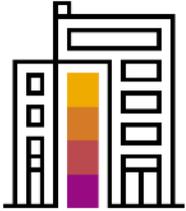


# SAP Innovation Awards 2021 Entry Pitch Deck

Sustainable Fishing throughout the Whole Value Chain

Royal Greenland A/S

PUBLIC



## Company Information

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<b>Headquarters</b>	Qasapi 4, Postboks 1073, 3900 Nuuk, Greenland
<b>Industry</b>	Fishing Industry
<b>Web site</b>	<a href="https://www.royalgreenland.com">https://www.royalgreenland.com</a>

Royal Greenland A/S is a world leader within the fishing and seafood industry with a mission to create prosperity and development for the fishing communities. For more than 200 years, they have brought seafood from the cold Arctic oceans to the plates of consumers worldwide.

Royal Greenland's headquarters are situated in Nuuk, the capital of Greenland. The company spun off from Kalaallit Niuerfiat in 1990 and is now fully owned by the Government of Greenland.

Today, Royal Greenland owns and operates more than 40 landing and processing facilities throughout the North Atlantic.

Royal Greenland operates a sustainable business based on the triple bottom line of "people, planet, and profit". The company is deeply involved in supporting the local communities in which they operate, and they take an active responsibility through targeted CSR initiatives that develops the fishing industry in a way that benefits the local fishermen, their communities and Greenland as a whole.

# Sustainable Fishing throughout the Whole Value Chain

## Royal Greenland A/S



**With these groundbreaking apps, we strengthen our supplier loyalty, optimize internal processes and help local fishermen document that they fulfill the sustainability requirements that allow them to obtain higher prices for their catch.**

**Lars Bo Hassinggaard**

**Corporate IT Manager,  
Royal Greenland**

### Challenge

Royal Greenland wanted to digitalize the process of procurement and tie it together with the registration process and full quality control. They were hoping to enable local fishermen to register their catch and all related data digitally to fulfill both legal and customer requirements.

### Solution

A user-friendly suite of iOS based native app based on SAP Cloud Platform. One app empowers fishermen to submit their catch data in a fast and easy way, even with limited smartphone experience. The solution reduces risk of errors and ensures fulfilment of legal requirements on registration that used to be a pen and paper task.

### Outcome

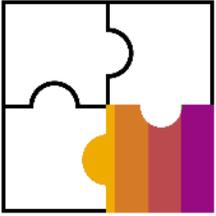
The apps have strengthened supplier relationships, increased documented quality of goods, optimized registration process and reduced errors. Royal Greenland can perfectly match staff allocation with incoming amounts of fish at procurement locations – all while helping fishermen obtain a better price for their catch.



**2.200** fishermen with access to the technology

**70K** purchase orders converted from paper to digital process

**0** hours of training required for fishermen



## Participating Partner Information

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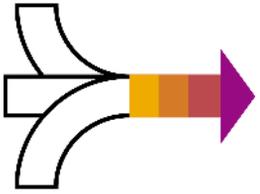
### Trifork Smart Enterprise A/S

**With this project, Trifork has acted as strategic advisors, design thinkers, end-user advocates, architects and developers of an app suite that radically improves the daily life of local fishermen in Greenland and Canada.**



“Our partnership with Trifork has been of tremendous value. With their Design Thinking approach, we have been able to pinpoint the needs of our end-users. Within a few days of launching our new app, we had fishermen asking proactively for access. This is the ultimate proof that we have created a solution that adds true value to our end-users: Fast and easy documentation of their daily catch, compliance with governmental regulations and improved foundation of income.”

Lars Bo Hassinggaard, Corporate IT Manager



# Business Challenges and Objectives

## Challenge:

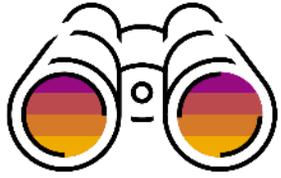
With 70.000 purchase orders per year at Royal Greenland, 70.000 pieces of paper were filled in and signed in frosty weather – only to be replicated manually in SAP. Royal Greenland needed to optimize this process to continue a growth trajectory in the increasingly competitive fishing industry.

In addition, Royal Greenland identified a need to:

- Increase supplier loyalty to ensure that Royal Greenland is the preferred procurement station amongst fishermen
- Digitalize data capture
- Support the local communities by offering tools to improve the financial situation for fishermen
- Address demand for traceability from consumers

## Objectives:

- Optimize the process of registration – both for local fishermen as well as Royal Greenland staff at procurement stations
- Strengthen supplier loyalty by offering them useful digital tools with seamless user experience that ease their administrative workload on the boat and at the procurement stations
- Support sustainable fishing and continuously improve conditions for the local fishermen that supply Royal Greenland with line-caught fish by empowering them with direct, digital access to financial, administrative and regulatory compliance tools – and make it easier for them to obtain an MSC certification of their catch.



## Project or Use Case Details

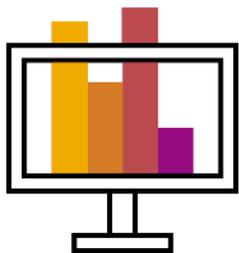
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The solution consists of a native iPhone app enabling fishermen to submit their catch data fast and easy. It makes it possible for the fishermen to submit legally required signatures digitally, and it validates relevant licenses for specific species.

To support the circular flow of data between the fishermen and RG, two additional apps have been launched:

1. A native iPad app that enables seamless registration of data in regard to the fishermen's catch
2. A web-based app for the RG back office staff, in which they approve the procurements made in the two iOS apps

The foundation for the entire app suite is the SAP Cloud Platform (Cloud Foundry). For the native iOS apps, SAP Cloud Mobile Services provides offline capabilities, push notifications, authentication, device registration, logging etc. For the web app, the latest Angular technology and Material Design framework is used, and it integrates with data in HANA like the iOS apps as well as the SAP backend.



# Benefits and Outcomes

## Business or Social

- Increased documented quality of goods
- Provided full compliance with governmental regulations
- Improved pricing through MSC certifications
- Made accounting and tax review much easier and thereby build loyalty amongst local fishermen
- Improved market position and a competitive advantage through mobility
- Faster time to market

## IT (optional)

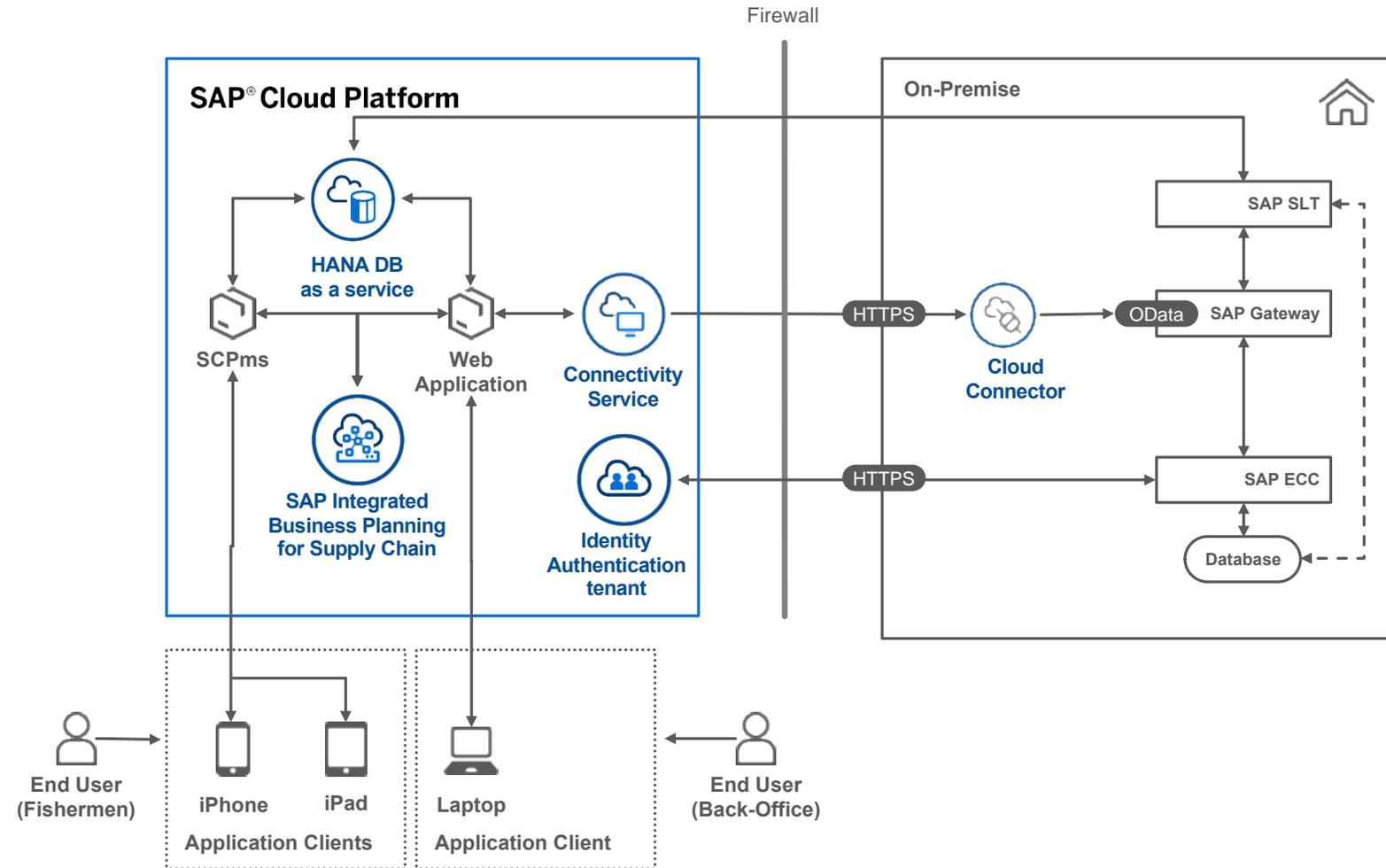
- Built an infrastructure prepared for further digitalization of processes and services in RG
- Buildup of know-how becoming digital innovation savvy
- Ensures the IT organization's relevance to digital transformation

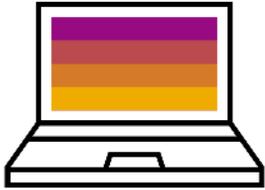
## Human Empowerment

- Optimized time spent on registration
- Provided perfect match between staff allocation and incoming amounts of fish at procurement locations
- Empowered local fishermen through mobile devices
- Provided flexibility to register relevant data on the go – and thereby eliminated pen and paper processes completely
- Great UX enabled people that cannot read the ability to still work the important parts of the system



# Architecture





# Deployment

**Deployment status** Live

**Date** November 2020

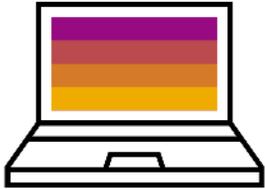
**Number of users** 2.200 (expected in Q1)

## SAP® technologies used:

	SAP product	Deployment status (live or proof of concept [POC])	Contribution to project
1	SAP Extension Suite	Live	Fundamental for the architecture and solution
2	HANA DB	Live	Data storage for performance optimisation
3	SAP Cloud Platform SDK for iOS	Live	Basic components for mobile app development
4	SAP Landscape Transformation Replication	Live	Integration and data replication between SAP on premise and HANA
5	SAP ECC	Live	Storage and processing of data

If you have used one or more of the services or support offerings from SAP Services and Support during the implementation or deployment phase, please indicate which one(s) below with an

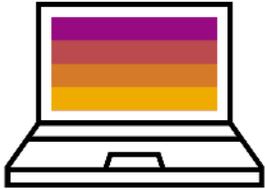
- |  |  |  |
|--|--|--|
| <input type="checkbox"/> SAP MaxAttention™       | <input type="checkbox"/> SAP ActiveAttention™              | <input type="checkbox"/> SAP Advanced Deployment |
| <input type="checkbox"/> SAP Value Assurance     | <input type="checkbox"/> SAP Model Company                 | <input type="checkbox"/> Others:                 |
| <input type="checkbox"/> SAP Innovation Services | <input type="checkbox"/> SAP Innovative Business Solutions |  |



# Advanced Technologies (1 of 2)

The following **advanced technologies** were part of the project.

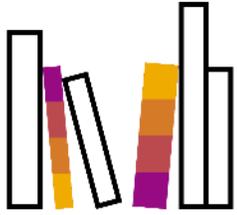
Technology or use case	Product used*	Contribution to project and how product used integrates with SAP products
<b>1 Machine learning or artificial intelligence</b> Robotic process automation, conversational AI, AI-based knowledge graph	n/a	
<b>2 Intelligent data management</b> Multi-cloud, data virtualization and governance, smart data tiering, persistent memory, data privacy	n/a	
<b>3 Advanced and augmented analytics</b> <ul style="list-style-type: none"><li>Real-time and streaming analytics, spatial analytics</li><li>Natural language query and generation</li><li>AutoML to identify trends, patterns, outliers</li><li>Predictive analytics (time series analysis and forecasting, regression, classification)</li></ul>	n/a	
<b>4 Data and analytics solutions in the cloud</b> <ul style="list-style-type: none"><li>Unified data and analytics cloud platforms by SAP</li><li>Modern/self-service data to analytics</li></ul>	n/a	



## Advanced Technologies (2 of 2)

The following **advanced technologies** were part of the project.

Technology or use case	Product used*	Contribution to project and how product used integrates with SAP products
<b>5 Advanced cloud integration</b> <ul style="list-style-type: none"><li>• API economy (monetization and API marketplaces)</li><li>• AI-based or crowdsourced integration</li><li>• High throughput, low-latency digital integration hub</li></ul>	n/a	
<b>6 Industry cloud platform</b>	n/a	
<b>7 Blockchain</b>	n/a	
<b>8 Internet of Things</b>	n/a	
<b>9 3D printing</b>	n/a	



## Additional Information

As a fishing company with deep roots in local communities, Royal Greenland has an important corporate social responsibility in the Greenlandic society as they act on behalf of the Greenlandic authorities in matters relating to debt and tax collection.

This new app suite is an important first step in digitalizing processes that are fundamental to fishermen. RG has defined a number of future scenarios for further development:

- Assisting authorities in rescue operations by providing info on the location of missing fishermen
- Providing the fishermen a total overview of their finances, and helping them set budgets and build savings
- Building an information platform between Royal Greenland and the fishermen
- Establishing an e-commerce platform for buying fishing equipment

Watch Royal Greenland on SAP TechEd 2020 – Digitalization the Daily Catch with Mobile Apps:

<https://events.sapteched.com/widget/sap/sapteched2020/Catalog/session/16037376404530014Ees>

Read more on the case on our website: <https://trifork.com/?portfolio=documenting-sustainable-fishing-with-user-friendly-ios>



Images from the app