

THE : FUTURE : LABORATORY



Pdf by:
<https://www.pro-memoria.info>

A Sustainable Future for Travel

From Crisis to Transformation



THE : FUTURE : LABORATORY

Co-founder : Chris Sanderson
Co-founder : Martin Raymond
CEO : Cliff Bunting
Director of strategy and planning : Rachele Simms
Director of marketing : Rodrigo Tobal

Foresight editor : Fiona Harkin
Deputy foresight editor : Dan Hastings-Narayanan
Deputy creative foresight editor : Olivia Houghton
Senior foresight analyst : Marta Indeka
Foresight analyst : Simar Deol
Foresight analyst : Alice Crossley
Creative foresight analyst : Gabriela Bialkowska
Creative foresight analyst : Emily Rhodes

Strategic foresight editor : Alex Hawkins
Deputy strategic foresight editor : Darian Nugent
Presentations editor : Rhiannon Hudson

Strategy director : Louise French
Strategic futures director : Joanna Lowry
Senior strategic futures analyst : Rachael Stott
Strategic futures analyst : Nina Marston
The Future Laboratory intern 22/23 : Isabella Ventura

Senior production planner : Madeleine Watts
Senior sub-editor : Ian Gill
Art director : Savannah Scott
Senior Designer : Samuel Davies
Creative artworker : Amber Richards

The Future Laboratory
 6 Orsman Road, London N1 5RA, UK
 Phone: +44 20 7791 2020
 Email: office@thefuturelaboratory.com

The Future Laboratory is one of the world's foremost strategic foresight consultancies. Members of our trends intelligence service LS:N Global get exclusive access to the mindsets defining tomorrow and the early adopters driving global change across eight industry sectors.

Find out more: LSN.global : thefuturelaboratory.com

Contact : For further information on all our services please contact hello@lsnglobal.com or call +44 20 7791 2020

Cover: photography by Intrepid Travel

Contents

4. *Part One*
AN UNSUSTAINABLE INDUSTRY
8. *Part Two*
THE TRAVEL TIPPING POINT
 - : Carbon Passports
 - : Chasing the Shade
 - : Virtual Vacations
18. *Part Three*
RAISING A GENERATION OF TRAVEL TRANSFORMERS
22. *Part Four*
FUTURE TRAVEL TRENDS 2040
 - : People-positive Travel
 - : Ephemeral Escapes
 - : Enhanced Eco-mobility
 - : Real-time Footprints
38. *Part Five*
CONCLUSION

Part one

An Unsustainable Industry

Travel as we know it hovers on the brink of extinction. The industry is faced, at this watershed moment, with two potential roads ahead: one where climate breakdown and tourism restrictions curb the pursuit of wanderlust, and one where regenerative breakthroughs change the future of travel – and the world – for the better.



Standing at this crucial crossroads, it is necessary to speculate about the best and worst-case scenarios. The threats have shifted from emerging to existential, with destinations disappearing and communities suffering from overtourism. As it stands, tourism holds the power to transform the lives of individuals and communities, but its current impact on people and places undermines this potential. As such, the imperative is to go beyond sustainability, realigning the industry's course and ensuring travel truly gives back.

'Regenerative transformation has long been demanded by the planet and now it's being demanded by people too'

Martin Raymond, co-founder, The Future Laboratory

Moving from crisis to transformation, however, will not only involve meaningful intervention, but also education and ethics. 'One of the problems with tourism at the moment is that it is the opposite of regenerative,' explains Darrell Wade, co-founder and chairman of Intrepid Travel. 'It's extractive – and this cannot continue for much longer.'

'We need to plan now for a resilient, regenerative tourism sector,' says Dr Susanne Etti, global environmental impact manager at Intrepid Travel. 'We must recognise that the future will be different from business-as-usual, and that the climate crisis is not a competitive advantage. We must align, collaborate and accelerate collective action and

innovation to decarbonise travel, as only then can our industry truly achieve its huge potential for sustainable development.'

With the next decade of travel resting on the decisions made today, the industry must pivot away from this problematic tipping point. 'Regenerative transformation has long been demanded by the planet,' says Martin Raymond, co-founder of The Future Laboratory. 'And now it's being demanded by people too.'

A focus on community, education and empowerment will soon be required to meet the demands of such travellers. 'Many consumers are already rethinking their consumption of travel along these lines,' echoes Elissa Garay, travel editor and sustainable tourism specialist.

By 2040, collective action could significantly reform the sector. A new cohort – the Travel Transformers – will define this future. Having known nothing other than climate anxiety, they will drive all-new, optimistic directions in the industry, seeking purpose when travelling. Future travellers will set a new agenda, and their influence will mean that the days of snapping selfies in front of overcrowded tourist attractions will be numbered.

Intrepid Travel, in partnership with foresight consultancy The Future Laboratory, has conducted research into this new world. In this report, we navigate the social, cultural and technological changes – and tomorrow's travel trends – which will propel the industry forward in a positive direction through to 2040 and beyond.

'We must align, collaborate and accelerate collective action and innovation to decarbonise travel, as only then can our industry truly achieve its huge potential for sustainable development'

Dr Susanne Etti, global environmental impact manager, Intrepid Travel

Part two

The Travel Tipping Point

The climate crisis, and its threats, are now obvious to many more people. ‘The direct, catastrophic impact of climate change has for too long been viewed as something that’s far off in the future,’ says Darrell Wade, co-founder, Intrepid Travel. ‘But it’s no longer something that’s going to happen – it’s something that is happening. It’s a short-to-medium existential risk that has arrived faster and harder than we ever expected, and is changing everything.’



‘Low-lying islands, including the Maldives, could become uninhabitable by 2050... a lot of destinations that we love because of their connections to the sea are at great risk, including Venice and Amsterdam’

Elissa Garay, travel editor and sustainable tourism specialist



Venice, photography by Intrepid Travel

A wealth of compelling climate evidence shows we are approaching a tipping point from which there is no return. Research from NASA reveals that glaciers are retreating, Arctic sea ice is declining rapidly and extreme weather events are increasing in frequency. According to ReliefWeb, there were 387 recorded natural disasters and hazards in 2022, including monsoon floods in Pakistan and South Asia, record-breaking heatwaves and wildfires in Europe, as well as drought-induced famine in Uganda. Data from the World Meteorological Organisation shows the number of cataclysmic disasters has increased by a factor of five over a 50-year period.

In 2023, extreme weather and summer wildfires across Greece, Italy, Canada and Hawai'i were yet another stark reminder that climate change is here. Looking ahead, warming temperatures will continue to adversely impact the winter and summer tourism industries. Colder destinations such as Lapland will struggle to maintain their snow-covered allure, while the island of Mallorca – ranked the most popular destination in the world by TripAdvisor in 2022 – is threatened by fast-rising sea levels, jeopardising its future.

The US Global Change Research Programme records that the global sea level has increased by approximately 20cm since 1880, of which 7.5cm has occurred since 1993. At the current rate of acceleration, it's estimated that the global mean sea level is likely to rise by a further 20-30cm by

2050. 'Within 10 years, many beaches are going to be under water,' says Wade. 'There's no doubt that certain destinations are going to go off the map and we're just not going to be travelling to them.'

Garay agrees, pointing to the many popular tourist destinations vulnerable to rising oceans. 'Low-lying islands, including the Maldives, could become uninhabitable by 2050,' she says. 'A lot of destinations that we love because of their connections to the sea are at great risk, including Venice and Amsterdam.'

It is estimated that more than 600 communities in Fiji will need to be relocated by 2040 because of rising sea levels, while Miami and New Orleans are among the US cities that are at serious risk from severe storms and flooding.

The travel industry plays a significant role in fuelling the climate crisis. It is responsible for 8% of CO2 emissions, with air aviation accounting for 2.5% of its total. Flying from New York to London generates 986kg CO2 per passenger – more than the average person produces annually in 56 countries including Paraguay and Burundi.

At this pivotal moment in climate history, lack of action from the travel industry will see catastrophic and fatal trends continue to develop. Here, we explore three ways in which the industry will be forced to adapt if we continue down the path we are currently taking.

Pdf by:
<https://www.pro-memoria.info>

Carbon Passports

A personal carbon emissions limit will become the new normal as policy and people's values drive an era of great change.

As demonstrated by a worldwide tourism boom, the frequency at which we can fly is once again seemingly unlimited. Conscience and budgets permitting, we feel free to hop on planes from one place to the next. But this will change. 'On our current trajectory, we can expect a pushback against the frequency with which individuals can travel, with carbon passports set to change the tourism landscape,' says Raymond.

Personal carbon allowances could help curb carbon emissions and lower travel's overall footprint. These allowances will manifest as passports that force people to ration their carbon in line with the global carbon budget, which is 750bn tonnes until 2050. By 2040, we can expect to see limitations imposed on the amount of travel that is permitted each year.

Experts suggest that individuals should currently limit their carbon emissions to 2.3 tonnes each year – the equivalent of taking a round-trip from Rio de Janeiro, Brazil, to Riyadh, Saudi Arabia. However, the average carbon footprint in the US is 16 tonnes per person per year, 15 tonnes in Australia and 11.7 tonnes in the UK. This is in stark contrast to where we may find ourselves in the future, with 2040's travellers forced to forgo the horizon-expanding experiences so readily embraced by today's tourists.

Chasing the Shade

Forget chasing the sun. Future travellers will instead be seeking shade as destinations which are popular today will be rendered inhospitable by rising temperatures.

With extreme heat on the rise, a shift away from traditional beach vacations towards cooler, safer destinations is gaining momentum. Health and safety considerations are influencing people's travel decisions, with concerns about flash floods, earthquakes and wildfires weighing on travellers' minds. For operators, including Intrepid Travel, climate change has moved from being a future risk to being of immediate concern.

Travel patterns will evolve. For example, the Nepal trekking seasons between March and April, and September to November, are likely to shorten to avoid the dangers of landslides. 'Tourists will need to be rerouted, tour schedules will be changed because of the weather and people will start to question whether they should travel to certain locations. If there is a heatwave, people will wonder how it will impact their travel plans,' says Etti.

We are now in an era of 'global boiling', when the established dynamics of global tourism will fluctuate. Traditional summer trips to the Mediterranean and forested areas of countries such as Australia and Canada will be reconsidered due to wildfires. This changing reality will necessitate new summer destinations, where the weather is cooler. Parts of Scandinavia and the Baltic, including Norway's Fjord Coast, Iceland's Akureyri, and Finland's Northern Ostrobothnia could soon emerge as appealing options for those looking to avoid the high summer heat. Belgium, Slovenia and Poland are also being touted as alternatives to holidays in southern Europe.

'Tourists will need to be rerouted, tour schedules will be changed because of the weather and people will start to question whether they should travel to certain locations. If there is a heatwave, people will wonder how it will impact their travel plans'

Dr Susanne Etti, global environmental impact manager, Intrepid Travel

Virtual Vacations

If there is a lack of action to tackle the climate crisis, by 2040 many of the world's favourite destinations will be forced to go virtual.

People turned to armchair travel during the Covid-19 pandemic. From Greece to Portugal and the Caribbean, tourism boards drummed up interest in destinations with 360-degree videos, while tour companies, airlines and hotels pivoted to virtual offerings. Intrepid Travel launched Urban Adventures at Home, an initiative that facilitated art, cooking and yoga experiences from around the world.

Without action on climate change, holiday destinations will become less tourist friendly and these types of virtual activities will enter the mainstream. Tuvalu, a small pacific nation in Oceania, has become the first country to create a digital version of itself, prompted by rising sea levels.

'There's going to be 30 or 40 semi-submerged major cities,' says Wade. 'In terms of the future of tourism, we are going to have less choice than we have today.'

Major cities like Seoul are also exploring digital twins, creating virtual parallels to the physical world. Using a combination of virtual reality and augmented reality, virtual vacations will do their best to bring global destinations to life in a simulated environment. By 2040, people may no longer need to travel to Iceland to see the Northern Lights or to South Africa to see the big five. But immersive technologies will never be able to replicate the real-world experience fully, and will have a serious impact on the positive economic impact of global tourism.

The metaverse will be the only route to engage with places that have been rendered inhospitable or destroyed because of climate change, where people will be able to interact with former iterations of these destinations.

16 tonnes

The average carbon footprint in the US, per person per year

Source: The Nature Conservancy



Photography by Bradley Hook

Destinations Under Threat

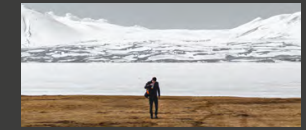
Overtourism

- : Machu Picchu has long been battling excessive tourism, with the UNESCO World Heritage Site's 4,500 daily visitors causing environmental degradation, such as landslides. But such impacts are now being experienced elsewhere too: in France, Étretat has been hit hard by an influx of visitors, with foot traffic causing increased landslides, while Italy's Cinque Terre is experiencing similar issues.
- : Overtourism in Barcelona is creating a cost-of-living crisis for locals, with the more-than 32m tourists a year causing rental prices to jump by 36% between 2018 and 2022. Catalans made their disdain known, with graffiti reading 'Tourists go home!' being one example of the tension.
- : Bali is dealing with an escalation in tourist numbers. The country aims to have 4.5m international tourists in 2023, up from 2.3m in 2022. Waste management, traffic congestion and antisocial behaviour are among the issues this is creating.
- : The city of Venice, with a population of 258,000, receives 200m visitors every year, with up to 120,000 on the busiest days. This is resulting in negative impacts including pressure on infrastructure, pollution and noise.

- : Boracay, in the central Philippines, is struggling to beat overtourism. The number of tourists shot up from 260,000 visitors in 2000 to 1.7m in 2022, despite the island being closed to tourists for six months in 2018 and various regulations being put in place. The result? Pollution and coral reef erosion.

Rising Seas Risk Areas

- : Jakarta, which has 13 rivers running through it, is one of the fastest-sinking cities in the world. North Jakarta is plunging at a rate of 25cm each year – double the global average for coastal megacities – and modelling shows that it will be 95% submerged by 2050.
- : With more than 80% of its 1,190 coral islands standing less than one metre above sea level, the Maldives has the lowest terrain of any country in the world, making it particularly vulnerable to sea level rise, NASA warns. Such low-lying islands could become uninhabitable by 2050.
- : Bangkok is sinking at a rate of 4mm every year, and now the sirens are really sounding. A coastal digital elevation model shows that parts of the city, which is just 1.5 metres above sea level, will be below the average annual flood heights by 2050.
- : The Bahamas is on the frontlines of climate change. Hurricane Dorian, in 2019, was



Photography by Pexels

- the worst natural disaster recorded in the country's history, causing an estimated £2.7bn in damages. Data from the Pacific Disaster Centre estimates that 6% of the Bahamian population will be exposed to rising sea levels by 2050. If change doesn't happen, the Bahamas might be at risk of losing 80% of its landmass by 2100.

- : India's financial capital Mumbai is at risk, with sea levels rising 4.5mm annually between 2013 and 2022, which is three times the rate seen between 1901 and 1971. Predictions suggest that 70% of South Mumbai could be under water by 2050.

Climate Change

- : The Dead Sea is shrinking – and dying. Water levels at the saltiest sea on earth have been on the decline since 1960, with water said to currently be receding at a rate of a metre annually. Experts predict it will disappear by 2050, the result of water being removed for irrigation, reduced rainfall and extreme heat.
- : The Great Barrier Reef is disappearing. Half of the Great Barrier Reef's corals have been wiped out since 1995, and the remaining are at risk if climate change continues. Increases in ocean temperatures are causing severe mass coral bleaching events, when algae which is vital for the coral to

- thrive is expelled from their tissues causing the coral to turn completely white. Four have been recorded in the last seven years.

- : Glacier National Park in Montana will likely be void of any glaciers by 2030. The number of glaciers in this US wilderness area has rapidly decreased since 1910 – from 150 to just 25. Wildfires and a decline in wildlife are expected to follow.

- : It is estimated that by 2100, climate change alone could cause the loss of over half of African bird and mammal species, as well as trigger a 20–30% decline in lake productivity (the plant and animal life produced by a lake), and a significant loss of plant species. Serengeti National Park in Tanzania is one destination that's grappling with extreme swings in weather. While the UNESCO World Heritage Site is facing below-average rainfall and seeing more droughts, it's also experiencing excessive flooding during its wetter months.

- : In Australia, the risk of intense fire weather has increased by 30% since 1900 as a result of climate change. As periods of droughts become more acute, southern and eastern parts of the country are increasingly vulnerable to forest fires. Up to 60% of the Blue Mountains National Park was burnt in 2019, during the worst bushfires in the country's history.

Part three

Raising a Generation of Travel Transformers

The consumer mindsets, values and behaviours of Generation Alpha have the potential to drive transformation within the travel industry, redefining the travel landscape for good.



This cohort, who are growing up with unprecedented access to information, are acutely aware of the very real impact of climate change. A 2021 global survey of 10,000 young people aged 16 to 25 found that 59% were 'extremely worried' about changes to the environment.

A genuine concern for the state of the planet and its people manifests as holding the travel industry accountable. These are Travel Transformers, who not only want to mitigate any further harm but plan to drive positive change through travel. They won't let the travel industry get away with greenwashing, and they want tangible results.

By 2040, it will be unusual to see members of Generation Alpha without a carbon footprint tracker on their smartphones. Every Uber ride, plane journey and trip to the supermarket will be logged in their devices, noting their carbon footprint in real time.

This conscientious cohort will be keeping tabs on the travel industry, including on tour operators and hotels. They will want to know how companies are supporting social and environmental initiatives before spending their money with them.

As well as looking for evidence of environmental protection, travellers will probe into how companies are supporting all genders and being inclusive.

Female empowerment is important to Generation Alpha. These mini Millennials, like generations before them, will campaign tirelessly for women. In 2040, this segment will not be afraid to be the loudest in challenging the travel industry to demonstrate its support for women.

Tourism leakage is another aspect about which Generation Alpha is savvy. They care about the social impact of travel, including ensuring that local people benefit financially. Generation Alpha understands that past travel has been highly extractive, with international brands benefiting to the detriment of local communities: they won't let this happen on their watch.

Travel Transformers have expressed their desire for a responsible landscape which spreads optimism for travel in 2040 and beyond. This generation, who are predicted to be the largest in history, will have massive staying power and influence. It will leave the travel industry no choice but to respond to their expectations and act accordingly.

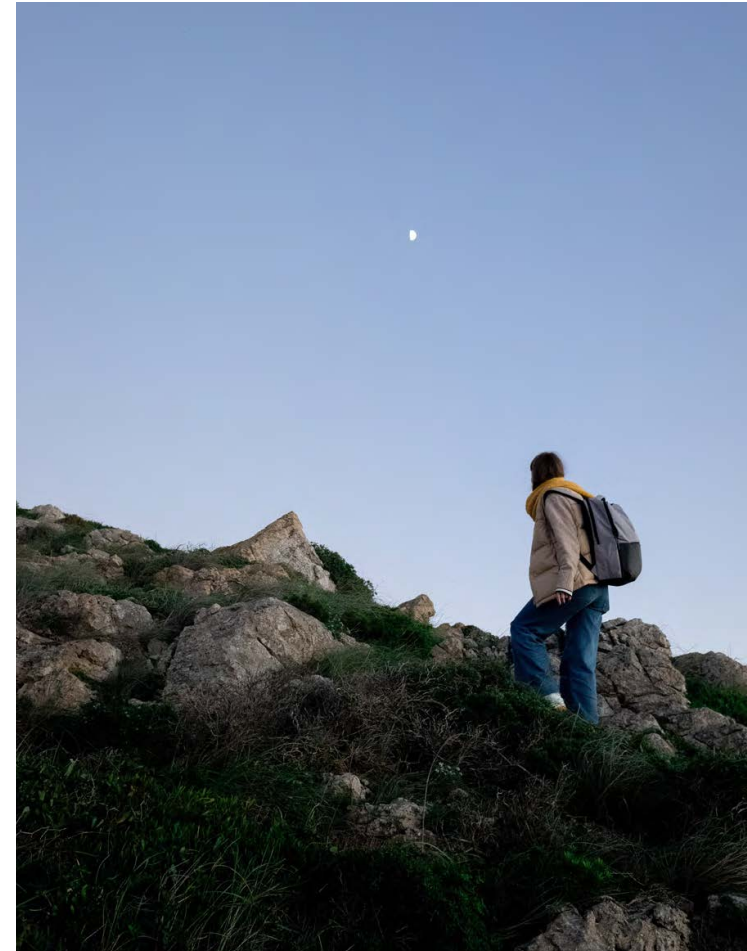
‘This conscientious cohort will be keeping tabs on the travel industry, including on tour operators and hotels. They will want to know how companies are supporting social and environmental initiatives before spending their money with them’

Alex Hawkins, strategic foresight editor, The Future Laboratory

Part four

Future Travel Trends 2040

The negative scenarios previously outlined are avoidable if decisive action is taken. A brighter, more equitable future for travel is within reach if travel brands, operators and organisations proactively pave the way for regenerative tourism.



Travel has the ability to positively impact destinations for decades to come. But success hinges on the industry's collective decision-making and agility, pivoting and leaning into regeneration, education and empowerment.

Despite being competitively positioned, travel companies are waking up to the benefit of working as partners to have a common methodology. 'We've got to have open source, collaborative, unified systems,' says Wade. 'Otherwise we're going to fail. What the world needs now is action – nothing less.' If the industry embraces this and shifts to nature- and community-based solutions that adopt a stewards-of-the-Earth stance, an alternative set of travel trends will chart a very different path between now and 2040.

Here, we explore these trends.

People-positive Travel

By 2040, the rise of regenerative tourism will see people become more conscientious travellers, who not only seek hospitality that creates positive environmental and social impact, but also connects with human qualities.

Regenerative tourism, which considers the impact of travel holistically, is the successor to sustainable and responsible models. With this approach at the forefront of Travel Transformers' minds, positive social and cultural impact will drive a new era of travel and hospitality where people, place and planet are all priorities.

This will shift the industry from being product led to being socially led. 'Travel used to be all about the features, like the fancy hotel or the exotic destination, but increasingly it is about people,' says Wade. 'That could be family, a bunch of strangers that you get to know really well or the people in the destination itself. The future of travel must revolve around social connection.'

In other words, people-positive hospitality will encompass a broader philosophy that accelerates regenerative tourism's social impact, while emphasising the importance of inclusivity and diversity. Increasingly, ethical standards for social and environmental performance, such as the growth of the B Corp movement, are transforming travel and hospitality brands.

Guiding a new generation of community-centric conscious travellers, Justine Abigail Yu and Ariel Goldberg of Wanderful are developing an online library with information about a range of issues, tips and human-interest stories, including an interview with Nour Brahimi, Algeria's first female travel vlogger. Toolkits are also available, including one

for solo female travellers, while the Anti-Oppression Toolkit for travel and culture creators contains resources around issues including how to write about cultures outside of your own and showing respect when taking photographs.

'Travel used to be all about the features, like the fancy hotel or the exotic destination, but increasingly it is about people'

Darrell Wade, co-founder and chairman of Intrepid Travel

As part of its strategy to become a more inclusive company, Intrepid Travel launched its first Ethical Marketing Policy in 2021. Working with a group of consultants, it has developed a set of measurable commitments, and reports on them each year.

'People don't want to helicopter into a destination and tick it off their bucket list,' says Wade. 'They want to go somewhere to connect with that destination, meeting real people, having real conversations and starting to understand what a destination is about so they understand a little bit about the history.'

Intrepid Travel is leading this movement. Its efforts to recruit more female leaders in destinations including Morocco and India have created lasting social change. The company has doubled the number of female leaders leading its tours in recent years. As a result, younger women now see this as a viable career. In addition, The Intrepid Foundation – a not-for-profit entity – is paving the way for a more positive future by investing in organisations that have gender equality at their core, raising in excess of £6m for more than 135 partners since 2002.

2018

Intrepid Travel launched its Women's Expeditions – all-women groups led by local female leaders – which quickly became its most successful product range.



Turkey, photography by Intrepid Travel

While the future environmental footprint of travel could shrink, the personal and collective impact will grow. 'We should consider regeneration like a verb,' says Dr Etti. 'This means to think about how we're not only leaving smaller footprints but how we can leave a place in a bigger and better condition.'

To prevent tourism leakage, for instance, future regulations could be implemented requiring travel businesses to ensure that the majority of money spent by tourists in a destination stays within the local community. This will mean that the benefits of tourism will be more evenly distributed. Ultimately, such regulation will pave the way for a more equitable and mutually beneficial relationship between travellers and the people and places they visit, elevating the quality of life for local people.

Intrepid Travel introduced 100 new Indigenous experiences to its trips in 2023, inviting travellers to engage meaningfully and explore new skills, such as learning to speak traditional languages.

Elsewhere, Shinta Mani Hotels exemplifies community regeneration. The hotels in Cambodia and Nepal have been sustainably designed by architect and co-owner Bill Bensley, while its foundation supports marginalised people through healthcare, education and vocational training. Kisawa Sanctuary in Mozambique also showcases how tourism can have a positive impact on local people and places. The hotel employs a 90% African workforce, while its Bazaruto Centre for Scientific Studies is a first-of-its-kind ocean conservation research facility on the continent.

In the coming years, the travel industry will be part of the shift towards more responsible and meaningful travel experiences. Embracing family-style services and anti-corporate concepts, travellers and businesses alike will take inspiring steps towards a better future. Those who foster a deeper human connection through hospitality will thrive, and will bring about positive change.

WOMEN-FIRST FUTURES

Overall, travel is set to be more inclusive, empowering and diverse. The demand for women-only and solo female travel will continue to increase, providing new opportunities for women around the world. Travel will become a major employer of women, with more stepping into roles from tour guide to CEO.

In 2018, Intrepid Travel launched its Women's Expeditions – all-women groups led by local female guides – which quickly became its most successful product range. In the future, the growth of these tours will continue to empower women on the ground, leading to more jobs and more women-owned businesses. This will create a positive ripple effect.

'The demand among female travellers for women-only travel is showing no signs of slowing down. This translates to more opportunities for women in destinations. For many, it can mean financial independence and a brighter future for themselves and future generations. It can create lasting change for local communities,' says Dr Etti.

Looking ahead, more entrepreneurs will seize the opportunity to establish travel agencies, accommodations and services tailored to the needs and preferences of female travellers. We will see increasing gender representation in travel and hospitality leadership too, generating inclusivity across the travel industry.



Ephemeral Escapes, AI imagery

Ephemeral Escapes

By 2040, the rise of transient travel experiences will enable people to access trips that leave no trace.

While travel is naturally transient, 2040 will usher in fresh nomadic hospitality concepts and fleeting, flexible accommodations. These now-you-see-it, now-you-don't options will appeal to Travel Transformers. 'A new era of transformative travel experiences will lead to hotels taking the concept of leaving no trace quite literally,' says Raymond.

Leading this movement is Thierry Teyssier's 700'000 Heures, a pioneering hotel concept designed for conscious nomads. Reimagining the traditional hotel, this initiative partners with local craftspeople to turn small existing buildings into temporary accommodation in different countries, including Japan, Italy and Cambodia. The six-month presence of 700'000 Heures leaves behind memories and community benefits. In collaboration with the Global Heritage Fund and local people, 700'000 Heures is refurbishing historic granaries in the village of Tizkroudine, Morocco, which will open up for travellers.

Diagonal Dwelling is another example of a future-facing experiential concept designed to leave a minimal footprint. These temporary, off-grid luxury cabins can be assembled in two weeks on any landscape and fitted to a client's requirements.

With a similar leave-no-trace philosophy, Intrepid Travel has invested in CABN, which offers off-grid minimalist escapes in Australia. Each cabin is built from predominantly local resources and sustainable materials, requiring minimal infrastructure. Meanwhile, hospitality visionary Liz Lambert recently announced the world's first 3D-printed hotel and hospitality experience in Marfa, Texas, created in partnership with ICON.

As we move through the next two decades, developments in manufacturing will provide more opportunities. In the food sector, Unilever is trialling a 'nano factory' model which operates in a 12-metre shipping container and is able to respond more quickly to local market changes. By utilising portable mini production lines in a similar way, travel brands could leverage dynamic manufacturing globally, producing on-site anywhere and enhancing the flexibility of travel.

'With open space scarce in cities, locations with limited infrastructure look set to benefit from mobility experimentation, connecting us to new places and overcoming geographical barriers'

Devin Liddell, futurist, Teague, future mobility expert

Future mobility concepts will enable ephemeral escapes to flourish far beyond built-up communities. 'The complexities of moving people around are dependent on myriad factors, with infrastructure and geography key among them,' says Devin Liddell, futurist at Teague and future mobility expert. 'With open space scarce in cities, locations with limited infrastructure look set to benefit from mobility experimentation, connecting us to new places and overcoming geographical barriers.'

Almost one-quarter of travellers say that sustainable travel options are too expensive, according to Trip.com's 2022 Group Sustainable Travel Consumer Report, but greater flexibility and connectivity could democratise such experiences, making them more accessible to a broader audience by 2040.

2040: TRAVEL DIARY

This has been an eye-opening first day on our holiday in Rwanda. When we checked our carbon calculator this morning, we realised that our previous day's activities getting to the guesthouse had left a larger footprint than we hoped for. We knew our flight from London to Kigali pumped out 697kg of CO₂, but we didn't expect our bus ride up to Lake Kivu to be such a big offender.

Fortunately, where we're staying is off-grid and runs on solar power, covering its own energy demands. This experience feels different from the vacations we used to take, for other reasons too. We're far more mindful these days. Ironically, while we are here, we are probably leading a more responsible life than we do at home. We've also chosen to stay here for longer, as

we used a lot of our annual carbon allowance on the journey to the location, rather than taking a number of shorter holidays.

After breakfast, we were introduced to our knowledgeable Rwandan guide, Keza, who took us to a coffee plantation. We soon learnt that she was the first woman in her village to become a guide, 20 years ago. Now, tourism has become a major employer for women here. It's good to know that most of what we spend supports local people, which means Keza and her family will benefit directly from our tour. She explained she's able to support her daughter Butera's higher education at Mount Kigali University, where she is studying hospitality and tourism management.



Ephemeral Escapes, AI imagery



Enhanced Eco-mobility, AI imagery

2040: TOP 5 REGENERATIVE DESTINATIONS

- : Albania will be a key regenerative travel destination by 2040. The Balkan country is one of Europe's upcoming choices for ecotourists, with the Accursed Mountains being touted as a destination that will be unrivalled for agritourism and ecotourism. Campaigns such as Visit Gjirokastra are designed to attract travellers and improve the livelihoods of rural communities.
- : Working to regenerative solutions is top of mind in New Zealand, considered a global leader in this salient travel movement. The New Zealand Tourism Sustainability Commitment aims to see every New Zealand tourism business committed to sustainability by 2025. The Queenstown Lakes District Council has set a commitment for the area to be a regenerative and carbon-zero visitor economy by 2030, outlined in its Travel to a Thriving Future strategy. By 2040, these actions will be embedded in the country.
- : Regenerative travel is the future for Canadian tourism. The country is developing a nationwide strategy that centres around destination stewardship and cleaning up land that's been damaged by industries. It will be a leading example of Indigenous tourism, managed by Indigenous people.
- : Costa Rica will become a world-leading regenerative travel destination. The Central American country is working towards the UN's 2030 Agenda for Sustainable Development at a national, regional and local level, while its Certification for Sustainable Tourism programme supports a range of responsible practices including promoting the country's traditions and customs, and implementing actions for nature conservation.
- : Rwanda will be an important part of Africa's ecotourism industry by 2040. The country already has a number of initiatives that positively impact its people and place, such as trekking experiences that provide employment for guides and trackers. Conserving and preserving local communities will be at the core of the country's tourism strategy.

Enhanced Eco-mobility

Eco-innovation within the transport sector is afoot. The next two decades will see the resurgence of the sleeper train, zero-emission cruise ships and developments in alternative air fuel.

Future transportation systems will be increasingly autonomous, connected, electric and shared, reshaping travel hubs and revolutionising the customer experience. The integration of multiple transport modes, AI-driven planning, sustainable infrastructure and an eco-conscious mindset are on track to create a more seamless, sustainable journey for passengers worldwide.

AI will address long-standing challenges at airports faced by passengers, airlines and other services. Parking garages will evolve into hubs for autonomous vehicle fleets, electric aircraft and short-haul airships. Subways and light rail lines will integrate transport security screening cars, connecting with shuttles to take passengers directly to the air side of airports.

Going one step further, this could even mark the beginning of an era where words like 'airline' are left behind entirely. 'Brands that were once airlines or train companies will rebrand themselves simply as transport managers,' says Raymond. 'They will be devoted to ensuring passengers are provided with the most sustainable route, regardless of specific modalities.' This shift in approach will lead to an enhanced customer experience.

For future passengers, the booking process will prioritise sustainable options, such as airlines or trains powered by renewable energy sources. They may even use AI-driven planning tools and platforms. At airports, touchpoints will be designed to enhance customer convenience and reduce environmental impact. Travel managers will actively advise on ways to cut carbon footprints, with loyalty programmes rewarding passengers who opt for low-carbon transport option. Throughout the journey, AI-driven systems will provide real-time updates.

Liddell calls this future of transport 'collaborative'. 'Up until now transport has been fundamentally competitive in its posture and not collaborative,' he says. 'But collaborative intermodality is something we will see more of, where all of the stitching is done for the passenger.' AI will do much of this 'stitching' on behalf of travel operators, he suggests.

Due to arrive in 2026, Northern Explorer will be the world's first zero-emissions cruise ship, complete with fully electric propulsion and hydrogen fuel cells. The launch of the Norwegian vessel aims to precede the country's ban on cruise emissions in UNESCO-protected fjords. Setting a new precedent, over 50% of new cruise ships launched in 2022 and 2023 are LNG-powered.

Aviation innovation is ramping up with various initiatives to reduce carbon footprints, with major airlines experimenting with biofuels. Data from NASA suggests that using 50% aviation biofuel mixtures could cut air pollution from air traffic by 50-70%.

'Brands that were once airlines or train companies will rebrand themselves simply as transport managers, they will be devoted to ensuring passengers are provided with the most sustainable route, regardless of specific modalities'

Martin Raymond, co-founder, The Future Laboratory

Sustainable aviation fuel will play a vital role in mitigating emissions while innovation continues towards all-new approaches. US airline JetBlue has made a commitment to buy fuel made from CO₂ for five years from 2027, while Air New Zealand is working towards the first zero-emissions commercial demonstrator flight in 2026 through its Mission Next Generation Aircraft accelerator programme.

Boeing estimates that 40,000 non-hydrogen commercial jets will still be in service by the late 2030s, with hydrogen-powered aircraft making a contribution to moderating emissions in 2050.

'It's important to note that the innovation cycle of an airframe takes around 10 years,' says Liddell. 'So even though 2050 feels like science-fiction territory, truly sustainable aviation is only one or two innovation cycles away.'

In the near term, reducing non-essential flights will be key to making travel itineraries more sustainable. Brands, including Intrepid Travel, are working to eliminate unnecessary flights, with the aim to have customers taking 4,000 fewer flights in 2024 compared to this year.

‘It’s important to note that the innovation cycle of an airframe takes around 10 years, so even though 2050 feels like science-fiction territory, truly sustainable aviation is only one or two innovation cycles away’

Devin Liddell, futurist, Teague and future mobility expert



Enhanced Eco-mobility, AI Imagery

On the ground, perceptions of train travel are shifting.

Luxury locomotion is experiencing a resurgence, with travellers opting for sumptuous sleeper trains and cross-country carriages that make the journey itself a purposeful element. The hyper-luxurious Orient Express La Dolce Vita, for example, is aimed at design-conscious travellers. Nightjet has launched a new sleeper route running from Germany to Austria, Italy, Hungary, Slovenia and Croatia. Swedish operator SJ's EuroNight service takes passengers between Hamburg, Copenhagen and Stockholm on brand-new trains with private compartments and six-bed couchettes, which run entirely on renewables.

Across the Atlantic, sleeper services are available in states including California, while Great Journeys New Zealand offers multiday itineraries which link scenic train routes, creating a more leisurely travel experience.

When stepping onboard a luxury sleep train in the future, travellers can expect to find sleek spaceship style pods with two-bed sleeping compartments,

en-suite bathrooms and spacious dining cars serving waste-free gourmet meals. Trains will also have high-tech interiors such as intelligent seating, entertainment systems that project sound along a narrow beam and cushions that mould to a person's body shape.

For countries including Australia and New Zealand there are logistical obstacles facing train-travel innovations. However, improved sustainable domestic mobility will be key in the future, as well as better integration with international travel options.

By 2040, travellers will have the option to choose between high-speed innovations and slower modes, depending on their preferences and time constraints.

Super-fast Maglev trains are operating in Shanghai and South Korea, running at up to 500km per hour, and Japan is planning to open an even faster route between Tokyo to Osaka. Looking even further forward, Virgin is developing the Hyperloop, a super high-speed levitating pod system which is reaching 172km per hour during tests. The company envisions a future where floating pods packed with passengers and cargo hurtle through vacuum tubes at 966km per hour.



Real-time Footprints, AI imagery

2040: TOP 5 SUSTAINABLE MOBILITY OPTIONS

- : Hydrogen-powered commercial aircraft represents the golden ticket for aviation. Airbus is working to develop the world's first hydrogen-powered commercial aircraft by 2035.
- : Airships are set to re-emerge as the go-to option for experience-hunting travellers. Airlander's aircraft currently use helium but the company says it is preparing to be a lead adopter of hydrogen fuel cells and electric motors.
- : Zero-emission cruise ships will provide a more sustainable travel experience at sea, with the first expected by 2026.
- : Autonomous vehicles – a £39bn market by 2040 – will redefine the act of getting from A to B as an experience, with cars becoming a space in which to work and play.
- : Train travel is set to undergo acceleration, literally, with Japan looking to launch its first commercial Maglev line, capable of record-breaking speeds.

Real-time Footprints

Tracking travel metrics in real time will create an era of live traceability and accountability within the travel industry.

2040's travellers will hold themselves accountable, leaning into technology to measure and optimise their behaviours in line with environmental values and targets. By 2028, the global travel technology market is predicted to reach £11.2bn, up from £7.3bn in 2022. This booming category will give Travel Transformers and other cohorts the means to log their daily emissions and track their travel metrics in real time to help them reduce their footprints.

Noteworthy strides have already been made in shaping this landscape. Ariel, a sustainability platform, is recognised for its accuracy in gauging carbon footprints and subsequently offsetting emissions for individuals and businesses. Other platforms such as Klima, Earth Hero and Joro calculate travel and everyday footprints travel, aiding people to achieve decarbonisation goals.

‘The last four years have seen more travel companies going for carbon neutrality, but neutralities don't lead to reduction in emissions. It's only when you set a near-term target that you have that clear pathway’

Dr Susanne Etti, global environmental impact manager, Intrepid Travel

Over the past 12 months, Intrepid Travel has been calculating trip emissions at a product level and the company now has carbon labels on 500 of its tours. The total emissions are calculated by identifying the different components contributing to the overall carbon footprint, including accommodation, transportation, food provided during the trip,

activities, the local operations' office emissions and waste. For example, its best-selling itinerary Morocco Uncovered emits 42.85kg of CO₂ per person per day. Looking at the sector as a whole, 53% of travel companies are planning to make energy investments between 2020 and 2025, including carbon offsetting.

Outside of travel, we're seeing a growing number of platforms and concepts bring a new level of traceability to certain activities. Dimpact, for example, allows viewers of BBC, Sky, ITV and Netflix to track the carbon footprint of the content they consume. One can imagine a similar future for travel, with a carbon label attached to each experience and seamlessly totted up – and this level of visibility will be transformative. As Wade states: 'Without true traceability and accountability, everything is greenwashing, because we can't know'

This kind of traceability is likely to be integrated into travel-adjacent tools too. Swedish fintech Doconomy has created the world's first credit card that monitors the carbon emissions of items purchased and encourages users to offset their footprints by supporting UN-certified green projects, such as wind farms in India. By 2040, travellers' cards could have CO₂ spending caps.

‘The last four years have seen more travel companies going for carbon neutrality, but neutralities don't lead to reduction in emissions,’ Dr Etti says. ‘It's only when you set a near-term target that you have that clear pathway. We've measured our carbon emission at Intrepid and have been carbon-neutral since 2010.’

In 2020, Intrepid Travel adopted science-based targets, which set out a path to reduce emissions in accordance with the Paris Climate Agreement. The World Economic Forum's Mission Possible Platform aims to achieve net-zero carbon emissions by mid-century from a group of traditionally 'hard-to-abate' sectors, including aviation.

‘Layering artificial intelligence into travel will see AI stitch together sustainable experiences, taking the burden off travellers. AI can objectively plan every single micro-segment of a journey – or any experience – and optimise it to specific needs’

Devin Liddell, futurist, Teague and future mobility expert

This broad theme of traceability and genuine accountability will drive travellers’ booking decisions as we move into the next decade and beyond. According to Carbon Trust, 67% of consumers support the idea of a recognisable carbon label that indicates a product’s commitment to measuring their carbon footprint.

As we reach 2040, AI will take the reins when it comes to environmental tracking. AI algorithms, imagined as anthropomorphised assistants, will log activities from travelling to eating and provide daily insights about carbon output. ‘One of the most significant advantages of AI-assisted carbon footprint tracking is that it can offer users a clear and complete insight into their carbon footprint, which is difficult to achieve using conventional methods,’ explains Fund The Planet.

Travellers will be able to set their own personal goals, with ‘TrackGPTs’ suggesting the most sustainable vendors, the most circular transport routes or an experience that’s the least economically extractive. ‘With the rise of cryptocurrency and blockchain-based forms of exchange, these assistants may even be able to call on a wealth of verified transactional data to communicate exactly where money spent is likely to go, and whether it is pumped back into a destination or not,’ says Raymond.

As Liddell states: ‘Layering artificial intelligence into travel will see AI stitch together sustainable experiences, taking the burden off travellers. AI can objectively plan every single micro-segment of a journey – or any experience – and optimise it to specific needs.’ With the success of AI dependent on the quality of its inputs, however, travel operators will still have a vital role to play in this future, ensuring the quality and integrity of the partners they promote.

The Internet of Things is forecast to continue to grow – from 15bn connected devices in 2023 to 29bn devices by 2030 – all monitored in real time. Connectivity will be integral to the future of sustainable travel: instead of tracking CO2 emissions as they go about their daily activities, people could embrace backcasting – setting a desired target and identifying the actions needed.

This functionality could be harnessed by travel organisations too. ‘Backcasting can accelerate the realisation of radical futures, ensuring that visions aren’t stymied by present-day limitations,’ says Raymond.

The think tank RethinkX has used this approach to illustrate what a global economy based on sustainable energy systems, food production and mobility could look like in 2035, highlighting that technology-driven changes in agriculture or mobility would ripple throughout the global economy, improving sustainability while fundamentally altering value chains.

67%

of consumers support the idea of a recognisable carbon label that indicates a product’s commitment to measuring their carbon footprint

Source: Carbon Trust

Part five

Conclusion

The dawn of a new era of travel beckons, one where a culture of extraction has no place. The resounding call to action – the ‘now-or-never’ rhetoric – must echo throughout the travel industry, guiding us away from a world marked by unsustainable values.



Australia, photography by Intrepid Travel

'Less talking, more action is key,' says Garay. 'The science and mindsets behind sustainability are tools. But if we're not using these tools and putting sustainability into action then it means and does nothing. Words on paper and conversations have actually no value if they're not being actualised.'

Driven by climate change, the sobering possibility of future travel restrictions looms, potentially stripping people of the freedom to explore the world at leisure. 'Climate change is not a future risk but a risk that has landed now,' says Wade. 'It is something we need to pay attention to, and we've got to be advocates for change.' Indeed, Intrepid Travel takes this risk seriously and acts accordingly. Its regenerative- and community-based actions, which place people, purpose and the environment first, are a guiding light for what doing good looks like.

'Less talking, more action is key, the science and mindsets behind sustainability are tools. But if we're not using these tools and putting sustainability into action then it means and does nothing. Words on paper and conversations have actually no value if they're not being actualised'

Elissa Garay, travel editor and sustainable tourism specialist

The trajectory of travel's impending transformation has already been set in motion. The Glasgow Declaration on Climate Action in Tourism, launched at the UN Climate Change Conference 2021 (COP26), has surpassed 500 signatures – marking a new commitment by the industry to work in

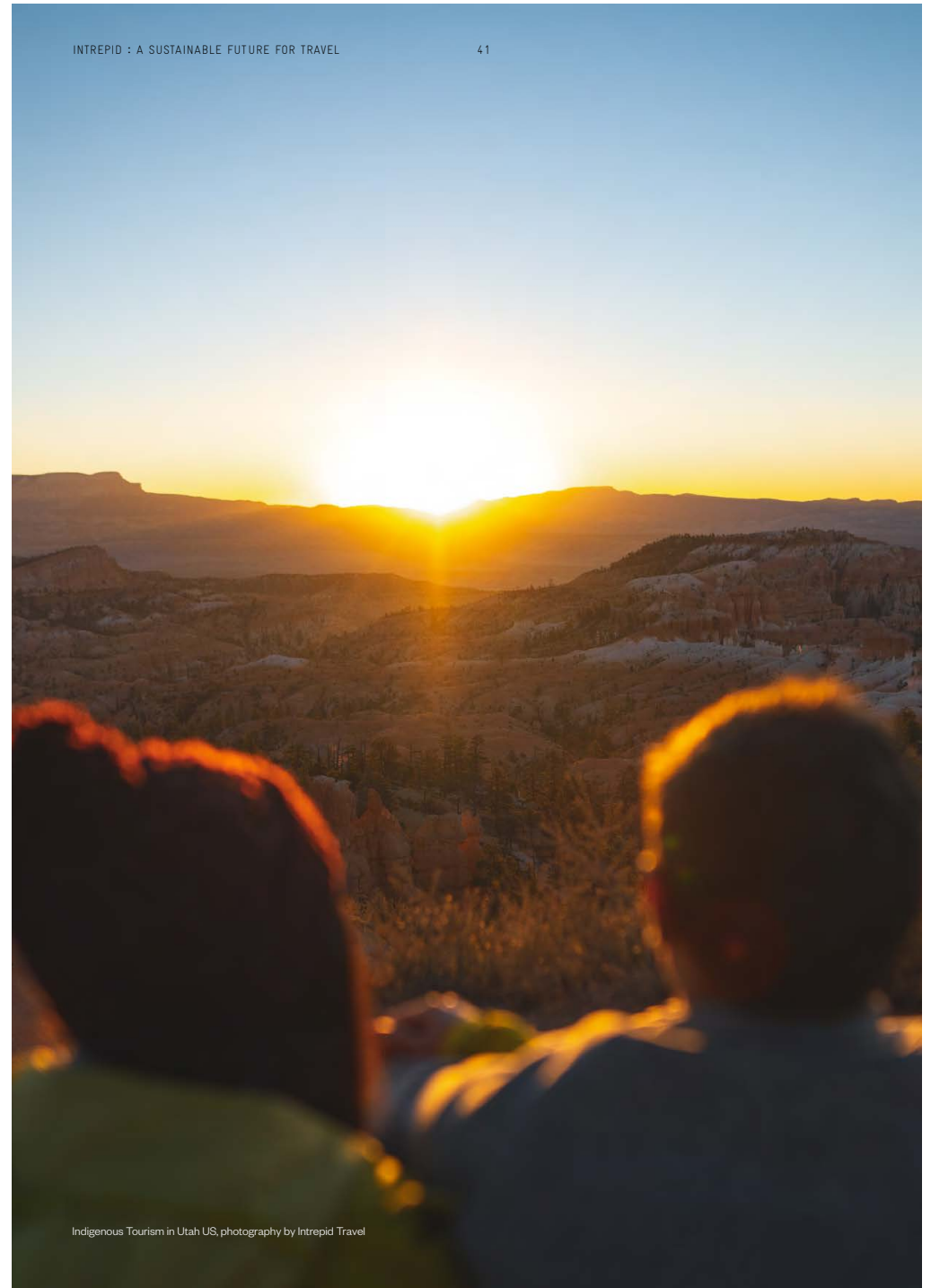
harmony with nature by halving emissions in the next decade and achieving net zero 'as soon as possible before 2050'.

But a culture of doers, not talkers, is needed to reach these ambitious goals. A continuous reflection on the 'why' among companies is needed to propel this action. This doesn't mean dwelling on the evolving consequences of the climate emergency, but tuning into the possibilities that can be created through taking inspired action. Travel Transformers will have no problem in reiterating these opportunities for growth and reform in this future.

Seeking to be a catalyst for coordinated change is not-for-profit Travalyt. The platform, founded by Prince Harry, The Duke of Sussex, applies a technology and data lens to sustainability in the travel industry. It works in conjunction with the Global Sustainable Travel Corporation Council and 10 major partners, including Google, Booking.com, Expedia Group and Skyscanner, to systemise sustainability.

Open-source sustainability information will help to speed up urgently needed action. Intrepid Travel has launched two open-source guides enabling businesses to learn from their expertise. 'In the future, open-source approaches will pervade the travel industry,' says Raymond. 'Competitors will come together and collaborate, sharing insights, skills and resources to accelerate a major shift in travel, with the many touchpoints of the travel value chain creating a network effect.'

In these ways, the future of travel is upon us. Impactful transformation can be achieved if the industry leans into community-led and environmentally aware tourism that rejects the old paradigm of extraction. It will take conscious reconfiguring – where regeneration becomes front and centre of travel experiences – and brands are showing how it is possible. The embrace of eco-innovation and technologies, along with new ways to experience travel, point to an industry on the cusp of massive, world-changing transformation.



Indigenous Tourism in Utah US, photography by Intrepid Travel

THE : FUTURE : LABORATORY

