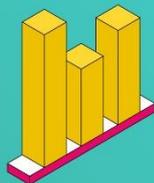


DATA DRIVE HIE



Karen O'Hanlon, Business Development Executive

REFLECT & GROW: FOSTERING DATA DRIVEN INNOVATION IN THE HIGHLANDS & ISLANDS

OVERVIEW



1. Brief introduction
2. Look back & reflect
3. Look ahead & grow





The Data Lab...

is Scotland's **innovation centre for data and AI**

Our mission is to help Scotland **maximize value from data and lead the world to a data-powered future**

www.thedatalab.com



thedatalab.com
@datalabscotland



H I E
Highlands and Islands Enterprise
Ionairt na Gàidhealtachd 's nan Eilean



How The Data Lab Works



SUPPORT TO INNOVATE



SKILLS & TALENT



COMMUNITY & EVENTS



We are here to accelerate the journey by **fuelling innovation** through **collaboration**, **building skills** and **growing talent**, and **strengthening** Scotland's thriving data science community

Data Lab Services



Support to Innovate

- Collaborative Innovation Projects
- Data science support
- External funding service
- TORCH
- Green Recovery & Climate Change Moonshot fund
- Resources hub
- Case Studies



Skills & Talent

- Leadership training
- Online learning (new LMS planned for 2021)
- Masters (MSc)
- Industrial Doctorates (PhD)
- Data Skills for Work
- Schools' resources



Community & Events

- DataFest
- International Learning Journeys
- Meetups
- Masterclasses
- Blogs
- Podcasts
- Community Platform – new!



LOOK BACK



11th March 2019 -
launch

'Phase 2 of The Data Lab will see the creation of an Inverness The Data Lab hub (or TDL²), being supported by HIE and The Data Lab.'

First 2 Years



10 Projects Supported

3 participants in 1st Data Leadership cohort (2021)

3 TORCH projects

7 MSc placement projects

2 Industrial Doctorates

5 External Funding Bids

2 projects with data science support

21 New Accounts



Support to Innovate

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Community & Events

- DataFest
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- Podcasts
- Community Platform – new!

139 events run and/or participated in

51 new collaborations/SMEs signposted

12 Data Fringe events

Launch event for DataFest2020

6 Highlands' Data Meet Ups

10 Jobs Advertised



LOOK BACK



HIGHLAND FOOD AND DRINK OPEN LOGISTICS PLATFORM PILOT PROJECT (HIPLAN)

To test if a data driven open logistics platform could be created to address key logistics-related issues in the Highland Region food and drink supply chain by:

- boosting order fulfilment
- reducing time to market
- lowering distribution costs
- improved sourcing and maximising load efficiencies
- building supply chain resilience

Further work planned

Collaborative Innovation Project



LOOK BACK



BEGG SHOES: Developing an innovative, bespoke ERP platform for SME retail businesses.

Begg Shoes & BlakesEye were in the design stage / proto-type building of the proposed retail platform when they engaged TORCH. Have considerable industry & technical knowledge and expertise but needed to augment that with some additional data expertise for aspects of their proposition.

- TORCH undertook an options analysis and provided education & recommendations for the development approach and underlying technologies to be used within the new retail ERP platform.
- TORCH provided Begg Shoes with a grant from Scottish Government to contribute to the costs of the platform development
- **Blakes Eye** received a grant from Scottish Government to support the hosting of a TDL MSc student during summer 2021. The MSc student undertook prototyping of AI/ML components for the ERP platform.



TORCH Project

MSc Project Placement



LOOK BACK



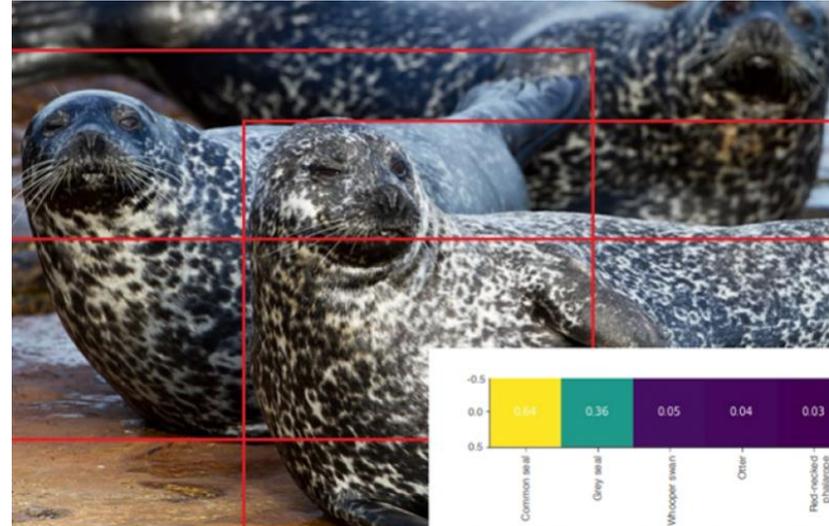
DEEP LEARNING HELPS NATURESCOT PROTECT SCOTLAND'S WILDLIFE

The problem: camera traps produce thousands of images, but only a tiny proportion are relevant.

The solution: MSc student applies up to date knowledge of the latest developments in the field, develops a software model to detect, recognise and classify species and uses deep learning to train the model for accuracy.

“It didn't occur to us that Ioannis would be able to come up with an actual machine learning solution for species recognition in three months, but that's exactly what he did. So it has far exceeded our expectations – we are delighted with what he's done.”

Information Management Programme Manager Stephen Gerrard, NatureScot



MSc Project Placement



LOOK BACK



DATA LAB DATA SCIENCE SUPPORT FOR NHS HIGHLAND

Using data gathered from the SCOTCAP service evaluation, we wanted to develop mathematical models that will help identify factors that contribute to a patient having an adequate CCE study.

- Demographic data, medical history etc.
- Working alongside NHS Highland, the Data Lab Data Scientist would attempt to develop a new algorithm
- Further worked planned



Data Science Support

External Funding Service



LOOK BACK



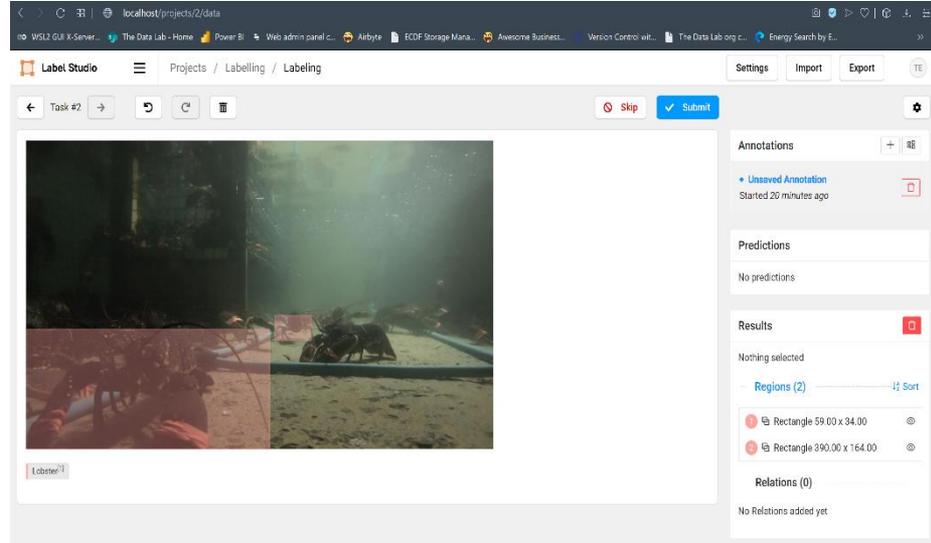
SEAFOOD INNOVATION FUND PH1 PROOF OF CONCEPT

- Use of underwater video and machine learning for monitoring of lobster stocks
- A collaboration funded by the SIF in partnership with Herriot-Watt University in Orkney and Orkney Sustainable Fisheries

Awarded Ph1 funding for a PoC - 3 months, TRL4

Recently awarded Ph2 funding for 12 months, also addition of Bangor University, TRL5/6

Further work scheduled to start in Oct'21



Data Science Support

External Funding Service



LOOKING FORWARD



Look ahead to the next
2 years



Data Drive HIE



Objective: Scaling the use of the data & AI in SMEs across the HIE region **to accelerate digital transformation and contribute to a green recovery**

Structure:

1. Two year programme
2. Focus on data driven innovation and skills
3. Focus on 5 Data Lab services
4. Additional support/grants for SMEs across the HIE area (subject to availability)
5. Dedicated marketing support, case studies and events



Data Drive HIE



- TORCH
 - Business Advisory Service designed to support businesses that are already leveraging their data, but want to take the next steps
 - TDL experts & specialist supplier organisations translates their strategies into practical actions, using the methods and technologies most suited to their needs e.g. Begg Shoes
- the MSc programme
 - Short data science projects, with a focus on injecting some 'creativity' into SMEs
 - Open to all, as every business has the potential to innovate with data, regardless of size or sector
 - Projects run from May until Sept; matching takes places Jan/Feb e.g. NatureScot and UHI
- Data science projects
 - Working with the TDL's team on a POC or similar type of project
 - We work with the business to help scope the project and embed the outputs in the organisation, making recommendations for the next steps etc.
 - Often about delivering value quickly and/or helping organisations become more confident e.g. HIAL



Data Drive HIE



- Strategy sessions for industry sectors/groupings
 - Interactive roundtable discussions for business leaders
 - Identify opportunities that move the sector/industry forward and/or contribute to a green recovery, by better utilising data, OR to explore and progress challenges/opportunities already identified for DDI
 - Tourism, aquaculture, shellfish...
 - Agree priorities for joint action e.g. smart logistics for food & drink SMEs

Support for SMEs to participate in the Data Leadership Programme

- Equipping business leaders with the skills & knowledge to lead Scotland's businesses to a green recovery e.g. Begg Shoes, Energy Mutual Ltd, Columba 1400
- 12 month programme of learning split into monthly sessions, with either a themed workshops or a facilitated peer discussion roundtables





<https://www.thedatalab.com/support-to-innovate/data-drive-hie/>

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