



Technology and data capture to transform conservation outcomes in Aotearoa/New Zealand

Richard Hursthouse, Chair

Econet Charitable Trust | 10 August 2021

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**Conservation is a multimillion
dollar enterprise**

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Our many conservation ambitions

- **to be predator free by 2050**
- **to control pest plants**
- **to increase native planting**
- **to restore our waterways**
- **to ensure biosecurity**
- **to improve biodiversity**



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Current State

People management – Excel, Mailchimp, Outlook

Training, H&S – Excel, Vault

Funding – Excel, Xero, MYOB, other

Mapping – Google Maps, Google Earth, ARC GIS, SAGA

Planting – Excel, paper

Predator control – Excel, Trap.nz, CatchIT, Walk the line

Weedbusting – Word, Excel, Ecotrack, ConservationIT apps

Monitoring – different methods – Excel, Word, Powerpoint, home made tools,

33% of participant time is wasted shuffling spreadsheets and pasting data*

- **Administrative tasks become burdensome and botched**
- **Volunteer engagement is poor, churn at high levels**
- **Tasks are duplicated or go uncompleted**
- **Organising events takes too long, H&S compliance patchy**
- **Monitoring is arduous, reporting is manual**
- **Knowledge sharing is fraught, groups are siloed**
- **Landscape views are hard to compile**
- **Council officers struggle to coordinate community and contractors**

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*Source: EcoNet 2020 consultation survey respondents n =209



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EcoNet are connected leaders



Richard Hursthouse - Chair
Chair Centennial Park Bush Society,
Chair Restore Hibiscus & Bays,
Forest & Bird Board.



Keith Salmon - Trustee
Le Roys Bush,
Pest Free Kaipātiki



Annalily van den Broeke - Trustee
Bethells Buffer Zone
Matuku Link.
Chair of Forest and Bird Waitakere

EcoNet is well advised

Andrew Rossaak
Environment Team
Leader
Morphum
Environmental

Grant Morris
Director of Product
Engineering
Aderant NZ

Charmaine Bailie
Director
Uru Whakaaro Ltd

Olivia Rothwell
R&D Support
Manager
PF2050 Ltd

Cary Walkin
Salesforce
Functional Lead
Xero NZ

Craig Steed
Database solution architect

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Our Vision

Aotearoa/New Zealand will have integrated, collaborative information technology systems and data standards able to actively and effectively engage volunteers, iwi, organisations, government, and science in millions of hours of conservation activities with proven effectiveness

CAMS – Conservation Activity Management System

2020

Business Analysts x 2 + our team → Comprehensive User Stories, functional requirements etc

Dec - RFI to Software sector – 6x responses



2021

- Detailed analysis of proposals
- Engagement with vendors and GIS systems architect
- Refined architecture
- Proof of concept
- 2x preferred vendors/platforms
- Updated quotes
- Engagement with multiple stakeholders
- Funding applications

CAMS will engage more people and acquire data measuring conservation inputs and outcomes

Volunteer engagement

Sign-up, comms, training, results

Reporting

Monitoring, data capture, storage, data sharing.

KEY FUNCTIONS – COMMUNITY, ACTIVITY, MAP, LEARN*
View detailed slides below for more information on each function

My Community
Main community page for app. Displays my subunits + stats, groups belonging to and any upcoming events.
*Card UI allows user to swipe between subunits

My Activity
Card UI reused to streamline UX & allow easy access to "Multiple" Activity Type modules.
A user can swipe between cards to change the activity type and view the specific subfunctionality for that activity.

My Map
Provides a geographical view of ALL the user's activity (with filtering capability).
User can ONLY see their information, locations e.g. GPS, they have created or that have been shared with them.

Learn
Provides learning centre to help new participants gain knowledge + conservation-related help

*All designs copyright Econet Charitable Trust 2021

GROUPS: ADMIN FUNCTIONALITY*

Group - Admin View
Admin view for group members and address

Edit Group Settings
Admin view for group settings

View Members
List and Map View
Displays if member new, active and if verified

View Member Record
Admin can mark user as verified (optional for admin - e.g. if wanting to verify addresses)
Can see user's activity

Events
Admin user can create events

Group Messages
Note: propose Phase 1 messaging is specific
- Admin to group
- Admin to 1 member
- Member to admin

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Administration

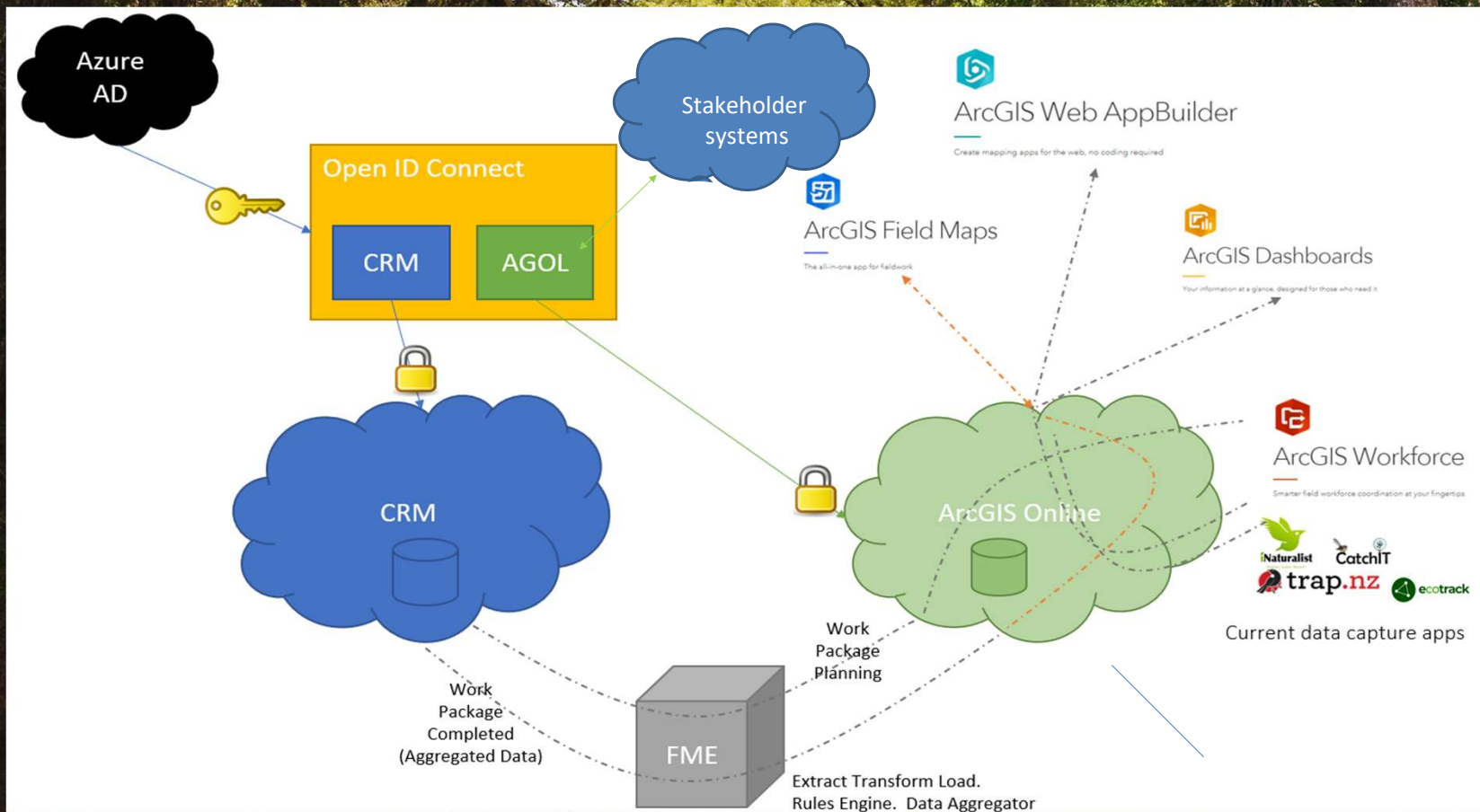
Email, finance, fund raising.

Task and Event management

Calendars, resources, tools, H&S.



CAMS : Integrated CRM + ArcGIS mapping apps with low-cost user licensing



CAMS tech attributes

Low cost licensing

Market leading / global standard platforms

Integration and cross-connectedness

Tailored field labels and menus

IP retained by EcoNet

GIS references and tools

Inherent permissions architecture

Data storage policy – on-shore potential

People and confidence building

Proof of concept July – can connect D365 and AGOL

Pilot implementation of core components – Q4 2021

20+ community groups collaborating

Dialogue with iwi groups, Maori in GIS re Maturanga Maori and data sovereignty

Engaged with DoC, MfE, LINZ, PF2050

GIS schema collaborations and refinement

2021 continued

- Refine strategic and business plans
- Explore funding models
 - Government and local government
 - Conservation group and user charges
 - Impact investment
- Extracting value from data through existing or novel financial instruments

Collaboration concept

Conservation needs forecastable non-contestable funding

CAMS will enable participants to harvest marketable data

Investor platform will funnel investor funding to complement public good funding

EcoNet will support verified data gathering based on quality data standards and processes



1. ROI

Very significant gains in productivity, measurable in economic terms and speed of outcomes

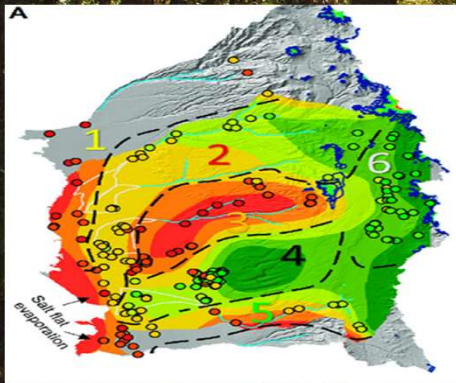


2. More useful activity

Reduced volunteer churn, more people doing more.



CAMS will deliver enterprise level impacts.



3. Data capture at scale

Aggregation to landscape / regional views. Identify and share best practice



4. Continuous innovation


New technologies deployed quickly by plugging into the open core of CAMS

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Why am I here?

We are seeking

- Collaboration and business partnerships
- Funding support – sponsorship, impact investment, software discounts
- Business skills to ramp up strategy and business plan
- IT skills to leverage this unique concept for the public good



Ngā mihi

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