LA TOFI SCHOOL OF SOCIAL RESPONSIBILITY
NAVIGATE THE CHANGE
INDONESIA

CERTIFICATE OF GLOBAL RECOGNITION

PORTMAN UNIVERSITY
EDUCATION Empowering Superintelligence
CHICAGO, USA

3RD ASIAN IMPACT AWARDS & CEPI RECOGNITION 2026

PRESENTED TO

PT HUTAMA KARYA INFRASTRUKTUR

RECOGNIZED PROGRAM

DATA-DRIVEN DESIGN RISK MITIGATION: FLYOVER PANORAMA 1 (SITINJAU LAUIK)

AWARD CATEGORY

EARTH RESTORATION & ECOLOGICAL RESILIENCE

IMPACT NARRATIVE

Before: Complex terrain, steep slopes, and limited construction access created uncertainty between preliminary topographic data and actual field conditions. This exposed the project to over-design, material inefficiency, rework, delays, additional costs, and unnecessary environmental impacts.

Transformations: LiDAR, DTM, BIM, and AR transformed field data into engineering intelligence. At Abutment 1, a planned ±19-meter secant pile solution was optimized into a ±3.5-meter gabion system, demonstrating how verified conditions can reshape design decisions before risks become construction losses.

Significance: The transformation goes beyond digital engineering. It shows that better data can protect resources, project value, and stakeholder confidence. By turning uncertainty into evidence-based decisions, HKI demonstrates that ESG can operate where it matters most: before risk becomes loss.

RECOGNITION LEVEL

PLATINUM GLOBAL RECOGNITION 95.10 & CEPI CHAMPION CANDIDATE 3.34
THE PROGRAM BELONGS TO RISK HIGH – ACTION HIGH CATEGORY (LEADER QUADRANT)

PROGRAM ASSESSMENT USING THE LA TOFI ESG RATING AND CEPI METHODOLOGY HAS BEEN VALIDATED THROUGH PORTES™ 1.0 UNDER OUR COLLABORATION BETWEEN PORTMAN UNIVERSITY AND LA TOFI SCHOOL OF SOCIAL RESPONSIBILITY

THIS CERTIFICATE, ACCOMPANIED BY TWO APPENDICES OF LA TOFI ESG RATING AND TWO APPENDICES OF CEPI, IS HEREBY ISSUED IN JAKARTA ON OCTOBER 21, 2026

LA TOFI ESG RATING
CEPI CORPORATE ECONOMIC PROTECTION INDEX
PORTES™ 1.0 Global ESG Standard PORTMAN UNIVERSITY & LA TOFI SCHOOL

LA TOFI
PRINCIPAL ASSESSOR LA TOFI ESG RATING, FOUNDER & OWNER ASIAN IMPACT AWARDS – INTERNATIONAL RECOGNITION FOR ESG IMPACT AND LEADERSHIP

- **CATEGORY LA TOFI ESG RATING**: SCORE 85 - 100 — PLATINUM GLOBAL RECOGNITION, SCORE 70 - 84 — GOLD GLOBAL RECOGNITION, SCORE 55 - 69 — SILVER GLOBAL RECOGNITION, SCORE 0 - 54 — BRONZE GLOBAL RECOGNITION.
- **CATEGORY CEPI**: CEPI ≥ 2.50 — CHAMPION CANDIDATE, CEPI 1.50 – 2.49 — CHAMPION CANDIDATE, CEPI 1.00 – 1.49 — QUALIFIED PROTECTION, CEPI < 1.00 — IMPROVEMENT NEEDED.

GRAIA2026020

RECOGNIZED PROGRAM
DATA-DRIVEN DESIGN RISK MITIGATION: FLYOVER PANORAMA 1 (SITINJAU LAUIK)

BY
PT HUTAMA KARYA INFRASTRUKTUR

FOLLOWING AN ASSESSMENT CONDUCTED USING THE LA TOFI ESG RATING ASSESSMENT FRAMEWORK, THIS PROGRAM HAS BEEN AWARDED

PLATINUM GLOBAL RECOGNITION

ASSESSMENT PILLAR	SCORE	WEIGHT	WEIGHTED SCORE
LRMI (Local Risk Mapping Index)	100.00	**20%**	**20.00**
RSAI (Risk–Strategy Alignment Index)	100.00	**25%**	**25.00**
AMS (Action Mitigation Score)	90.00	**35%**	**31.50**
FVS (Field Verification Score)	93.00	**20%**	**18.60**
TOTAL		**100%**	**95.10**

- LRMI (100) → All identified local risks within the assessment scope are classified as material. These include material and energy inefficiency, construction emissions, rework and delays, topographic data inaccuracies, geometric misalignment, over-design, design-control weaknesses, and reputational/Social License to Operate exposure.
- RSAI (100) → All significant risks are integrated into the program strategy. The combination of LiDAR-based field validation, DTM processing, BIM coordination, design optimization, and AR verification creates a direct connection between identified risks and engineering responses.
- AMS (90) → The program demonstrates strong mitigation capability by moving risk control upstream —from construction-stage correction toward data-driven prevention. Its strongest evidence is found in topographic validation, design optimization, BIM clash detection, and the transformation of the Abutment 1 engineering solution.
- FVS (93) → Field verification through desk review is supported by quantitative topographic measurements, engineering comparisons, design changes, BIM coordination, implementation evidence, and AR-based verification. Further improvement is possible through final BOQ reconciliation, project-specific emissions measurement, quantified rework avoidance, and direct stakeholder/reputation indicators.

The program achieved an overall **Recognition Score of 95.10**, placing it within the **Risk High – Action High (Leader Quadrant)** under the **La Tofi ESG Rating Assessment Framework**, conducted in accordance with the **PORTES™ 1.0 Global Standard**.

Why Risk High? - The program operates in a technically demanding environment where steep terrain, limited access, and differences between preliminary topographic information and actual field conditions can create interconnected environmental, operational, engineering, economic, and stakeholder risks. These risks can escalate from inaccurate design assumptions into over-design, excessive material and energy use, rework, construction delays, additional costs, and ultimately reputational exposure. The high-risk position therefore reflects not only individual engineering issues but their potential cascading consequences for project value and stakeholders.

Why Action High? - HKI converts these risks into an integrated data-driven risk mitigation system. LiDAR validates actual terrain, DTM strengthens engineering analysis, BIM detects design conflicts and coordinates solutions, while AR supports verification between the digital model and constructed condition. The strength of the program lies in moving risk management upstream. Instead of waiting for discrepancies to become construction problems, field evidence is used to refine decisions before critical work proceeds. The Abutment 1 optimization demonstrates this principle in practice.

GAP COEFFICIENT ANALYSIS

PT HUTAMA KARYA INFRASTRUKTUR achieved an overall score of 95.10 (Platinum Global Recognition).

Gap = 1 – 0,9510 = **0,0490**

A 4.90% gap indicates that the program is already very close to the ideal alignment between local risk identification, strategy, mitigation action, and verification.The remaining gap does not primarily concern the fundamental design of the program. It lies in strengthening the depth of evidence: converting estimated benefits into verified outcomes, establishing project-specific environmental measurements, documenting actual rework and schedule avoidance, reconciling economic protection against final project data, and directly measuring stakeholder confidence.With these improvements, the program can move from a strong data-driven engineering initiative toward a replicable ESG risk-protection model for infrastructure development.

STRATEGIC IMPROVEMENT PRIORITIES

1. **Verify Economic Protection with Final Project Data**. Reconcile the estimated cost efficiency with final drawings, BOQ, quantities, unit rates, and realized expenditure.
2. **Establish Project-Specific Carbon Measurement**. Move from literature-based emission estimates toward project-level carbon accounting or lifecycle assessment.
3. **Quantify Rework and Schedule Avoidance**. Record avoided design revisions, rework volume, days saved, mobilization avoided, and change orders prevented.
4. **Measure Stakeholder Confidence and Social License**. Develop periodic indicators covering stakeholder satisfaction, complaints, trust, acceptance, and Social License to Operate.
5. **Scale the Model into an Institutional Engineering Standard**. Codify the LiDAR–DTM–BIM–AR workflow so that successful risk-mitigation practices can be consistently replicated across relevant HKI infrastructure projects.

With this achievement, PT HUTAMA KARYA INFRASTRUKTUR is recognized with Platinum Global Recognition and positioned in the Leader Quadrant under the La Tofi ESG Rating 2026.

PROGRAM
DATA-DRIVEN DESIGN RISK MITIGATION: FLYOVER PANORAMA 1 (SITINJAU LAUIK)

IMPLEMENTED BY
PT HUTAMA KARYA INFRASTRUKTUR

BASED ON THE LA TOFI ESG RATING METHODOLOGY
CHAMPION CANDIDATE

SUMMARY OF RISK ANALYSIS AND FINANCIAL RISK EXPOSURE (FRE)

No.	Material Risk	P×I	Risk Weight	V (Rp)	FRE Baseline	SEF	PIF	FRE Adjusted
1	Material & Energy Inefficiency and Increased Construction Emissions	16	0.64	120,000,000	76,800,000	50%	85%	32,640,000
2	Construction Disruption, Rework & Delays Affecting Construction Processes	16	0.64	170,000,000	108,800,000	50%	85%	46,240,000
3	Topographic Data Inaccuracy & Geometric Misalignment in Design Decisions	25	1	110,000,000	110,000,000	50%	100%	55,000,000
4	Over-Design, Design Revision & Weaknesses in Actual-Condition-Based Design Control	20	0.8	300,000,000	240,000,000	50%	95%	114,000,000
5	Corporate Reputation & Social License to Operate Risk	12	0.48	100,000,000	48,000,000	50%	35%	8,400,000
	TOTAL			**800,000,000**	**583,600,000**			**256,280,000**

FRE BASELINE: RP 583,600,000
REPRESENTS THE ESTIMATED ECONOMIC RISK EXPOSURE OF THE OPERATIONAL UNIT IN THE ABSENCE OF THE PROGRAM.

FRE ADJUSTED: RP 256,280,000
REPRESENTS THE PORTION OF ECONOMIC RISK EXPOSURE THAT FALLS WITHIN THE PROGRAM'S SCOPE AND CAN BE EFFECTIVELY MITIGATED THROUGH THE PROGRAM'S INTERVENTIONS.

ECONOMIC PROTECTION VALUE ASSESSMENT

Risk Mitigation Effectiveness (RME)
AMS = 90
FVS = 93
RME = 91.20%

Economic Protection Value (EPV)
EPV = FRE Adjusted × RME
EPV = Rp 233,727,360

Total Program Investment Rp 70,000,000
Corporate Economic Protection Index (CEPI) = 3.34

STRATEGIC INTERPRETATION

A CEPI score of 3.34 places Data-Driven Design Risk Mitigation: Flyover Panorama 1 (Sitinjau Lauik) in the Champion Candidate category. Economically, every IDR 1 invested is associated with approximately IDR 3.34 of protected economic value within the program's relevant scope of influence—not as accounting profit, but as economic value protected from material risks.

The program addresses an interconnected risk chain: inaccurate topographic data can lead to over-design, excessive material and energy use, higher emissions and costs, rework, construction delays, and ultimately stakeholder and reputational risks. At Abutment 1, field validation identified an approximately 4.47-meter elevation deviation, enabling an indicative ±19-meter secant pile solution to be optimized into approximately ±3.5-meter gabion/slope reinforcement.

Through the integration of LiDAR, DTM, BIM, and AR, the program shifts engineering risk management from correcting problems after they occur to preventing economic loss through better data and earlier decisions.