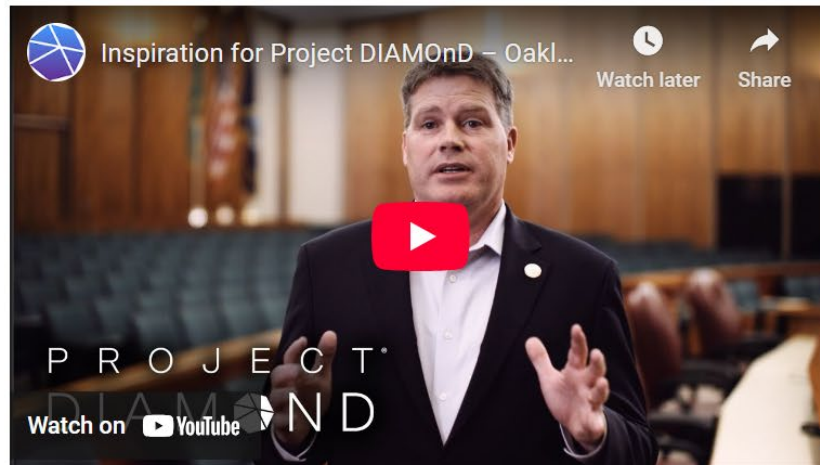
Michigan Infrastructure Office

MichiganInfrastructure@michigan.gov

<https://www.michigan.gov/whitmer/issues/michigan-infrastructure-office/mio-press-release/2024/12/05/michigan-receives-1-9-million-in-federal-funding-to-expand-project-diamond>

Inspiration for Project DIAMOnD

What is Project DIAMOnD?



<https://youtu.be/HKNA5w7uhzo>

<https://youtu.be/gdZDRHH48t8>

Visit ProjectDiamond.org to get started!

Thank You!

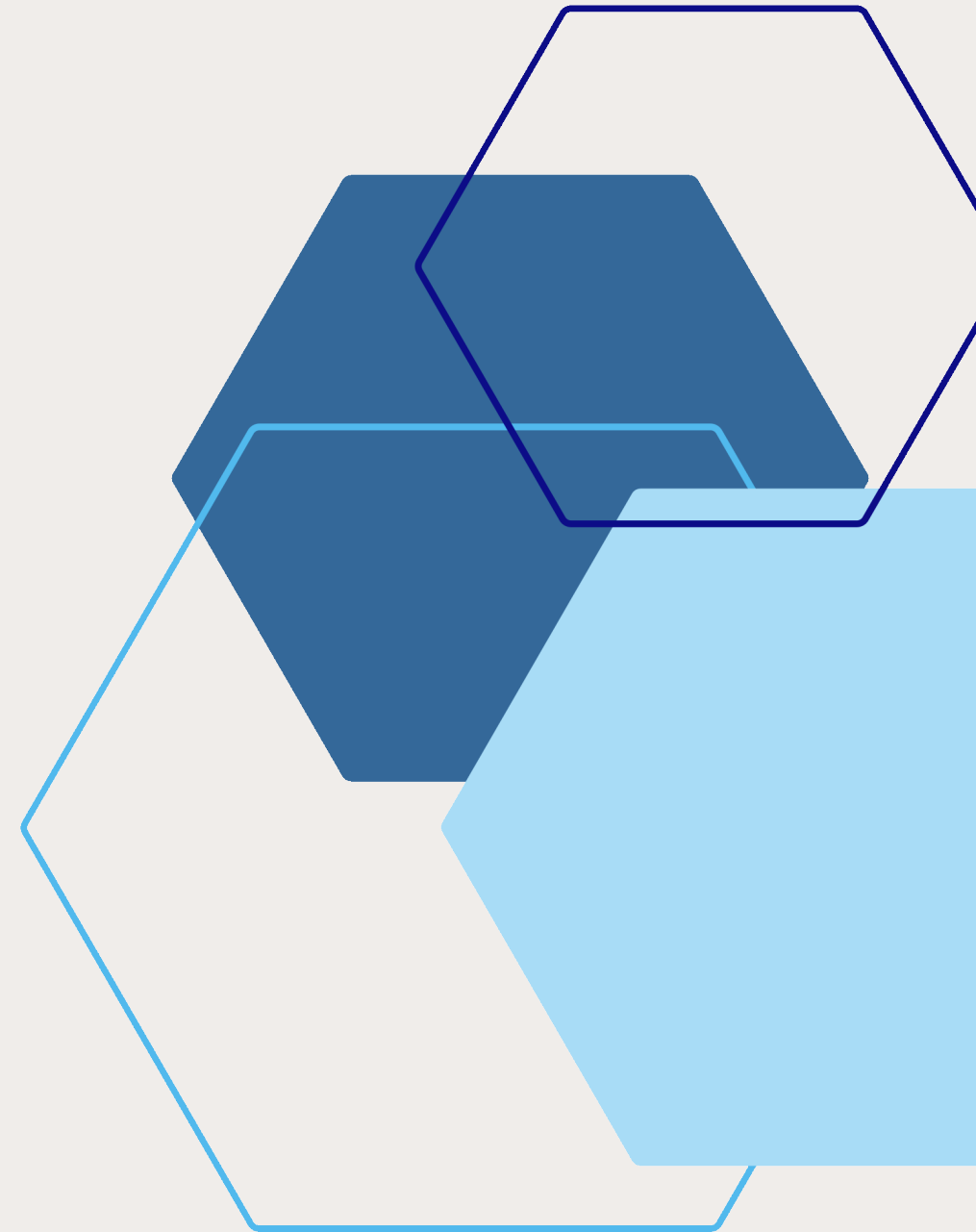


NATIONAL ADVANCED MOBILITY CONSORTIUM

JEM Computers, Inc.

This Presentation is Unclassified

JEM Computers, Inc.



JEM'S HISTORY

JEM Computers, Inc.

DBA  JEM TECH GROUP



Family-owned business with nearly 50 years of IT experience within the data center and other mission critical environments

Over 20 years of consistent annual sales growth

Certified women owned business since 2004

Contract Vehicles: GSA Schedule 70, MiDEAL (State of Michigan) & U of M Strategic Supplier

Recognized leader by the small business and IT community
(Multiple awards throughout the years)

Strong partnerships with general contractor and engineering/architect firms to fully provide end-to-end solutions

JEM's Government Customers:

US Courts, USDA, Air Force, Army, Space Force, VA (Multiple Locations), Lockheed Martin, Boze Allen, NARA, International Guard,

JEM'S PERFORMANCE WITH THE AIR FORCE

JEM Computers, Inc.

DBA  JEM TECH GROUP

Space Force's Existing Data Center Enhancements

- KPRS DREN network SPPN project from design conception to a JEM installed turnkey solution upgrading the existing power infrastructure (to be completed beginning of FY26)
 - Products include: Branch Circuit Monitoring, Intelligent Power Distribution Units (PDUs) for Cabinets, Temperature/Humidity Sensors, and Intelligent Cards for the other power equipment in the data center.
 - Tying all the updated power infrastructure into 365/24/7 monitoring & management software

AFLCMC/WIS, RDIF—Simulator Project

- Micro Data Center (Edge - high density all in one intelligent rack solution rack including battery back up (UPS), power strips (PDU), cables, 16 port console server and KVM
- Nvidia server



PROCUREMENT READINESS

JEM Computers, Inc.

DBA  JEM TECH
GROUP

DUNS: 184807402

UEI: E4JLTZ8Q7UJ9

CAGE: 0NMV8

ACCEPT CREDIT CARDS: Visa, MasterCard, AMEX

CERTIFICATIONS

WBENC: 242029

WOSB: NAICS 541512

GSA Contract: 47QTCA19D001A

SIN: 33411 – Purchase of new equipment



Kristen Jenkins

Sr. Federal Technology Consultant

Office: (586) 783-3400

k.jenkins@jemtechgroup.com



**2022 Michigan Celebrates Small Business
Awardee for PTAC Best Small Business**

Click to view our [capabilities statement](#), [IT services](#), [resume](#). Visit our website at: www.jemtechgroup.com



NATIONAL ADVANCED MOBILITY CONSORTIUM

NTL Industries Inc.

This Presentation is Unclassified



NTL **INDUSTRIES INC.**

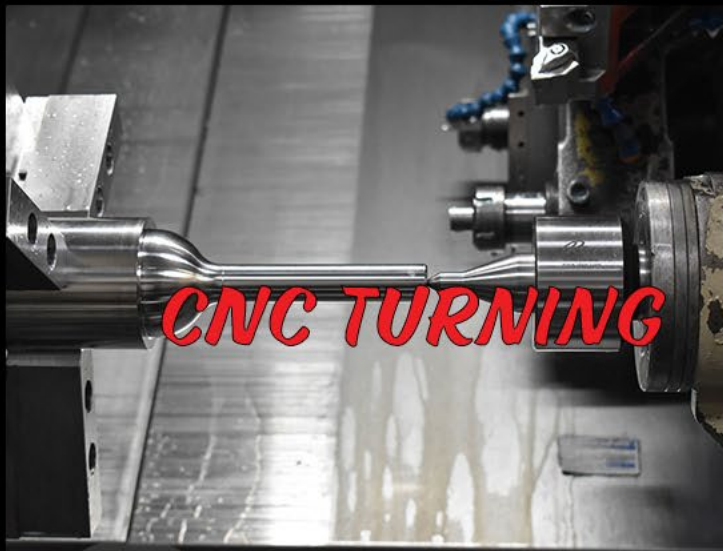
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“Building Relationships, One Part at a Time”

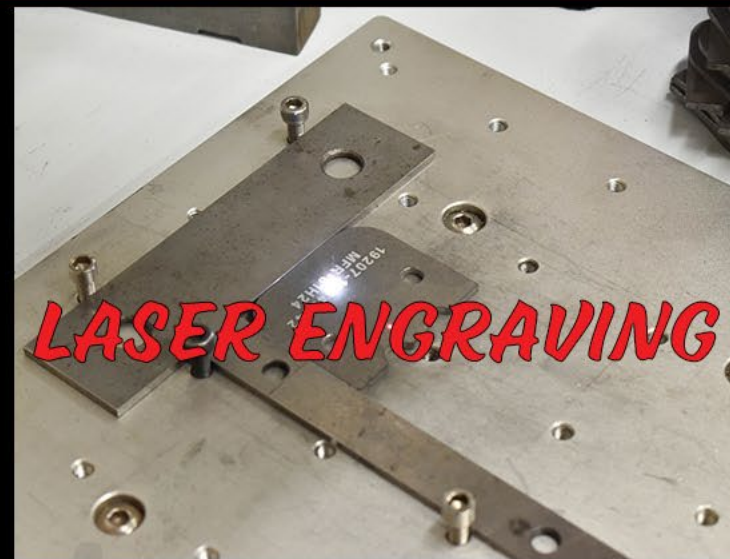
CNC Milling – CNC Turning – Plasma Cutting – Laser Engraving – Prototype – Production – Assembly



CNC MILLING



CNC TURNING



LASER ENGRAVING

Our Services

WHAT WE DO



PROTOTYPING



ASSEMBLY

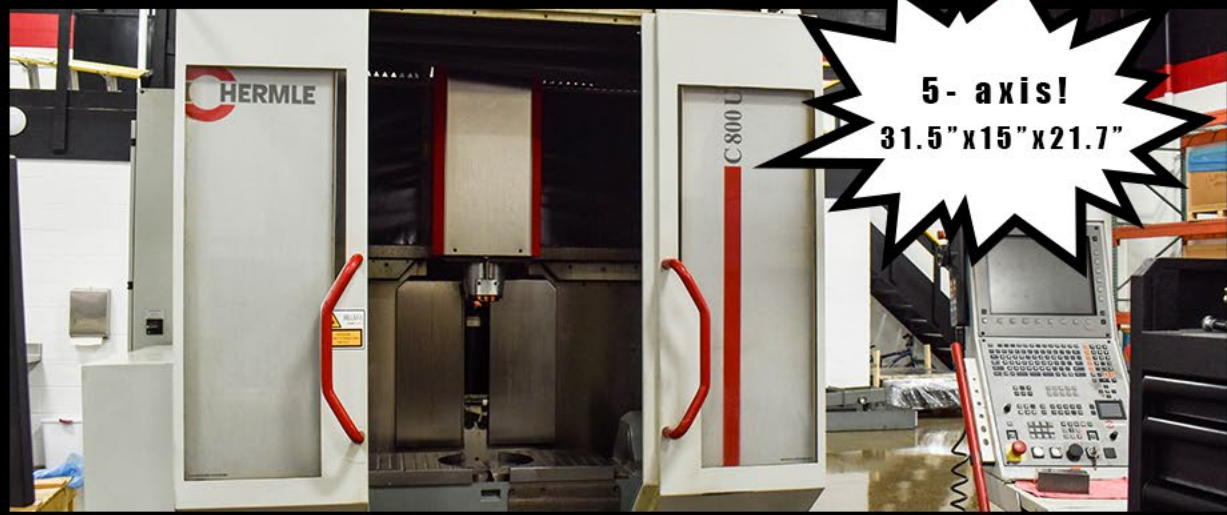


PRODUCTION



Equipment CNC Lathes





5- axis!
31.5"x15"x21.7"



4-axis!
**Twin 500mm pallets
with sepearte
loading station!**

Equipment CNC Mills



Renishaw probing!
40"x20"x24"



**Renishaw
Probing!**
40"x20"x26"

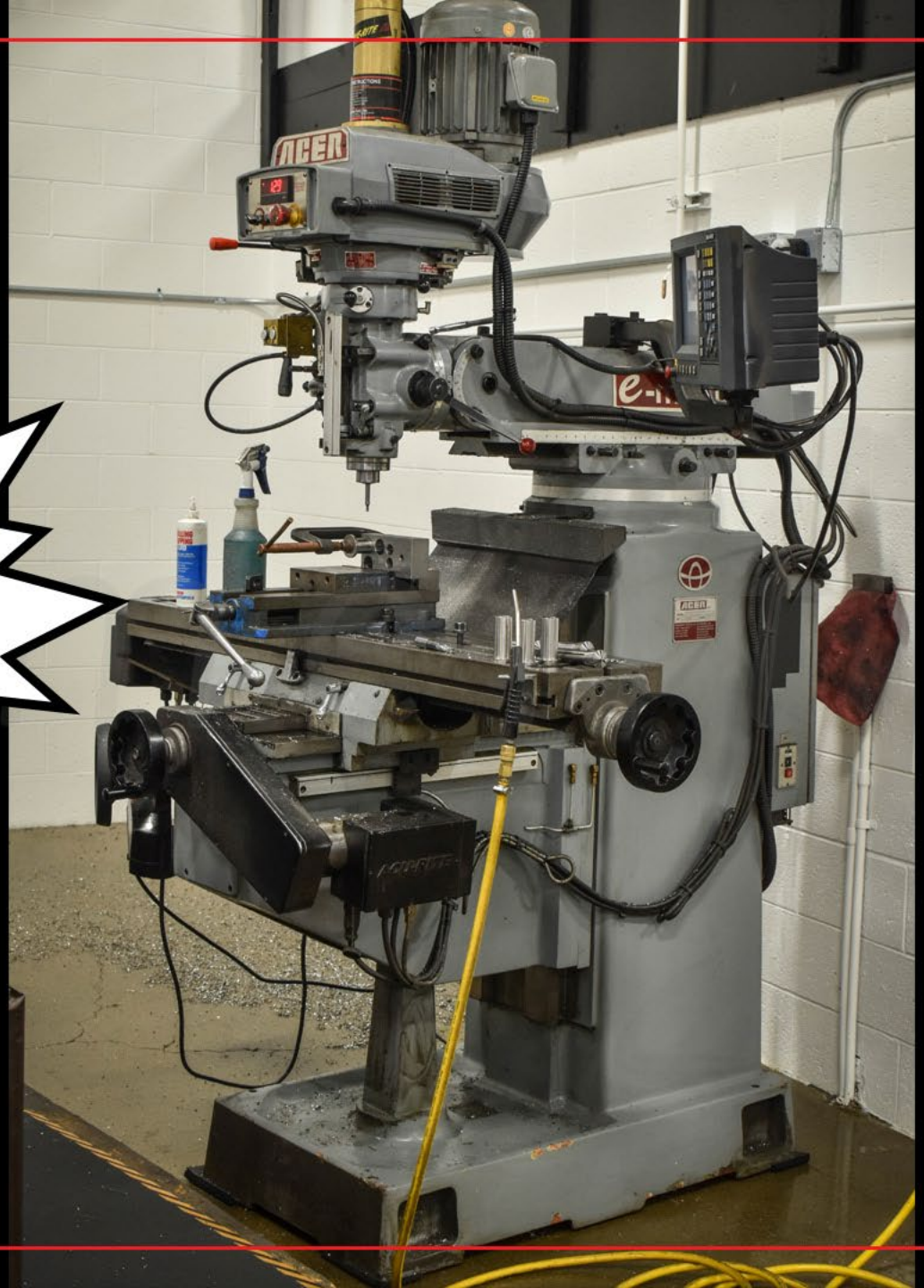
Manual Mills

Used for secondary operations and small detail work

**Acurite Mill Power
CNC controls!**

9" x 48' table!

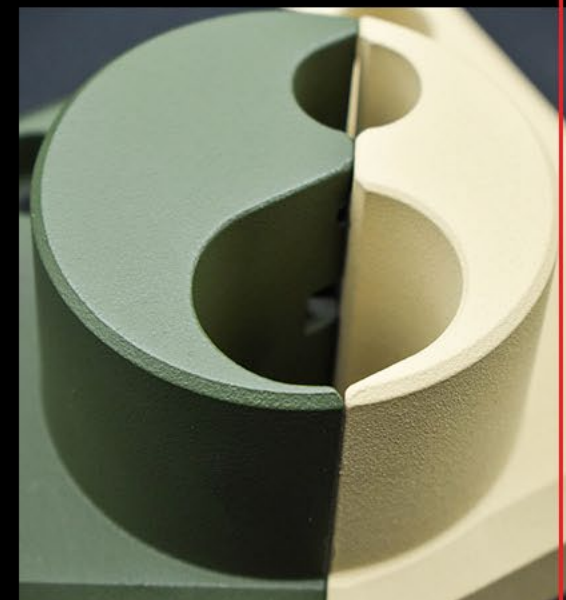
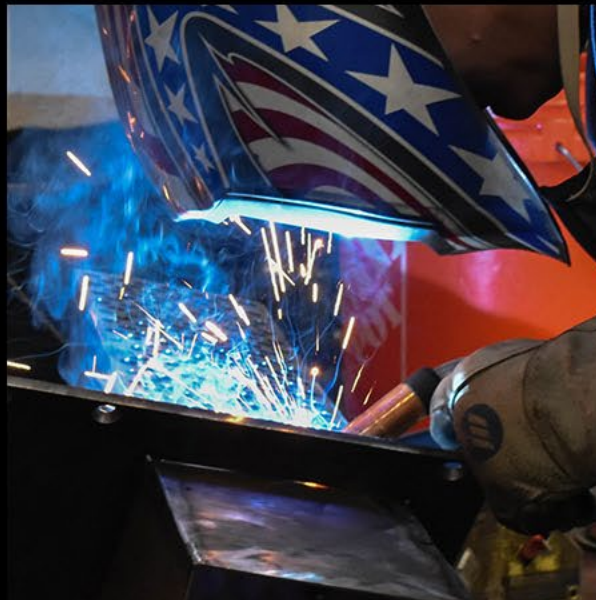
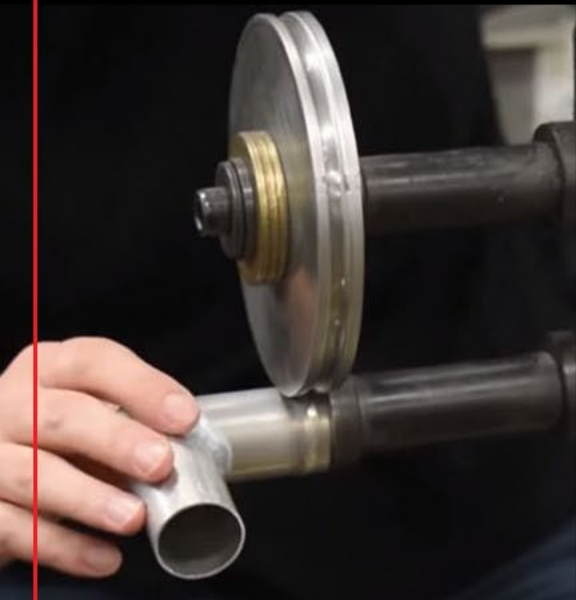
**10" x 90" work
envelope!**



Special Processes

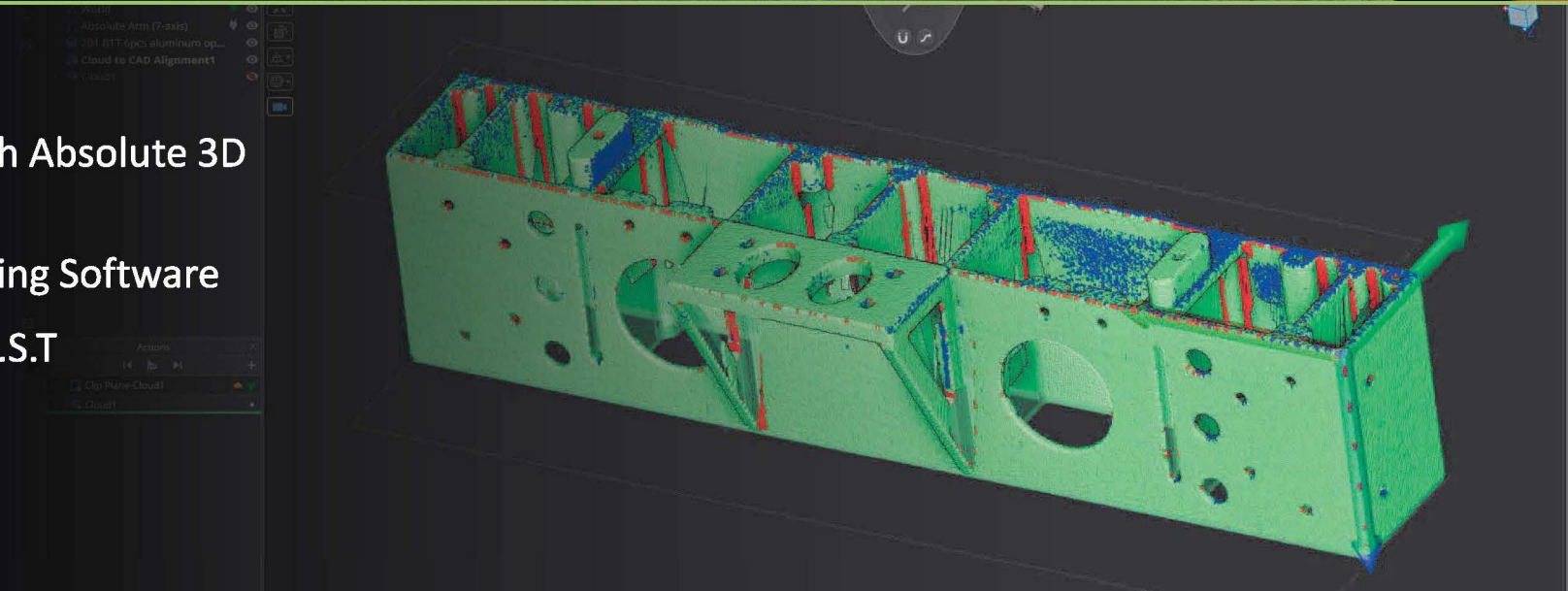
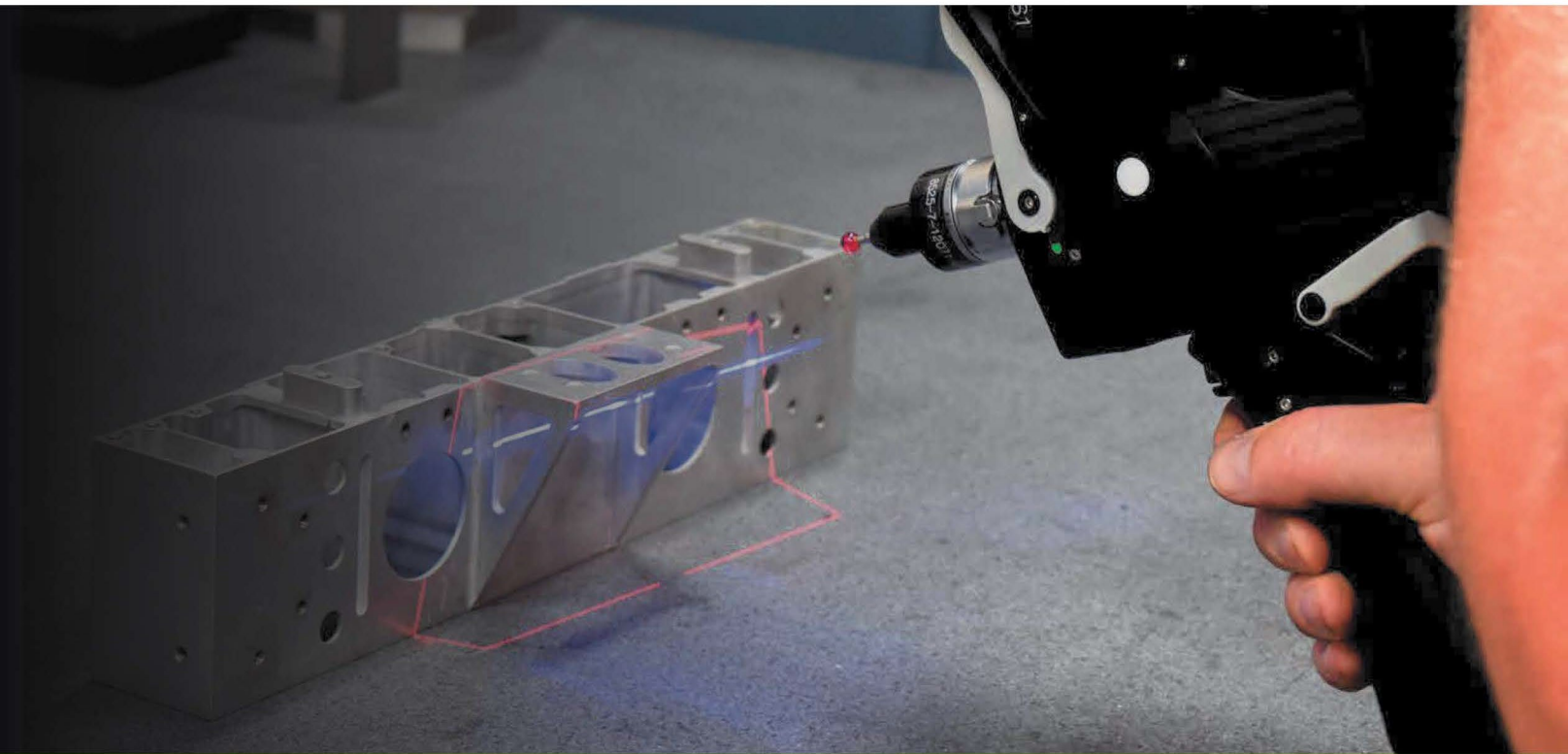
We complete your project to exact print specifications, including all secondary operations — handled in-house or through trusted local partners.

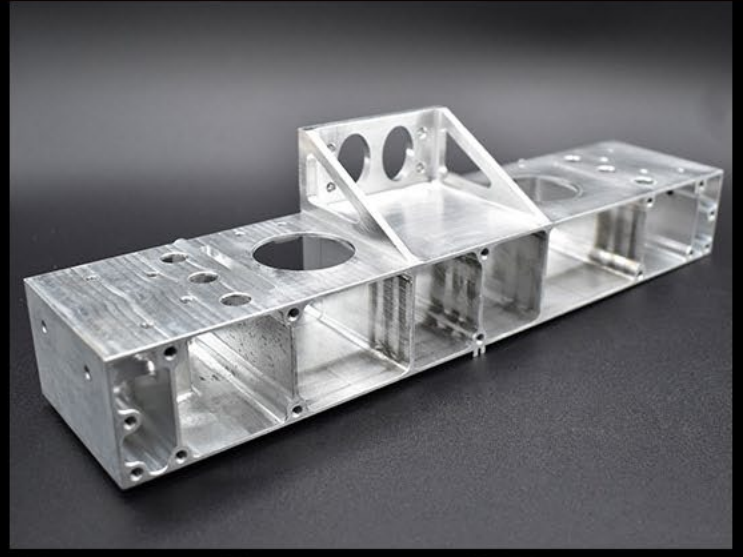
- paint
- heat treatment
- laser
- weld
- bead rolling
- bending
- grinding
- special coatings
- black oxide
- metal plating
- special packaging
- saw cutting
- fabrication
- powder coat
- OD/ID grinding
- etc.



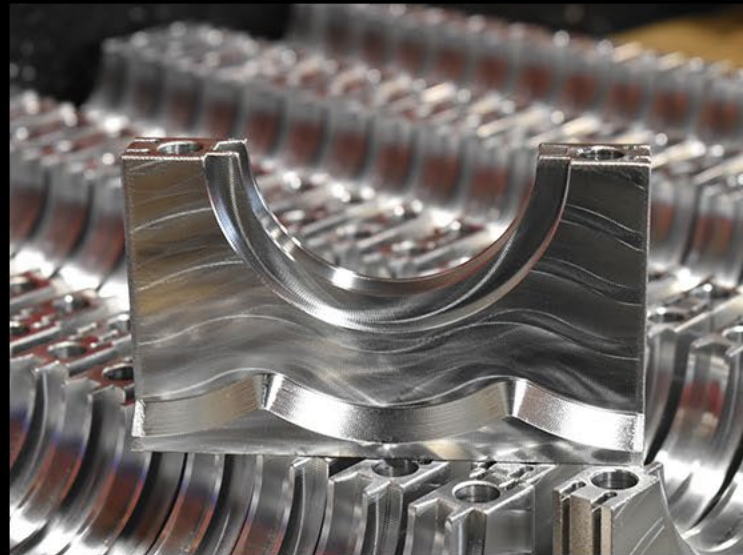
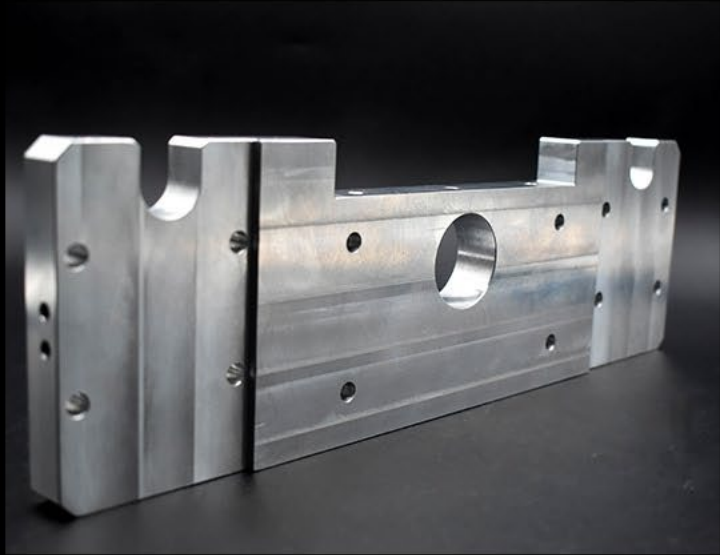
Inspection

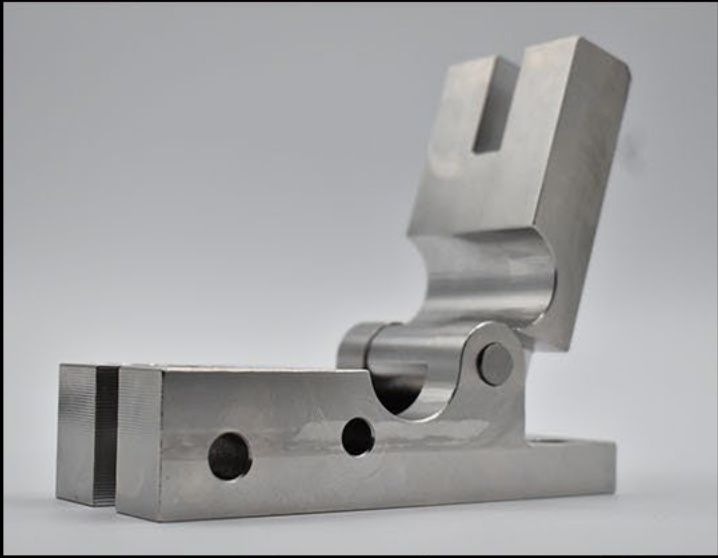
- Hexagon Absolute Measuring Arm with Absolute 3D Scanner AS1
- Hexagon Inspire Analyzing and Reporting Software
- Inspection Equipment traceable to N.I.S.T





ALUMINUM





STEEL: TOOL STEEL, MILD STEEL & STAINLESS





BRASS

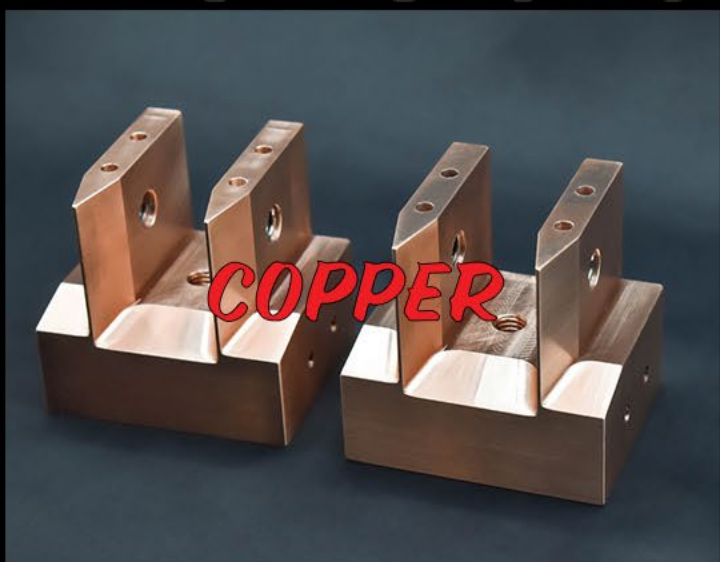


COPPER



TITANIUM

EXOTIC MATERIALS



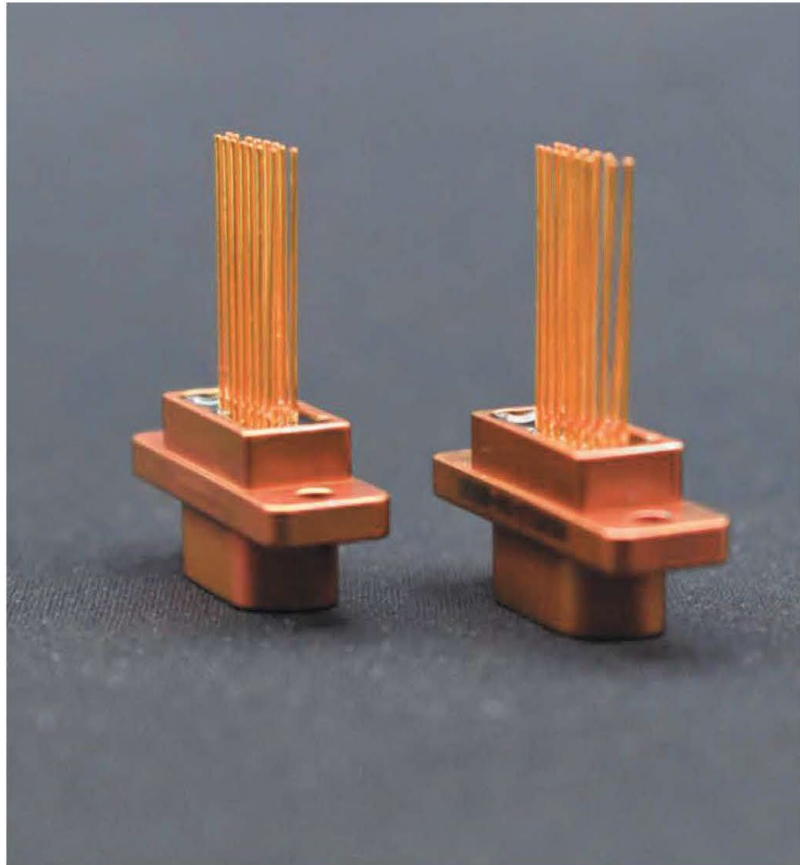
COPPER



NITRONIC



DELRIN



We have expertise in obtaining QPL items
As well as altering buy items to customer specifications

Certifications & Compliance

- AS9100D Certified
- JCP Certified
- ITAR Registered
- NIST Compliant
- WOSB Certified
- Oasis Registered
- CMMC Level 1 Compliant, Working Towards Level 2 Compliance
- SBA National Small Business Persons of the Year 2025
- Recipient of the SmartZone Best Small Business Award in 2021
- Current Department of Defense Prime Contractor



NIST
800-171
Compliant



A man and a woman, Greg and Shelley McArthur, are standing in front of industrial machinery. The man is wearing a red polo shirt with "NTL INDUSTRIES" on the chest. The woman is wearing a black top and glasses. The background shows large industrial machines with control panels and screens.

Owners: Greg & Shelley McArthur

2025 NATIONAL
SMALL BUSINESS
PERSONS OF THE YEAR

Contact us:
sales@ntlindustries.com
248-765-5913

NTL

INDUSTRIES INC.



**NOTHING TO LOSE
NEVER TOO LATE**



6592 Arrow Drive
Sterling Heights, MI 48314



NATIONAL ADVANCED MOBILITY CONSORTIUM

ESPAS Inc.

This Presentation is Unclassified



Early Stage Pliant Achievement System



**44850 Centre Court East
Clinton Township, MI
48038 U.S.A.**

Espas, Inc. Company Profile

www.espas-inc.com

Phone 1-248-341-5300, Fax 1-586-948-9601

ESPAS at a glance

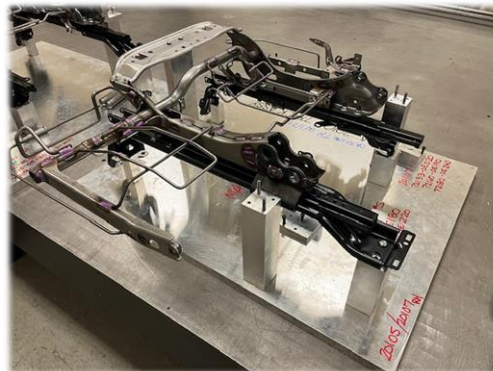
- Founded in 2003
- Located in Clinton Township, Michigan
- Global network (Japan, China, and Brazil)
- Automotive, Motorcycle and Defense industry
- Leading service provider of
 - Prototype (Parts and tools)
 - Low volume production
 - Production engineering consultant (Smart, Automation, AI solutions)



Prototype (Parts and tools)



Prototype (Parts and tools)



Low Volume Production (Doors)



Cadillac XT5 Limousine trunk lid outer



2020 Lincoln Continental Coach Door Edition



Cadillac XT5 Coach and Limousine mid door assemblies



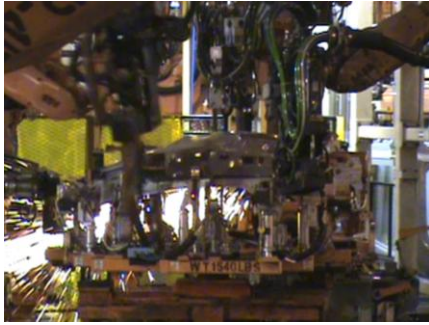
Lincoln rear coach door



Cadillac XT5 steel Coach and Limousine mid doors

Low Volume Production (Small Parts)





Bodyside - Robotic Spot Welding



Framing – Laser Braze Welding



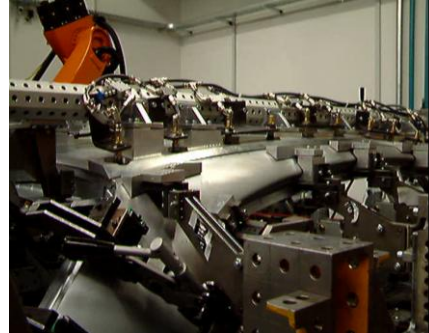
AGV Transfer and Tooling



3D Laser Cutting



Liftgate - Manual Spot Welding



Roof Geo Station w/Laser Braze



Robotic Roller Hemming



Laser Scanning / Quality Check



Equipment

DESIGNING:

- Accurpress, 10' AccurShear
- Catia V5 R22
- Forming Suite Software 7.2
- Solid works / Cam works / Work NC
- Yale 5000lb. Cushion Forklift
- Toyota 15,000lb.Cushion Forklift
- Chevy/Isuzu W3500 5.2L Diesel 18' Cube Box Truck

LASER CUTTING:

- Mitsubishi** 2KW CO2 Laser Processing system
(Model ML4322VZ1-20F2 with a large
2300mm X 4400mm table)
- Laser Star High Pressure Nitrogen Generator
- Mitsubishi** 3015 (5' x 10') 4.5KW LVPlusII
2D Laser System.
- Mistubishi** VZ10-20CF3 (2.0kW)
(Table size 2311mm x 3048mm)

CNC MACHINING:

- YCM** NSV156a CNC High Speed Vertical
Machining Center
XYZ Travel: 60.2" X 25.6" X 24"
Table: 64.17" X 25.9" Workload:
- Feeler**-FV-2218 CNC High Speed Vertical Double Column Bridge
Machining Center, Table Size 2000mm X 1700mm / 79" X 67"

PRESSES:

- C-E-C** 50 Ton Metal Muncher / Iron worker
- Accurpress** Hydro-Mechanical 60 ton Press Brake,
Model 7-60-6
- Pacific** PFII-G 150 Ton Hydraulic Press
with cushion.
- Dees** model HD-400 hydraulic straight-side press with cushion.
- Pacific** 600 Ton Hydraulic Straight-Side Press with cushion.
- Dees** model HD-800 hydraulic straight-side press with cushion.

WELDING & CUTTING:

- Gas Tungsten Arc Welder, Miller Syncrowave 200
- Gas Tungsten Arc Welder, Miller 330 A/BP
- (2) Gas Metal Arc welder, OTC Daihen DP400
- Gas Metal Arc welder, Miller MP-30 E
- Gas Metal Arc Welder, Lincoln SP-175
- Gas Metal Arc Welder, Miller 350P
- Gas Metal Arc Welder, Millermatic 252
- Genesis Versa 2 Robotic Cell with Fronius CMT weld package.
- Plasma Cutting System, Miller Spectrum 375
- Emhart TechnologyTSG65 Drawn Arc Stud Welder
- 100 KVA British Federal Press Welder
- (1) 28 KVA NEMAX AC "C" Trans Gun Spot Welder
- (3) 56 KVA ARO DC "C" Trans Gun Spot Welders
- (3) 56 KVA ARO DC "S" Trans Gun Spot welders

CNC Tube BENDING:

- Horn** CNC80TMRE-RBE-L metric series CNC tube bender, up to 3" dia.
VTube-Laser Software for FARO arm inspection.

INSPECTION:

- CMM, Brown & Sharp (Oryzo Model 45-1620-TP, PCDMIS–
Large 2500mmx4600mm table
- CMM, Brown & Sharp Microxcel Model 7.6.5 DCC
- Laser scanner FARO ARM, PLATINUM, BLUETOOTH, 10FT. Arm

Quality Policy:

ESPAS Incorporated is committed to enhancing supplier and resource relationships.

Our innovative approach to catering these services is to exceed the expectations of every client by offering excellent customer service, increase flexibility, timeliness, quality and 100 % satisfaction.

Quality at ESPAS Incorporated will continue as always, to be a main focus in all our internal and external business practices.

ISO 9001:2008 Certification:

Cage Code, 59BG4

Dun's #, 602757168





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NATIONAL ADVANCED MOBILITY CONSORTIUM

Triz MT, LLC - Military Technologies

This Presentation is Unclassified



COMMERCIAL VEHICLE DEVELOPMENT SPECIALISTS



ABOUT US

Triz MT, LLC is the dedicated defense arm of Triz Engineering, specializing in **advanced military vehicle engineering** and **product development**.

Triz MT is uniquely positioned to support **development and modernization** of **tactical, combat, special operations, logistics and support vehicles**, leveraging our proven and deep expertise in Commercial Vehicle development

Team

- 200+ Engineers (Mechanical/ Electrical/ Industrial/ Software)

Locations

- Birmingham, AL, USA
- San Jose, Costa Rica
- Cape Town, South Africa
- Centurion, South Africa

WHAT WE DELIVER

- **Execution Certainty** - minimizing program risk through defined scopes, proven processes, and experienced teams.
- **Validation-Gated Progression** - Triz ensures every phase meets mission-critical standards before moving forward - minimizing rework and safeguarding program momentum.
- **Solving What Hasn't Been Solved** - Triz specializes in engineering first-of-kind solutions, confidently navigating unknowns with specialized expertise, structured thinking, and rapid technical validation.
- **Access to Scarce Domain Experts** - We provide access to niche engineering talent - giving OEMs the ability to scale fast and solve complex problems without building internal capacity.
- **Repeatable, Transparent Process** - Our structured, transparent engineering process ensures traceability, accountability, and alignment - critical for high-stakes defense programs and compliance needs.



ENGINEERING SOLUTIONS

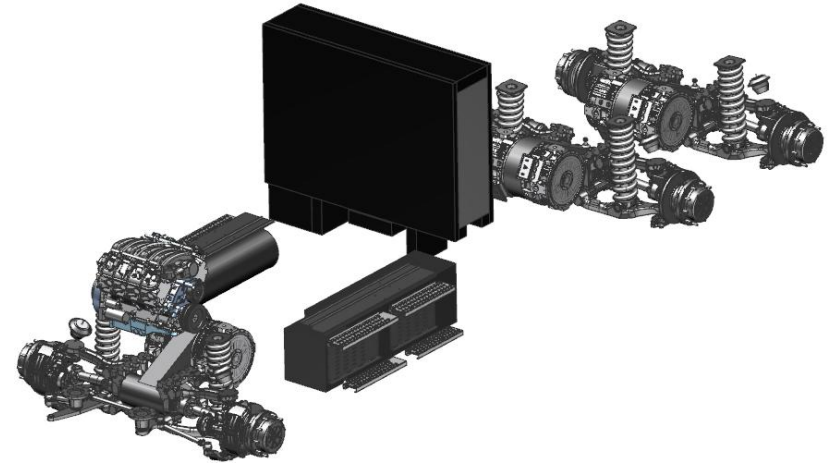
- Full Vehicle Design & Engineering
- Sub systems Vehicle Design, Engineering & Integration
- Propulsion & Energy Systems
- Electronics, and Harnesses
- Software & Controls
- Testing & Validation (engineering oversight and support)
- Advanced Technologies, Zero Emissions vehicles / systems
- Program management support
- Product (component) development



ENGINEERING EXPERTISE

Triz MT specializes in custom-engineered, heavy-duty commercial vehicles for demanding operational environments. Our expertise includes structural systems, suspensions, cabs, powertrains, and cutting-edge technologies like ADAS, vehicle electrification, and hydrogen fuel cell integration.

We leverage advanced simulation tools - such as FEA, HIL, and SIL, and duty cycle modelling to optimize quality, reduce costs, and accelerate time-to-field for both conventional and emerging vehicle platforms.



Light Tactical Vehicles

- Utility
- General purpose

Medium Tactical Vehicles

- Cargo
- Tractor
- Dump
- Wrecker
- Load handling system

Heavy Tactical Vehicles

- Cargo
- Fuel servicing
- Light equipment transporter

Powertrain

- ICE
- Hybrid
- BEV
- FCEV

Engineered Vehicles - GROUND VEHICLE RAPID PROTOTYPE

HYBRID ELECTRIC CLASS 8 TRUCK DEVELOPMENT

CHALLENGE:

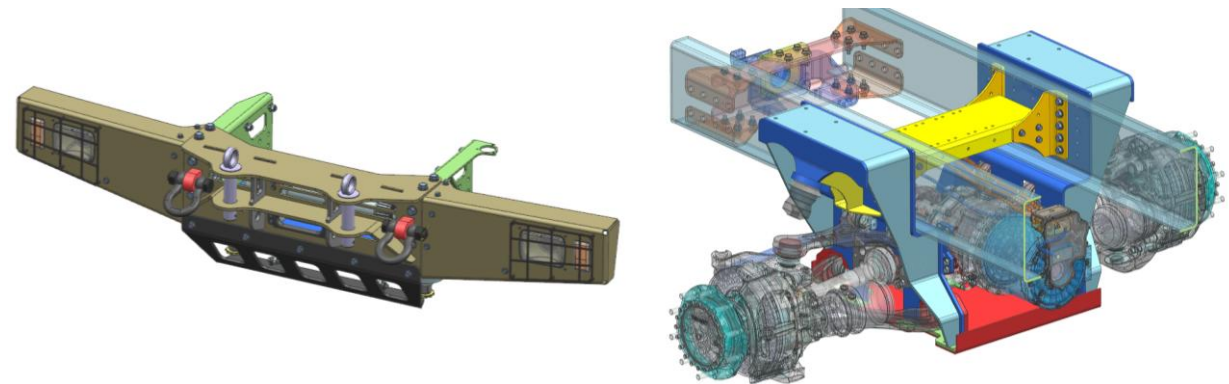
- Develop a series hybrid off-road logistics vehicle for disaster recovery applications

SOLUTION:

- A series hybrid, 8x8 class 8 truck with independent suspensions and integrated electric drive.

OUTCOME:

- A technically feasible solution for a series hybrid solution that met given requirements.
- A concept design that included:
 - Concept high voltage and thermal architectures
 - Concept vehicle layout, routing and packaging
 - Chassis, steering and suspension structural design



Engineered Vehicles: BEV PLATFORM DEVELOPMENT

FULL BEV PLATFORM DEVELOPMENT

CHALLENGE:

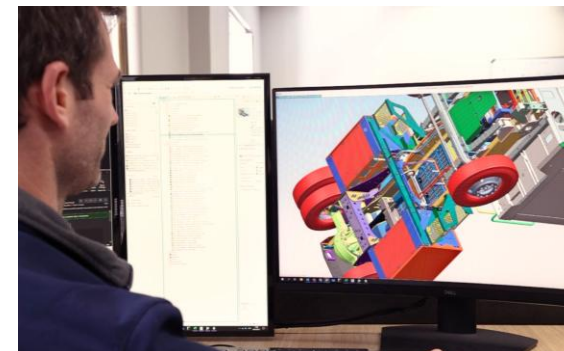
- Develop a scalable, cost-effective BEV with seamless HV integration and efficient power, thermal, and software control.

SOLUTION:

- Modular cradle with dual eAxle traction.
- Integrated HV systems (batteries, central drive, pneumatics, thermal).
- VCU, cab domain, and dual display software.
- Thermal test bench and streamlined production tools.

Outcome:

- High-performing BEV, launched on-time with minimal rework.
- Efficient, cost-effective production, reducing delays.
- Reliable, compliant, market-ready solution.



Engineered Vehicles: FCEV

HYDROGEN FUEL CELL INTEGRATION

CHALLENGE:

- Integrate a fuel cell series hybrid architecture into an existing customer platform to demonstrate and validate the technological capabilities in a real-world application.

SOLUTION:

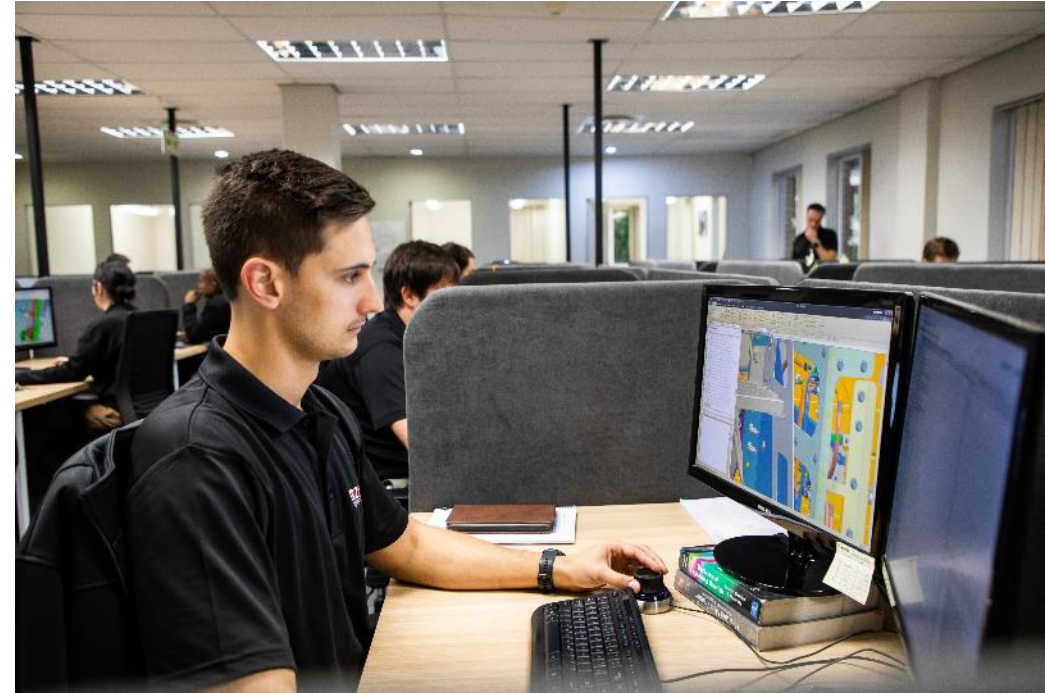
- A fully integrated electric drivetrain with fuel cells and hydrogen storage.
- A fuel cell and battery hybrid system with the hybridization architecture and software
- Commonization of components from other platforms in the client's range.

OUTCOME:

- A fully built Alpha unit providing valuable insight into the technology and its capabilities.
- Key insights into the future of transport and the business direction to be taken



YOUR **TRUSTED** ENGINEERING PARTNER



CONTACT US

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Congressman John James Office

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CONGRESSMAN

John
James

10TH DISTRICT OF MICHIGAN



MICHIGAN DISTRICT 10

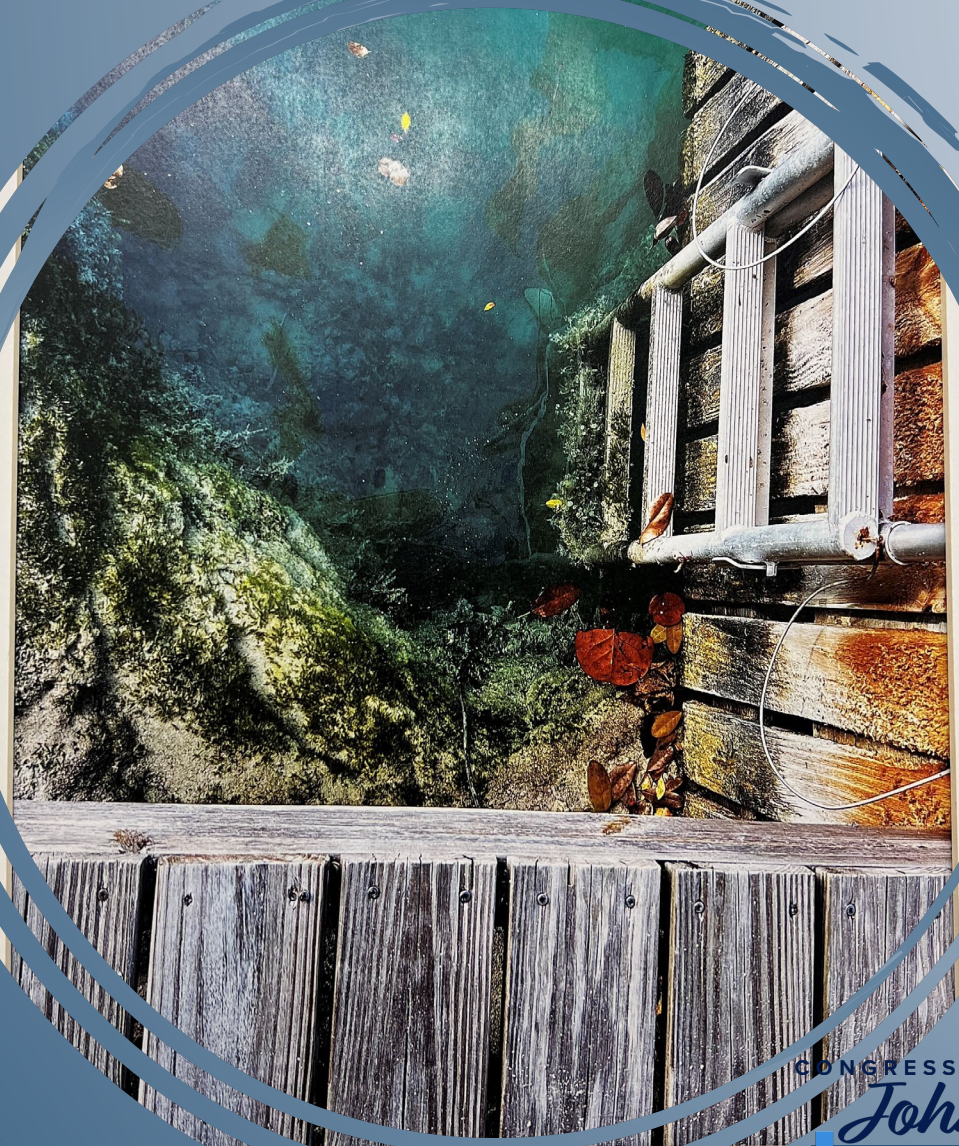
CUSTOMER SERVICE OFFICE

MAY 6, 2024

HOW WE CAN HELP

Our Office Services the Federal Agencies that work with:

- Social Security
- Passports
- Military & Veteran Services
- Immigration
- IRS
- US Postal Services
- Grants/Letters of Support
- US Service Academy Nominations



DEFENSE FOCUSED

- Co-Lead the Fighter Force Preservation & Recapitalization Act to modernize our fleet
- Submitted FY25 NDAA & Defense Amendments
- Introduced the Air National Guard Squadron Protection Act to support procurement of F-35A and F-15EX to recapitalize National Guard bases.
- Introduced resolutions honoring Selfridge's 106th & 108th Anniversaries
- Secured a \$37 million authorization for the Detroit Arsenal for a Manned/Unmanned Tactical Vehicle Lab
- Led a letter advocating for F-15EX advanced procurement funding in the final version of the FY24 Defense Appropriation Act.
- Led a bipartisan, bicameral letter for 'fleet leveling'
- Joined a letter advocating for the KC-46A Pegasus basing.



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Returned \$16, 384,831 back to constituents

Solved 2976 Cases



**PEOPLE FIRST
MISSION ALWAYS**





NATIONAL ADVANCED MOBILITY CONSORTIUM

Chelton

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CHELTON

Your trusted partner in
aerospace and defense

Coll Haddon
Dir of Sales, US Army Platforms
E-mail: coll.haddon@chelton.com
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1

ANTENNAS

- Communication
- Navigation
- Identification
- RF Components
- Conformal
- Tuneables
- Datalinks

2

AVIONICS

- Anti-Jam GPS
- Airborne TETRA
- Direction Finding
- Electronic Warfare

3

LAND

- Vehicle Intercom Systems
- Land and Vehicle Antennas
- Ground Penetrating Radar systems

CHELTON

Land

COMMERCIAL IN CONFIDENCE



VEHICLE INTERCOM SYSTEMS

Largest Install Base in
North America 130,000+



LAND AND VEHICLE ANTENNAS

Link 16/TTNT, Fixed, Dismounted & Detachable
options and Assured PNT/ Anti Jam



GROUND PENETRATING RADAR SYSTEMS

High performance, multi-mode
threat detection



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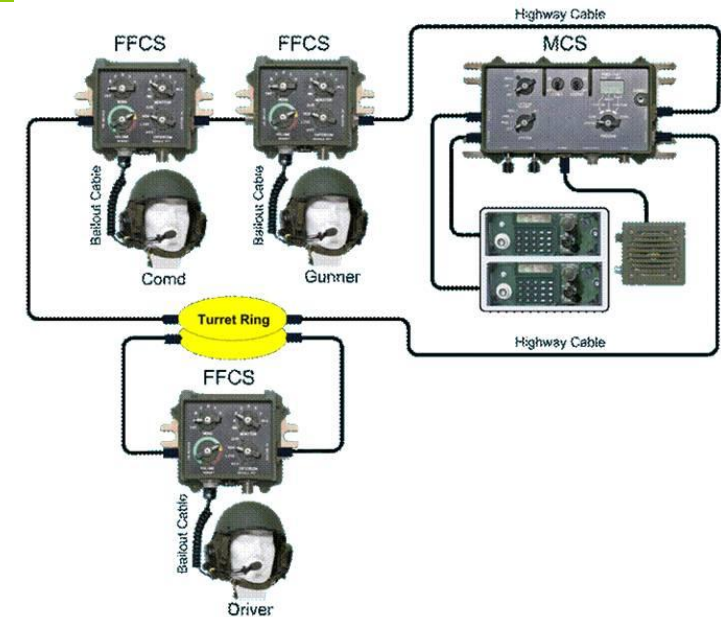
Vehicle Intercom Systems

Vehicle Intercom Systems

COMMERCIAL IN CONFIDENCE

- Chelton is the trusted supplier of **Vehicle Intercom Systems (VIS)**
- Market leader in VIS Technologies for over **60** years
- Over **150,000+ systems** have been fielded with over **130,000+** being supplied to US Forces, primarily the US Army
- Chelton Intercom's are recognised for:
 - ✓ Easy to Operate
 - ✓ Easy to Maintain
 - ✓ Excellent record in customer service

Typical VIS Configuration



AN/VIC-3



Tactical Gateway Unit (TGU)



AN/VIC-5



CHELTON

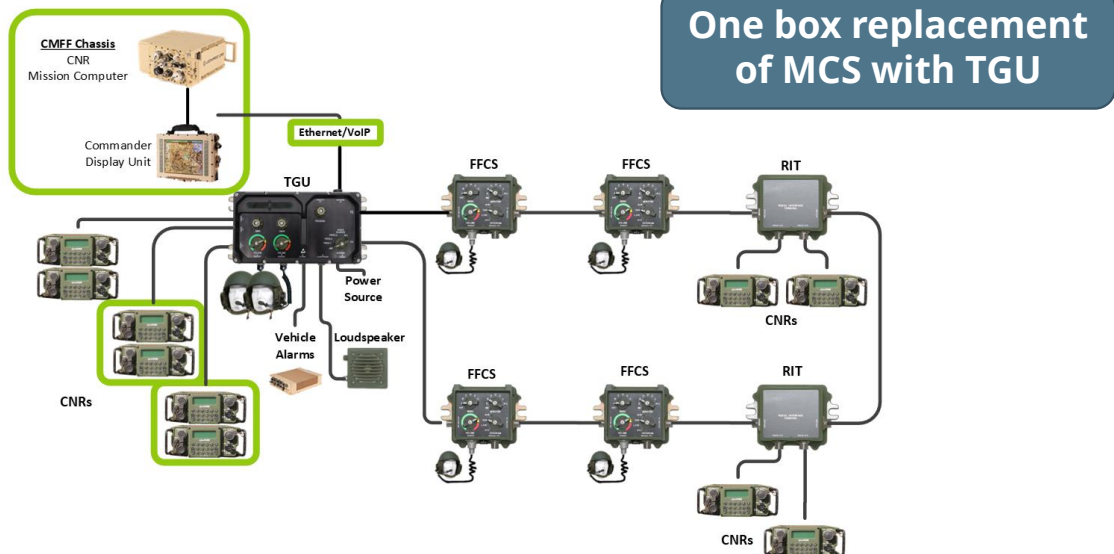
Digital Voice Communication System

-
- Master Control**

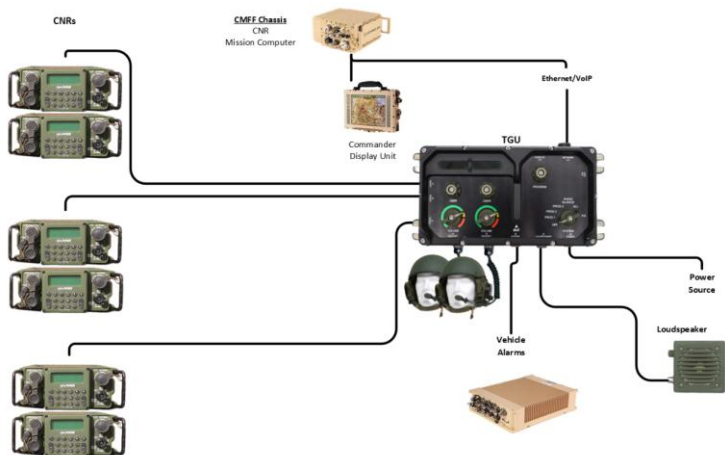
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Tactical Gateway Unit (TGU)

One Box VIC-3 Upgrade



Stand Alone TGU (Intercom in a Box)



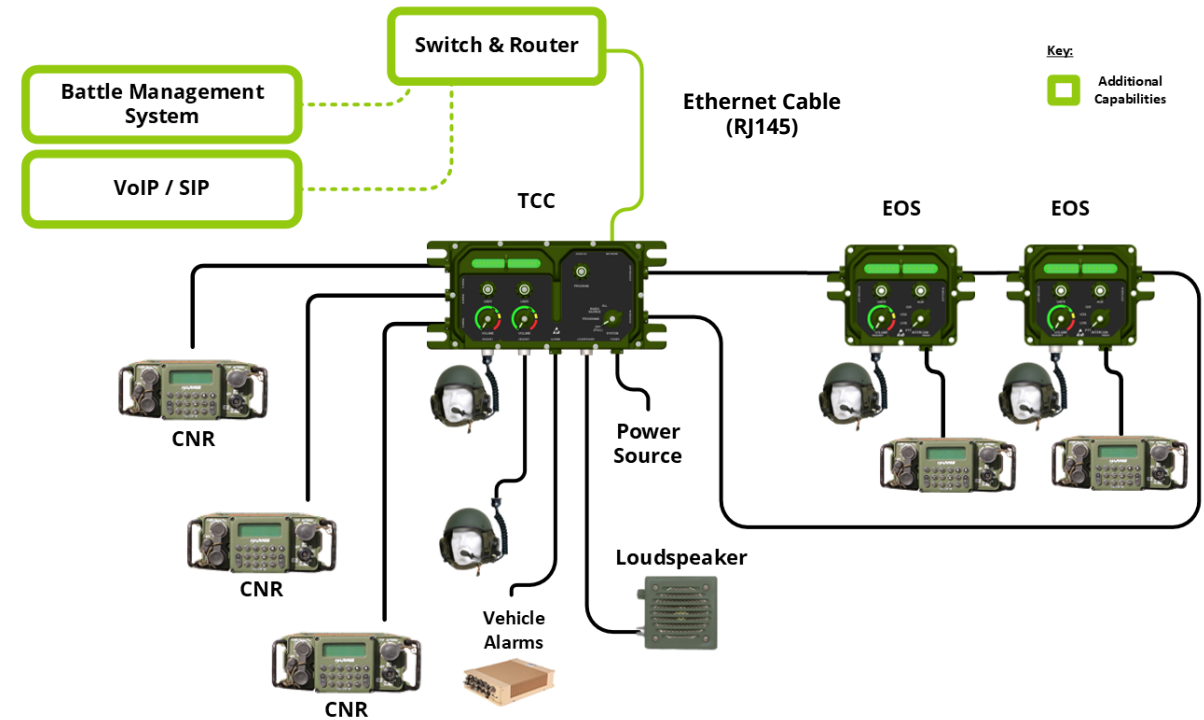
Capability Comparison			
Functionality	VIC-3	VIC-3 + TGU	TGU
Users	6	6	2
Radios	6	10	6
VoIP/SIP Calls		✓	✓
Internal SIP Server		✓	✓
External SIP Server		✓	✓
IP Based Radios		✓	✓
Radio Retrans		✓	✓
Cross-banding		✓	✓
CMFF/VICTORY Enabled		✓	✓
Analog Alarms	✓	✓	✓
Network Alarms		✓	✓
Audio In/Out		✓	✓

AN/VIC-5

COMMERCIAL IN CONFIDENCE



- **AN/VIC-5 builds on the key features from AN/VIC-3 that made it the most popular and reliable system available:**
 - ✓ Ease of Use
 - ✓ High Reliability
- **Increased features and functionality, to cater for modern Intercom requirements:**
 - ✓ Ethernet connectivity - SIP/VoIP and C5ISR Systems
 - ✓ Improved distributed connectivity
 - ✓ Increased users/radio capability
 - ✓ Selective/Addressable calling
 - ✓ Expansion units for future requirements



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Vehicular Intercom Systems Install Base

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Typical Platform Types

- Very High MTBF
- Upgrade Path Enabled
- Obsolescence Managed
- Combat Net Radio (CNR) Agnostic
- Battle Proven
- Highly Configurable
- Through Life Supported

Infantry Fighting Vehicles



AMPV



Mobile Howitzers



Armoured Personnel Carriers



Mine Resistant Ambush Protected



Amphibious & Riverine



Multiple Launch Rocket Systems



Heavy Armour Tanks



Our Intercom Systems are Currently Installed on over 55 Platform Variants in 30+ Nations

CHELTON

Land and Vehicle Antennas

Land and Vehicle Antennas

Products and Capabilities

- Specialist design & manufacture of microwave antennas for ground-based, Military, Commercial & Security applications up to 26GHz
- Customer-focused antenna design from initial concept to production
- Proven expertise and knowledge of all aspects of RF performance
- 2000+ COTS designs providing fast & cost-effective solutions
- Superior mechanical design for all environments
- Legacy supplier to major defence OEM's
- Application and deployments include;
 - Military Vehicle & Man-Portable Tactical Comms
 - Electronic Warfare (ECM / ESM)
 - Radar (Beam steer apertures)
 - Missile/UAV Telemetry (Common Data Link (CDL))
 - Security & surveillance (Manet / Mesh Radios)
 - Sector Antennas, detachable vehicle antenna
 - Dismounted H Pol / Triband V Pol
 - Wideband Spirals



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Land and Vehicle Antennas

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Products and Capabilities

- **Manet Radio** – Dual band antennas – Polarization diversity. MiMo – data rates, automated programs, IVAS, UGV etc.
- **Vehicle-mounted Antennas** – dual band products, reduce volume on platform.



CHELTON

Land and Vehicle Antennas

Assured PNT/ Anti Jam Products for all Platform Types



Flight tested in demanding conditions and evaluated for extreme environments

Installed on UAVs, Helicopters, Fixed Wing and Land Vehicles

Installed on 4th and 5th Generation Fighter Jets

Installed on UAVs, Helicopters, Fixed Wing and Land Vehicles

Hundreds of worldwide installations on UAVs and Fixed Wing

State of the art Anti Jam for Fast Jet and ISTAR Platforms

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Ground Penetrating Radar Systems

Ground Penetrating Radar (GPR) Systems

COMMERCIAL IN CONFIDENCE

Overview of Capabilities

Platform Mounted

AMULET



A modular GPR array sensor using Minehound technology to remove the operator from the threat for reduced risk. This can be vehicle, UGV or UAS mounted.

Key features include:

- Open and modular architecture allows for a wide variety of platform integrations and varying swathe widths
- HMI using Generic Vehicle Architecture (GVA) guide to design interface
- Low training burden

Handheld (Software, Board & Antenna)

Wirehound



A proven single sensor detector suitable for the detection of wires & linear features with a minimum length of ~20mm.

Key features include:

- All orientation short wire detect
- Time domain ultra wide band GPR
- Enhanced wire and linear feature detection

Simple User Interface

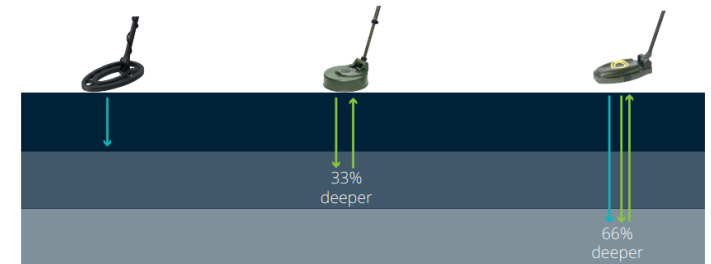
First Line Support for Detection

Minehound (VMR3G)



The technologies applied include:

- Pulsed Induction Metal Detection (MD)
- Time Domain Ultra Wide Band Ground Penetrating Radar (GPR)



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Closing & Networking

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