

COLLECTIVE INPUT STEM INTEGRATED COMMUNITY™

Launching The First National STEAM District:

**A Transformative Partnership Between
21stCenturyEd and DeKalb County School District**

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Executive Summary

February 11, 2025

Proposal for a Strategic Partnership between 21stCenturyEd and DeKalb County School District to Launch the CISTEMIC™ Initiative

The future of education demands bold action. DeKalb County School District (DCSD) has the opportunity to lead a national movement in STEAM education by ensuring that all students graduate with the skills necessary to succeed in a world defined by artificial intelligence, robotics, automation, and global connectivity. The CISTEMIC™ Initiative is not just another STEAM program—it is a transformative strategy designed to integrate STEM literacy into every facet of the educational experience, making it a core competency for every student.

The reality is clear: the workforce is evolving at an unprecedented pace. Studies show that 85% of the jobs students will hold in 2030 do not yet exist. Yet, many school districts still rely on outdated instructional models that fail to prepare students for a future driven by technology and innovation. This is where CISTEMIC™ comes in. By embedding STEAM into district-wide strategy, building strong advisory teams, and fostering community partnerships, we can ensure that DeKalb students are not just prepared for the future but are shaping it.

The anticipated outcomes of this initiative extend beyond the classroom. A strong, district-wide STEAM strategy will lead to higher student engagement, improved academic achievement, and greater access to career and college pathways. Teachers will gain innovative professional development opportunities that empower them to deliver 21st-century learning experiences. Community stakeholders—including local businesses and industry leaders—will have a direct role in shaping a pipeline of future-ready talent. And DeKalb County will position itself as a national leader in STEAM education, unlocking new funding opportunities and partnerships that will benefit students for generations to come.

The question is not whether STEAM education is necessary—it is whether we are willing to act decisively to ensure every student has access to it. The CISTEMIC™ Initiative offers DeKalb County a blueprint for building a sustainable, equitable, and future-ready educational system. By investing in STEM literacy now, we create a legacy of innovation, opportunity, and success that will extend far beyond the walls of our classrooms.

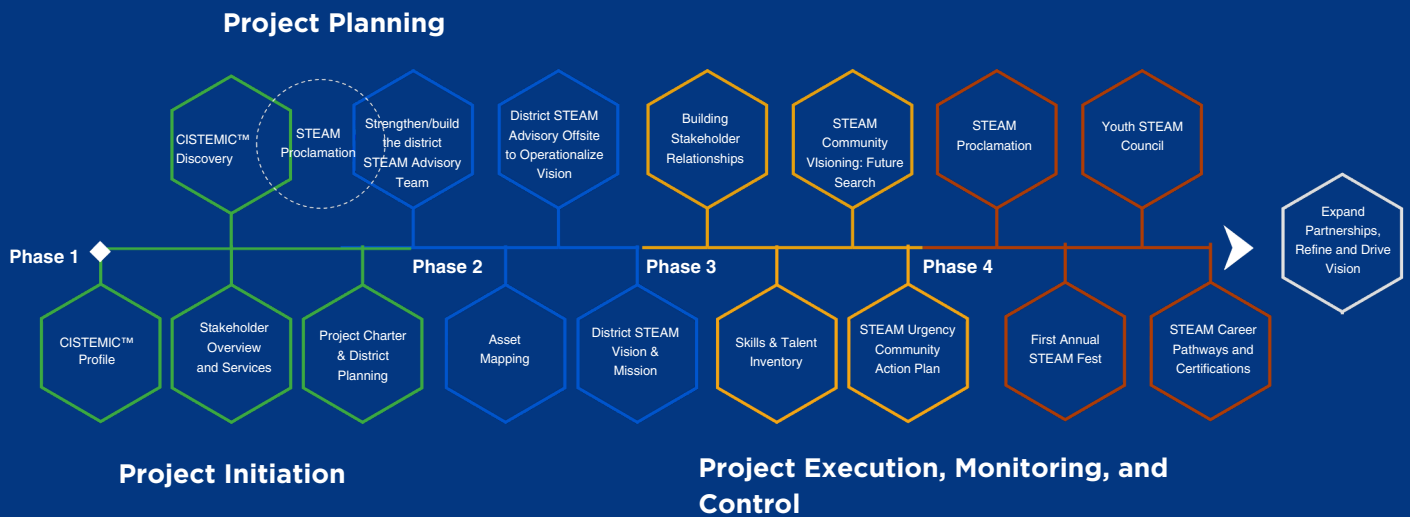
This is our moment to lead. Let's make it happen—together.

Sincerely,



Marlon Lindsay, CEO
21stCenturyEd

Our Approach: A STEAM District Initiative for DCSD



DeKalb County School District (DCSD), in partnership with 21stCenturyEd, will establish a Comprehensive STEM Education System (CSTEMES™) framework using the Collective Input STEM Integrated Community (CISTEMIC™) blueprint to equip its students with 21st-century skills and workforce readiness to thrive in a global economy shaped by AI, robotics, and automation. By integrating STEM literacy across the district and its community, this initiative is the first of its kind in the country. It leverages existing partnerships and fosters new ones to emphasize the urgency of STEM literacy as the third core literacy—on par with reading and math. By doing so, **DeKalb will be designated as a “STEAM District,”** ensuring that ALL students graduate with the 4Cs + 2Ps (*collaboration, communication, critical thinking, creativity, problem-finding, and problem-solving*), essential for the STEAM education required to be globally competitive today. Our primary goal is to create clear career pathways for the next generation of skilled workers, entrepreneurs, and lifelong learners to succeed in a world with intelligent automated machines. This CISTEMIC™ initiative will roll out in phases (see map above), providing access to industry-recognized licenses and certifications that prepare students for work, college, entrepreneurship, or service. Highlights include:

- **Strengthening District STEAM Advisory Teams to Operationalize the Vision** and define a district-wide STEAM strategy, ensuring that ALL students graduate STEM-literate.
- **STEAM Integration Strategy™** for integrating a comprehensive STEAM plan into the district’s strategic plan.
- **Asset Mapping** to capture and ensure access to STEAM resources early, often, and everywhere. The asset map will be initiated by the **CISTEMIC™ Team** and passed onto the **Youth STEAM Council** to refine, advance, and lead.
- **Skills and Talent Inventory analysis** of area employers and industries will inform curricular and certification/licensure needs, providing professional development for educators, community partners, and educational advocates as a critical component to ensure alignment with workforce demands.
- **Curriculum enrichment through Pdgogy.ai™** provides AI-generated STEAM content that ensures STEM Literacy enhances rigor and relevance through design thinking projects, aligning with career pathways and preparing students for the workforce, available in school, afterschool, and out-of-school settings.
- **Designate as a STEAM District** by initiating a STEAM Proclamation that secures and strengthens community buy-in. To support this, the CISTEMIC™ Team partners with the District STEAM Advisory Team to plan and host **annual district-wide STEAM Fests**, showcasing students' learning and the skills they are developing for college, career, workforce readiness, and 21st-century success.
- **Stakeholder Collaboration/Book and Video Documentary** is a community galvanizing initiative and part of the “STEM Century: It Takes A Village To Raise A 21st Century Graduate” series. We will capture the specific STEAM initiatives, partnerships, successes, and challenges in shaping a future of STEAM in DeKalb.

Our Strategy: Putting CISTEMIC™ to work in your district

This proposal presents a bold opportunity for **DeKalb County School District** to lead the nation in STEAM education by ensuring every student graduates with the skills necessary to thrive in a rapidly changing world. By 2030, an estimated 85% of the jobs that Generation Z and Alpha will enter into have yet to be created. Yet, many school districts continue to rely on outdated instructional models that fail to equip students with the skills they need to succeed in an increasingly automated, AI-driven global economy. If we want our students to be prepared for the future, we must act now. The CISTEMIC™ Initiative is designed to meet this challenge head-on.



Our CISTEMIC™ strategy is multi-faceted (*see diagram above*). First, we **ascertain** the specific needs of DeKalb County School District to ensure that students have seamless **student access** to STEAM and CTE resources—whether in school, after school, or through out-of-school programs—using our AI-powered platform, Pdgogy.ai™. Second, we **align** district goals with best practices in STEAM education by helping shift their educational culture to prioritize hands-on, real-world learning through our **teacher development** program, the Emerging STEM Leader™ professional development series. This ensures educators are equipped to deliver 21st-century instruction effectively. Third, we **strategize** with local businesses, industries, and organizations to foster **community involvement**, forging strategic partnerships that provide students with meaningful internships, apprenticeships, and career-connected learning opportunities.

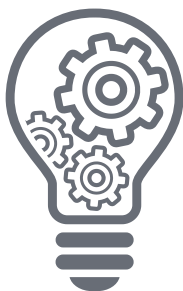
Education, workforce, and economic development are deeply connected, requiring a collaborative effort between schools and their communities. Recognizing that no two districts are the same, we tailor our implementation to meet DeKalb County School District’s unique needs, ensuring that all students graduate STEM-literate and workforce-ready. Through our partnership, DCSD will take the lead in shaping a sustainable, future-ready education system—one that empowers students not just to navigate the future, but to shape it. With our CISTEMIC™, we know that it takes a village to raise a 21st-century graduate, and our work with school districts strengthens this village by developing and sustaining comprehensive STEAM education built on the principles of **access, culture, and community** (*see table below*), creating a system that prepares students for lifelong success.

<p>Access</p> <p>We provide all students with ubiquitous in-school, after-school, and out-of-school access to an academy of STEAM and CTE classes organized in career pathways and personalized for the student. With new classes and experiences added as needed, students will develop valuable employability skills and certifications, readying them for future work, college, entrepreneurship, or service. This ensures every student gains real-world experience and a competitive edge in an evolving job market.</p>	<p>Culture</p> <p>We help transform the district’s educational culture with 21st-century best practices for student preparation. First, we provide engaging STEMfests and teacher meetings to set the context for STEM Literacy as an essential third core literacy. Next, we facilitate teacher and administrator engagement sessions to understand your district and community STEAM and CTE environment. Finally, we provide support resources and services for you to implement a sustainable STEAM and CTE initiative that starts in the district and expands to the community.</p>	<p>Community</p> <p>We initiate a collective input process that unites key stakeholders to drive meaningful change. Based on the Collective Impact framework developed at Stanford University, this approach addresses complex social challenges through structured collaboration. We tailor each implementation to the unique needs of your district and community—ensuring no two solutions are identical. The foundation of this initiative is establishing a shared STEAM/CTE-focused agenda between your district and community stakeholders.</p>
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Our Impact: Unlocking the ROI of STEAM District Strategy

Let's Talk About STEAM Investment. If you're a school district leader, you're probably asking: "Is investing in STEAM really worth it?" The short answer? Yes—big time. But let's go beyond the buzzwords and breakdown exactly why a structured STEAM strategy delivers serious returns for your district. At 21stCenturyEd, we've analyzed countless education systems, and the data is crystal clear: a well-integrated STEAM approach boosts student outcomes, increases teacher retention, attracts funding, and builds workforce readiness. Next, we'll walk through the numbers and show you why STEAM education isn't just a classroom trend—it's an economic game-changer.

Making STEAM Accessible Pays Off



1. Making STEAM Accessible Pays Off

The Claim: Boosting STEAM participation by 40% saves districts \$2.25M - \$3M annually.

Why It's True:

- More STEAM students = More funding. Federal grants like ESSA Title IV and NSF allocations pour money into STEAM programs.
- Better student retention = Higher per-pupil funding. Fewer dropouts mean more dollars staying in the district.
- Fewer remediation costs. Strong STEAM programs mean fewer students needing expensive catch-up courses in college.

What the Data Says:

- Schools with STEM-focused curricula see a 20-40% enrollment boost (U.S. DOE).
- STEM-enrolled students generate \$8K - \$12K more per year in funding (NCES).

Takeaway: Want to unlock hidden funding? Make STEAM core, not optional.

2. Closing STEAM Gaps Saves Big on Interventions

The Claim: Strong STEAM programs cut Special Ed and RTI costs by \$1.2M per district.

Why It's True:

- Early STEAM exposure reduces intervention needs. The sooner students engage with problem-solving and analytical thinking, the less they struggle later.
- Special Ed costs districts big time. STEAM-focused schools see fewer students classified as needing costly intervention programs.

What the Data Says:

- STEAM programs reduce intervention rates by 30-40% (NBER).
- Special Education costs per student are double that of general ed (Education Law Center).

Takeaway: Investing in STEAM isn't just about building future engineers—it's about cutting wasteful spending on remedial programs.

Closing STEAM Gaps Saves on Interventions



Keep Your Best Teachers By Investing in STEAM



3. Keep Your Best Teachers By Investing in STEAM

The Claim: Districts with STEAM-focused PD reduce teacher turnover by 30%, saving \$2.5M.

Why It's True:

- STEAM training = Job satisfaction. Teachers who feel confident in their ability to teach STEM are far more likely to stick around.
- Replacing teachers is insanely expensive. It costs up to \$30K to replace a single STEM teacher when you account for hiring, training, and lost productivity.

What the Data Says:

- Districts with strong PD programs see 30% higher teacher retention (NCES).
- AI-driven teacher training reduces training costs by 40% (Gates Foundation).

Takeaway: If you're tired of constant teacher turnover, invest in STEAM PD—it pays for itself.

Our Impact (Continued)

STEAM Pathways = Higher Paychecks for Graduates



4. STEAM Pathways = Higher Paychecks for Graduates

The Claim: STEM-prepared graduates earn \$10K+ more per year.

Why It's True:

- STEM jobs pay more—period. Employers are desperate for STEM talent and willing to pay premium salaries.
- Students with industry certifications out-earn their peers. Dual-enrollment and high school certifications open doors to high-paying careers.

What the Data Says:

- STEM professionals earn \$10K - \$40K more annually (BLS).
- Career-focused STEM high schoolers see a 15-22% salary boost by age 25 (NGA).

Takeaway: Want to give your students an economic head start? STEM is the way forward.

5. Public-Private Partnerships Are an Untapped Gold Mine

The Claim: Districts leveraging industry partnerships secure \$2M+ annually.

Why It's True:

- Companies want to invest in future talent. STEAM partnerships mean access to internships, funding, and job pipelines.
- Federal and private grants favor districts with workforce alignment. Employers want graduates who can fill high-demand roles.

What the Data Says:

- NSF grants award 20-30% more to schools with industry partnerships (NSF).
- Corporate STEM investments exceed \$1B per year (U.S. Chamber of Commerce).

Takeaway: Build those partnerships—it's free money and job security for your students.

Public-Private Partnerships Are an Untapped Gold Mine



Final Thoughts: The Smart Money is on STEAM

Funding decisions are tough. But when you look at the numbers, investing in STEAM isn't a gamble—it's a strategic move that pays dividends for years.

So, what's the next step?

- Make STEM literacy core, not an elective. More students = more funding.
- Reduce intervention costs. Early STEAM exposure prevents costly remediation.
- Invest in teachers. STEM Literacy through Emerging STEM Leader™ = higher retention & lower hiring costs.
- Align with the workforce. Give students real career pathways by getting them ready for work, college, entrepreneurship, and service.
- Tap into corporate funding. Don't leave free money on the table.

Our Plan: Positioning DeKalb as a National STEAM Leader

This proposal positions DeKalb County School District as a national leader in STEAM education, leveraging its innovative programs to drive student success and workforce readiness. By implementing the next steps outlined below, DeKalb can expand its impact, strengthen its STEAM initiatives, and set a model for districts nationwide. The following diagram details the key actions needed to capitalize on this opportunity.

Next Steps to Maximize This Opportunity:

1. Officially designate DeKalb as a STEAM district.
2. Host a District-Wide STEAM Fest to engage students, educators, and the community.
3. Expand the pilot program to 25% of DeKalb schools.
4. Develop a STEAM Integration Strategy for each expanding school.
5. Enhance the core curriculum with enrichment, intervention, and Pdgogy.ai™ integration.
6. Conduct asset mapping to leverage existing resources.
7. Analyze skills and talent needs to align with workforce demands.

Our Pilot Data:

This proposal for DeKalb County School District builds on the pilot work currently underway with five schools, laying the foundation for a district-wide STEAM transformation. By scaling these efforts, DeKalb will strengthen its commitment to STEM literacy, workforce readiness, and educational innovation. With strategic implementation, the district will serve as a national model for STEAM integration and student success. Click on the following links to access the pilot data and the initial CISTEMIC™ profile for DeKalb County that will guide the work of the CISTEMIC™ Initiative.

DSCD STEAM Integration Pilot Results:

- [DSCD Pilot Snapshot](#)
- [STEM Integration Continuum Detailed Report™](#)
- [CISTEMIC™ Profile](#)

In conclusion, by expanding on the pilot's success and implementing a district-wide STEAM strategy, DeKalb has the opportunity to lead the nation in STEAM education, workforce preparation, and innovation. Through a collaborative approach, students, educators, and community stakeholders will benefit from a robust, future-focused STEAM ecosystem that prepares the next generation for success.

Now is the time for action—victory goes to the swift. By embracing these next steps, DeKalb can solidify its reputation as a leader in STEAM education and workforce preparation.

Contact:

Marlon Lindsay, CEO

Email: mlindsay@21stCentEd.com

Phone: 201.293.9882

Investment: DeKalb as a National STEAM Leader

CISTEMIC™: DeKalb, A STEAM District	Quantity	Unit Price	Invest
Stakeholder Collaboration: Book and Video	1	\$295,000	\$295,000
STEAM District Proclamation and Community STEMxpo™	1	\$180,000	\$180,000
Asset Mapping with Skills and Talent Needs Analysis	1	125,000	\$125,000
STEAM Integration Strategy™	1	\$50,000	\$51,375
STEAM Integration Continuum™ + SIP Alignment	130	\$7,500	\$975,000
Pdgogy.ai™	13	\$104,125	\$1,353,625
Total Year One STEAM District Investment			\$2,980,000

The investment in DeKalb as a STEAM district will comprehensively impact outcomes for the district and all its systems. The following page will show a cost-benefit analysis plus a significant potential return on investment. Essentially, the financial impact on the budget will be offset by tangible and intangible impacts on student outcomes, teacher satisfaction & retention, and the long-term impact on the Dekalb County economy.

Cost Benefit Analysis & Return On Investment (ROI) Potential

Cost-Benefit Analysis	ROI Justification
3-4x ROI: Improves attendance funding, reduces interventions, and enhances student retention.	Attendance funding boosts revenue; less reliance on external interventions.
4-5x ROI: Reduces achievement gaps, quantifies per-student dollar benefits.	Higher student performance closes gaps, increasing funding opportunities.
5-6x ROI: Enhances workforce readiness, connects students to lucrative career paths.	Workforce readiness ensures student success in high-paying careers.
6x ROI: Lowers recruitment costs, improves retention, and raises teacher satisfaction.	Retained teachers reduce hiring and onboarding expenses.
3-4x ROI: Improves STEAM participation rates, leading to increased student funding.	Hands-on engagement attracts funding and reduces remediation needs.
4-5x ROI: Boosts student confidence, reduces dropout rates.	Inclusive environments boost performance and reduce societal costs.
5-6x ROI: Increases teacher effectiveness and satisfaction, reducing turnover costs.	Effective teachers create compounding benefits across school systems.
5-7x ROI: Future-proofs students, reducing remediation costs at higher levels.	STEM literacy future-proofs students for a rapidly changing economy.
7-8x ROI: Drives partnership value and attracts additional funding and grants.	Partnerships yield grants, sponsorships, and in-kind contributions.
5x ROI: Improves program efficiency, reduces redundant efforts, and tracks success metrics.	Data-driven insights justify program expansion and additional funding.
4-5x ROI: Enhances SEL outcomes, reducing long-term societal costs.	SEL reduces future costs associated with behavioral issues.
3-4x ROI: Engages students, increasing retention and lowering intervention costs.	Engaged students are less likely to drop out, reducing lost funding.
4x ROI: Real-world applications increase student motivation and long-term outcomes.	Motivated students drive long-term performance improvements.
5x ROI: Boosts digital engagement and participation metrics.	Digital platforms improve metrics that directly tie to funding.
4-5x ROI: Personalized pathways reduce disengagement and retention challenges.	Tailored approaches reduce waste and enhance learning outcomes.
4x ROI: Flexible scheduling lowers absenteeism rates and improves funding stability.	Flexible options keep students engaged, boosting school performance.
3x ROI: Ensures learning continuity, reducing the need for remediation.	Accessibility ensures students stay on track, avoiding costly interventions.
4x ROI: Engaging content increases attendance, leading to better outcomes.	Content that resonates with students reduces dropouts.
5-6x ROI: Blended models improve adaptability, reducing intervention needs.	Blended approaches meet diverse needs, cutting future intervention costs.
4x ROI: Self-paced recovery reduces repeat course costs and improves retention.	Self-paced systems avoid repeat enrollments, improving budget efficiency.
4-5x ROI: Adaptive pathways improve outcomes, reducing long-term intervention costs.	Adaptive models reduce disparities, improving graduation rates.
4-6x ROI: Extended learning increases pass rates and academic performance.	After-hours support ensures academic success across the board.
5x ROI: Comprehensive systems lower dropout rates and support at-risk students.	Proactive measures reduce systemic issues tied to dropouts.
5-7x ROI: Iterative feedback improves efficiency and program outcomes.	Feedback loops optimize resources, enhancing overall ROI.
3-4x ROI: Reduced classroom disruptions improve focus and efficiency.	Efficient classrooms save time, boosting learning outcomes.
4x ROI: SEL programs reduce disciplinary referrals and long-term societal costs.	Emotional regulation creates a safe and effective learning space.
3x ROI: Collaboration tools improve team effectiveness and project outcomes.	Collaborative projects teach skills that improve long-term teamwork success.
4x ROI: Proactive behavior management reduces incidents and intervention costs.	Lower behavior incidents create cost savings on interventions.
4-5x ROI: Confidence-building activities increase participation and academic success.	Confidence-focused programs reduce dropout risks and improve outcomes.

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Early. Often. Everywhere!