# Triumph Gulf Coast, Inc. Trust Fund
# Application for Funds

Proposal Instructions: The Triumph Gulf Coast, Inc. Trust Fund Grant Application (this document) must be completed by the entity applying for the grant and signed, as applicable, by either the individual applying for funds, an individual authorized to bind the entity applying for funds, a chief elected official, the administrator for the governmental entity or their designee. Please read the Application carefully as some questions may require a separate narrative to be completed. In addition, please complete all Addendums that may be applicable to the proposed project or program.

Triumph Gulf Coast, Inc. will make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. Triumph Gulf Coast, Inc. may make awards for:

- Ad valorem tax rate reduction within disproportionately affected counties;
- Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;
- Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;
- Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;
- Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education; encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;
- Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and
- Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.

Pursuant to Florida Law, Triumph Gulf Coast, Inc. will provide priority consideration to Applications for projects or programs that:

- Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment.
- Increase household income in the disproportionately affected counties above national average household income.
- Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.
- Partner with local governments to provide funds, infrastructure, land, or other assistance for the project.
- Benefit the environment, in addition to the economy.
- Provide outcome measures.
- Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
- Are recommended by the board of county commissioners of the county in which the project or program will be located.
- Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.

Additionally, the Board of Triumph Gulf Coast, Inc. may provide discretionary priority to consideration of Applications for projects and programs that:

- Are considered transformational for the future of the Northwest Florida region.
- May be consummated quickly and efficiently.
- Promote net-new jobs in the private sector with an income above regional average household income.
- Align with Northwest Florida FORWARD, the regional strategic initiative for Northwest Florida economic transformation.
- Create net-new jobs in targeted industries to include: aerospace and defense, financial services/shared services, water transportation, artificial intelligence, cybersecurity, information technology, manufacturing, and robotics.
- Promote industry cluster impact for unique targeted industries.
- Create net-new jobs with wages above national average wage (*e.g.*, similar to EFI QTI program, measured on graduated scale).
- Are located in Rural Area of Opportunity as defined by the State of Florida (DEO).
- Provide a wider regional impact versus solely local impact.
- Align with other similar programs across the regions for greater regional impact, and not be duplicative of other existing projects or programs.
- Enhance research and innovative technologies in the region.
- Enhance a targeted industry cluster or create a Center of Excellence unique to Northwest Florida.

- Create a unique asset in the region that can be leveraged for regional growth of targeted industries.
- Demonstrate long-term financial sustainability following Triumph Gulf Coast, Inc. funding.
- Leverage funding from other government and private entity sources.
- Provide local investment and spending.
- Are supported by more than one governmental entity and/or private sector companies, in particular proposed projects or programs supported by more than one county in the region.
- Provide clear performance metrics over duration of project or program.
- Include deliverables-based payment system dependent upon achievement of interim performance metrics.
- Provide capacity building support for regional economic growth.
- Are environmentally conscious and business focused.
- Include Applicant and selected partners/vendors located in Northwest Florida.

Applications will be evaluated and scored based on compliance with the statutory requirements of the Triumph Gulf Coast legislation, including but not limited to the priorities identified therein and the geographic region served by the proposed project or program.

**Executive Summary**

When GKN Aerospace was looking for a place to expand, they told Bay County that they needed two things 1) an advanced manufacturing workforce pipeline and 2) a collaborative partnership in which to perform their future research & development efforts. Upon working this request for over 2 years, signing up additional partners looking to move to or expand in the region, and visiting multiple similar facilities worldwide identified as exemplary, Gulf Coast State College (GCSC) is partnering with education, government, and industry to create the Advanced Manufacturing Innovation Institute or AMI$^2$. The AMI$^2$ will leverage Bay County's and the region's network of educational institutions, world-class research facilities, industry, and military bases to build a sustainable hub of advanced manufacturing training, development, and production.

The GCSC Advanced Manufacturing Innovation Institute (AMI$^2$) will be a public-private partnership of industry, local/state/federal agencies, and academia that work together and invest in the development of world leading facilities, technologies, capabilities, education, training, and workforce development/recruitment. Our stakeholders will jointly design, acquire and equip world-class research, development, and production facilities – a global center of excellence for advanced manufacturing excellence! In addition, our stakeholders are working to identify and recruit the best industry talent essential to drive our innovation and success.

AMI$^2$ is designed to integrate and expand the work of current and developing regional Advanced Manufacturing (AM) partners - partners who make extensive use of computerized and highly automated, high precision technologies and techniques, combined with a high performance workforce, in furnishing a heterogeneous mix of products (in small or large volumes, and with both the efficiency of mass production and the flexibility of custom manufacturing), in order to quickly respond to customer demands.

The Gulf Coast State College (GCSC) Advanced Manufacturing Innovation Institute will provide state of the art skill training to individuals who are seeking future employment in advanced manufacturing. The training will include classroom instruction, in school laboratory experiences, and significant on-the-job training opportunities through internships. Students participating in the Institute will be provided instruction in the basics of advanced manufacturing and will have extensive opportunities to participate in research and development activities regarding new technologies and processes. These two components (on-the-job training and opportunities for research and development) are the major differences between the GCSC Advanced Manufacturing Innovation Institute and other advanced manufacturing training programs. Using extensive on-the-job training and opportunities to participate in research and development, students will be well prepared for employment in the dynamic, ever changing field of advanced manufacturing. They will have the knowledge and skills needed to perform the basic processes that are required, operate state of the art equipment, and identify new or improved processes and techniques.

**Private/Public Partnerships**

***Private Industry*** - GKN Aerospace, Huntington Ingalls, Doncasters, ACMT, and Air Temp America, St Joe Company
***Academia*** - Florida State University Panama City, Gulf Coast State College, Bay District Schools
***Government*** - Naval Surface Warfare Center Panama City
***Workforce Training & Strategic*** - CareerSource Gulf Coast, Bay County Economic Development Alliance

## Workforce Education

Our community realizes the value and has a sense of urgency to accelerate the development of our science and technology workforce pipeline. To this end, we have developed career academies supporting manufacturing at Rutherford High School and engineering academies at Mosley, North Bay Haven, and Arnold High School, and are collaborating in the new STEM building at Bay High School. We have also formed a collaborative partnership between Naval Surface Warfare Center Panama City (NSWC-PC), Florida State University Panama City, Gulf Coast State College, and Bay District Schools. The partnership was created through Education Partnership Agreements (EPAs) signed by each organization. These EPAs allow NSWC-PC and the education institutions to collaborate and share information with the stated intent to spark student interest in Science, Technology, Engineering, and Math (STEM). GCSC and FSU PC are already collaborating by annually hosting STEM Camps, Girls Night for Engineering, Fantastic Physics Day, the Invention Convention and similar events. Combined, these events are successfully engaging over 1,600 students annually in grades K-20.

Our workforce education partners, as previously identified for AMI$^2$ , are Bay District Schools (career academies, certifications, dual enrollment, student internships), Gulf Coast State College (pre-employment training, A.S. Engineering Technology, college credit certificates, industry certifications, research support, student internships), Florida State University Panama City (materials research, B.S. Mechanical Engineering, M.S. Systems Engineering, student internships), CareerSource Gulf Coast (pre-employment selection, training scholarships, and internship placement with industries), and advanced manufacturing industries in Bay County (all participating industries will provide multiple internship opportunities for students annually). ***Our industry partners will guide AMI$^2$ in curriculum development, equipment selection, and evaluation of students to ensure that the students in our internship, certificate, and degree programs have the required skills.*** Gulf Coast State College guarantees that graduates of an Associate of Science degree, college credit certificate, or non-credit training course included in the Advance Manufacturing Innovation Institute (AMI$^2$) will have the general and technical skills outlined in their program of study, including program objectives. If there are skill deficiencies identified by the student's first employer in the related field, the college will provide additional instruction to address the skill deficiencies at no cost to the student or employer.

## Research & Development

Providing research and development facilities, destructive and non-destructive testing capabilities, personnel, and support for AM industries is key to NWFL becoming a cluster for advanced manufacturing. We will collaborate with industry, federal government (NSWC PC), and university/college personnel to facilitate the development of efficient rapid product development and market delivery strategies, which is the end goal of all manufacturers. This research team will have a diverse knowledge and risk portfolio balance comprised of new students, AM industry professionals, college and university researchers, and federal government personnel. This mix of knowledge, experience, skill sets, and unique data requirements will uniquely enable the AMI$^2$ to focus on product development, production, speed, and costs. GCSC will build and jointly operate certified non-destructive and destructive materials testing facilities to enable required data to be produced and provided on-site, resulting in vastly increased operational efficiency. GCSC will construct all related AMI$^2$ facilities, as well as, procure and own all related AM equipment. FSU

will be hiring two research professors for materials research and provide access to the High Performance Material Institute in Tallahassee, as well as facilities in Panama City. NSWC is donating $2.1M in AM equipment, providing civilian research labor in-kind, and supporting additional research projects on site at NSA-PC. Industry will be providing research professionals, materials, quality assurance data platforms, and product to market profit and cost templates for the research team.

## Sustainability

The AMI$^2$ is expected to be fully sustainable in 5 years. The plan to reach sustainability will focus primarily on three components. The first component is memberships; all private industry partners will pay an annual membership fee. The AMI$^2$ will cover membership fees for the first 3 years to entice industry to join and create value for potential members. The second component will be revenue produced from non-destructive and destructive testing in our certified facilities. Once this capability is implemented and certified, the AMI$^2$ will charge fees to conduct materials testing. We anticipate a consistent revenue stream from this source beginning as early as year 4. The final component is federal grants and contracts being awarded to AMI$^2$. The AMI$^2$ will generate approximately $500K per year beginning in year 3 from state and federal government sources. We will also employ full-time membership and grants/contracts professionals to ensure new members and federal grant/contract revenue.

## Costs & Timeline

Due to increased matching funds since the pre-application was submitted, we are reducing the amount requested by $8,487,644 (pre-application amount was $25.6M). ***GCSC is asking for $17,112,356 over 5 years from Triumph to help fund this AMI$^2$ project which has an overall cost of $41,501,841.*** This includes partial funding in all facilities, equipment, personnel, project, and operational categories. GCSC and its partners are contributing $24,389,485 in matching funds for this project over 5 years. This represents a 59% match for the requested Triumph funds.

## Performance Metrics

The AMI$^2$ will produce a minimum of 746 skilled students/workers for advanced manufacturing industry in the region over the 5-year period and commits to facilitating and documenting a minimum of 180 internships. The average starting salary for the 746-trained students is estimated at $58,419 annually. This represents a 154.7% return on investment for Triumph over the 5-year period and 20.6% ROI per year.

| | AMI$^2$ | Triumph GC Funding | |
|---|---|---|---|
| ***Total Program Cost*** | $41.50M | $17.11M | 59% Match |
| ***Return On Investment*** | Avg. Salary- $58,419/yr. | 154.7% | 20.6%/yr. |
| ***# Trained*** | 746 trained for Advanced Manufacturing | 180 internships, 1420 industry certifications, 132 Associate degrees in HS, 225 industry certifications from summer camps | 2,523 Total trained over 5 years |
| ***# of Partners*** | 5 Private Industry | 4 Academic/Career Ed | 1 Fed Gov |

**Applicant Information**

Name of Individual (if applying in individual capacity): N/A

Name of Entity/Organization: Gulf Coast State College

Background of Applicant Individual/Entity/Organization:

Gulf Coast State College (GCSC) is a public institution of higher education located in Panama City, Florida, with three additional campuses in Southport, Port St Joe and Tyndall Air Force Base. GCSC is one of 28 state/community colleges in Florida whose mission is to meet the educational and workforce needs of the communities they serve. GCSC's service area includes Bay, Gulf and Franklin counties. The combined population of these three counties is approximately 216,000. GCSC offers over 150 different programs including Bachelor of Science degrees, Associate in Art degrees, Associate in Science degrees, college credit certificates, and industry certifications. Total enrollment in the credit programs is approximately 6,000 students. GCSC also provides noncredit training or continuing education for individuals who need to "skill up" in order to become employed or advance in employment. Annual enrolment in these programs is approximately 7,280 students. Recently, GCSC has also increased efforts to provide Science and Technology enhancement opportunities for K-12 students in Bay, Gulf and Franklin counties. Over the past 2 years, approximately 1,600 different K-12 students have benefitted from these opportunities.

GCSC is governed by a nine person local District Board of Trustees appointed by the Governor. The primary sources of revenue are tuition and fees from students, funding from the state of Florida, and grants (state and federal). The total operational budget is approximately $31,000,000 annually.

GCSC is committed to providing a high quality, accessible and affordable college education to the students we serve. The college currently charges the lowest tuition and fees of all public colleges and universities in Florida, and has not raised tuition in eight years.

**Success Statistics**

- Ranked in the top 5 "Best Community Colleges in Florida"
- GPA of transfer students: 3.13
- Placement Rate: 98% (6 months after graduation)
- Beginning salary of completers one year after graduation: $39,980

**Federal Employer Identification Number:** 59-1208155

**Contact Information:**

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Identify any co-applicants, partners, or other entities or organizations that will have a role in the proposed project or program and such partners proposed roles.

**Gulf Coast State College** - primary administrative/fiscal agent and educational partner. GCSC will provide educational programs in Engineering Technology and related college credit certificates, opportunities to earn related industry certificates, along with the use of facilities, equipment, and staff/faculty. GCSC students will also have the opportunity to participate in internship opportunities through AMI$^2$. GCSC will also provide non-credit training, including pre-employment, to assist individuals to "skill up" in order to become employed.

**Florida State University Panama City** - educational, research and development partner. FSU will provide educational programs, facilities and faculty in the new Mechanical Engineering bachelor degree program, and the new master's degree in Systems Engineering. In addition, Florida State University, Panama City will provide researchers for the research and development component of AMI$^2$ and access to the High-Performance Materials Institute in Tallahassee. FSU students will also participate in internship opportunities through AMI$^2$.

**Bay District Schools** - educational partner. BDS will provide K-12 educational programs, including the opportunity to earn industry certifications and participate in dual enrollment. BDS will also provide facilities and instructors in engineering and manufacturing via career academies and Science and Technology programs and activities. Students in the manufacturing and engineering career academies will also have the opportunity to participate in internships through AMI$^2$.

**Navy Surface Warfare Center, Panama City** - governmental partner. The Navy Surface Warfare Center will provide expertise, equipment, facilities, funding and internship opportunities.

**GKN Aerospace** - industry partner. GKN Aerospace will provide expertise, facilities, equipment, funding through membership fees, staff and internship opportunities for students participating in AMI$^2$.

**Doncasters** -industry partner. Doncasters will provide expertise, facilities, equipment, funding through membership fees, staff and internship opportunities for students participating in AMI$^2$.

**Huntington Ingalls**- industry partner. Huntington Ingalls will provide expertise, facilities, equipment, funding through membership fees, staff and internship opportunities for students participating in AMI$^2$.

**Advanced Composites and Metal Forming Technology -** industry partner. ACMT will provide expertise, facilities, equipment, funding through membership fees, staff and internship opportunities for students participating in AMI$^2$.

**Air Temp of America -** industry partner. Air Temp of America will provide expertise, facilities, equipment, funding through membership fees, staff and internship opportunities for students participating in AMI$^2$.

**Total amount of funding requested from Triumph Gulf Coast: $17,112,356**

Has the applicant in the past requested or applied for funds for all or part of the proposed project/program?

☒ Yes ☐ No

Yes. GCSC applied for funding in September, 2017, from the Florida Job Growth Grant Fund to support components of the Advanced Manufacturing Innovation Institute. GCSC has received notification from the Florida Department of Economic Opportunity that the grant has been approved and GCSC will receive $1,923,442.32. This funding will be used to hire two faculty (to provide instruction in advanced manufacturing), equipment, and modifications to a current facility at GCSC, and partial scholarships for prospective students.

Describe the financial status of the applicant and any co-applicants or partners:

The applicant (GCSC) and two educational partners (Florida State University, Panama City and Bay District Schools) are public educational entities in the state of Florida. As such, each must adhere to Florida statutes and federal code regarding financial processes and procedures and undergo regular financial and operational audits by the state Auditor General. GCSC has a long history of excellent audits with either no (or typical) findings. Both FSU Panama City and Bay District Schools also have had consistently positive audits.

The Navy Surface Warfare Center (NSWC) is a military/governmental facility under the jurisdiction of the U S government. As such, the NSWC must adhere to strict governmental rules and regulations pertaining to financial issues and must undergo regularly scheduled audits to insure

sound financial practices.

GKN Aerospace, Doncasters, Huntington Ingalls and ACMT are all private companies that have been very successful in their respective industries. GKN, Doncasters and Huntington Ingalls are large multinational companies who have been in business for a combined 512 years.

**Separate Attachment-** see separate attachment for additional financial statement or information pertaining to the applicant and partners.

Has the applicant or any co-applicants, partners or any associated or affiliated entities or individuals filed for bankruptcy in the last ten (10) years?

☐ Yes ☒ No

**Eligibility**

Pursuant to Section 288.8017, Triumph Gulf Coast, Inc. was created to make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. The disproportionately affected counties are: Bay County, Escambia County, Franklin County, Gulf County, Okaloosa County, Santa Rosa County, Walton County, or Wakulla County. *See*, Section 288.08012.

1. From the choices below, please check the box that describes the purpose of the proposed project or program (check all that apply):

☐ Ad valorem tax rate reduction within disproportionately affected counties;

☐ Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;

☐ Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;

☐ Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;

☒ Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education, encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;

☒ Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and

☐ Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.

2. Provide the title and a detailed description of the proposed project or program, including the location of the proposed project or program, a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote economic recovery, diversification, and enhancement of the disproportionately affected counties, a proposed timeline for the proposed project or program, and the disproportionately affected counties that will be impacted by the proposed project or program.

   Title of Project: The Advanced Manufacturing Innovation Institute (AMI$^2$)
   Location: Gulf Coast State College (GCSC) Panama City campus
   Disproportionately affected counties that will be impacted: Bay, Gulf, and Franklin
   Detailed description of the proposed project:

   The Advanced Manufacturing Innovation Institute is a public-private partnership of industry, local/state/federal agencies, and academia that will work together and co-invest in the development of world leading facilities, technologies, capabilities, education, and training/workforce development. The purpose of the AMI$^2$ is to promote the creation of a stable and sustainable innovation ecosystem for advanced manufacturing in northwest Florida that will result in additional manufacturers locating to northwest Florida, and creating additional jobs for citizens in this area.

   The AMI$^2$ at GCSC will consist of three components including 1) workforce training 2) research and development and 3) entrepreneurial/sustainability efforts:

   **The Workforce Training component of the AMI$^2$** will provide comprehensive skill training (entry level to advanced) to individuals who are seeking future employment in advanced manufacturing. The training will include classroom instruction, in school laboratory experiences and significant on the job training opportunities through internships. Students participating in the AMI$^2$ will be provided instruction in advanced manufacturing methodologies and technologies, utilizing state of the art facilities and equipment. A variety of educational credentials (K-12 industry certifications through master's degree) will be available to students in the workforce training offered through the AMI$^{2.}$ Programs offered at **GCSC** include an Associate in Science degree in engineering technology, a variety of college credit certificates, and noncredit skills training. Students will also have the opportunity to earn selected industry certifications through the instructional programs at both the secondary and higher education levels. GCSC/AMI$^2$ will also provide K-12 students with the opportunity to participate in Science and Technology enhancement activities and summer camps/workshops resulting in industry certifications. Florida State University through the FAMU-FSU College of Engineering and Florida State University Panama City has agreed to start a mechanical engineering program to serve the students in the region. This program was requested by industry partners and is critical to the success of the Institute. Funding of the institute will enrich the career preparation of more than 50 mechanical engineers for employment in the Panama City region. **Florida State University Panama City** will provide a bachelor's degree in mechanical engineering and a master's program in systems engineering beginning in fall, 2018. **Bay District Schools** offers manufacturing and engineering career academies at several of the high schools in Bay County. Negotiations are currently underway to do the same in Gulf and Franklin counties. This collaboration and coordination between the local educational institutions, and

the programs being offered, provides students with a well-defined career pathway, resulting in the capability and likelihood of progress in advanced manufacturing career opportunities. Additional collaboration between GCSC and the school districts will increase dual enrollment opportunities and increase the number of students graduating with an associates degree from high school.

**The Research and Development component of AMI$^2$** is essential if northwest Florida is to become a leader in advanced manufacturing. AMI$^2$ will provide research and development facilities, personnel, and support by collaborating with industry, federal government (NSWC PC), and university/college personnel to create a team that will focus on getting products developed and to market faster and more efficiently. This team will deconstruct current processes and techniques to determine and implement more efficient ways to perform the task, reducing the amount of time it takes to get a product in production and to market increases profitability for the company. The synergy created by having multiple partners with different approaches working together to solve a problem or improve a process is a proven strategy and the cornerstone of AMI$^2$. AMI$^2$ will provide this collaborative environment, and a primary goal will be a measurable reduction in production time for selected products/processes. Another very important aspect of this component of AMI$^2$ is the incredible, hands-on learning opportunities for students. Students (high school, college and university) will have the opportunity to actively participate on the R&D teams thus providing them with learning opportunities not typically available in a strictly educational setting.

Ultimately, the **Entrepreneurial/Sustainability component** of AMI$^2$ will be fully sustainable in 5 years. The fees and tuition earned through the educational programs at the college and university will ultimately cover all institutional costs related to instruction. In addition, there are three components involved in reaching sustainability through the identification and maximization of entrepreneurial endeavors. The first entrepreneurial opportunity to produce revenue will be providing destructive and nondestructive material testing services. It is anticipated that by year 4, the AMI$^2$ will produce approximately $50,000 annually from material testing. The other sources of revenue for sustainability are through memberships and federal and state grants. All private industry partners will pay an annual membership fee. The final source of revenue will be through state and federal grants. It is anticipated that the AMI$^2$ will generate $500,000 per year beginning in year 3 from state and federal government/contract revenue.

**Economic Recovery, Diversification and Enhancement**

The AMI$^2$ will foster economic recovery, diversification and enhancement in northwest Florida by serving as a catalyst to attract and retain advanced manufacturers to Bay County, and eventually all of northwest Florida. By developing an ecosystem that supports advanced manufacturers in addressing and solving many of their most pressing problems (a skilled workforce and reducing their time/cost to production), advanced manufacturers will be drawn to the area because of the available assets. Exemplars in other industries include Silicon Valley in California and the Research Triangle in North Carolina This ecosystem, composed of partners in education (GCSC, FSU Panama City and Bay District Schools), private industry (GKN Aerospace, Doncasters, Huntington Ingalls, ACMT, and Air Temp America) and governmental/military entities (Naval Surface Warfare Center), will combine

resources and expertise to provide cutting-edge workforce training, engage in collaborative research and development, and develop new products, services, technologies and processes. This collaborative effort will result in a highly skilled workforce in advanced manufacturing, the creation of jobs, and an increase in the standard of living for Bay County and the surrounding area.

As a result of the momentum that was created when GKN Aerospace located a production facility in Bay County in 2017, the local Economic Development Alliance is currently in late stage discussions with 10 additional advanced manufacturers interested in locating a manufacturing facility in Bay County. If all 10 companies opened a facility in Bay County, potentially 1,620 jobs could be created in Bay County and the surrounding area. If only one-half of the companies decided on Bay County, these 810 new jobs would have an average salary of $58,419 which is $19,104 higher than the current average in Bay County ($39,315). It is projected that over the first 5 years of AMI$^2$, a minimum of **746 students** would receive training by GCSC through the AMI$^2$ preparing them for lucrative employment in advanced manufacturing in the region. We project that **180 students** would participate in internship opportunities and **1,420 students** would receive industry certifications. The K-12 Science and Technology enhancement activities provided by the AMI$^2$ would serve **7,950 students over 5 years. Florida State University Panama City would also train greater than 50 mechanical and/or systems engineers**. The mean average wage for mechanical engineers is $85,880 which is a $46,565 increase over the average annual salary in Bay County ($39,315). The mean average wage of a systems engineer is $91,373 which is an increase of $52,058 over the average annual salary in Bay County ($39,315).

AMI$^2$ will play a substantive role in the diversification and transformation of the economy in Bay County and the surrounding area by the creation of high skill, high wage jobs and a skilled workforce in advanced manufacturing. Diversification of the economy will be enhanced by AMI$^2$ because of the addition of an advanced manufacturing cluster to tourism and military as the predominant industries in Bay County. AMI$^2$ will serve as a catalyst to attract new advanced manufacturers to the area. The Bay County economy and the economy of northwest Florida will be enhanced by the increased number of high wage, high skilled jobs in advanced manufacturing.

**Timeline**
It is anticipated that AMI$^2$ will be fully operational and sustainable in 5 years.

3. Explain how the proposed project or program is considered transformational and how it will affect the disproportionately affected counties in the next ten (10) years.

   The AMI$^2$ will transform the disproportionately affected counties (Bay County and surrounding area) over the next 10 years by **diversifying the economy** in Bay County and the surrounding area through the addition of an advanced manufacturing cluster of industries. AMI$^2$ will serve as a catalyst by attracting more advanced manufacturers to the area because of the availability of a skilled workforce and an ecosystem that is supportive of advanced manufacturing. The additional advanced manufacturing employers will **create new high skilled, high wage jobs** which will provide more individuals and families with the ability to earn higher wages and increase their ability to purchase additional goods and

services. This increased revenue in the economy will **create additional jobs** and employment opportunities, thus diversifying the economy of Bay County and the surrounding area. This diversification will add additional high wage/high skilled employment opportunities. **Based on information compiled for the Northwest Florida Forward Report, for every 500 manufacturing jobs the following, is generated:**

| Monetary Impact | Creates Another 1,938 Jobs |
|---|---|
| Causes more than $420,000,000 in economic transactions within the community | Creates more than 300 jobs in construction and other sectors |
| More than $164,000,000 in community payrolls | 120 restaurant jobs |
| Money to support 1,967 households | 156 health care jobs |
| Generates $17,500,000 in local and state taxes | 302 wholesale and retail jobs |
| Creates more than $109,000,000 in taxable retail sales | 632 professional services jobs |
| | 158 real estate and finance jobs |
| | 265 general service jobs |

4. Describe data or information available to demonstrate the viability of the proposed project or program.

   The viability of AMI$^2$ is demonstrated by the data and information contained in the report "Accelerating U. S. Advanced Manufacturing" from the President's Council of Advisors on Sciences and Technology. This report was prepared by the Steering Committee of the Advanced Manufacturing Partnership 2.0 (AMP2.0). The members of AMP2.0 worked with industry, academia, government and the public to address the challenge of expanding advanced manufacturing in the United States. The three pillars identified through the research, which are needed to expand advanced manufacturing in a geographic area, are (1) enabling innovation, (2) securing the talent pipeline, and (3) improving the business climate. Based on previous research and research gathered for this report, public-private partnerships such as the AMI$^2$ were identified as models that have had great success nationally and internationally with enabling innovation, securing the talent pipeline and improving the business climate. These public-private partnerships were endorsed by the report as strategies that should be implemented by communities seeking to expand advanced manufacturing. AMI$^2$ contains all three pillars identified in the report and will use the performance metrics identified in the report to measure the success and viability of AMI$^2$.

5. Describe how the impacts to the disproportionately affected counties will be measured long term.

   The impacts to the disproportionately affected area will be measured by:
   - Number of students trained in advanced manufacturing through the AMI$^2$. (Increase in the skilled workforce in advanced manufacturing).
   - Placement rate of students trained through the AMI$^2$ (percentage who were employed).
   - Averaged wages earned by students trained through the AMI$^2$.

- Number of indirect jobs created as a result of jobs created in advanced manufacturing.
- Number of advanced manufacturing companies recruited to Bay County.
- Number of jobs created in advanced manufacturing.

6. Describe how the proposed project or program is sustainable. (Note: Sustainable means how the proposed project or program will remain financially viable and continue to perform in the long-term after Triumph Gulf Coast, Inc. funding.)

The AMI² will be sustainable in no later than 5 years. The three sources of revenue, exclusive of tuition and fees for the credit and noncredit workforce training, are membership fees, revenue from services provided, and grants/contracts. All private industry partners will pay an annual membership fee. The AMI² will cover the membership fee for the first 3 years of AMI² to entice industry to join and to allow time to show value to potential members. The second source will be revenue produced by providing service to industry involving destructive and nondestructive testing in AMI²'s certified testing facility. Once this capability is available and certified, the AMI² will charge fees to conduct materials testing. It is anticipated that by year 4, approximately $50,000 per year will be realized from this service. The third source of revenue will be from state and federal grants/contracts. It is anticipated that by year 3, AMI² will generate approximately $500,000 annually from state/federal grants, and contracts. During preparation for this proposal, GCSC toured and was advised by the Advanced Manufacturing Research Center on the campus of the University of Sheffield, United Kingdom (www.amrc.co.uk/). The AMRC is 15 years old, has a 120 corporate members and approximately $55M/year in revenue. We have modified the AMI² to emmulate the AMRC. Colin Sirett, CEO of the AMRC stated to college officials, "Your vision is absolutely 'on the money' and, as you could see during your visit, it works."

7. Describe how the deliverables for the proposed project or program will be measured.

The deliverables for AMI² over 5 years are to:

- Produce 746 trained individuals (BDS, GCSC, FSU PC) in advanced manufacturing earning an average wage of $58,419 annually
- Facilitate 180 internships for students receiving training through AMI². Each industry will select the interns for their company
- Produce 1,420 students with industry certifications
- Produce 132 students who graduate from high school with an associates degree
- Produced 225 students from summer camps/workshops who earn an industry certification
- ***Total Trained = 2,523/5years, Total Cost per Trainee = $17,112,356/2,523=$6,783***

**Priorities**

1. Please check the box if the proposed project or program will meet any of the following priorities (check all that apply):

   ☒ Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long- term economic growth potential of the disproportionately affected counties may be enhanced by the investment.
   ☒ Increase household income in the disproportionately affected counties above national average household income.
   ☒ Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.
   ☒ Partner with local governments to provide funds, infrastructure, land, or other assistance for the project.
   ☐ Benefit the environment, in addition to the economy.
   ☒ Provide outcome measures.
   ☒ Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
   ☒ Are recommended by the board of county commissioners of the county in which the project or program will be located.
   ☐ Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.

2. Please explain how the proposed project meets the priorities identified above.

   AMI² will generate **maximum economic benefits** and **increase household income** in the disproportionately affected counties by preparing 746 individuals for employment in Advanced Manufacturing through the training programs at GCSC. The individuals completing the AS degree and certificates in engineering technology will earn an average salary of $58,419 which is an increase of $19,104 over the average starting salary in Bay County of $39,315. **The cost per student is $6,783. The ROI is 154.7% over five years or 20.56% per year.**

   FSU Panama City will train greater than 50 individuals through the bachelor's in mechanical engineering and master's in systems engineering programs. The mean average wage for mechanical engineers is $85,880. The mean average wage for systems engineers is $91,373. This is an increase of $46,565 and $52,058 over the average starting salary in Bay County of $39,315.

   AMI² will also enable 724 students to earn industry certifications and non-credit certifications through the programs at GCSC and 696 industry certifications through the career academies and K-12 career academies offered by the Bay District Schools. Industry certifications often result in higher wages. The individuals who have earned them often

give an individual "advanced standing" in the next level of training saving the individual the cost of tuition and fees.

AMI$^2$ will **leverage key regional assets, partner with local governments and K-20 educational institutions**, including GCSC, FSU Panama City, and Bay District Schools , research facilities (FSU) and military bases (NSWC) and industry (GKN, Doncasters, Huntington Ingalls, ACMT and Air Temp America) by sharing facilities, equipment, faculty and staff. This partnership will enable AMI$^2$ to share resources and avoid unnecessary duplication thus saving money and resources.

AMI$^2$ was highly recommended by the Bay County Board of County Commissioners. See attached letter.

3. Please explain how the proposed project or program meets the discretionary priorities identified by the Board.

AMI$^2$ meets the following discretionary priorities identified by the Triumph Board:

- Transformational: AMI$^2$ will serve as a catalyst in transforming the region into an advanced manufacturing cluster, with a highly skilled workforce and an ecosystem focused on research, development and innovation.
- Promotes net-new jobs with income above regional average: AMI$^2$ will create 746 new trained individuals prepared for jobs in Advanced Manufacturing paying $58,419 vs $47,943 regional average
- AMI$^2$, through educational partners, will also train 50 individuals with bachelor's in mechanical engineering and/or a master's in systems engineering with salaries of $85,880 vs $47,943 and $91,373 vs $47,943 regional average, respectively.
- Aligns with Northwest Florida Forward: AMI$^2$ will provide a skilled workforce in Advanced Manufacturing identified by NWF Forward as a targeted industry.
- Create net-new jobs in targeted industry: AMI$^2$ will create 746-trained individuals in advanced manufacturing.
- Creates net new jobs with income above national average: AMI$^2$ will train 746 individuals for occupations paying $58,419 vs a national average of $61,389, and 50 trained individuals for occupations paying $85,880 and $91,373 vs national average of $61,389.
- Enhance research and innovative technologies in the region: AMI$^2$ will have a research and development component designed to identify new and improved technologies, processes, and innovations in advanced technology.
- Enhance a target industry cluster/create a Center of Excellence unique to Northwest Florida: AMI$^2$ is designed to serve as a Center of Excellence in Advanced Manufacturing for northwest Florida based on the criteria identified in the National Network for Manufacturing Innovation

4. In which of the eight disproportionately affected county/counties is the proposed project or program located? (Circle all that apply)

   Escambia Santa Rosa Okaloosa Walton Bay Gulf Franklin Wakulla

5. Was this proposed project or program on a list of proposed projects and programs submitted to Triumph Gulf Coast, Inc., by one (or more) of the eight disproportionately affected Counties as a project and program located within its county?

   ☒ Yes ☐ No

   If yes, list all Counties that apply: Bay

6. Does the Board of County Commissioners for each County listed in response to question 5, above, recommend this project or program to Triumph?

   ☒ Yes ☐ No

   **Please attach proof of recommendation(s) from each County identified.

**Approvals and Authority**

1. If the Applicant is awarded grant funds based on this proposal, what approvals must be obtained before Applicant can execute an agreement with Triumph Gulf Coast, Inc.? The president of Gulf Coast State College is authorized to execute an agreement with Triumph Gulf Coast, Inc. to receive grant funds based on this proposal. See attachment.

2. If approval of a board, commission, council or other group is needed prior to execution of an agreement between the entity and Triumph Gulf Coast: N/A

3. Describe the timeline for the proposed project or program if an award of funding is approved, including milestones that will be achieved following an award through completion of the proposed project or program. The proposed time line for full implementation of AMI$^2$ is five years. See attached time line and budget.

4. Attach evidence that the undersigned has all necessary authority to execute this proposal on behalf of the entity applying for funding. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy documents, etc. In addition, please attach any support letters from partners.

   Attachments: Florida Statutes 1001.65: Florida College System institution presidents; powers and duties

   Letters of Support from Partners: See attachment.

**Funding and Budget:**

Pursuant to Section 288.8017, awards may not be used to finance 100 percent of any project or program. An awardee may not receive all of the funds available in any given year.

1. Identify the amount of funding sought from Triumph Gulf Coast, Inc. and the time period over which funding is requested.

   Amount of funding sought from Triumph Gulf Coast: $ 17,112,356
   Time period over which funding is requested: 5 years

2. What percentage of total program or project costs does the requested award from Triumph Gulf Coast, Inc. represent? (Please note that an award of funding will be for a defined monetary amount and will not be based on percentage of projected project costs.)

   The percentage of total program or project costs the requested award represents: 41%

3. Please describe the types and number of jobs expected from the proposed project or program and the expected average wage.

   The types and number of jobs (trained individuals) expected from the proposed project or program and the expected average wage: 696 trained engineering or mechanical technicians with average salary of $58,419 and 50 trained mechanical and/or systems engineers with average salaries of $85,880 and $91,373 respectively (746 total).

4. Does the potential award supplement but not supplant existing funding sources? If yes, describe how the potential award supplements existing funding sources.
   ☒ Yes ☐ No

   Yes, the potential award supplements existing resources and will allow GCSC to leverage existing college operational and capital outlay dollars, other grant resources, and the existing personnel and equipment of our military, industry, and educational partners.

5. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal. See Attachment.

   A. Project/Program Costs:

   Example Costs (Note: Not exhaustive list of possible Cost categories.)

| | |
|---|---|
| Construction | $ 14,000,000 |
| Reconstruction | $ 1,098,500 |
| Design & Engineering | $ 1,404,000 |
| Land Acquisition | $ |
| Land Improvement | $ |
| Equipment | $ 11,771,610 |
| Supplies | $ 976,894 |
| Salaries | $ 11,431,462 |
| Other (specify) | $ 819,375 |
| Total Project Costs: | $ 41,501,841 |

   B. Other Project Funding Sources:

   Example Funding Sources (Note: Not an exhaustive list of possible Funding Sources.)

| | |
|---|---|
| City/County/State | $ 21,418,673 |
| Private Sources | $ 376,428 |
| Other (e.g., grants, etc.) | $ 2,594,384 |
| Total Other Funding | $ 24,389,485 |
| **Total Amount Requested:** | **$ 17,112,356** |

   Note: The total amount requested must equal the difference between the costs in 3.A. and the other project funding sources in 3.B.

   C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.

   We have provided a detailed budget spreadsheet that identifies all costs associated with our Triumph Gulf Coast request, committed matching funds, and future anticipated funding sources for the Advanced Manufacturing Innovation Institute. The workbook summarizes all project costs in the first worksheet. Subsequent worksheets are titled Source of Funds, #1 Facilities & Land, #2 Equipment Purchases,

#3 Supplies, #4 Salaries, and #5 Other Cost Categories.

Gulf Coast State College will serve as the recipient and fiscal agent of funds from Triumph Gulf Coast, and will make all distributions to partners required to execute the Advanced Manufacturing Innovation Institute program. Gulf Coast will hold monthly program review meetings with all partners to ensure up-to-date reporting information for Triumph, as well as the timely execution of program responsibility.

(If additional space is needed, please attach a Word document with your entire answer.)

Applicant understands that the Triumph Gulf Coast, Inc. statute requires that the award contract must include provisions requiring a performance report on the contracted activities, must account for the proper use of funds provided under the contract, and must include provisions for recovery of awards in the event the award was based upon fraudulent information or the awardee is not meeting the performance requirements of the award.

☒ Yes ☐ No

Applicant understands that awardees must regularly report to Triumph Gulf Coast, Inc. the expenditure of funds and the status of the project or program on a schedule determined by Triumph Gulf Coast, Inc.

☒ Yes ☐ No

Applicant acknowledges that Applicant and any co-Applicants will make books and records and other financial data available to Triumph Gulf Coast, Inc. as necessary to measure and confirm performance metrics and deliverables.

☒ Yes ☐ No

Applicant acknowledges that Triumph Gulf Coast, Inc. reserves the right to request additional information from Applicant concerning the proposed project or program.

☒ Yes ☐ No

**ADDENDUM FOR INFRASTRUCTURE PROPOSALS:**

1. Program Requirements

   A. Is the infrastructure owned by the public?
   ☐ Yes ☐ No

   B. Is the infrastructure for public use or does it predominately benefit the public?
   ☐ Yes ☐ No

   C. Will the public infrastructure improvements be for the exclusive benefit of any single company, corporation or business entity?

   ☐ Yes ☐ No

   D. Provide a detailed explanation of how the public infrastructure improvements will connect to a broader economic development vision for the community and benefit additional current and future businesses.

   _____

   _____

   _____
   (If additional space is needed, please attach a Word document with your entire answer.)

   E. Provide a detailed description of, and quantitative evidence demonstrating how the proposed public infrastructure project will promote:
   - Economic recovery,
   - Economic Diversification,
   - Enhancement of the disproportionately affected counties,
   - Enhancement of a Targeted Industry.

   _____

   _____
   (If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

   A. Is this project an expansion of existing infrastructure project?
   ☐ Yes ☐ No

   B. Provide the proposed beginning commencement date and number of days required to complete construction of the infrastructure project.

   _____

(If additional space is needed, please attach a Word document with your entire answer.)

C. What is the location of the public infrastructure? (Provide the road number, if applicable.)

(If additional space is needed, please attach a Word document with your entire answer.)

D. Who is responsible for maintenance and upkeep? (Indicate if more than one are applicable.)

(If additional space is needed, please attach a Word document with your entire answer.)

E. What permits are necessary for the infrastructure project?

(If additional space is needed, please attach a Word document with your entire answer.)

Detail whether required permits have been secured, and if not, detail the timeline for securing these permits. Additionally, if any required permits are local permits, will these permits be prioritized?

(If additional space is needed, please attach a Word document with your entire answer.)

F. What is the future land use and zoning designation on the proposed site of the Infrastructure improvement, and will the improvements conform to those uses?

(If additional space is needed, please attach a Word document with your entire answer.)

G. Will an amendment to the local comprehensive plan or a development order be required on the site of the proposed project or on adjacent property to accommodate the infrastructure and potential current or future job creation opportunities? If yes, please detail the timeline.

☐ Yes ☐ No

(If additional space is needed, please attach a Word document with your entire answer.)

H. Does this project have a local match amount? If yes, please describe the entity providing the match and the amount.

☐ Yes ☐ No

(If additional space is needed, please attach a Word document with your entire answer.)

I. Provide any additional information or attachments to be considered for this proposal.

(If additional space is needed, please attach a Word document with your entire answer.)

## ADDENDUM FOR WORKFORCE TRAINING PROPOSALS

1. Program Requirements

A. Will this proposal supports programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties? If yes, please identify where the campuses are located and provide details on how the proposed programs will prepare students for future occupations and at which K-20 institutions that programs will be provided.

☒ Yes ☐ No

Yes. The Advanced Manufacturing Innovation Institute (AMI²) will be located on the Panama City Campus of Gulf Coast State College (GCSC). Gulf Coast State College serves individuals from Bay, Gulf and Franklin counties. These three counties are all included in the eight disproportionately affected counties. The combined population of the three counties is 216,000. In addition to the campus in Panama City, GCSC also has a second campus in Southport, FLand an additional campus in Gulf County (Port St Joe). The campus in Port St Joe is located near the county line between Gulf and Franklin counties, making it easier for the citizens of Franklin County to attend classes and receive services from GCSC. AMI² will provide training to Gulf and Franklin County citizens by offering selected classes at the Gulf Franklin Campus, as well as the Panama City campus.

The GCSC Advanced Manufacturing Innovation Institute will consist of three major components. These components are (1) Workforce Training (2) Research and Development and (3) Entrepreneurial/Sustainability.

**Workforce Training**

**Credit Training Leading to Degrees, Certificates and Industry Certifications**

The credit workforce training will provide state of the art workforce training to individuals who are seeking future employment in advanced manufacturing. The training will include classroom instruction, in school laboratory experiences and significant on the job training opportunities through internships with local advanced manufacturing employers. Students participating in the AMI² will have the opportunity to receive training through GCSC's Associate of Science degree in Engineering Technology. This degree is 60 credits and trains individuals to be employed as engineering technicians. Average starting salaries for individuals in Bay County are $39,315. The weighted average salary for engineering technicians being hired by several new advanced manufacturers locating in Bay County is $58,419.

AMI² will also provide training opportunities in several college credit certificates including Automation, Advanced Manufacturing, Digital Manufacturing, CNC Machinist, Rapid Prototype Specialist, and Engineering Technician Support Specialist. Students participating in AMI² will also have the opportunity to receive training through Florida State University Panama City to earn a bachelor's in

Mechanical Engineering (120 credits) and/or a master's in Systems Engineering (33 credits). The starting salary for a mechanical engineer is $85,880 and the starting salary for a systems engineer is $91,373 compared to the average starting salary for individuals in Bay County ($39,315). It is anticipated that 50 individuals will be trained through AMI² in Mechanical Engineering and/or Systems Engineering over 5 years.

In addition to classroom instruction in state of the art classrooms and labs using the latest equipment (selected by employers who are partners in AMI²), each student will also participate in an internship with one of the employer or military partners. As a result of the classroom/lab instruction and internships, students in AMI² will be prepared to obtain industry certifications such as Certified Composite Technician, CNC Production Specialist, Manufacturing Technician, MSSC Certified Production Technician, in addition to the degree and/or certificates earned. This combination of a credential (degree and/or certificate), experience in the workplace and a recognized industry certification will insure that students receiving training through the AMI² are very competitive when seeking employment, and that the skilled workforce demanded by advanced manufacturing employers is available in northwest Florida. Gulf Coast State College guarantees that graduates of an Associate of Science degree, college credit certificate, or non-credit training course included in the Advance Manufacturing Innovation Institute (AMI²) will have the general and technical skills outlined in their program of study, including program objectives. If there are skill deficiencies identified by the student's first employer in the related field, the college will provide additional instruction to address the skill deficiencies at no cost to the student or the employer.

It is anticipated that over the first 5 years of AMI², **471** students will receive training through the **credit** advanced manufacturing programs in the AMI². In addition, advanced manufacturing employers who have signed partnership letters with GCSC and AMI² have committed to providing **180** internships. It is also anticipated that **1,420** students will earn industry certifications.

**Non-Credit Training**

In addition, the AMI² will provide non-credit training for individuals who need to upgrade their skills in order to become employed, or who need to "skill up" in order to maintain employment or advancement in the advanced manufacturing field. This non-credit training is an integral part of the AMI² due to the rapid changes that are occurring in the field. The non-credit training will be developed to meet the needs of individual employers or to address industry wide needs. Employer partners of AMI² will take the lead in advising and assisting in the development of the non-credit courses and workshops. It is projected that over the first 5 years of the AMI², **275** individuals will receive applicable non-credit training through the AMI². Students in certain non-credit programs will also receive training that will prepare them to earn industry certification.

**Total number (credit and noncredit) to receive advanced manufacturing training over the first five years of the AMI² is 746.**

**K-12 Science and Technology Enhancement**

The AMI$^2$ will increase Science and Technology enhancement activities and camps for the youth of Bay, Gulf and Franklin counties in order to build the pipeline of students with the strong skills in science, technology, engineering and math (STEM) that are essential for rewarding careers in Advanced Manufacturing. These enhancement activities will consist of Science and Technology camps/workshops for elementary, middle, and high school students each summer where students will have an opportunity to earn industry certifications. In addition to the summer camps, activities such as Girls Day in Engineering, Fantastic Physics Day, Sea Perch, Leggo Robotics, and the Invention Convention will be hosted during the school year. A comprehensive focus will also be implemented for elementary school students designed to increase their understanding and interest in math. The goal is to increase the number of students who are prepared to take Algebra 1 in the 8$^{th}$ grade. Activities will also be provided to increase elementary and middle school students IT skills and the use of digital tools in cyber security, coding and digital arts.

Each of these enhancement activities will be developed and implemented by professionals from the respective fields and will be focused on enhancing each student's skill levels in science, technology, engineering and math in order to prepare them for postsecondary education and employment in Science and Technology occupations, including advanced manufacturing. The total number of individuals to participate in K-12 Science and Technology Enhancement Activities over the first 5 years of the AMI$^2$ is 7,950 students and at least 225 will earn industry certifications.

**Research and Development**

The second component of AMI$^2$ is research and development. As a result of the extensive list of partners ( industry, military, school district and institutions of higher education) who have committed to share resources (personnel, facilities and equipment), AMI$^2$ is uniquely positioned to provide an environment where research can address and solve issues pertaining to advanced manufacturing. Specific issues that have been identified include the development of new products, decreasing the time to production for products produced by advanced manufacturing, and other innovations that will benefit advanced manufacturers. Reducing the amount of time in the "valley of death" will result in a decrease in production time and a cost savings to the manufacturer. The AMI$^2$ will provide a collaborative environment where researchers from Tier 1 universities, the military and industry can work together to solve problems and share research thus increasing efficiencies and profitability of advanced manufacturers. The collaborative and creative environment provided by AMI$^2$ will be instrumental in promoting and growing advanced manufacturing in northwest Florida. History has proven that when a community provides a collaborative environment by bringing the needed partners together to support and grow a specific industry sector, exponential growth is possible. The AMI$^2$ is designed to serve as catalyst to generate this type of growth in advanced

manufacturing.

In addition to the benefits of including a research and development component in AMI$^2$ as described above, the research and development activities will also provide outstanding learning opportunities for students in the training programs to work side by side with researchers from industry, the military, and higher education. These opportunities will provide invaluable experience for students and will increase their employability.

**Entrepreneurial and Sustainability Endeavors**
A third component of the AMI$^2$ are the entrepreneurial opportunities to develop revenue by producing products and services using the acquired skills and research obtained from the workforce training and research development components. The first entrepreneurial effort will be in the area of materials testing. In many industries utilizing products produced by advanced manufacturing, the materials must be tested to insure that they meet industry standards. Currently the product must be sent off for testing and it takes several weeks to obtain the test results thus slowing down production time. AMI$^2$ will provide materials testing on site at a cost to manufacturers thus producing revenue to sustain AMI$^2$ and reduce production time. Because of the research and development component, it is anticipated that other entrepreneurial opportunities will be identified resulting in revenue producing products and services.

B. Will the proposed program (check all that apply):

- ☒ Increase students' technology skills and knowledge
- ☒ Encourage industry certifications
- ☐ Provide rigorous, alterative pathways for students to meet high school graduation requirements
- ☒ Strengthen career readiness initiatives
- ☒ Fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors
- ☒ Encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties (similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission on Education)

For each item checked above, describe how the proposed program will achieve these goals.

- Increase students' technology skills and knowledge in advanced manufacturing by providing opportunities to enroll and receive instruction in an AS degree in Engineering Technology and/or in college credit certificates in Advanced Manufacturing. Students will also have the opportunity to enroll in a Bachelor's in Mechanical Engineering and/or a Master's in Systems Engineering.

Technology skills and knowledge will also be increased through the non-credit training that will be provided by the AMI$^2$ to prepare for employment or "skill up" to maintain or advance in employment.

- Encourage industry certifications by preparing students in the Engineering Technology AS degree and/or college credit certificates to sit for industry certification exams in certifications such as Certified Composite Technician, CNC Production Specialist, Manufacturing Technician, and MSSC Certified Production Technician. Non-credit students will also be prepared to earn industry certifications in specific areas such as OSHA and Six Sigma.
- Strengthen career readiness initiatives by requiring each student in the Engineering Technology and/or the college credit certificates to participate in a structured internship with an advanced manufacturer or military partner. Students enrolled in the Mechanical Engineering and/or Systems Engineering degrees will also have an opportunity to participate in internships.
- Encourage students with interest or aptitude in science and technology disciplines to pursue postsecondary education in a Florida university or Florida College System institution by providing science and technology activities and camps to K-12 students in GCSC's service area. These activities will be provided throughout the school year and summer and will be designed to provide hands-on activities to strengthen and enhance knowledge and skills in science, technology, engineering and math. Where possible, students will have opportunities to earn digital tools certificates and industry certifications that in some cases will equate to postsecondary credit. The Bay District Schools will also provide K-12 students with opportunities to participate in career academies in advanced manufacturing, earn industry certifications and participate in internships.
- Increase the number of high school students that graduate with an associates degree.

C. Will this proposal provide participants in the disproportionately affected counties with transferable, sustainable workforce skills but not confined to a single employer? If yes, please provide details.
☒ Yes ☐ No

Yes, this proposal will provide participants in the disproportionately affected counties with transferable, sustainable workforce skills not confined to a single employer. The AMI$^2$ will provide transferable, sustainable workforce skills in advanced manufacturing through credit and noncredit instruction resulting in degrees, certificates and industry certifications. The instruction will be delivered in state of the art classrooms, labs and in the workplace. The content of the instruction will be/is developed by statewide and local employers in advanced manufacturing. These curriculum development committees consist of advanced manufacturer practitioners representing a variety of employers. At the local level, AMI$^2$ has partnership agreements with GKN Aerospace, Doncasters, Huntington Ingalls, Air Temp America and ACMT to assist in curriculum development, equipment and instructional materials selection and to provide internships. In addition to these partnership agreements, GCSC also utilizes local manufacturers on the Engineering

Technology advisory committee to develop curriculum, evaluate instructional materials and provide internships. Representatives from Kraton, Berg Steel Pipe, Lockheed Martin, and Merrick Industries are members of the advisory committee. Due to the diversity of advanced manufacturer employers represented on the advisory committees and through the AMI$^2$ partnerships, students receiving workforce training through the AMI$^2$ gain transferable, sustainable workforce skills that prepare them for employment with a variety of advanced manufacturers and increase their employability.

D. Identify the disproportionately affected counties where the proposed programs will operate or provide participants with workforce skills.

The AMI$^2$ will be located on the Panama City campus of GCSC in Bay County. Gulf Coast State College's service area includes Bay, Gulf and Franklin County. Each of these three counties is included in the disproportionately affected counties. While the majority of instruction will be provided on the Panama City campus either in the Advanced Technology Center (ATC) or in the new Science Building, all individuals served by GCSC will be able to participate in the advanced manufacturing workforce training and activities offered through the AMI$^{2.}$ When possible, selected advanced manufacturing workforce training will also be offered at the Gulf Franklin Campus located strategically on the Gulf and Franklin County line to make it more convenient for citizens of Gulf and Franklin County to receive the advanced manufacturing workforce training. Selected training will also be provided on the FSU campus.

E. Provide a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote:

- Economic recovery,
- Economic Diversification,
- Enhancement of the disproportionately affected counties,
- Enhancement of a Targeted Industry.

The AMI$^2$ will promote economic recovery, economic diversification, enhancement of the area and the enhancement of an industry targeted as desirable for economic growth and expansion in GCSC's service area, which were all impacted by the BP oil spill. The AMI$^2$ will accomplish these goals by developing and expanding the skilled workforce in advanced manufacturing (a targeted industry) available in the area. The availability of this skilled workforce will attract additional advanced manufacturers to the area thus diversifying the local economy, which is now primarily based on tourism and the military. Wages earned by the individuals trained in the AMI$^2$ will be significantly higher than the average wage earned in the GCSC service area. These higher wages will not only raise the standard of living for the individuals earning them, but this increase in the number of high wage, high skilled positions will have a ripple effect and increase employment opportunities in other industries in the local economy.

Quantitative evidence demonstrating how the AMI² will promote:

- Economic Recovery
- Economic Diversification
- Enhancement of the Disproportionately Affected Counties
- Enhancement of a Targeted industry

2. Additional Information

A. Is this an expansion of an existing training program? Is yes, describe how the proposed program will enhance or improve the existing program and how the proposal program will supplements but not supplant existing funding sources.
☐ Yes ☒ No

No, the AMI² is not an expansion of an existing training program. While one component of the AMI² (workforce training in advanced manufacturing) is not new to the college/university and is expected to grow because of AMI², combining the other two components (Research and Development/ Entrepreneurial and Sustainability) to create an ecosystem is new. The overall concept of creating an ecosystem of partners to support the growth and expansion of a targeted industry (Advanced Manufacturing) is a very new concept and effort in Bay County and the surrounding area.

B. Indicate how the training will be delivered (*e.g.*, classroom-based, computer based, other).
If in-person, identify the location(s) (e.g., city, campus, etc.) where the training will be available.
If computer-based, identify the targeted location(s) (e.g., city, county) where the training will be available.

The workforce training will be delivered in a variety of settings including classrooms and laboratories. The majority of instruction will be offered in classrooms and labs on the Panama City Campus, however when possible, some classes will also be offered at the Gulf Franklin Campus in Port St. Joe in Gulf County and on the FSU Campus. Instruction for selected topics will also be delivered through computer-based, on-line instruction as appropriate for the topic. Internships with local advanced manufacturers and military partners will also be used to provide hands on instruction and enhance learning. Students will have an opportunity to receive additional instruction through their experiences in the Research and Development component of AMI². Opportunities to work with, observe, and learn from top researchers, industry, and the military will provide exceptional learning opportunities that are not typically available to students in a state college/university setting. Similar exceptional learning opportunities/instruction will be available to students as a result of the Entrepreneurial component of the AMI². Students will receive instruction in developing products/services and businesses in

advanced manufacturing from experts in the field.

C. Identify the number of anticipated enrolled students and completers.

The total number of students trained in the credit and non-credit advanced manufacturing workforce training offered by GCSC over the first 5 years of the AMI$^2$ is projected to be **746** students. The number of students trained in the bachelor's in Mechanical Engineering and/or the master's in Systems Engineering offered by FSU, Panama City is **50** students.

The projected number of students projected to participate in an internship over the first 5 years is **180** students.

The number of students projected over the first 5 years to earn an industry certification is **1,420**.

The number of high school students who graduate with an associates degree is **132**.

The projected number of students to participate in the K-12 Science and Technology enhancement activities offered by the AMI$^2$ over the first 5 years is **7,950** students. The number of students who will earn an industry certification through a camp or workshop in the first five years is **225**.

***The total number trained will be 2523***.

D. Indicate the length of the program (e.g. quarters, semesters, weeks, months, etc.) including anticipated beginning and ending dates.

In the Advanced Manufacturing Workforce Training component of AMI$^2$, the Engineering Technology A.S. degree is 60 college credits and generally takes a full time student 2 years to complete. The college credit certificates in advanced manufacturing range in length from 12 credits to 24 credits and generally take from 6 months to 1 year to complete. The Bachelor of Science degree in Mechanical Engineering is 120 hours and the Master of Science degree in Systems Engineering is an additional 33 credit hours.

Internships will vary in length depending on the employer and the learning objectives to be mastered in the workplace.

Similarly, the non-credit training in advanced manufacturing will vary in length depending on the specific content to be covered. Generally, these classes are shorter in length, averaging from several days to several weeks.

E. Describe the plan to support the sustainability of the proposed program.

The plan to support AMI$^2$ and to insure sustainability includes:

- Industry certification funding provided from the state for selected industry certifications.
- Revenues from entrepreneurial endeavors such as materials testing and other sources developed through the Research and Development component of the AMI$^2$
- Memberships from industry partners who join the AMI$^2$.
- Grants, state and federal and contracts.

F. Identify any certifications, degrees, etc. that will result from the completion of the program.

Students participating in the Workforce Training component of AMI$^2$ will have the opportunity to receive an Associate of Science degree in Engineering Technology, a Bachelor of Science degree in Mechanical Engineering and/or a Master of Science degree in Systems Engineering. Students will also have the opportunity to receive college credit certificates in Automation, Advanced Manufacturing, Digital Manufacturing Specialist, CNC Machinist, Engineering Technician Support Specialist, and Rapid Prototype Specialist. Depending on the degree and/or certificates students enroll in, they will also be prepared to sit for exams in the following industry certifications such as Certified Composite Technician, CNC Production Specialist, Manufacturing Technician, and MSSC Certified Production Technician.

Students participating in the noncredit advanced manufacturing workforce training will have the opportunity to earn a variety of industry certifications including six sigma, OSHA and others as determined by industry partners.

G. Does this project have a local match amount? If yes, please describe the entity providing the match and the amount.

☒ Yes ☐ No

Yes, this project has a local match. **See attached spreadsheet for the source and amounts of match.**

H. Provide any additional information or attachments to be considered for this proposal**. See Attachments**

Additional information or attachments include:

(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR AD VALOREM TAX RATE REDUCTION:**

1. Program Requirements

   A. Describe the property or transaction that will be supported by the ad valorem tax rate reduction.

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

   B. Provide a detailed explanation of how the ad valorem tax rate reduction will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

   C. Provide a detailed description of the quantitative evidence demonstrating how the proposed ad valorem tax reduction will promote:
      - Economic recovery,
      - Economic Diversification,
      - Enhancement of the disproportionately affected counties,
      - Enhancement of a Targeted Industry.

   _____

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

   A. What is the location of the property or transaction that will be supported by the ad valorem tax rate reduction?

   _____

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

   B. Detail the current status of the property or transaction that will be supported by the ad valorem tax rate reduction and provide a detailed description of when and how the ad valorem tax rate reduction will be implemented.

   _____

(If additional space is needed, please attach a Word document with your entire answer.)

C. Does this proposed project have a local match amount? If yes, please describe the entity providing the match and the amount.

☐ Yes ☐ No

(If additional space is needed, please attach a Word document with your entire answer.)

D. Provide any additional information or attachments to be considered for this proposal.

(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR LOCAL MATCH REQUIREMENTS OF SECTION 288.0655, FLORIDA STATUTES**

1. Program Requirements

   A. Describe the local match requirements of Section 288.0655 and the underlying project, program or transaction that will be funded by the proposed award.

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

   B. Provide a detailed explanation of how the local match requirements and the underlying project or program will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

   C. Provide a detailed description of, and quantitative evidence demonstrating how the proposed local match requirements will promote:
      - Economic recovery,
      - Economic Diversification,
      - Enhancement of the disproportionately affected counties,
      - Enhancement of a Targeted Industry.

   _____

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

   A. What is the location of the property or transaction that will be supported by the local match requirements?

   _____

   _____

   (If additional space is needed, please attach a Word document with your entire answer.)

B. Detail the current status of the property or transaction that will be supported by the local match requirement and provide a detailed description of when and how the local match requirement will be implemented.

(If additional space is needed, please attach a Word document with your entire answer.)

C. Provide any additional information or attachments to be considered for this proposal.

(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR LOCAL ACTION PLAN**

1. Program Requirements

   A. Describe how the proposed award will establish and maintain equipment and trained personnel for local action plans of response to respond to disasters.

   B. Describe the type and amount of equipment and trained personnel that will be established or maintained by the proposed award.

   C. Identify the specific local action plans (*e.g.*, Coastal Impacts Assistance Program) that will benefit from the proposed award.

   D. Provide a detailed explanation of how the proposed award will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

   (If additional space is needed, please attach a Word document with your entire answer.)

   E. Provide a detailed description of the quantitative evidence demonstrating how the proposed will promote:
      - Economic recovery,
      - Economic Diversification,
      - Enhancement of the disproportionately affected counties,
      - Enhancement of a Targeted Industry.

   (If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

   A. What is the location of the local action program that will be supported by the proposed award?

   (If additional space is needed, please attach a Word document with your entire answer.)

   B. Detail the current status of the local action plans (*e.g.*, new plans, existing plans, etc.) that will be supported by the proposed award and provide a detailed description of when and how the proposed award will be implemented.

(If additional space is needed, please attach a Word document with your entire answer.)

C. Provide any additional information or attachments to be considered for this proposal.

(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR ADVERTISING/PROMOTION**

1. Program Requirements

   A. Is the applicant a tourism entity crated under s. 288.1226, Florida Statutes?
   ☐ Yes ☐ No

   B. Does the applicant advertise and promote tourism and Fresh From Florida? If yes, provide details on how it advertises and promotes tourism and Fresh From Florida.
   ☐ Yes ☐ No

   _____

   _____
   (If additional space is needed, please attach a Word document with your entire answer.)

   C. Does the proposed award promote workforce and infrastructure on behalf of the disproportionately affected counties? If yes, describe how workforce and infrastructure is promoted on behalf of the disproportionately affected counties.
   ☐ Yes ☐ No

   _____

   _____
   (If additional space is needed, please attach a Word document with your entire answer.)

   D. Provide a detailed explanation of how the proposed award will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

   _____

   _____
   (If additional space is needed, please attach a Word document with your entire answer.)

   E. Provide a detailed description of the quantitative evidence demonstrating how the proposed will promote:
      - Economic recovery,
      - Economic Diversification,
      - Enhancement of the disproportionately affected counties,
      - Enhancement of a Targeted Industry.

   _____

(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

A. Describe the advertising and promotion mediums and locations where the advertising and promotion will occur.

(If additional space is needed, please attach a Word document with your entire answer.)

B. Detail the current status of the advertising and promotion (*e.g.*, new plans, existing plans, etc.) that will be supported by the proposed award and provide a detailed description of when and how the proposed award will be implemented.

(If additional space is needed, please attach a Word document with your entire answer.)

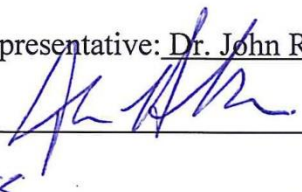
C. Provide any additional information or attachments to be considered for this proposal.

(If additional space is needed, please attach a Word document with your entire answer.)

I, the undersigned, do hereby certify that I have express authority to sign this proposal on my behalf or on behalf of the above-described entity, organization, or governmental entity:

Name of Applicant: Gulf Coast State College

Name and Title of Authorized Representative: Dr. John R. Holdnak, President

Representative Signature: 

Signature Date: 9/25/18

# Attachment 1: Letters of Support

GKN AEROSPACE

December 15, 2017

Dear Dr. Holdnak:

It is my pleasure to write this letter in support of the Advanced Manufacturing Innovation Institute ($AMI^2$) proposal led by Gulf Coast State College (GCSC).

GKN Aerospace is one of the world's largest independent suppliers to the global aviation industry. We provide complex, high performance, high value components and assemblies for aerostructures, engine products, landing gear, wiring systems and specialty products. Across our global manufacturing operations, there is a consistent need to optimize operational efficiency with less waste, reduced energy consumption and lower cost while maintaining the highest quality product. Development of the next generation advanced manufacturing workforce is key to our future success as we drive advanced processes and products from technology inception into high volume production.

GKN recently selected Panama City as the site for our new aerospace production facility in major part due to the high level of cooperation and commitment within the local community including GCSC. From our first meeting, GCSC has demonstrated their willingness to provide the trained workforce that is needed by our company to staff our new facility (170 jobs) and other potential expansions in Bay County.

The $AMI^2$ proposal compliments and accelerates the excellent programs already active at GCSC. The generation of a ready trained advanced technology workforce coupled with the development of advanced technologies and processes will be a catalyst for new investment and growth in the region, both from existing companies and new companies coming to the region. We see the institute as an opportunity to reshape the economic portfolio of the region bringing new high paying manufacturing and technology jobs to the region.

Subject to strategic alignment, available funds and executive management approval, GKN looks to provide in-kind support to $AMI^2$ in several of the following forms:

- Participation on Governing Board for $AMI^2$
- Internships and/or workforce training opportunities for students from the $AMI^2$ Educational Institute partners
- Participation in curriculum development, training oversight, and access to GKN employees as adjunct lecturers
- Access to Subject Matter Experts within GKN on advanced manufacturing

GKN looks forward to participating as member to the $AMI^2$, and believes this institute is a significant opportunity to become a part of the innovations of the future.

Sincerely,

Mike McCann
Chief Executive Officer
GKN Aerostructures North America

DONCASTERS

Doncasters Group
Millennium Court
Burton Upon Trent
Staffordshire, DE 14 2WH, UK

Enterprise Florida
800 North Magnolia Avenue, Suite 1100
Orlando, Florida 32803

**Subject**: Letter of Support for GCSC Florida Job Growth Grant Fund

Dear Sir:

Doncasters is a leading international manufacturer of high-precision alloy components with nearly 240 years of experience developing a broad range of products and processes to serve the aerospace, Industrial Gas Turbine, specialist automotive, petrochemical, construction, industrial and transportation markets. Doncasters operates 32 facilities in the United States, United Kingdom, Europe, Mexico and Asia.

With our long manufacturing history and facilities all over the world, Doncasters has extensive experience in working with local communities as we assess where to locate new facilities and expand existing facilities. When reviewing a community's assets to assist in this determination, there are a number of factors that are essential. These include having an available, capable and skilled workforce as well as an educational institution that is committed to working collaboratively with us to provide this workforce.

During my trips to Panama City to conduct site selection visits, I have had the opportunity to meet with representatives of Gulf Coast State College (GCSC). The commitment, vision and ability of GCSC to provide the training needed by industry to insure that we have the skilled workforce that is required in order to be competitive in today's market have left me extremely impressed. I am also see great vision and planning for an Advanced Manufacturing Innovation Institute (AMI2) that we can draw upon for technology and process development. The AMI2 provides a strategic solution to provide a highly skilled workforce, expand advanced manufacturing in northwest Florida, and leverage resources including research and development (R&D). I see this technology R&D within the AMI2 driving the creation of new products, processes and markets. The AMI2 has the potential to function as a magnet in terms of attracting industry to the area. It will truly be an asset to the region and is a strategic investment in the future. These factors are very important to companies who are making decisions about where to locate a facility.

DONCASTERS

Doncasters Group
Millennium Court
Burton Upon Trent
Staffordshire, DE 14 2WH, UK

It is for the reasons stated above that I am writing this letter in strong support of Gulf Coast State College's request for funding from the Florida Jobs Growth Fund. This funding will enable GCSC to continue the planning and begin implementation of the Advanced Manufacturing Innovation Institute which will benefit the region, now and in generations to come by attracting talented students, innovators, entrepreneurs and businesses to the area.

Thank you very much for your consideration of GCSC's funding request. Please contact me if you have questions or need additional information.

Sincerely,

**Jon Evans**
VP Sales and Marketing
DONCASTERS
Mobile: (303) 250-5072
Email: fjevans@doncasters.com
www.doncasters.com

Triumph Gulf Coast, Inc.
PO Box 12007
Tallahassee, Florida 32317

Dear Board Members:

It is my pleasure to write this letter of support for Gulf Coast State College's (GCSC) application for funding for the Advanced Manufacturing Innovation Institute ($AMI^2$).

Our company, ACMT, Inc. (Advanced Composites & Metalforming Technologies) is a manufacturer located in the northeastern United States. ACMT, Inc. manufactures components of various complexity for a number of domestic and international manufacturers. We provide comprehensive manufacturing solutions for the world's major commercial, industrial and military gas turbine manufacturers, associated support business, and other critical industries.

During several site visits to Bay County, we had an opportunity to meet with representatives from Gulf Coast State College and to learn about the Advanced Manufacturing Innovation Institute. We were very impressed with the concept and with the commitment of GCSC to meet the needs of manufacturing companies regarding the utilization of advanced manufacturing technologies. Having access to a skilled workforce trained by the $AMI^2$ and the ability to benefit from the research and development undertaken by the $AMI^2$will be extremely beneficial to our company.

We believe that $AMI^2$will be a significant asset to our company and other manufacturers currently in the region and those looking to relocate to Bay County. Based on our extensive knowledge of the manufacturing industry, we anticipate that the Advanced Manufacturing Innovation Institute will play a very significant role in transforming northwest Florida and supporting the region's goal to be a leader in advanced manufacturing.

Please feel free to contact me at mpolo@acmt.aero or at (860) 604-6406 if I can provide any additional information regarding our support of this funding application for Gulf Coast State College's $AMI^2$.

Sincerely,

Michael G Polo
President

ST JOE
Community Foundation™

November 6, 2017

Mr. Glen McDonald
Gulf Coast State College
5230 West Highway 98
Panama City, FL 32401

Dear Mr. McDonald:

The St. Joe Community Foundation, Inc., and its Board of Trustees have approved a matching grant for the new Advanced Manufacturing Innovation Institute at Gulf Coast State College.

The approved matching grant totals $100,000.00 and the break down consists of $50,000.00 for equipment needs for instructional purposes and $50,000.00 for student scholarships, which is to be placed in an endowed scholarship account at the college specifically for students in the Advanced Manufacturing program.

It is our understanding that your organization will be seeking matching funds from other funding sources. Once the matching funds has been obtained and approved, please notify me with written authorization from the matching funders.

Should you have any questions, please do not hesitate to contact me at 850-231-7402 or via email at janet.greeno@joe.com. Congratulations on your matching grant, and I look forward to the success of the Advanced Manufacturing Innovation Institute.

Very truly yours,

Janet Piepul
Executive Director

JP

DEPARTMENT OF THE NAVY
NAVAL SURFACE WARFARE CENTER
PANAMA CITY DIVISION
110 VERNON AVENUE
PANAMA CITY, FL 32407-7001

IN REPLY REFER TO
5700
Ser E/014
May 29, 2018

Florida Triumph Gulf Coast, Inc.
P.O. Box 12007
Tallahassee, FL 32317

Dear Florida Triumph Gulf Coast Board of Directors:

SUBJECT: GULF COAST STATE COLLEGE PROPOSAL TO FLORIDA TRIUMPH GULF COAST, ADVANCED MANUFACTURING INNOVATION INSTITUTE

The Naval Surface Warfare Center, Panama City Division (NSWC PCD) has an Education Partnership agreement with Gulf Coast State College (GCSC) that will be leveraged to support the mission of the Advanced Manufacturing Innovation Institute ($AMI^2$). In accordance with the partnership agreement, NSWC PCD may transfer or loan equipment, allow use of equipment and facilities, provide opportunities for students and staff to participate in research projects, provide opportunities for students to gain course credits for work performed, and supply NSWC PCD employees to provide technical advice and to teach course material. Through this partnership, students and faculty of GCSC can benefit from the staff expertise, unique facilities, and equipment of NSWC PCD. In addition, the experience of the Warfare Center Enterprise, which includes nine additional Divisions, will be extended to the $AMI^2$ through the collaborative efforts of the NAVSEA Warfare Centers Additive Manufacturing Working Group, of which NSWC PCD is a contributing member.

This year, NSWC PCD began a multi-year investment to establish an Innovation Center that will include collaboration/brainstorming spaces and rapid prototyping labs for both hardware and software. These labs will be additional resources that could be used to support the mission of the $AMI^2$.

Specifically, NSWC PCD will work with $AMI^2$ to develop a world class workforce in advanced manufacturing by:

1. Cooperating with GCSC in establishing a program under which students may be given academic credit for work on defense laboratory projects, including research and technology transfer or transition projects.
2. Providing personnel, equipment, and facilities to establish a program to allow GCSC students the opportunity to work at NSWC PCD on research projects.
3. Making NSWC PCD personnel available to teach science courses or assist in the development of science courses and materials for the institution.
4. Providing sabbatical opportunities for faculty.
5. Involving faculty and students of GCSC in NSWC PCD projects, including technologies and methods enabling rapid development and manufacturing.

12000
Ser E/014
May 29, 2018

Funds and resources will be provided as "in kind" services whereby NSWC PCD will provide personnel, equipment and materials to support the AMI$^2$ as shown in the NSWC PCD Advanced Manufacturing equipment and material list available to support the AMI$^2$. The current value is estimated at $2.1M.

The NSWC PCD point of contact is Ms. Sheila Schnoering, 850-234-4542 or Sheila.schnoering@navy.mil.

Sincerely,

EDWIN A. STEWART
Technical Director

Enclosure: 1. NSWC PCD Advanced Manufacturing equipment and material list

## Naval Surface Warfare Center, Panama City Division Advanced Manufacturing Equipment and Material list

| Make | Model | Type | | Value ($K) |
|---|---|---|---|---|
| **Additive Manufacturing Lab Equipment** | | | | |
| EOS | M290 | Direct Metal Laser Sintering | | $1,000 |
| 3D Systems | SLA 3500 | Stereo Lithography Apparatus, laser to vat polymerization | | $400 |
| 3D Systems | Projet 3510 | Multi-Jet Printing, UV polymerization | | $100 |
| 3D Systems | Projet 860 | Color-jet Ptinting, Binder jetting | | $90 |
| Lulzbot | Taz 5 | Fused Depositon Modeling | | $2 |
| Lulzbot | Taz 5 | Fused Depositon Modeling | | $2 |
| Prusa | i3 mk3 | Fused Depositon Modeling | | $1 |
| 3D Platform | Workbench 300 Pro | Fused Depositon Modeling | | $46 |
| Delta | 28-275 | Band Saw | | $0.60 |
| Delta | 11-990 | Drill Press | | $0.40 |
| Clemco | Silverado | Bead Blaster | | $4 |
| Markforged | Mark Two | FDM w/continuous fiber | | $14 |
| | | | **Total** | **$1,660** |
| **Rapid Prototyping Lab Equipment** | | | | |
| Shopbot | Desktop | CNC router | | $9 |
| TBD | | Thermoforming Table | | $9 |
| Prusa | i3 mk3 | Fused Depositon Modeling | | $1 |
| Prusa | i3 mk3 | Fused Depositon Modeling | | $1 |
| Prusa | i3 mk3 | Fused Depositon Modeling | | $1 |
| Prusa | i3 mk3 | Fused Depositon Modeling | | $1 |
| South Bend | G-26T | Metal Lathe | | $6 |
| Bridgeport | F-Z405-00-270 | Vertical Mill | | $4 |
| Smithy | Granite | Lathe/mill combo | | $3 |
| Smithy | Granite | Lathe/mill combo | | $3 |
| Clausing | M250 | Metal Lathe | | $5 |
| Miller | Syncrowave 351 | Welder | | $5 |
| Miller | Syncrowave 350 LX | Welder | | $5 |
| Miller | Syncrowave 350 LX | Welder | | $5 |
| Miller | Invision 354 MP | Welder | | $4 |
| Miller | Invision 350 MPa | Welder | | $3 |
| Consew | 339RBL-25 | Sewing Machine | | $6 |
| Consew | 339RBL-25 | Sewing Machine | | $6 |
| TBD | | Computer | | $3 |
| TBD | | Computer | | $3 |
| TBD | | Computer | | $3 |
| TBD | | Computer | | $3 |
| | | Solidworks | | $8 |
| | | Solidworks | | $8 |
| | | Solidworks | | $8 |
| | | Solidworks | | $8 |
| Multiple | Multiple | Computer Hardware/Software lab | | $170 |
| | | | **Total** | **$291** |
| **Materials On Hand** | | | | |
| 3D Systems | SLA 3500 | resins | | $7 |
| 3D Systems | Projet 3510 | resins | | $2 |
| 3D Systems | Projet 860 | binders, powders etc | | $8 |
| Lulzbot | Taz 5 | filament | | $1 |
| 3D Platform | Workbench 300 Pro | filament | | $5 |
| Prusa | i3 mk3 | filament | | $5 |
| EOS | M290 | 17-4 PH Stainless steel powder | | $13 |
| | | | **Total** | **$41** |
| **Yearly Maintenance Contracts** | | | | |
| 3D Systems | SLA 3500 | | | $19 |
| 3D Systems | Projet 3510 | | | $17 |
| 3D Systems | Projet 860 | | | $16 |
| EOS | M290 | | | $50 |
| 3D Platform | Workbench 300 Pro | | | $4 |
| | | | **Total** | **$106** |
| | | **Total Estimated Value** | | **$2,098K** |

Bay EDA
ECONOMIC DEVELOPMENT
ALLIANCE

Triumph Gulf Coast, Inc.
PO Box 12007
Tallahassee, Florida 32317

Dear Board Members:

I am writing this letter in support of Gulf Coast State College's (GCSC) application for funding for the Advanced Manufacturing Innovation Institute ($AMI^2$).

As we work to compete internationally to recruit companies to Bay County, we must have tools in our toolbox that enhance our competitive advantage. With the announcements of projects such as GKN Aerospace and Air Temp America, we are proving that we can be competitive and we can win. We must, however, be able to ensure that we are creating an environment that builds the pipeline of employees for many years to come. The AMI2 initiative is a critical component of addressing this short and long term workforce concern.

This initiative is truly a transformational project not only for Bay County but for the entire Northwest Florida region. AMI2 combines workforce training with industrial research and development for advanced manufacturers. We will be able to accommodate the needs of high tech manufacturing companies with a focus on composites, 3-D printing and electro-forming just to name a few.

Several high tech manufacturing companies that we are working with have requested that we develop this capability to allow them to continue to develop and expand in our area over the next 20 years.

Advanced manufacturing is our future. We need educational partnerships like this to solidify ongoing success in creating a positive business environment for high tech manufacturing.

Please feel free to contact me at Becca@bayeda.com if I can provide any additional information regarding our support of this funding application for Gulf Coast State College's $AMI^2$.

Sincerely,

Becca B. Hardin
President, Bay Economic Development Alliance

FLORIDA STATE UNIVERSITY
PANAMA CITY
*Office of the Dean*

July 31, 2018

Honorable Don Gaetz, Chair
Triumph Board of Directors
P.O. Box 12007
Tallahassee, FL 32317

Dear President Gaetz:

Florida State University Panama City and the FAMU-FSU College of Engineering is honored to work with Gulf Coast State College in its efforts to develop the Advanced Manufacturing Innovation Institute. We strongly support the application from GCSC for Triumph funds.

Additive manufacturing is growing in importance as a method for reducing the cost and time for fabricating various tailored parts and opening up the possibility of providing new parts with higher-performance and geometries not possible by conventional machining. Florida State University is among the 115 institutions that are classified as "R1: Research Universities (Highest research activity)" by the Carnegie Classification of Institutions of Higher Education, and one of two preeminent universities in the State of Florida. FAMU-FSU College of Engineering is a leading research center for additive manufacturing of polymeric nanocomposites, primarily through the High-Performance Materials Research Institute and the Department of Industrial and Manufacturing Engineering.

The addition of faculty to be funded through the proposal and the addition of test and development facilities for additive manufacturing will advance the area's economic development potential. Through FSU's Panama City Campus and this proposed center, the proposal provides for a beachhead to connect research and development with the Panama City advanced engineering community. The proposed Institute will provide a conduit to strengthen collaborative research activities which will enhance capabilities and expertise in additive manufacturing and advanced materials R&D efforts, as well as provide needed work force training in the state, particularly in the Panhandle area.

The proposed effort will leverage the strengths of FAMU-FSU College of Engineering to accelerate related research and work force training at Florida State University's Panama City Campus. This effort will meet the rapid growing demands of the Panama City area and throughout the Panhandle. The joint center will specifically:

- Create and share curricula in advanced materials and manufacturing;
- Share labs and infrastructure to promote research, industrial collaboration and work force training;

- Develop new capabilities and expertise to meet the industrial needs for supporting manufacturing and governmental R&D efforts;
- Form strong academy-industry-local community consortia to attract manufacturing businesses and jobs;
- Increase Florida's competitiveness in AM and related advanced materials areas.

The proposed effort will provide state-of-the-art and comprehensive capabilities and expertise in additive manufacturing accessible to students, local communities and major industrial partners and Department of Defense bases and laboratories. These resources will attract and grow manufacturing businesses and provide workforce training in this rapid expanding area. The Institute will also be used to provide affordable classes and completion projects for multiple student organizations and local industries. Training courses with hands-on lab of 3D printing will be offered to teach and promote the technologies. The Institute will dramatically change the visibility and provide essential infrastructures to support research to attract external funding, and serve as a high-tech window to attract talent to come to the area to study, teach and conduct research.

As the Dean at Florida State University Panama City, I strongly support this application and look forward to working with Gulf Coast State College and the other partners to make this project a reality.

Very truly yours,

Randy Hanna
Dean, FSU Panama City

4750 Collegiate Drive, Panama City, FL 32405-1099
850.770.2100 • Fax 850.770.2081 • www.pc.fsu.edu

Huntington Ingalls Industries

To Whom It May Concern,

As an existing manufacturing facility located in Panama City, Florida, I am writing in support of Gulf Coast State College's (GCSC) application for Triumph Gulf Coast funding for the Advanced Manufacturing Innovation Institute ($AMI^2$). Huntington Ingalls Undersea Solutions Group (HII-USG) develops and builds specialized manned and unmanned undersea vehicles for military customers around the world. HII-USG has built or converted specialized craft for a variety of purposes, including support of submersibles and submarines, special warfare, testing of mine warfare systems, torpedo countermeasures and more. The division reports to Huntington Ingalls Technical Solutions Division and operates in Panama City Beach, Florida. In order to grow and be able to meet the needs of our military customers, it is essential that we have access to the skilled workforce that is required to build these highly specialized and technical vehicles.

We are very pleased with our partnership with Gulf Coast State College and appreciate their commitment to working collaboratively with us to insure that this skilled workforce is available. We currently have collaborated with them to assist in the development of a training program for Composite Fabrication and to support their efforts to provide STEM opportunities to the K-12 students in Bay, Gulf and Franklin counties.

We have been impressed with the vision of GCSC regarding the need for the Advanced Manufacturing Innovation Institute and the strategic plan they have developed to implement such a needed resource in northwest Florida. We support this effort and are pleased to be able to offer our technical assistance in seeing this vision realized.

As a partner in the $AMI^2$, we commit to providing our expertise regarding curriculum development, equipment needs and to provide internship opportunities.

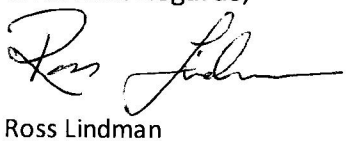
The funding that GCSC is seeking from the Triumph Gulf Coast will enable the college and the many partners in the community who have committed to this effort to continue the planning and begin the full implementation of the strategic vision/plan. We appreciate GCSC taking the lead on this effort and it is because of their commitment that my organization and so many others in the community are excited about the Advanced Manufacturing Innovation Institute and its ability to grow and expand manufacturing in northwest Florida by providing the skilled workforce that is essential.

Huntington Ingalls Technical Solutions
209 Ellen lane
Panama City Beach, FL 32408

For these reasons, I strongly support the funding of this request.

I will be happy to provide any additional information you may require.

With Best Regards,



Ross Lindman
Director of Operations
Huntington Ingalls – Undersea Solutions Group
209 Ellen Lane
Panama City Beach, FL 32408
Ross.lindman@hii-usg.com
850-249-2333

WILLIAM V. HUSFELT III
SUPERINTENDENT

1311 Balboa Avenue
Panama City, Florida
32401-2080

(850) 767-4100
Hearing Impaired Access
(800) 955-8770 Voice
(800) 955-8771 TDD

www.bay.k12.fl.us



August 21, 2018

Triumph Gulf Coast
Board of Directors

Today's students are tomorrow's leaders. Occupations in Science, Technology, Engineering, and Mathematics (STEM) related areas are some of the fastest growing and best paid of the 21st century, and they often have the greatest potential for job growth. Building a solid STEM foundation through a well-rounded, relevant curriculum is the best way to ensure students are exposed to math, science, and technology throughout their academic career. Add to this, the opportunity for hands-on training and by the time a student is ready to enter the workforce, they will have enough knowledge and skill to make invaluable contributions to our nation's STEM industries.

Capitalizing on this concept, the involvement of Bay District Schools (BDS) in the Advanced Manufacturing Innovation Institute ($AMI^2$) is twofold. First, BDS will establish and build a STEM Academy to be located at Bay High School in Panama City Florida. Second, the BDS STEM Academy will deliver an interdisciplinary and applied approach to education that offers students opportunities for real-world training and mentoring in advanced manufacturing and other related disciplines. Through this partnership, $AMI^2$ will provide one piece of advanced manufacturing equipment, valued at approximately 800,000 dollars in year two or three (2019 or 2020) of project funding, to be housed at the Bay High School STEM Academy once the facilities are completed. Additionally, $AMI^2$ and its industry partners will provide BDS with part-time industry trained technician(s) to help develop, monitor, and facilitate the curriculum to be taught. Specifically, BDS will work with $AMI^2$ to assist in the development of a world class workforce in advanced manufacturing by:

1. Providing personnel, equipment, and facilities to establish a STEM academy at Bay High School.
2. Establishing a STEM-driven program under which students will be given academic credit for hands-on training, including research and technology transfer or transition projects.
3. Making industry personnel available to help develop, monitor, and facilitate hands-on, real-world curriculum and training using technologies and methods enabling rapid development and manufacturing.
4. Providing opportunities for faculty to participate in cooperative exchanges with industry leaders in advanced manufacturing and other STEM-related disciplines in order to improve STEM instruction.

5. Providing opportunities to increase and sustain public and youth engagement in STEM-related curriculum and to better serve groups historically underrepresented in STEM fields.
6. Promoting STEM education experiences that prioritize hands-on learning with the goal of providing area advanced manufacturing businesses work-force ready and trained potential employees upon graduation from high school.
7. Bay District Schools students in the 4 Engineering/Advanced Manufacturing career academies at Mosley, Arnold, North Bay Haven, and Rutherford will earn a minimum of 696 industry certifications over a 5 year period.

Bay District Schools is honored to work with Gulf Coast State College in its efforts to develop the Advanced Manufacturing Innovation Institute. We strongly support the application from GCSC for Triumph funds.

Sincerely,

Bill Husfelt
Superintendent of Schools

# FLORIDA JOB GROWTH WORKFORCE TRAINING GRANT AGREEMENT
# STATE OF FLORIDA
# DEPARTMENT OF ECONOMIC OPPORTUNITY

**THIS FLORIDA JOB GROWTH WORKFORCE TRAINING GRANT AGREEMENT** (this "Agreement") is made and entered into by and between the State of Florida, Department of Economic Opportunity ("DEO"), and ***Gulf Coast State College***, a Florida College System institution pursuant to Section 1001.60, Florida Statutes, through the District Board of Trustees of Gulf Coast State College ("Grantee"). DEO and Grantee are sometimes referred to herein individually as a "Party" and collectively as "the Parties."

## RECITALS

**WHEREAS,** Pursuant to section 288.101, Florida Statutes ("F.S.") Grantee submitted a proposal for funds;

**WHEREAS,** based on Grantee's proposal and any amendments thereto (collectively, the "Proposal") submitted by Grantee, DEO has determined that the project described in **Exhibit A, Scope of Work,** attached and incorporated in this Agreement (the "Project") is necessary to support programs at state colleges and state technical centers that provide participants with transferable, sustainable workforce skills applicable to more than a single employer, and for equipment associated with these programs, and DEO has determined that Grantee's commitments satisfy the requirements necessary to recommend the proposed project described in the Proposal to the Governor of the State of Florida for an award from the Florida Job Growth Grant Fund (the "Grant Fund") pursuant to Section 288.101 of the Florida Statutes;

**NOW, THEREFORE,** for and in consideration of the agreements, covenants and obligations set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound hereby, agree as follows:

## AGREEMENT

1. **TERM.** This Agreement is effective as of the date on which DEO executes this Agreement (such date, the "Effective Date") and shall continue until the earlier to occur of (a) the tenth anniversary of the Effective Date (such date, the "Expiration Date") unless an extension of the time period is requested by Grantee and granted in writing by DEO prior to the expiration of this Agreement or (b) the date on which this Agreement is terminated pursuant to Section 27. Notwithstanding the foregoing, the provisions of Sections 2, 7-11, 15, 16, 19, 26-31, 37, and Sections 5 and 10 of Exhibit A, Scope of Work shall survive the termination or expiration of this Agreement; provided, however, that the record-keeping and audit-related obligations set forth in Section 11 shall terminate in accordance with the requirements of Section 11. Expiration of this Agreement shall be considered termination of the Project. Notwithstanding the foregoing, in the event that Grantee fully satisfies its obligations set forth in Exhibit A, Scope of Work, as determined by DEO in its reasonable discretion, prior to the date set forth in the preceeding sentence, then the "Expiration Date" shall be the date of such determination.

2. **PERFORMANCE REQUIREMENTS:** Grantee shall perform the services specified herein in accordance with the terms and conditions of this Agreement and all attachments and exhibits attached hereto and incorporated herein.

3. **TYPE OF AGREEMENT:** This Agreement is a cost reimbursement agreement.

4. **RELEASE OF FUNDS:** DEO shall pay Grantee up to ***One Million Nine Hundred Twenty Three Thousand Four Hundred Forty Two Dollars and Thirty Two Cents ($1,923,442.32)*** in consideration for Grantee's performance and services pursuant to this Agreement. In accordance with s.

# Attachment 2:
# Florida College System institution president's; powers and duties

Select Year: 2017 Go

# The 2017 Florida Statutes

Title XLVIII K-20 EDUCATION CODE | Chapter 1001 K-20 GOVERNANCE | View Entire Chapter

**1001.65 Florida College System institution presidents; powers and duties.**—The president is the chief executive officer of the Florida College System institution, shall be corporate secretary of the Florida College System institution board of trustees, and is responsible for the operation and administration of the Florida College System institution. Each Florida College System institution president shall:

(1) Recommend the adoption of rules, as appropriate, to the Florida College System institution board of trustees to implement provisions of law governing the operation and administration of the Florida College System institution, which shall include the specific powers and duties enumerated in this section. Such rules shall be consistent with law, the mission of the Florida College System institution, and the rules and policies of the State Board of Education.

(2) Prepare a budget request and an operating budget pursuant to s. 1011.30 for approval by the Florida College System institution board of trustees at such time and in such format as the State Board of Education may prescribe.

(3) Establish and implement policies and procedures to recruit, appoint, transfer, promote, compensate, evaluate, reward, demote, discipline, and remove personnel, within law and rules of the State Board of Education and in accordance with rules or policies approved by the Florida College System institution board of trustees.

(4) Govern admissions, subject to law and rules or policies of the Florida College System institution board of trustees and the State Board of Education.

(5) Approve, execute, and administer contracts for and on behalf of the Florida College System institution board of trustees for licenses; the acquisition or provision of commodities, goods, equipment, and services; leases of real and personal property; and planning and construction to be rendered to or by the Florida College System institution, provided such contracts are within law and guidelines of the State Board of Education and in conformance with policies of the Florida College System institution board of trustees, and are for the implementation of approved programs of the Florida College System institution.

(6) Act for the Florida College System institution board of trustees as custodian of all Florida College System institution property and financial resources. The authority vested in the Florida College System institution president under this subsection includes the authority to prioritize the use of Florida College System institution space, property, equipment, and resources and the authority to impose charges for the use of those items.

(7) Establish the internal academic calendar of the Florida College System institution within general guidelines of the State Board of Education.

(8) Administer the Florida College System institution's program of intercollegiate athletics.

(9) Recommend to the board of trustees the establishment and termination of programs within the approved role and scope of the Florida College System institution.

(10) Award degrees.

(11) Recommend to the board of trustees a schedule of tuition and fees to be charged by the Florida College System institution, within law and rules of the State Board of Education.

(12) Organize the Florida College System institution to efficiently and effectively achieve the goals of the Florida College System institution.

(13) Review periodically the operations of the Florida College System institution in order to determine how effectively and efficiently the Florida College System institution is being administered and whether it is meeting the goals of its strategic plan adopted by the State Board of Education.

(14) Enter into agreements for student exchange programs that involve students at the Florida College System institution and students in other institutions of higher learning.

(15) Approve the internal procedures of student government organizations and provide purchasing, contracting, and budgetary review processes for these organizations.

(16) Ensure compliance with federal and state laws, rules, regulations, and other requirements that are applicable to the Florida College System institution.

(17) Maintain all data and information pertaining to the operation of the Florida College System institution, and report on the attainment by the Florida College System institution of institutional and statewide performance accountability goals.

(18) Certify to the department a project's compliance with the requirements for expenditure of PECO funds prior to release of funds pursuant to the provisions of chapter 1013.

(19) Provide to the law enforcement agency and fire department that has jurisdiction over the Florida College System institution a copy of the floor plans and other relevant documents for each educational facility as defined in s. 1013.01(6). After the initial submission of the floor plans and other relevant documents, the Florida College System institution president shall submit, by October 1 of each year, revised floor plans and other relevant documents for each educational facility that was modified during the preceding year.

(20) Develop and implement jointly with school superintendents a comprehensive dual enrollment articulation agreement for the students enrolled in their respective school districts and service areas pursuant to s. 1007.271(21).

(21) Have authority, after notice to the student of the charges and after a hearing thereon, to expel, suspend, or otherwise discipline any student who is found to have violated any law, ordinance, or rule or regulation of the State Board of Education or of the board of trustees of the Florida College System institution pursuant to the provisions of s. 1006.62.

(22) Submit an annual employment accountability plan to the Department of Education pursuant to the provisions of s. 1012.86.

(23) Annually evaluate, or have a designee annually evaluate, each department chairperson, dean, provost, and vice president in achieving the annual and long-term goals and objectives of the Florida College System institution's employment accountability plan.

(24) Have vested with the president or the president's designee the authority that is vested with the Florida College System institution.

History.—s. 81, ch. 2002-387; s. 22, ch. 2011-5; s. 3, ch. 2012-191; s. 91, ch. 2016-10.

# Attachment 3:
# Company and Financial Information on Private Industry Participants

# GKN AT A GLANCE

GKN is a global engineering business. Every time you travel by road or air almost anywhere in the world it is likely that GKN is helping you on your way.

We design, manufacture and service systems and components for most of the world's leading aircraft, vehicle and machinery manufacturers. Founded more than 250 years ago, we have adapted, developed and grown into a £10.4 billion business at the forefront of global technology.

GKN operates three divisions: GKN Aerospace, GKN Driveline and GKN Powder Metallurgy. Approximately 59,800 people work in GKN companies and joint ventures in more than 30 countries.

## GKN Group

### MANAGEMENT PROFIT BEFORE TAX

| 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|
| **£601m** | **£603m** | **£678m** | **£572m** |

SALES BY REGION 2017

SALES BY DIVISION 2017

EMPLOYEES BY REGION 2017

| | |
|---|---|
| Europe | 50% |
| Americas | 35% |
| Asia Pacific and Africa | 15% |

| | |
|---|---|
| GKN Driveline | 51% |
| GKN Aerospace | 35% |
| GKN Powder Metallurgy | 11% |
| GKN Other Businesses | 3% |

| | |
|---|---|
| Europe (excluding UK) | 39% |
| Americas | 28% |
| Asia Pacific and Africa | 24% |
| UK | 9% |

# GKN Aerospace

Overview | Sales | Products | Key strategic activities

GKN Aerospace is a leading global tier one supplier of airframe and engine structures, landing gear, electrical interconnection systems, transparencies, and aftermarket services.

It supplies products and services to a wide range of commercial and military aircraft and engine prime contractors, and other tier one suppliers.

Visit GKN Aerospace


| SALES IN 2017 | EMPLOYEES | MANUFACTURING LOCATIONS | COUNTRIES |
|---|---|---|---|
| £3,638m | 17,700 | 52 | 14 |

# GKN Driveline

Overview | Sales | Products | Key strategic activities

As a global business serving the world's leading vehicle manufacturers, GKN Driveline develops, builds and supplies an extensive range of automotive driveline products and systems, for use in everything from the most sophisticated premium vehicles that demand complex driving dynamics, to the smallest ultra-low-cost cars

Visit GKN Driveline

| SALES IN 2017 | EMPLOYEES | MANUFACTURING LOCATIONS | COUNTRIES |
|---|---|---|---|
| **£5,308m** | **31,700** | **58** | **23** |

# GKN Powder Metallurgy

Overview | Sales | Products | Key strategic activities

## GKN Powder Metallurgy comprises GKN Sinter Metals and Hoeganaes.

GKN Sinter Metals is the world's leading manufacturer of precision automotive components as well as components for industrial and consumer applications. Hoeganaes is one of the world's largest manufacturers of metal powder, the essential raw material for powder metallurgy.

Find out more about GKN Sinter Metals

Find out more about GKN Hoeganaes

| SALES IN 2017 | EMPLOYEES | MANUFACTURING LOCATIONS | COUNTRIES |
|---|---|---|---|
| **£1,174m** | **7,400** | **34** | **10** |

# Additional businesses

GKN Wheels and Structures

GKN Off-Highway Powertrain

## GKN Wheels is the world's leading manufacturer of off highway wheels.

GKN Wheels offer a full service from design, manufacture and testing to after sales support from our global team of commercial and engineering experts. GKN Wheels supply the global mining, construction, industrial and agricultural industries and many of the leading international OEMs, distributors and integrators.

GKN Structures specialises in the design, manufacture, supply and test of full chassis frames, pressed steel, aluminium structural assemblies and cast aluminium

wheels to a number of key sectors including automotive, off-highway equipment for agriculture and defence.

Together they form the business GKN Wheels & Structures.

Visit GKN Wheels and Structures

# Doncasters Group Limited
# Annual Report 2016

This report presents the financial results of Doncasters Group Limited for the year ended 31 December 2016.

## Contents

# Strategic report

## Principal activities

Doncasters is a leading worldwide supplier of high quality engineered components for aero engines, industrial gas turbines ("IGT"), fastener systems and other specialist high performance applications. The Group excels in working with alloys and complex designs in order to meet customers' demanding product specifications. Key materials include nickel-based superalloys, stainless steels and titanium.

Specialist manufacturing capabilities include investment casting, centrifugal casting, precision forging, ring-rolling, machining, fabrication and specialist finishing activities. Further advanced technologies include superplastic forming, diffusion bonding and single crystal casting.

The Group has a broad, blue-chip focused customer base, with no single customer directly accountable for more than 14% of aggregate sales in 2016. Building and maintaining secure customer relationships based upon best in class delivery and quality attainment forms a major part of the Group's strategy. Of the top 20 customers, which account for over 57% of sales, most have been customers for in excess of 25 years, with many business relationships secured under long term supply agreements.

The Group operates from 32 principal manufacturing facilities based in the UK, US, Germany, Belgium, Mexico and China with headquarters in Burton-upon-Trent, England. The Group has been majority owned by Dubai International Capital LLC and its subsidiaries ("DIC") since 2006.

## Financial highlights

## Results for the year & Key performance indicators

| | 2016 £ million | 2015 £ million (Restated) |
|---|---|---|
| Sales | **654.2** | 627.8 |
| Underlying EBITDA | **100.9** | 114.4 |
| Underlying EBITDA Margin % | **15.4%** | 18.2% |
| Less: | | |
| Metals - Inventory and hedging losses | **(2.1)** | (4.7) |
| Step up adjustment in relation to acquisition of subsidiary | **(0.2)** | - |
| Non-cash (charges)/credits for long-term incentive plans | **(0.1)** | 1.8 |
| New England Airfoil Products disposal | **-** | (0.5) |
| Change in basis of provision | **-** | (1.3) |
| Forward foreign exchange contracts | **(2.5)** | - |
| Costs associated with new product introduction and one off operational costs | **(13.4)** | - |
| Reported EBITDA before exceptional items | **82.6** | 109.7 |
| Underlying Operating Profit | **74.0** | 90.5 |
| Underlying Operating Margin % | **11.3%** | 14.4% |
| Operating Profit | **22.1** | 10.8 |
| Cash Generated from Operations | **68.4** | 96.4 |
| Cash & Cash Equivalents | **19.2** | 35.5 |

Underlying EBITDA is defined as operating profit prior to: step up adjustments in relation to acquisitions; inventory and hedging losses relating to metals; exceptional items; depreciation and impairment of property, plant and equipment; amortisation and impairment of goodwill and other intangibles; amortisation of government grants; profit or loss on sale of property, plant and equipment; non-cash charges associated with certain long-term incentive plans; effects of gains and losses on unrealised forward foreign exchange contracts; one off costs associated with new product introduction; and one off operational costs. The operating loss of £0.5 million of New England Airfoil Products was adjusted in 2015 following the disposal of the business in that year. Additionally the basis of a provision for US workers' compensation was amended in 2015 resulting in a one-off charge for historic claims.

Underlying Operating Profit is defined as operating profit prior to step up adjustments in relation to acquisitions; inventory and hedging losses relating to metals; exceptional items; amortisation and impairment of goodwill and other intangibles; non-cash charges associated with certain long-term incentive plans; effects of gains and losses on unrealised forward foreign exchange contracts; one off costs associated with new product introduction; and one off operational costs. The 2015 figure is stated prior to the New England Airfoil Products disposal and the change in basis of provision described above.

# Strategic report (continued)

## Financial highlights (continued)

The Group made substantial progress in winning new work during the year which was reflected in a 41% increase in its order book during 2016. There was also a shift in the aerospace and IGT businesses from legacy engines to next generation platforms which was evident in the revenue generated for the year. Reported revenue increased by £26.4 million during the year to £654.2 million. Market conditions were mixed, with continued strong demand in Aerospace, IGT and commercial construction markets offset by weaker conditions in heavy duty truck and mining markets. Revenue also benefitted from currency improvements of approximately £43.5 million relating to the translation of overseas sales. Reported sales were reduced by £13.5 million due to lower input metals prices which are broadly passed on to the Group's end customers in full.

Underlying EBITDA reduced to £100.9 million which is mainly attributable to costs and inefficiencies which are part of the transition from legacy engine platforms to the next generation of components. Over time the Group anticipates margins generated on these new platforms will be similar to the legacy platforms but it will take time to lean out the new programmes. Action was taken where possible to maintain margins through cost management. Underlying EBITDA margin was 15.4%. Reported EBITDA before exceptional items was £82.6 million (2015: £109.7 million).

Operating profit was £22.1 million compared to £10.8 million in 2015. Cash generated from operations of £68.4 million (2015: £96.4 million). The Group made significant capital investments during the year in order to support growth and customer commitments.

Group liquidity remains healthy with cash and cash equivalents of £19.2 million (2015: £35.5 million) including restricted cash of £2.3 million (2015: £1.9 million) and £41.5 million of the maximum £84 million revolving credit facility available for draw down at the year end.

The Group acquired TOG Manufacturing, a manufacturer of components for the steam power generation market, which added £2.2 million to 2016 revenue. TOG Manufacturing generates annual sales of approximately £5.4 million and operating profit of £0.9 million. Group results for 2016 include £0.1 million of operating profit in relation to TOG Manufacturing, which includes a cost of £0.2 million incurred as part of the step up in the valuation of inventory upon acquisition.

Following a detailed review of the results reported by the Group's Chinese subsidiary a number of accounting irregularities have been identified related to previously published results. As a result of this review changes have been made to strengthen controls within the business and also restate historic numbers to align with the Group's accounting policies. Further details are shown in note 1 to the Financial Statements.

## Debt structure

The weakening of sterling against the dollar during the year from $1.4739: £1 at 31 December 2015 to $1.2357: £1 at 31 December 2016 has affected levels of bank debt held on a reported basis. The change in exchange rates has increased bank debt by £107.2 million in sterling equivalent.

As a result bank loans at 31 December 2016 totalled £829.3 million (2015: £687.2 million) comprising 1st Lien loans of £708.7 million (2015: £620.4 million), 2nd Lien Loans of £78.1 million (2015: £65.0 million) and multi-currency revolving loan facilities of £42.5 million (2015: £1.8 million).

Dubai International Capital ("DIC") and management loan notes, being unsecured subordinated loan notes, totalled £379.4 million (2015: £336.2 million). These have a nominal value at 31 December 2016 of £561.6 million (2015 £535.9 million). Further details are shown in notes 15 and 16 to the Financial Statements.

## Other long term commitments

The Group operates a number of defined benefit and defined contribution pension arrangements in the UK, US and Continental Europe. All UK defined benefit schemes are closed to new entrants. The Group's net pension asset, calculated in accordance with IAS 19 (revised), at 31 December 2016 (excluding other post-employment benefits) was £30.2 million (2015: £34.2 million). The two UK schemes were closed to future accrual from 1 October 2016 after consultation with members.

Other post-employment benefits are provided for certain US current and past employees and calculated in accordance with IAS 19 (revised). At 31 December 2016 the liabilities for these plans amounted to £3.2 million (2015: £11.3 million). The Doncasters Inc. post retirement medical plan was settled in cash in the year, resulting in a settlement gain of £8.5 million.

Further details are shown in note 20 to the Financial Statements.

# Strategic report (continued)

## Risk management

The Group uses a framework aimed at identifying, evaluating and managing significant risks. The framework is not designed to eliminate risk. Risks are recorded in regularly updated risk registers operating at all levels of the organisation and are reviewed and monitored. There are specific programmes in place for health and safety, environmental and export compliance. There is also a comprehensive insurance programme.

The principal risks and uncertainties facing the Group are set out below:

| Risk arising | Mitigation |
|---|---|
| Customer demand is affected by changes in end market demand such as electricity consumption, oil prices and aircraft & power station build programmes | The Group has a diversified portfolio of businesses, products and end markets which limits the risk to a change in the demand in a single end market. Additionally new business is targeted in the markets which offer the greatest potential for growth. |
| Customer demand is affected by competition or customer sourcing decisions | We seek to mitigate such risk by spreading our sales revenues across a number of customers, and entering into long term agreements where this is the market norm. Competitive pressures can increase during periods of economic downturn, and as long term agreements become due for re-negotiation there is a risk that pricing and other contractual terms may be less attractive. |
| Products supplied may not comply with customer specifications and designs. This provides for the risk of returned products or customer claims | The Group generally supplies customers with products manufactured to customers' designs and specifications according to agreed manufacturing processes. Additionally the Group has rigorous internal quality checks which are designed to ensure products are appropriately tested and validated prior to supply to customers. |
| Costs of new product introduction exceed those planned or forecast in customer pricing proposals. | The Group has a robust bidding and costing process. New product introduction is tracked through each development stage and progress is monitored by the Group at all levels. |
| Supply of products may be affected by the ability of the Group to source appropriate components at the required time | Active monitoring of the financial viability of our suppliers is undertaken. Contingency plans exist which include for key suppliers and materials the potential for secondary sourcing. Additionally production scheduling is routinely undertaken which provides key suppliers with a clear understanding of forthcoming demand. |
| Failure to retain key personnel | The Group maintains development and succession programmes, competitive remuneration packages and good communications at all levels. |
| Failure to comply with laws and regulations governing our production plants, such as health and safety, and environmental requirements | Each business operates according to strict policies and procedures regarding compliance with health and safety and environmental legislation. These procedures are monitored by an environmental health and safety officer for each territory in which the Group operates. There is regular reporting to the board regarding the Group's compliance with such legislation. |
| Failure to comply with the requirements of the Group's borrowing agreements | The Group monitors compliance with its borrowing agreements on an ongoing basis. |
| Failure to comply with Group accounting policies and controls and procedures | The Group monitors compliance with internal controls and procedures on a regular basis. This includes documented policies and procedures, a regular programme of self-certifications and visits by internal and external audit to verify compliance. |

## Outlook

2016 has been a year of positioning for growth through investment and product introduction. The Group has seen a substantial increase in its order book and new product pipeline which is expected to lead to growth in sales and earnings in 2017 supported by encouraging market conditions.

On behalf of the Board
**D Smoot**
Chief Executive Officer

30 March 2017

ACMT, Inc.
Advanced Composites & Metalforming Technologies

Call 860-645-0592

Home | About Us | Manufacture | Overhaul & Repair | Adhesives & Chemicals | Job Opportunities | Contact Us

# About Us

## Internationally Recognized as a World Class, Performance-Basec Company

Founded in 1986, ACMT has grown and diversified into 3 Strategic Business Units tha focus on ways to increase customer satisfaction while increasing the customer's value- portion of the product or service.

1. OEM Manufacturer of medium to complex components and assemblies
2. Overhaul, Repair, Modification and Inspection of Gas Turbine Components and Accessories
3. ADhesives and CHEMicals / Formulation and Repackaging of consumable mate

As the global demand increases for alignment with high quality, performance-based companies, ACMT has stepped up to the challenge, investing in its people and equipr service this demand.

## Our Capabilities

ACMT is positioned to handle medium to complex, close tolerance details or assembli manufactured from sheet metal and composite materials.

- Sophisticated sheet metal assemblies use state of the art Laser, Water-Jet cutting CNC Brake equipment.
- Several CNC machining centers complement the traditional Turning and Milling c for parts up to 72-inch diameter.
- Typical manufacturing involves the use of exotic metal alloys and complex comp materials such as Titanium, Inconel, Kevlar and Carbon Fiber.
- Dedicated clean rooms dealing with Silicones, Epoxies and Urethanes help ensu integrity of the components manufactured or repaired.

## Our Social Mission

ACMT will actively work to help initiate and integrate business in the community, promc benefits of local businesses, and improve the quality of life for those who work at ACM

# Doncasters Group Limited
# Annual Report 2016

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# Strategic report

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| Change in basis of provision | **-** | (1.3) |
| Forward foreign exchange contracts | **(2.5)** | - |
| Costs associated with new product introduction and one off operational costs | **(13.4)** | - |
| Reported EBITDA before exceptional items | **82.6** | 109.7 |
| Underlying Operating Profit | **74.0** | 90.5 |
| Underlying Operating Margin % | **11.3%** | 14.4% |
| Operating Profit | **22.1** | 10.8 |
| Cash Generated from Operations | **68.4** | 96.4 |
| Cash & Cash Equivalents | **19.2** | 35.5 |

Underlying EBITDA is defined as operating profit prior to: step up adjustments in relation to acquisitions; inventory and hedging losses relating to metals; exceptional items; depreciation and impairment of property, plant and equipment; amortisation and impairment of goodwill and other intangibles; amortisation of government grants; profit or loss on sale of property, plant and equipment; non-cash charges associated with certain long-term incentive plans; effects of gains and losses on unrealised forward foreign exchange contracts; one off costs associated with new product introduction; and one off operational costs. The operating loss of £0.5 million of New England Airfoil Products was adjusted in 2015 following the disposal of the business in that year. Additionally the basis of a provision for US workers' compensation was amended in 2015 resulting in a one-off charge for historic claims.

Underlying Operating Profit is defined as operating profit prior to step up adjustments in relation to acquisitions; inventory and hedging losses relating to metals; exceptional items; amortisation and impairment of goodwill and other intangibles; non-cash charges associated with certain long-term incentive plans; effects of gains and losses on unrealised forward foreign exchange contracts; one off costs associated with new product introduction; and one off operational costs. The 2015 figure is stated prior to the New England Airfoil Products disposal and the change in basis of provision described above.

# Strategic report (continued)

## Financial highlights (continued)

The Group made substantial progress in winning new work during the year which was reflected in a 41% increase in its order book during 2016. There was also a shift in the aerospace and IGT businesses from legacy engines to next generation platforms which was evident in the revenue generated for the year. Reported revenue increased by £26.4 million during the year to £654.2 million. Market conditions were mixed, with continued strong demand in Aerospace, IGT and commercial construction markets offset by weaker conditions in heavy duty truck and mining markets. Revenue also benefitted from currency improvements of approximately £43.5 million relating to the translation of overseas sales. Reported sales were reduced by £13.5 million due to lower input metals prices which are broadly passed on to the Group's end customers in full.

Underlying EBITDA reduced to £100.9 million which is mainly attributable to costs and inefficiencies which are part of the transition from legacy engine platforms to the next generation of components. Over time the Group anticipates margins generated on these new platforms will be similar to the legacy platforms but it will take time to lean out the new programmes. Action was taken where possible to maintain margins through cost management. Underlying EBITDA margin was 15.4%. Reported EBITDA before exceptional items was £82.6 million (2015: £109.7 million).

Operating profit was £22.1 million compared to £10.8 million in 2015. Cash generated from operations of £68.4 million (2015: £96.4 million). The Group made significant capital investments during the year in order to support growth and customer commitments.

Group liquidity remains healthy with cash and cash equivalents of £19.2 million (2015: £35.5 million) including restricted cash of £2.3 million (2015: £1.9 million) and £41.5 million of the maximum £84 million revolving credit facility available for draw down at the year end.

The Group acquired TOG Manufacturing, a manufacturer of components for the steam power generation market, which added £2.2 million to 2016 revenue. TOG Manufacturing generates annual sales of approximately £5.4 million and operating profit of £0.9 million. Group results for 2016 include £0.1 million of operating profit in relation to TOG Manufacturing, which includes a cost of £0.2 million incurred as part of the step up in the valuation of inventory upon acquisition.

Following a detailed review of the results reported by the Group's Chinese subsidiary a number of accounting irregularities have been identified related to previously published results. As a result of this review changes have been made to strengthen controls within the business and also restate historic numbers to align with the Group's accounting policies. Further details are shown in note 1 to the Financial Statements.

## Debt structure

The weakening of sterling against the dollar during the year from $1.4739: £1 at 31 December 2015 to $1.2357: £1 at 31 December 2016 has affected levels of bank debt held on a reported basis. The change in exchange rates has increased bank debt by £107.2 million in sterling equivalent.

As a result bank loans at 31 December 2016 totalled £829.3 million (2015: £687.2 million) comprising 1st Lien loans of £708.7 million (2015: £620.4 million), 2nd Lien Loans of £78.1 million (2015: £65.0 million) and multi-currency revolving loan facilities of £42.5 million (2015: £1.8 million).

Dubai International Capital ("DIC") and management loan notes, being unsecured subordinated loan notes, totalled £379.4 million (2015: £336.2 million). These have a nominal value at 31 December 2016 of £561.6 million (2015 £535.9 million). Further details are shown in notes 15 and 16 to the Financial Statements.

## Other long term commitments

The Group operates a number of defined benefit and defined contribution pension arrangements in the UK, US and Continental Europe. All UK defined benefit schemes are closed to new entrants. The Group's net pension asset, calculated in accordance with IAS 19 (revised), at 31 December 2016 (excluding other post-employment benefits) was £30.2 million (2015: £34.2 million). The two UK schemes were closed to future accrual from 1 October 2016 after consultation with members.

Other post-employment benefits are provided for certain US current and past employees and calculated in accordance with IAS 19 (revised). At 31 December 2016 the liabilities for these plans amounted to £3.2 million (2015: £11.3 million). The Doncasters Inc. post retirement medical plan was settled in cash in the year, resulting in a settlement gain of £8.5 million.

Further details are shown in note 20 to the Financial Statements.

# Strategic report (continued)

## Risk management

The Group uses a framework aimed at identifying, evaluating and managing significant risks. The framework is not designed to eliminate risk. Risks are recorded in regularly updated risk registers operating at all levels of the organisation and are reviewed and monitored. There are specific programmes in place for health and safety, environmental and export compliance. There is also a comprehensive insurance programme.

The principal risks and uncertainties facing the Group are set out below:

| Risk arising | Mitigation |
|---|---|
| Customer demand is affected by changes in end market demand such as electricity consumption, oil prices and aircraft & power station build programmes | The Group has a diversified portfolio of businesses, products and end markets which limits the risk to a change in the demand in a single end market. Additionally new business is targeted in the markets which offer the greatest potential for growth. |
| Customer demand is affected by competition or customer sourcing decisions | We seek to mitigate such risk by spreading our sales revenues across a number of customers, and entering into long term agreements where this is the market norm. Competitive pressures can increase during periods of economic downturn, and as long term agreements become due for re-negotiation there is a risk that pricing and other contractual terms may be less attractive. |
| Products supplied may not comply with customer specifications and designs. This provides for the risk of returned products or customer claims | The Group generally supplies customers with products manufactured to customers' designs and specifications according to agreed manufacturing processes. Additionally the Group has rigorous internal quality checks which are designed to ensure products are appropriately tested and validated prior to supply to customers. |
| Costs of new product introduction exceed those planned or forecast in customer pricing proposals. | The Group has a robust bidding and costing process. New product introduction is tracked through each development stage and progress is monitored by the Group at all levels. |
| Supply of products may be affected by the ability of the Group to source appropriate components at the required time | Active monitoring of the financial viability of our suppliers is undertaken. Contingency plans exist which include for key suppliers and materials the potential for secondary sourcing. Additionally production scheduling is routinely undertaken which provides key suppliers with a clear understanding of forthcoming demand. |
| Failure to retain key personnel | The Group maintains development and succession programmes, competitive remuneration packages and good communications at all levels. |
| Failure to comply with laws and regulations governing our production plants, such as health and safety, and environmental requirements | Each business operates according to strict policies and procedures regarding compliance with health and safety and environmental legislation. These procedures are monitored by an environmental health and safety officer for each territory in which the Group operates. There is regular reporting to the board regarding the Group's compliance with such legislation. |
| Failure to comply with the requirements of the Group's borrowing agreements | The Group monitors compliance with its borrowing agreements on an ongoing basis. |
| Failure to comply with Group accounting policies and controls and procedures | The Group monitors compliance with internal controls and procedures on a regular basis. This includes documented policies and procedures, a regular programme of self-certifications and visits by internal and external audit to verify compliance. |

## Outlook

2016 has been a year of positioning for growth through investment and product introduction. The Group has seen a substantial increase in its order book and new product pipeline which is expected to lead to growth in sales and earnings in 2017 supported by encouraging market conditions.

On behalf of the Board
**D Smoot**
Chief Executive Officer

30 March 2017

# Fact sheet

**For more information, contact:**
Beci Brenton | 202- 264-7143 | Beci.Brenton@hii-co.com

Huntington Ingalls Industries


## About Us

Huntington Ingalls Industries is America's largest military shipbuilding company and a provider of professional services to partners in government and industry. For more than a century, HII's Newport News and Ingalls shipbuilding divisions in Virginia and Mississippi have built more ships in more ship classes than any other U.S. naval shipbuilder. HII's Technical Solutions division provides a wide range of professional services through its Fleet Support, Integrated Mission Solutions, Nuclear and Environmental, and Oil and Gas groups. Headquartered in Newport News, Virginia, HII employs nearly 39,000 people operating both domestically and internationally. For more information, visit: www.huntingtoningalls.com.

### By the Numbers

- ★ Newport News Shipbuilding (Newport News, Va.)
  - Nuclear-powered aircraft carriers and submarines, overhaul, repair, maintenance and fleet support
  - 550 acres, more than 22,000 employees
- ★ Ingalls Shipbuilding (Pascagoula, Miss.)
  - Surface combatants, amphibious assault & transport, Coast Guard Cutters, fleet support
  - 800 acres, about 11,500 employees
- ★ Technical Solutions
  - Information technology, fleet maintenance and modernization, nuclear management and operations, oil and gas engineering and support
  - 35 states and 11 countries, over 5,200 employees

*May 3, 2018*

## Facts at a Glance

- ★ Annual revenues of approximately $7.4 billion, current backlog of $22 billion.
- ★ Builder of the most complex ships in the world for more than 132 years at Newport News, and 80 years at Ingalls.
- ★ Sole builder of U.S. Navy aircraft carriers, the world's largest warships, and one of two builders constructing nuclear-powered submarines.
- ★ Exclusive provider of refueling services for nuclear-powered aircraft carriers, at the forefront of new ship technologies, specialized manufacturing capabilities and nuclear facility management.
- ★ Largest employer in Mississippi and largest industrial employer in Virginia.
- ★ Largest supplier of U.S. Navy surface combatants—has built more than 70 percent of the Navy fleet of warships.
- ★ Builder-of-record for 35 DDG 51 class Aegis guided missile destroyers.
- ★ Builder of record for the LHA 6 class large-deck amphibious ships and the sole builder of the Navy's newest fleet of *San Antonio* (LPD 17) class amphibious assault ships.
- ★ Provider of a wide variety of products and services to the nuclear energy, oil and gas markets, including DOE.
- ★ Provider of mission critical and practical solutions to a wide variety of government and commercial customers worldwide through Technical Solutions.
- ★ Unrivalled experience in modular engineering and construction with innovative new solutions for upstream, midstream and downstream energy infrastructure.
- ★ Employs approximately 5,000 engineers and designers.

## Programs Overview

- New *Gerald R. Ford*-class aircraft carriers (CVN 78)
- Refuel Complex Overhaul of all nuclear-powered *Nimitz*-class aircraft carriers and inactivation of aircraft carriers
- *Virginia*-class nuclear attack submarines
- Design and engineering support efforts on the *Columbia* –class ballistic missile submarines (*Ohio*-class Ballistic Missile Submarine Replacement Program)
- Specialized manned and unmanned undersea vehicles
- DDG 51 *Arleigh Burke*-class Aegis guided missile destroyers
- LPD 17 *San Antonio*-class amphibious transport dock ships
- LHA 6 *America*-class amphibious assault ship
- Coast Guard *Legend*-class National Security Cutters
- Information technology, technology insertion and fleet support services
- Engineered modules for the energy infrastructure market
- Engineering, manufacturing and management services to the nuclear energy, oil and gas markets

Huntington
Ingalls
Industries

# Q1 2018 Earnings Presentation

May 3, 2018

**Mike Petters**
President and Chief Executive Officer

**Chris Kastner**
Executive Vice President, Business Management and Chief Financial Officer

# Forward-Looking Statements



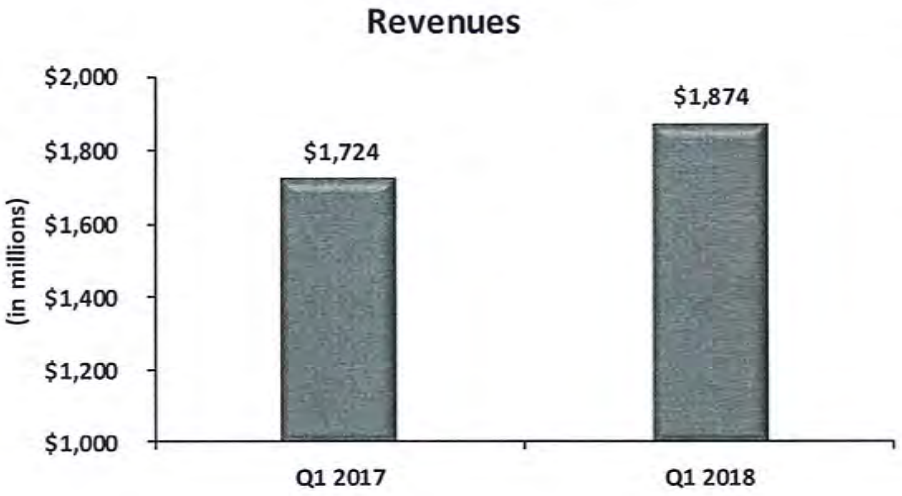
Statements in this presentation, other than statements of historical fact, may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those expressed in these statements. Factors that may cause such differences include: changes in government and customer priorities and requirements (including government budgetary constraints, shifts in defense spending, and changes in customer short-range and long-range plans); our ability to estimate our future contract costs and perform our contracts effectively; changes in procurement processes and government regulations and our ability to comply with such requirements; our ability to deliver our products and services at an affordable life cycle cost and compete within our markets; natural and environmental disasters and political instability; our ability to execute our strategic plan, including with respect to share repurchases, dividends, capital expenditures, and strategic acquisitions; adverse economic conditions in the United States and globally; changes in key estimates and assumptions regarding our pension and retiree health care costs; security threats, including cyber security threats, and related disruptions; and other risk factors discussed in our filings with the U.S. Securities and Exchange Commission. There may be other risks and uncertainties that we are unable to predict at this time or that we currently do not expect to have a material adverse effect on our business, and we undertake no obligation to update any forward-looking statements. You should not place undue reliance on any forward-looking statements that we may make. This presentation also contains non-GAAP financial measures and includes a GAAP reconciliation of these financial measures. Non-GAAP financial measures should not be construed as being more important than comparable GAAP measures.

# HII's Q1 2018 Highlights

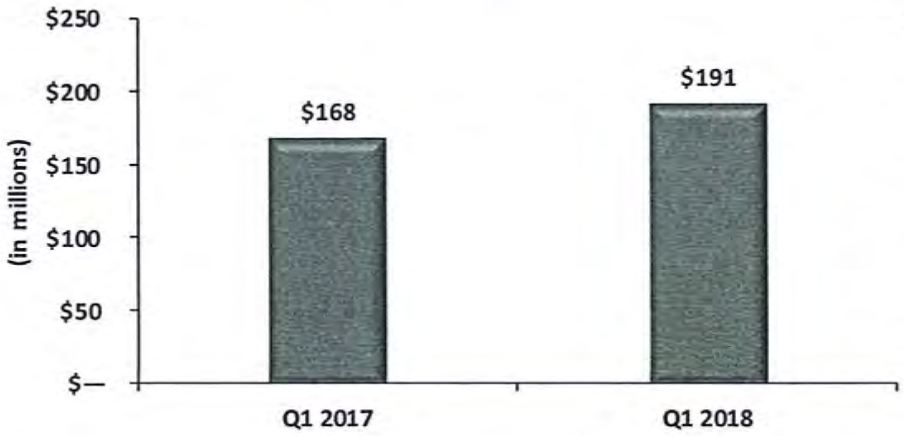


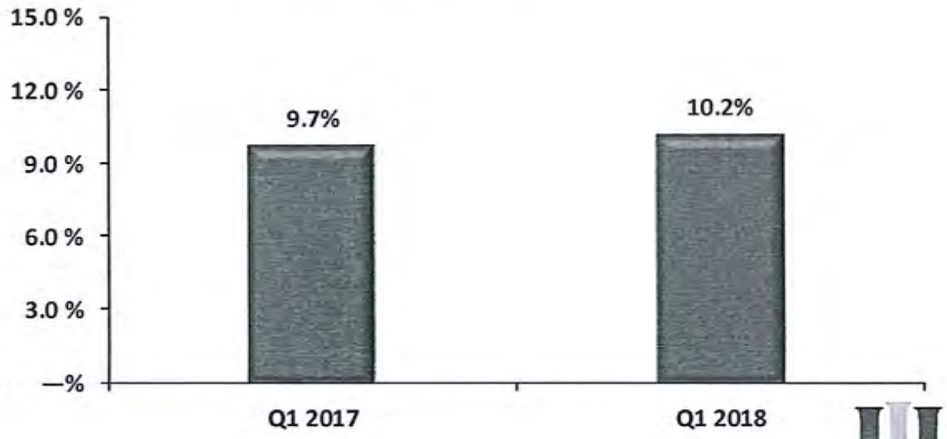
- Revenues were $1.87 billion in the quarter
- Diluted EPS was $3.48 in the quarter
- Total backlog at the end of the quarter was ~$22 billion; new contract awards in the quarter totaled ~$2.6 billion
- Ingalls Shipbuilding
  - Awarded ~$1.4 billion construction contract for LPD 29 and $94 million advanced procurement contract for NSC 10
- Newport News Shipbuilding
  - Achieved 75% structural completion on *John F. Kennedy* (CVN 79)
  - Installed a 400-metric ton fixture in the Joint Manufacturing Assembly Facility to revolutionize submarine construction
- Technical Solutions
  - Proceeded with transition efforts for the Los Alamos Legacy Cleanup Contract as part of N3B, a joint venture led by SN3 with partner BWXT Technical Services Group, Inc.

# HII's Q1 2018 Consolidated Results



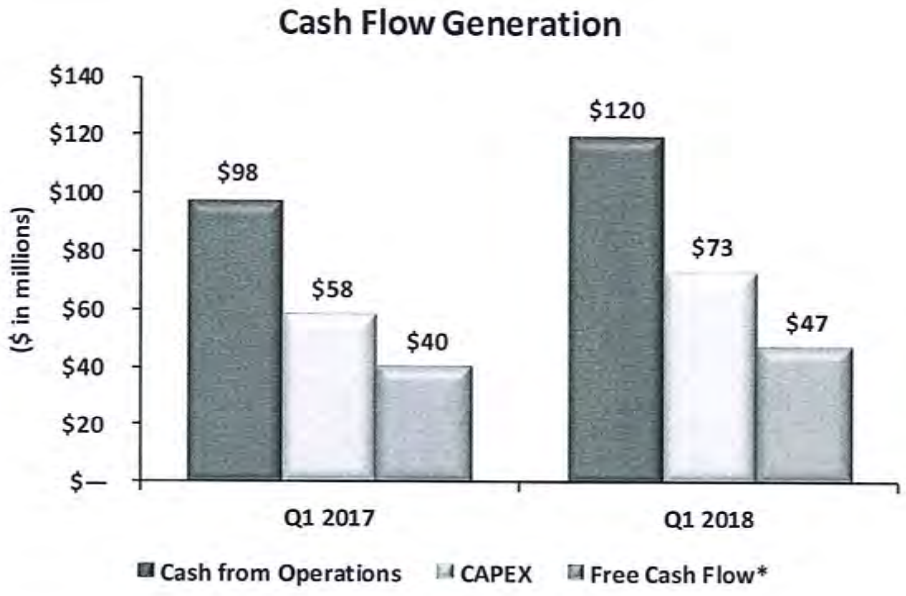

- HII's revenues up 8.7% YOY due to increased volume in the shipbuilding segments
- HII's operating income and margin increased YOY due to a favorable Operating FAS/CAS Adjustment in Q1 2018 compared to the prior year

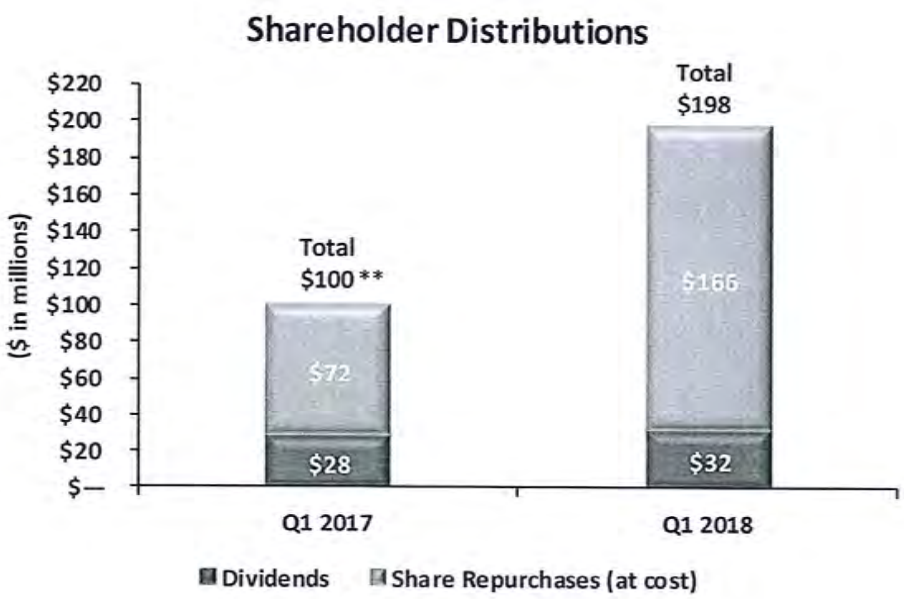


# HII's Q1 2018 Capital Deployment





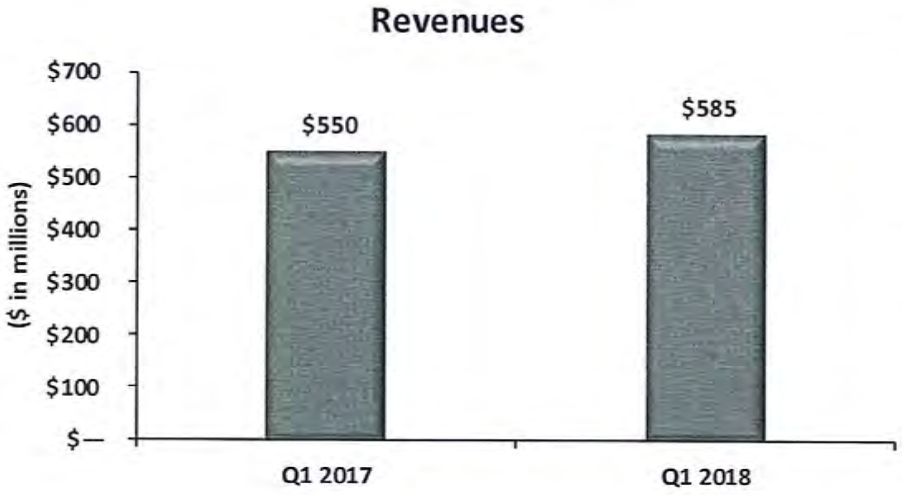




- Capital expenditures, net of related grant proceeds, were $73 million or 3.9% of revenues in the quarter
- Made cash contributions of $43 million to pension and postretirement benefit plans in the quarter
  - $34 million were discretionary contributions to our qualified pension plans
- Distributed $198 million to shareholders in the quarter
  - Repurchased 674 thousand shares at a cost of $166 million
  - Paid dividends of $32 million

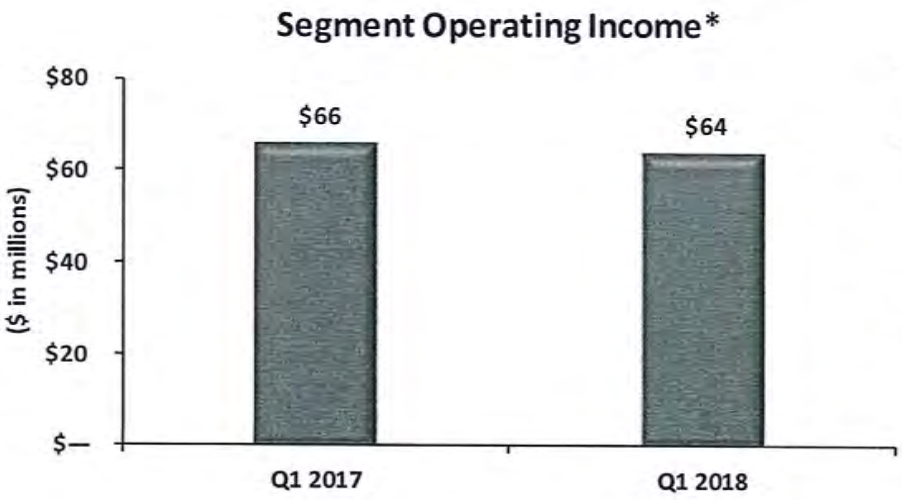
*Non-GAAP measure. See appendix for definition and reconciliation.
**Includes $4 million for share repurchases not settled as of March 31, 2017.

# Ingalls Shipbuilding Q1 2018 Results






- Ingalls revenues up 6.4% YOY due to increased volume on the LPD and LHA programs, partially offset by decreased volume on the NSC program
- Ingalls segment operating income and margin down YOY due to lower risk retirement on the NSC program, partially offset by higher risk retirement on the LPD program

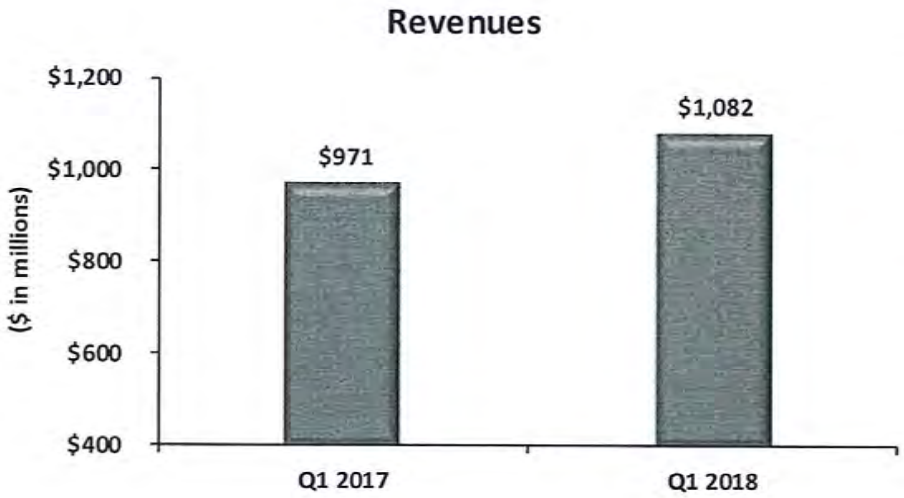




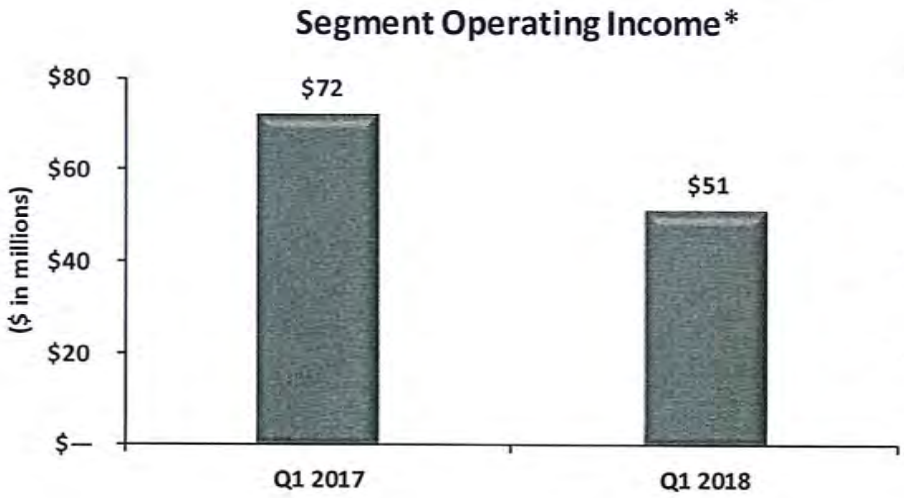
*Non-GAAP measure. See appendix for definition and reconciliation.

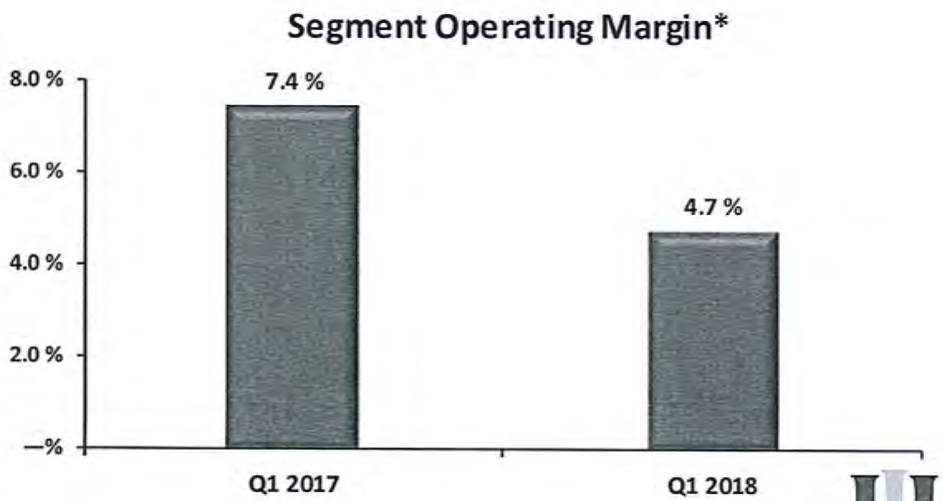
# Newport News Shipbuilding Q1 2018 Results






- Newport News revenues up 11.4% YOY due to higher volume in aircraft carriers and naval nuclear support services
- Newport News segment operating income and margin down YOY due to one-time tax reform bonus payments in 2018 and variances in contract mix




*Non-GAAP measure. See appendix for definition and reconciliation.

# Technical Solutions Q1 2018 Results




- Technical Solutions revenues up 3.6% YOY due to higher oil and gas and fleet support services volume, partially offset by lower nuclear and environmental revenue
- Technical Solutions segment operating income and margin up YOY primarily due to an accounts receivable reserve booked in 2017, partially offset by one-time tax reform bonus payments in 2018



*Non-GAAP measure. See appendix for definition and reconciliation.

# Attachment 4: Auditor General Report on GCSC

# AUDITOR GENERAL
## STATE OF FLORIDA

Sherrill F. Norman, CPA
Auditor General

Claude Denson Pepper Building, Suite G74
111 West Madison Street
Tallahassee, Florida 32399-1450

Phone: (850) 412-2722
Fax: (850) 488-6975


The President of the Senate, the Speaker of the
House of Representatives, and the
Legislative Auditing Committee

## INDEPENDENT AUDITOR'S REPORT

### Report on the Financial Statements

We have audited the accompanying financial statements of Gulf Coast State College, a component unit of the State of Florida, and its discretely presented component unit as of and for the fiscal year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the College's basic financial statements as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of the discretely presented component unit, which represent 100 percent of the transactions and account balances of the discretely presented component unit's columns. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for the discretely presented component unit, is based solely on the report of the other auditors. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the

assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

***Opinions***

In our opinion, based on our audit and the report of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of Gulf Coast State College and of its discretely presented component unit as of June 30, 2017, and the respective changes in financial position and, where applicable, cash flows thereof for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

***Other Matter***

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that **MANAGEMENT'S DISCUSSION AND ANALYSIS**, the **Schedule of Funding Progress – Other Postemployment Benefits Plan**, **Schedule of the College's Proportionate Share of the Net Pension Liability – Florida Retirement System Pension Plan**, **Schedule of College Contributions – Florida Retirement System Pension Plan**, **Schedule of the College's Proportionate Share of the Net Pension Liability – Health Insurance Subsidy Pension Plan**, **Schedule of College Contributions – Health Insurance Subsidy Pension Plan**, and **Notes to Required Supplementary Information**, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued a report dated March 13, 2018, on our consideration of the Gulf Coast State College's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, rules, regulations, contracts, and grant agreements and other matters included under the heading **INDEPENDENT AUDITOR'S REPORT ON INTERNAL**

**CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Gulf Coast State College's internal control over financial reporting and compliance.

Respectfully submitted,

Sherrill F. Norman

Sherrill F. Norman, CPA
Tallahassee, Florida
March 13, 2018

# SUMMARY

## SUMMARY OF REPORT ON FINANCIAL STATEMENTS

Our audit disclosed that the basic financial statements of Gulf Coast State College (a component unit of the State of Florida) were presented fairly, in all material respects, in accordance with prescribed financial reporting standards.

## SUMMARY OF REPORT ON INTERNAL CONTROL AND COMPLIANCE

Our audit did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses.

The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* issued by the Comptroller General of the United States.

## AUDIT OBJECTIVES AND SCOPE

Our audit objectives were to determine whether Gulf Coast State College and its officers with administrative and stewardship responsibilities for College operations had:

- Presented the College's basic financial statements in accordance with generally accepted accounting principles;
- Established and implemented internal control over financial reporting and compliance with requirements that could have a direct and material effect on the financial statements; and
- Complied with the various provisions of laws, rules, regulations, contracts, and grant agreements that are material to the financial statements.

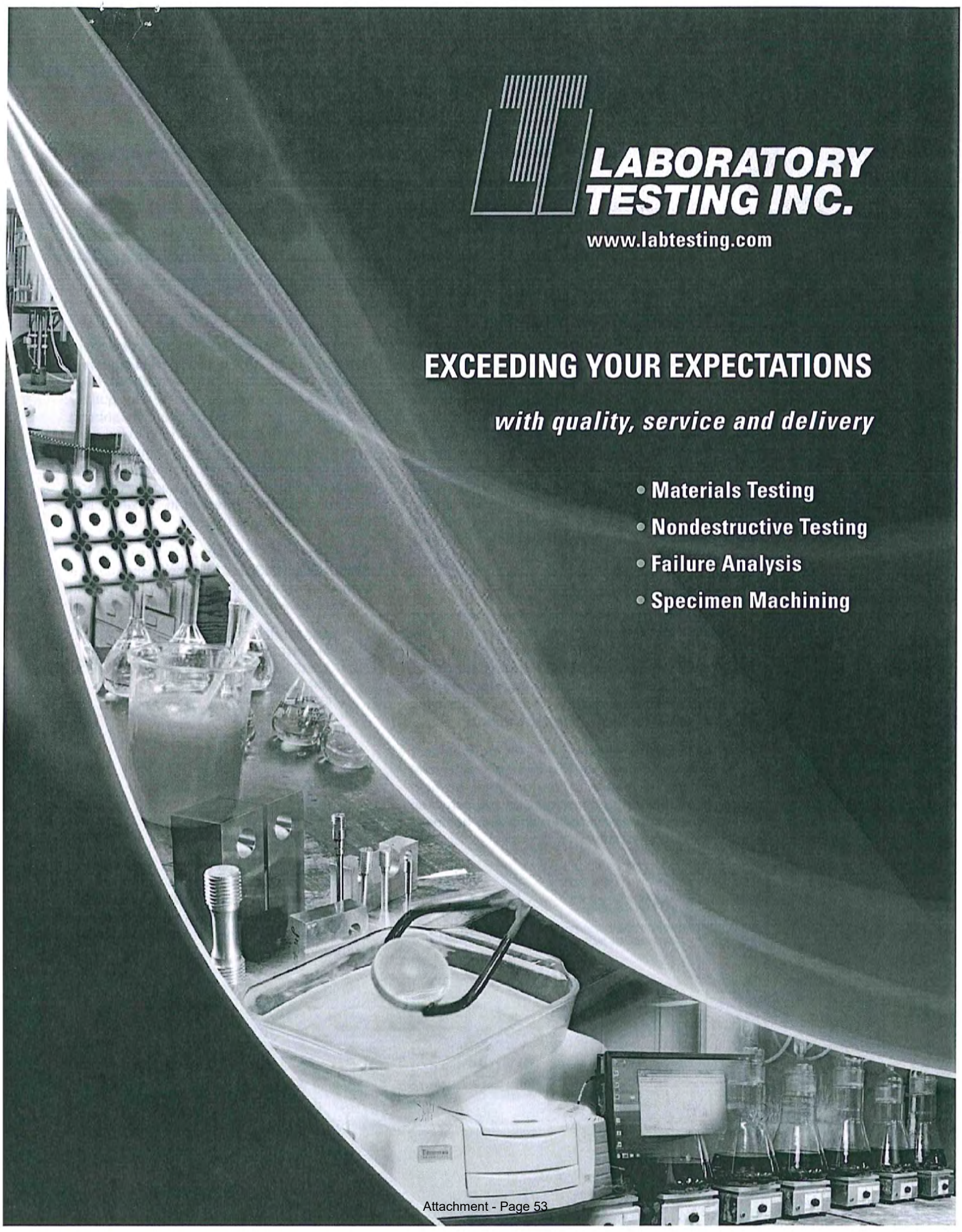
The scope of this audit included an examination of the College's basic financial statements as of and for the fiscal year ended June 30, 2017. We obtained an understanding of the College's environment, including its internal control, and assessed the risk of material misstatement necessary to plan the audit of the basic financial statements. We also examined various transactions to determine whether they were executed, in both manner and substance, in accordance with governing provisions of laws, rules, regulations, contracts, and grant agreements.

An examination of Federal awards administered by the College is included within the scope of our Statewide audit of Federal awards administered by the State of Florida.

## AUDIT METHODOLOGY

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and applicable standards contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

# Attachment 5:
# Description of Destructive and Nondestructive Testing Capabilities


LABORATORY
TESTING INC.
www.labtesting.com
EXCEEDING YOUR EXPECTATIONS
with quality, service and delivery
• Materials Testing
• Nondestructive Testing
• Failure Analysis
• Specimen Machining

# LTI FOR ALL OF YOUR TESTING AND SPECIMEN MACHINING NEEDS

*Since 1984, Laboratory Testing Inc. (LTI) has been inspecting, testing and certifying materials found in tubular products, bar stock, plates, castings, fasteners and other products. Our clients are manufacturers, fabricators and service providers for the Aerospace, Defense, Power Generation, Medical and other major industries. LTI holds the accreditations and approvals to comply with stringent industry requirements. We also have the technical expertise, quality system and latest equipment to meet your needs for quality, service and delivery.*

## ONE-STOP CONVENIENCE

Laboratory Testing Inc. offers a full array of materials and nondestructive testing services to support our customers with the information, answers and documentation needed for R&D, material selection, quality control and failure investigation. Destructive test specimens are prepared to ASTM specifications in our Machine Shop. Calibration and dimensional inspection services are performed in the LTI Metrology Lab to verify the reliability of your measuring instruments and tools, and the dimensional accuracy of machined products and parts.

## EXCEPTIONAL SERVICE

Although most testing and metrology requirements are fairly routine, we know that customers occasionally need help with unique questions and situations. Our engineers, chemists, technicians and customer service staff have the experience to help with answers and solutions.

At Laboratory Testing Inc., we do whatever it takes to get your job done correctly and report the results to you on time. We help you fulfill your obligations, so you can keep your customers satisfied and your business running smoothly.

Accredited Nadcap™
Materials Testing Laboratory
Nondestructive Testing

A2LA ACCREDITED

## QUALITY ASSURANCE

Laboratory Testing knows our customers depend on us for accurate workmanship, reliable results and answers about their materials and products. That's why quality is a top priority. All testing and machining services are performed according to industry specifications, customer requirements and our own stringent procedures. Details about the services performed are clearly and concisely documented in Certified Test Reports and Failure Analysis Reports.

**Specifications**: Procedures conform to ASTM, AMS, ASME, ANSI and MIL specifications. Our inspection and quality control system is in accordance with the following specifications:

- ANS/ISO/IEC 17025
- ANSI/NCSL Z 540-1
- ASME NQA-1
- ASME Section III NCA-3800
- ISO-9001
- ISO-10012-1
- 10 CFR 50 Appendix B
- 10 CFR 21
- AC7101/1
- AC7006
- AS7114
- AC7110/13
- NRC Regulatory Guide 1.28

**Accreditations**: LTI is accredited by PRI/ Nadcap in materials and nondestructive testing and accredited to ANS/ISO/IEC 17025 by A2LA for mechanical, metallurgical and chemical testing, dimensional inspection and calibration services.

***We welcome audits of our quality assurance program and provide our quality manual and accreditations upon request and on our website.***

# MATERIALS TESTING: DESTRUCTIVE & NONDESTRUCTIVE

Testing is an important part of quality control for many businesses. LTI offers accredited destructive and nondestructive testing services to evaluate materials and identify potential problems. Testing is often performed to meet industry requirements or verify production processes. It can also provide valuable information for material selection or determining the root cause of a failure.

Laboratory Testing is an approved vendor for many major companies including GE Aviation, General Dynamics-Electric Boat Division, Lockheed Martin, Northrop Grumman Electronics, Sikorsky Aircraft, Rolls-Royce, Boeing, Bell Helicopter, Pratt & Whitney, Hamilton Sunstrand and more. The layout of our facility and capacity of our equipment permits the safe and efficient processing of orders and materials in almost any quantity and size.

## MATERIALS TESTED

LTI tests and inspects metals in all forms to provide information about characteristics, composition, defects and discontinuities. Polymers are tested for hardness and tensile strength and examined to determine composition. Our chemistry lab also analyzes powdered metals, ores, ferroalloys, composites and ceramics.


Fracture Toughness Testing

## MECHANICAL TESTING

Mechanical testing measures material properties and provides information on characteristics such as strength, hardness, ductility and impact resistance. Testing is performed under various conditions including temperature, tension, compression, impact and load to determine the range of usefulness and the service that can be expected from the material. The Machine Shop at LTI prepares specimens for all types of mechanical testing.

Our tensile machines have capabilities ranging from 10 lbs. to 400,000 lbs. Stress rupture machines test at temperatures up to 1850°F and automatically load at various time intervals. Fracture toughness equipment can generate 55,000 lbs. of tensile or compressive force and its environmental chamber can control the test temperature between -250°F and +1150°F.


Stress Rupture Testing

- Bend
- Flattening
- Cone Strip
- Proof Load
- Yield Strength (full-size bolts)
- Stress Rupture
- Fracture Toughness
- Drop Weight
- Tensile/Ductility
- Elevated Temperature Tensile
- Wedge & Axial Tensile (full size)
- Hardness Test (Rockwell, Brinell & Superficial)
- Charpy V-Notch Impact
- Flaring/Expansion
- Conductivity
- Magnetic Permeability
- Hydrogen Embrittlement/Stress Durability
- Welder & Procedure Qualification (per MIL & API specifications, ASME & AWS codes, ASTM & EN standards and the Pressure Equipment Directive)


Elevated Temperature Tensile Testing

## METALLURGICAL TESTING

Metallurgical testing of samples detects surface and internal defects, reveals the microstructure and macrostructure of materials and determines conformance to required specifications. LTI's metallurgical engineers also perform failure analyses to provide insight into the cause of material failures, when performance does not meet expectations.


Microhardness Examination

Photomicrographic equipment with optical magnification from 7X to 1000X and scanning electron microscopy (SEM/EDS) with magnification capabilities to 300,000X are used for evaluation and documentation of findings and digital imaging. Our metallurgical laboratory provides services from test sample preparation to microscopic, macroscopic and microhardness examinations.

*Microscopic Examinations*

- Microstructure
- Carburization & Decarburization
- Grain Size (ASTM E112)
- Inclusion Rating (ASTM E45)
- Plating Thickness
- Carbide Precipitation
- Ferrite by Point Count (ASTM E562)
- Alpha Case/Surface Contamination
- Intergranular Attack & Oxidation
- Sensitization
- Nodularity, Nodule Count
- Eutectic Melting

***Sample Preparation***

- Precision Cutting
- 1.5" & 2" Mounts
- Thermoset & Thermoplastic Mounting
- Automatic Grinding & Polishing
- Immersion, Swab & Electrolytic Etching

*Macroscopic Examinations*

- Macro-etch (ASTM E340)
- Grain Flow
- Weld Qualification
- Surface Condition

*Microhardness Examinations*

- Knoop & Vickers Testing (100 g to 10 kg)
- Surface Contamination
- Carburization & Decarburization
- Case Depth
- Profiles

*Additional Services*

- Failure Analysis & Report Writing
- Scanning Electron Microscopy (SEM)
- Energy Dispersive X-ray Spectrometry (EDS)
- Digital Imaging


FTIR Analysis

## CHEMICAL ANALYSIS

Chemical analysis determines the composition of samples and is valuable in identifying and verifying materials, detecting the presence of elements and identifying unknown substances. Qualitative and quantitative instrumental analysis and classical wet chemistry are performed at LTI. Our chemists analyze metals, powdered metals, ores, ferroalloys, composites, ceramics and polymers. We are often able to help customers with special analysis requirements or orders with limited sample weight.

Trace analysis is performed using spectrometers with detection limits in the parts per million range for many metals. Gravimetric, volumetric, colorimetric and potentiometric procedures are followed for analysis in our wet chemistry lab. RoHS compliance testing is completed by wet analysis and spectroscopy methods. Testing for susceptibility to corrosion and other environmental conditions is also offered.

- Inductively-Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
- Inductively-Coupled Plasma Mass Spectroscopy (ICP-MS)
- Energy Dispersive X-ray Spectrometry (EDS/EDX)
- Atomic Emission Spectroscopy (AES)
- Fourier Transform Infrared Spectroscopy (FTIR)
- Carbon/Sulfur/Nitrogen/Oxygen/Hydrogen Determination
- Positive Material Identification (PMI)
- Plating Identification
- Soxhlet Extraction
- Density, Porosity & Oil Content
- Classical Wet Chemistry
- RoHS Compliance Testing (Wet analysis & spectroscopy)
- Welder & Procedure Qualification (per MIL & API specifications, ASME & AWS codes, ASTM & EN standards and the Pressure Equipment Directive)

## CORROSION TESTING

A variety of corrosion tests are performed at LTI to help customers determine the impact of environmental conditions on their materials and products. The test results provide valuable information for selecting materials, treatments and manufacturing processes. The information can help compare materials, estimate the life of products and determine if a material will meet the needs of its intended application. Our staff can also identify corrosion on products and investigate the cause when corrosion occurs.


ASTM A262 Practice C

Corrosion and passivation testing are performed in accordance with ASTM practices.

- Corrosion Testing: (ASTM A262 Practice A, B, C, E; ASTM G28 Methods A & B; ASTM G48 Methods A, B, C, D, E & F; ASTM A923 Method C; ASTM G66; ASTM G67)
- Salt Spray/Salt Fog (ASTM B117)
- Passivation Testing (ASTM A380, A967 & MIL-STD 753 Methods 102 & 103)
- Humidity Testing (AMS 2700)

## NONDESTRUCTIVE TESTING

Nondestructive testing or NDT services are used to locate internal and external flaws and inconsistencies without harming your materials or products. Our NDT inspectors are certified to ASNT SNT-TC-1A, NAS410, MIL-STD-2132 and Pratt & Whitney PWA-NDTQ to meet your industry requirements. We have Level II and Level III inspectors in all areas of NDT.


Ultrasonic Testing

*Ultrasonic Inspection*
- High-speed Immersion for Round Stock
- C-scan Immersion
- Contact

*Magnetic Particle Inspection*
- Fluorescent Wet
- Visible Dry

*Liquid Penetrant Inspection*
- Fluorescent Dye
- Visible Dye

*Hydrostatic Pressure Testing*
- Tubing, Pipe and Fittings
- Up to 10,000 PSI

*X-ray Inspection / Radiography*
- Film Based

*Visual Examination*
- SNT-TC-1A Certified


Liquid Penetrant Inspection

***Welder & Procedure Qualification***
(per MIL & API specifications, ASME & AWS codes, ASTM & EN standards and the Pressure Equipment Directive)

***Receipt and final inspection, and additional services are provided upon request.***
- Cutting, Trimming and Deburring
- Packaging and Shipping in accordance with ANSI N45.2.2 and Customer Specifications
- Material Identification including Line Marking, Stenciling and Electrochemical Etching

Turning Center

Milling Center

## SPECIMEN MACHINING

All types of mechanical testing are carried out on specimens prepared by our in-house Machine Shop. The machinists work with computerized numerical control (CNC) equipment to machine high-quality, economical test specimens from metals and other materials such as metal matrix composites, hardened steels and nickel-base alloys. The machine shop also provides EDM services.

All machining is performed according to ASTM A370, ASTM E8, ASTM E23 and customer specifications. LTI is on the National Institute of Standards and Technology (NIST) Qualified Manufacturers List to machine charpy V-notch impact verification specimens.

- Flat Tensile
- Round Tensile - Threaded or unthreaded
- Flat Fatigue
- Izod Impact
- Charpy V-Notch Impact - Notched by grinding
- Stress Rupture - Notched by turning or grinding
- Stress Corrosion
- Gleeble
- Jominy
- Round Compression
- Dynamic Tear
- Compact Tension
- Fracture Toughness - Notched by EDM
- Hydrogen Embrittlement
- Face, Root & Side Bends
- Rotating Beam & Low Cycle Fatigue - Low stress ground & polished longitudinally

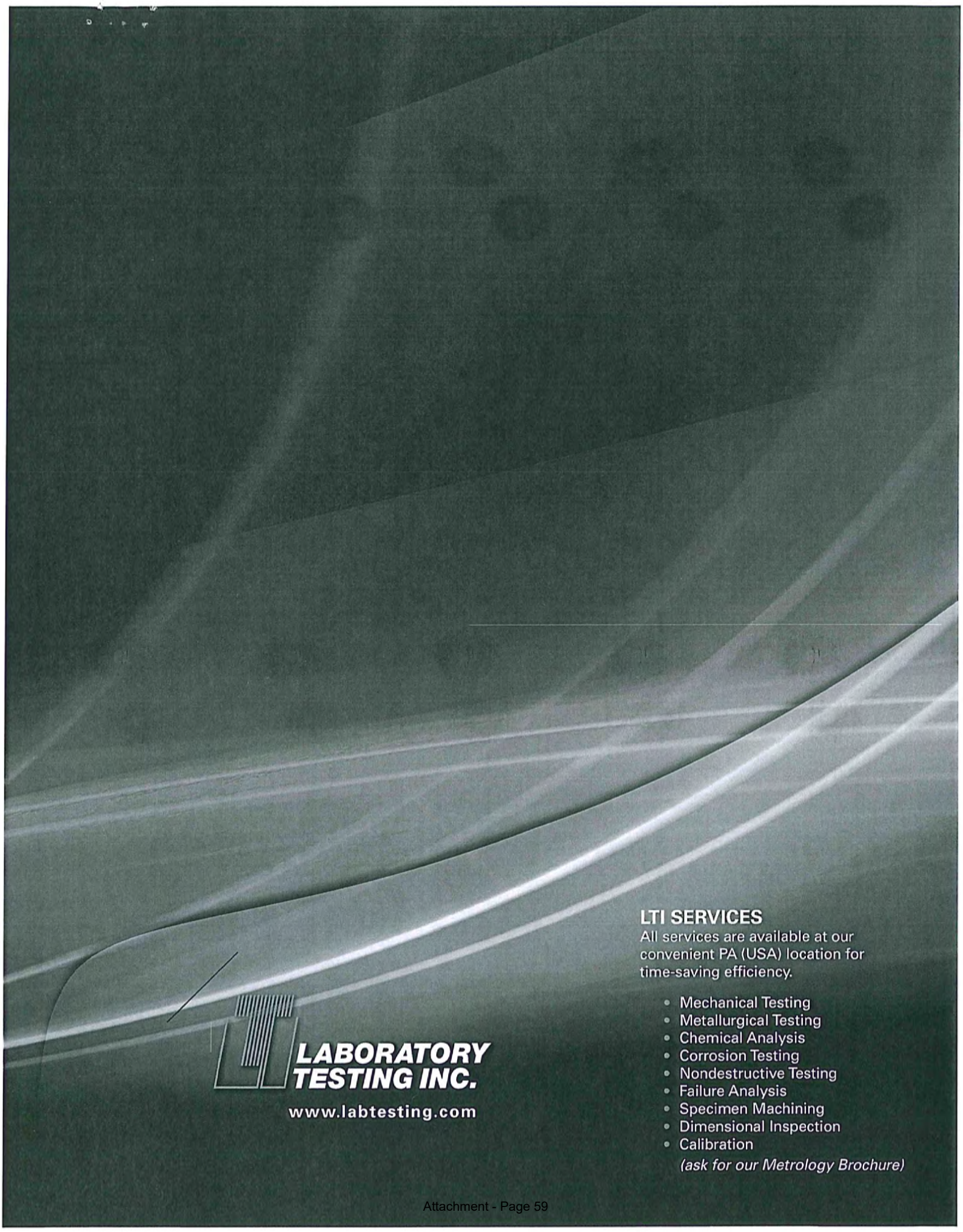
SEM/EDS Analysis

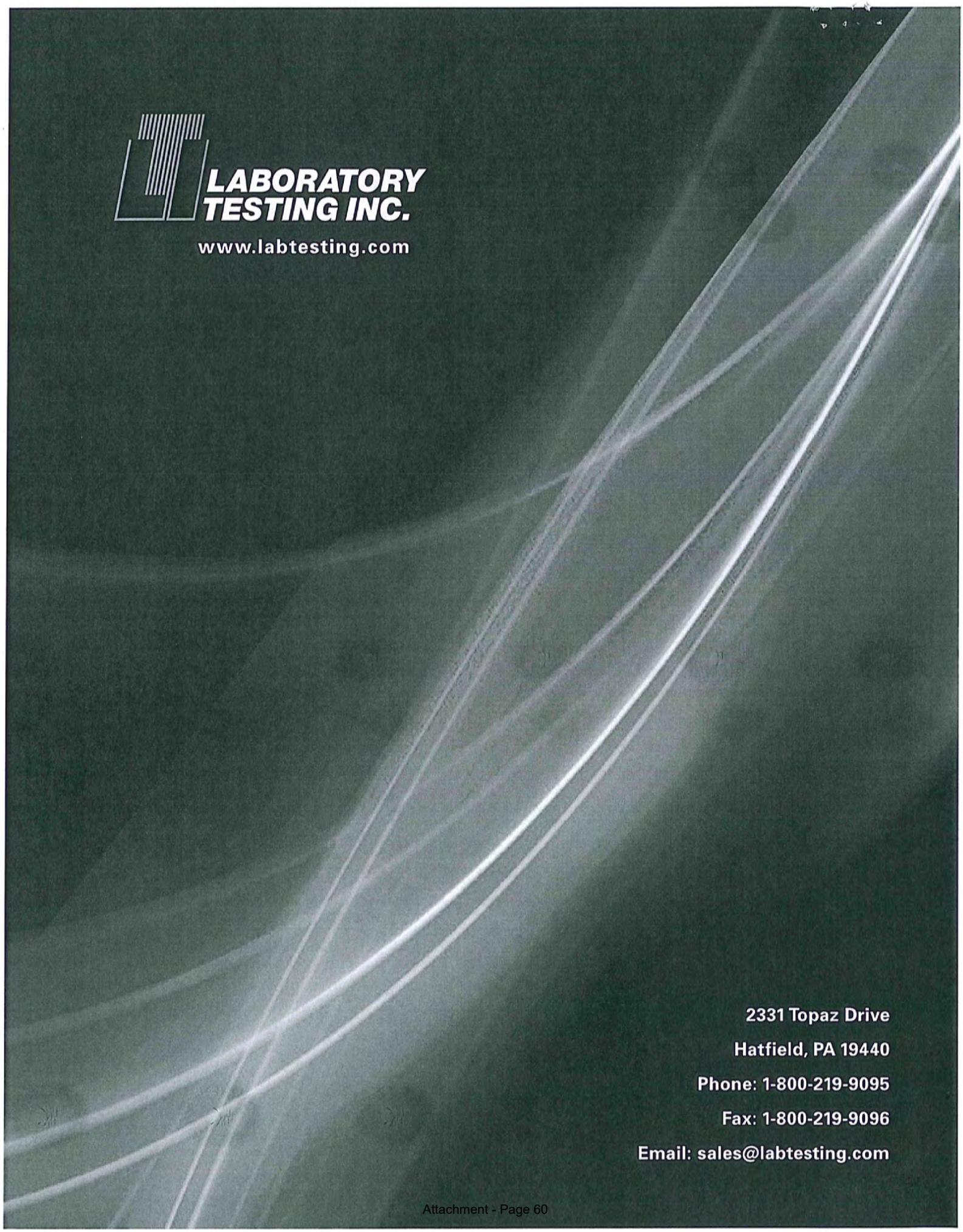
## FAILURE ANALYSIS

A failure analysis is completed when a product or part does not perform to expectations by becoming unreliable, unsafe or failing completely. The failure can stem from many causes including material type, manufacturing defects, environmental conditions or improper use. Failure investigations are generally required to resolve a production problem, customer claim or legal case.

With the expertise, advanced analytical instrumentation and array of testing services available at LTI, a thorough investigation is completed to uncover the root cause of the failure and offer recommendations for preventing a recurrence. Our materials engineers summarize the data that is collected and interpret the results in a comprehensive report for our customer. LTI's engineers are also available to provide expert witness testimony.

***Contact LTI for more information on services, accreditations or pricing. We're here for you and happy to help with your business needs.***


LABORATORY
TESTING INC.
www.labtesting.com
LTI SERVICES
All services are available at our convenient PA (USA) location for time-saving efficiency.
• Mechanical Testing
• Metallurgical Testing
• Chemical Analysis
• Corrosion Testing
• Nondestructive Testing
• Failure Analysis
• Specimen Machining
• Dimensional Inspection
• Calibration
(ask for our Metrology Brochure)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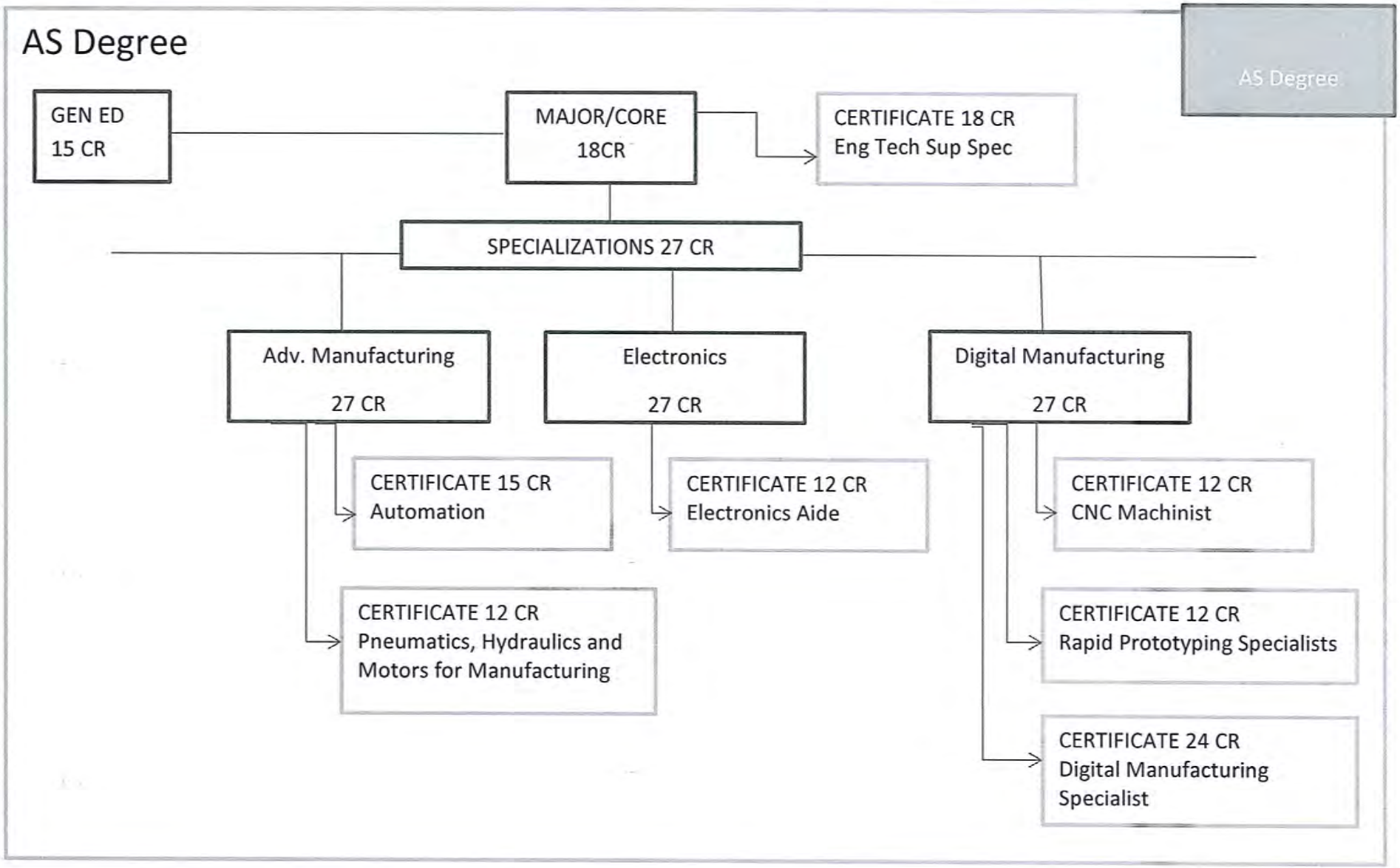
Hatfield, PA 19440
Phone: 1-800-219-9095
Fax: 1-800-219-9096
Email: sales@labtesting.com

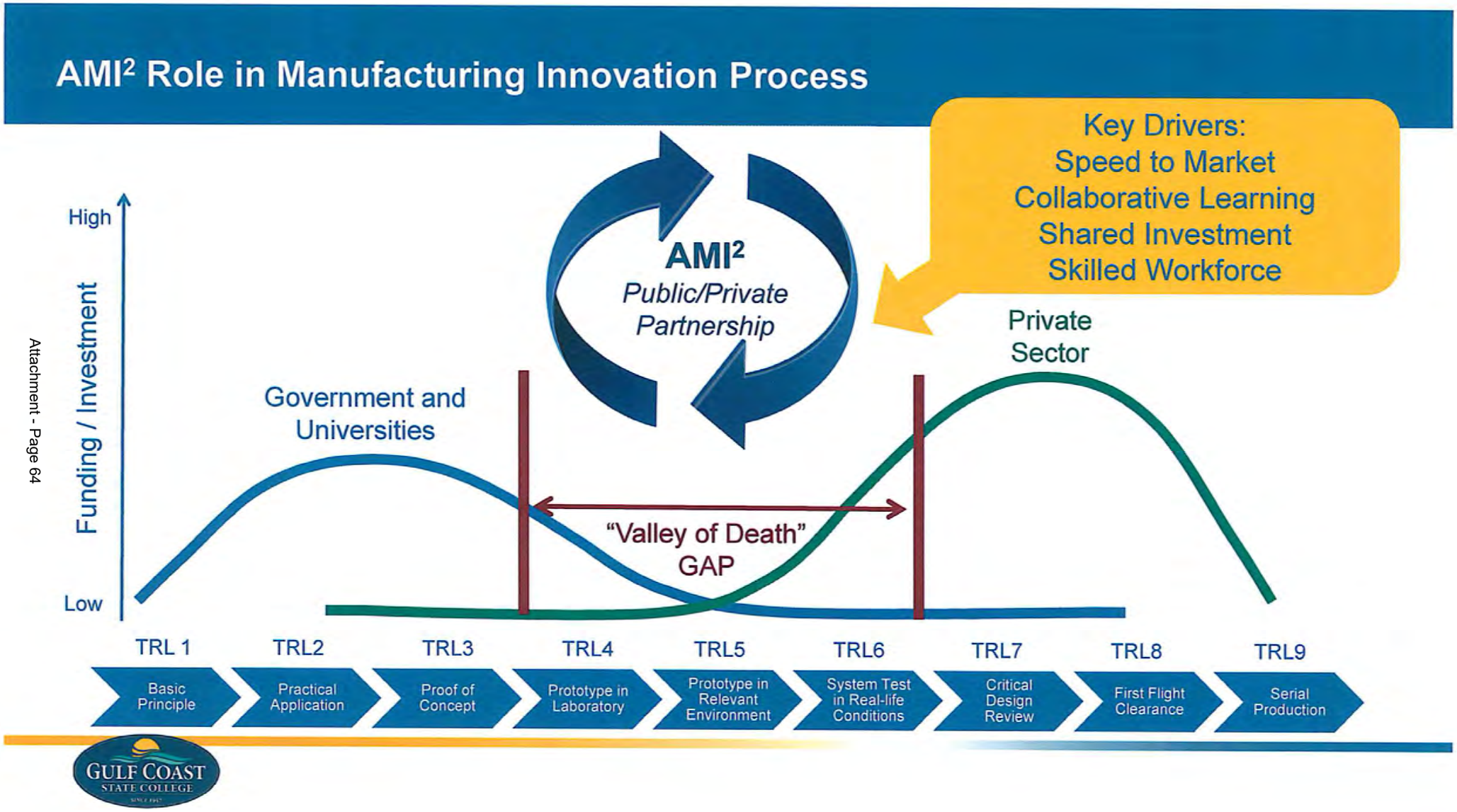
# Attachment 6: Engineering Technology AS Degree Curriculum

# ENGINEERING TECHNOLOGY (ENGT-AS)



# Attachment 7: AMI$^2$ Role in Manufacturing Innovation Process

# AMI² Role in Manufacturing Innovation Process



# Attachment 8: AMI$^2$ Description and Partners

# Advanced Manufacturing Innovation Institute (AMI²)

The Gulf Coast State College (GCSC) AMI2 will leverage Bay County's network of educational institutions, research facilities, manufacturers, and military bases to build a sustainable hub of advanced manufacturing training, development, and production.

## Workforce Training & Internships

**Bay District Schools:** *Career Academies, Internships*
**GCSC:** *Pre-employment Training, AS (ET) degrees & certifications*
**FSU PC:** *BS in Mechanical Engineering*
**Haney Vo Tech:** *Welding & Aircraft Technologies Certification*
**CareerSource GC:** *Pre-employment Training & Testing*

## Innovative Facilities for Advanced Manufacturing

Advanced Technology Center (GCSC)
New STEM & AMI2 Facility (GCSC)
Advanced Manufacturing Accelerator (Venture Crossings)

## Public-Private Partnership

**Private Partners - Commercial AM Industry:** *GKN Aerospace, Huntington Ingalls, Doncasters, ACMT, AirTemp, St Joe*
**Public Partners:**
*Bay District Schools, GCSC, FSU PC, CareerSource GC, Bay County EDA, NSWC-PC*

## Research & Development

Focus on Technology Readiness Level 3-8
Certified Non-destructive & Destructive Testing Facilities
Protection of Facilities and Intellectual Property Agreements

## Sustainability & Future

***5 Years to Sustainability***
Non-Destructive & Destructive Testing
Federal Contracts: *R&D, Small Business, College & University Research*
Membership Fees
Grow Advanced Manufacturing Industries & Workforce in NWFL

GULF COAST STATE COLLEGE

# Attachment 9: Oxford Economics GKN and R&D Report

OXFORD ECONOMICS

# THE ECONOMIC IMPACT OF GKN's PLANNED ACTIVITIES IN FLORIDA

## A short report by Oxford Economics



January 2018

# Summary

## New GKN site to benefit Florida and the US

- GKN is to operate an aerospace manufacturing plant at Bay County, Florida, from 2021, employing 170 skilled staff.
- Taking into account supply chain and employee spending impacts as well, this will support 355 jobs in Florida, and another 230 in other US states.
- Before then, construction at the site, together with purchases of machinery, will support 105 jobs in Florida, and a further 175 elsewhere in the US, for three years.
- If plans to engage 40 university and business staff on collaborative R&D projects also go ahead, then an additional 70 Florida jobs would be supported in total, and another 35 across other American states.
- And in due course, this R&D could add $16 million to the annual GDP of those involved, by boosting their productivity, and $29 million to the GDP of other firms – especially those in Florida – due to 'spillover' benefits.

OXFORD ECONOMICS

# CAPITAL SPENDING IMPACTS: 2018-2020



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# Estimated impact of capital outlays: United States

## Total of 280 US jobs supported for three years

### Associated with a total $82.1 million of national GDP during that time

| | Total GDP over the three years 2018-2020, $ million | Average GDP per annum, $ million | Total 'job years' supported | Number of jobs supported throughout the three years |
|---|---|---|---|---|
| Florida | | | | |
| Direct | 13.7 | 4.6 | 195 | 65 |
| Indirect | 3.4 | 1.1 | 30 | 10 |
| Induced | 7.3 | 2.4 | 90 | 30 |
| Total | 24.3 | 8.1 | 315 | 105 |
| Rest of US | | | | |
| Direct | 14.2 | 4.7 | 120 | 40 |
| Indirect | 20.0 | 6.7 | 165 | 55 |
| Induced | 23.6 | 7.9 | 240 | 80 |
| Total | 57.8 | 19.27 | 525 | 175 |
| Total US | | | | |
| Direct | 27.8 | 9.27 | 315 | 105 |
| Indirect | 23.3 | 7.78 | 195 | 65 |
| Induced | 30.9 | 10.30 | 330 | 110 |
| Total | 82.1 | 27.4 | 840 | 280 |

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# OPERATIONAL IMPACTS: 2021 ONWARDS



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# Estimated impact of GKN operations: United States

## Across the US, 585 jobs supported in total from 2021

### Associated with $60.1 million of national GDP per annum

| | GDP per annum, $ million | Number of jobs |
|---|---|---|
| Florida | | |
| Direct | 23.0 | 170 |
| Indirect | 7.9 | 105 |
| Induced | 6.2 | 80 |
| Total | 37.1 | 355 |
| Rest of US | | |
| Direct | - | - |
| Indirect | 10.3 | 95 |
| Induced | 12.7 | 135 |
| Total | 23.0 | 230 |
| Total US | | |
| Direct | 23.0 | 170 |
| Indirect | 18.2 | 200 |
| Induced | 18.9 | 215 |
| Total | 60.1 | 585 |

- All $ values are expressed at 2017 prices
- Actual values will be higher by an amount depending on inflation between now and then
- Values shown are for the first full year of operation, i.e. 2021
- Values are likely to grow by more than inflation beyond that, as productivity improves over time

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# IMPACTS OF PROPOSED R&D COLLABORATION



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# Estimated short-term impact of R&D activity

## Extra 105 jobs supported in total once plans proceed

### Associated with $9.5 million of national GDP per annum

| | GDP per annum, $ million | Number of jobs |
|---|---|---|
| Florida | | |
| Direct | 3.6 | 40 |
| Indirect | 1.1 | 15 |
| Induced | 1.2 | 15 |
| Total | 5.8 | 70 |
| Rest of US | | |
| Direct | - | - |
| Indirect | 1.4 | 10 |
| Induced | 2.2 | 25 |
| Total | 3.6 | 35 |
| Total US | | |
| Direct | 3.6 | 40 |
| Indirect | 2.5 | 25 |
| Induced | 3.4 | 40 |
| Total | 9.5 | 105 |

- Assumes 40 R&D jobs and $7.7 million R&D spending per annum (at 2017 prices)
- Direct GDP relates to employment costs only
- Florida could account for 70 out of the 105 jobs supported in total through the three channels of impact
- And the Sunshine State could account for $5.8 million of the total $9.5 million GDP impact

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# Additional long-term impacts of R&D activity

## Florida's productivity will benefit in future

- R&D typically benefits the future productivity of the innovators.
- If R&D spending were maintained at $7.7 million per annum, then the yearly GDP of those involved could eventually settle **$16 million** higher than otherwise, based on ratios from academic findings.
- But more importantly still, R&D generates productivity benefits for other businesses, through so-called 'spillover' effects, such as knowledge transfer as staff move jobs, or the adoption of new best practice.
- Because of this, the GDP of other US firms could eventually settle around **$29 million** per annum higher than otherwise, as a result of the proposed R&D at the campus.
- While these benefits can spread across state boundaries over time, research supports the idea that neighboring businesses in Florida would benefit first, and gain the most.

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ECONOMICS


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