

ARTEFACT

DATA & AI FOR TOURISM

Using data intelligence
to build global presence



ARTEFACT

AI IS ABOUT PEOPLE

WE ACCELERATE DATA AND AI ADOPTION
TO POSITIVELY IMPACT
PEOPLE AND ORGANIZATIONS.



21
COUNTRIES

1500
EMPLOYEES

+1000
CLIENTS

Artefact is a global leader in consulting services, specialized in data & AI transformation and data-driven digital marketing, from strategy to the deployment of AI solutions. We are offering a unique combination of innovation (Art) and cutting-edge AI technologies (Fact).



DATA READINESS | AI ACCELERATION | DATA & DIGITAL MARKETING | TECHNOLOGIES

DATA & AI FOR TOURISM

Using data intelligence
to build global presence

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As several countries in MENA and elsewhere strive to strengthen their positions as global tourism destinations and travel hubs, data analytics and intelligence have become crucial to establishing global presence and gaining competitive edge. In fact, data can help emerging destinations break the growth deadlock by driving marketing excellence, stimulating supply creation and improving visitor experience.

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I – Introduction

From a high of ~ 1.5 billion international tourist arrivals in 2019, travel plummeted to almost nil as the COVID-19 pandemic suddenly and devastatingly brought the industry to a standstill. Prior to the pandemic, tourism had become one of the world's major socio-economic sectors, with 2019 export revenues amounting to USD 1.7 trillion, equivalent to 28% of global trade in services and 7% of overall exports of goods and services.

Among the hardest-hit were tourism-dependent countries and emerging tourism destinations with fewer economic and technical resources to respond to the crisis: "In a sector that employs 1 in 10 people globally, harnessing innovation and digitalization, embracing local values, and creating decent jobs for all—especially for youth, women, and the most vulnerable groups in our societies—could be at the forefront of tourism's recovery," says Secretary-General of the World Tourism Organization (UNWTO) Zurab Pololikashvili.

Despite their growing appeal for tourists, few studies have analyzed the economics of tourism in emerging destinations during the early stages of their life cycle, with the literature focusing mostly on more established destinations. Emerging tourism destinations have significant potential; however, policymakers and managers in these destinations still need to make considerable efforts to transform cultural assets and attractions into attractive tourism products that can compete in global markets.

To enable emerging tourism destinations to make their mark on the global map, data-driven decisions on a multilateral basis must be made. There must be political will, clear destination positioning, "intelligent" strategy, and targeted investments in the sector to unlock the unique potential of these destinations. "The return of tourism will allow these communities to get back on their feet not through aid but through sharing their culture, their heritage and their hospitality with the world once more," affirms Pololikashvili.

II – The growth deadlock of emerging tourism destinations

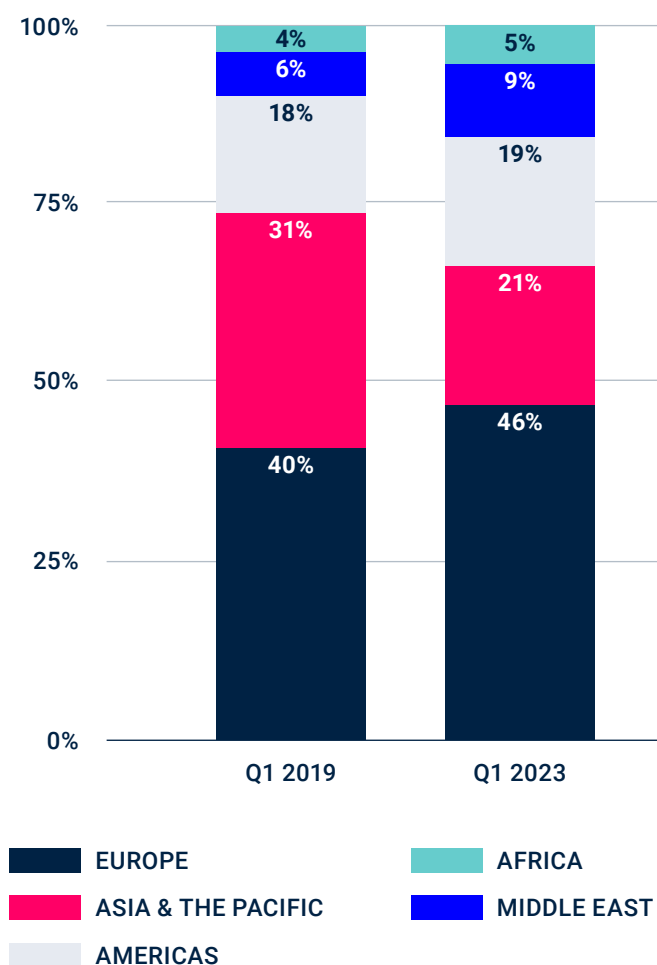
According to the UN World Tourism Organisation (UNWTO), the tourism sector has made an impressive recovery: over 900 million tourists travelled internationally in 2022, double those in 2021. Furthermore, in Q1 2023, an estimated 235 million tourists travelled internationally, more than double those in the same period of 2022.

While emerging destinations grew their share of international tourist arrivals post-covid compared to 2019, especially in the Middle East (9% in Q1 2023 vs. 6% in Q1 2019), established destinations

still capture the lion's share of international tourist arrivals, with Europe accounting for 46% in Q1 2023 (vs. 40% in Q1 2019), followed by Asia & the Pacific at 21% (vs. 31% in Q1 2019), and the Americas at 19% (vs. 18% in Q1 2019).

Furthermore, emerging destinations face significant challenges ahead such as high inflation and rising oil prices, which will drive accommodation and travel costs up, pushing tourists to “increasingly seek value for money and travel closer to home”, as the UNWTO Panel of Experts warns.

Share of international tourist arrivals by region.



Source: UNWTO Inbound Tourism Database, UNWTO press releases



In this context, new tourism destinations struggle to compete and put themselves on the world map for several reasons. First, their brand awareness is lower than that of more established destinations. Second, they generally have limited infrastructure to accommodate large volumes of visitors and less expertise in offering distinctive experiences to attract

them. Finally, they are often not highly visible on the radar of regional and international investors and industry partners. All of these factors create a growth deadlock: low awareness as a tourism destination results in limited tourist appeal and a limited number of domestic and inbound visitors, which leads sector investors and players to fail to prioritize the destination. This in turn inhibits successful development of the tourism offer, and the cycle repeats.

How can a new tourism destination break the growth deadlock and emerge to become globally recognized? Tourism boards and destination authorities must leverage data intelligence and digital technologies to be on a level playing field.

Devoting resources to develop capabilities around data collection, analysis and insight activation is a necessity rather than an ambition today. This is especially true in a post-pandemic context, where travel is rapidly accelerating and giving unprecedented opportunities for emerging tourism destinations to capture larger shares of tourists, all seeking new adventures after two years of travel restrictions.



Source: Artefact analysis

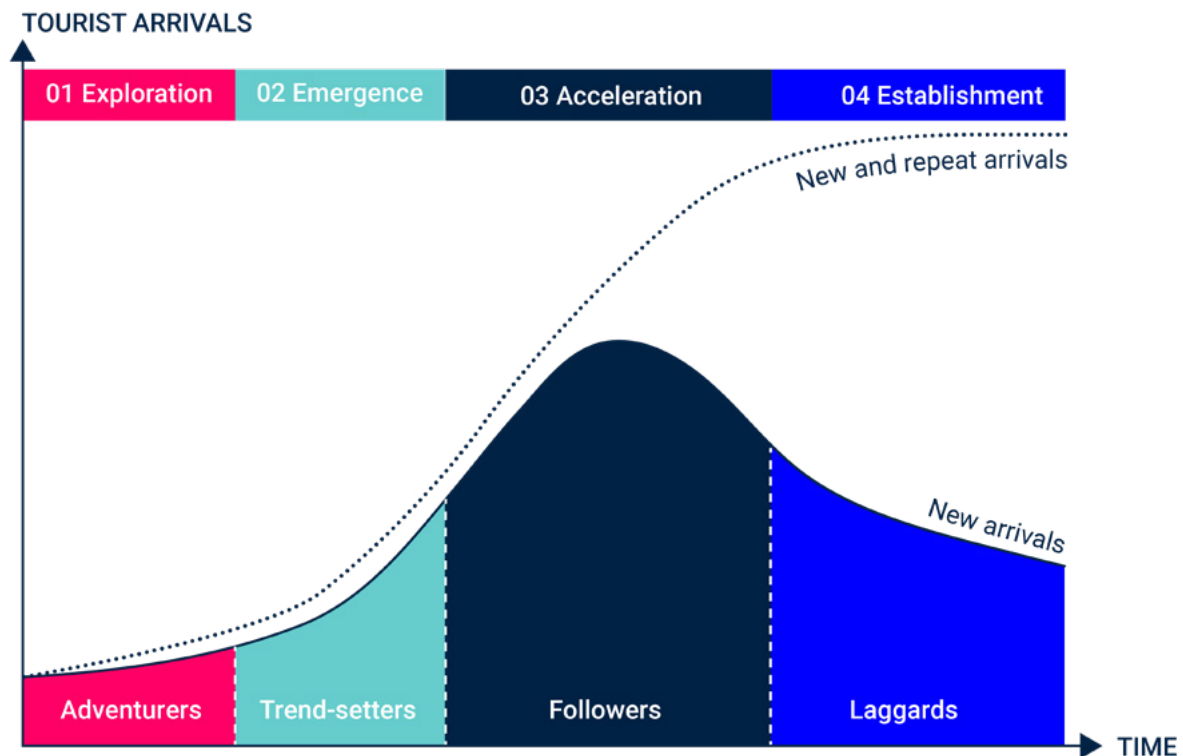
III – The four phases of tourism destinations

An emerging destination must secure a critical mass to be recognized as a “must-visit” destination. The diagram below illustrates the four phases of such tourism destinations. This evolution represents the ideal growth pathway; while not all destinations are able to reach the advanced phases, this should be their objective.

To achieve this growth trajectory, tourism boards must develop “intelligent” strategies to attract new visitors at every stage, focusing on four key interdependent areas: building the brand, stimulating tourism demand, enhancing the tourism experience, and attracting tourism investments and offerings.



The ideal path of emerging destinations



1 – The “exploration” phase

The destination is newly introduced and both international and domestic visitors are rare. The focus is on building the destination’s value proposition in order to start developing the marketing strategy for increasing visitation rates and attracting tourists. The aim in this early phase is to capture domestic visitors, therefore marketing efforts should be focused on this tourist segment.

It is equally important in this stage to capitalize on the destination’s natural assets in order to create a basic tourism offering. Successful case studies highlight a low-investment “minimum viable offer” approach, where the tourism board or destination authority conducts in-destination events to promote specific natural sites, and develops sustainable, construction-light accommodation options, while offering indulgent experiences in the destination’s natural ecosystem to attract early travel-savvy visitors (“adventurers”). Government investment will also be required to develop essential infrastructure (e.g., transport, utilities, etc.) for tourists to be able

to access the destination with ease and have basic amenities at their disposal.

Once these initiatives are underway, tourism boards or destination authorities should start engaging with tourism operators (TOs), travel agencies (TAs), and destination management companies (DMCs) to create travel packages within the destination, since tourists would not be prepared to make direct bookings. At the very least, efforts should be made to encourage TOs, TAs and DMCs to include the destination as part of their wider packages (e.g., as a day trip or overnight stay on the way to an “established” destination).

In parallel, it is crucial for the tourism boards or destination authorities to start systematically gathering data to understand the tourist experience. Best practices in this stage include conducting surveys to capture satisfaction and pain points, and likelihood of endorsement from early visitors; these metrics should be benchmarked against experience pain points and delights from competing destinations to identify priority areas for improvement.

2 – The “emergence” phase

The destination now attracts “trend-setters”, tourists who are responsive to marketing efforts, willing to engage and intrigued by the experiences of the “adventurers”, and want to follow suit. In this stage, marketing efforts should be focused on crystalizing the destination’s value proposition in order to start attracting international visitors.

The tourism boards or destination authorities should now take measures to stimulate private domestic investment by engaging large local players. These should be incentivized to invest in expanding the tourism offerings in the destination, from building better accommodation options to creating new attractions and experiences. At the same time, government initiatives should continue to expand existing infrastructure.

There will still be a reliance on TAs, TOs and DMCs to create travel packages and drive tourism demand, however these can now be aimed at international visitors. Additionally, it should be noted that efforts to build a presence on well-known online travel aggregators (OTAs, e.g., Booking.com, Tripadvisor, etc.) should start in this phase, as it takes time to build visibility on such platforms.

Data collection for measuring tourism experience should continue and expand through launching surveys for international visitors as well. Sufficient volumes of social media reviews and engagements should also now be available, making it possible to run social media analytics and use them to enhance benchmarking exercises. In addition, available data should be prepared for publishing as public datasets, and be leveraged to provide extensive support for accurate ROI modeling in order to gain investor confidence.

3 – The “acceleration” phase

At this stage, the destination has secured the critical mass required to organically attract tourists through word of mouth and visitor recommendations. Marketing should therefore focus on promoting specific attractions and experiences, and target selected tourist segments by leveraging precision marketing analytics to increase conversion rates and marketing ROI.

The tourism board or destination authority should actively encourage foreign direct investment by pursuing partnerships with major global industry players; these will expand the tourism offering built by domestic players, bringing more accommodation



options and more diverse experiences. Furthermore, as tourists become more familiar with the destination and start making direct bookings, partnerships with global OTAs should be strengthened, and TO/TAs should tailor their offers to provide packages for specific experiences and attractions.

Advanced social media analytics should be leveraged to prioritize tourist experience pain points and delights, and other available data should be capitalized on, and now made publicly available to generate business insights for investors.

4 – The “establishment” phase

The destination’s brand equity should now be high enough such that marketing efforts can be directed primarily to the promotion of new experiences and attractions. The tourism board or destination

authority should focus on policies and measures to increase tourist spend, offer high-quality visitor experiences, and maintain a strong net promoter score.

Overall, at this stage there should be little intervention from government authorities when it comes to tourism supply creation, as the destination would be appealing from an investment point of view for private sector players who seek an attractive ROI. On the demand side, the majority of bookings would be made directly by tourists, significantly reducing the reliance on TO/TAs.

The tourist experience data should also now be rich enough to allow for advanced analytics to personalize the tourist experience, such as AI-based personalized recommendation engines for itinerary and experiences planning.

IV – Data intelligence for tourism destinations

	Suites of use-cases					
	Planning & performance	Local marketing	International marketing	Investment attraction & supply creation	Demand Acceleration	Tourist experience Enhancement (TX)
Exploration						
Emergence						
Acceleration						
Establishment						

Legend

High focus	Medium focus	Low focus
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Source: Artefact analysis

Tourism boards or destination authorities must first know which phase the destination is in, and understand the strategic imperatives needed to evolve to the next phase. They should then identify

the data use cases required to address each strategic imperative and select which data use cases to prioritize for each phase, as indicated in the chart above.

1 – Planning and performance

Data analytics use cases should be implemented to monitor destination performance, identify root causes for under-performance or opportunities for growth, and set the right targets. Of course, planning and performance can first start in descriptive forms and then evolve into predictive and prescriptive as the data maturity of the destination evolves. A key trend in this space is automated insight generation and reporting, which saves resources and time in capturing performance root-causes.



STAN (SINGAPORE TOURISM ANALYTICS NETWORK)

Deployed advanced data analytics platform to visualize and perform analysis on tourism data from first- and third-party sources.



2 – Local and international marketing

Use cases should be focused around monitoring the destination's brand in each source market, as well as assessing the performance of digital marketing campaigns. In the early stages, building awareness and increasing the consideration of domestic visitors (i.e., local marketing) are of paramount importance. The local population will be the first supporter/promoter of the destination. A mix of brand awareness, website/app performance and campaign performance use cases will be needed to track effectiveness across the marketing funnel. International marketing data use cases are of high importance as the destination maturity increases, after establishing connectivity with international source markets.



SOCIAL MEDIA INFLUENCER MARKETING - NYC HOSPITALITY & TOURISM RECOVERY

Used data analytics to identify top influencers with key audiences and designed targeted campaigns focused on local culture and businesses



3 – Tourism investment attraction and offerings

Use cases should enable tourism partners to collaborate with each other as well as with government entities to increase visitors and spend, build customized packages and enhance customer experience, as well as monitor the return on tourism initiatives and existing investments across destination offerings. Ensuring the destination has sufficient and quality tourism services is crucial from the early stages. Emerging destinations can build data use cases that help them track available services, locate opportunities/gaps to be filled such as new hotel tiers or new experiences to be offered, especially in comparison to a benchmark. Similarly, use cases identifying investment opportunities and tracking investment ROI should be deployed from the outset to accelerate development of the destination by providing tangible insight to potential investors and building their confidence.



DUBAI ATTRACTIONS B2B2C PLATFORM

Built real-time marketplace providing trade partners and individuals with visibility and possibility to reserve attractions



HONG KONG MULTI-DESTINATION TRAVEL PACKAGES OPTIMIZATION

Leveraged web/app analytics to build multi-destinations personalized packages and itineraries for inbound travelers, in collaboration with neighboring countries

4 – Tourism demand boosting

Use cases should be deployed to ensure a sufficient level of demand to secure a critical mass over and above organic visitation. Establishing trade partnerships that help drive demand from different source markets, with tour operators and online aggregators, for example, should be a priority from day one. In the early phases, the focus will be tracking the partnerships pipeline; subsequently, the focus will shift to the performance of these trade partners and their contribution to visitor volumes and spend.



"THAILAND 4.0" - INTELLIGENT WIFI

Identified optimal areas for implementation of free high-speed Wifi access through analysis of historical tourism data and statistics by province

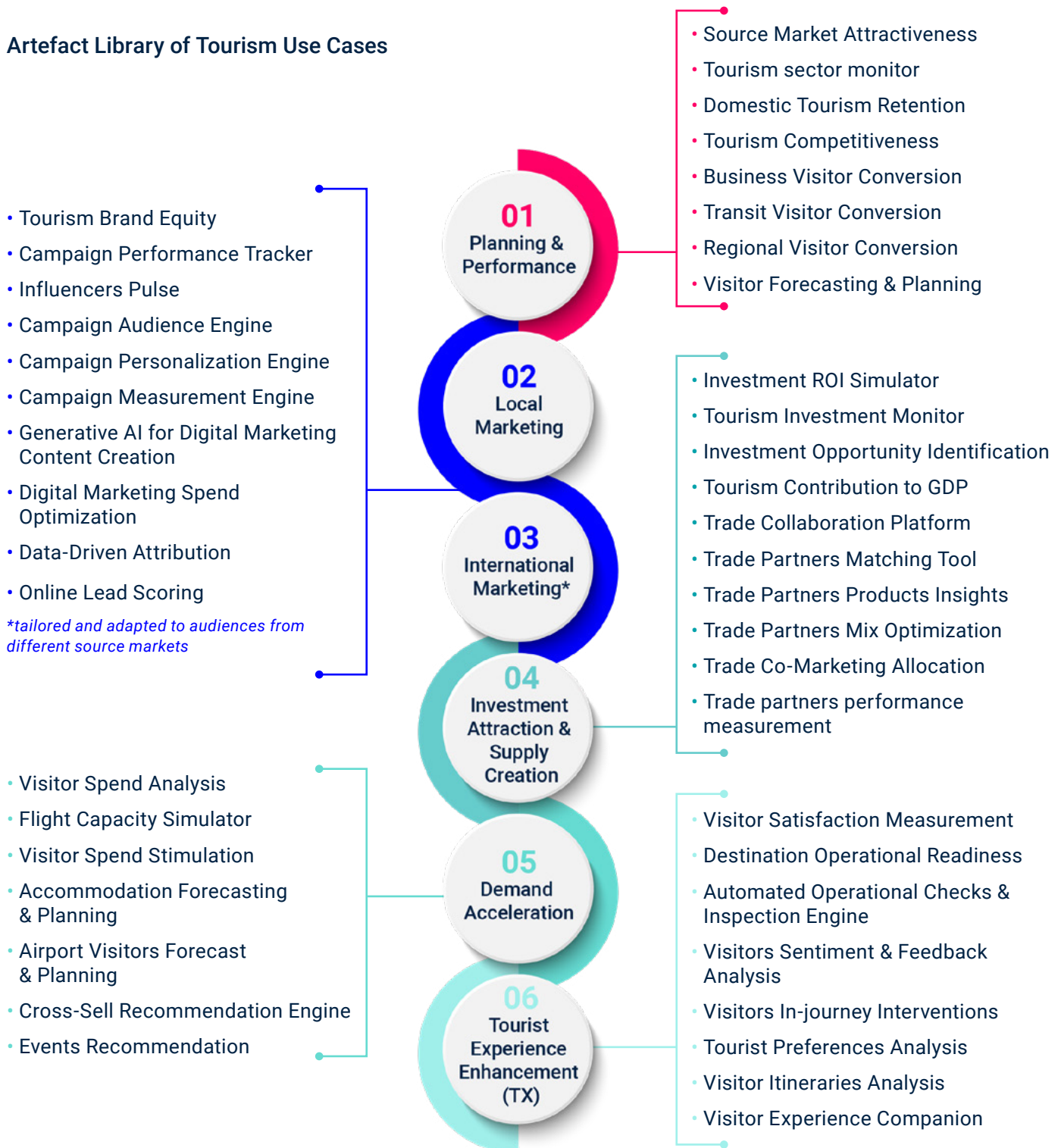
5 – Tourist experience enhancement

Use cases evaluate readiness and visitor satisfaction of tourism destinations and highlight bottlenecks in visitor journeys. It is crucial to track and improve Tourist Experience from the outset, to satisfy early visitor expectations and capitalize on their promotion potential. Metrics such as Net Promoter Score and Satisfaction and Infrastructure Readiness should be monitored, assessed and acted upon in partnership with ecosystem players (e.g., other governmental entities).

V – Artefact data transformation toolkit: use cases & enablers

Artefact has developed a bespoke library of data use cases for emerging tourism destinations that address the focus areas discussed above.

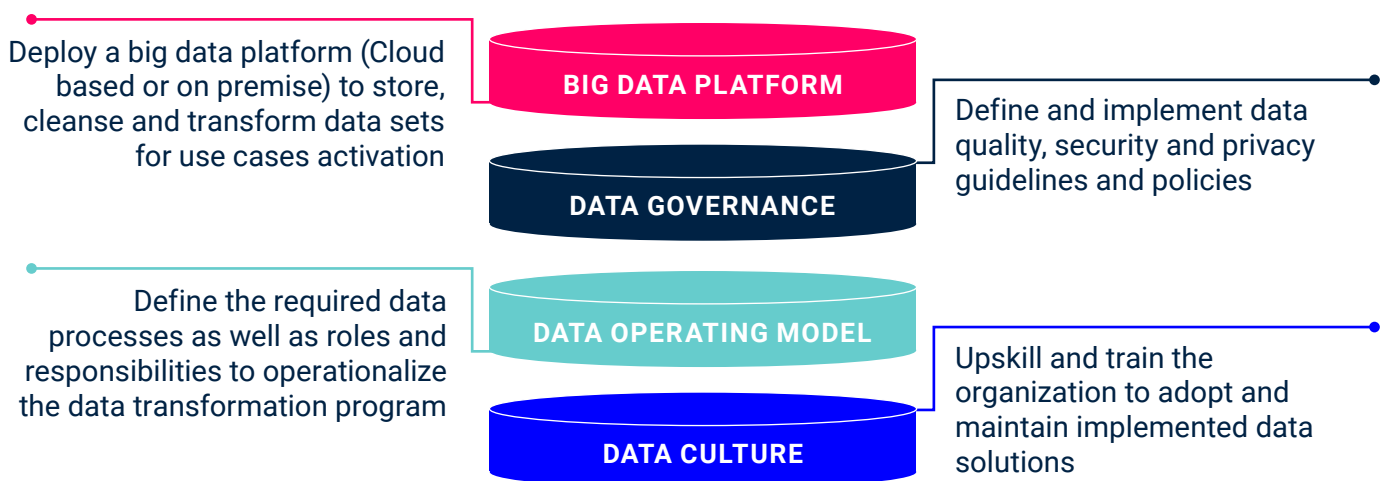
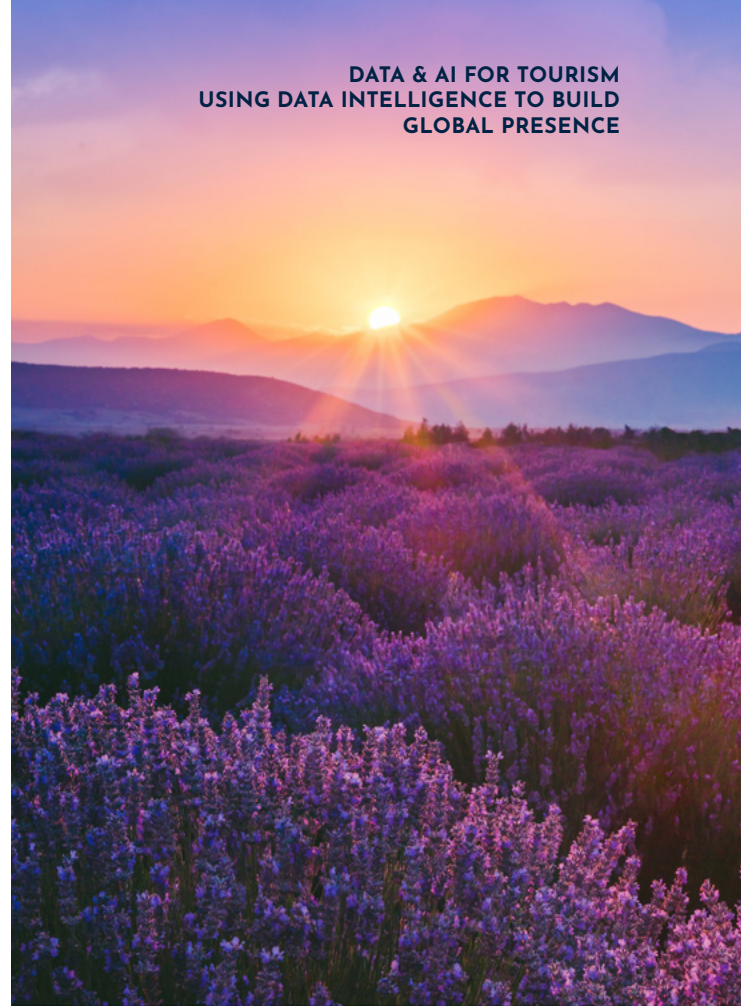
Artefact Library of Tourism Use Cases



Source: Artefact analysis

Harnessing the power of data for emerging tourism destinations requires a combination of hard and soft infrastructure. This represents the backbone of the data strategy and must be well executed to support effective delivery.

- 1. BIG DATA PLATFORM:** To begin leveraging available data, a complete solution encompassing data ingestion, storage and processing, modeling, visualization and reporting is required, which can be built and expanded on top of any existing architecture.
- 2. DATA GOVERNANCE:** Defining and implementing clear guidelines and policies in four key areas is crucial: data quality, data security, data privacy, and data management. Good governance of data increases business efficiency, reduces security and compliance risks, and facilitates decision making.
- 3. DATA OPERATING MODEL:** Establishing clear organizational roles and responsibilities, as well as suitable processes, including defining the roles of data producers and users, and setting policies and processes for data quality remediation is essential.
- 4. DATA CULTURE:** Finally, continuous upskilling and training is required to adopt implemented data solutions. Appointing change champions from within the organization to secure buy-in, and maintaining constant communication on progress and positive outcomes are key examples of actions that an organization must undertake in order to ensure effective data change management.



VI – Conclusion

Tourism levels are expected to rebound to 2019 levels in 2023, with the sector's post pandemic recovery accelerating as tourists' desire to travel rekindles. However, the road to recovery remains unbalanced, with factors including vaccination rates, health security, market dynamics, consumer preferences and the adaptability of businesses and destinations playing vital roles; and with inflation, fuel shortages and political factors, the sector will still face other issues.

In this climate, data and digital are more important than ever for tourism destinations. But data transformation is not an easy journey: it requires a holistic approach that

consists of setting up the right technical infrastructure, building new capabilities, and shifting towards instilling a data-first mindset across all levels of the organization.

We at Artefact know that when used properly, data can ensure effective decision making, both for short-term recovery and long-term strategic growth. Our data experts have supported many top and emerging players in the tourism value chain around the world in their data transformations, helping them harness the power of data and leverage its insights to not only achieve their strategic objectives, but grow and thrive.



DATA READINESS

- ^ Data Strategy & Organization
- ^ Data Governance
- ^ Data Platform
- ^ Data for Sustainability
- ^ Data & AI Adoption
- ^ The Artefact School of Data

AI ACCELERATION

- ^ AI Strategy
- ^ AI & Analytics Factory
- ^ Generative AI Factory
- ^ AI for Operations
- ^ AI for Customer Care
- ^ A Supply Chain 2.0

DATA & DIGITAL MARKETING

- ^ CX & Creative Studio
- ^ Customer 360 & CDP
- ^ MROI & Measurement
- ^ Digital Analytics
- ^ Media Buying & Certifications
- ^ Retail Media

TECHNOLOGIES

- ^ The Artefact Research Center
- ^ Skaff platform: Tech Accelerators
- ^ AI Partners
- ^ Cloud Certifications
- ^ Data & AI technologies (Fact)
- ^ MLOps



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