

International Industrial Park ESG Benchmarking: Overview of a Novel Approach

June 2024

Project Context

- In 2023 Sustrio Advisors Inc. and Incorrrys Inc. collaborated to develop and demonstrate a **novel crowdsourced approach to benchmarking** industrial parks and clusters around the world on their environment, social, and governance (“ESG”) performance.
- **ESG is rapidly becoming a mainstream strategic business issue** as investors and stakeholders are demanding increasingly robust governance and oversight of risks and opportunities, and the stakes of ESG performance and disclosure are rising for all organizations – those that ignore ESG do so at the risk of eroding their resilience and long-term value.
- As concentrated zones of industrial activity and investment capital, **industrial parks and clusters are uniquely impacted by ESG risks and issues** such as climate change, energy transition, decarbonization, pollution, supply chain, labor and human capital, policy and regulatory change, and so on.
- At the same time, industrial parks and clusters are major drivers of economic development in their regions and **have a critical role to play in capturing ESG opportunities** including infrastructure and resource optimization, risk mitigation, capital efficiency, utility cost savings, technology acceleration, and so forth.
- Our objectives with this ESG benchmarking were to **develop a robust methodology** that would use quantitative data inputs to objectively assess and compare industrial parks and clusters using a consistent set of comparison criteria, **rank their performance** in relation to each other, and **identify top performers** including attributes that enhance performance.

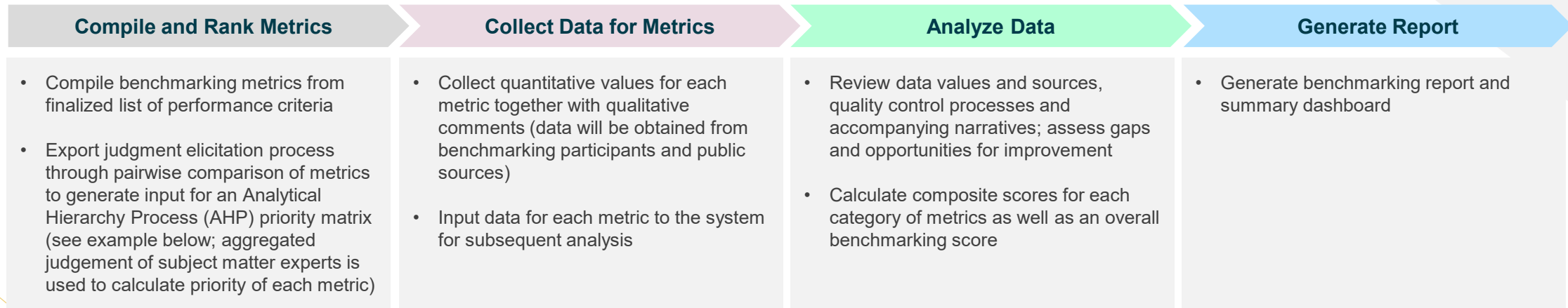


Project Approach

Project Phases	Phase 1: Planning	Phase 2: Analysis	Phase 3: Reporting
Objectives	Establish the parameters of the benchmarking assessment	Execute the benchmarking assessment and analyze the results	Consolidate the benchmarking results and prepare a summary report
Project Tasks	<ul style="list-style-type: none"> Engage AIH as a participant and identify comparator industrial parks and clusters from around the world Develop the key performance criteria and comparators for benchmarking Finalize list of industrial parks and contact persons to engage, prepare an engagement protocol and schedule, and prepare interview guides and questionnaires Prepare a benchmarking data tracking tool and design the digital reporting tool and data analytics platform 	<ul style="list-style-type: none"> Engage selected peer industrial parks to collect data and information Document benchmarking data and information and input to digital reporting tool Identify and remediate any data and information gaps by following up with peer industrial parks as needed Analyze the preliminary results, and prepare a comparative ranking of peer industrial parks' ESG maturity and performance 	<ul style="list-style-type: none"> Prepare a summary report on benchmarking results, critical success factors, ESG maturity, important trends, and other findings Refine the approach and methodology as needed so that a "living" process and report that can be replicated and updated on a regular basis Create www.benchmarkia.com, a website where industrial parks and clusters can register to participate, submit data, and receive analysis results

Benchmarking Methodology

- Our benchmarking analysis methodology consisted of the following procedures:



Example Analytical Hierarchy Process (AHP) Priority Matrix

List of Metrics	Metric 1	Metric 2	Metric 3	Metric 4	Priority
Metric 1	1	3	1	3	0.410
Metric 2	1/3	1	1/3	4	0.148
Metric 3	1	3	1	8	0.398
Metric 4	1/9	1/4	1/8	1	0.044

Methodology for Analysis

- Our analysis and ranking of the different industrial parks were performed based on 22 metrics (14 metrics relating to ESG and 8 metrics relating to operational performance) as follows:

#	ESG Metrics	Unit of Measure	Use Category
1	GHG emissions per investment	metric tonnes CO2e per \$ of investment	Environment
2	Wages for management for ESG Category	USD/hour	Social
3	Wages for workers for ESG Category	USD/hour	Social
4	Minimum wage for ESG Category	USD/hour	Social
5	Female workforce participation	%	Social
6	Waste recycled	%	Environment
7	Water treatment on-site	%	Environment
8	Labor availability	%	Social
9	Green buildings certification	Yes/No	Governance
10	Availability of dedicated financial or tax incentives for green building within the industrial park	Scaled response	Governance
11	Storm/rainwater treatment on-site	Scaled response	Environment
12	Fresh water consumption per investment	m3 per \$M of investment per year	Environment
13	Hazardous waste generated per investment	metric tonnes per \$M of investment per year	Environment
14	Percentage of renewables in power generation (e.g., wind, solar, etc.)	%	Governance

#	Performance Metrics	Unit of Measure
1	Investment in the park	USD
2	Area of the park	square km
3	Wages for management for Performance Category	USD/hour
4	Wages for workers for Performance Category	USD/hour
5	Minimum wage for Performance Category	USD/hour
6	Distance to rail	km
7	Distance to highway	km
8	Distance to airport	km

- Data for each of the 22 metrics were obtained using three different methods:
 - Information provided directly by industrial parks;
 - Information obtained online via industrial parks' websites; and
 - Information calculated based on information from parks and national-level average data from their respective countries' governments.
- Future iterations of this study will expand on the set of metrics to provide a broader analysis of industrial parks' performance

Summary Benchmarking Results

- Among a global cohort of top-performing industrial parks, AIH ranked as follows on a comparative basis:

Global Rank	Industrial Park	Country	Total Score
1	Alberta's Industrial Heartland	Canada	100.00
2	Tianjin Economic-Technological Development Area	China	98.13
3	Cedar Port Industrial Park	USA	94.25
4	Changshu Economic & Technological Development Zone	China	94.21
5	Elk Grove Village	USA	94.03
6	Hamilton Country Industrial Parks	USA	94.02
7	Louisville Riverport	USA	93.84
8	Long Island Innovation Park at Hauppauge	USA	93.60
9	Eastman Business Park	USA	93.55
10	Solar Valley- Anhalt Saxon	Germany	93.51
11	East Park KY, USA	USA	93.37
12	Quzhou Green Industry Clustering Zone, China	China	92.21
13	Boden Industrial Park	Sweden	91.95
14	Sydney Business Park	Australia	91.79
15	Haraholmen	Sweden	91.56

Global Ranking



Overall ranking among peers and globally
(combined ESG score and Performance score)



Performance ranking among peers and globally
(after Jubail Industrial City, Saudi Arabia)



ESG ranking for Chemicals Industry
(after Haraholmen, Sweden)

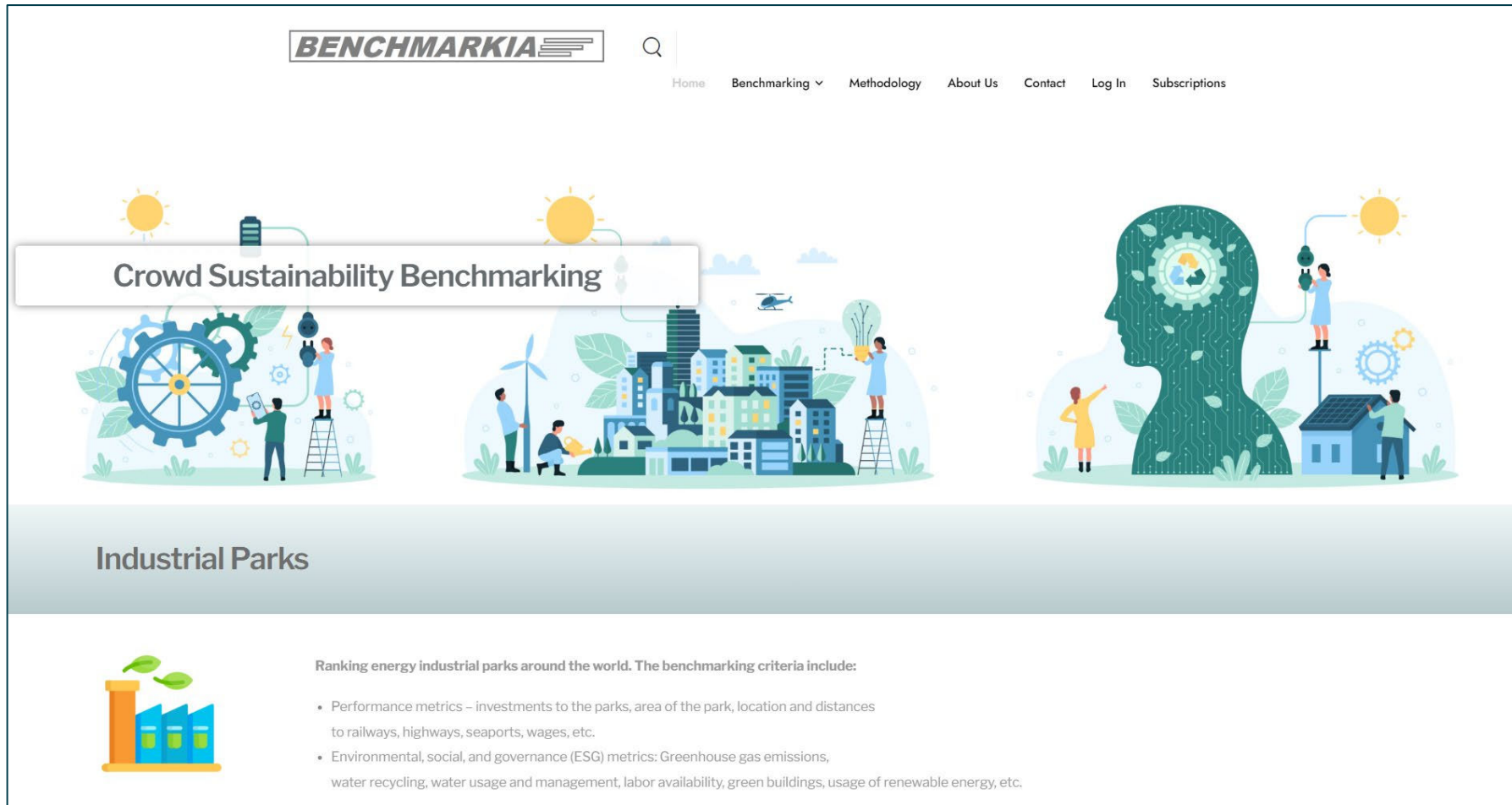


Investment ranking for all industries
(after Tianjin Economic-Technological Development Area, China)

Insight and Observation Highlights

- ESG issues are creating growing expectations from governments and regulators, investors, non-governmental organizations, and consumers for industries and companies to identify and manage risks and opportunities. Industrial parks and clusters that respond to this expectation by focusing on improving and communicating their ESG performance are better positioned to **attract high-value investment, attract and retain innovative tenants, and align with evolving regulatory regimes, thereby increasing their competitive advantages and enhancing their long-term value.**
- We observed a **positive correlation** between industrial parks and clusters that implement formal ESG programs and their overall performance and ranking. This correlation was supported with empirical data where parks provided performance data.
- Industrial parks and clusters that promote their ESG performance and provide performance data and information publicly appear to **attract more like-minded companies/tenants that are in technology-forward industries.**
- The approach and results of this benchmarking process can be used to inform the development of a **sustainability/ESG-focused voluntary and peer-reviewed assessment and endorsement framework for industrial parks** that will allow participants to highlight their commitment to and value added on sustainability/ESG to current and potential industrial park tenants, regulators, peers and competitors, communities, and other stakeholders. This benchmarking process could also be integrated with other existing industrial park performance frameworks (e.g., WEF, UNIDO, World Bank, etc.).
- Our **benchmarking methodology and results are dynamic and evolving elements that can be deployed on an ongoing basis** for marketing, performance management, and reporting to current and prospective operators, internal and external stakeholders, regulators, and other interested parties. Visit www.benchmarkia.com for more information and to register your industrial park or cluster for participation.

Benchmarkia.com



The screenshot shows the Benchmarkia.com website interface. At the top, there is a navigation menu with links for Home, Benchmarking, Methodology, About Us, Contact, Log In, and Subscriptions. The main content area features a large illustration with the text "Crowd Sustainability Benchmarking" and "Industrial Parks". Below this, there is a section titled "Ranking energy industrial parks around the world. The benchmarking criteria include:" followed by a list of criteria.

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Crowd Sustainability Benchmarking

Industrial Parks

Ranking energy industrial parks around the world. The benchmarking criteria include:

- Performance metrics – investments to the parks, area of the park, location and distances to railways, highways, seaports, wages, etc.
- Environmental, social, and governance (ESG) metrics: Greenhouse gas emissions, water recycling, water usage and management, labor availability, green buildings, usage of renewable energy, etc.



Thank You!



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