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Institute for Information and
Communication Systems Science

Reducing farmers' paperwork through data interoperability

Kieran Sullivan

Who am I?

Kieran the IT researcher

- Data analytics

- Ideas and opportunities

- "...the art of the possible..."

Who am I?

Kieran the part-time farmer

- Dairy and beef

- More immediate needs!

1. Mission

Provide traceability in the agri-food supply chain

2. Obstacle

Admin and paperwork!

* Cost time and money

* Requirements change over time

* Different organisations want similar information from farmers

      - Government ministry

      - Accreditation bodies

      - Processors (dairy, fruit, meat, grain, etc.)

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How many pages of T&Cs in current Govt. schemes for Irish farmers?

752

3. Path

Data interoperability – business and technical

...as a case study

www.agnav.ie

- Platform to help Irish farmers reduce carbon footprint of their farms

- 3 x government bodies involved

- Selected farmers engage with advisors to work through *what-if* scenarios for their farm
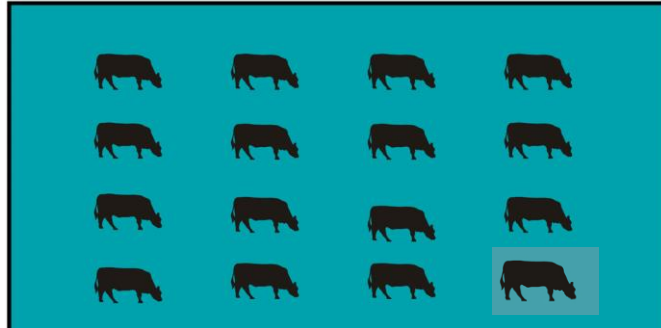
Farmers provide data (in various formats) to several organisations:

- <u>Teagasc</u> – research and advisory

- <u>ICBF</u> – data and software
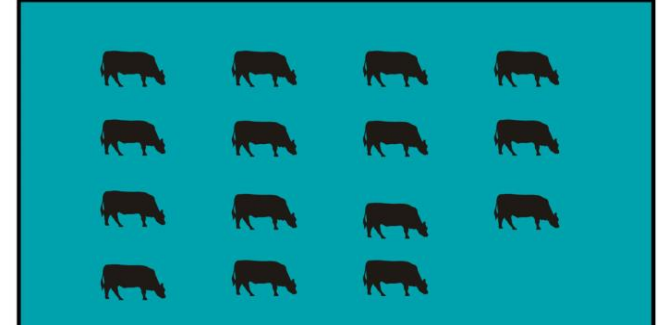
- <u>Bord Bia</u> – accreditation body

With farmer's permission, they send farmers' data to AgNav and a baseline on emissions is modelled for the farm

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Sample changes on farm and potential impact on carbon emissions

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Stocking rate

versus

Fertiliser type

YaraBela CAN   versus   YaraVera AMIPLUS

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Farmers view
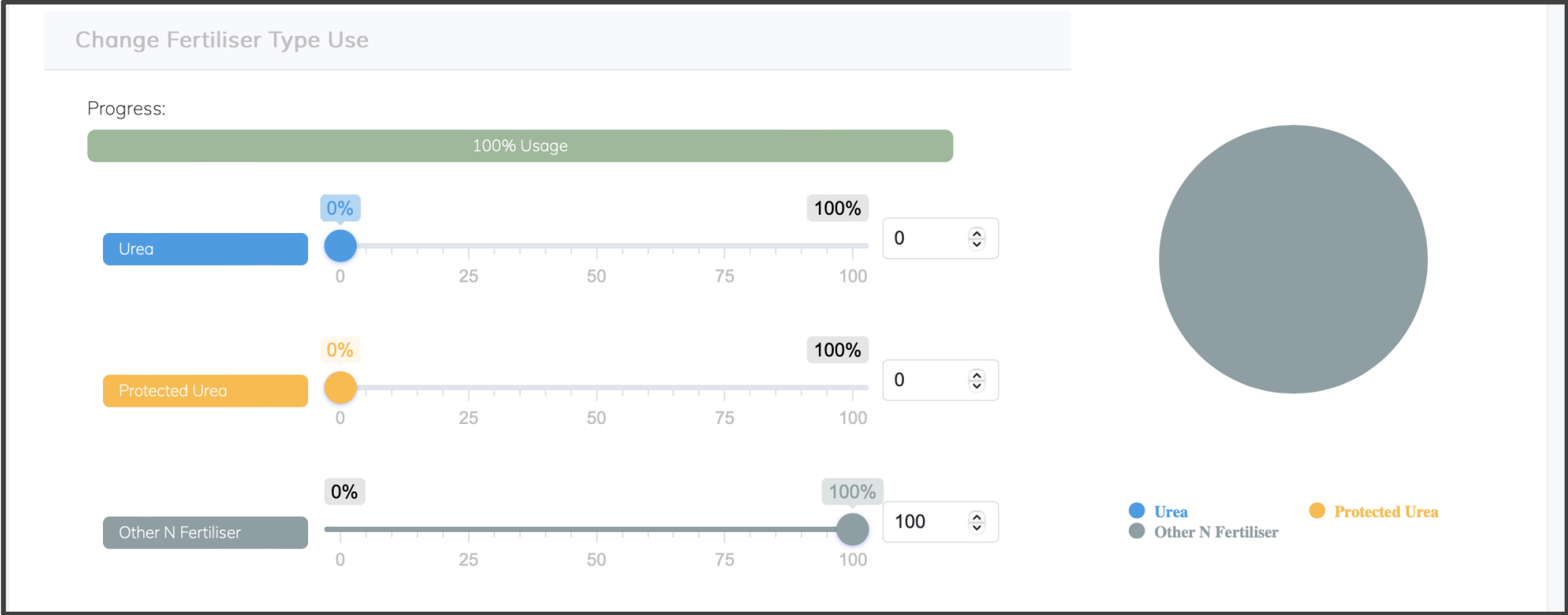
Farmers view

Farmers view

Who can see my data

AgNav Partners

Organisation	Address	Eircode	How to contact us
BORD BIA	140 PEMBROKE ROAD, DUBLIN 4, CO. DUBLIN, D04 NV34	D04 NV34	+ 353 1 668-5155
ICBF	Link Road, Ballincollig, Co. Cork.	P31 D452	+353 (023) 8820222
TEAGASC	OAK PARK, CARLOW, CO. CARLOW, R93 XE12	R93 XE12	

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Farmers view

What data can an organisation see

Personal Data including name, address, telephone numbers, email address, herd ID.

Farm Data including animal (calf registration and AIM system data), production, fertiliser, manure application and storage, feed, land-use and soil data.

Information gathered as part of the Bord Bia Farm Sustainability Survey.

Details of your participation in the Teagasc Signpost Advisory Programme.

AgNav outputs including Carbon Footprint, Greenhouse Gas Emissions & Nutrient Balance.

AgNav Action Planner.

* Farmers get an estimate of their carbon footprint without the need to provide more data to anyone

...no extra forms to complete!!!

* Assures consumers that farmers are playing their part

* Data can be added to the footprint estimates of other processes in the supply chain for LCA of food products

Next steps

- Economic impacts being integrated (business)

- Standards and templates being developed for data collection (technical)

Agri-food supply chain is diverse – <u>interoperability</u> (and trust) between people is key

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Contact

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…Horizon-Europe proposals and paper collaborations

Walton Institute: www.waltoninstitute.ie

…coordinating EU proposals for 20+ years

European Commission

Contact

YouTube: https://www.youtube.com/@sullivansfarm