



# ILULISSAT

INTERNATIONAL **DESIGN COMPETITION**

# ICEFIORD

## ILULISSAT ICEFJORD CENTRE

GREENLAND

## COMPETITION BRIEF

2015

GOVERNMENT OF GREENLAND  
QAASUITSUP MUNICIPALITY  
REALDANIA



... a small building  
in a magnificent landscape...

... featuring attractive and  
sustainable architecture  
of international standing ...



# INTERNATIONAL DESIGN COMPETITION 2015

## ILULISSAT ICEFJORD CENTRE GREENLAND

### INVITATION October 2015

**THE GOVERNMENT OF GREENLAND, QAASUITSUP MUNICIPALITY and REALDANIA** are pleased to invite six selected international teams of architects to participate in a competition for the design of a new Icefjord Centre in Ilulissat on the west coast of Greenland, 250 kilometres north of the Arctic Circle. Realdania is the client.

**ILULISSAT ICEFJORD** is a spectacular place. The approximately 60 kilometre long icefjord runs from the glacier's edge at the ice cap to Disko Bay and offers a unique opportunity to experience and study the ice, the natural environment and global climate change at close quarters. In 2004, UNESCO designated the icefjord at Ilulissat a World Heritage Site, which afforded protection to the area.

**THE NEW ICEFJORD CENTRE** is to be a natural point of departure for all visitors to Ilulissat and a opportune, unifying framework of Arctic tourism, which is on the increase. The centre is to present and interpret new knowledge and research about the ice cap, the icefjord and global climate change – the local effects of which are so obvious at the icefjord.

The partnership's ambitions for the new icefjord centre are very high. We wish an aesthetically pleasing, sustainable building complex with architecture of international standing, located and designed with great understanding of the unique site. We have therefore invited some of the world's very best architects to prepare proposals for the building design. The design competition comprises both buildings and outdoor areas, but not the actual exhibition design in the centre.

We look forward to receiving entries of very high quality and hope all teams will enjoy working on their responses to the brief.



**GOVERNMENT OF GREENLAND**

**QAASUITSUP MUNICIPALITY**

**REALDANIA**



# ILULISSAT ICEFJORD CENTRE GREENLAND

## **ILULISSAT ICEFJORD CENTRE – A UNIQUE PLACE ON OUR PLANET**

Ilulissat Icefjord is located at Disko Bay on the west coast of Greenland, 250 kilometres north of the Arctic Circle. The icefjord is an area of outstanding natural beauty where visitors can see one of the world's most active calving glaciers at close quarters, and where global climate change is spectacularly evident right in front of their eyes. In 2004 the icefjord at Ilulissat was included in the UNESCO World Heritage List because of the area's unique natural scenery and outstanding glaciological features.

This unique place in the magnificent Greenland landscape attracts great attention and interest from people all over the world, and the Government of Greenland keenly wishes to be able to protect the site while at the same time presenting it to visitors.

The Icefjord Centre will provide visitors with an engaging exhibition that communicates knowledge, facts and experiences relating to the Ilulissat Icefjord. Through the common theme of ice, the exhibition will explore how ice conditions in Greenland and Ilulissat are intrinsically linked with geoscience and climate change. The centre will also focus on Greenland and the cultural history of its people.



## **INTERNATIONAL DESIGN COMPETITION**

**THE GOVERNMENT OF GREENLAND, QAASUITSUP MUNICIPALITY and REAL-DANIA** have launched an international competition for the design of a new icefjord centre in Ilulissat.

### **TWO STAGES**

The competition is organised in two stages:

- An initial design competition regarding the location, organisation and appearance of the centre
- A subsequent negotiated procedure with up to three of the participating teams. In this stage the entries will be further developed, and the ultimate winner of the competition will be found.



## FACTS

### ILULISSAT ICEFJORD KANGIA

Protected area: 4,000 km<sup>2</sup>

Length of the fjord: 60 km

Depth of the fjord: up to 1,000 metres

Annual ice calving: about 45 km<sup>3</sup>

## COMPETITION PARTICIPANTS

- A Team ARKÍS ARKITEKTAR, Iceland
- B Team DORTE MANDRUP ARKITEKTER, Denmark
- C Team KENGO KUMA AND ASSOCIATES, Japan
- D Team RINTALA EGGERTSSON ARCHITECTS, Norway
- E Team SNØHETTA, Norway
- F Team STUDIO OTHER SPACES / Olafur Eliasson and Sebastian Behmann, Germany

## COMPETITION ASSIGNMENT

Entrants are to present proposals for a new Ilulissat Icefjord Centre that can serve as a framework for research, communication and interpretation.

- Entrants are to prepare a **SITE PLAN** for the competition area, showing the location of the Icefjord Centre as well as outdoor areas adjacent to the centre.
- Entrants are to design a **BUILDING** with a total gross floor area of approximately **900 M<sup>2</sup>** and illustrate how its rooms are to be organised.
- The construction budget set aside for the realisation of the competition scheme, including consultants' fees, is **EUR 7.7 MILLION**. The total budget for the Icefjord Centre is **EUR 15 MILLION**.

## ASSESSMENT CRITERIA

Entries will be assessed on their overall ability to

- optimally realise the overall vision of presenting and interpreting the unique icefjord and its natural surroundings
- create a unique icefjord centre that is worth a journey in its own right
- create a building that is sustainable and adapted to the harsh, dramatic nature of the site

## ASSESSMENT PANEL

Lars Autrup, Realdania, chair of the jury

Thue Christiansen, artist, representative of the Government of Greenland

Ono Fleischer, Municipality of Qaasuitsup, Greenland

# SUMMARY COMPETITION BRIEF



Hans Peter Svendler, special adviser

Design professionals:

Jan Søndergaard, professor, KHR Arkitekter, architect

Torben Schønherr, Schønherr A/S, landscape architect

Carsten Rode, professor, DTU Byg, engineer

## ANTICIPATED TIME SCHEDULE

Deadline for submission of entries, Stage 1: 12 January 2016

Deadline for submission of entries, Stage 2: March 2015

Announcement of the final result of the competition: June 2016

Completion of the winning scheme: 2019

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BACKGROUND



GLACIER'S EDGE



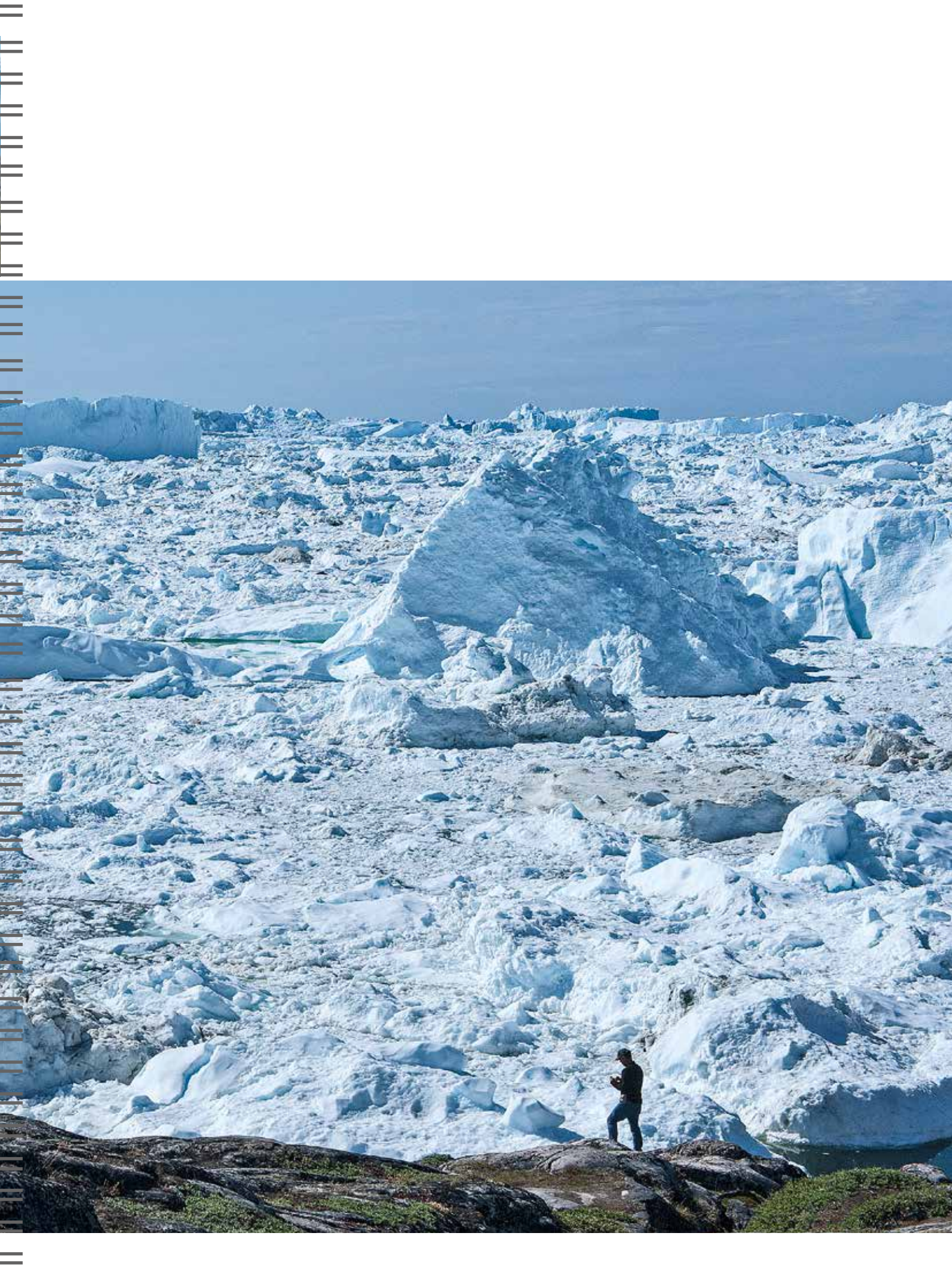
THE ICEFJORD SEEN FROM THE GLACIER'S EDGE

















# BACKGROUND

## ILULISSAT ICEFJORD



### DISKO BAY AND THE ICEFJORD

Ilulissat Icefjord covers a stretch of 60 kilometres between the icecap and Disko Bay in western Greenland.

### UNESCO HERITAGE SITE

Ilulissat Icefjord (also known as Kangia) is located at Disko Bay on the west coast of Greenland, 250 kilometres north of the Arctic Circle. Ilulissat Icefjord was included in the UNESCO World Heritage List in 2004 because of its unique glaciology and great natural beauty. The World Heritage site covers an area of about 4,000 km<sup>2</sup> that forms a semi-circle covering part of the icecap around the Sermeq Kujalleq glacier and continues along both sides of the icefjord until it reaches Disko Bay.

At the bottom of Ilulissat Icefjord is Sermeq Kujalleq, the largest and most active glacier outside Antarctica. It covers an area of approximately 3,000 km<sup>2</sup> and calves about 45 km<sup>3</sup> of ice a year, equivalent to about 10% of all Greenland calf ice. The icecap in Greenland currently covers an area of about 1.7 million square kilometres and is up to 3.2 km thick at the centre. The oldest part of the icecap is approximately 250,000 years old.

Ilulissat Icefjord's uniqueness is a combination of an exceptionally productive glacier at the icecap and the special fjord bed conditions where the fjord meets Disko Bay. A ridge on the seabed – known as an ice bank – causes icebergs that go deep below the water line to run aground and subsequently break into smaller pieces that drift into Disko Bay. The ice bank causes continual congestion of icebergs and pack ice in the fjord, meaning that it takes more than a year for the ice to move from the edge of the glacier into the open sea.

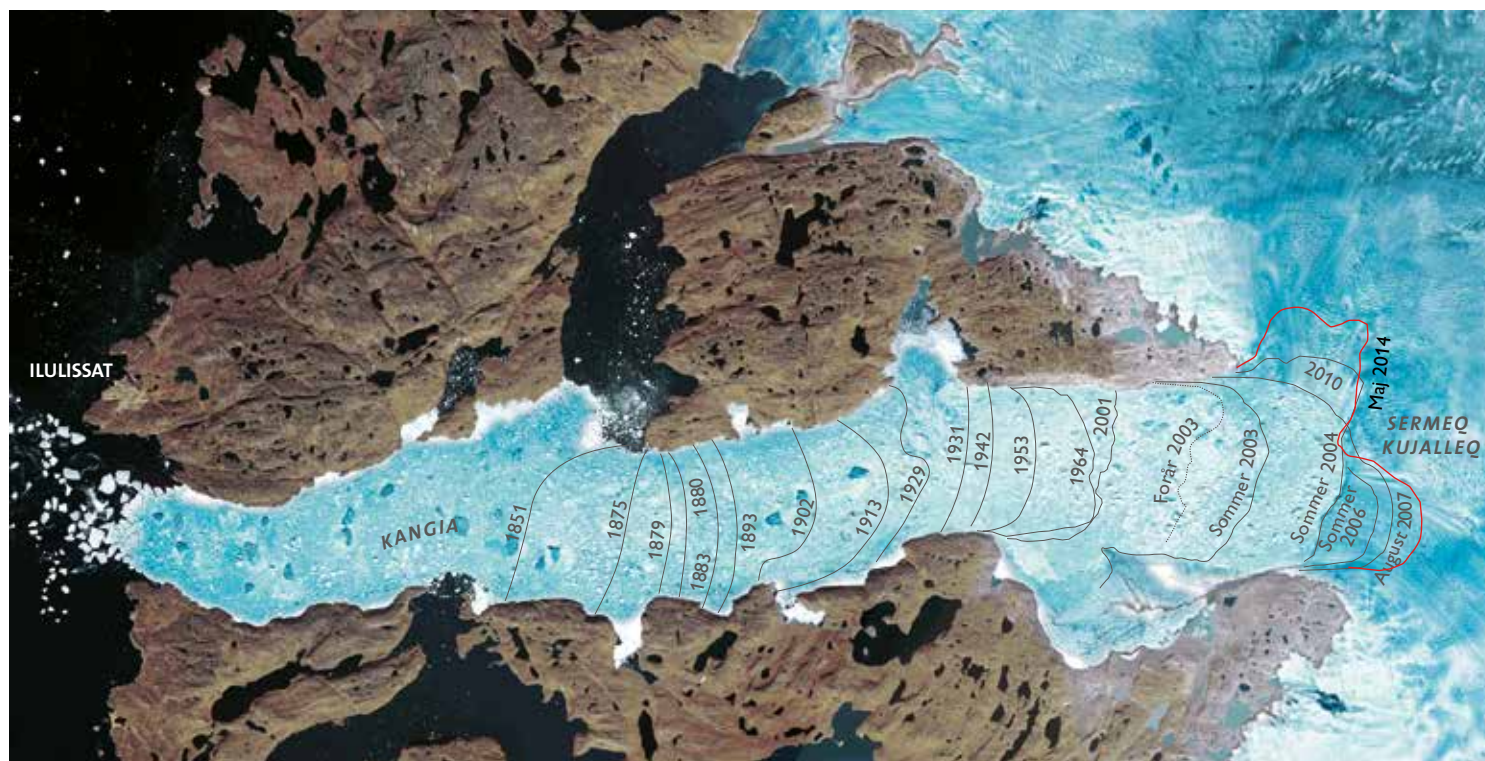
The Greenland icecap contains information about geological and climatic evolution over many thousands of years, and the area around Ilulissat Icefjord is a particularly good place for glaciological studies, as it is possible to observe calving glaciers and floating icebergs of a scale and regularity not seen anywhere else in the world. Sermeq Kujalleq and Ilulissat Icefjord are therefore among the most studied glaciological natural phenomena globally. The front position of the glacier as well as a number of other aspects have been observed and documented over the past 150 years. The glacier and the icefjord are thus very important in the study of ice dynamics and changes in the icecap as a response to present and future climate change.

Link to supplementary literature:  
<http://whc.unesco.org/en/list/1149>

Supplementary literature:  
ILULISSAT ICEFJORD – A WORLD  
HERITAGE SITE. Published by GEUS

In addition, the icefjord is one of the increasingly rare places where a person can feel all alone. The magnificent natural scenery reminds visitors of the place of people in a greater context and gives rise to thought and reflection.

The designation as a UNESCO World Heritage Site entailed an obligation to interpret this unique place for visitors. The idea of establishing a visitor centre at Ilulissat



Icefjord is not new, but it was only recently that a financial basis for accomplishing an icefjord centre at this unique location was provided.

#### CLIMATE CHANGE 1:1

In the Arctic, the extent and consequences of climate change are manifest, since temperatures are rising particularly quickly in this region. Recent scientific studies conclude that since 1980 the Arctic has been warming at twice the global rate and that average temperatures in the Arctic over the period 2005-2010 were at record-high levels compared with all observations since 1849, when temperature measurements started.

An area of about 1.7 million square kilometres (85%) of Greenland is covered by ice. Climate change has caused significant melting of the icecap, and research suggests that two-thirds of the rise in sea levels will be caused by melting of the icecap in Greenland. Climate change in Greenland thus has an impact on global climate conditions and the global environment, and Greenland has therefore moved up the international environmental agenda.

In addition to its unique glaciological features and beautiful natural scenery, Ilulissat Icefjord is now well known as an international climate location where the consequences of global climate change can be observed directly at close quarters. In the past few decades the Sermeq Kujalleq glacier has receded several kilometres towards the east. The pace at which this receding is taking place has accelerated in recent years. The receding of the glacier has become a kind of illustrative thermometer reading of the temperature of the planet, and Ilulissat Icefjord has thus become a symbol of the effect of global warming. The Icefjord has therefore become an object of international climate research and a platform for high-profile international opinion makers in the field of climate change and global warming.

#### ILULISSAT ICEFJORD

The map shows the withdrawal of the glacier edge over the past 150 years.

© Geus

See Annex 04  
ILULISSAT ISFJORD CENTRE  
Analysis and plan, 2014



## FACTS

### ILULISSAT ICEFJORD KANGIA

Protected area: 4,000 km<sup>2</sup>

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Annual ice calving: about 45 km<sup>3</sup>

## BACKGROUND

# ILULISSAT ICEFJORD

In Greenland, climate change will pose some environmental challenges. The Arctic flora and fauna are vulnerable. The ecosystems are adapted to the low temperatures in the area, and temperature changes will lead to changes to plants and wildlife. One of the changes already recorded is a reduction in fish populations around Greenland, which has made it necessary to introduce fishing quotas. However, climate change also provides a number of new opportunities such as the operation of new shipping routes in the Arctic waters around Greenland. In addition, the higher temperatures make it easier to extract natural resources from below ground and to increase agricultural production in the country.

### 4400 YEARS OF CULTURAL HISTORY

The landscape around Ilulissat Icefjord offers not only great glaciological experiences and magnificent natural scenery but also insight into Greenland's unique cultural history. People have lived in the icefjord area for more than 4,400 years and have benefited from the excellent fishing and hunting opportunities in the nutrient-rich sea off the icefjord. The archaeologically best preserved early settlements have been found at Qajaa on the south side of the icefjord and at Sermermiut on the north side, both of which are quite close to the competition site. The settlements contain remnants of turf houses and fishing and hunting gear as well as kitchen middens that reflect the story of Stone Age life at the icefjord.

Sermermiut is now a nationally protected archaeological heritage site, and in the summertime all access to the site is prohibited outside the footpath on the World Heritage Trail. The area represents an important part of Greenland's history and identity and is therefore also an important element in the overall narrative of Ilulissat Icefjord.

### SERMERMIUT SETTLEMENT

Approximately 2,200 year-old settlement in the bay close to the competition site.

Protected archaeological heritage site.



# BACKGROUND

# ILULISSAT

### A GROWTH CENTRE IN GREENLAND

Ilulissat, which means icebergs in Greenlandic, has a spectacular location between Disko Bay and the mouth of the 60 kilometre long icefjord. The town of Ilulissat was originally a trading station established in 1741 under the name of Jakobshavn.

With around 4,500 inhabitants, Ilulissat is now the third largest town in Greenland. It is the urban centre for the northwestern-most municipality in Greenland, Qaasuitsup. Covering an area of 600,000 km<sup>2</sup>, Qaasuitsup is not only the largest municipality in Greenland, but also the world's most northerly and largest in terms of area. Development in Greenland is currently such that there are four major growth centres in the country. The most vibrant towns are growing, while the number of people living in very small settlements is falling, and an increasing number of small settlements are being abandoned completely. This is a significant change in a country where people until recently lived in small secluded communities.

Societal change and now also climate change present both challenges and new opportunities in Greenland, and the changes primarily affect the primary industries in the country: fishing, tourism and extraction of raw materials.

### Changing fishing industry

Together with tourism, the fishing industry is the largest source of income in Ilulissat. The icebergs in Ilulissat Icefjord make local sea waters particularly nutrient-rich, and hunting and fishing have always been important activities in the area. Greenland's largest fish processing corporation, Royal Greenland, established its first factory in Ilulissat in 1961. Since then the factory has been modernised and extended, and it is currently a very important factor in Royal Greenland's total production of prawn and halibut in Greenland. With one hundred employees, Royal Greenland is the largest enterprise in Ilulissat. There is currently a strong focus on increasing earnings from fishing, especially from halibut, and on ensuring both economic sustainability and sustainable use of resources. The current trend is towards using large modern fishing vessels, which puts pressure on traditional fishing from small boats. In addition, climate change will have an impact on fish species, their location and the size of fish populations.

### URBAN STRUCTURE AND DEVELOPMENT POTENTIAL

#### Urban structure

Ilulissat town is to a great extent defined by the surrounding natural landscape. It is located in rugged terrain surrounded by mountains, offering views of both the icefjord



### ILULISSAT

Greenland's third largest town is located at Disko Bay immediately north of the icefjord

See Annex 04  
ILULISSAT ISFJORD CENTRE  
Analysis and plan, 2014



## FACTS

### ILULISSAT

Population: about 4,500

Jobs: about 2,200

Main industries: fishing, tourism

Annual number of tourists: about 30,000

Sledge dogs: about 3,000





# BACKGROUND

## ILULISSAT

and Disko Bay. Ilulissat is characterised by low-rise, scattered wooden buildings interspersed with a few larger buildings erected in the mid-twentieth century.

The oldest parts of the town are located to the north close to the town centre, the harbour and the hospital. Over time, the town has grown considerably in all directions. To the west, with views of the icefjord, are large, somewhat older areas of housing, whereas many of the primary town functions such as shops, schools, day-care facilities and business facilities are located south of the town centre. In recent years, the town has grown towards the north, where the Arctic Hotel and the airport are located, the airport having replaced the former heliport in Sermermiut south of the town. The airport is situated 3.5 km north of the town centre. On the outskirts of the town, large areas are used as grounds for dogs.

There are three main business areas in the town. One of them is the harbour area, which is the base of the largest industry in Ilulissat: fishing. This area includes the Atlantic wharf, the industry wharf, the trawler wharf and the tourist wharf. The two other areas with heavy industries are located at the foot of the Telebakken hill in the southwestern district and in the area close to the quarry to the southeast. Services and shops are mainly located along or close to the high street, Kusangajannguaq.

The town is centred on a main street with a selection of shops, a few supermarkets and two cafés. The local 'square' includes the marketplace where local hunters and fishermen sell their catches to residents and tourists. The office of World of Greenland is also located in the square, which is a roughly defined urban space that does not function optimally as a gathering point. The local hospital and Greenland's only college of social education are also located in the town centre. Ilulissat has two state schools and a third under construction.

The town's culture and community centre was established in 2009 and serves as a meeting place and cultural venue for local residents. A local history museum has been created in the house where the Danish polar explorer and anthropologist Knud Rasmussen was born. Its permanent exhibition interprets the cultural history of the area. Finally Ilulissat has a small art museum with residential facilities for visiting artists.

### Infrastructure

Transport in Ilulissat is mainly on foot and, to a lesser extent, by car. People often use taxis, which are supplemented by a single bus route in the town. The roads are simple and most of them have no pavements. A characteristic of Ilulissat's internal infra-



### THE HARBOUR

The harbour and the sea are the largest places of employment in Ilulissat.

### THE MAIN STREET

Kusangajannguaq is the backbone of the town, with the majority of the town's shops and services as well as the informal town square.





## FACTS

### GREENLAND KALAALLIT NUNAAT

Population: about 56,000

Area: 2,350,000 m<sup>2</sup>

Largest towns: Nuuk, Sisimiut, Ilulissat, Qaqortoq

Demographics: 88% Greenlanders, 11% Danes, 1% other nationalities

Main industries: fishing, tourism

structure is the informal system of gravel or wooden plank paths for pedestrians. These paths were established over several years as the town was developed. They currently follow an unclear course, and short-term visitors to the town often fail to see them. An important mode of transport outside the town is dog sledges. There are about 3,000 sledge dogs in Ilulissat, which in Greenland is known as the town with as many sledge dogs as people.

Transport to and from Ilulissat is through the airport or by sea. Ilulissat Airport was established in 1983 and can now be used by relatively small, fixed-wing aircraft. Air Greenland operates several daily flights from Greenland's Atlantic airport, Kangerlussuaq. In the summer of 2012, Air Iceland was the first foreign airline to open direct routes to Ilulissat Airport: two weekly flights between Ilulissat and Reykjavik. Efforts are currently being made to have the runway extended so that larger aircraft will be able to land at the airport.

The town council has also discussed the possibility of establishing a new port of call that will make it easier for the many visiting cruise ships to gain access to the town. Conditions for vessels calling at the port of Ilulissat are inadequate during periods when large quantities of ice floes are produced in the icefjord.

#### Future urban development

At present, the urban zone cannot extend towards the east, as the areas to the east of the town are used for water extraction and it is believed that there may be a risk of contamination from wastewater. The protected world heritage site and the buffer zone to the south of Ilulissat also have an impact on the potential for expanding the town, as restrictions applying to the two areas limit the options for erecting new buildings and also place constraints on vehicular traffic. Ilulissat's urban zone is therefore expected primarily to grow towards the north in the areas close to the Arctic Hotel and Ilulissat Airport. In this connection consideration is being given to whether some business activities should be moved from Ilulissat South to Ilulissat North, as this would make it possible to clean up areas close to the buffer zone and the world heritage site – and consequently the competition site.

#### SUSTAINABLE TOURIST DESTINATION

Tourism is a growing industry throughout the world, as it has been for the past fifty years. There is currently a trend towards tourism focusing on destinations, with tourists wanting special experiences that make an impression on them, for example because they can immerse themselves in unique landscapes or cultural settings, or be-



#### NEW AND OLD IN ILULISSAT

Top: Housing from the 1960s

Bottom: Zion Church, built in 1783

# BACKGROUND

## ILULISSAT

cause they can challenge body and soul in unfamiliar surroundings. Greenland and not least Ilulissat have plenty to offer in that respect, and the objective is for Greenland to become an internationally sought-after destination, noted for its unique Arctic scenery and activities and for its focus on sustainable tourism. In recent years the tourism sector has experienced considerable growth, and Ilulissat is currently the tourist destination with the highest number of visitors in Greenland. The UNESCO-protected icefjord is a major attraction and a large, professional tourist industry has emerged around Disko Bay in recent times.

Like tourism in the rest of Greenland, tourism in Ilulissat is characterised by a short high season that runs from early July to late August. The number of tourists in the winter season is very low. However, in recent years seasons have changed, and the town has seen an increasing number of visitors in the shoulder season (April, May and September). Visitors typically spend between two and eight days in the town.

Each year about 80,000 people visit Greenland, and 30,000 of them go to Ilulissat. The majority of visitors arrive by air, but cruise tourists account for a significant part of tourism in Ilulissat. The vessels vary in size from ships carrying 100 passengers to ships carrying 3,000 passengers. They call at Ilulissat for periods ranging from eight hours to two days. The trend is towards fewer but larger cruise ships.

### **Current tourist facilities**

At present, Ilulissat has four hotels, one of which is the four-star Arctic Hotel owned by Air Greenland. It has a gourmet restaurant and conference facilities. The town has several tour operators, World of Greenland being by far the largest. World of Greenland has supplemented the facilities in Ilulissat by building ten cottages at the Equi glacier 70 kilometres north of the town. In Ilimanaq south of Ilulissat a partnership comprising World of Greenland and Realdania Byg is currently building fifteen new cottages and renovating two eighteenth-century buildings to make them suitable as tourist facilities. Qaasuitsup Municipality participates in the partnership by improving the infrastructure of the settlement and in that connection ensuring enhanced accessibility.

### **Need for cohesive tourist information and interpretation**

At present Ilulissat does not have a central, independent tourist information organisation. Information about the icefjord and the unique opportunities offered by the area is instead left to many small and large tour operators. The new Icefjord Centre may help cater to the need for coordinated and structured information for tourists and may be an important element in cohesive communication from town to icefjord.

See Annex 04  
ILULISSAT ISFJORD CENTRE  
Analysis and plan, 2014















## THE COMPETITION AREA AND THE LANDSCAPE

- Competition area
- World Heritage Trail (boardwalk)
- Yellow Trail
- Red Trail
- Blue Trail





# BACKGROUND

## COMPETITION AREA



### CEMETERY

Ilulissat's oldest cemetery is located in the midst of an open landscape immediately to the west of the competition area.

### ACCESS ROAD

The Sermermiut Aqqutaa road meanders from the town up onto the mountain on its way to the former helipad.



### BETWEEN ICEFJORD AND TOWN

The Icefjord Centre will be situated between the town and the icefjord close to the small Lake Sermermiut and the former heliport. The centre will thus be located about one kilometre from Ilulissat town centre and about 800 metres from the edge of Kangia Icefjord.

This area currently serves no other purpose than being the point of departure for walking trails and trips to the icefjord. There are only a few buildings in the area, all of which it is anticipated will be demolished. Immediately to the southeast of the area is the town's oldest cemetery, situated in an open landscape.

### Landscape and terrain

The competition area is located on a plateau in the western end of the Sermermiut Valley, surrounded by steep rock formations to the west towards the radar station and less steep rock formations to the east. From the plateau there are views of the outermost parts of Ilulissat, but above all a breathtaking view of Kangia Icefjord to the south. The competition site features both a clearly landscaped area at the former heliport and an untouched pristine natural area with rock formations and wetland areas to the north and south of Lake Sermermiut.

The Icefjord Centre will have a central location in relation to the already established paths that lead into the landscape. The centre can be directly connected to the existing boardwalk – the World Heritage Trail – that takes visitors to Sermermiut and the icefjord. The centre will also be the starting point for the Red Trail that brings visitors to Holm's Hill at the icefjord, the longer Blue Trail along the icefjord, ending at the quarry, and the Yellow Trail that takes visitors past the cemetery, past the point where the icefjord meets Disko Bay and ends at the power station in the town.

### Access

Access to the competition area is along the Sermermiut Aqqutaa road from the town of Ilulissat. The road is currently in a relatively poor state of repair and quite narrow. It can have capacity problems in the summer months when many tourists drive and walk to the area. It is expected that the road will be upgraded in connection with the building of the Icefjord Centre, so that visitors' positive experience of the centre will begin when they are heading towards it. The upgrading may also involve an alternative route for hikers who do not depend on easy accessibility and who want a different kind of experience on their way to the Icefjord Centre. The alternative route may be at the built-up areas to the east of the competition area.

# BACKGROUND

## COMPETITION AREA

Several packs of sledge dogs live along the road. The proximity of the dogs creates an authentic experience of Greenlandic culture but also signifies a risk, since outsiders do not always respect the nature of the dogs.

### PROTECTED AREA AND BUFFER ZONE

#### National protection

South of the town are the icefjord and the surrounding landscape that were granted national protection status in 2003. The area is subject to the Ilulissat Icefjord protection order, the purpose of which is to protect the natural beauty of the icefjord landscape as well as the area's cultural heritage. The Icefjord protection order sets out a number of restrictions regarding buildings, civil works and traffic in the area. The local Icefjord Office is in charge of managing the protection of the area through information and supervision.

After consulting Quaasuitsup town council, the Greenland Ministry of Nature, Environment and Justice can grant permission to erect buildings or other permanent structures in the protected area. The ministry may also lay down conditions concerning the extension, location, height and appearance of such buildings and structures.

#### UNESCO PROTECTION ZONE

In 2004 the protected area was designated a UNESCO World Heritage Site. The 4,000 km<sup>2</sup> site covers a large semi-circle into the icecap around the Sermeq Kujalleq glacier as well as areas along both sides of the icefjord. The World Heritage Site is marked by special cairns in the landscape, and a plaque on the boardwalk indicates when visitors are entering the heritage site. The designation as a UNESCO World Heritage Site implies strict requirements aimed at protecting the natural environment and keeping the site pristine. The designation also involves an obligation to present the location to visitors and the world at large.

#### UNESCO buffer zone

At the request of UNESCO, a buffer zone between the town zone boundary and the protection line of the icefjord area was created in connection with the World Heritage Site designation. The purpose of the buffer zone is to ensure that there will be no activities close to the heritage site that can potentially impair its special heritage assets. UNESCO has a special focus on limiting activities in the buffer zone that are visible from the protected world heritage site, for example construction. However, buildings may be erected in the buffer zone, but only if they conform to strict requirements concerning location, height, appearance, etc.

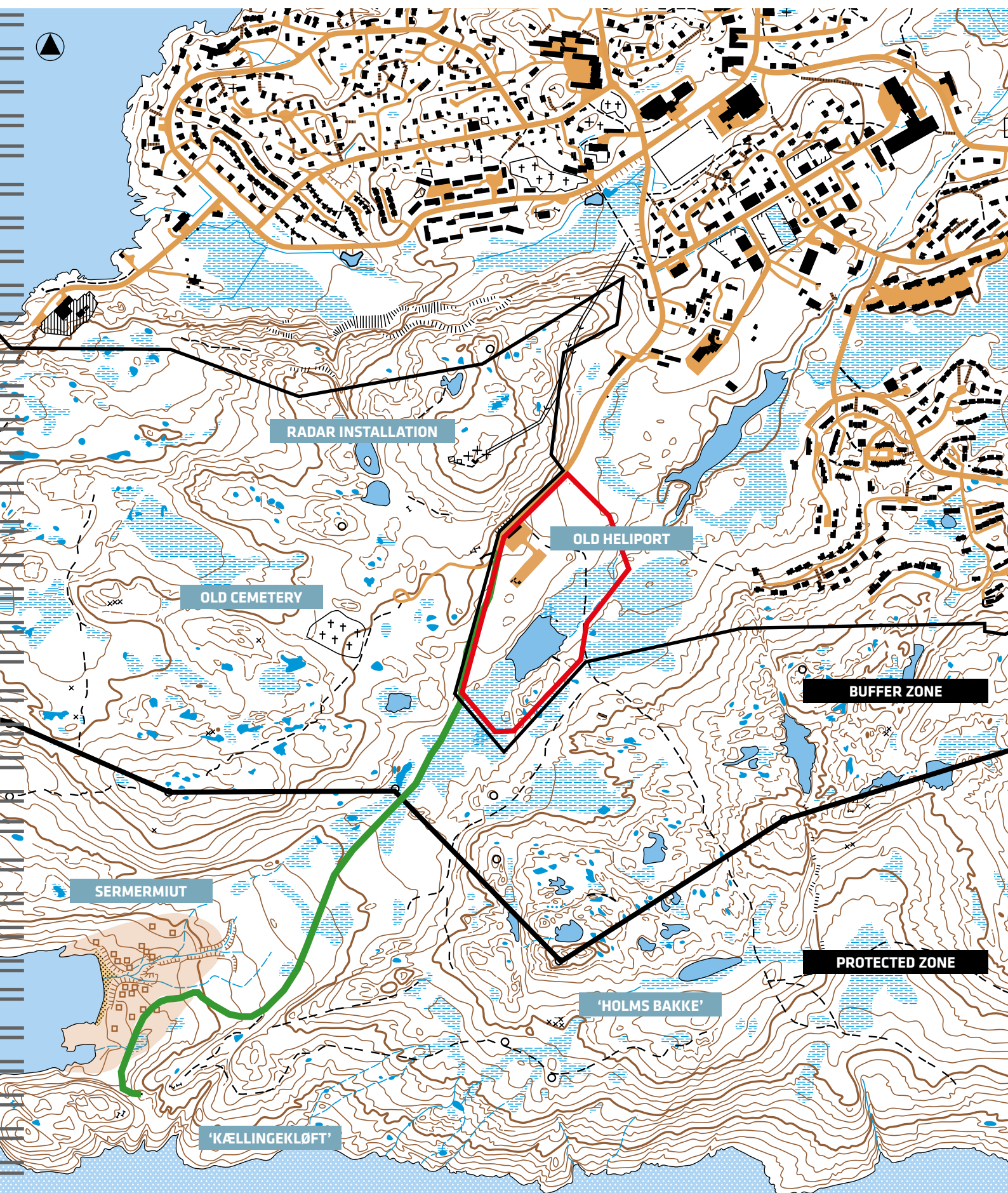


#### UNESCO PROTECTION ZONE

The entrance to the UNESCO World Heritage Site is marked by a gold-plated plaque in the boardwalk leading to the icefjord.

Link: UNESCO protection  
<http://whc.unesco.org/en/list/1149>





# BACKGROUND

## COMPETITION AREA

### PLANNING CONSTRAINTS

The Icefjord Centre will be located outside both the UNESCO World Heritage Site and the buffer zone. The boundaries of the competition area follow the boundaries of sub-areas set out in the current Qaasuitsup Municipal Plan, which came into force on 1 May 2014.

Subarea C12 set out in the municipal plan allows location of the Icefjord Centre at the former heliport and the small Lake Sermermiut. The general provisions of the municipal plan make it possible to build the centre in an area that is about seven hectares in size. The area has been zoned for communal purposes in the form of icefjord-related research, education, presentation, interpretation and accommodation. No buildings may have more than 3.5 storeys, and buildings must not be visible from the boundary of the protected area, with the exception of the Sermermiut Valley, from where there are undisturbed views of the town.

The current local plan for the area (Local Plan C12.1) was published on 19 January 2009. The plan sets out a framework for an icefjord centre sketched before it was decided to launch this international design competition. Local plans have not been used by the Greenland planning authorities since 2009. Instead, detailed provisions are prepared and included in schedules to the municipal plan.

Once the winning entry has been selected, a schedule to the municipal plan is to be prepared and submitted for public consultation. After approval of the schedule, an application for allocation of land is to be filed, not only for the actual building but also for access, parking and outdoor areas. When such approval has been obtained, an actual planning permission application may be filed. All regulatory processing will be carried out by the local authorities. Complaints about the processing may be sent to the Land Planning Department in Greenland.

### COMPETITION AREA ►

At the front, the competition area with Ilulissat Icefjord in the background. Sermermiut and the archaeological settlement can be seen in the top right-hand corner of the picture.

### COMPETITION AREA ►

The competition area at the former heliport and Lake Sermermiut. To the right, the Sermermiut Aqqutaa access road.

Link: Qaasuitsup municipal plan  
[http://qaasuitsup.odeum.com/en/vision\\_and\\_main\\_structure/vision\\_and\\_main\\_structure.htm](http://qaasuitsup.odeum.com/en/vision_and_main_structure/vision_and_main_structure.htm)











THE COMPETITION AREA AROUND THE SMALL LAKE SERMERMIUT









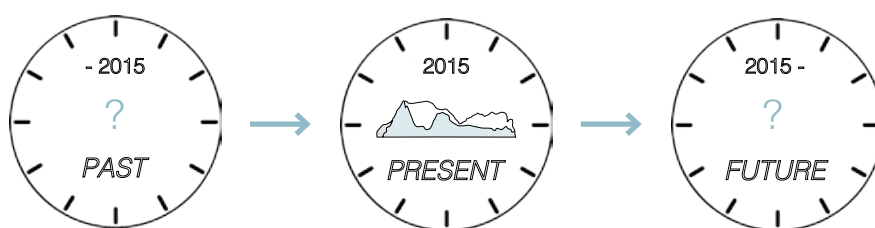
# THE ICEFJORD CENTRE

## THE ICEFJORD CENTRE VISION AND TARGET GROUPS

### OVERALL VISION

#### THE STORY OF ICE – THE FUTURE OF GREENLAND

- The Ilulissat Icefjord Centre will be **AN ACTIVE GATHERING POINT AT THE EDGE OF THE ICEFJORD** where local residents, businesses, climate researchers, climate debaters and global tourists meet.
- The Icefjord Centre will offer visitors **AN ENGAGING EXHIBITION** that communicates and interprets knowledge, facts and experience of the Ilulissat Icefjord. Through the general theme of 'ice', the exhibition will explore how ice conditions in Greenland and Ilulissat are intrinsically linked to geoscience and climate change.
- The Icefjord Centre will be located between the icefjord and the town of Ilulissat and will **BRING TOWN AND NATURE TOGETHER**. UNESCO has designated the icefjord area a World Heritage Site, and the Icefjord Centre will help ensure sustainable conservation of the site and communicate information about it.
- Ilulissat Icefjord Centre will be **A VIABLE BUSINESS AS A TOURIST ATTRACTION**, and it will also play a key role in Ilulissat's future as a modern town in Greenland, an active local community and **A SUSTAINABLE TOURIST DESTINATION**.



### TARGET GROUPS AND USERS

The Icefjord Centre will have both an academic and a popular dimension and will target local residents in Ilulissat, researchers working in the area, other professionals and the approximately 30,000 tourists who visit the town each year.

#### Local residents

The residents of Ilulissat are proud of the World Heritage Site and visit it on walks along the icefjord and in connection with annual social events. They will use the



# THE ICEFJORD CENTRE

## VISION AND TARGET GROUPS

Icefjord Centre to take a break after a walk in the landscape, or they will meet their friends and families there on special annual holidays. The Icefjord Centre will work with the two schools in Ilulissat, which will supplement classroom activities with walks to the centre and the collecting of rocks and plants in the landscape.

### Researchers

The researchers working in the area spend a few weeks there each time they visit the area and are outdoors in the field most of the time. The field stations at the Icefjord Centre will be the base of researchers where they can store and test their equipment, sleep, cook and meet other researchers from other countries. The Icefjord Centre will bring research activities in the area together, and new research will be at the root of dynamic presentation at the centre. This will be highlighted in the form of workshops and theme weeks where researchers will talk about their work.

### Professionals

The Icefjord Centre will place focus on climate change and attract businesses, climate debaters and other professionals who want to meet in the magnificent and highly relevant icefjord setting. Its location next to the icefjord makes the centre a natural pivot point in the global climate debate.

### Tourists

Each year, about 80,000 people visit Greenland, and 30,000 of them go to Ilulissat. A large proportion of the tourists in Ilulissat arrive on cruise ships or on a package tour. About 50% of the tourists in Ilulissat are aged 65 or over. The Icefjord Centre will be the place where tourists go to obtain an overview of the area and where elderly visitors can have a brief rest before they continue to the icefjord. Tourists who stay in the town longer will use the Icefjord Centre to obtain greater understanding of the area. The centre will put their experience of the natural scenery and the local community into perspective.

### MORE ABOUT TOURISTS VISITING THE ICEFJORD CENTRE

The Icefjord Centre will be visited by the following five primary tourist target groups: older people on package tours, Scandinavian sightseers, globetrotters, adventure tourists and cultural tourists.

#### Older people on group holidays

Older people travelling as part of a group travel in comfort, either onboard cruise ships or on package tours, and they usually have a travel guide to assist them. For people in

LOCAL

EDUCATIONAL



POLITICAL

TOURISTS

See Annex 05  
TOURISM IN GREENLAND





'In my group there are many people who have difficulty walking. Just knowing there will be a chair or a toilet nearby would make them feel more at ease.'

TOUR GUIDE POLAR REJSER

'Greenland has long been our dream destination. We have tried to find time for a visit for a long time.'

DANISH TOURISTS

'We have come here because Greenland is a special place. We wanted to see the ice before it's too late.'

TOURISTS FROM HONG KONG

'Greenland is an amazing place. There are very few places like Greenland. I like nature and really appreciate that there are so few people here.'

SWISS TOURIST

'To me the most important aspect is cultural exchange with local people. I can talk about my art, and the locals can tell me about theirs.'

DANISH TOURIST

this group, the Icefjord Centre will be a stop on their way to the icefjord where they can quickly obtain insight into the area and the most important information about the site. Others might prefer to stop at the centre on their way back to have a cup of coffee and rest their legs.

### **Scandinavian sightseers**

Greenland is the great dream for Scandinavian sightseers. Many of them wait until they have retired from their jobs or until their children are old enough to remember everything they saw and experienced. The UNESCO site is important for their choice of destination and so is the dog sledging and fishing that are part of Greenland culture. The Icefjord Centre will be the place Scandinavian sightseers go to in order to find answers to their questions about the icefjord and its importance to the local community.

### **Globetrotters**

Globetrotters travel frequently and rarely stay in the same place for a very long time. Many of them come from North America or the Far East and go on an 'ice-to-ice tour' that combines a visit to Greenland with a visit to Iceland. Globetrotters go to the icefjord to experience the exotic natural scenery and want to make the most of their stay. The Icefjord Centre will enhance their experience, and they will go to the centre to see how the glaciers calve or to watch a film showing how the ice cap is receding.

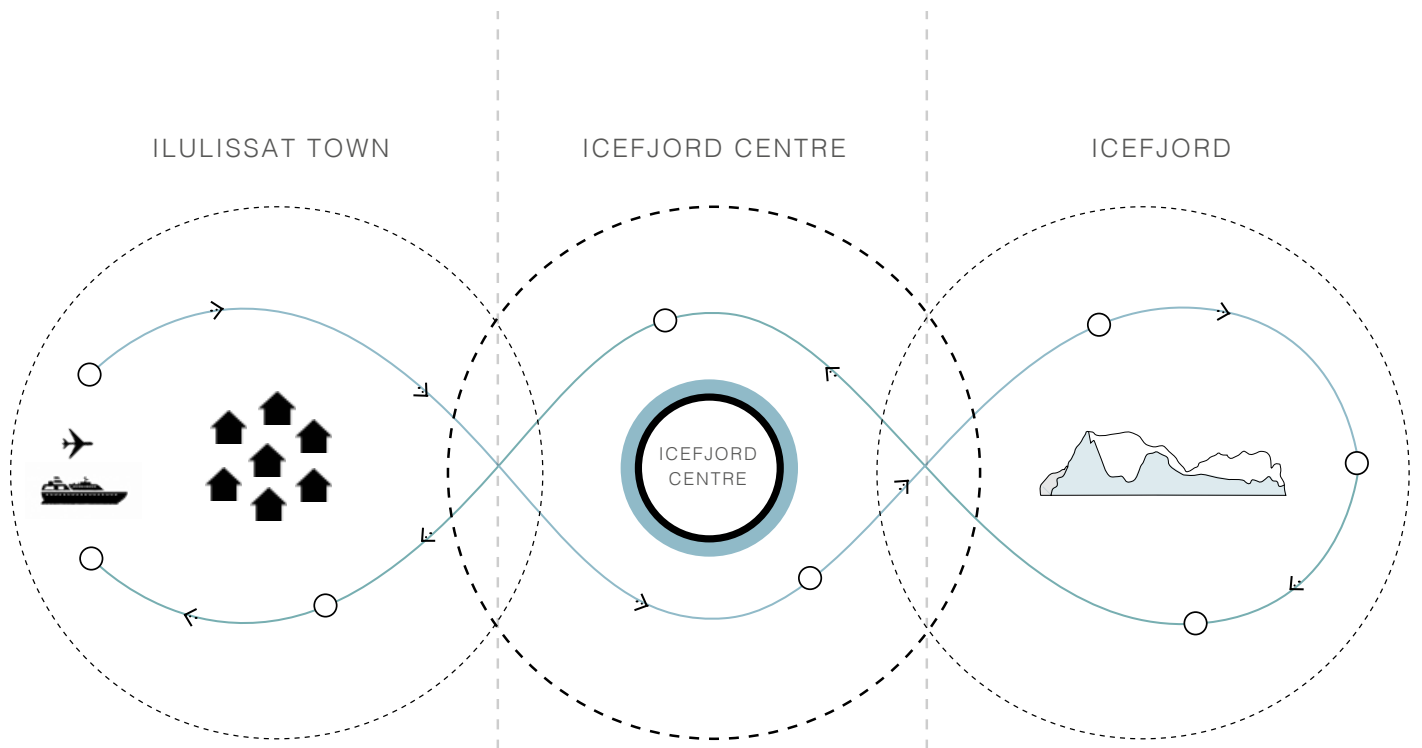
### **Adventure tourists**

Adventure tourists visit Ilulissat because of the natural phenomena in the area. Several of them travel alone, focusing on finding tranquility and time to immerse in nature. They are not only attracted by the ice but by the aesthetic aspects of the area as a whole. The Icefjord Centre will capture this atmosphere and will offer adventure tourists facilities for reflection, tranquility and sensory input, while at the same time providing information about geology, ice and the natural environment that helps them understand the site and the natural phenomena.

### **Culture tourists**

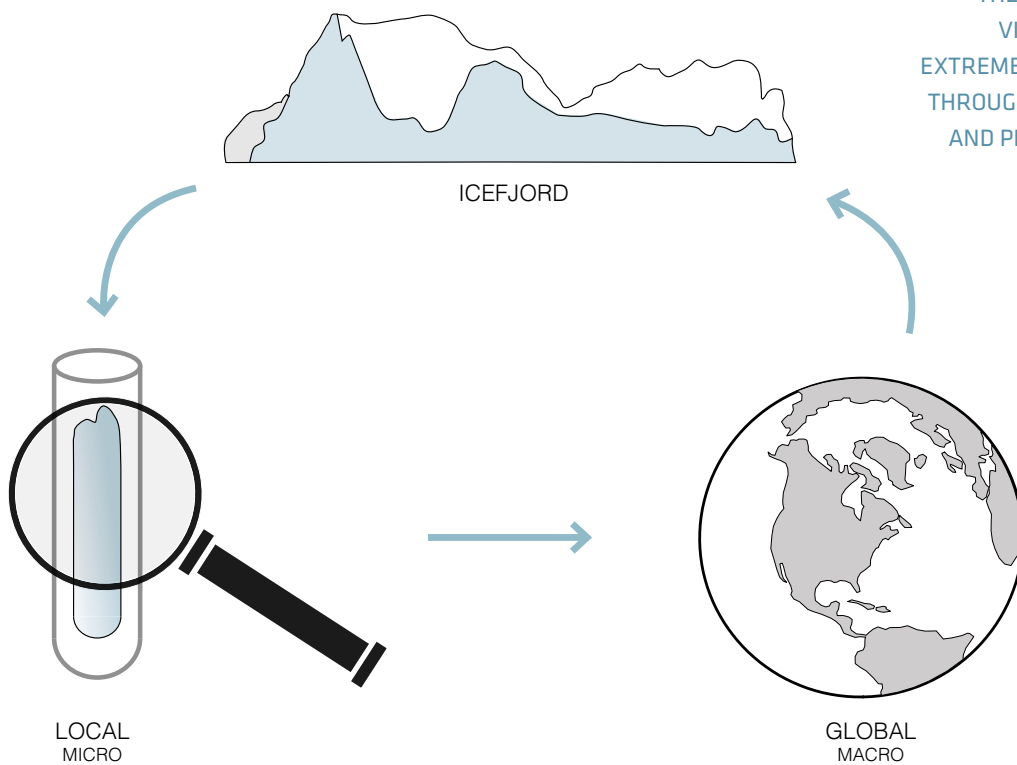
People interested in culture go to Ilulissat because of the unique Greenlandic culture that they can find nowhere else. Culture tourists are interested in learning more about how people lived in the past and in present-day people, art, music and food in Greenland. The Icefjord Centre gives them an opportunity to add new facets to their knowledge about the old settlements and Inuit graves in the area, and culture tourists can also take part in 'happenings' and attend lectures at the centre where local residents and tourists meet.





THE ICEFJORD CENTRE SHOULD  
BE A DIRECT PHYSICAL LINK BETWEEN  
THE OBJECTS DISPLAYED, THE  
SURROUNDING NATURAL ENVIRONMENT  
AND THE TOWN

THE EXHIBITION SHOULD ENABLE  
VISITORS TO UNDERSTAND THE  
EXTREME ENVIRONMENT IN THE AREA  
THROUGH THE ARCHIVING OF NATURE  
AND PROVIDE AN INSIGHT INTO OUR  
VERY EXISTENCE AND  
CULTURAL EXPRESSION





# THE ICEFJORD CENTRE

## INTERPRETATION AND EXHIBITION CONCEPT

VISITORS TO THE EXHIBITION SHOULD LEAVE THE CENTRE WITH A PERSONAL RELATION TO BOTH THE SITE AND THE LANDSCAPE AS WELL AS WITH REFLECTIONS ON A WIDER GLOBAL PERSPECTIVE.

### EXHIBITION: INTRODUCTION

The Icefjord Center will offer visitors an engaging exhibition that communicates and interprets knowledge, facts and the experience of Ilulissat Icefjord. Through the general theme of 'ice', the exhibition will explore how ice conditions in Greenland and Ilulissat are intrinsically linked to geoscience and climate change.

The design of the centre should meet the highest international standards, and the centre should reflect forms of communication that go beyond what is expected. It should be active in global debate, daring and able to evoke both emotional and rational sentiments.

The exhibition design and the actual exhibition objects are not part of the design competition, but the architecture should reflect the values defined by the visitor centre and provide a well-integrated exhibition space. Spaces should be coordinated on the basis of great understanding of exhibition requirements and overcome the technical and spatial challenges posed by temporary exhibitions.

In addition, the architecture is to provide a direct visual or physical link to the surrounding landscape and act outside its circumference and the site boundary, beginning at the point of arrival in the town of Ilulissat and guiding visitors along a route to understand the wider significance of the Icefjord.

### THE STORY OF ICE

Ice encapsulates the geological, ecological and climate history of our planet, and the icefjord offers unique opportunities to witness the natural beauty of ice in a variety of forms. Understanding the role of ice in the planetary evolution of multicellular life on Earth will encourage visitors to reflect on and look at the icefjord with a new sense of wonder and a feeling of personal involvement with the site.

The exhibition is to focus on present-day conditions and allow visitors to imagine the future. Having an exhibition at one of the world's most important sites in terms of climate observations will provide a rare opportunity to collect knowledge, theory and facts in real time at the very place where the phenomena observed unfold.

As 'ice' is a theme that reflects an ever-changing situation, the exhibition must be such that it can adapt to change and always reflect the most recent observations and up-to-date facts about the Icefjord, and the impact of such change on climate conditions. This can be achieved by providing space for scientists in connection with the exhibition and by using non-permanent and/or interactive installations.



THE STORY OF ICE



# THE ICEFJORD CENTRE

# INTERPRETATION AND

# EXHIBITION CONCEPT

## THE ILULISSAT EXHIBITION APPROACH

The approach to information and communication on climate conditions is based on optimism. It must be accommodating and sensitive, and should also mediate between cultures and boundaries. The vision for the exhibition is to offer visitors a hands-on approach based on an aesthetically pleasing setting and the creation of a meeting point that facilitates social interaction between local residents, visitors, scientists and opinion formers with different cultural and educational backgrounds.

The exhibition experience will be based on four communication and interpretation parameters: aesthetic values, a realistic approach, hands-on experience, and an individual approach to differentiation and social facilitation.

### Aesthetic values

- Creating a complete correlation
- Creating a coherent visual idiom
- Developing an aesthetic design that is characteristic of the site and the central exhibition themes

### Realistic approach

- Creating a direct and physical link between the exhibition, the surrounding natural landscape and the town
- Enabling visitors to understand the extreme landscape and the context around them through fragments and the 'archiving' of nature providing insight into our very existence and cultural evolution.
- Generating a sense of time with an emphasis on current conditions at Ilulissat.
- Using 'honest' materials that are true to the site and the context within the framework of a sustainable, holistic approach.

### Hands-on experiences

- Creating an exhibition that is tactile and responsive to touch
- Introducing a physical dialogue between visitors and the exhibition through sensory experiences.

- Understanding the physicality of landscape and climate temperatures.
- Incorporating responsive installations
- Bringing science to the forefront at the visitor centre, thus creating an active learning platform and a knowledge centre

### Individual approach to differentiation and social facilitation

- Adopting a holistic design approach that arouses all the senses
- Applying a design-for-all methodology that puts all visitors on an equal footing and ensures an optimal user experience for all visitors, including visually impaired and physically disabled visitors
- Devising a clear, easily understandable wayfinding strategy
- Creating spaces and facilities for meetings that provide a shared knowledge base catering to the needs of visitors with different cultural, financial and social backgrounds.

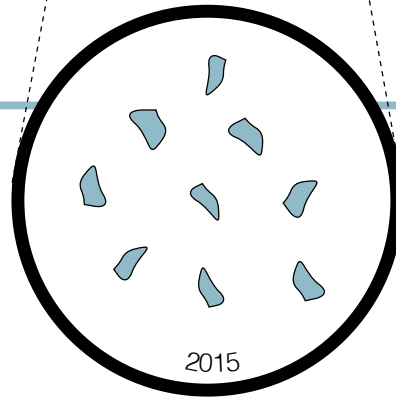
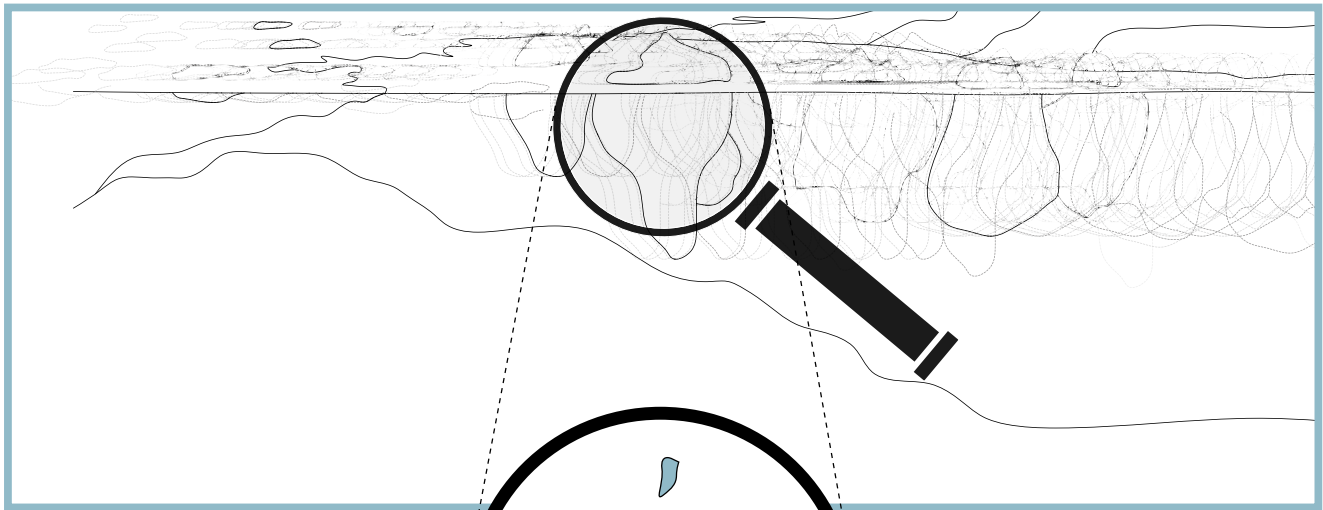
## COMMUNICATION AND INTERPRETATION IN THE LANDSCAPE

In connection with the establishment of the new Icefjord Centre, the introduction of one or more discrete communication and interpretation features linked to the existing system of paths in the landscape is considered. Such features would extend the Icefjord Centre's communication and interpretation concept to parts of the surrounding landscape as well, thus highlighting the narrative of the uniqueness of the icefjord and the surrounding landscape.

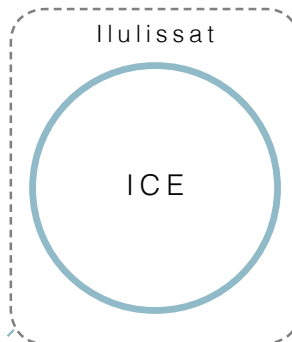
It is crucial that zones outside the places where the features are located are left undisturbed so that people can enjoy the natural environment, the tranquility and the opportunity to become immersed in the landscape.

Such introduction of features in the landscape must clearly respect the UNESCO World Heritage Site and be of a completely reversible nature. The design of such features is not part of the design competition, so the possibility of establishing them is simply background information relative to the entire communication and interpretation concept.



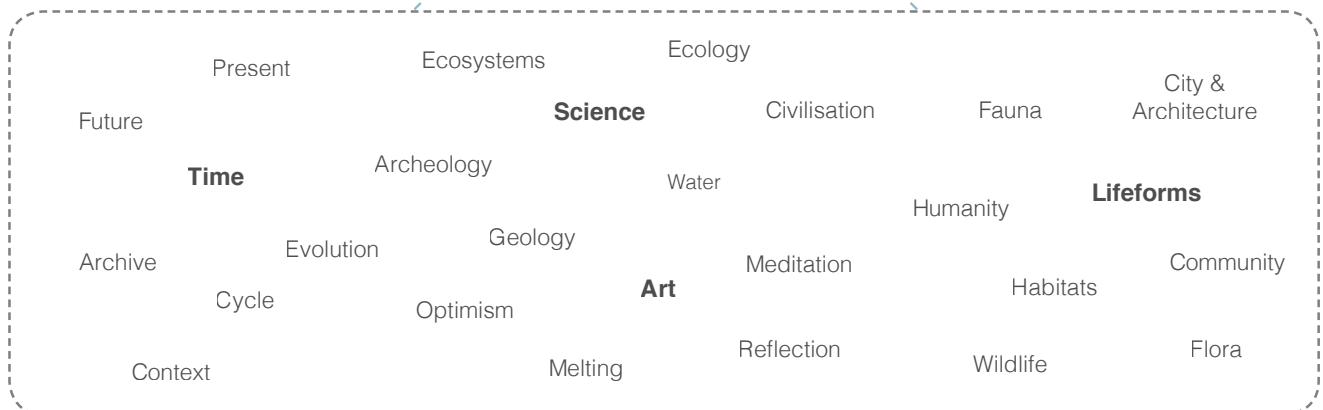


THE EXHIBITION WILL INCLUDE  
THE MOST RECENT OBSERVATIONS  
AND UP-TO-DATE FACTS ABOUT  
THE ICEFJORD



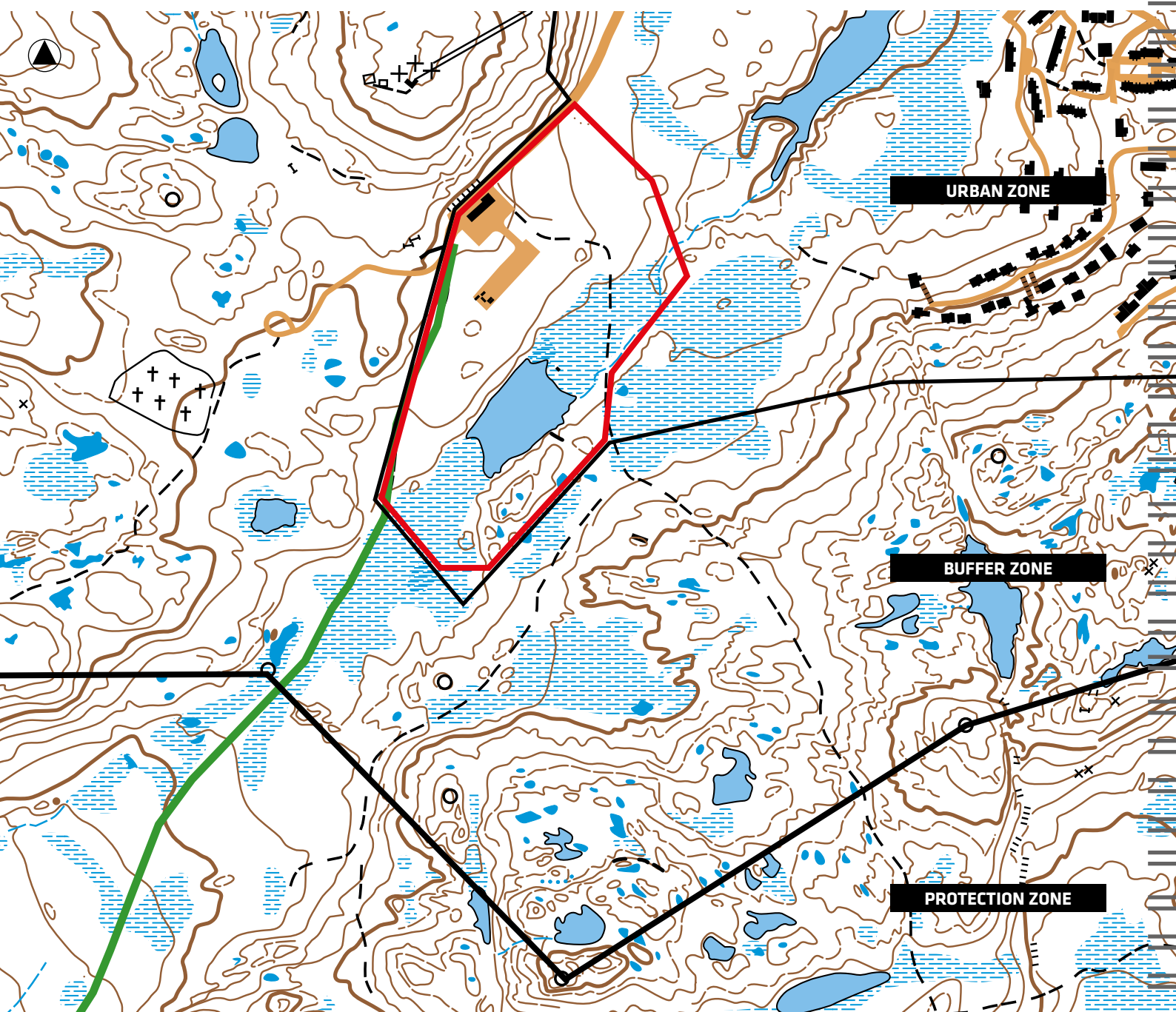
ICE ENCAPSULATES THE GEOLOGICAL,  
SOCIOLOGICAL AND CLIMATE HISTORY OF  
OUR PLANET, AND THE ICEFJORD CENTRE  
SHOULD OFFER VISITORS UNIQUE OPPOR-  
TUNITIES TO WITNESS THE NATURAL  
BEAUTY OF ICE IN A VARIETY OF FORMS.

#### PLATF O R M S





- COMPETITION AREA
- BOUNDARY, UNESCO BUFFER ZONE
- BOUNDARY, UNESCO PROTECTION ZONE



# THE ASSIGNMENT

## GENERAL REQUIREMENTS

### OUTLINE OF THE ASSIGNMENT

Entrants are to present proposals for a new Ilulissat Icefjord Centre that can provide an adequate setting for communication, interpretation and research.

Entrants are to prepare a **site plan** for the competition area, showing the location of the Icefjord Centre and infrastructural elements as well as the layout of outdoor areas adjacent to the centre.

Entrants are also to design and organise a **building** with a total gross floor area of approximately **900 m<sup>2</sup>**.

The construction cost budget including consultants' fees for the realisation of the competition scheme is **EUR 7.7 million**. The total budget for the Icefjord Center is in the region of EUR 15 million.

### GENERAL REQUIREMENTS

#### COMPETITION AREA / BUILDING ZONE

The boundaries of the competition area and the building zone are illustrated on the map on page 24. The site plan submitted by entrants is to comprise the entire competition area. The new icefjord centre building is to be located within the circumference of the building zone, which is adapted to the buffer zone and covers an area of approximately 70,000 m<sup>2</sup>. It is up to the competition entrants to choose the exact location within the building zone.

#### VISION / BUILDING

The building is to fulfil the competition client's overall vision for the future Icefjord Centre as set out on page 17 of this brief.

#### BUILDING / INTERPRETATION AND EXHIBITION CONCEPT

The building is to take the competition client's overall vision of coherence between the architecture and the exhibition and interpretation concept of the Icefjord Centre into account (see page 21). Competition entrants are requested to consider the following aspects:



# THE ASSIGNMENT

## GENERAL REQUIREMENTS

- How can the design of the building be made part of the narrative communicated by the exhibition?
- How can the main exhibition theme be reflected in the building design?
- How can flexibility and interactivity in the exhibition be reflected in the building design?
- How can the surrounding landscape be made part of the communication and interpretation activities inside the building?

### SUSTAINABLE BUILDING DESIGN

Sustainable building design is very relevant in relation to the Icefjord Centre, and the primary aim of the centre is that the operation of the building – and preferably also the construction of it – should not contribute to climate change. It is also important that the centre's approach to sustainability is strong and clear and thus easy to communicate to centre visitors and the local community.

The sustainability approach focuses on regenerative architecture, and competition entrants are to present a thoroughly prepared sustainability strategy that includes the following subjects:

- A regenerative and non-toxic material concept based on either a technical or biological cycle and a thoroughly thought out approach to resource management in a lifecycle perspective (cradle to grave or cradle to cradle).
- A concept for the building's interaction with the surrounding highly vulnerable landscape.

When preparing the overall sustainability strategy, entrants are to strike a good balance between energy optimisation and the environmental impact of the building in a lifecycle perspective. Entrants are expected to present proposals as to how the right balance between energy efficiency and the environmental impact of the building materials used to ensure such efficiency can be obtained.

### BUILDING IN THE ARCTIC ENVIRONMENT

Building in the Arctic environment involves a number of specific constraints and requirements relative to building design, the building envelope and the materials used. Special requirements apply to durability and patination in the prevailing extreme weather conditions, as well as to production and construction as the geographical location 250 kilometres north of the Arctic Circle poses challenges in terms of, for example, site development, construction logistics, transport of materials and the short season in which construction is possible. A memorandum on building in the Arctic

See Annex 06

SUSTAINABILITY AND BUILDINGS  
IN THE ARCTIC ENVIRONMENT

## / VULNERABILITY

The natural environment in Greenland regenerates slowly: interventions in the landscape can be seen 50-70 years after they happened.



environment has been prepared in relation to the Icefjord Centre project. The memorandum is Annex 06 to this competition brief.

The competition design is to take the special conditions applying to construction of the scheme proposed into account, and competition entrants are to bear the following constraints in mind:

- The vulnerability of the Greenland landscape to intervention
- The buildability of the scheme in the Greenland climate
- The correlation between building principles and production time/period

## DESIGN / ARCHITECTURE

The architecture of the Icefjord Centre must be worth a journey in its own right. The building must have a distinctive architectural profile, while at the same time bowing to the magnificence and sensitivity of the surrounding natural landscape. The architecture must communicate with its Arctic setting, while at the same time being attractive to a global target group. The architectural concept must be cohesive in every respect: from the location of the building in the landscape to the framework provided for interpretation and exhibition.

Competition entrants may in particular consider the following themes:

- Materials and design that engage in a dialogue with the Greenland rock formations and vegetation, as well as with the sky, the Arctic light and darkness and the snow.
- The relationship between possible views of the icefjord from the centre and adaptation of the design to the unique natural scenery of the UNESCO World Heritage Site.
- The incorporation of local landscape features into both the architectural design and the exhibition design.
- The possibility of using natural snow formations as architectural features.
- The correlation between the architectural design and the production conditions applying to construction in the Arctic environment.

## / WALKING DISTANCES

Greenland is a vast country, but distances in Ilulissat are short and most traffic in the town are on foot.



## ACCESSIBILITY

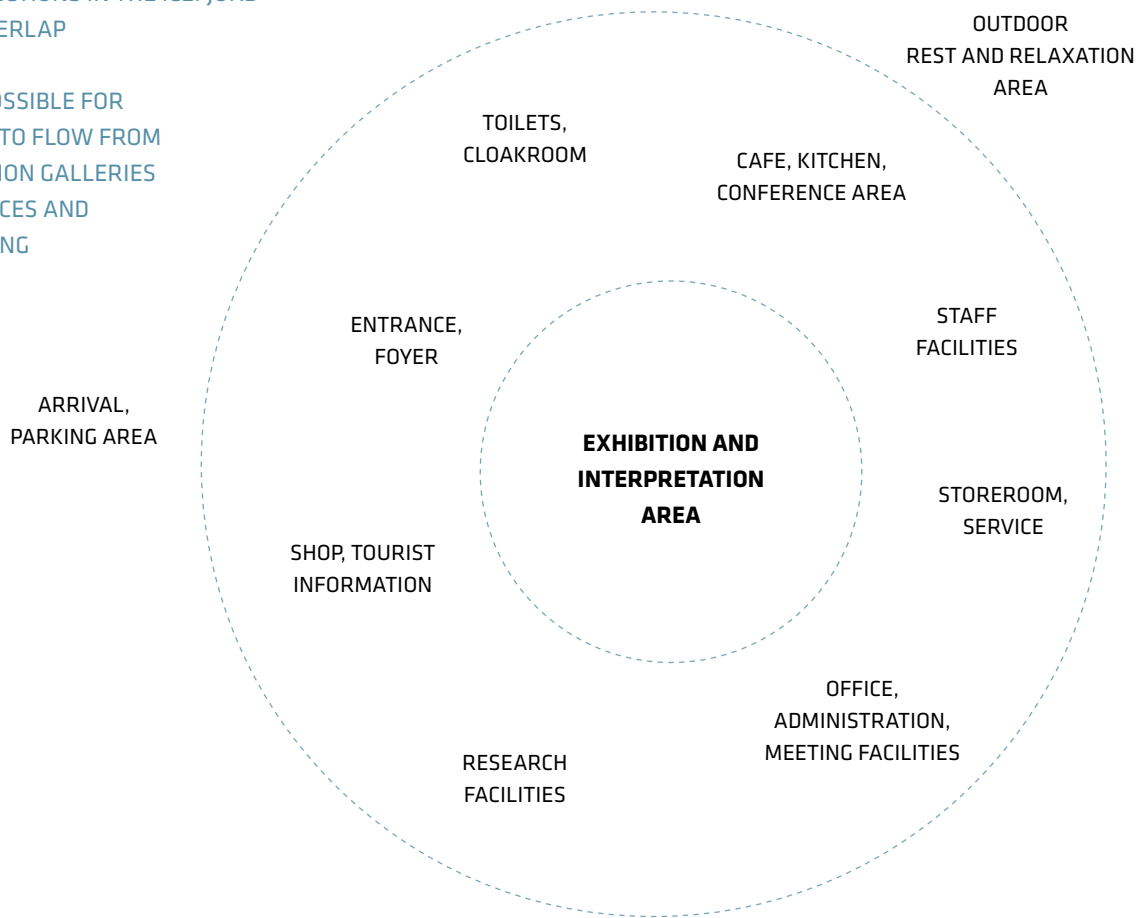
The building must be fully accessible to all types of users in terms of access routes and the interior layout and facilities. Greenland has adopted and implemented rules on step-free access to public buildings that are very similar to those that have applied in Denmark for many years. Entrants are to take accessibility into account in their scheme from the outset so as to ensure that accessibility measures will be unobtrusive in the infrastructure and the design of the building.



FLOATING FUNCTION CHART

IN ORDER TO KEEP THE BUILDING AREA TO A MINIMUM, FUNCTIONS IN THE ICEFJORD CENTRE MAY OVERLAP

IT SHOULD BE POSSIBLE FOR THE EXHIBITION TO FLOW FROM ACTUAL EXHIBITION GALLERIES INTO OTHER SPACES AND THE SURROUNDING LANDSCAPE



SCHEDULE OF FLOOR AREA (APPROXIMATE)	ENTRANCE, FOYER	20 M2
	SHOP, TOURIST INFORMATION	30 M2
	EXHIBITION AREA	300 M2
	CAFE, KITCHEN, CONFERENCE AREA	100 M2
	RESEARCH FACILITIES	70 M2
	OFFICE, ADMINISTRATION, MEETING FACILITIES	70 M2
	TOILETS, CLOAKROOM	30 M2
	STOREROOM, SERVICES	80 M2
	TOTAL NET FLOOR AREA	700 M2
	CIRCULATION AREAS, STAIRCASES, TECHNICAL INSTALLATIONS: ABOUT 30%	200 M2
	TOTAL GROSS FLOOR AREA (APPROXIMATE)	900 M2

# THE ASSIGNMENT

## SPECIAL REQUIREMENTS

### / CARS

There are very few private cars in Ilulissat. Vehicular traffic is mainly taxis or mini-buses used by tourist companies.



### SPECIFIC REQUIREMENTS

#### INFRASTRUCTURE / ACCESS

##### Access route

Access to the competition area is currently along the Semermity Aqqutaa road. This road will be upgraded in connection with the realisation of the Icefjord Centre: traffic flows will be improved, for example to allow cars and coaches to pass each other on the road, and the immediate surroundings will be modified, for example to screen off sledge dog areas.

In their masterplan for the competition area, entrants are to shape the end of the road at the Icefjord Centre in the transitional zone towards the arrival and parking area. The overall approach in this respect should be that most traffic to the centre will be pedestrian. In addition, entrants may consider the possibility of establishing a new hiking trail to the centre, as described on page 13 of this brief.

##### Arrival, parking

The arrival area in front of the Icefjord Centre is to be a logical, welcoming gateway to the centre as well as a transparent access point to the World Heritage Trail and the other hiking trails at the icefjord. There must be parking spaces for twenty cars as well as a set-down zone for minibuses and coaches. Coach parking facilities within the boundaries of the competition area are not desired.

##### Access for people with disabilities

There must be step-free access for people with disabilities from the arrival area to all parts of the Icefjord Centre and to the World Heritage Trail leading to the icefjord.

#### FUNCTIONALITIES

The Icefjord Centre is to be laid out in a clear and easily understandable way that guides visitors smoothly through the centre. There must be a clear differentiation between public areas with visitor facilities and research and administration areas. The organisation of spaces must be conducive to realising the overall ambition of ensuring cohesion between the building and the near and wider landscape around it.

Since it is desirable to keep the footprint of the building to a minimum, entrants are to ensure the greatest possible overlap of functionalities inside the building.

The Ilulissat Icefjord Centre is to feature the following facilities:



## / OUTDOOR AREAS

The transition between the built environment and open landscape is abrupt in Ilulissat, since the climate does not allow the creation of landscaped outdoor areas.



### **Entrance / foyer – about 20 m2**

The entrance area is also to serve as a distribution space that provides access to toilet facilities, the shop and the café and enables centre staff to circulate between the exhibition area, the offices and the shop.

### **Shop, tourist information – about 30 m2**

The centre is to include a shop area with room for a counter and the objects offered for sale. The shop is also to serve as the starting point for a guide service that introduces visitors to the exhibition and takes them on tours in the landscape. A low-key tourist information area is to be located close to the shop, providing information about Ilulissat and the many activities available to visitors.

### **Exhibition and interpretation area – about 300 m2**

The building is to be the framework of the preliminary exhibition concept outlined on pages 20-23 of this competition brief. The Icefjord Centre is to present a narrative of the ice, the icefjord and the natural environment in exhibition spaces and facilities of the highest international standard.

The centre is to be laid out in a way that caters to changing exhibition requirements of a permanent or temporary nature. In terms of ensuring cohesion between the exhibition concept and the building design it is crucial to provide great flexibility in all exhibition facilities. Ideally, it should be possible to design exhibitions that flow from actual exhibition spaces into other spaces and into the surrounding landscape.

### **Café, kitchen, conference area – about 100 m2**

The Icefjord Centre is to have a café where people can sit down and rest after walks in the landscape. The indoor area of the café is to provide seating for up to 30 guests who can choose between a simple selection of coffee, tea, cakes, cold beverages and light meals. An outdoor area with seating protected against the prevailing winds is to be connected to the café.

It must be possible to combine the café with exhibition spaces for meetings and conferences for up to 70 people.

### **Research facilities – about 70 m2**

The Icefjord Centre is to have facilities for visiting researchers. Researchers mainly go to Ilulissat in the summer season (May to September) and typically stay for one to three weeks at a time, spending up to eighteen hours a day in the field.

# THE ASSIGNMENT

## SPECIAL REQUIREMENTS

The research facilities are to have two or three flexible workstations and an area with beds (possibly bunk beds) for three to four people. They are to include a small kitchen and eating area as well as separate toilet and bathroom facilities.

The researchers bring their own field work equipment and therefore do not need laboratory equipment, but the research facilities are to provide space for testing the researchers' own equipment. In addition, a secure storeroom (about 10 m<sup>2</sup>) is needed for short- or long-term storage of the researchers' equipment, since many researchers are based far away from Greenland and the cost of transporting equipment back and forth may therefore be prohibitive.

The research equipment is heavy and bulky, so spaciousness and ease of access are important considerations in relation to the location and layout of the facilities for visiting researchers. In addition, it is important to ensure that there is reliable internet access and reliable power supply for the recharging of electronic equipment.

### **Office, administration, meeting facilities – about 70 m<sup>2</sup>**

The centre is to include facilities for the Icefjord Office which is currently located in the town of Illulissat. Its staff provide information about the icefjord and are in charge of everyday management of the protected area. If the Icefjord Office is located at the centre, it will be able to carry out its work in a relevant, contemporary setting, and its presence will also ensure activity at the centre every month of the year.

The office is to have three or four permanent workstations and facilities where small groups of people can hold meetings.

It is also to feature staff facilities such as breakout rooms. These facilities may be integrated with other facilities, for example the office and administration areas.

### **Toilets, cloakrooms – about 30 m<sup>2</sup>**

Three toilets, including a disabled toilet, are to be established. In addition, and in order to reduce pressure on the Icefjord Centre in connection with large visiting groups, two additional, easily accessible toilets with outdoor access from the arrival area are to be established.

A cloakroom for up to 30 visitors in the museum at the same time is to be included in the design. In this connection it should be borne in mind that visitors often wear clothes that take up more space than the clothes of visitors to similar facilities elsewhere.

## / SOLAR RADIATION

Despite the relatively cool climate solar radiation during the summer period is significant.





## / LABOUR

There is a shortage of skilled construction workers in Greenland, so many workers are usually brought in from other countries.



### **Storeroom, service – about 80m<sup>2</sup>**

One or more rooms with a total floor area of 80 m<sup>2</sup> are to be established for storage and services. The room or rooms are primarily to allow the storage of materials and objects connected with the exhibitions, but may also be used for the storage of other things such as chairs for the café area and other items used by the centre in general. For reasons of safety and security, there should be spatial separation of the different storage functions.

### **Outdoor areas / relaxation areas**

Outdoor areas adjacent to the café and possibly also the entrance area are to be laid out so that they can be used for rest and relaxation. Such areas are to be designed with due consideration of the local climate, ie both adverse weather conditions in the form of snow, rain and strong winds and intense summer sun.

A waste sorting station with enough space for skips in three waste categories is required for bulky refuse. There must be direct access to the station from the parking area so that the refuse collection service can pick up the skips without involving staff at the centre.

### **ARCHITECTURAL ENGINEERING**

The building is to be constructed in the Arctic area, 250 kilometres north of the Arctic Circle. Both the building and the actual construction process will therefore be affected by the extreme climate in the area, which calls for very specific solutions and considerations. In addition, the design must meet several detailed technical requirements, including requirements that are specific to buildings in Greenland.

It is important that competition entries ensure that the many technical and production-related complexities are addressed in an overall approach that is conducive to the realisation of the architectural visions set out in this brief.

The following paragraphs are brief summaries of the technical requirements that should be given particular attention in the preparation of entries in Stage 1, the design competition. A more detailed description of the technical requirements is given in Annex 7, Technical requirements applying to the final design.

### **Structures and building technology**

One of the greatest challenges posed by construction north of the Arctic Circle is the relatively short time in which outdoor work is possible. Entrants should therefore con-

See Annex 07  
TECHNICAL REQUIREMENTS  
APPLYING TO THE FINAL SCHEME

# THE ASSIGNMENT

## SPECIAL REQUIREMENTS

sider developing or choosing building principles and selecting materials that are not sensitive to climate impacts in the cold months of the year and which will reduce the construction time.

Large structures made of concrete cast in situ or steel can usually be installed in cold weather, whereas other secondary and more sophisticated elements may give rise to problems.

Entrants should preferably consider measures that would be conducive to the sustainability strategy adopted in relation to the project in terms of minimising impact on the landscape in connection with the construction work and should also consider options concerning effective dismantling, conversion and disposal of building materials and elements once they reach the end of their lifetime.

### **Building envelope**

The building envelope will be particularly exposed to climate impact in the form of wide temperature variations, strong winds, natural snow formations and high levels of precipitation. Glass structures and joints may be exposed to an exceptional extent and therefore require specific attention. In general, the materials used on the exterior of the building should be as maintenance-free as possible, and aspects such as replacement and repair of the building envelope should be taken into consideration in the final choice of materials.

As the building envelope is part of the building enclosure, it can only be installed in a relatively short period of the year. Prefabrication outside Greenland should therefore be part of entrants' considerations, especially if the building envelope is characterised by a high level of detailing and/or finishing work.

### **Indoor environment and energy design**

Owing to the considerable seasonal variations in the intensity of sunlight, ranging from no to considerable intensity, and not least the great outdoor temperature variations between summer and winter and between night and day, the challenges in

respect of the indoor environment in the building will vary. Entrants are to ensure that temperatures can be controlled individually depending on the uses of the individual rooms.

The general heating requirements applying to the building are set out in the Greenland building regulations, GBR2006.

Since there is already a hydro-electric power station in Ilulissat, the option of using heat pumps and solar energy for example for underfloor heating, ventilation and the production of hot water should be considered.

### **Natural and artificial light**

The power consumed for lighting is to be optimised so as to ensure maximum utilisation of the highly intense daylight that is typical of Greenland in the summer months. In order to save energy, LED light fittings controlled by motion sensors should be used in combination with controlled daylight.

### **Acoustics**

In all rooms in the building, the materials used should provide a comfortable acoustic indoor environment suitable for the intended use of the rooms.

### **Fire safety**

The division of the building into fire compartments should be designed so that sprinklers will not be required. Sprinkling is expensive and may involve many risks during installation. Sprinkler systems also require two sources of water supply, which are not currently available in the area.



# THE ASSIGNMENT

## COSTS / TIME / PROCESS

### COSTS

#### Construction budget for the competition scheme

The construction budget for the competition scheme is **EUR 7.7 MILLION**. This budget comprises all costs related to the realisation of the Icefjord Centre and adjacent outdoor areas, including consultants' fees, building site costs, contingencies and all special costs associated with construction in the Arctic environment.

#### Total budgetary framework for the Icefjord Centre

The budget applying to the competition scheme does not include costs relating to activities such as upgrading the road into town, site development including utility supplies, the exhibition design at the centre, project development costs and other client costs. These costs total about EUR 7.3 million.

The total budget for the realisation of Ilulissat Icefjord Centre is thus in the region of EUR 15 million.

### VAT

Construction work and consultancy services provided in relation to projects in Greenland are not subject to VAT. This also applies if such work is performed outside Greenland. This means that all amounts set out in the budget are exclusive of VAT.

### TIME

#### Main programme

The milestone periods in the future project programme are expected to be as follows:

2016	Conclusion of the competition
2016-2017	Design phase
2017-2019	Construction period
2019	Official opening

### PROCESS

#### Relationship between building and exhibition design

The exhibition at the Icefjord Centre will be developed in parallel with the building design in order to ensure that building and

exhibition will be perceived as an integrated whole. In the autumn of 2015 an advisory board will develop the exhibition concept outlined in this brief further, which will include a focus on weighting the subject-matters to be included in the exhibition. The updated exhibition concept will be ready for Stage 2 of the competition (the negotiated procedure) and is to serve as inspiration in entrants' further development of their schemes in that stage.

Once the final winner has been selected in the summer of 2016, the winner of the design competition will be required to enter into a close working relationship with the exhibition adviser selected by the client in order to coordinate the design of the building and the exhibition.

#### Building design and planning

The competition sponsor intends to enter into a lead consultancy agreement with the winning entrant

#### Implementation strategy

The project is expected to be realised by a partnering organisation comprising the lead consultant, the client and a main contractor familiar with construction in the Arctic environment. The main contractor is expected to be selected in a competitive interview process organised by the client. The main contractor is to assist the lead consultant and the client by providing expert input concerning buildability in the Arctic environment, construction cost calculations and building site installations, and the main contractor is also to take part in a value engineering process in the preliminary design and detailed design phases. It must be expected that the scheme will have to be adapted to the value engineering process on an ongoing basis.

















# THE ASSIGNMENT

# COMPETITION REGULATIONS

## GENERAL INFORMATION

### PROJECT PARTNERS

The competition was launched on 9 October 2015 by

- The Government of Greenland
- The Municipality of Qaasuitsup
- Realdania

### Client

Realdania

Jarmers Plads 2, 1550 Copenhagen K, Denmark

Lars Autrup, head of project

M +45 32 88 52 12

E lau@realdania.dk

www.realdania.dk

### Competition secretary

Arkitektkonkurrencerdk ApS

Hyldegårdsvej 7, 2920 Charlottenlund, Denmark

Anne-Mette Bølling, chief competition adviser

M +45 24 24 70 49

E amb@arkitektkonkurrencerdk.dk

www.arkitektkonkurrencerdk.dk

### COMPETITION TYPE

The competition is a restricted international design competition with six participants followed by a negotiated procedure.

Stage 1 is the design competition.

Stage 2 is the negotiated procedure.

The objective of the competition process is to ensure a structured approach to the architecture, interpretation and exhibition concept, building technology, sustainability and construction costs, thus ultimately creating a unique icefjord centre without exceeding the available budget.

The assessment panel reserves the right to select one to three winning entries in Stage 1 (the design competition) if several

entries are considered to be equal. The winning entrant(s) will be invited to participate in a negotiated procedure (Stage 2).

### LANGUAGE

This competition material is published in English only. Entries are to be submitted in English. After completion of the competition process, the written and spoken contract, negotiation and working languages will be English and Danish.

### COMPETITION PARTICIPANTS

The following teams have been selected for participation in the competition (in alphabetical order):

- A Team ARKÍS ARKITEKTAR, Iceland
- B Team DORTE MANDRUP ARKITEKTER, Denmark
- C Team KENGO KUMA AND ASSOCIATES, Japan
- D Team RINTALA EGGERTSSON ARCHITECTS, Norway
- E Team SNØHETTA, Norway
- F Team STUDIO OTHER SPACES / Olafur Eliasson and Sebastian Behmann, Germany

Before the launching of the competition, the six selected teams have added engineering expertise approved by the competition client to their number.

Participants are entitled to include additional subconsultants and/or advisers in their team following prior agreement with the competition client.

If for some unforeseen and compelling reason, it becomes necessary for a participant to change the information provided in the application for prequalification and the competition client based the selection of the participant on that information, the participant in question must immediately inform the competition secretary of the change(s) by email. This obligation continues until an agreement is signed with the winning entrant. The competition client reserves the right to reject any change or amendment to the information provided in the application for



prequalification and to revoke the prequalification of the participant in question.

### **ASSESSMENT PANEL**

Lars Autrup, head of project, Realdania, chair of the jury  
Thue Christiansen, artist, representative of the Government of Greenland

Ono Fleischer, Municipality of Qaasuitsup, Greenland

Hans Peter Svendler, special adviser

Design professionals:

Jan Søndergaard, professor, partner, KHR Arkitekter, architect

Torben Schønherr, senior partner, Schønherr A/S, landscape architect

Carsten Rode, professor, DTU Byg, engineer

### **Advisers to the assessment panel**

Jørn Skov Nielsen, deputy minister, Government of Greenland

Tina Jensen, head of department, Government of Greenland

Jens Mikkelsen, head of Construction and Environment,

Municipality of Qaasuitsup, Greenland

Lars Peder Pedersen, senior project director, Rambøll Denmark

Jørn Hansen, head of office, Sisimiut, Rambøll Greenland

Frants Frandsen, project manager, Realdania Byg

Johan Carlsson, exhibition adviser, JAC Studios

### **Secretary to the assessment panel**

Anne-Mette Bølling, Arkitektkonkurrencerdk ApS

### **COMPETITION MATERIAL**

#### **Access to competition material**

The competition material will be available in digitised form at iBinder from 2 pm on 9 October 2015.

At the site visit on 20-23 October 2015 in Ilulissat, each team will receive five printed versions of the competition brief.

The competition material comprises the following documents:

- A. Letter to tenderers
- B. Competition brief in English (PDF format and hardcopy)
- C. Digital annexes as listed below
- D. Site visit memorandum
- E. Questions and answers from the two query rounds
- F. Corrigenda, if any

List of digital annexes

01 Dwg site map

02 Illustrator map Ilulissat area

03 Orthophotos and aerial photographs

04 Ilulissat Icefjord Centre – analysis and plan, 18/09/2014

05 Tourism in Greenland, 09/10/2015

06 Sustainability and buildings in the Arctic environment, 09/10/2015

07 Technical requirements applying to the final scheme, 09/10/2015

08 Geotechnical conditions, (to follow later)

09 Cost calculation form, Excel, 09/10/2015

10 Framework time schedule, 09/10/2015

11 Contractual matters, 09/10/2015

12 General Conditions for Consulting Services (ABR89),

### **RIGHTS**

The competition sponsor will acquire ownership of the entries submitted. The copyright to an entry remains with the entrant. The competition sponsor, Arkitektkonkurrencerdk and third parties will be entitled to publicise entries in media such as magazines and websites. In connection with such publication, the names of entrants will be mentioned.

### **DUTY OF NON-DISCLOSURE**

Entrants may not publicise their competition entries until after completion of all activities in Stage 1 (design competition) and Stage 2 (negotiated procedure). This also applies to the winning entrant.

### **FEE, STAGES 1 AND 2**

All participating teams submitting a compliant and well-prepared entry will receive a fee of EUR 50,000 exclusive of VAT after the announcement of the result of Stage 1. All participants in Stage 2 submitting a scheme adjusted as requested will receive a fee of EUR 50,000 exclusive of VAT after announcement of the result of Stage 2. The fees will be paid after the official announcement of the competition result.

### **COMPENSATION**

If the project is stopped before a contract has been signed with the winning entrant, or if the winning entrant is not entrusted with the assignment within two years after the announcement of the competition result, compensation in the amount of EUR 50,000 exclusive of VAT will be paid. If the winning entrant is subsequently entrusted with the assignment, the compensation amount will be considered on account payment of the consultancy fee.

### **APPROVAL OF BRIEF**

This competition brief has been approved by the competition client, the steering group and members of the assessment panel.

## STAGE 1

### DESIGN COMPETITION: OVERALL APPROACH

The design competition gives entrants relatively wide scope in terms of building design, choice of materials, etc, thus allowing for a wide array of conceptual responses to the competition brief.

The design competition is to ensure that entrants' responses are sufficiently innovative and prove that the entries are sufficiently robust both architecturally and technically to be further developed and documented during the subsequent negotiated procedure.

### SITE VISIT, INFORMATION AND Q&A MEETING

A site visit in Ilulissat including a Q&A meeting for competition entrants with the participation of the competition sponsor and the competition secretary will be held on 20-23 October 2015. All design teams are expected to attend the site visit in Ilulissat. More information will be uploaded.

#### Information

Participants will be given a tour of the competition site and the surrounding area. A detailed tour programme will be prepared and sent to participants. The competition sponsor will explain the vision for the project, and the competition secretary will provide information about matters relating to the competition regulations.

#### Q&A meeting in Ilulissat

As many questions as possible will be answered at the meeting. The remaining questions will be answered in a site visit memorandum, which will also include the questions asked at the meeting and the answers to them.

#### Written questions

Questions regarding the competition are to be emailed to Malene Ib Andersen at mia@arkitektkonkurrencerdk.dk. The questions will then be submitted to the competition sponsor in anonymous form.

#### Query round 1

Questions are to be submitted by 3 November 2015. The answers will be uploaded to entrants at iBinder by 9 November.

#### Query round 2

Questions are to be submitted by 1 December 2015. The answers will be uploaded to entrants at iBinder by 7 December.

### MATERIAL TO BE SUBMITTED IN STAGE 1

Material in excess of the material mentioned in this brief will not be accepted for assessment. Each participating team may submit only one proposal. Entries – or excerpts of entries – may not have been publicised prior to this competition. All parts of an entry including files must be anonymous and marked with the same randomly selected five-digit identification number. Each entrant must submit two packages marked with the same randomly selected five-digit identification number and "Icefjord Centre".

### PACKAGE 1

#### Panels

Maximum four A0 panels (840x1200 mm portrait format).

#### Site plan

Site plan 1:500

The site plan is to illustrate the vision, the main concept and the overall layout proposed for the competition area and is to include illustrations of the new Icefjord Centre.

Diagrams, visualisations, collages

Other material conducive to understanding of the main concept proposed.

#### New building

Floor plan 1:100

A general plan of the adjacent competition site landscape and ground floor level. The plan is to show entrances, exhibition facilities, access routes for disabled visitors, roads for delivery and refuse collection, the layout of outdoor areas, surfacing, lighting, etc.

Elevations 1:100

All elevations of the building. The elevations are to show materials, textures and colour schemes in the context of the surrounding landscape.

Sections 1:100

Two or three sections of the building showing proportions, etc.

Sections 1:50 or 1:20

One or two sections showing the structural principles.

Diagrams, visualisations

or other illustrations that are conducive to understanding of the scheme proposed, construction and transport of building materials.



## PACKAGE 2

### A3 booklets (15)

#### *Explanatory text and drawings*

The A3 booklets are to contain a brief description of the overall vision and general concept applying to the proposed scheme, as well as a more detailed description of the buildings and the exhibition facilities. They are also to include all drawings and diagrams mounted on the panels. The scale of the drawings is to be indicated. The descriptions and drawings submitted are to include all elements relating to architecture, materials, sustainability, structures and architectural idiom that are relevant for the assessment of the proposed scheme.

#### *Sustainability*

A brief description of the overall sustainability strategy including description of technical installations, construction principles, landscape design, energy and materials. Max two A4 pages.

#### *Production and construction*

For reasons of the implementation strategy applying to the project, entrants are requested already in Stage 1 to submit notes on their thoughts about production approaches, for example regarding the use of elements cast in situ versus prefabricated elements and size factors for transport of materials. Max four A4 pages. Annex 06 describes the special challenges posed by construction in the Arctic environment.

#### *Costs*

The A3 booklets are to include a cost calculation: Annex 09, Cost calculation form.

### USB memory stick (2)

Two USB sticks with Annex 09, Cost calculation form, as as an Excel file and all illustrations from the entry: Two PDF files with the contents of the A3 booklet submitted, one in high resolution, the other in low resolution. All key illustrations are to be high-resolution, unlocked PDF, PSD, EPS or JPG format.

#### **Envelope: Identification sheet / USB memory stick**

A sealed envelope containing a completed identification sheet, providing the following information about the entrant:

Company name

Name of contact person

Address

Mobile telephone number

Email address

The identification number selected

The name of the main consultant

The name(s) of subconsultant(s)

Information about copyright

In the assessment panel report, the names and titles of all team members will be written exactly as stated in the identification sheet. Entrants should therefore take great care to ensure accuracy when they complete the identification sheet.

The sealed envelope should also contain a USB memory stick with a Word document containing the same identification sheet information.

The following is to be written on the front of the envelope:

Identification sheet

Icefjord Centre design competition

The identification number selected

## SUBMISSION OF ENTRIES IN STAGE 1

### **iBinder, digital submission**

All panels and the A3 booklet must be uploaded in low-resolution PDF format at iBinder before **2PM ON 12 JANUARY 2016**, provided there is no breach of anonymity (user guidelines will be issued.) If a non-Danish team would like Arkitektkonkurrencerdk to arrange for printing and/or mounting of text and illustrations on boards or the printing of the A3 booklets, a note to that effect signed with the five-digit identification number should be uploaded as well.

### **Submission of hardcopies by surface mail or an express delivery service**

Teams are also requested to send hardcopies of all material included in their entry (Package 1 and Package 2) by surface mail or an express delivery service to:

Arkitektkonkurrencerdk ApS

Hyldegårdsvej 7, 2920 Charlottenlund, DENMARK

Att: Anne-Mette Bølling, chief competition adviser

The hardcopy material must reach the above address by **2PM ON 18 JANUARY 2016**.

When sending their entries, teams based outside Denmark should state the value of the parcels as 0 (zero) and describe contents as 'documents'. It is incumbent on entrants to ensure that customs clearance will not be necessary and possibly delay arrival of the entry in Denmark.

Immediately after the entry has been handed in at a post office or to an express delivery service, a scanned copy of the date-stamped receipt must be sent from an anonymous email account to Malene Ib Andersen at mia@arkitektkonkurrencerdk.dk. The five-digit identification number chosen by the entrant must be stated as sender, together with a mobile telephone number that can be contacted in the event that something is missing in the package, for example the envelope containing the identification sheet. The telephone number used must not break the anonymity.

### **ASSESSMENT CRITERIA, STAGE 1**

Entries will be assessed on the basis of their overall ability to meet the vision defined, as well as the wishes and requirements set out in the competition brief.

Entries will especially be assessed on their ability to

- optimally realise the overall vision of presenting and interpreting the unique icefjord and its natural surroundings
- create a unique icefjord centre that is worth a journey in its own right
- create a building that is sustainable and adapted to the harsh, dramatic nature of the site

### **ANNOUNCEMENT OF THE RESULTS OF STAGES 1**

All participants in Stage 1 will be informed of the result around March 2016.

## **STAGE 2**

### **NEGOTIATED PROCEDURE: OVERALL APPROACH**

The negotiated procedure has three primary objectives:

1. Upgrading and development of the schemes proposed by the selected entrants based on the remarks and wishes expressed by the assessment panel and further integration of the exhibition concept and the individual competition entry.
2. Determination of the entries' financial robustness in terms of realising them within the budget set aside for the project, including ensuring their technical quality and achieving the desired sustainability profile.
3. Identification of the project organisation offered by each individual entrant in order to ensure that the organisation will be sufficiently competent to manage the subsequent development and implementation process.
4. Negotiation of contractual matters, including consultants' fees.

### **NEGOTIATION PROCESS**

Realdania will set up a negotiation committee to be in charge of negotiations. The committee will communicate the assessment panel's wishes and requirements regarding the further detailing of the proposed schemes to the entrants. Each team will receive individual notes about aspects to work with, as well as references to points in the competition brief that need to be taken into account in the more detailed design.

In the negotiation stage, two meetings with the negotiation committee are expected to be held. Each team invited to participate in the negotiated procedure will be asked to present its scheme, following which the assessment panel will present its comments on the scheme and provide recommendations for adjustment of the design. In addition to these meetings, decentralised meetings will be held with selected technical experts from Rambøll Denmark and Rambøll Greenland.

At the individual negotiation meetings with each team, wishes and requirements relating to the material to be submitted by the team will be presented. At the final deadline for submission of proposals, each team must submit a complete, revised scheme.

The actual negotiated procedure, including the number of negotiation meetings, will be finally determined following the selection of the winner(s) of the design competition. The participants in the negotiated procedure will be informed of the negotiation procedure shortly before negotiations begin.

In the negotiation phase, the design professionals in the assessment panel will as a minimum attend the final assessment. The steering group will decide whether the design professionals should attend additional meetings.

### **TIME SCHEDULE**

Stage 2 is scheduled to start on March 2016. The assessment is scheduled for completion in time for the competition result to be announced in late June 2016.

### **SUBMISSION OF COMPETITION ENTRIES**

Participants in Stage 2 are to submit material showing how their scheme has been enhanced and detailed in response to the negotiation procedure.

The following submission requirements are indicative only and are likely to be modified relative to the individual progress notes prepared for each team after Stage 1.



## **PACKAGE 1**

### **Panels**

Maximum four A0 panels (840x1200 mm portrait format).

### **Site plan**

*Site plan 1:500*

*Diagrams, visualisations, collages*

### **New building**

*Floor plan 1:100*

*Elevations 1:50*

*Sections 1:20*

*Diagrams, visualisations*

## **PACKAGE 2**

### **A3 booklets (15)**

*Explanatory text and drawings*

The A3 booklets are to contain a description of the vision and general concept applying to the proposed scheme, as well as a more detailed description of the buildings and the exhibition facilities. The following aspects are expected to be further developed in this stage relative to Stage 1.

*Sustainable building design*

A detailed description of the sustainability strategy including detailed description of technical installations, construction principles, landscape design, energy and materials.

*Production and construction*

A detailed description of how to realise the project in the Arctic environment, including a construction schedule. The description should state how the entrant thinks the majority of building production is to take place and how in-situ works that are sensitive to weather conditions are to be managed.

*Time schedule*

Entrants are requested to submit a time schedule that shows how the building can be realised by the deadline stated, taking into account the points of uncertainty associated with construction in the Arctic environment.

*Organisation and collaboration*

The A3 booklets are to contain an organisation chart and a description of the team organisation in the design and execution stage: both the team's internal organisation and the organisation that is to work with the client. CVs for selected key persons committed to the project are to be enclosed. Max two A3 pages.

*Costs*

The A3 booklets are to include a more detailed version of the schedule of costs submitted in Stage 1 – Annex 09. Entrants are to substantiate that the scheme illustrated can be realised within the framework of the available budget. The budget must take particular costs associated with construction in the Arctic environment into account, including transport costs.

It is crucial to the client that the overall budget is not exceeded.

### **USB memory stick (2)**

Two USB sticks with Annex 09, Cost calculation form, as an Excel file and all illustrations from the entry: Two PDF files with the contents of the A3 booklet submitted, one in high resolution, the other in low resolution. All key illustrations are to be high-resolution, unlocked PDF, PSD, EPS or JPG format.

### **Contract**

A draft agreement concerning construction management is to be completed and signed. Draft agreements on lead consultancy and partnering services will be enclosed with the tender documents for Stage 2 and are to be completed and signed by the participating teams.

## **ASSESSMENT CRITERIA**

The award criterion applied after the negotiated procedure will be the most advantageous offer in terms of price and quality.

## **ANNOUNCEMENT OF THE RESULTS OF STAGE 2**

All participants in Stage 2 will be informed of the result around June 2016.

## COMPETITION BRIEF

### The competition brief was prepared on the basis of input from:

Lars Autrup, Realdania  
Lars Peder Pedersen, Rambøll  
Thomas Martinsen, Dansk Bygningsarv  
Johan Carlsson, JAC Studios  
Anne-Mette Bølling, Arkitektkonkurrencerdk

### Text editing and graphic layout

Jens V Nielsen

### Diagrams

JAC Studios / Johan Carlsson

### Maps

Compukort / Flemming Nørgaard

### Photographs

Jens V Nielsen

### Translation

OVRZ / Mette Aarslew

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