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Arctic Investments 2025

BLUE LAGOON
ICELAND

Grímur Sæmundsen

CEO of Blue Lagoon



Blue Lagoon

Grímur Sæmundsen
Founder and CEO



12.11.2025

BLUE LAGOON

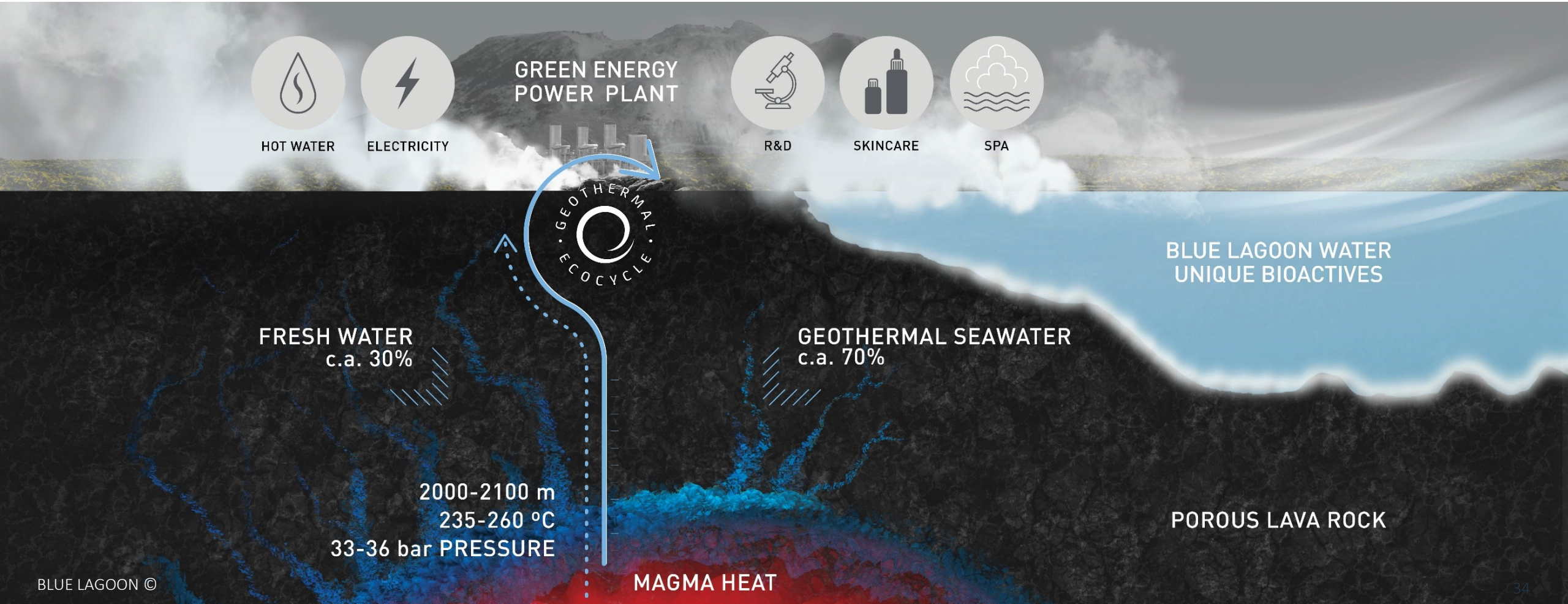
Sustainable geothermal energy plant on the Reykjanes peninsula build in the 70’s



BLUE LAGOON ©

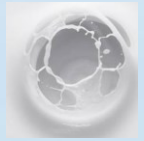
A world unique water and sustainable ecosystem

The Blue Lagoon water is different from all other geothermal waters in the world
Its blend of fresh- and geothermal seawater and the heat has created a world unique ecosystem and bio-actives



Psorioasis healing power confirmed by scientific research

Unique bio-actives found in the Blue Lagoon are;



Silica



Blue Lagoon Minerals



Blue Lagoon Microalgae



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3 (1994) 469–464

JEADV

The effect bathing in a thermal lagoon in Iceland has on psoriasis. A preliminary study

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Abstract

Objective To investigate if bathing in a unique thermal lagoon in Iceland has a therapeutic effect on psoriasis.

Design An open study where twenty-seven psoriasis patients bathed for three weeks in the lagoon. Psoriasis Area and Severity Index (PASI) was used to evaluate the severity of the disease before during and after bathing.

Results The mean PASI score decreased from 16.1 to 8.1 ($p = 0.01$). The PASI score decreased most in the first week. The area of the lesions did not diminish but scaling erythema and infiltration decreased. Only very limited UV-radiation was observed during the bathing period.

Conclusions Bathing in the lagoon has a favourable effect on psoriasis although in some cases it may not be sufficient as a single treatment. Further studies over longer period are needed.

Keywords: Psoriasis, therapy; Thermal lagoon; Algae; Brine

1. Introduction

A geothermal lagoon was formed in the Svartsengi lava fields on the Reykjanes peninsula in Iceland in 1976 (Fig. 1). An employee of the geothermal plant in Svartsengi suffering from psoriasis gradually improved when he rubbed the white mud onto his psoriasis plaques while bathing in the comfortably warm lagoon. In the following years several people tried to cure their skin diseases by bathing in the lagoon and many of them experienced some beneficial effect from the bathing. Two preliminary studies have been conducted on the effect of the bathing in the lagoon on psoriasis [1,2]. Both studies indicated some beneficial effect on psoriasis and thus it was decided to carry out a more thorough study on the effect bathing in the Blue Lagoon has on psoriasis.

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THERAPEUTIC—CLIMATOLOGY

The Blue Lagoon in Iceland and Psoriasis

JON HJALTALIN ÓLAFSSON, MD, PhD

The Reykjanes peninsula in Iceland is the landward extension of the Reykjanes ridge, which in turn is a section of the Mid-Atlantic Ridge, where the two continental plates meet. The peninsula consists mainly of porous volcanic lava, making it permeable to water. Therefore, seawater slowly seeps deep into the aquifers. The geothermal area on the peninsula is called "Svartsengi" (meaning Black Meadows in Icelandic), and it is highly active in that regard. A geothermal power plant was built 1976 in Svartsengi, and a lagoon called the Blue Lagoon was formed close to the plant when warm saline fluid was discharged to the lava field (Fig 1). An employee in the geothermal plant suffering from psoriasis gradually improved when he rubbed the white mud onto his psoriasis plaques while bathing in the comfortably warm lagoon. In the following years, several people tried to cure their skin diseases by bathing in the lagoon, and many of them claimed some beneficial effect from the bathing. In 1986 the government of Iceland appointed a committee to supervise and finance research in order to investigate these claims and to make suggestions as to the use of the area. Three clinical studies have been completed concerning the effect bathing in the lagoon has on psoriasis. The biology of the lagoon has also been studied extensively. We have not found in the literature any biological studies showing the existence of similar biological phenomena. Geothermal brines are widely used in the world for energy production. They often contain toxic substances like heavy metals.[3] This, however, is not the case in the Blue Lagoon. The lagoon and its surroundings have become a popular tourist attraction, with over 100,000 bathers visiting each year in addition to hundreds of patients with skin diseases.

The Blue Lagoon

The Svartsengi power plant draws fluid from wells drilled deep into a geothermal reservoir.[4] The fluid in the reservoir has a temperature of 240°C; it is a mixture of 65% seawater and 35% freshwater. The chemical composition of the saline fluid (brine) deep in the aquifers is, however, altered by interaction with the rock formation. Precipitation of magnesium silicates has reduced the magnesium concentration by a factor of thousand; and dissolution of the rock has raised the concentration of silica (SiO_2) roughly hundredfold, to approximately 450 mg/kg. The fluid is separated into a steam phase and liquid phase at the surface. The steam phase is used to produce electricity, and the liquid phase is used to warm up freshwater, which in turn is used to heat the houses in the neighboring communities.[3,4] After the fluid has gone through steam separators and heat exchangers, it is discharged into the lava field close to the plant at a rate of 900 m^3/hour and at a temperature of 70°C. Most of the fluid seeps down into the ground through fissures in the lava; but some evaporates, reducing the temperature further; however, enough water remains on the surface to form a pond or lagoon. The average retention time of the salt water in the lagoon is 40 hours. On cooling, the liquid becomes supersaturated with respect to silica, which then precipitates to form a white mud. This seals the fissures in the lava, which has caused the lagoon to spread to its present size, approximately 0.2 km wide, a few kilometers long, with a depth of 1–3 m. The silica concentration in the lagoon water is about 135–140 mg/kg. Some of the silica in the water polymerizes and forms colloidal particles that precipitate on the bottom of the lagoon to form a layer of white soft mud. The liquid in the lagoon has a white-bluish color. These silica particles scatter light intensely, giving the pond its name, The Blue Lagoon.

The Biology of the Lagoon

The chemical composition of the fluid in the lagoon is given in Table 1.[5] The mean temperature in the lagoon is 37°C; but strong winds can cause some fluctuations, while rain and air temperature have only a marginal effect. The mean pH is 7.5, and the salt content is 2.5%.[6] These conditions might provide a favorable environment for a number of organisms; however, this is not so,[6] and the only organisms found are some cyanobac-

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A continuously evolving company

An incredibile 33 years journey from a humble beginning to the ultimate luxury

The first facilities in 1993



BLUE LAGOON ©

The Retreat at Blue Lagoon – a multi awarded luxury hotel and spa




This is Blue Lagoon Iceland

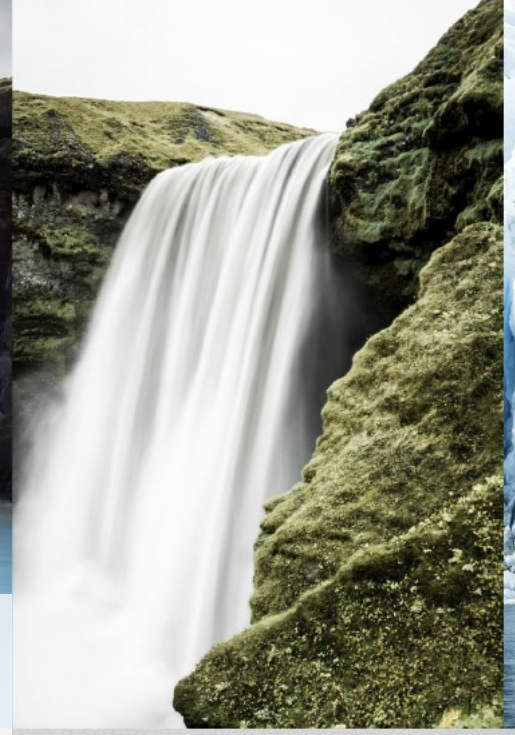
The expansion of the Blue Lagoon Family



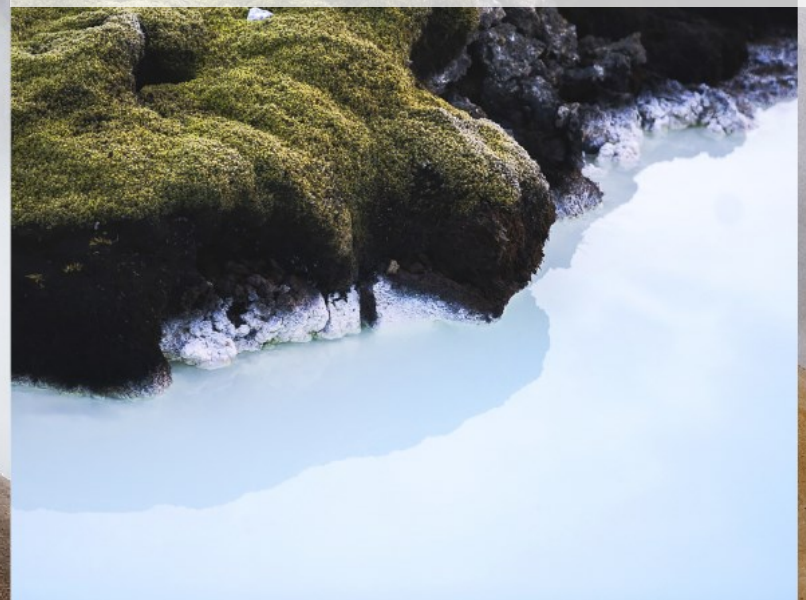


Geothermal water

Unique nature





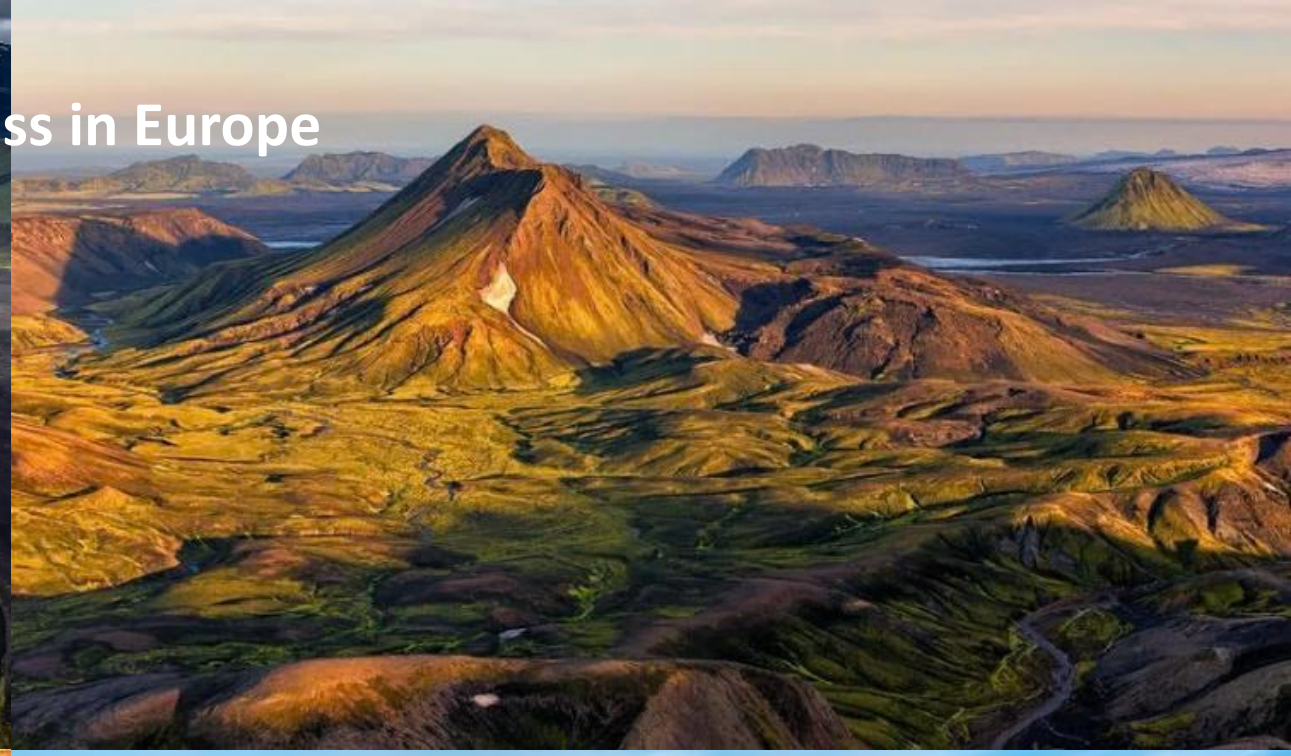




BLUE LAGOON ©

The Icelandic highlands - the biggest wilderness in Europe









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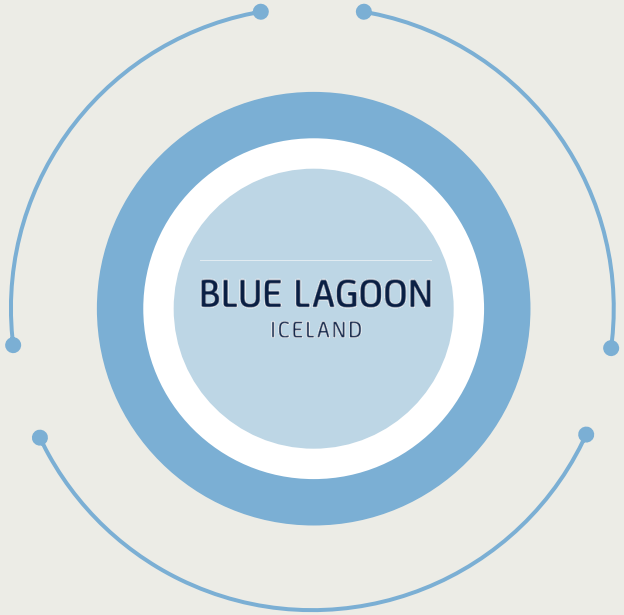
Exploring Iceland

Highly attractive market dynamics

Blue Lagoon plays at the intersection of 5 major consumer trends

Rise of experiential luxury

Increased importance of natural and science-led beauty products



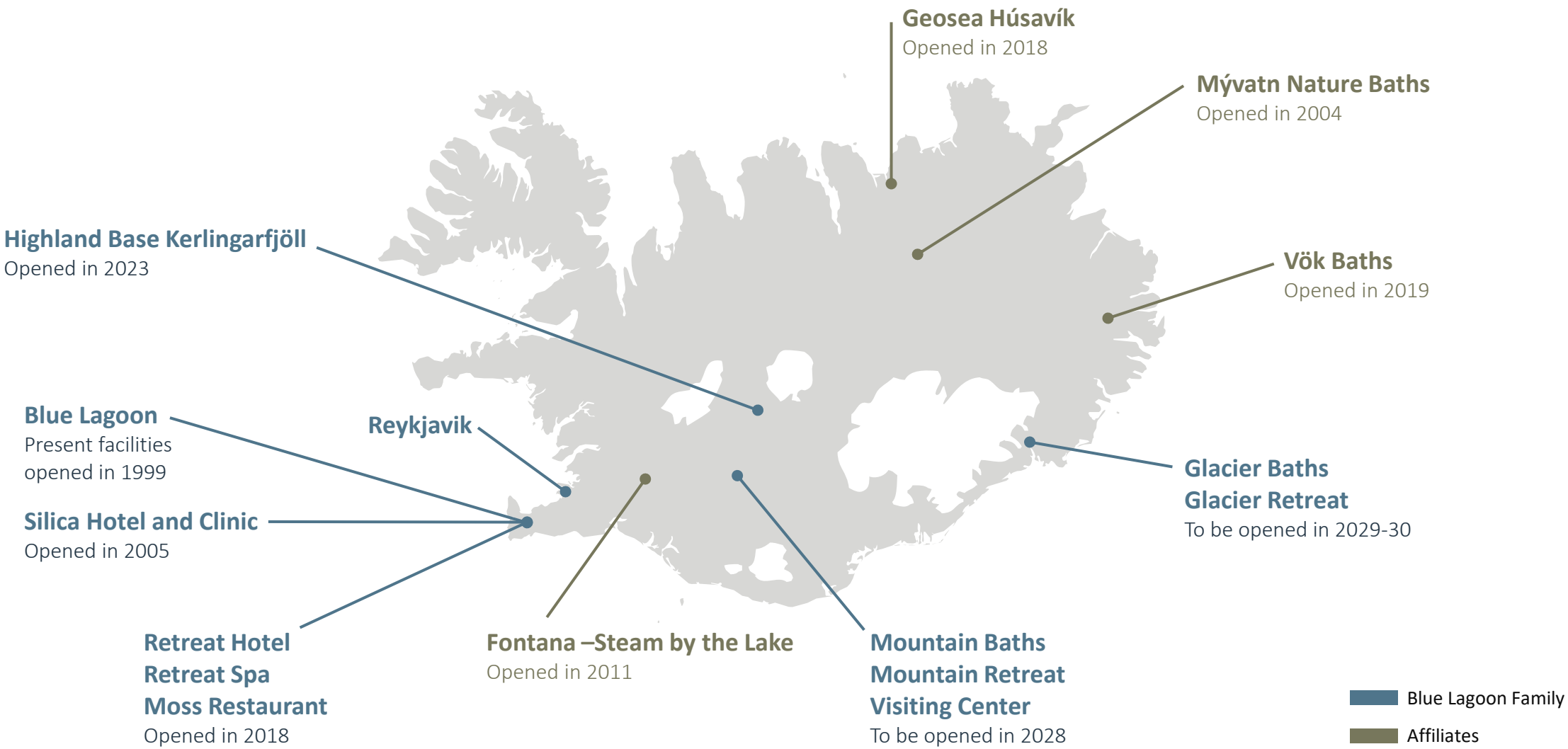
Adventure and uniqueness

Fast-growing wellness market

Sustainability and eco-travel

Sources: [1]Mordor Intelligence (2021), [2]Euromonitor, [3]World travel & tourism council (2023), Deloitte (2023), [4]Statista (2022), GWR (2022), Pelorus (2022), [5]McKinsey (2020), GWI (2021)

Blue Lagoon Family and affiliates



BLUE LAGOON ©

No magma, no Blue Lagoon



BLUE LAGOON ©

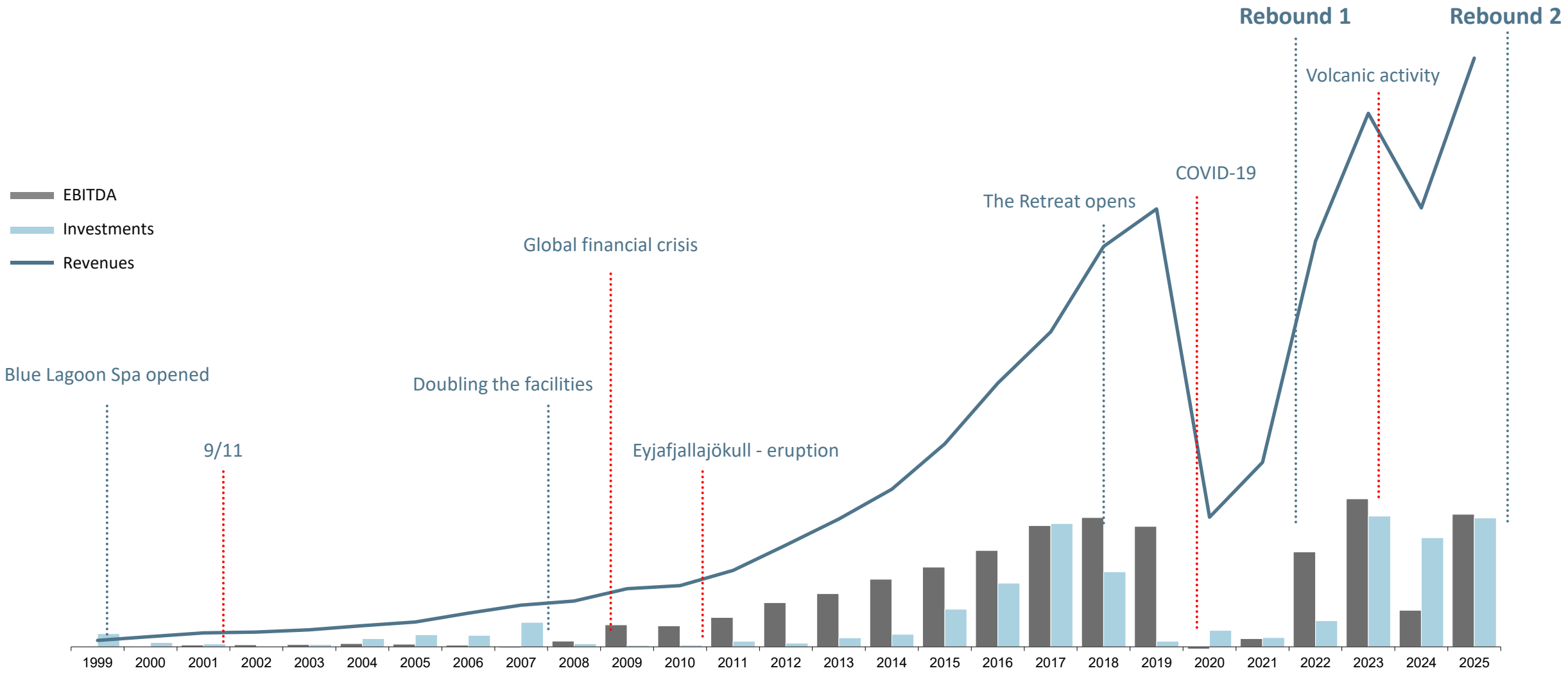
Volcanic activity and defensive walls

Due to volcanic activity starting in November 2023 and now fading out, a series of defensive walls have been built
One of those encompasses the geothermal energy plant and Blue Lagoon Iceland
The experience of visiting Blue Lagoon has become stronger and similar to entering a protected sanctuary



BLUE LAGOON ©

Vision, focus and resilience



Highlights



BLUE LAGOON ©


A world known brand that has made tourism
the most important industry of Iceland
BLUE LAGOON ©

A continuously evolving company that has shown incredible focus and resilience



BLUE LAGOON ©

High performance skincare line based on science and nature

















Business perfectly aligned with major consumer trends



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One of the 25 wonders of the world*



* By NATIONAL GEOGRAPHIC

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Now we are looking into 3 windows for an IPO

Spring 2026

Autumn 2026

Spring 2027



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Thank you
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