



Welcome

Kadeco leads the development of the Keflavík Airport area on behalf of the Icelandic state, the airport operator Isavia, and two local municipalities - Reykjanesbær and Suðurnesjabær. We offer a one-stop service for developers and investors looking to establish a presence in one of Europe's fastest growing regions. As both landowners and planners, our mission is to fast-track that process: making it simple for our development partners to set up shop, while also respecting the strategic goals of our stakeholders.

The Keflavík Airport Area Masterplan offers a compelling vision for the future development of the Keflavík Airport area. Focusing on key opportunities for innovation, it provides a roadmap for advancing sustainable development in the years and decades to come. The masterplan represents a holistic approach to area development based on close cooperation between stakeholders and strong confidence in the partnership established throughout the masterplan process.

As managing director of Kadeco, I'm grateful to our stakeholders for entrusting us with this amazing project — and I look forward to working with you to make it a reality.

Pálmi Freyr Randversson
Managing director – Kadeco



The Keflavík Airport Area Masterplan is once-in-a-lifetime opportunity to transform the Keflavík Airport area into a national powerhouse of economic growth and innovation. The plan will have a long-lasting impact on the development of one of Iceland's most important national assets for decades to come and enjoys the strong support of the finance ministry, of the national aviation operator Isavia, and of the local communities in the airport area.

The development of the Keflavík airport area is a project of national importance for the government of Iceland, and for our people. With ongoing collaboration between these stakeholders, the area around Keflavík Airport will have extraordinary possibilities to develop in a sustainable way for future generations to benefit from.

Steinunn Sigvaldadóttir
Kadeco Board Chair





**The masterplan with
Airport area as a s
sustainable innovatio
Europe and N**



**will establish Keflavik
strategic centre for
n at the crossroads of
North America.**



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INTROD





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Introduction

The Keflavik Airport Area (KAA) Masterplan provides a long-term strategic vision by bringing together a strategic spatial framework combined with an economic programme for the area around Keflavik international airport. The plan represents the key entrance to Iceland, and the communities in its immediate vicinity, Reykjanesbær and Suðurnesjabær. The area is a mere 50 km from Iceland's capital, Reykjavik and is part of the Suðurnes region, a unique part of Iceland with a UNESCO Geopark status. Approximately 30 thousand people live in the Suðurnes region which is a part of the Greater Reykjavik Area, a metropolitan area with roughly 300 thousand inhabitants.

The masterplan is the result of hard work, spanning several years, and collaboration amongst four key stakeholders; the two municipalities, the airport operator Isavia and the Ministry of Finance and Economic affairs. These four partners form the board of Kadeco – Keflavik Airport Development Company – which was originally founded in 2006. Kadeco is a state-owned company that leads the work and is the one-stop shop for investors and developers that want to work in the area.



REGIONAL

.CONTEXT

Nature & Geology

The Keflavík Airport Area is part of Suðurnes region, the southwestern tip of Reykjanes Peninsula. This region is characterised by a unique environment of wide expanses, renewable energy sources and fishing villages framed by the ocean. The topography is generally low-lying with small basalt mountains and moss-covered lava fields and offers a variety of landscapes, including fissures, lava fields and geothermal activity.

Being one of Iceland's geographically youngest terrains, it is a hotbed of geothermal activity with craters, boiling hot springs and columns of steam indicating the region's volcanic activity in the past and present, including a recent small eruption in 2021. This feature awarded the Reykjanes Peninsula a status as a UNESCO Geopark network. This geothermal feature also powers the 75 MW Svartsengi Thermal Power Station and the 100 MW Reykjanes Thermal Power Plant, which produce electricity and provide hot water for district heating. The famous Blue Lagoon was created from a run-off from Svartsengi Power Station.



Reykjanes Global Geopark

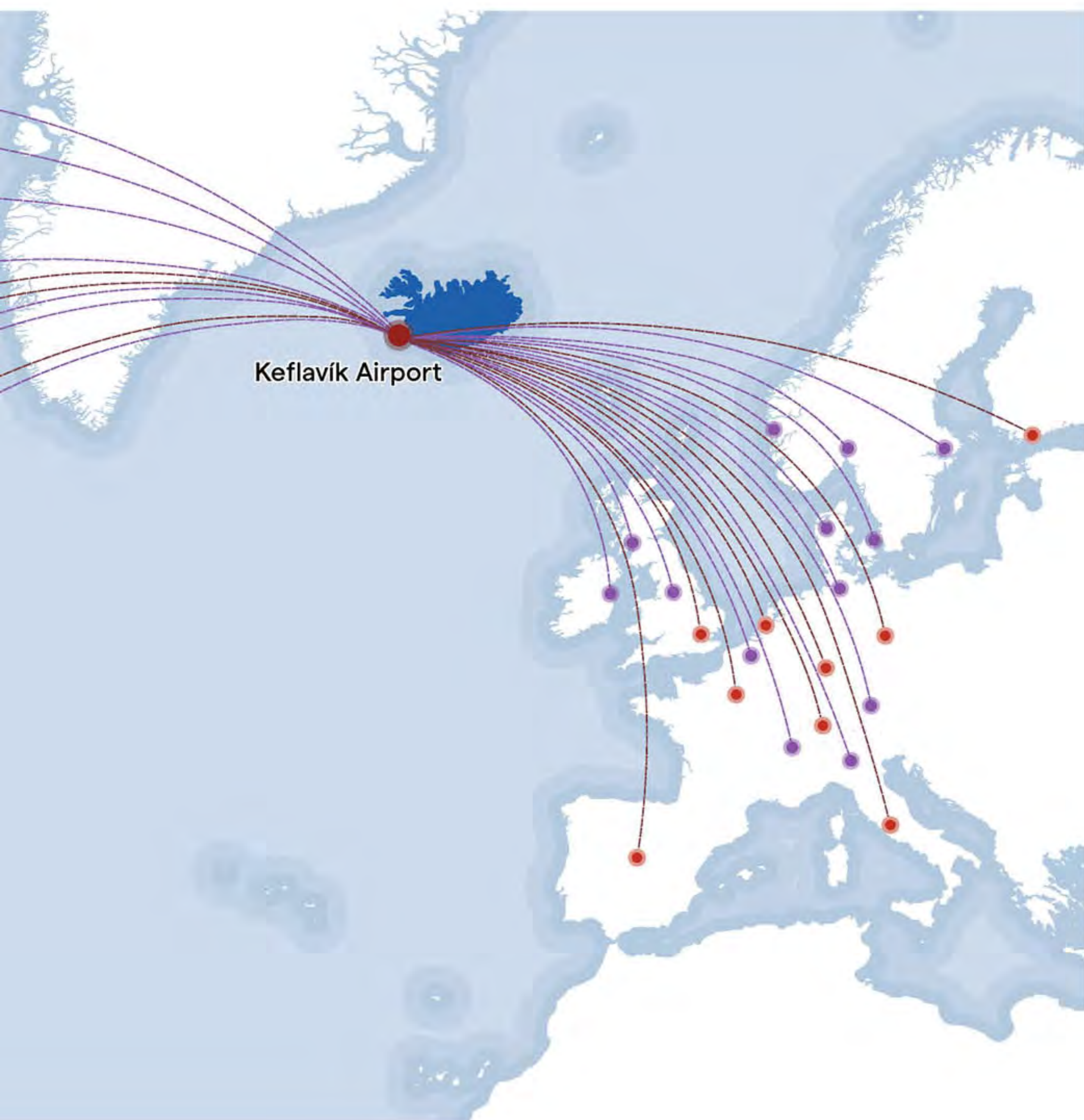
In 2015, Reykjanes peninsula joined the ranks of 177 geoparks in 46 countries which have been recognised as UNESCO Global Geopark by the United Nations Educational, Scientific and Cultural Organization. Geoparks are areas that include geological heritage of international significance and are managed by a comprehensive policy on protection, education and sustainable development. Reykjanes Geopark. Reykjanes Geopark is responsible for developing destinations, raising awareness of environmental issues, education on the area's geology, product development and marketing.



The Gateway to Iceland

In the western part of the Reykjanes Peninsula lies Keflavik International Airport, Iceland's main gateway to the world and by far the country's largest airport. It is a hub for Iceland's main carriers, servicing destinations in North America and Europe and the entrance to Iceland for most visitors.





The Suðurnes region

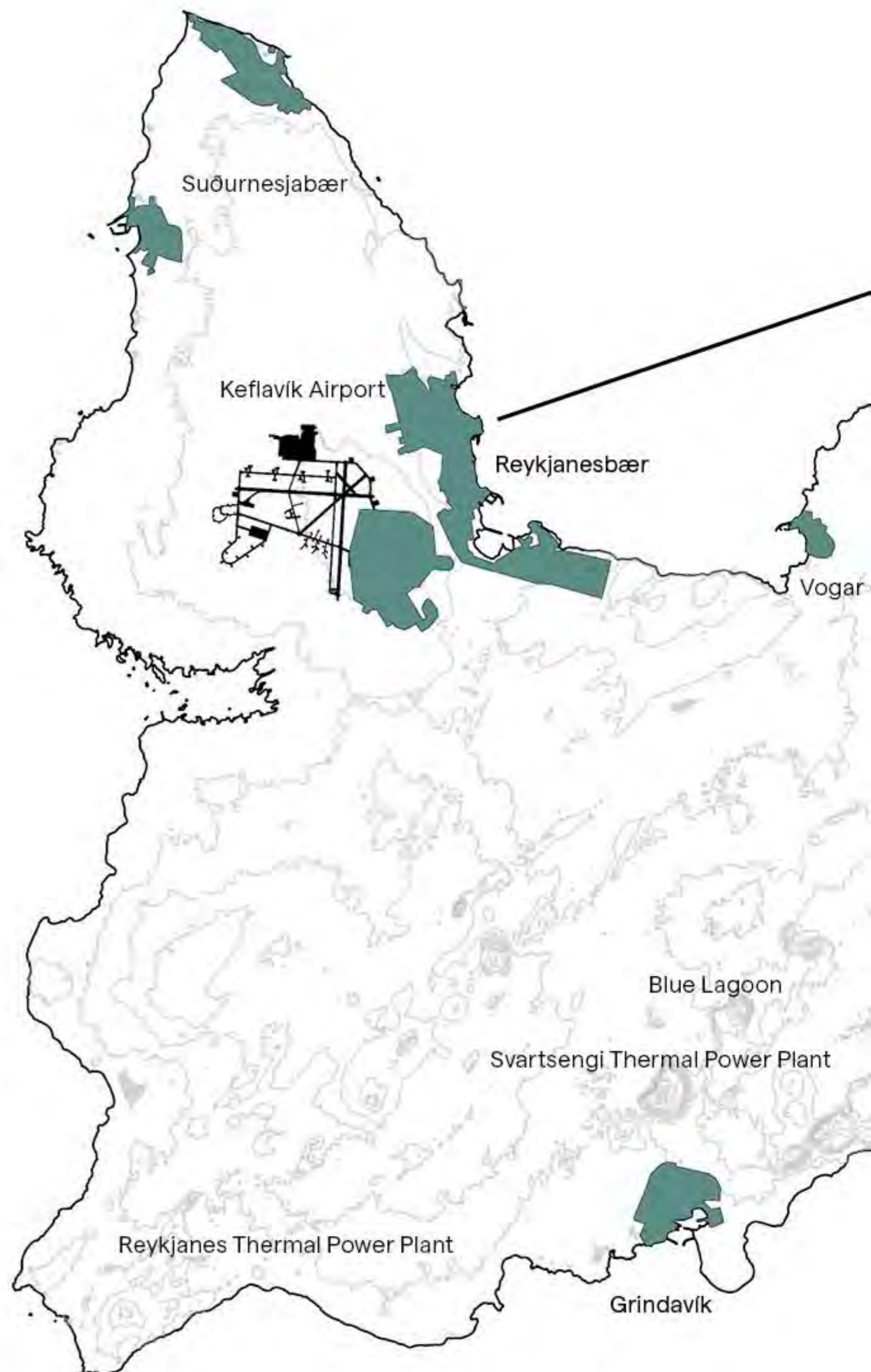
The communities on the Reykjanes Peninsula are collectively called Sudurnes. They are the westernmost part of what is commonly known as the Greater Capital Region, communities that can be reached within an hour's drive from the capital. The municipalities of the Sudurnes region have around 30 thousand inhabitants with the largest one being Reykjanesbær with over 20 thousand. Reykjavik capitol area has around 250 thousand inhabitants and the entire Greater Capital Region is a metropolitan area with over 300 thousand inhabitants.

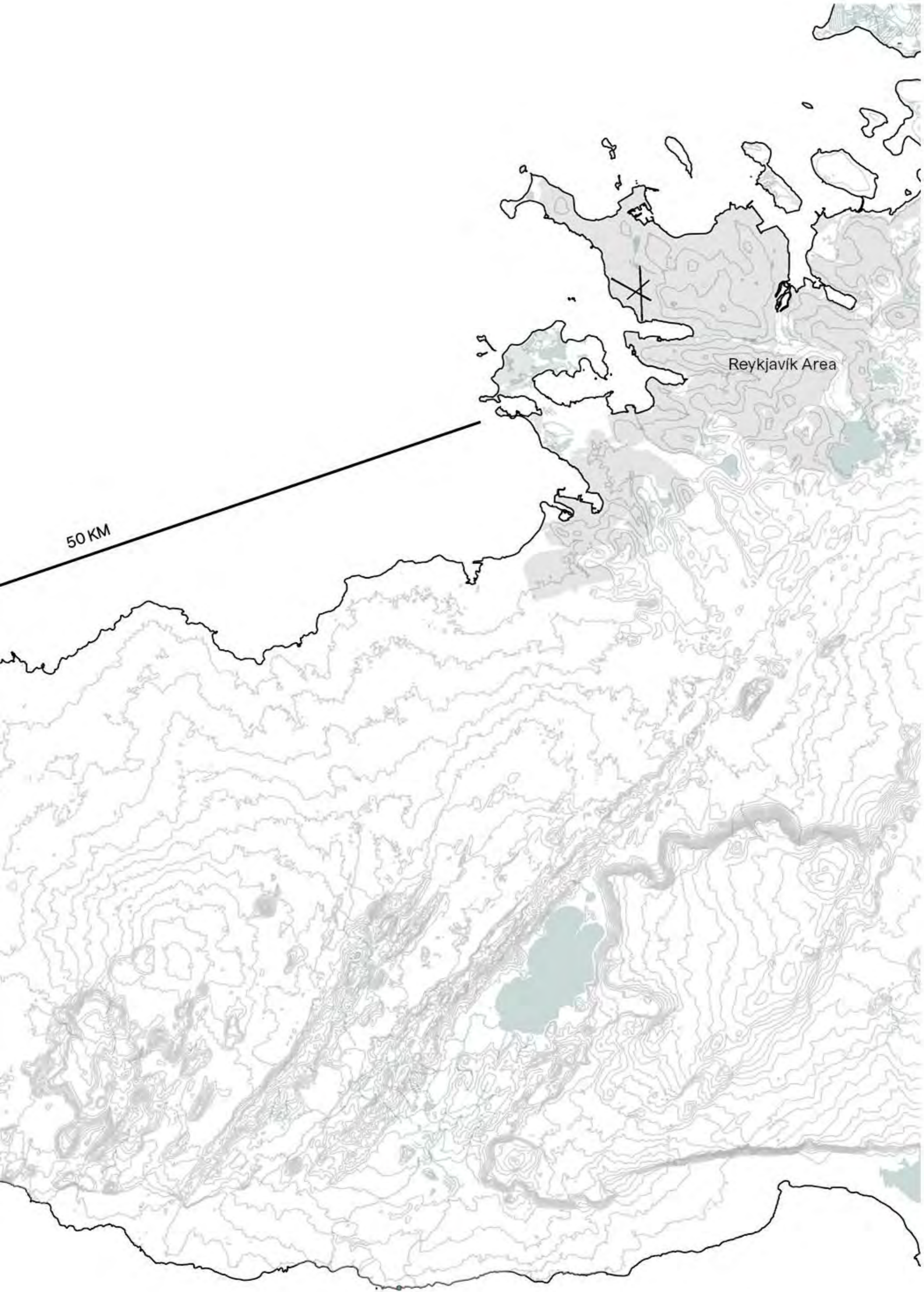
Reykjanesbær

Reykjanesbær is the largest town in Suðurnes and was established with the merger of three smaller ones: Keflavík; Njarðvík and Hafnir in 1994. With the departure of the US Navy in 2006, the residential part of the Keflavik Naval Base was incorporated and renamed Ásbrú. Reykjanesbær has more than 20 thousand inhabitants and five ports.

Suðurnesjabær

Suðurnesjabær was established in 2018 with the merger of the towns of Sandgerði and Garður. Located in the northern and western tip of the airport area, Sandgerði has roots as a traditional fishing village with a large port whereas Garður started as a cluster of farms which got denser with time.





Keflavík International Airport

Keflavik International Airport was originally built for military purposes during World War II and was a part of an important US Naval base (Naval Air Station Keflavík) for decades. Civilian uses however grew gradually and in 2006 the base was discontinued entirely and handed over to Icelandic authorities. It does however still play an important role for maintaining situational awareness in the North Atlantic and is a hub for air and maritime operations for NATO and the US. It is also the headquarters of the Icelandic Coast Guard. On the eastern perimeter of the airport is the residential part of the former naval base. The area was renamed Ásbrú and is now part of Reykjanesbær municipality.

The airport has currently two main runways with a third one planned. The current passenger terminal, named after Leifur Eiríksson, the of the first European to have set foot in America, was opened in 1987 and has gone through many expansion phases since then. The airport lies around 50 km from Reykjavík and is serviced by a dual carriageway (National highway 41) which brings passengers to the city in around 40 minutes. Transit options are privately run express buses and a public bus route.



The Keflavík Airport Area (KAA)

The airport occupies an area on the western tip of the Reykjanes Peninsula, in safe distance from any active volcanic systems. The peninsula is an expansive plain with uncultivated, tussocky ground, open to the elements and surrounded by the Atlantic Ocean. The airport sits on the municipal boundaries of two towns: Reykjanesbær and Suðurnesjabær both of which have strong economic and social connections with the airport and its former owner, the US Navy.

The communities have always been an important service provider where aviation-related operations and tourism now account for 24% of all jobs. However, the local labour market's dependence on the airport has had its drawbacks as demonstrated by the departure of the US Navy in 2006, the financial crisis in 2008, and most recently the global Covid pandemic.


Tourism now accounts for over 40% of the country's foreign exchange earnings. The growth of tourism has led to a significant growth of both the airport and nearby communities. As a result the region experienced a steady inflow of new inhabitants, both local and from abroad. Rising house prices in the capital have also led to people residing in the region. According to 2017 figures around 15% of inhabitants work in the Capital Area. Building the necessary infrastructure and housing has been a priority for the authorities.




VISI



ION



The KAA masterplan evokes the unique
as a dynamic place at the crossroads
Attracting advanced skills and knowledge
created in the fields of business, trade
development. Driven by Icelandic culture
for nature, the region will be a global
international challenge



Unique potential of the Suðurnes region
roads of Europe and North America.
Knowledge, new opportunities will be
transport, technology and sustainable
culture, open mindedness and respect
global beacon of innovation, tackling
challenges in a creative way.

MASTE



RPLAN

The KAA Masterplan

The masterplan provides a set of measures of a robust sustainable planning approach for a key area in Iceland with Keflavik Airport as centre of gravity and incubator. The masterplan outlines the enormous potential to utilize the international airport as a driver of economic development, to benefit the surrounding area, the Suðurnes region, and potentially the entire country.

To reverse the risk of dispersed urbanisation, the masterplan proposes to target development on focus areas - with high impact in terms of identity and value creation. Linked through landscape and mobility networks, these areas develop into unique and complementary entities to form a cohesive airport archipelago.

With Keflavik Airport in the centre and in synergy with the wider region, including the capital area, these focus areas are: Helguvik-Bergvik (eco-industrial park); Keflavik Terminal Forecourt (gateway to Iceland); Aðalgata (commerce and cargo) and Ásbrú (through the fence). Furthermore, other settlements and neighbourhoods in each of the nearby municipalities such as Garður, Sandgerði, Keflavík, Njarðvík and Hafnir are connected through active mobility and landscape networks.





The KAA Masterplan

The masterplan is driven by strong principles of shared prosperity and sustainable growth. The growth opportunities are significant for the Suðurnes region, driven in part by rising passenger numbers at the airport. The locational advantages are clear - a range of high-tech industries which can benefit from airport/port proximity, clean energy, vibrant living and a highly skilled workforce.

By integrating with Isavia's masterplan for Keflavik Airport and local municipal plans, there is strong potential for diversifying the regional economy. The masterplan has strategically identified sites that have great prospects for creating strong synergies, partnerships and circular economy concepts. The focus areas identified are well suited to respond to these new opportunities by providing fertile ground for sustainable growth whilst supporting and complementing each other.

The masterplan is a coherent spatial and economic development plan which fully integrates the clear economic opportunities with the spatial character and developmental capacity of the area; locating the right activities – economic, environmental, infrastructure and community – in the right places and in the most appropriate combinations or clusters. This provides the basis for a plan that responds effectively to demand parameters, maximises competitive advantages and makes the best of the area's unique spatial features.

Economic Programming

- *Economic profiling and baseline*
 - *Market and demand analysis*
 - *Strategy development*
- *Economic impact assessment*
 - *Real estate parameters*

Integrated outcome

A plan effectively situating economic drivers, sectors and real estate

Spatial Programming

- *Land use planning & modelling*
- *Physical development framework*
 - *Infrastructure planning*
 - *Transport Planning*
- *Environment, UN SDG, circular economy & Net Zero principles*

The KAA Masterplan

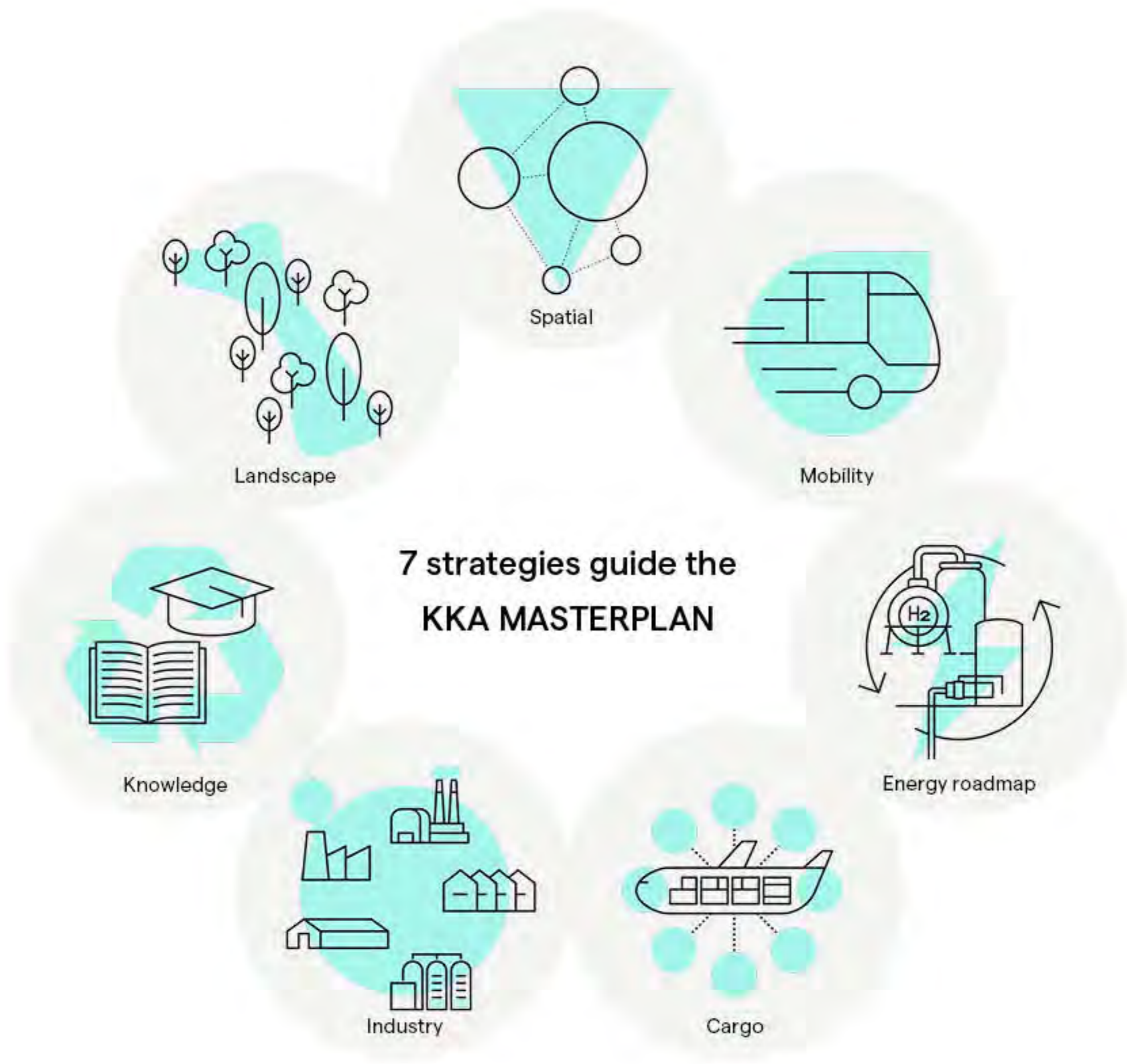
The components of the KAA masterplan are seven strategies and key focus areas. The strategies are: spatial strategy; landscape; industry; knowledge; mobility; cargo and an energy roadmap. The strategies underpin the masterplan for the focus areas: Helguvík-Bergvík (Eco-industrial park); Keflavik Terminal Forecourt (Gateway to Iceland); Aðalgata (Commerce & cargo) and Ásbrú (Through the fence).

The seven strategies capture the complex interaction between people, places, organisation, culture and technology. They provide the rationale, the prioritisation and articulation behind the outcomes. The strategies individually and collectively echo similar themes to:

- ▲ support a low carbon, green and resilient economy,
- ▲ create vibrant places to live and visit,
- ▲ diversify the economy, promote inclusive growth and high value jobs,
- ▲ develop investor ready and investor led value propositions,
- ▲ foster knowledge, innovation and creativity.

Together the strategies provide a holistic approach to address identified challenges, and to nurture and promote new opportunities.

The masterplan adheres to Iceland's commitment to the UN's Sustainable Development Goals (SDGs), carbon neutrality and innovation. All key stakeholders worked laboriously together with a team of experts in order to get results that best reflect local needs as well as international aspirations. Both the local and national business community were consulted as well as the residents of the area.



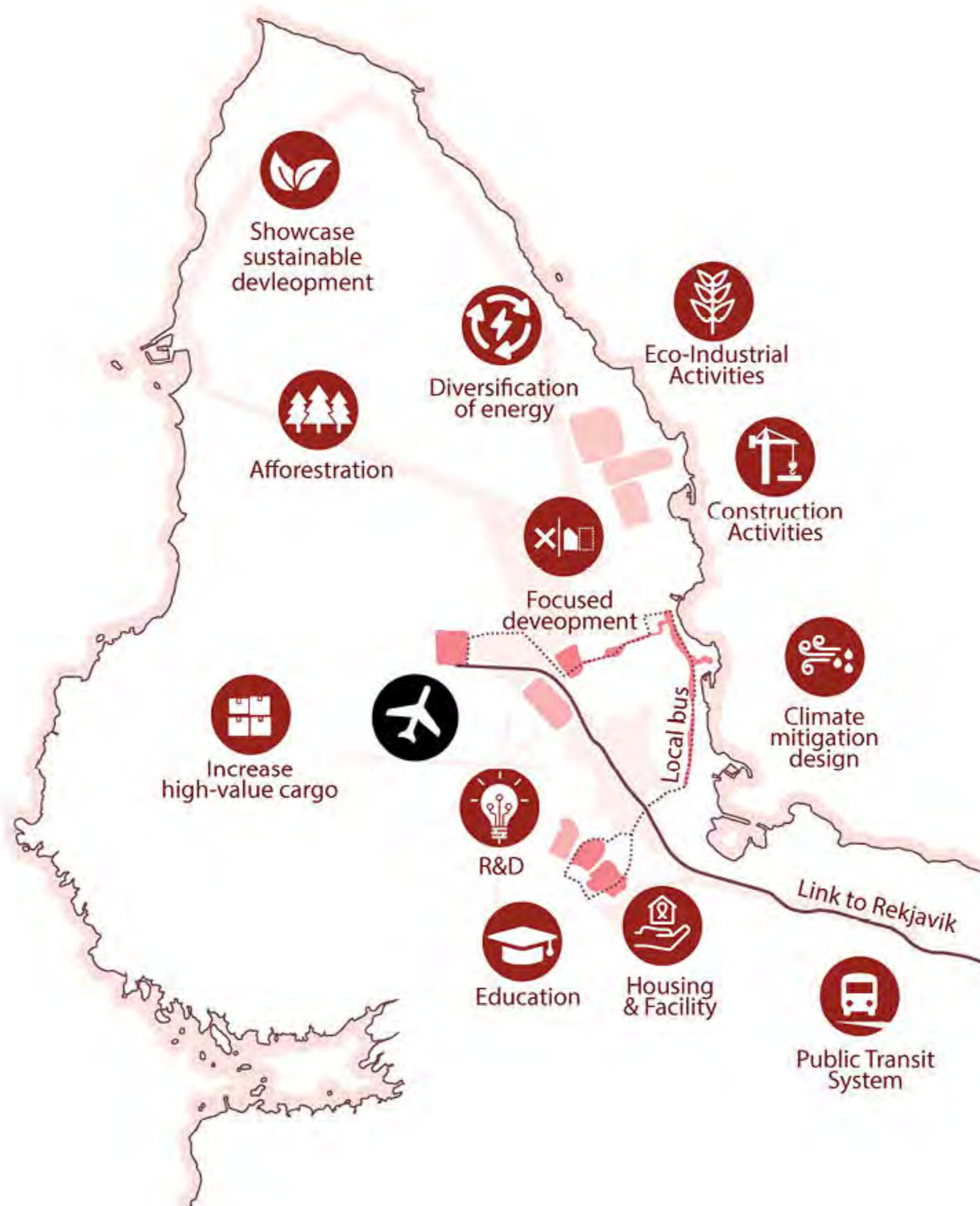
Key challenges:

- Economic reliance on the airport and homogeneity of the local labour market.
- Fluctuating employment based on airport activity.
- Exports concentrated on a few dominant sectors.
- House building not keeping pace with population growth.
- Fluctuating employment based on airport activity.
- Risk of sprawl with abundant land and diverse planning authorities.
- Private cars the dominating mode of transportation.
- Lack of a comprehensive vision for a reliable public transport system locally and regionally.
- Lack of power source diversification and energy grid investment grid to enhance the security of energy supply.



Key opportunities:

- Employment diversification with a focus on higher value sectors.
- Focused and well thought through planning for housing and social infrastructure for the region.
- Strengthen the link between reskilling and future industries.
- Enhance innovation and higher education opportunities within the aviation sector.
- Strengthen high-value sectors that benefit from the proximity of the airport.
- Boost high-value cargo activities that gain from juxtaposition of the airport and the port.
- Ameliorate public transport both within the region and between the airport and the capital area.
- Create a green gateway to Iceland through landscaping and careful programming in the airport area.
- Reinforce the region as a tourist destination within a UNESCO Geopark.
- Build up a network of paths and outdoor places for active mobility and gathering, enhanced by landscaping and afforestation.
- Promote the masterplan as a truly sustainable development that benefits the region and the country as whole.



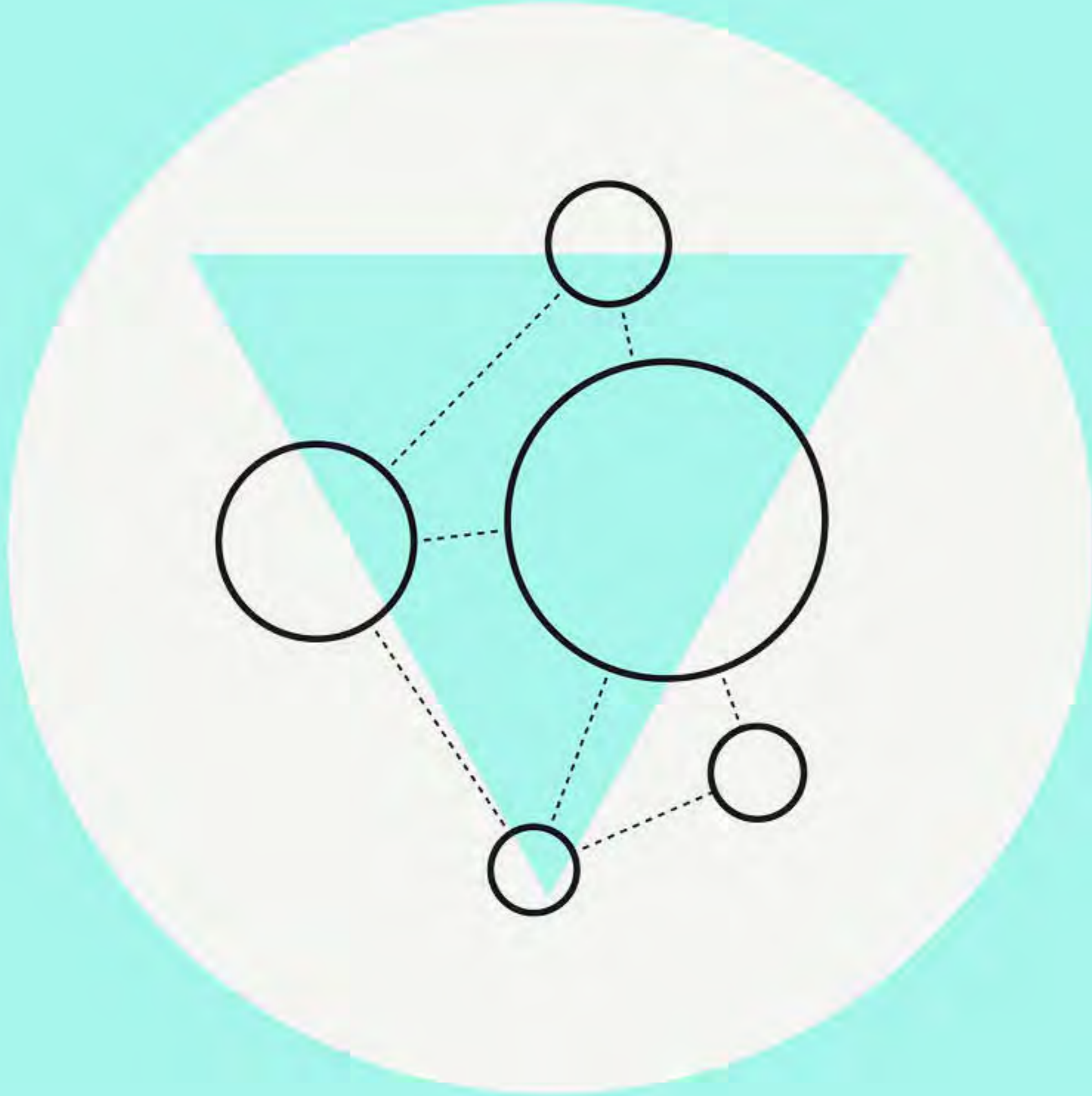
STRAT



TEGIES



SPATIAL STRATEGY



Spatial Strategy

The spatial strategy aims to add value to existing assets and develop new character areas within the low-density context. The spatial strategy positions KAA as 'the gateway to Iceland', a shared identity for local communities, an area for cross-sector collaboration and a unique arrival experience for visitors.

In planning terms, the airport area is characterised by a large amount of land reserved for (re)development in local plans, which distribute different programmes according to administrative boundaries rather than a cohesive spatial approach. This overcapacity of land in a low-density context creates a risk of dispersed and unsustainable sprawl-type of urbanisation.

Objectives

- Develop a cohesive airport archipelago through focus areas.
- Advance building culture in response to context.
- Establish a distinct spatial logic for airport related sectors.
- Create a pleasant arrival and departure experience for those starting the journey.
- Provide high quality community infrastructure.
- Additional homes and increased variety in line with market demand.

Spatial strategy

To achieve a sustainable, comfortable and varied urban environment, the strategy will address climate mitigation, compactness for walkability, proximity to services and a mix of functions amongst other things.

Compact but moderate density offers the opportunity to protect open space which in turn can be used for landscaping, afforestation and leisure in line with the masterplan's landscape strategy. Mixed use and compact approach that bundles commercial and social programs in their centre generate socially interactive neighbourhoods.

With the spatial strategy, the masterplan will succeed in reversing unsustainable sprawl-type of urbanisation and focus the development to the strategically best locations which have the highest impact in terms of identity and value creation. It will advance building culture in the local context and provide high quality community.



Existing developed area



Planned additional development



Risk of over-development and Sprawl



Change of focusing development



Environmental mitigation



Compact development



Building programmes

LANDSCAPE



Landscape

The KAA masterplan uses landscape as a connecting agent between the focus areas, as well as an economic resource for the stakeholders.

The comprehensive landscape & afforestation strategy will be hugely impactful in mitigating both environmental hazards and the impact of airport activity, while creating a better living environment altogether.

Reykjanes peninsula is a geologically young section of Iceland. Its distinct landscape is formed by the patches of volcanic palagonite tuff; basaltic lava fields with multiple open fissures, high-temperature geothermal fields and volcanic fissures, faults and craters. It is predominantly flat, scarcely vegetated, and exposed to strong winds.

Although it appears completely natural, the open-view landscape is a result of several centuries of simultaneous human activity and wind action mixed with salt storms.

Objectives

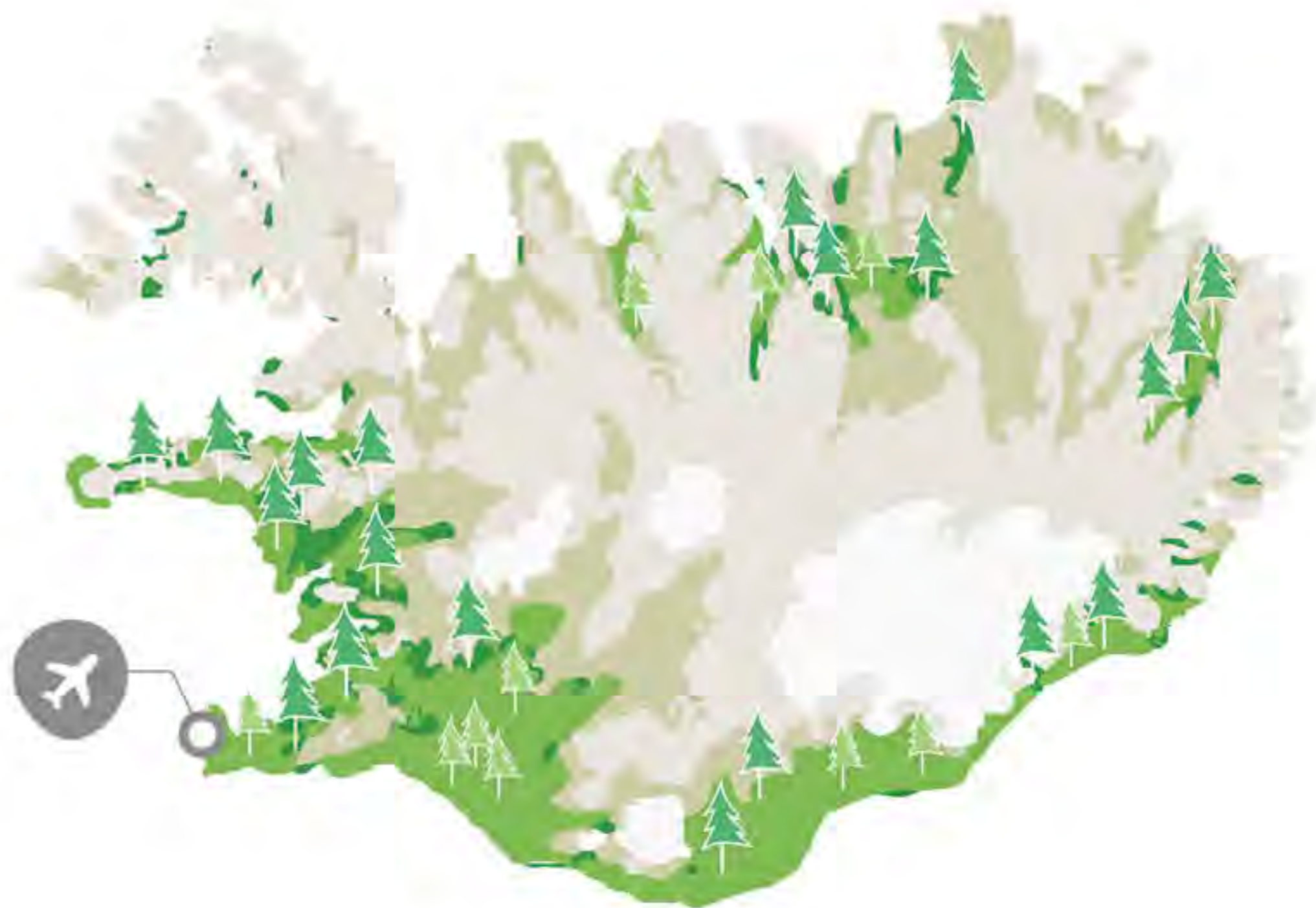
- Bring communities together on the peninsula and physically connect them.
- Create year-round opportunities for exploration and outdoor recreation.
- Mitigate the climate to improve environmental comfort and create spatial identity.

Landscape

The strategy aims to use land forming with afforestation and new interconnecting paths for active mobility as a connecting agent between the focus areas identified by the urban design initiative. The strategy will be very impactful in mitigating the elements and the impact of development and constructions, while creating a better living environment altogether in the area.

Inspired by the traditional Icelandic turf house, landforms become a natural part of the landscape identity and make afforestation possible. Afforestation is recognised as an important strategy to address the increased impact of wind erosion, create shelter and increase the quality of outdoor space. The peninsula was historically a forested environment.

Afforestation and natural land forming start inside and along the defined perimeter of settlements, continuing along existing infrastructure and extend to protect new connections between the towns.





Connect



Protect



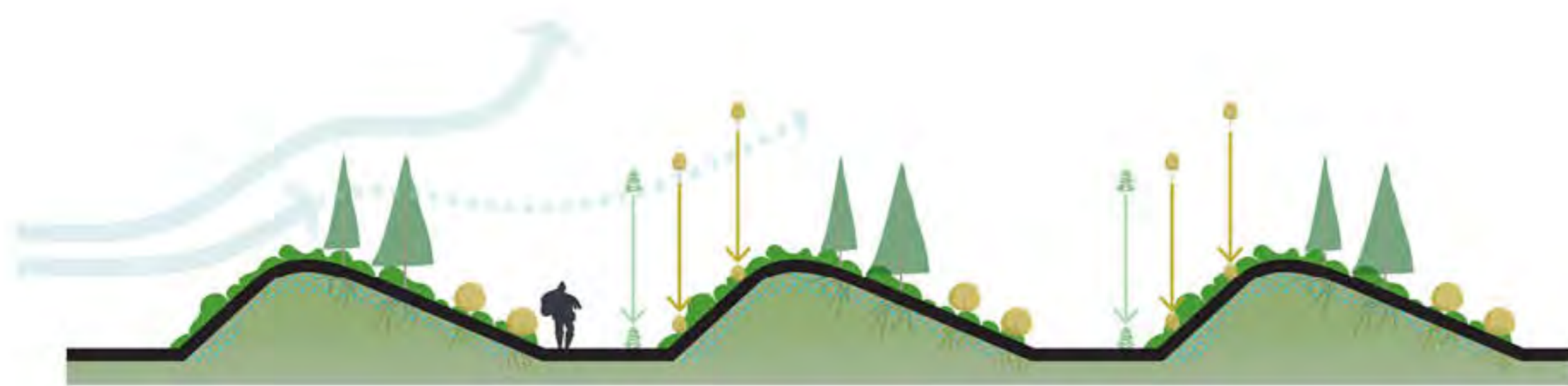
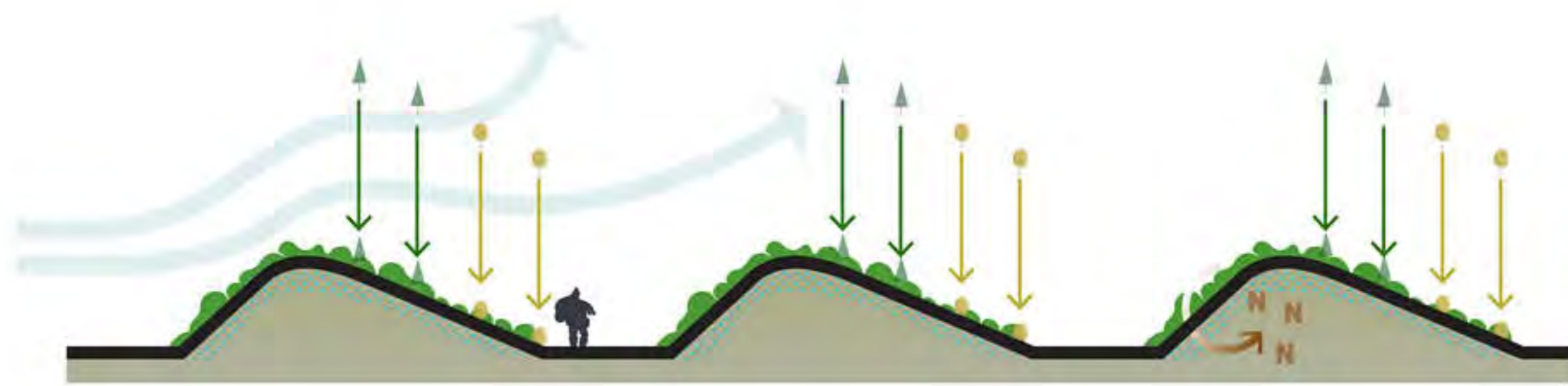
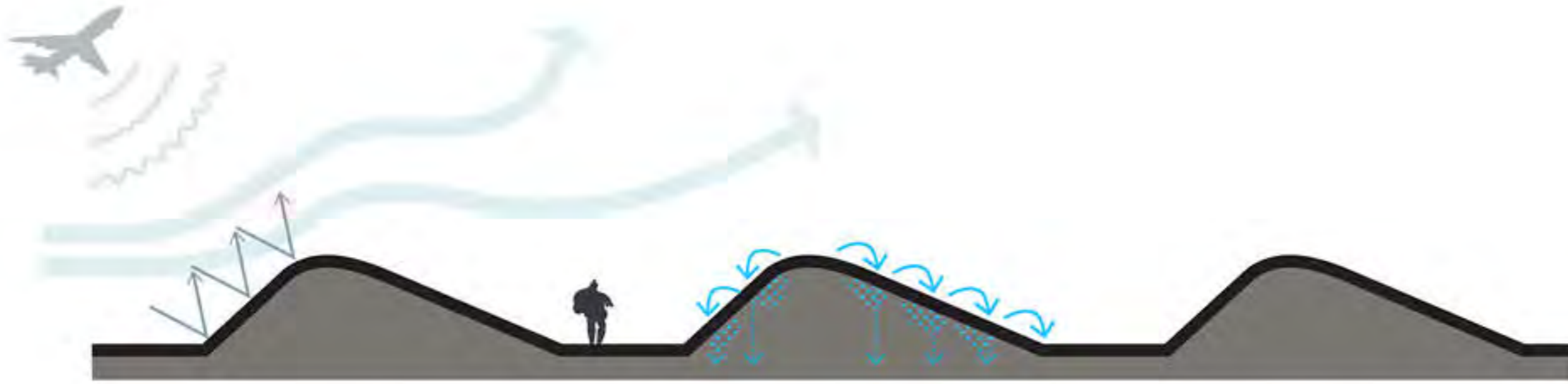
Enhance

Landscape Strategy in Suðurnes Region

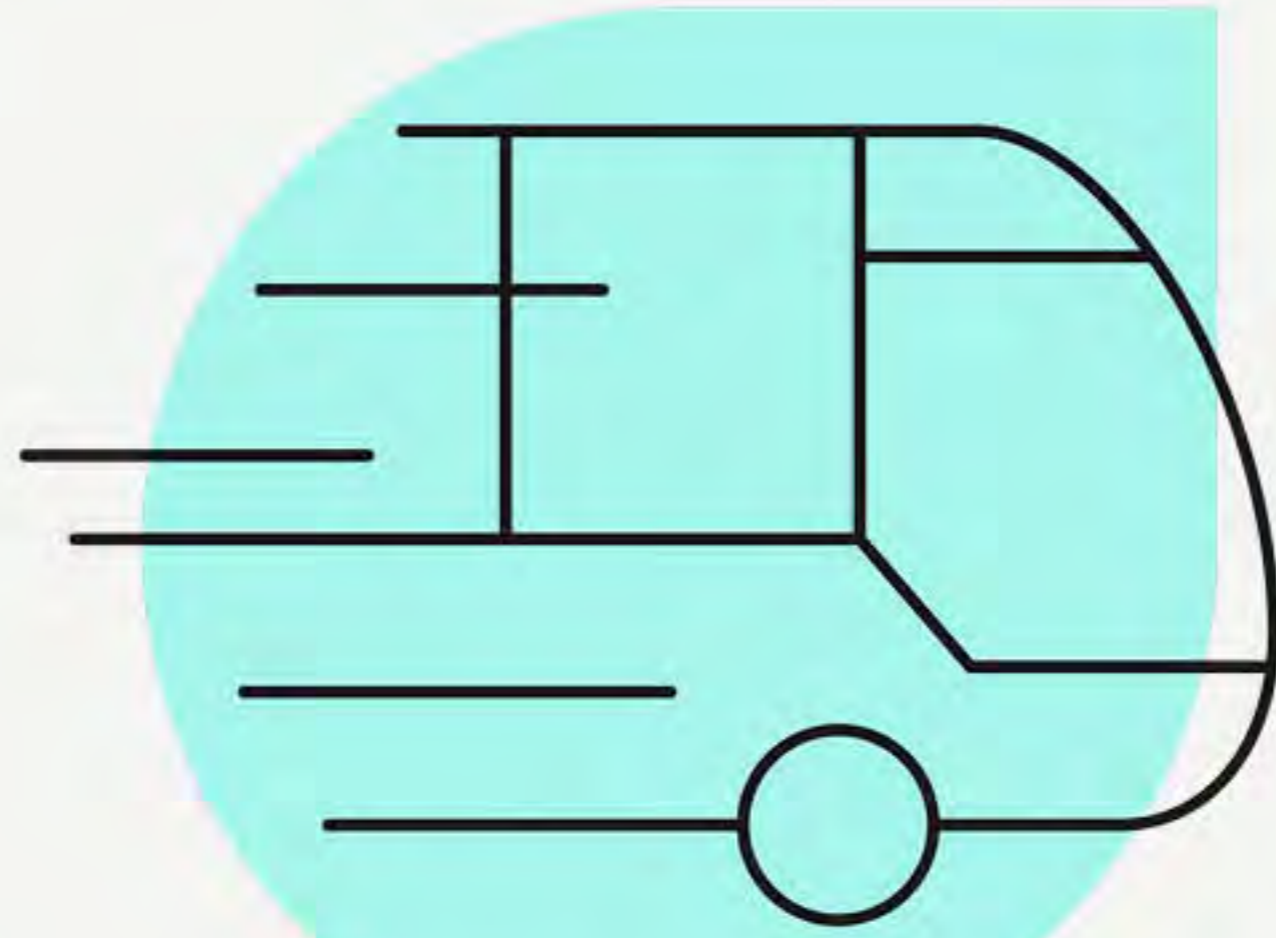
Current network of roads and paths will be upgraded and used to connect both new and existing nodes of interest to enhance active mobility and the overall outdoor experience for hikers, cyclists and horse riders. Together with landforming and afforestation this will give stronger spatial organisation and facilitate navigation in the vast intercoastal area.

One of the key aims of the landscaping is to reverse decades-long soil erosion and to increase biodiversity in the area. It will improve the overall quality of land and nature and encourage people to spend time outdoors, which in turn brings large benefits to public health, lifestyle and education.





MOBILITY



Mobility

The strategy aims at creating a smart, inclusive mobility network for the Suðurnes region.

Efficient transport systems provide economic and social opportunities and benefits that result in positive multiplier effects within the KAA, such as better accessibility to markets, employment, and additional investment.

The mobility strategy focuses on four key features; high quality transit connection between the Keflavík airport terminal and the capital area; improved local public transport; network of paths for active mobility and comprehensive street network.

Recent sprawl-like development of the built-up area has resulted in a situation where the private car is the dominant mode of transport and public transportation is rather neglected. A network for active mobility is piecemeal, especially between different settlements.

There is a lack of a comprehensive vision for a reliable and frequent public transport system both locally and regionally which work seamlessly together.

Objectives

- Coordinate local and regional public transport.
- Integrate mobility in urban planning and environment strategies.
- Provide a high-quality transit service from the airport to Reykjavík.
- Build sustainable and future proofed mobility to meet Iceland's CO2 reduction goals.
- Build mobility that is affordable and accessible for everyone.
- Devise and implement a cohesive management of car rental provision.

Mobility

The value proposition for the mobility strategy is based on access, inclusivity, scalability and sustainability. Enhancing the “arrival experience” of air travelers is also an important factor.

Harnessing the power of renewable energy and the potential of new technologies, the Keflavik Airport Area’s transport systems will follow the best standards for responsible and sustainable mobility. A careful integration of the mobility strategy with landscaping and afforestation will improve conditions for a more ecological and healthier lifestyle for local commuters.





Quality road network



Quality public transport



Quality active mobility network

The Keflavík - Reykjavík Link

A high-quality transit between Keflavík Airport terminal and the capital area will be the Keflavík Reykjavík Link (KRL). The KRL will interconnect with the local transit system providing a high-quality service for air travelers, airport employees, commuters and residents of Suðurnes peninsula alike.

A complete and efficient local public transport network will connect the communities, the airport and the KRL. This will decrease the dependence on the private car and improve the quality of service for commuters who wish to use public transport.



A concise street network

A comprehensive and complete street network encompasses urban streets within the settlements of the KAA, built as calm and complete streets allowing safe mobility of pedestrians, bicycles, cars and public transport. The primary highway connecting Keflavik Airport and the capital area (R41) will have uninterrupted traffic flow with limited regional through traffic. Local and regional roads will have convenient and accessible points of interchange with highway R41 and local roads will divert traffic from highway R41 very short trips.



Complete public transportation

A complete and efficient local public transport network will connect the communities, the airport and the KRL. This will decrease the dependence on the private car and improve the quality of service for commuters who wish to use public transport.



Provisions for active commuters

A network of paths for active commuters (cyclists and pedestrians) will link key destinations, such as work and home within the KAA. This will further decouple mobility from the availability of a private car and together with the public transport will extend travel options for people.

Both locals and travellers will benefit from a comprehensive network of paths and interesting sites. In Suðurnes you will discover historical and natural wonders at your footstep.



INDUSTRY



Industry

The industry strategy aims to diversify and fortify the current industrial base and attract new international and local investment. This involves becoming a world class destination for advanced and green industries ranging from logistics, manufacturing, leisure, retail and cultural activities. Central to the strategy is the geographical disposition of the KAA, i.e., the proximity to the capital area and the location of Keflavik Airport.

Objectives

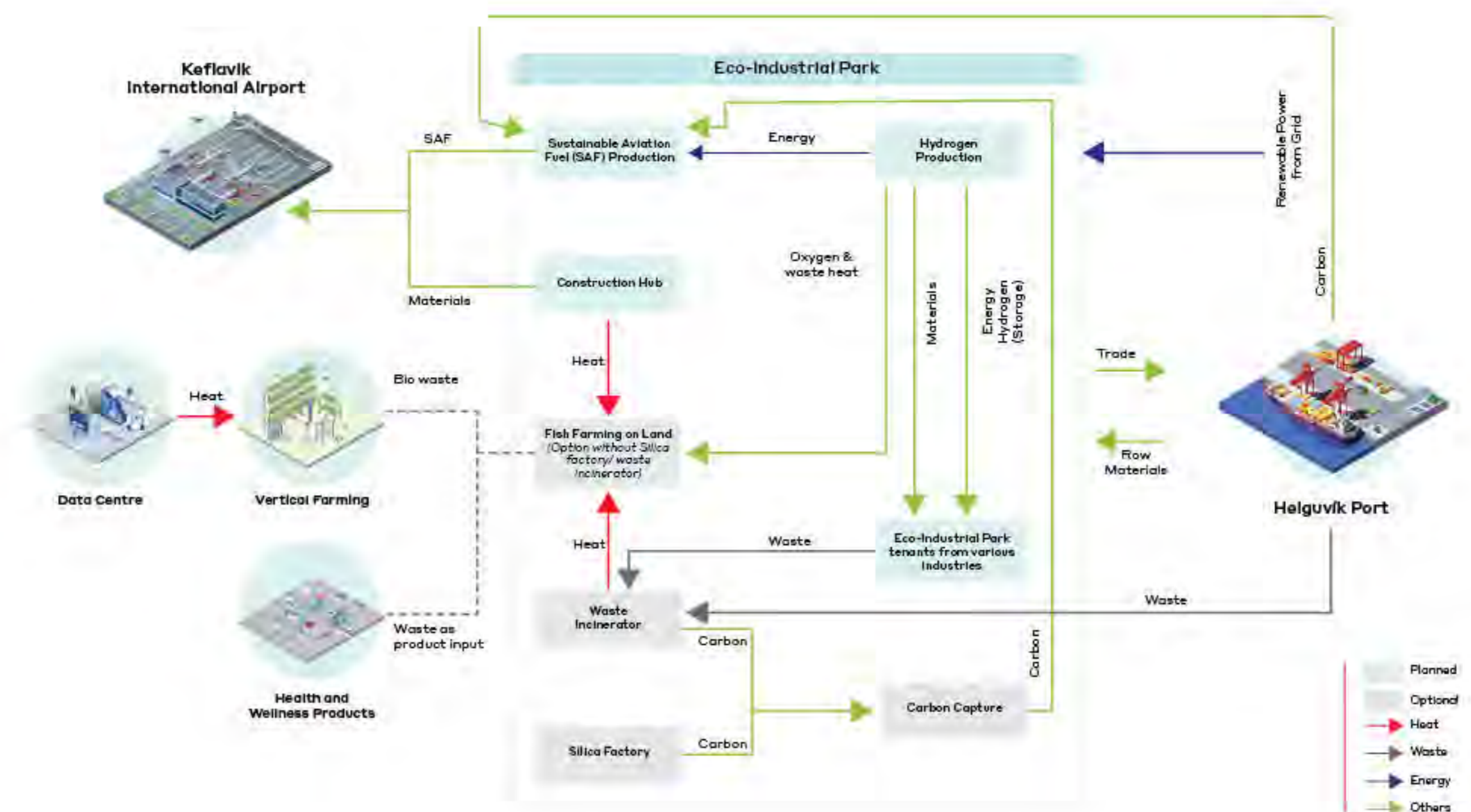
- Create a resilient and diverse industrial base.
- Develop business opportunities for green & hi-tech activities.
- Create an internationally competitive business destination.
- Deliver inclusive growth, by ensuring all residents and communities grow together.

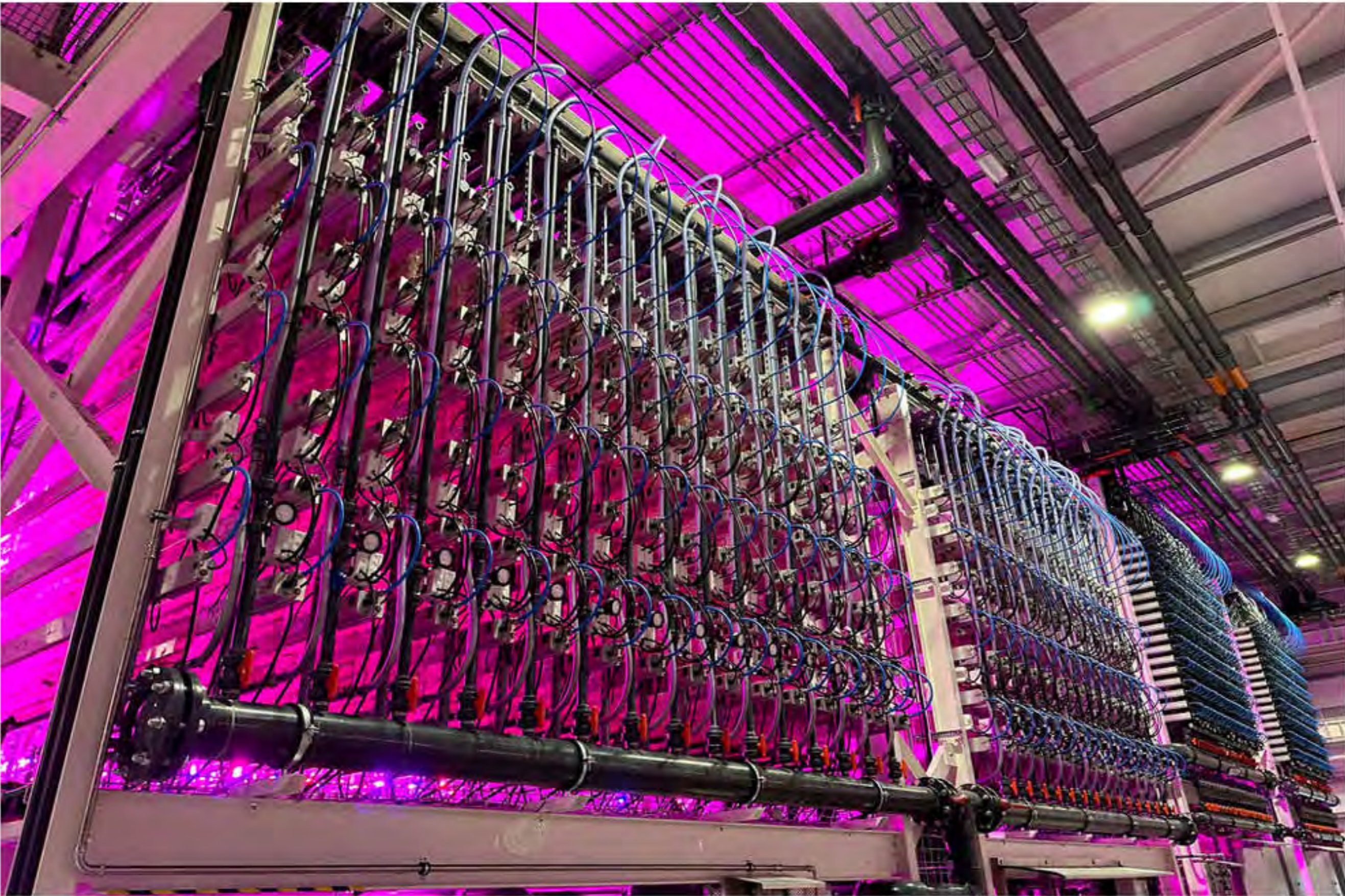
Industry

To support the aims of the industry strategy key sectors have been identified as compatible and viable for the area. These include high-value vertical farming, bio-tech, carbon fibre component production, hydrogen production, sustainable aviation fuel production and fish farming as an example of manufacturing opportunities. In terms of opportunities in the service sector a tourist welcome centre, a multi-purpose venue and flexible office space are amongst the opportunities identified as suitable for the area.

The strategy promotes high-value activities supported by a vibrant R&D culture, inclusive growth, low carbon and circular economy principles. The knowledge strategy will be developed in conjunction with the industry strategy to ensure local communities benefit from the skills and training needs required by new sectors.

The industrial strategy recognises the ambition to grow the Suðurnes region by complementing and supporting the economic profile of the capital area. Underpinning the industry strategy is Iceland's commitment to the UN SDGs and a carbon neutral society.





KNOWLEDGE



Knowledge

The knowledge strategy builds on the Icelandic culture of innovation and strong commitment to education. It will showcase KAA as a benchmark for sustainable development innovation and creativity worldwide.

The strategy recognizes the advantage of a world class educational system and highly skilled talent pool, supporting the development of an attractive ecosystem that fosters partnership and collaboration between trend-setting companies, local communities and existing premier Icelandic R&D institutions.

Objectives

- Strengthen capacity to achieve national and global sustainability goals.
- Integrate local workforce in R&D and knowledge opportunities.
- Facilitate R&D activities, industry collaboration and knowledge sharing.
- Attract R&D funding and investment in target sectors.

Knowledge

Key components of the knowledge strategy are training and skills hubs to complement the target industries. These hubs will play a key role to diversify regional jobs to more high value sectors. The location is particularly strategic for aviation related R&D and developing, testing and implementing circular economy technologies. An integrated industry and knowledge hub will streamline investment in research behind commercial products.

The strategy is a key pillar of the masterplan to create the future engineers, scientists, technicians, managers and workers for the various industrial, commercial and infrastructural activities. This will create a sense of pride and achievement for the Icelandic and international community of people who will make this region their home.



CARGO



Cargo

The lynchpin of the strategy is to progressively upscale capacity for air- and sea cargo in both volume and variety, developing a sustainable hub infrastructure for transatlantic supply chains.

The infrastructure already present, the transatlantic network of Keflavík Airport and future possibilities for expansion of infrastructure and warehouses, create a strong basis for the further development of both air- and sea freight logistics.

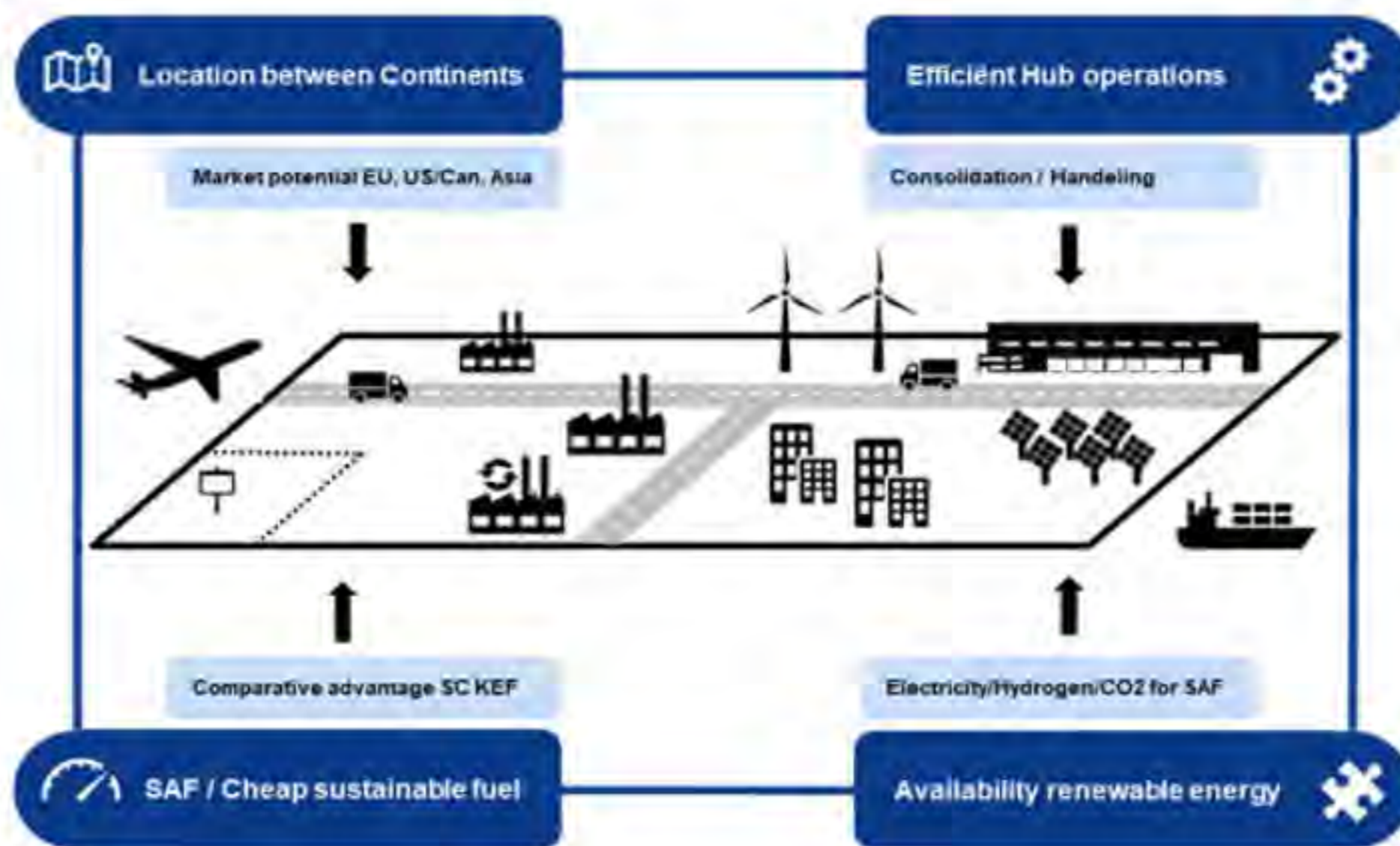
Objectives

- Further increases in export and import volumes air cargo.
- Attract transshipment volume air cargo.
- Sustainable hub for express & e-commerce.
- Develop port and hub for building and construction activities.
- Develop energy port and on-site production.

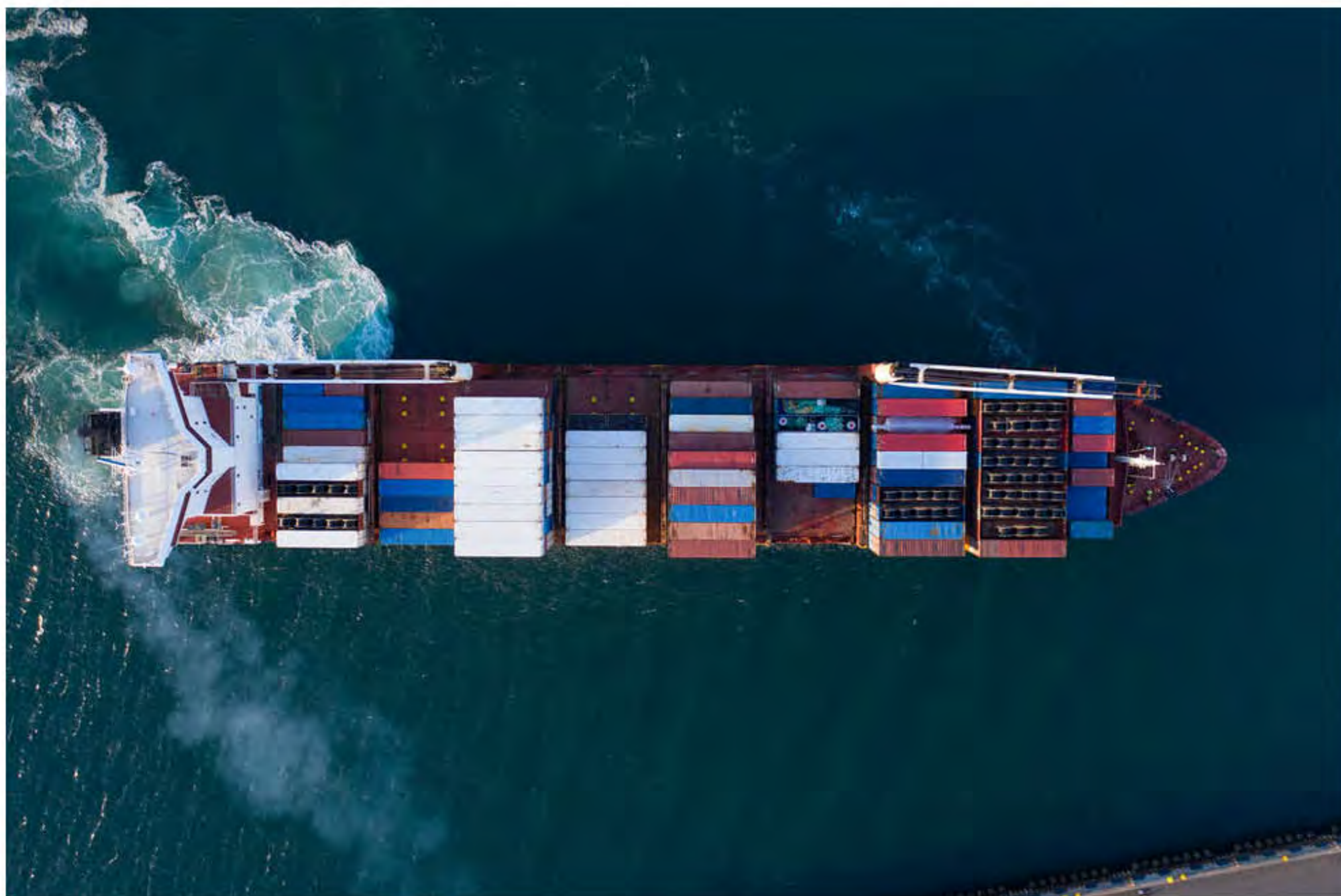
Cargo

The cargo strategy unleashes the full potential of the Suðurnes area as a sustainable international transport and logistics hub, following a realistic and step by step approach. First, to further improve of airfreight handling at Keflavik Airport, enabling seamless import and export of high value goods. Secondly, to develop of airfreight cargo facilities to serve a growing transatlantic network, handling transshipment and express cargo to and from major economic centres in Europe and North America. Thirdly, development of the Port of Helguvík to serve the import- and export of sea freight linked to the production of sustainable (aviation) fuel, circular activities in an eco-industrial park and building- and construction activities in the Keflavik Airport Area.

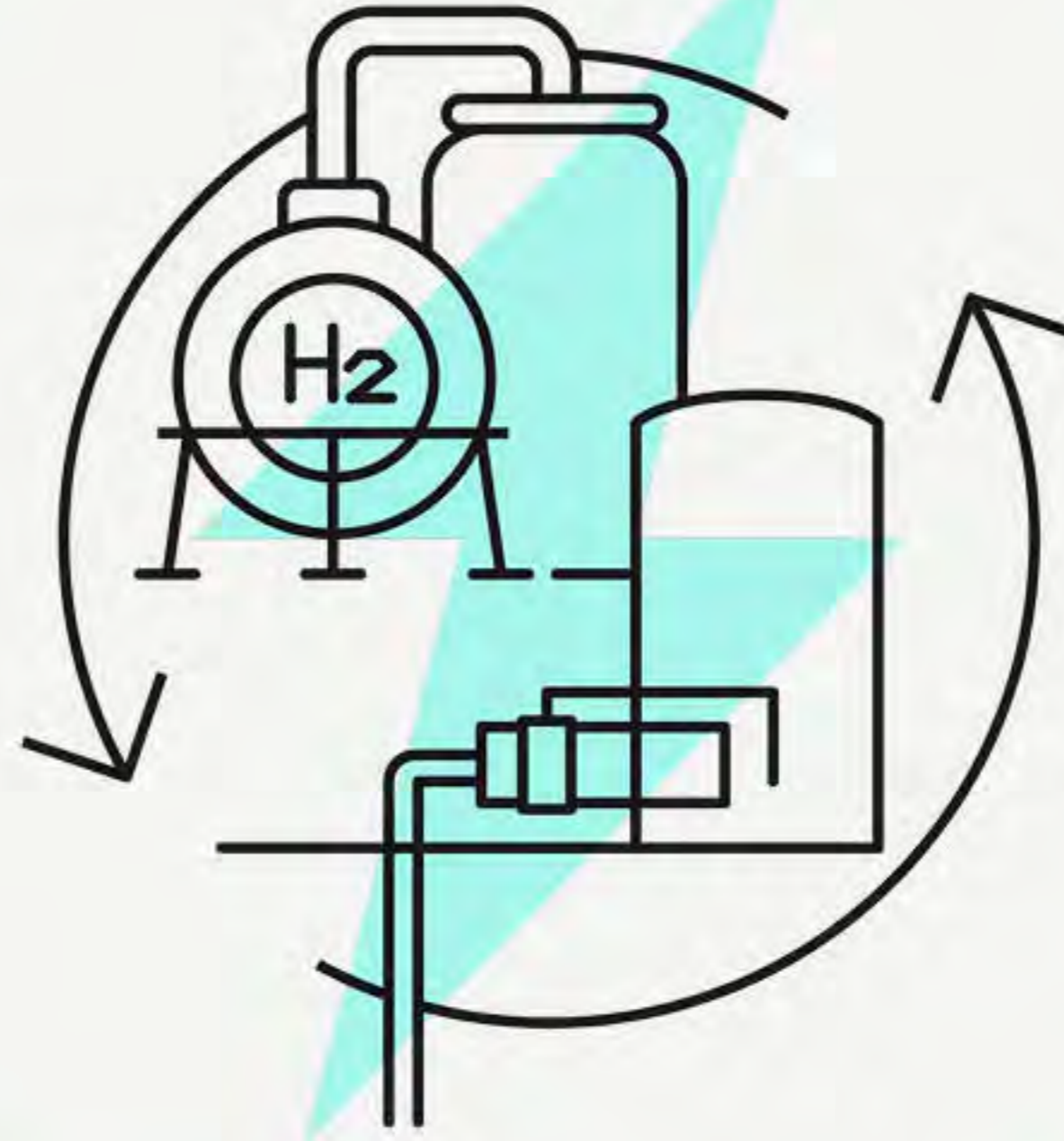
Production and use of sustainable (aviation) fuel and renewable energy in the region, in combination with the development of other eco- industrial activities could foster the development of a sustainable logistics system. Further development of the Port of Helguvík (for instance sourcing for H2 and e-fuel production) will be a key-driver behind this integrated system (including the development of a sustainable hub operation at the airport).



- | | |
|---|---|
| <p>➔ </p> <p>Location</p> <ul style="list-style-type: none"> • Serving transatlantic Supply Chains • New direct destinations: Westcoast US, Asia | <p>➔ </p> <p>Renewable Energy</p> <ul style="list-style-type: none"> • Hydrogen- or SAF plant • Use of CO2 (synthetic fuel) • Helguvik = Energy port |
| <p>➔ </p> <p>Hub function</p> <ul style="list-style-type: none"> • Efficient airside operation • Consolidation • VAL / SC-coordination • Extra warehouse capacity | <p>➔ </p> <p>SAF</p> <ul style="list-style-type: none"> • Important cost component for Cargo Airlines in 2030-2040 • Strong incentive – comparative advantage |



ENERGY ROADMAP



Energy Roadmap

The energy roadmap supports and enables the proposed development activities. It has the potential to transform the Keflavík Airport area into a lighthouse region for the development of sustainable energy solutions. Furthermore it will increase energy security on the peninsula, and explore innovative ways of using renewable energy, utilising the unique synergies in the Suðurnes region.

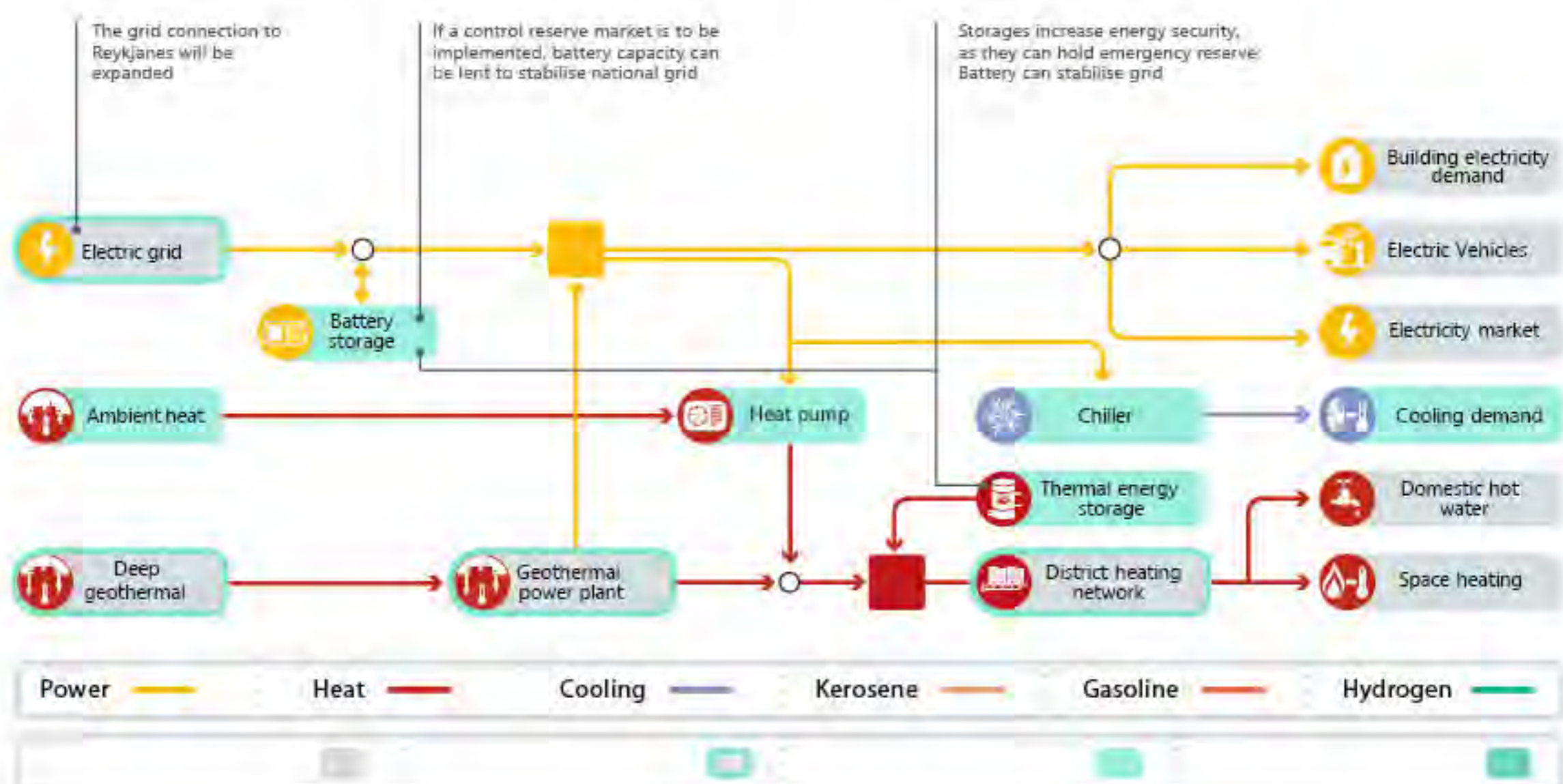
Objectives

- Capacity expansion to meet future energy demands.
- Diversification and decarbonisation of local energy systems.
- Innovative energy solutions to drive economic development.

Energy Roadmap

The energy roadmap advocates for expanding the existing power grid infrastructure to cover future energy demands and increase power security. This involves fully exploiting the potential existing hydro and geothermal capacities. It also advocates the development of additional renewable energy sources such as wind and tidal energy and to develop synthetic aviation fuel for Keflavik airport using green hydrogen.

Providing credible supporting measures to fulfil other strategies especially industry and cargo, the roadmap will be a major contributor to transformation from hydrocarbons to green energy and power. These measures supports sustainable development in the region and Iceland's commitment to a green future and reduction in carbon emissions.







FOCUS



AREAS





HELGVÍK - BERGVÍK

ECO-INDUSTRIAL PARK



Helguvík - Bergvík

The Helguvík area is a strategically located industrial area next to the deep sea Port of Helguvík and proximity to Keflavik Airport. The area is well served by roads and is within a short distance of the main highway between the KAA and Reykjavik Capital Area. The area already has several industrial activities and is the main import hub for aviation fuel to Keflavik Airport. The area is mostly flat and already plotted up with a grid-like road system. The masterplan builds on the strategic location of this area between the port and Keflavik International airport, to envision its transformation into an eco-industrial park with potential to spearhead energy transition within the KAA.

Mobility will be improved with dedicated paths for active commuters and new bus lines will connect the site to other settlements and Keflavik Airport.

The core strategy of new economic activity will revolve around creating an eco-industrial park (EIP), a dedicated area facilitating circular economy technologies by utilising by-products and waste from one sector to be used as a raw material in another. The EIP will promote resource efficiency and cleaner production, industrial symbiosis and carbon capture and storage.

Helguvík - Bergvík

The role of the landscape around and throughout the industrial site is to create possibility of comfortable pedestrian movement along the main routes, as well as to provide an attractive buffer around the perimeter of the site. Although the site may have limited public access, the well-being and comfort of the employees will be achieved by planting trees along the streets and adding a multifunctional mitigation zone.

Areas between the site and the residential communities can be forested as well with the understanding that if more urban or industrial growth occurs, these trees may have to be cut. Landscape can also participate in the eco-industrial cycle, by treating the affluent and stormwater on the site. Constructed wetlands can provide that specific ecosystem service while delivering additional environmental benefits.





A facilitated visitor center plugged into the the masterplan's network of paths and nodes.



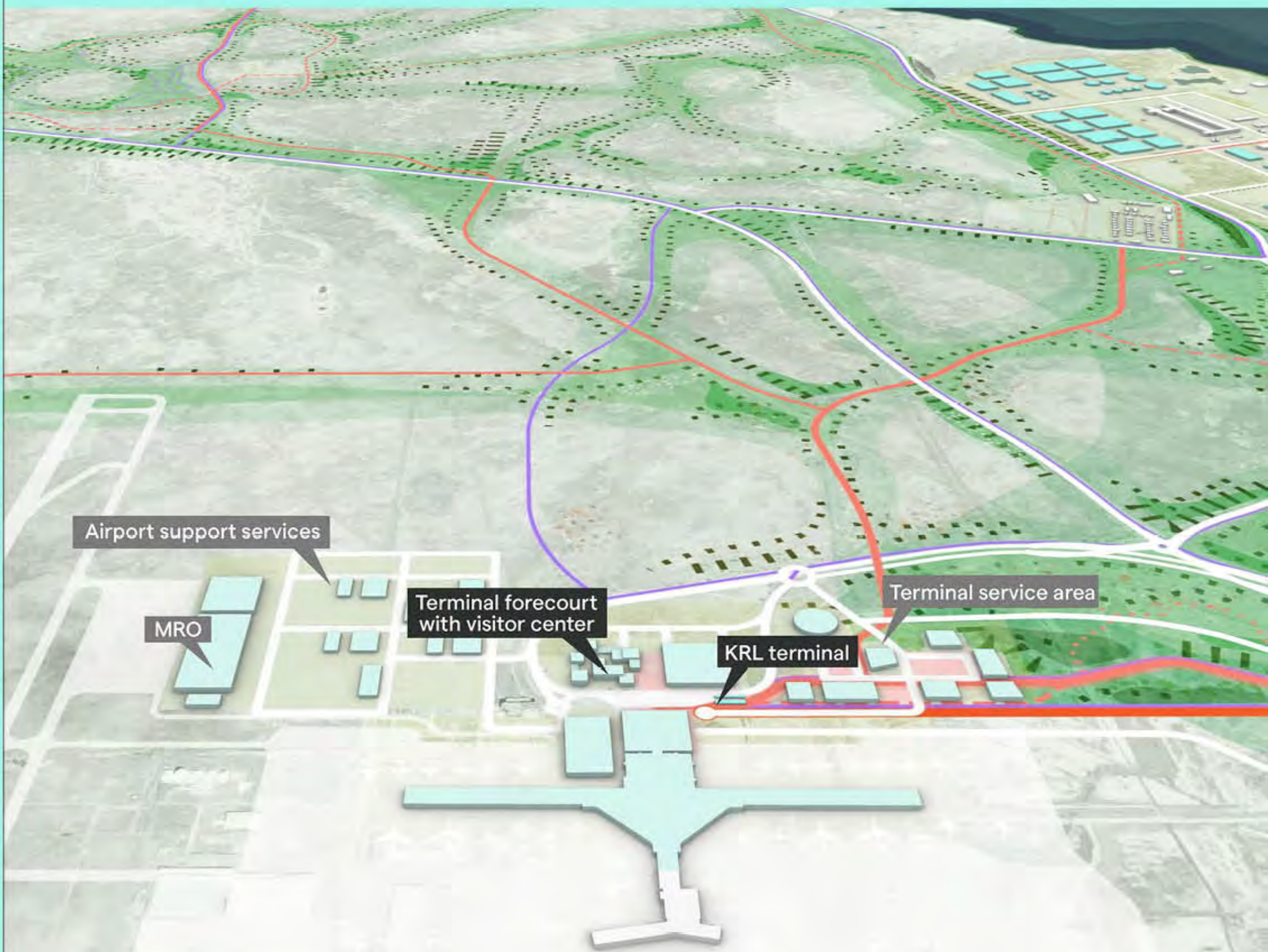
Extending focused landscaping and afforestation towards the KEF terminal.



A dedicated invitation to experience Iceland's nature and culture.

TERMINAL FORECOURT

GATEWAY TO ICELAND



Terminal Forecourt

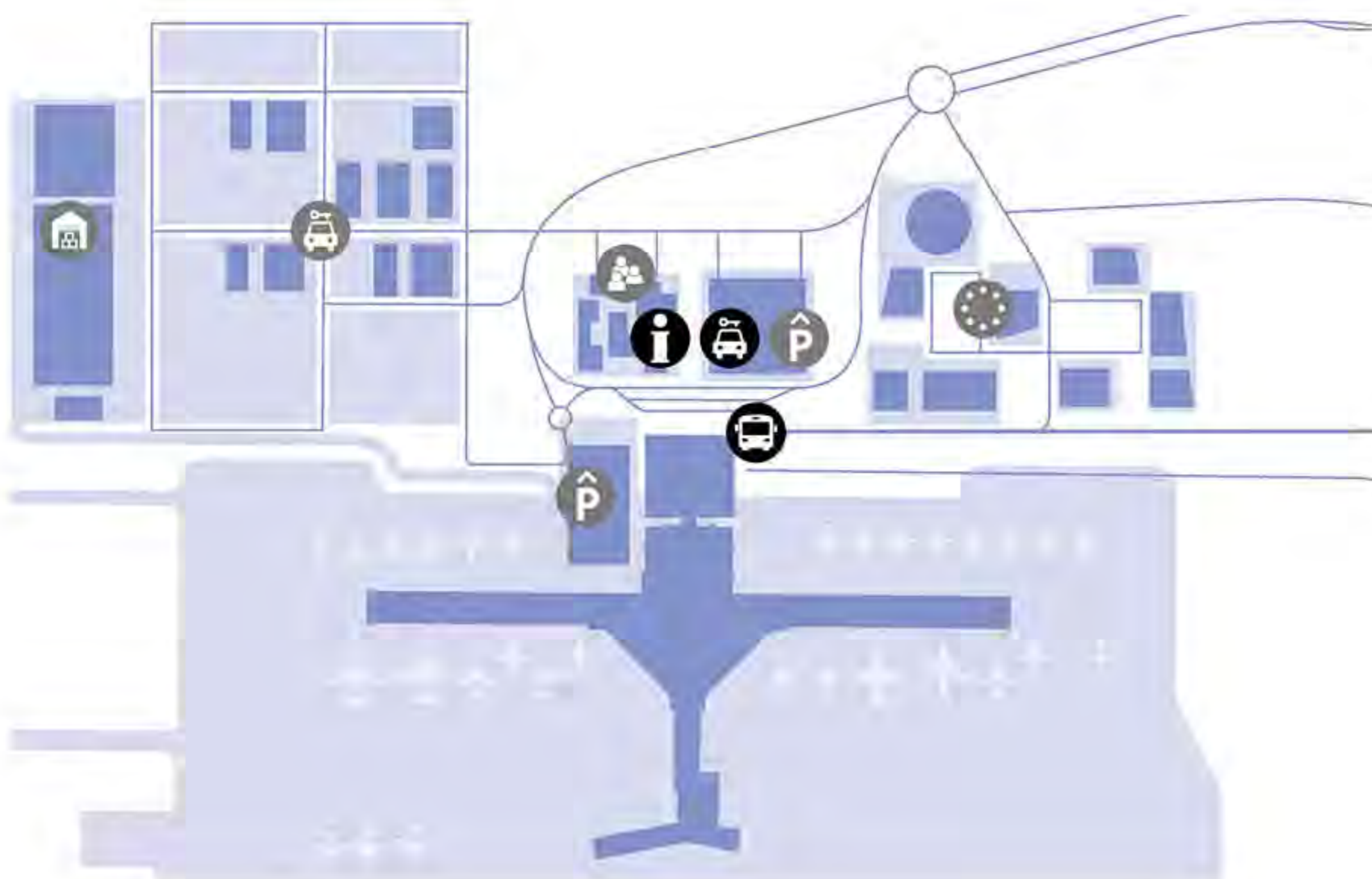
The terminal forecourt has great potential to showcase Iceland's unique environment while creating a great arrival experience at the terminal building. The KAA masterplan complements Isavia's masterplan for Keflavík Airport and proposes a series of programmes for the area.

The proposed land-side forecourt development to the north of the terminal constitutes a welcome plaza which concentrates a series of activities including commercial zones, car-rental reception, events spaces, co-working areas and learning zones.

Furthermore additional programs for the forecourt area include a visitor centre, hotels, coordinated car rental terminal and the terminal of the KRL.

Landscaping around the forecourt area plays a key role in enhancing the arrival experience. This is planned through landforming and afforestation which will extend towards the Aðalgata area. Included in the landscaping plans are networks of paths and trails for active commutes and leisure alike.

The KAA masterplan proposes a transit terminal for the KRL express bus line to Reykjavik will be located within a short distance from the Keflavik Airport terminal. The transit terminal would be connected to the KEF terminal by a covered walkway no longer than 200 m. Wayfinding will allow an easy, pleasant and immediate connection. As explained in the mobility strategy, the KRL will run on its own dedicated infrastructure, directly to Aðalgata and beyond without blending with regular traffic.



Terminal Forecourt

Dedicated and purposeful landscaping radiating from the terminal forecourt can provide an attractive nature experience for travellers and the airport personnel. The intention would be to connect to the regional network of paths and trails with a service point offering maps and equipment. Landscaping could be programmed around the experience of land art and use the tree and landform strategy to mitigate the strong winds, bringing benefit to active visitors and commuters.





A facilitated visitor centre plugged into the the masterplan's network of paths and nodes.



Extending focused landscaping and afforestation towards the KEF terminal.



A dedicated invitation to experience Iceland's nature and culture.

AÐALGATA

COMMERCE AND CARGO



Aðalgata

The Aðalgata area benefits from a highly strategic location along the main highway between Keflavik Airport and Reykjavik and between the planned Diamond Gate airport cargo area and the centre of Reykjanesbær. It therefore has great development potentials.

The mobility strategy is for new bike and pedestrian paths that would link Aðalgata to the regional network offering a new level of landscape connectivity and multiple opportunities. Streets will be designed with traffic calming and active mobility as a priority and bus lines redirected to the site to ensure high quality sustainable mobility. The proposed KRL (see mobility strategy) will run through the area along the R41 highway with a dedicated stop at Aðalgata with other bus connections and a park and ride facility.



Aðalgata

The KAA masterplan proposes to transform the already ongoing development projects around the current hotel and other commercial buildings along the Aðalgata road from a peri-urban, car-oriented landscape into a vibrant entrance to the city of Reykjanesbær. The zoning strategy is a five mixed-uses clusters with diverse character and programmes.

Within the development, smaller public spaces are defined, surrounded by new buildings, protected from the wind and activated by ground floor uses. The program allows for the expansion towards the open landscape north. Within the development, smaller public spaces are defined, surrounded by new buildings, protected from the wind and activated by ground floor uses. Furthermore, the masterplan proposes to redevelop Aðalgata road into an active urban axis, a new 'entrance to the city'. Across the R41 highway is the planned Diamond Gate site where all future cargo activities at Keflavik Airport will be relocated with airport logistic related activities.

The KAA masterplan proposes a transit terminal for the KRL express bus line to Reykjavik will be located within a short distance from the Keflavik Airport terminal. The transit terminal would be connected to the KEF terminal by a covered walkway no longer than 200 m. Wayfinding will allow an easy, pleasant and immediate connection. As explained in the mobility strategy, the KRL will run on its own dedicated infrastructure, directly to Aðalgata and beyond without blending with regular traffic.





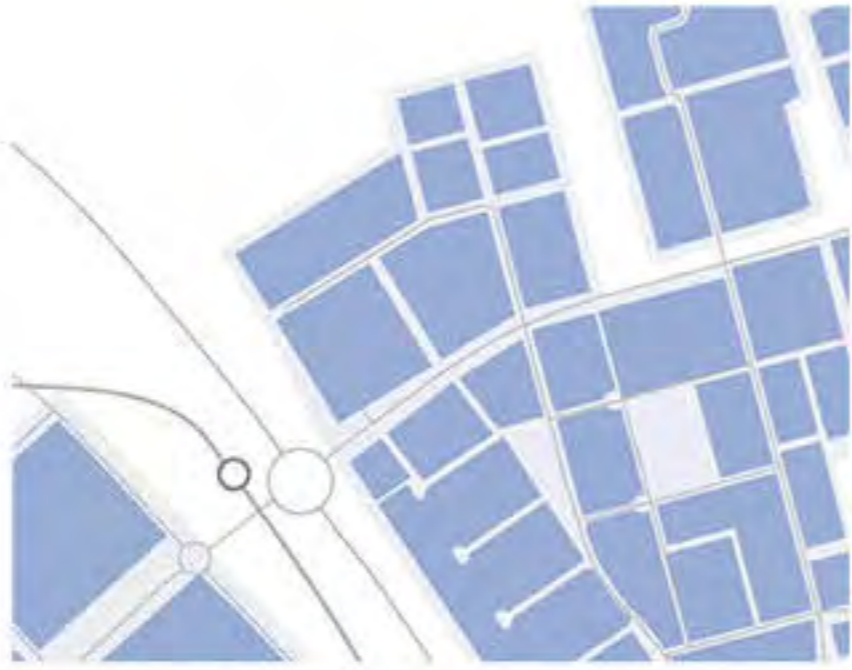
Inter-area access for active mobility especially to and from Keflavik airport.



Wind mitigation and afforestation greatly improve condition for outdoor activity.



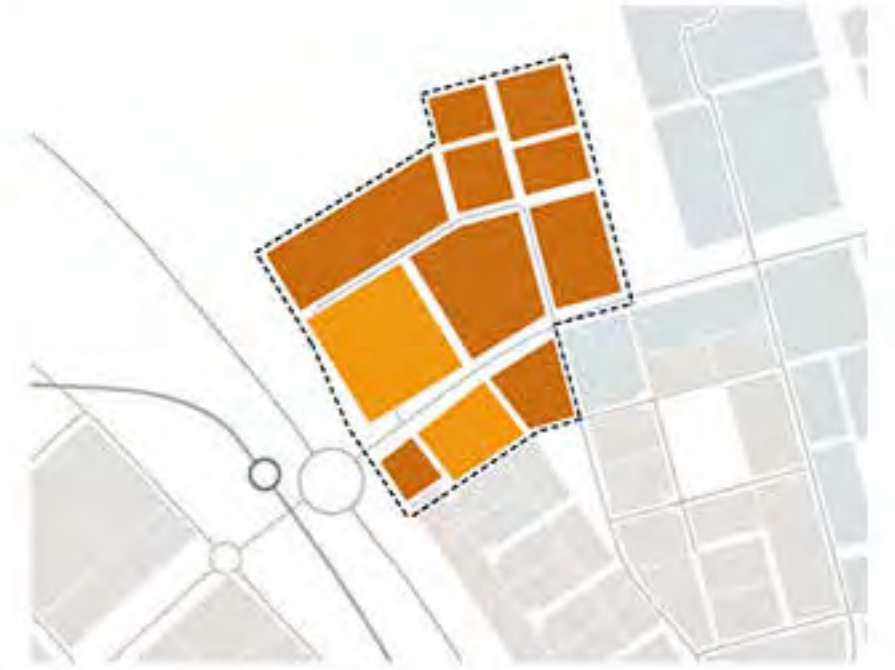
Wind mitigation and afforestation greatly improve condition for outdoor activity.



Plot structure towards compactness.



Towards five mixed-use areas with distinct character and programs.



More robust urban structure integrated into the surrounding urban fabric.





A specialised road network.



A central node for public transport.



Active mobility network.

ÁSBRÚ

THROUGH THE FENCE



Campus, a centrality for the working environment

Densification and adaptive re-use of residential neighborhoods

Densification and adaptive re-use of residential neighborhoods

Data center expansion

Light industry cluster

Central neighbourhood with increased density and combined public functions

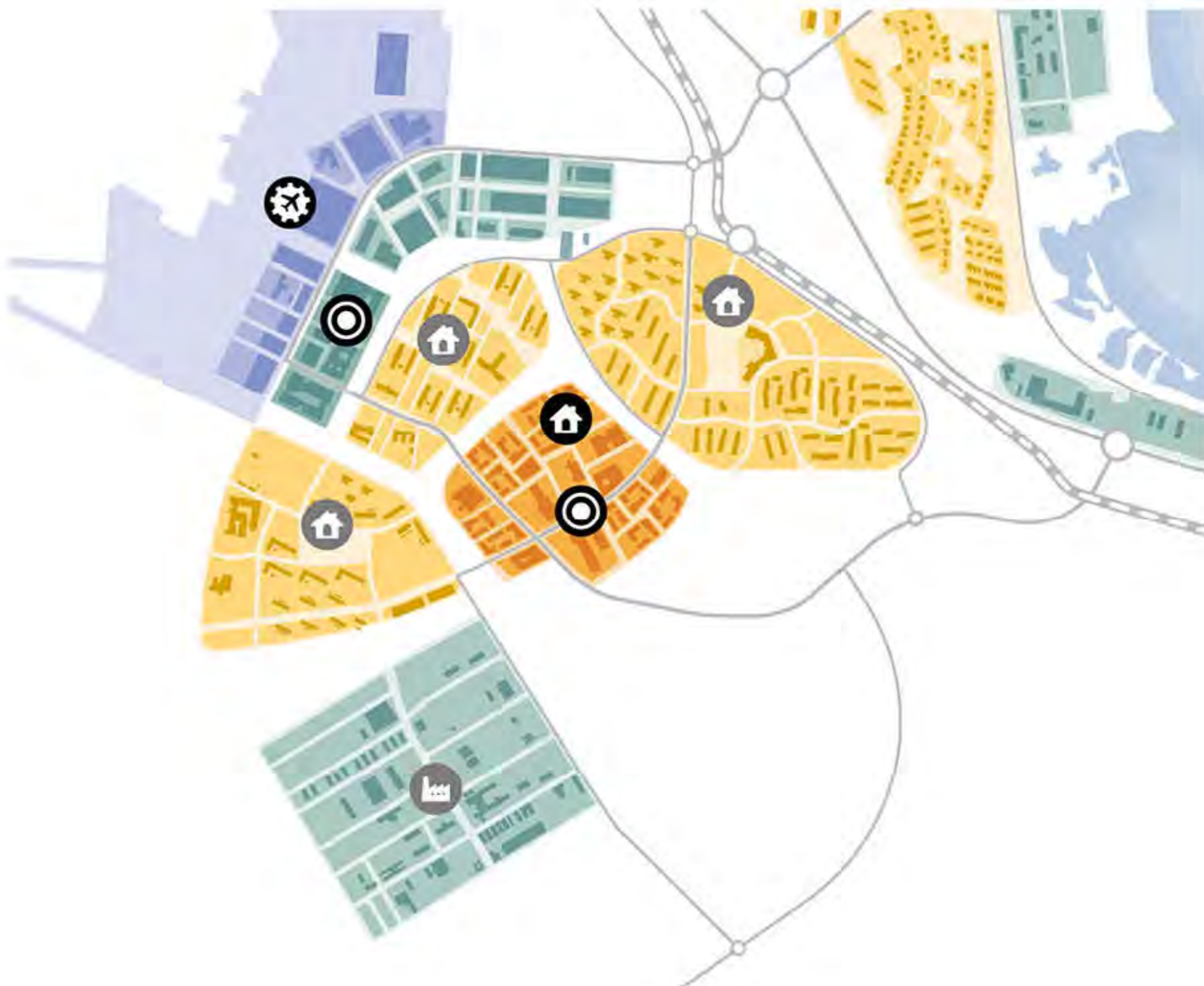
KRL stop

New school

Densification and adaptive re-use of residential neighborhoods

Ásbrú

Being part of the former Naval Air Station Keflavik, Ásbrú is located next to the fence of the airport. It is now part of Reykjanesbær municipality. Together with existing public functions it therefore has great potential for densification and renewal. At the moment the area has the characteristics of US military town planning; existing buildings are arranged in a low density manner, on a vast ground, with unstructured open spaces. The masterplan proposes to make full potential of the site location next to the airport and proximity to other parts of Reykjanesbær.



Ásbrú

The objective is to transform Ásbrú into distinctive clusters with higher density, better connectivity, more services and industry opportunities. Yet preserving the distinct open character of the former military base.

The clusters are the following:

- ▲ Ásbrú Centre acts as the new hearth at the centre of the area, around the existing Keilir Academy and providing new amenities.
- ▲ Ásbrú Airside and Landside makes full use of the potential of being located at both sides of the airport fence with an education related cluster at its heart.
- ▲ Existing residential areas are densified through infill into more sustainable urban fabric.

Landscaping and connectivity play an important role. They enhance the quality of the built environment through green corridors surrounding each cluster, as well as a green edge to the south of Ásbrú for protection against wind and climate. Towards Reykjanesbær, better connectivity is planned through a pedestrian connection over the R41 and the activation of main access roads, changing their profile and adding public programmes.





Connect.



Protect.



Enhance.



Plot structure towards compactness.

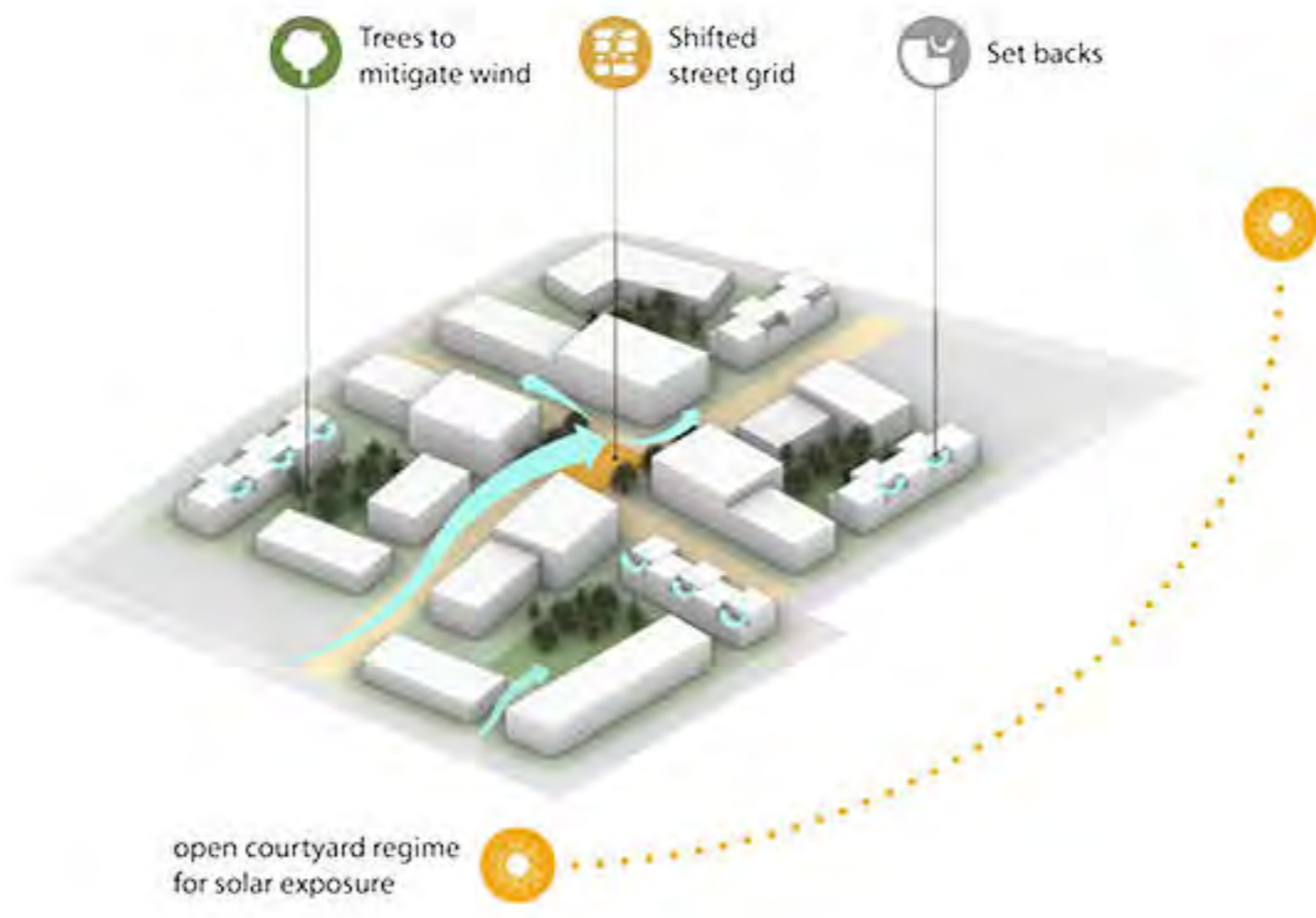


Towards five mixed-use areas with distinct character and programs.

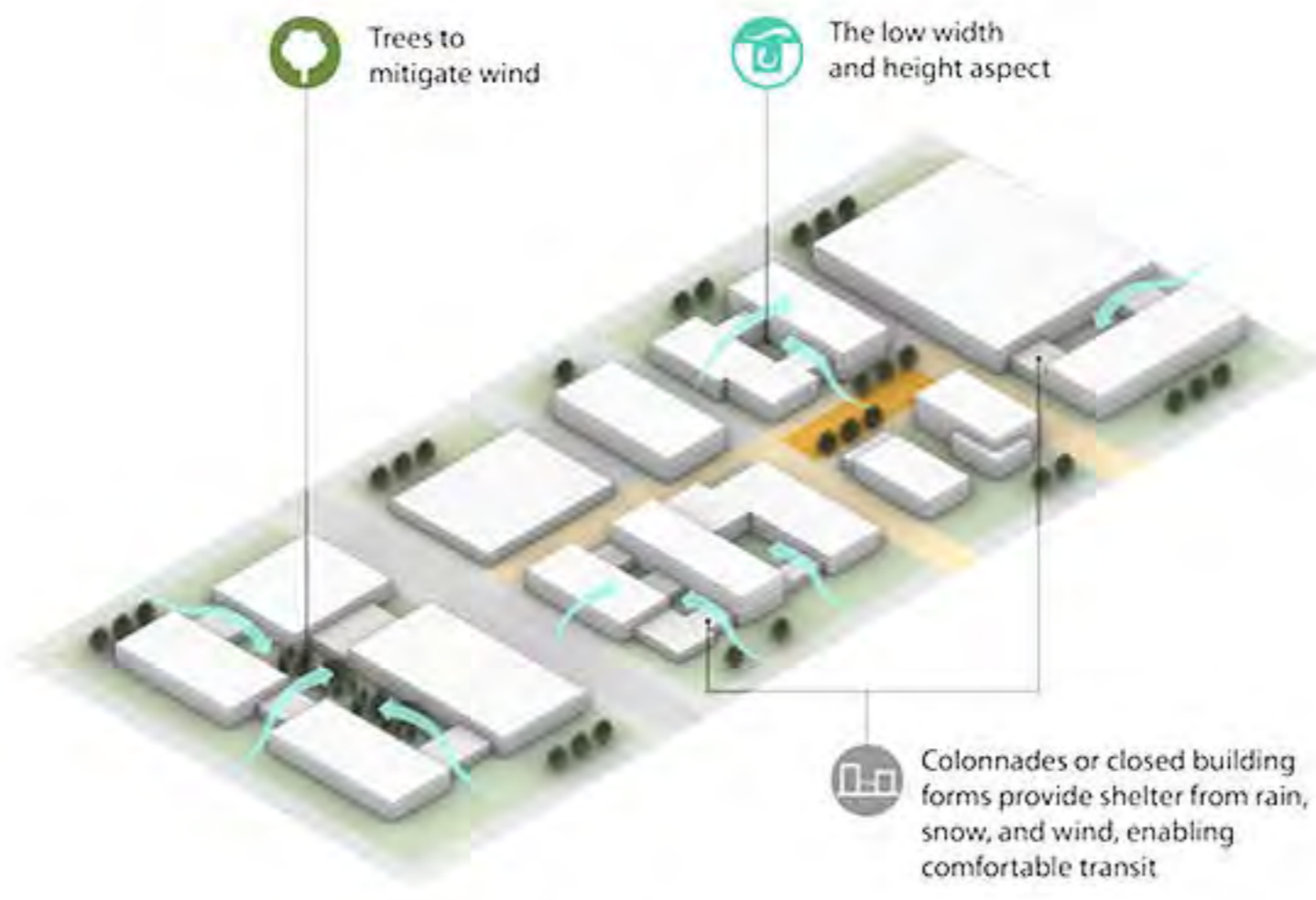


More robust urban structure integrated into the surrounding urban fabric.

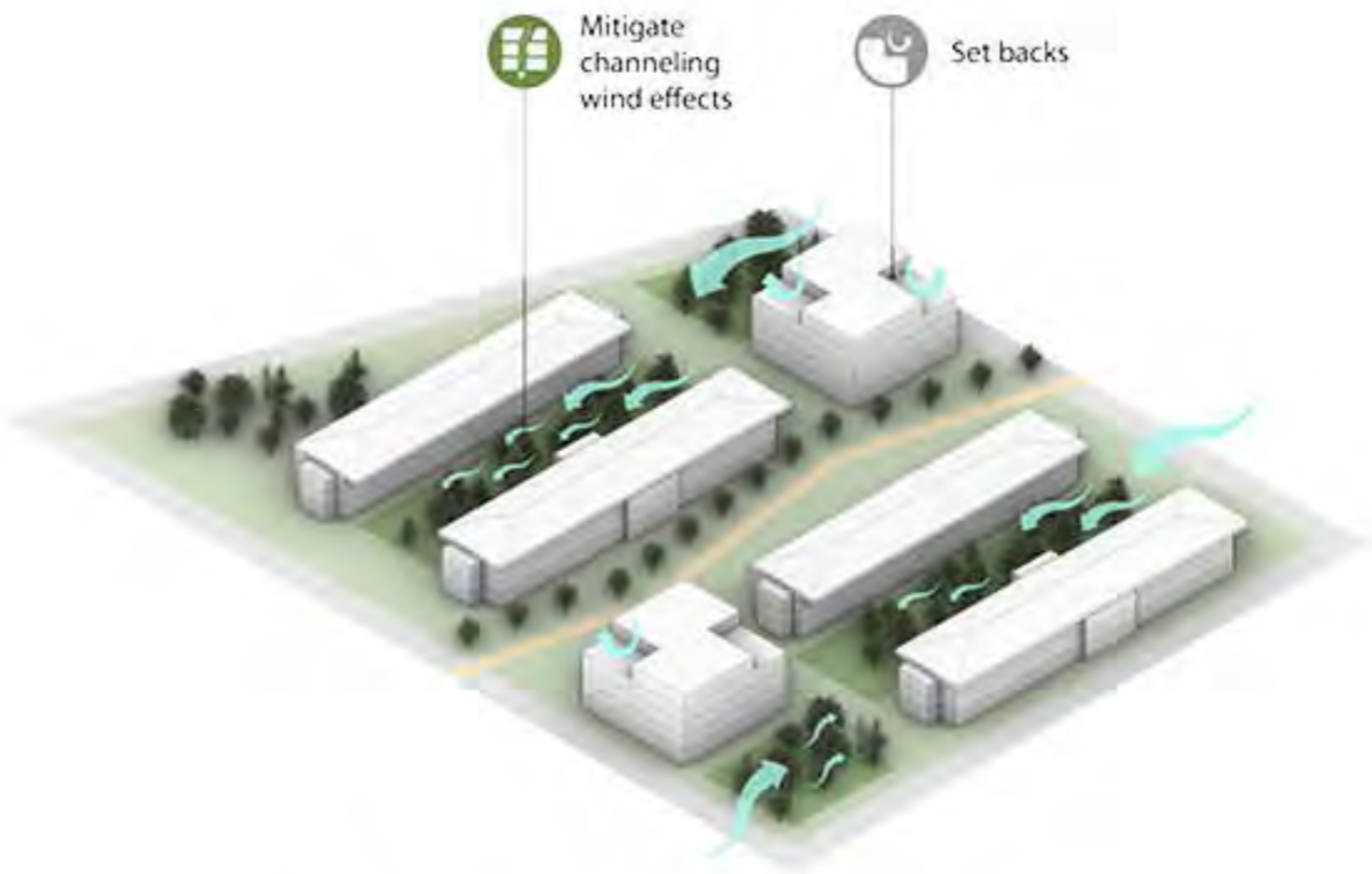




Central district.



Campus.



Residential neighbourhoods.



DELIV



VERY

Ensuring success

The KAA masterplan is conceptualised as a multi-dimensional framework to achieve economic, social and environmental outcomes. It supports Iceland's net-zero and sustainability ambitions as well as exemplifying the UN SDGs. The design concepts promote health and well-being, appropriate densities, active landscaping, combined with the latest technologies, to create a green, sustainable city region of the future.

Designed as an integrated masterplan combining transport, energy, industrial, commercial and social planning, it will diversify the local economy towards high value sectors supported by world class living and cultural spaces. The focus areas have strong synergies based on innovative circular economy concepts that will generate multiple and long-term benefits.

The masterplan is an ambitious plan and for successful implementation careful planning is required that guarantees the right ingredients for delivery. Key to this is a delivery vehicle that operates as a one-stop shop for investors and businesses, incubator for projects and a platform for ongoing collaboration with key stakeholders and the local community. The delivery vehicle also ensures realistic phasing of projects and carries out a marketing strategy that encompasses ethos and the promise the masterplan aims to deliver.



Kadeco as a delivery vehicle

Kadeco leads the implementation of the masterplan on behalf of its key stakeholders, namely the Icelandic state, Isavia, Reykjanesbær and Suðurnesjabær. The roles of Kadeco are multiple and will change over time as projects develop and materialise. As the main instigator of the masterplan, Kadeco will have to ensure projects executed under its banner adhere to its ethos and principles, especially UN SDGs and Iceland carbon neutral goals. The key roles that Kadeco carries are described below.

One-stop shop

Kadeco is a one-stop shop for investors and businesses (both international and national) that want to establish their operations in the area. This involves advising on planning and land use and ensuring best practices are followed.

Investment scout and program initiator

Through its marketing program and continuous engagement with the international and national business community, Kadeco leads the way in finding investors for the area. It will also be a project incubator and initiator in line with the masterplan's recommendations.

Platform for collaboration and engagement

Kadeco will be a platform for collaboration and engagement for different entities - ensuring continuity and coordination. These can be stakeholders, strategic partners, institutions and local communities.

Marketing through the K64 brand

Kadeco leads the marketing of the KAA masterplan through the K64 brand. The K64 brand is the key tool used to communicate, both through narrative and visual imagery, the aspiration and goals of the KAA masterplan. It encompasses the ethos of the KAA masterplan, namely sustainability and open engagement with different audiences.

The K64 brand

K64 is a brand that Kadeco developed in conjunction with the KAA Masterplan to frame and narrate the story of the masterplan and the masterplan's delivery programmes. The goal of the brand is to be iconic and unique, while also simple, flexible and engaging to create a strong dynamic inside and outside the project.

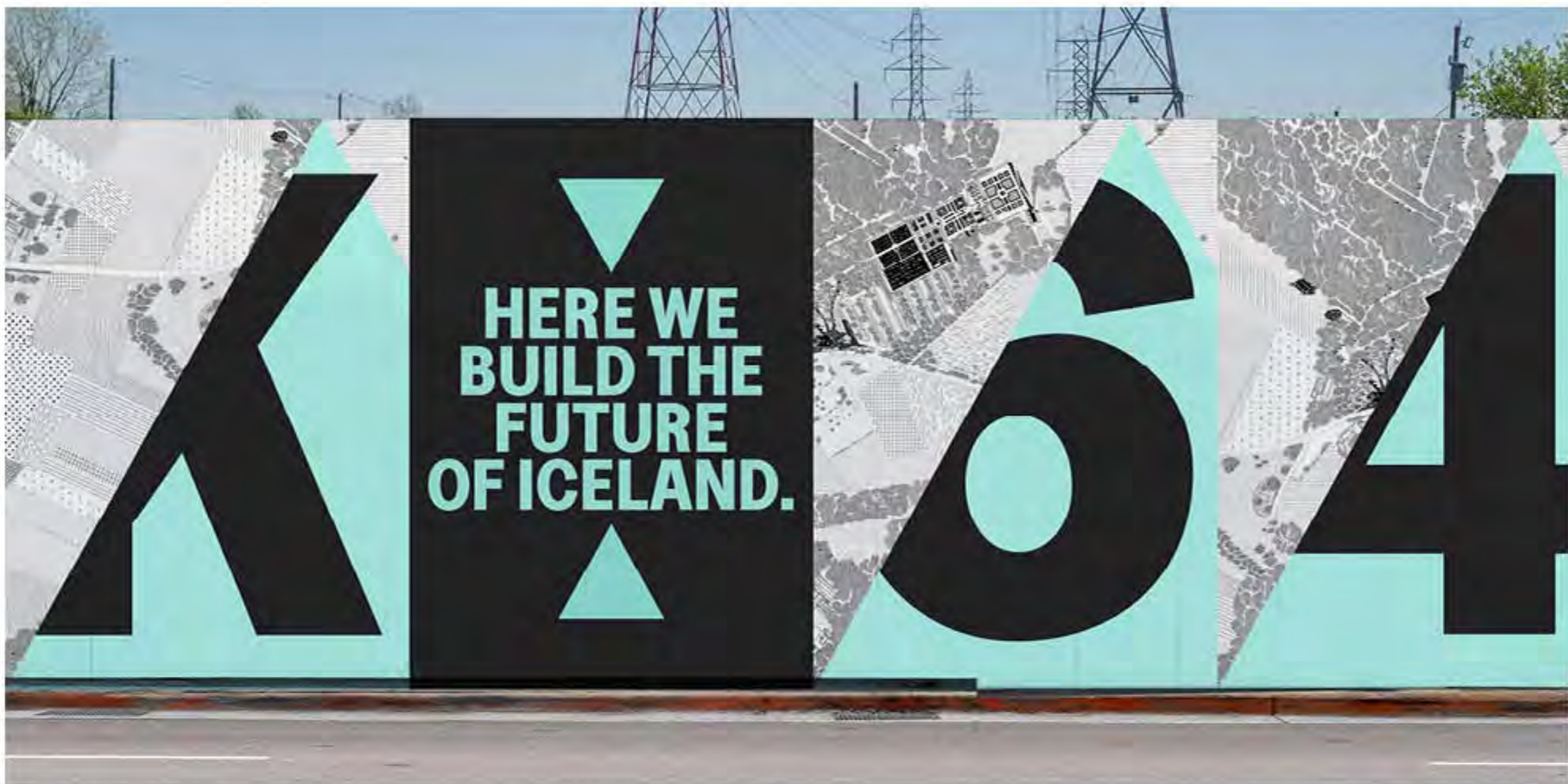
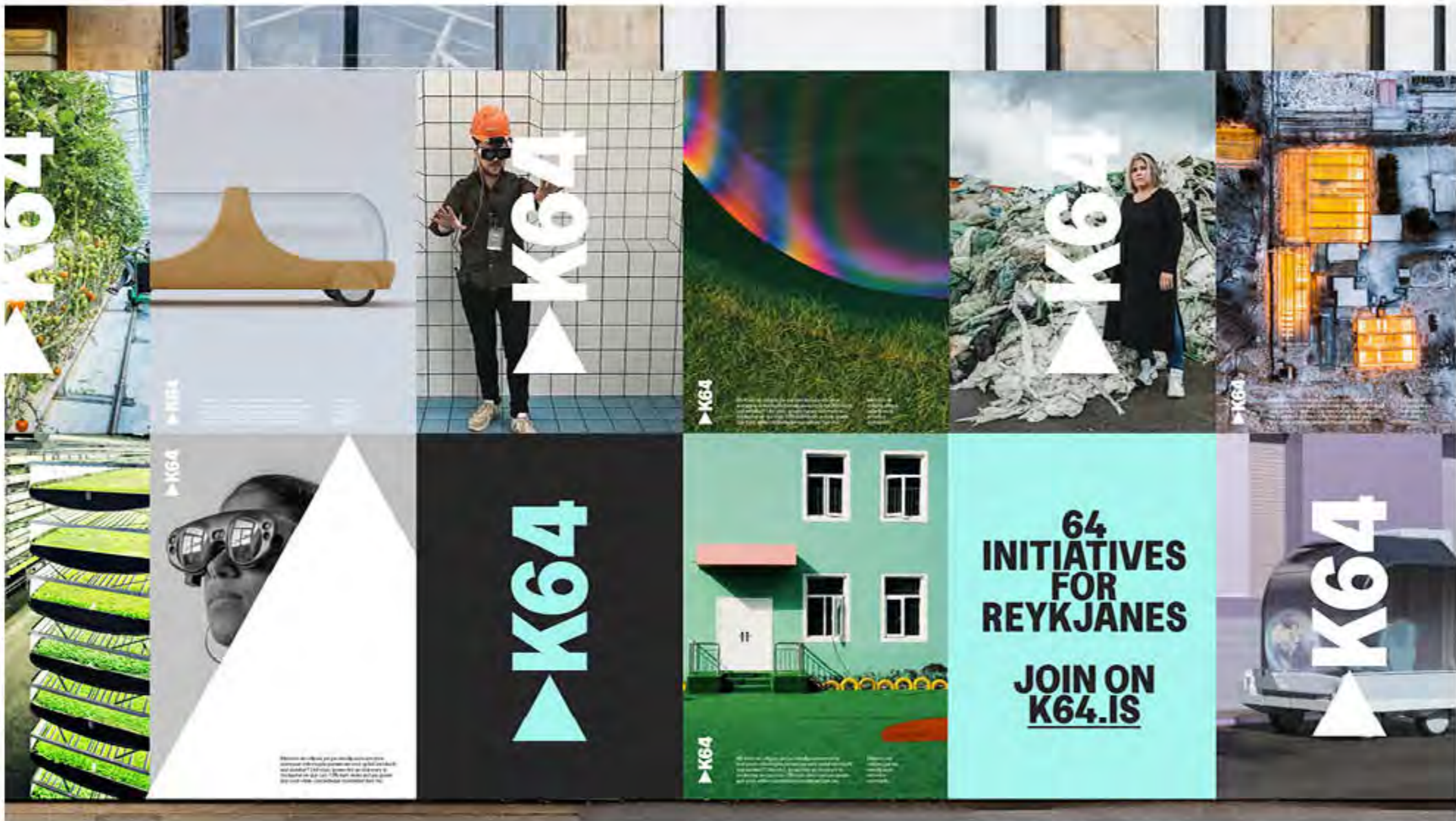
In developing the brand, local stakeholders were consulted and asked what the brand would need to incorporate. The result was that the brand would need to:

- ▲ Develop and diversify business opportunities
- ▲ Embody the essence of Iceland
- ▲ Foster collaboration between stakeholders
- ▲ Promote the local way of life
- ▲ Be a beacon for sustainable growth
- ▲ Improve mobility to maximise potential
- ▲ Connect the world

The initials K64 are a reference to Keflavik Airport and the Keflavik Airport Area's latitude which is 64°00'N. The logo, the triangle, is a reference to the harmony between technology, nature and humanity.



On this unique hotspot of activity something new arises, an energy, a community, a future. On the crossroads of the 64th parallel north and the Mid-Atlantic Ridge, ideas will meet like nowhere else.



Phasing

The phasing of the KAA masterplan demonstrates the potential implementation stages per project type, from the masterplan initiation to its completion.

The KAA provides a vision for 2050 for the region. Target sectors and projects have been lined up according to a selection framework and feasibility for initiation. The selection framework considers the coordination between population growth, jobs, infrastructure development, as well as residential and commercial developments.

Alignment with the Isavia masterplan for Keflavik Airport and airport growth were considered. The feasibility for initiation considered the above factors and grouped the projects into short-, medium- and long-term opportunities. This provides Kadeco with a guide to prioritise projects.



Collaborative process

The masterplan is built on an extensive stakeholder engagement exercise and the dialogue continues through the implementation process. As explained above one of Kadeco's key role is providing a platform for collaboration and engagement. Wider discussion with national players such as different ministries, national institutions and business is a process that all key stakeholders need to sustain.



Keflavík Airport Area Masterplan
March 2023

KADECO
KEFLAVÍK AIRPORT DEVELOPMENT COMPANY

Team:

KCAP, Zurich (team lead, urban planning and urban design)

WSP, London (economic and real estate development, collaborative development, and organisational readiness)

Felixx Landscape Architects & Planners, Rotterdam (landscape architecture)

MIC-HUB, Milan (mobility and transport planning)

VSO Consulting, Reykjavík (consulting economy, mobility and urban planning)

Buck Consultants International, Nijmegen/The Hague (cargo strategy)

Buro Happold, Berlin (climate and aviation mitigation and energy strategy)

Base Design, Brussels (place branding)

Maurits Schaafsma, Amsterdam (consulting airport area master planning)

Kanon Arkitektar, Reykjavík (consulting urban planning and landscape architect)



Visuals and Drawings: © KCAP, © Felixx, © MIC-KCAP © PLOMP

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