Vöktun vörunnar í framleiðslu og flutningi

Ársfundur Byggðastofnunar

Siglufjörður - 11. apríl 2019

Ragnheiður Þórarinsdóttir

Umfang verkefnis og tímabil

- SmartFish styrkt af NPA 2015-2018
  - Heildarumfang: EUR 1 124 601
  - NPA fjármögnun : EUR 647 896 (58%)

- Forverkefnið Smart Labels 2013-2014
  - Heildarumfang: EUR 40 679
  - NPA fjármögnun: EUR 24 408 (60%)

- Háskóli Íslands með verkefnisstjórn í báðum verkefnum

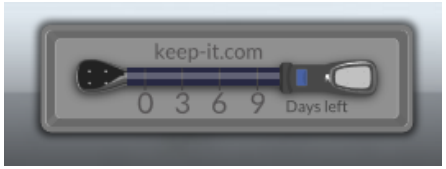
Markmið verkefnisins

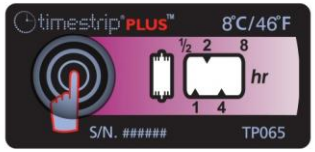
Megináherslan var lögð á flutning á ferskum laxafurðum frá slátrun í gegnum vinnslu og til dreifingar

- Þróa snjallstrikamiða sem tryggja rekjanleika matvæla frá framleiðanda til neytanda
- Kynna vöruna og þjónustuna fyrir matvælaframleiðendum, dreifingaraðilum og seljendum
- Bæta rekjanleika og gæðaeftirlit fyrir neytendur

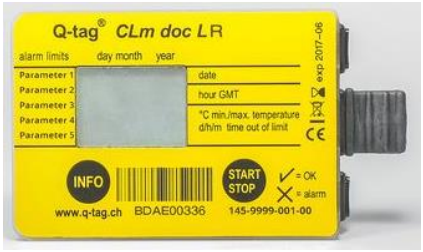
Markaðskönnun

Chemical and Electronic Temperature Indicators



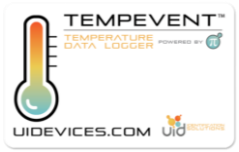


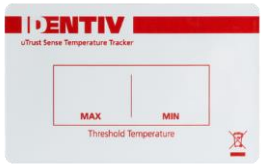
Temperature Data Loggers

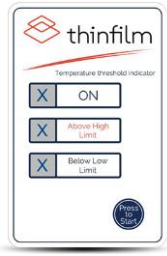


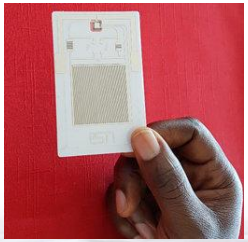
SMART FISH

Wireless RFID Devices









SMART FISH

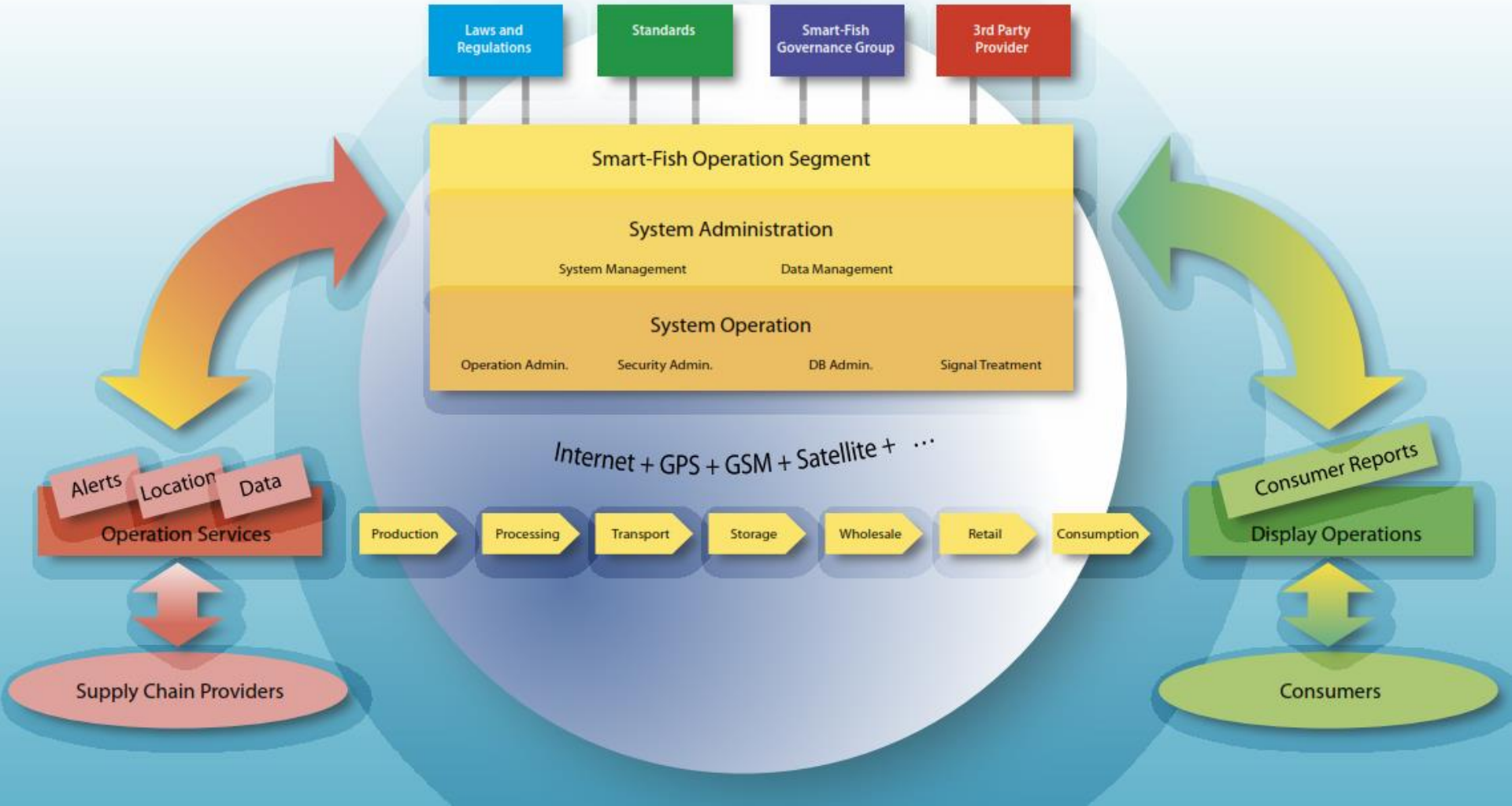
Real-Time Cloud based Temperature and Location Monitoring Devices

Real-Time Cloud based Temperature and Location Monitoring Devices

ConnectedFRESH

SMART FISH

Upplýsingaflæði í virðiskeðjunni



Samstarfsaðilar í verkefninu

UNIVERSITY OF ICELAND

OULU UNIVERSITY OF APPLIED SCIENCES

Nofima

fai

Þátttökulönd: Finnland, Noregur, Skotland og Ísland

SMART FISH

Aðrir þátttakendur (Associated)

VÍSIR

MENJA

AS BÅTSFJORDBRUKET

NORDLAKS

NORWAY SEAFOODS

maritech

SKYNJAR

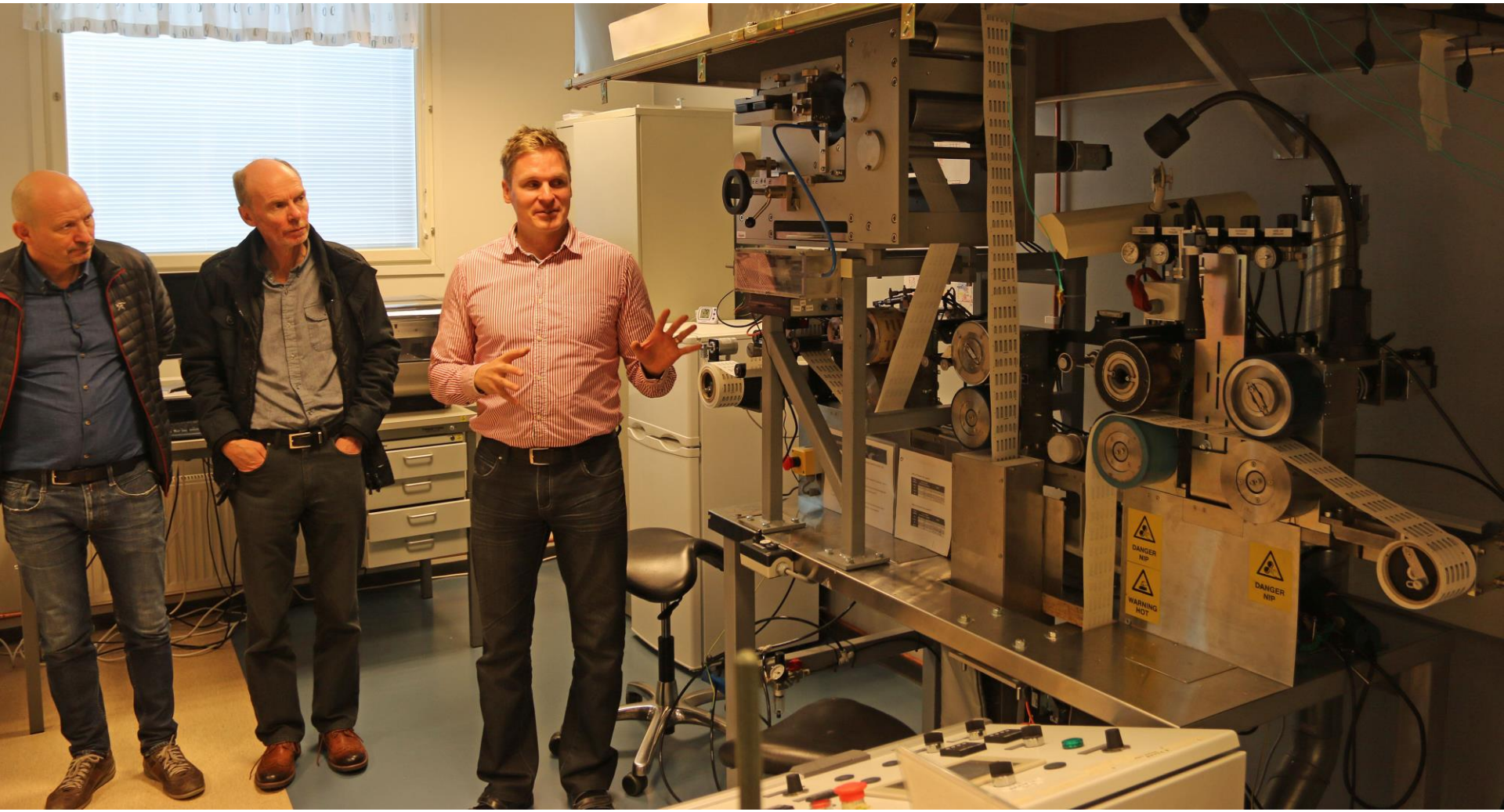
Rifos and Haukamyri

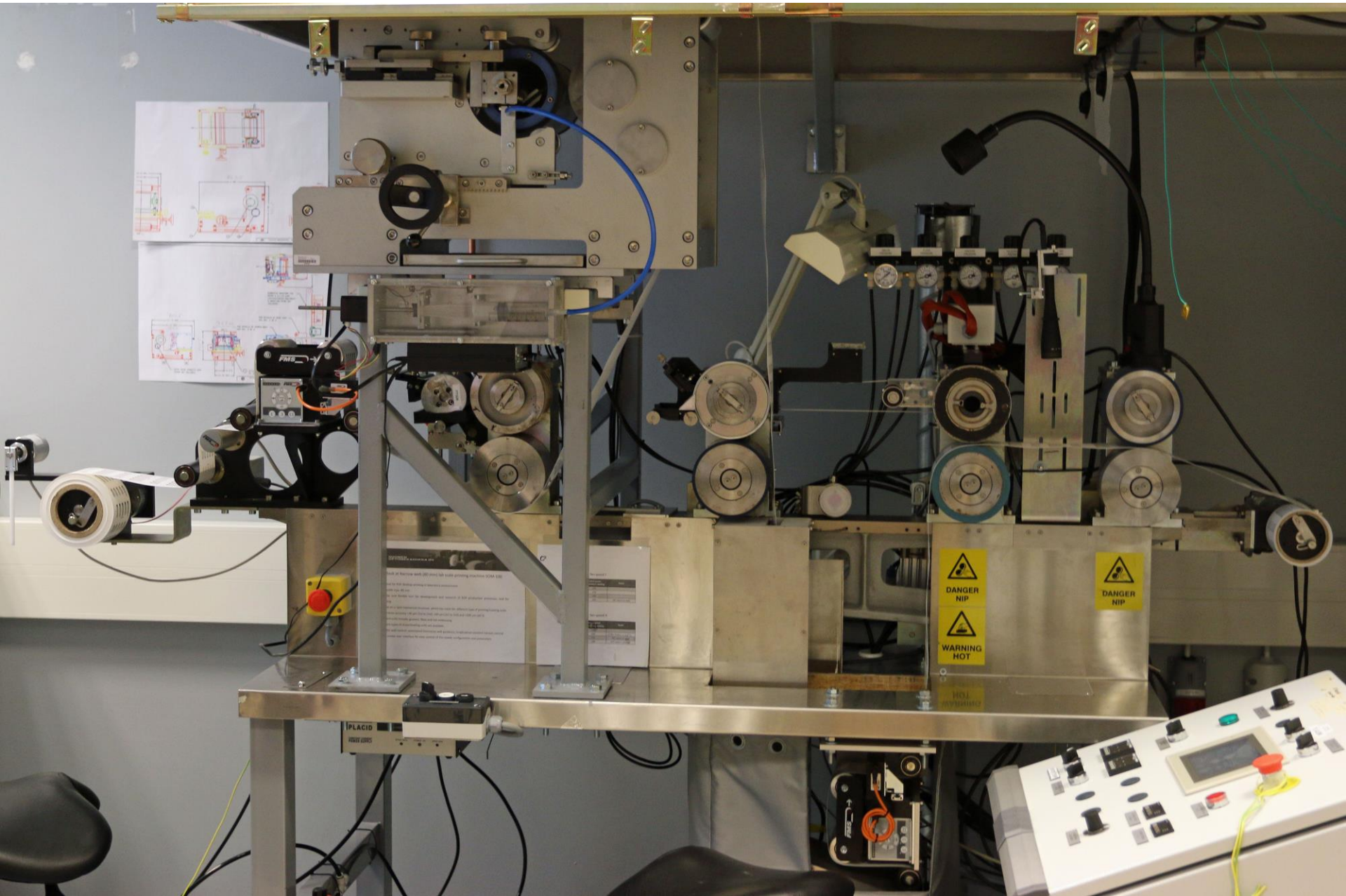
SMART FISH

Ný tækni til vöktunar

- Prentaðir snjallstrikamiðar til að setja á einstakar pakkningar
- Rauntímamælingar á hitastigi og staðsetningu vörunnar í flutningi
- Söfnun og úrvinnsla gagna
- Birting gagna til notenda (framleiðendur – sölu- og dreifingaraðilar – neytendur)

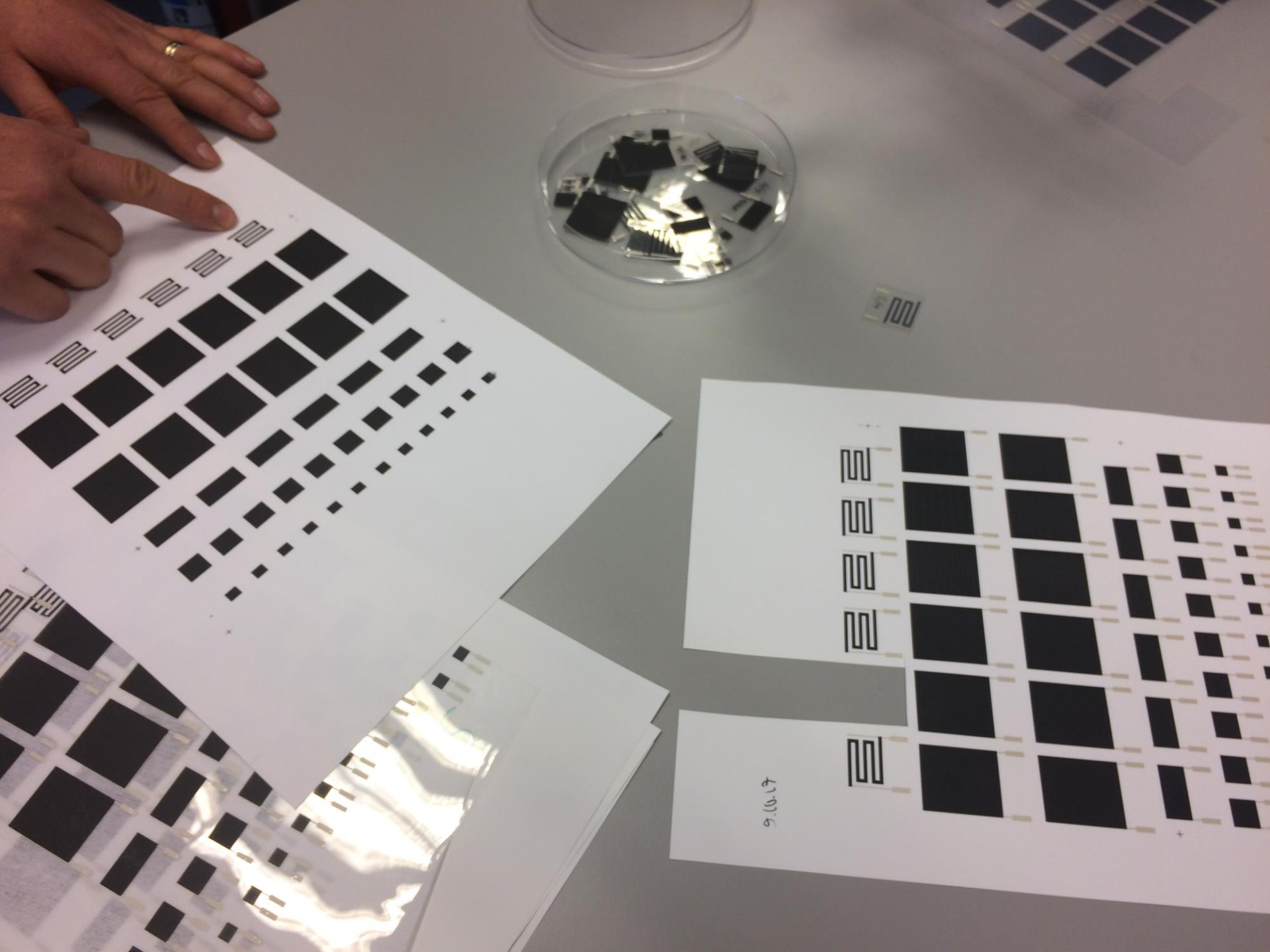
PrinLab við Oulu University of Applied Sciences (OUAS)




DANGER
NIP
WARNING
HOT
DANGER
NIP
PLACID

Efnisval í hitaskynjara

- 25 mismunandi efni voru prófuð við OUAS PrinLab
- Einungis eitt þeirra hentaði til að prenta hitaskynjara sem var nógu nákvæmur fyrir þetta hitastigsbil
- Nokkrar mismunandi aðferðir voru prófaðar til prentunar á plast og pappír (screen printing, dispensing, inkjetting and R2R gravure technologies)
- Nákvæmni mælanna var prófuð við væntanlegt notkunarhitastigsbil í rannsóknarstofu (environmental test chamber)



SmartFish Prototype – 64mm x 36mm x 13mm

Þróunin


HÄTÄLÄ OY
Pohjoisen rehtiä kalaa
SMART FISH
Käytä QR-koodia ja **katso**
Hätälän Lohen matka -video.
Kalasta puhtaasti parasta:
hatala.fi

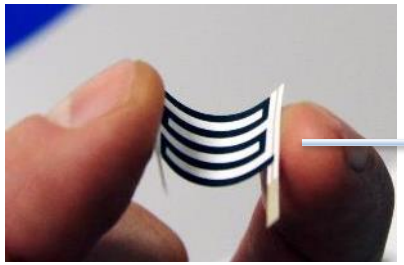

HÄTÄLÄ OY
Enfucell
SOFT BATTERY PLUS
Reg 3.0V

Kröfur

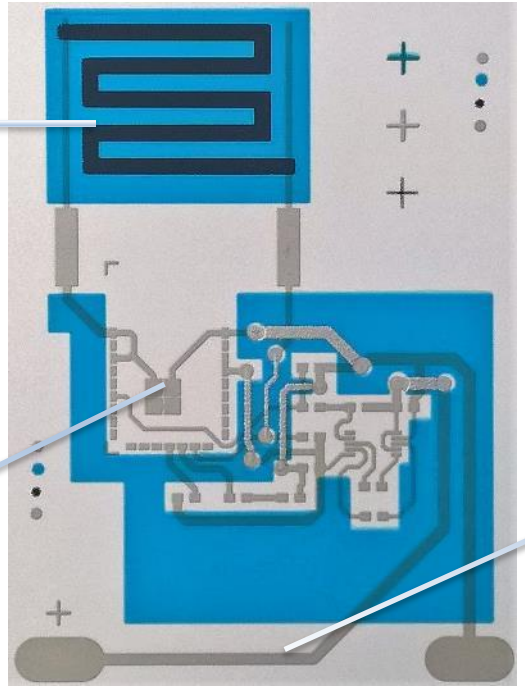
- Nákvæm hitastigsmæling
- Þráðlaus samskipti milli nema og safnstöðvar
- 3/4G tenging við ský-þjónustu
- Aðgangur að gögnum í gegnum smáforrit (app) / vafra

- -1-10°C , ±0,5°C
- Notkunartími, >48 klst.
- Endingartími >6 mánuðir
- Lítil orkunotkun
- Kostnaður (<10x ”normal” label)
- Þola umhverfisaðstæður
- Sveigjanleiki
- Fjöldaframleitt

Meginhlutar búnaðar



Temperature sensor

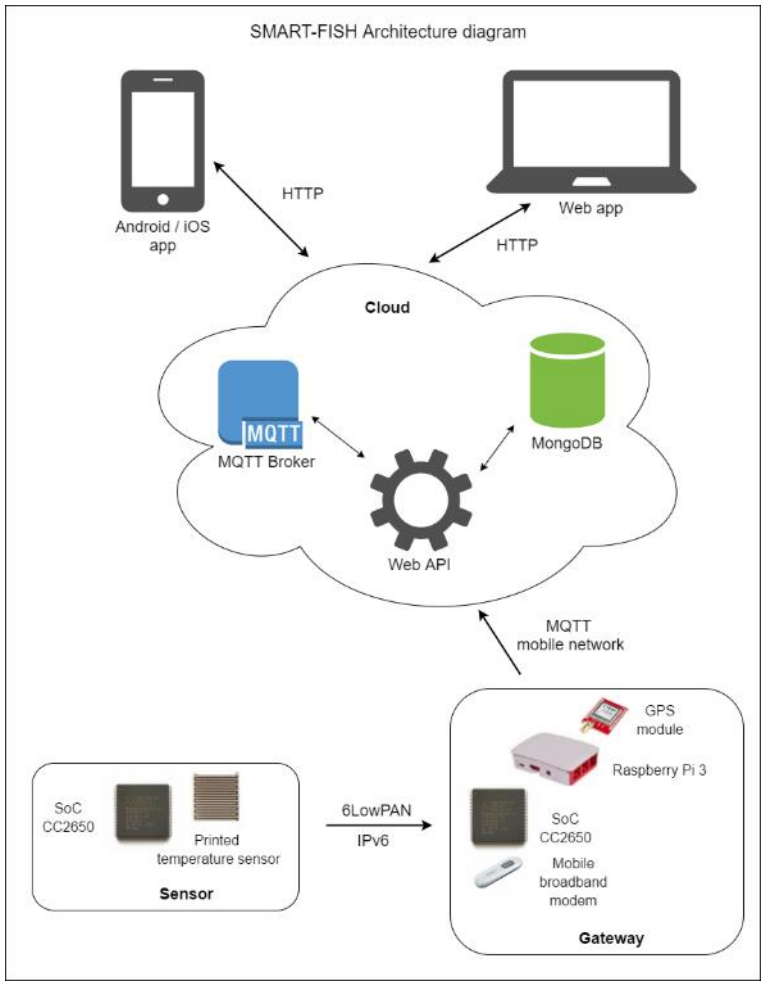


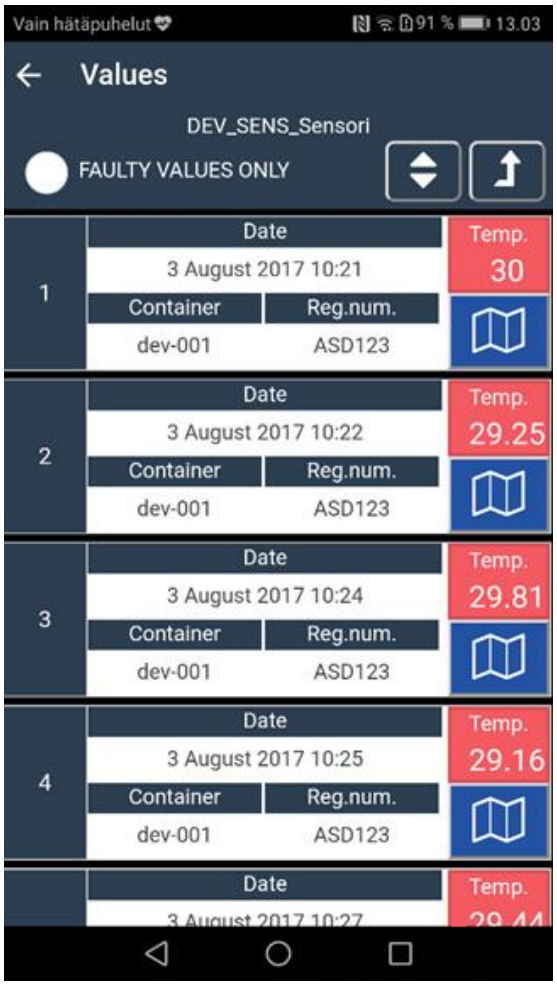
Printed Platform

Battery

Wireless MCU module

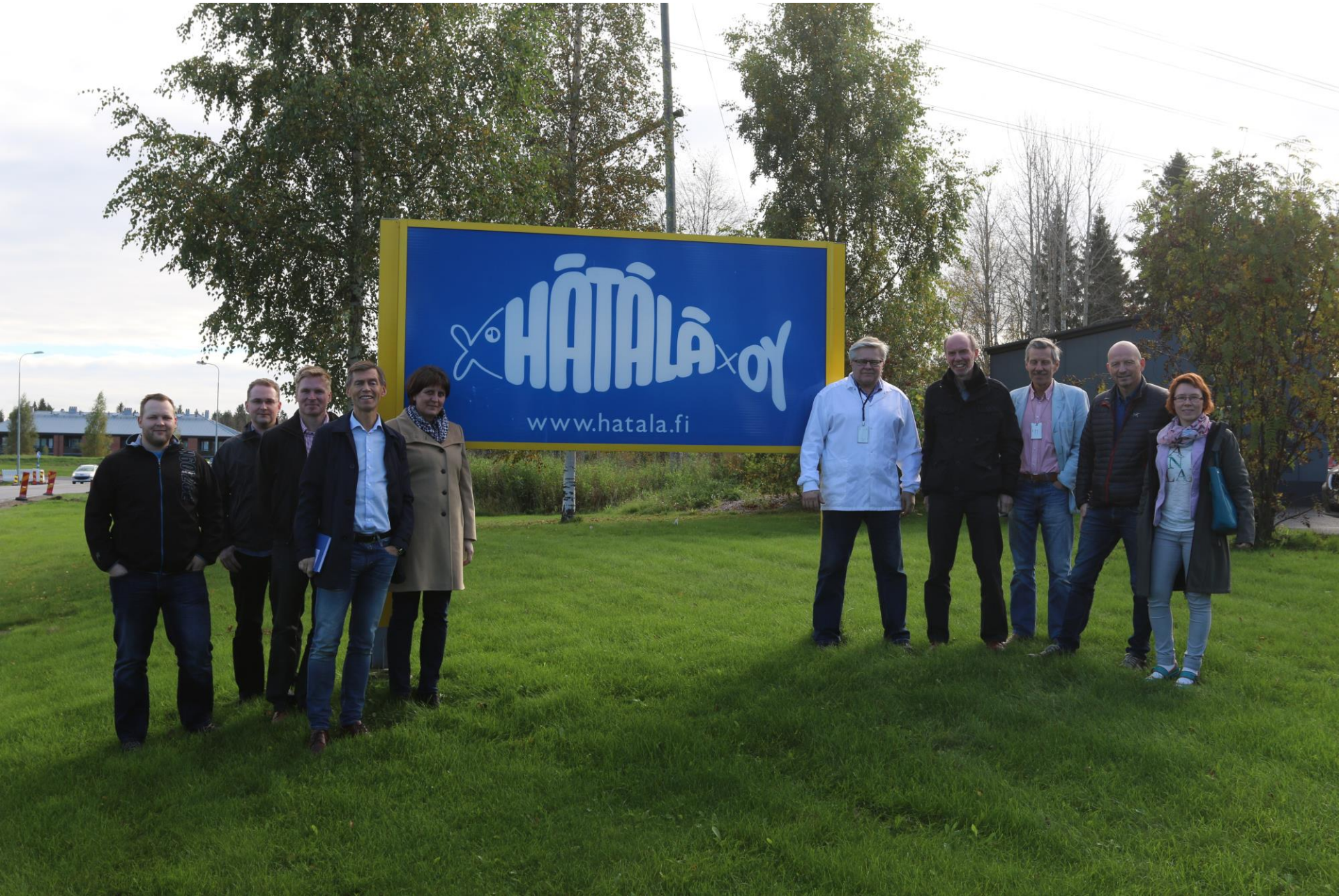
Samskiptakerfið





Visit to Visir Iceland May 2015

Hatala Oy September 2015




Scottish Sea Farm May 2016

Scottish Sea Farm Salmon Label

Visit to Leroy Sessoya Aquaculture Farm in March 2017


SMART FISH
Electronically tracking your food
OAMK
OUAS PrinLab

Framtíðin

- Fjöldaframleiðsla
- Bestun búnaðar og virkni
- Kostnaður
- Líftími
- Aðrir notkunarmöguleikar

Verkefnið var styrkt af

Northern Periphery and Arctic Programme
2014–2020

EUROPEAN UNION
Investing in your future
European Regional Development Fund

SMART FISH

HTTP://SMART-FISH.EU/FILMS/