THE OHIO STATE UNIVERSITY

Translational Data Analytics Institute

Strategic Plan: Building a Community of Interdisciplinary Excellence

Translational Data Analytics Institute
The Ohio State University
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Letter from the Director

We live in the age of AI—an era where artificial intelligence has fundamentally reshaped the world and the way we interact with it. From revolutionizing industries to transforming everyday experiences, AI is at the center of global progress. The next five years will be pivotal in advancing the next generation of AI and ensuring its impact reaches every facet of our lives.

At the Translational Data Analytics Institute (TDAI), we are uniquely positioned to lead this transformation. Our strengths in safe AI, data and AI governance, AI for healthcare, and sensing the world provide a foundation for pioneering research and innovation. Through strong partnerships within The Ohio State University and across industry, government, healthcare organizations, and academic institutions worldwide, we are shaping the future of AI in ways that are responsible, ethical, and impactful.

Situated in Ohio, a growing hub for technological advancement and innovation, TDAI is building on its success in creating a community of excellence in data-centric translational interdisciplinary research, scholarship, and creative expression. Our commitment to collaboration and real-world impact drives us forward, ensuring that AI not only advances as a technology but as a force for societal good.

This strategic plan outlines our vision for the future—one where AI serves humanity, fosters innovation, and transforms the world for the better.

Sincerely,

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Director, Translational Data Analytics Institute
Professor, Computer Science and Engineering
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I. Overview

The Translational Data Analytics Institute (TDAI) has its roots in Ohio State's Discovery Themes (DT) initiative and was one of the first to hire new faculty in this program beginning in 2016. By April 2017 the University Senate approved the TDA initiative as a university-level institute, and TDAI has since grown to >1000 faculty members with 38 of these being DT core faculty hires.

TDAI's ***vision*** is to establish a global hub for development, application and study of translational data analytics solutions, with a ***mission*** to create a robust community of excellence in data-centric, translational and interdisciplinary research, scholarship and creative expression with impact in society. To achieve its vision and mission, the institute has established the following ***overarching goals***:

- Research & Innovation: To become a preeminent institute for data science and analytics research and innovation, differentiated by an emphasis on translational outcomes and a transdisciplinary intellectual community.
- Teaching & Learning: To complement and support the institute's focus on research, scholarship and creative expression by providing training and educational opportunities in interdisciplinary data science and analytics.
- Outreach & Engagement: To be an active partner with external stakeholders in opportunities that strongly align with Ohio State's land grant agenda.
- Resource Stewardship: To create a model of operational efficiency and sustainability for university-level institutes supporting research.

Programmatic activities and services are aligned with institute goals in areas of research and innovation, teaching and learning, outreach and engagement, and resource stewardship (see table).

Table 1. Summary of Distinctive Services Provided by TDAI

TDAI SERVICES	TEACHING & LEARNING	RESEARCH & INNOVATION	OUTREACH & ENGAGEMENT	RESOURCE STEWARDSHIP
Broadening participation planning / implementation for research grant proposals	X	X	X	X
Conference and workshop planning and logistical support		X	X	X
Data science consulting services	X	X	X	X
Extramural research proposal development support (e.g., win strategy, PM)	X	X	X	X
Fiscal and metrics/ROI process semi-automation using coding expertise	X	X	X	X
Fractional resources for research programs (e.g., communications, marketing, project management, facilitation, data science expertise)		X		X
International research university exchange programs in data science	X	X	X	X
Marketing/communications support for research events, funding opportunities	X	X	X	X
Masters in Translational Data Analytics (MTDA) for working professionals	X		X	X
MTDA capstone projects to support faculty-led research	X	X	X	X
Meeting space and event management	X	X	X	X
Proposal Development	X	X	X	X
Speaker series coordination	X	X		X
Summer camp for middle schoolers (w/ faculty research dissemination modules)	X	X	X	X
Summer school workshops / bootcamps for faculty and graduate students	X	X	X	X
Team science facilitation		X	X	X

The Translational Data Analytics Institute is one of Ohio State's broadest-reaching research institutes representing 70+ disciplines across campus. The institute also boasts its numerous **points of pride**:

- As a lead collaborator on the university's **response to the COVID-19 pandemic**, TDAI has had a significant impact on the public health of our community. TDAI partnered with other Ohio State institutes, the Ohio Department of Health (ODH), state government and the Ohio Hospital Association to form a rapid-response modeling team. This team collected and analyzed data to predict the timing and scale of infection surges and conducted "what if" modeling to inform the Ohio governor's guidance for safe reopening of businesses and Ohio schools and to guide decision-making by university leaders. The COVID response has become an exemplar for quickly standing up massive, interdisciplinary, data-driven projects with significant impact on public health.

- TDAI has been recognized as a thought leader in a number of areas, including **responsible and safe AI and data science**. For instance, the Program on Data Governance (PDG) and its Ohio Data Ethics Working Group comprised of TDAI, industry and non-profit organizations share responsible data management best practices. TDAI's director has testified before US Chamber of Commerce Technology Engagement Center's Commission on AI Competitiveness and Innovation. TDAI core faculty have been appointed to the international Organization on Economic Cooperation and Development (OECD) Expert Group on AI Risk and Accountability. TDAI faculty met with Ohio Attorney General Yost by request to discuss potential to protect the public from privacy invasion, data bias and vulnerabilities from misuse of AI and analytics. TDAI faculty were also involved in OSU's review of Senator Vance's draft AI bill. Several TDAI faculty are collaborators on the US National Institute of Standards and Technology's (NIST) AI Safety Institute Consortium (AISIC), a consortium of >200 organizations to provide science-based guidelines for AI policy.

- In terms of **return on investment**, TDAI's affiliated faculty (including core faculty hires) have generated ~$1.01B in extramural awards for research from FY2017-FY2024. Core faculty hires alone generated ~$449M of these awards, have published 1,716 manuscripts during CY2017-CY2023, and are beginning to commercialize their intellectual property. Since its inception TDAI has provided $1.12M in seed grant investments to interdisciplinary faculty research teams. When tracking productivity of co-investigators during and 3 years following the seed grant period, these investments have thus far yielded $140M in awards and 2,031 manuscripts through August 2024. {Note that these numbers are an underestimate, as the 4-year ROI tracking period for seed grants awarded in FY21-FY25 is still ongoing.}

- TDAI staff introduced **operational efficiencies** and **cost recoveries** by designing and implementing data programming code to interface with OSU's fiscal systems, ultimately redirecting ~$1M F&A funds to TDAI and other Discovery Theme centers/institutes from FY24 alone.

- In 2020 TDAI partnered with five OSU units to launch an Interdisciplinary **master's degree in Translational Data Analytics** (MTDA) for working professionals, and just 3 years later the program was ranked as a top 10 online data analytics program by AnalyticsDegree.org. The MTDA has also brought $3.14M in <u>new</u> tuition revenue to the university through 2024.

- Since the program started in 2018 (through 2024 and during the pandemic), 219 students from central Ohio middle and high schools have participated in TDAI's **Data Science Summer Camp for All**.

II. Strategic Scan

Strengths and weaknesses of the institute and the university, as well as opportunities and threats from the external environment are summarized in the two tables below and collectively influence the strategic focus areas detailed in the following section (*III. Succeeding in our Strategic Focus Areas*).

Table 2. SWOT Analysis: Strengths and Weaknesses of the Internal Environment

INTERNAL ENVIRONMENT	
STRENGTHS	**WEAKNESSES**
Overarching (University): • The university is exceptional in its highly collaborative, interdisciplinary and translational **health sciences, environmental resilience and sustainability, and foundations of responsible data science** and artificial intelligence (**AI**) research. • Numbers of applied **DS/AI educational programs and trainings** across the university are increasing.	Overarching (University): • The university lacks a **coordinated AI plan**, including its connection to TDAI. • **DS/AI centers/institutes** across Ohio State's campus are not integrated nor centralized. • **Barriers to conducting interdisciplinary work** exist (e.g., coordination of interdisciplinary research operations with colleges is needed. • There is a need for **cross-college training** programs in DS/AI to support research. • **Resources available to colleges** (i.e., fundraising, grant support, financial management) are not provided to institutes that are centrally positioned within the university.
Research & Innovation: • TDAI's research community has **strength** in: - Foundations of **AI**/Machine Learning (**ML**) - **Cyberinfrastructure** - **Digital agriculture** - **Remote sensing** - **Data and AI governance**	Research & Innovation: • TDAI needs ability to build **capacity** in AI expertise to meet the growing needs of **"AI+X"** applications. • **Support structures** for interdisciplinary research are needed (e.g., grants administrators, research scientists with expertise in ML/Data Science (DS)). • Appropriate **recognition for interdisciplinary research** is necessary for faculty career progression and retention. • **Engagement** of graduate students, postdocs, trainees that are involved in faculty-led research is insufficient.
Teaching & Learning: • The master's degree in Translational Data Analytics (**MTDA**) that upskills/reskills working professionals is unique in emphases on design-thinking and storytelling, and its interdisciplinary approach to teaching and learning. • TDAI provides **bespoke trainings** in support of research as needed/requested. • A TDAI community of practice led the design of a new **undergraduate degree** program in computational social **sciences** (an example of "AI+X"). • We serve a very **wide range of students**.	Teaching & Learning: • TDAI's **bespoke trainings** are often provided by faculty (e.g., LLM summer school) which may compete with their time for research.
Outreach & Engagement: TDAI's *Data Science* ***Summer Camp for All*** provides extracurricular experiences to middle school students in central Ohio.	Outreach & Engagement: • TDAI and the university lag in **large-scale, industry-funded partnerships** in interdisciplinary data science and AI research.
Resource Stewardship: • TDAI provides a wide range of **high-demand services, programming** and **resources** to the campus for free. • TDAI leverages staff expertise (e.g., project management, data science, strategy, communications) to provide **fractional staff support** to faculty-led research programs. • Using a competitive, peer-review process, TDAI **invests directly** in faculty-led research.	Resource Stewardship: • TDAI's **future budget model** beyond the current fiscal year is being assessed by university leadership. • TDAI's **free of charge** service model is not sustainable. • **TDAI's fractional staff support** for research has been difficult to implement due to the unpredictable nature and time delay of extramural funding.

Table 3. SWOT Analysis: Opportunities and Threats of the External Environment

EXTERNAL ENVIRONMENT	
OPPORTUNITES	**THREATS**
Technology/Research Environment: • **Advances** in DS/AI in both the private and public sectors are rapidly accelerating. • The power of **AI in scientific innovation** is being recognized, as evidenced by 2024 Nobel Prizes in physics and chemistry.	Technology/Research Environment: • Identification and incorporation of responsible and safe DS/AI/AI tools are still in nascent stages and universal guidelines are lacking. • AI models use exorbitant amounts of **energy and water** for computing and cooling (in data centers), and the impact of the carbon footprint on the **environment** is significant and unsustainable. • **Data infrastructure** and **compute resources** are not readily available to all (i.e., small organizations, some academic institutions, developing regions). • **AI hype** should be tempered, as **AI models are not yet mature** and alternative or complementary approaches should continue to be explored.
Political Environment: • **AI policies and regulations** are being developed in the US and globally.	Political Environment: • **AI standards** have not yet been established and mechanisms to enforce **global compliance** do not yet exist. • Scale, quality, and sophistication of **misinformation** in public domain poses safety, economic and national security threats.
Financial Environment: • **Funding** for DS/AI research and training by **US federal agencies** has increased significantly in the past couple years, with large increases in defense budgets. • The increasing emphasis on applications of AI in various disciplines/domains (commonly known as "**AI+X**") is evidenced by several new, federally funded, domain applied AI programs. • **Commercial investments** in development and use of DS/AI have exploded in recent years, especially since the advent of commercially available large language models (LLMs) and generative AI.	Financial Environment: • Since **federal mandates for AI programs** are **unfunded,** agencies need to redirect funds from existing budgets, if able. • Although overall federal funding for DS/AI research and training has increased in the past few years, in **some federal agencies** it has **decreased** in this time period (e.g., NSF). • There is increasing **competition for extramural funding** to support academic research in data science and in disciplines that use data science, with funding increasingly awarded to multi-institution, interdisciplinary teams.
Educational Environment: • The use of **data science and AI tools** is becoming more widespread across all disciplines in research. • The need for a data science **trained workforce** and DS/AI **literate citizens** continues to increase. • DS/AI is being incorporated in **educational curriculum** across the country.	Educational Environment: • **Abundant** in-person and online tutorials, bootcamps, courses and **training programs** exist that are both free-standing or incorporated into micro-credential, certificate and degree programs at all levels. However, **assessment and standardization** of these various programs are lacking. • Trainings that are specialized or niche are often not **accessible** to all due to limited capacity and price.
Geographic Environment: Columbus is home to numerous financial technology (**fintech**) companies, **gene therapy** start-ups, AI **data centers** and **manufacturing** companies, including the rapidly growing semiconductor manufacturing sector (**Silicon Heartland).**	Geographic Environment: • It is often difficult to **recruit** diverse, top talent to the Midwest and to academia, as the US coasts are magnets for DS talent and computational experts in both the private and public sectors. • US structural requirements for international students and collaborators makes **international scientific discourse** and collaboration difficult.

III. Succeeding in Our Strategic Focus Areas

As a university-level institute, the Translational Data Analytics Institute enhances and enables research, education and outreach of its constituent community in ways that are synergistic and non-overlapping with what could be achieved by individual colleges and departments. In this section, we step through each of the four institute core goals. Using priorities and pairings resulting from our SWOT analysis, we present several strategic priorities, and outline implementation initiatives with their respective metrics of success. (Details following summary table below.)

Table 4. Summary of Strategic Priorities and Implementation Initiatives

GOAL AREA	STRATEGIC PRIORITY	IMPLEMENTATION INITIATIVE
Research and Innovation	Invest in and support current strategic focus areas • Foundations of Data Science and AI • Health and Well-being • Environmental Resilience and Sustainability • Responsible and Safe Data Science	Internal Investments to Grow Research Programs
		Establishment of Research Centers of Excellence
	Explore DS/AI research in new or emerging areas	Emerging Themes (Yearlong "BIG Ideas") Research Initiative
	Develop and disseminate DS/AI research infrastructure	Research Data Infrastructure
		University Cyberinfrastructure
		Data Science Professionals Working Group
	Inform development of responsible and ssafe guidelines for DS/AI research	Regulatory Policy Conversations
		Data Science/AI Best Practices
	Increase visibility and dissemination of TDAI research	TDAI Research Showcase
		External Stature and Business Development
		Marketing and Communications
Teaching and Learning	Upskill/reskill interdisciplinary working professionals in DS/AI	Grow Master's in Translational Data Analytics (MTDA) program
	Train researchers in DS/AI	Bespoke Data Science/AI Training for Researchers
Outreach and Engagement	Broaden participation in DS	Summer Camp Modules and Teacher Training
		Data Science to All
		Industry Partnerships in Data Science and AI
Resource Stewardship	Enhance support for DS/AI research	(See Implementation Initiatives A1-A5, B2, C1 and C3)

A. RESEARCH & INNOVATION

Goal: To become a preeminent institute for data science and analytics research and innovation, differentiated by an emphasis on translational outcomes and a diverse intellectual community.

STRATEGIC PRIORITY A1: Invest in and continue to support current strategic focus areas

Implementation Initiative A1.1: Internal Investments to Grow Research Programs

- **Description:** Continue to provide financial, staff, and resource support to faculty-led research teams via competitive, peer-reviewed seed grants processes, to ultimately position teams for extramural funding success.
- **Approach:**
  - Focus on current strategic areas: Foundations of Data Science and AI; Health and Well-being; Environment Resilience and Sustainability; and Responsible and Safe Data Science.
  - Facilitate competitive, peer-reviewed seed grant processes. Offer financial support, in-kind staff support and access to compute and other resources.
  - Assist in development and submission of research proposals for extramural funding. Offer team science ideation, proposal development, data science, and project management expertise.
    [Note: Support may be provided via the Yearlong "BIG Ideas" Research Initiative described below in the Implementation Initiative 2.1.]
- **Metrics:**
  - Year 1: Number and dollar amount of extramural proposals submitted; number and dollar amount of extramural awards; number of manuscripts published; number of graduate degrees awarded.
  - Year 3: Achieve a 5% increase in the above metrics.
  - Year 5: Achieve a 10% increase in the initial metrics.

Implementation Initiative A1.2: Establishment of Research Centers of Excellence

- **Description:** Create specialized research centers within TDAI to focus on key "AI+X" areas, such as health, sustainability, responsible data science or others. (Note: "AI + X" is defined as the integration of AI with various other disciplines, "X".)

- **Approach:**
  - Identify key "AI+X" areas based on current strengths and opportunities.
  - Secure funding and resources for each center.
  - Recruit leading researchers and interdisciplinary teams.
  - Develop collaborative projects with industry and government partners.
- **Metrics:**
  - Year 1: Identify three key "AI+X" areas based on current university/TDAI strengths and opportunities for growth. Provide initial internal funding and support for at least two "AI+X initiative".
  - Year 3: Secure external funding for one "AI+X" center (e.g., NSF center grant).
  - Year 5: Establish at least three partnerships for one "AI + X" center with companies, non-profit organizations or government agencies. Additional tracking metrics: Number and dollar amount of extramural proposals submitted; number and dollar amount of extramural awards; number of manuscripts published; number of graduate degrees awarded.

STRATEGIC PRIORITY A2: Explore data science and AI research in new or emerging areas

Implementation Initiative A2.1: Emerging Themes (Yearlong "BIG Ideas") Research Initiative

- **Description:** Explore new or emerging research themes that have the potential to be transformational.
- **Approach:**

    - Form interdisciplinary teams to explore emerging research areas and run one-year pilot emerging theme(s) program.
    - Develop research projects and proof-of-concept studies in support of the theme(s).
    - Seek partnerships with companies, non-profit organizations and government agencies.
    - Secure extramural funding for longer-term sustainability.
    - Publish findings and present at conferences.
- **Metrics:**
    - Year 1: Initiate at least one pilot emerging theme program per year.
    - Year 3: Maintain at least two theme programs past the initial launch year in part by supporting at least one extramural grant submission for each theme program. Additional tracking metrics: Number and dollar amount of extramural proposals submitted; number and dollar amount of extramural awards; number of manuscripts published; number of graduate degrees awarded.
    - Year 5: Establish at least one partnership for one "AI + X" center with companies, non-profit organizations or government agencies. Increase tracking metrics results by 10% from year 3.

STRATEGIC PRIORITY A3: Develop and disseminate data science/AI research infrastructure

Implementation Initiative A3.1: Research Data Infrastructure

- **Description:** Lead university effort on building research data infrastructure in partnership with other university units (e.g., University Libraries, Ohio Supercomputer Center).
- **Approach:**
    - Assess current data infrastructure and identify gaps.
    - Recommend university investments in high-performance computing resources and data storage solutions to enable research.
    - Support needs assessment for user-friendly platforms for data sharing and collaboration.
    - Provide training and support for researchers.
- **Metrics:**
    - Year 1: Complete infrastructure assessment and provide recommendations to university.
    - Year 3: Establish at least five training series/sessions for faculty-led research teams.
    - Year 5: Establish an integrated data infrastructure supporting at least 50% of research programs of the TDAI community.

Implementation Initiative A3.2: University Cyberinfrastructure

- **Description:** Be active partners in shaping the university's cyberinfrastructure development.
- **Approach:**
    - Collaborate with university IT and research departments.
    - Communicate research needs and provide guidance for future investment.
    - Ensure alignment with research needs and security standards.
- **Metrics:**
    - Year 1: Contribute to establishing collaboration framework with university units.
    - Year 3: Partner with cyberinfrastructure teams and colleges/units that are leading this effort to ensure adequate resourcing of the majority (>50%) of TDAI's faculty research.
    - Year 5: Provide evidence-supported input from TDAI's faculty researchers for OSU's cyberinfrastructure investment.

Implementation Initiative A3.3: Data Science Professionals Working Group

- **Description:** Establish, lead, and contribute to a working group for data science/AI professionals providing research services across the university.
- **Approach:**
    - Form a working group with representatives from various campus units.
    - Share best practices and develop collaborative projects.

- **Metrics:**
  - Year 1: Establish the working group and hold initial meetings.
  - Year 3: Increase membership by 20% and collaborative projects by 10% over year one.
  - Year 5: Achieve significant contributions to university-wide data science initiatives.

STRATEGIC PRIORITY A4: Inform development of responsible, safe guidelines for DS/AI

Implementation Initiative A4.1: Regulatory Policy Conversations

- **Description:** Participate in data science/AI regulatory policy conversations.
- **Approach:**
  - Engage with organizations such as OECD, NIST AISIC, and others.
  - Contribute to the development of responsible and safe guidelines.
  - Inform policy through research and expert testimony.
- **Metrics:**
  - Year 1: Participate in key policy discussions and contribute to guidelines.
  - Year 3: Influence policy development and adoption.
  - Year 5: Achieve recognition as a leader in responsible and safe AI policy.

Implementation Initiative A4.2: Data Science/AI Best Practices

- **Description:** Lead scholarship conversations on best practices for responsible data science/AI in business, healthcare, government, and research.
- **Approach:**
  - Organize workshops and conferences on ethical AI practices.
  - Publish research and guidelines on best practices.
  - Collaborate with industry, government and academic partners.
- **Metrics:**
  - Year 1: Host initial workshops and publish guidelines.
  - Year 3: Expand workshops and increase publications.
  - Year 5: Achieve widespread adoption of best practices at the university.

STRATEGIC PRIORITY A5: Increase visibility and dissemination of TDAI research

Implementation Initiative A5.1: TDAI Research Showcase

- **Description:** Organize a series of events to highlight TDAI research and foster collaboration internally and externally.
- **Approach:**
  - Plan and host quarterly research showcases featuring TDAI projects.
  - Invite industry leaders, policymakers, and academic peers.
  - Promote events through media and social channels.
  - Publish proceedings and highlight key outcomes.
- **Metrics:**
  - Year 1: Host 3 research showcases and attract 100+ attendees.
  - Year 3: Increase attendance to 250+ and secure media coverage.
  - Year 5: Establish the showcase as a premier event in the data science community.

Implementation Initiative A5.2: External Stature and Business Development

- **Description:** Enhance TDAI's external stature by business development efforts.
- **Approach:**
  - Develop strategic partnerships with industry and government.
  - Increase TDAI's presence at national and international conferences and with research sponsoring agencies.
  - Promote TDAI's achievements through targeted marketing campaigns.
- **Metrics:**
  - Year 1: Establish 2 new strategic partnerships.
  - Year 3: Increase partnerships to 5 and enhance TDAI's visibility.
  - Year 5: Achieve recognition as a leading institute in data science and analytics.

Implementation Initiative A5.3: Marketing and Communications

- **Description:** Strengthen internal and external marketing and communication efforts.
- **Approach:**
  - Develop a comprehensive marketing and communication strategy.
  - Utilize social media, newsletters, and press releases to disseminate information.
  - Engage with stakeholders through regular updates and events.
- **Metrics:**
  - Year 1: Launch new marketing campaigns and increase social media engagement.
  - Year 3: Double the reach and impact of marketing efforts.
  - Year 5: Establish TDAI as a well-recognized brand in the data science community.

B. TEACHING & LEARNING

GOAL: To complement and support TDAI's focus on research, scholarship and creative expression by providing training, experiential learning and educational opportunities in interdisciplinary data science and analytics.

STRATEGIC PRIORITY B1: Upskill/reskill working professionals in data science/AI

Implementation Initiative B1.1: Grow Master's in Translational Data Analytics (MTDA) program

- **Description:** Expand the MTDA program to meet the growing demand for data science and AI skills among working professionals.
- **Approach:**
  - Increase student enrollment by offering additional sections of existing courses.
  - Develop specialized tracks within the MTDA program to cater to specific industry needs.
  - Design certificate programs that can be completed independently or as part of the MTDA.
- **Metrics:**
  - Year 1: Increase enrollment by 10%.
  - Year 3: Launch one certificate program.
  - Year 5: Achieve a 25% increase in enrollment and establish the MTDA as a top-5 program nationally.

STRATEGIC PRIORITY B2: Train interdisciplinary researchers in data science/AI methods

Implementation Initiative B2.1: Bespoke Data Science/AI Training for Researchers

- **Description:** Provide tailored data science training programs to meet the specific needs of interdisciplinary research teams.
- **Approach:**
  - Conduct needs assessments to identify training gaps and requirements.
  - Develop and deliver customized training modules via TDAI's data science consulting services.
  - Offer ongoing support and advanced training workshops.
- **Metrics:**
  - Year 1: Conduct needs assessments and develop initial training modules.
  - Year 3: Deliver training to at least 10 research teams and evaluate impact.
  - Year 5: Expand training programs to include advanced workshops and achieve a 25% increase in participation over year 3.

C. OUTREACH & ENGAGEMENT

Goal: To be an active partner with external stakeholders in opportunities that strongly align with Ohio State's land grant agenda.

STRATEGIC PRIORITY C1: Broaden participation in data science

Implementation Initiative C1.1: Summer Camp Modules and Teacher Training

- **Description:** Support faculty-led "broadening participation" and enhance the Data Science Summer Camp for All by incorporating new modules and training programs for middle school educators.
- **Approach:**
  - Partner with faculty by leveraging the established camp framework to develop and execute new camp modules as "broadening participation and impact" of their research grant proposals.
  - Secure funding to pilot a train-the-teacher program during the summer camp.
- **Metrics:**
  - Year 1: Develop at least one new summer camp module.
  - Year 3: Train 10 middle school teachers and pilot at least two new modules.
  - Year 5: Achieve a 50% increase in student participation and secure ongoing funding for the teacher training program.

Implementation Initiative C1.2: Data Science to All

- **Description:** Design and implement general and tailored data science/AI training programs for the university and external communities.
- **Approach:**
  - Develop a series of workshops and training sessions tailored to different audiences, including university staff, students, and external partners.
  - Collaborate with industry and community organizations to identify training needs and opportunities.
- **Metrics:**
  - Year 1: Launch initial training programs and engage at least 100 participants.
  - Year 3: Expand the program to include advanced training sessions and increase participation by 25%.
  - Year 5: Establish partnerships with at least five external organizations and achieve a 50% increase in program reach.

Implementation Initiative C1.3: Industry Partnerships in Data Science and AI

- **Description:** Establish and expand industry funded partnerships by aligning TDAI's strengths with market needs, fostering collaboration, and driving impactful projects.
- **Approach:**
  - Form an Industry Advisory Board.
  - Develop and implement engagement forums for industry and community stakeholders (e.g., Data Science Symposium; Industry-Research Matchmaking Summit; etc), in part to identify research and training opportunities.
  - Partner on projects in shared priority areas (e.g., research programs; Data Science Industry Fellows Program; among others).
- **Metrics:**
  - Year 1: Form an Industry Advisory Board with at least six for-profit organizations.
  - Year 3: Hold at least two industry engagement forums per year.
  - Year 5: Secure at least two new projects per year.

D. RESOURCE STEWARDSHIP

GOAL: To create a model of operational efficiency and sustainability for university-level institutes supporting research.

STRATEGIC PRIORITY D1: Enhance support for DS/AI research *(See implementation initiatives A1-A5, B2, C1 and C3.)*