



# ASSET MANAGEMENT (NATURAL AND BUILT) IN A RURAL ENVIRONMENT

**PĀMU**

FARMS OF  
NEW ZEALAND

## OUTLINE

- Pāmu introduction
- Built Assets
- Natural Assets/Land-use change

# WHO IS PĀMU?

- Pāmu is an State Owned Enterprise (SOE), 100% owned by the NZ Government. Our legal name is Landcorp Farming Ltd
- We employ about 700 people on over 100 farms around New Zealand
- We are sheep, beef, dairy and deer farmers, selling to most of New Zealand's largest national food processors along with smaller regional producers
- We also market premium products under the Pāmu brand around the world.



## BUILT ASSETS

- Dwellings on farms
- R & M was included in yearly farm budget
- Residential Tenancy Act
- Centralise information and get budget oversight

## DATA COLLECTION AND STORAGE

- Proposed data collection via paper forms
- Proposed storage in spreadsheet
- Spatial dataset of buildings
- Tool for digital data collection in Survey123

## SURVEY DESIGN LEARNING PROCESS

- Survey123 Connect Samples library
- Spreadsheet syntax
- Style settings in Survey123 Connect
- Ensure survey met requirements

Date

Tuesday, 6 March 2018

Region and Farm selection:

Select a region or complex: \*

The region or complex selection acts as a filter for the farm listing

- Radio buttons for region selection: Upper North Island, Central North Island, Pastoral, Lower North Island, Weka, Otago, Sweetwater Farms, Pouarua, Moutoa, Buller, Canterbury, Southland.

Select a farm: \*

- Radio buttons for farm selection: Achilles, Bounty, Burgess, Endeavour, Ajax, Broadlands, Earnslaw, Endurance.

Resolution Victory

Dwelling Selection:

Dwelling Address

Start typing address or choose from the address list to select the house Asset No.

126 Te Toke Road

Asset No.

125835

Describe

House 3 Bedroom

Unlisted dwelling

Dwelling not listed? Enter description & address here and proceed

[Empty text input field]

Underfloor Insulation

### Underfloor Insulation

#### Extent of insulation \*

How extensive is the underfloor insulation?

- Complete
- Partial
- None
- Unknown

#### Insulation Type \*

- Autex
- Knauf
- Airblown
- Biscuit/blanket
- Polystyrene
- Foil/Foil lining
- Yellow Batts
- Other

#### Insulation value (R rating) \*

Select rating value

- 1.4
- 1.8
- 2.2
- 3.2
- To be supplied from Council building file



from Council building file

Are there any gaps other than where clearances are required?

- No
- Yes

Is the insulation ripped, displaced, or compressed?

- No
- Yes

Is the insulation dry?

- No
- Yes

Photo

Use the camera on your phone to take a photo of any issue



Comments:



if information is available

Extent of insulation

Extent of the wall insulation?

- Complete
- Partial
- None
- Unknown

Insulation Type

- Autex
- Knauf
- Airblown
- Biscuit/blanket
- Polystyrene
- Foil/Foil lining
- Yellow Batts
- Other

Insulation value (R rating)

Select rating value

- 1.4
- 1.8
- 2.2
- 3.2

To be supplied from Council building file



1 of 1





## REPORTING

- Data had come in several formats
  - Spreadsheet
  - Survey123 app
- ‘Insulation Statement’
- Report designed in ArcMap report layout designer

## ADDITIONAL SURVEYS

- Dairy Shed Safety Audit
- Bridge Engineering Inspection

Dairy shed safety Audit (version2)

Farm \*

Enter farm name

Takou Bay Dairy Unit

Assessor \*

Select from drop down list or type in your name

Other

Date assessed \*

Date

Location

41°13'S 174°53'E ± 26.4 m

## OTHER SURVEYS

- Dwelling Condition

4G+ 97% 1:21 PM

**Dwelling Condition Inspection App**

✖

▽ **Exterior**

Roof cladding  
Select as many options as required

Corrugated iron  Long run iron  
 Tiled  Other

Roof condition  
1,good - 5, poor

1 2 3 4 5

Roof Years to replacement

This year  Next 3 years  
 4 - 10 years  11 or more years

Roof surface coating

None  Paint  
 Other

Roof surface coating condition  
1,good - 5, poor

1 2 3 4 5

✓

4G+ 97% 1:22 PM

**Dwelling Condition Inspection App**

✖

▽ **Interior**

Is the house single or double storied?

Single  Double

Floor  
Select as many options as required

Concrete  Timber  
 Other

Floor condition  
1,good - 5, poor

1 2 3 4 5

Floor Years to replacement

This year  Next 3 years  
 4 - 10 years  11 or more years

▽ **Kitchen**

Kitchen size

Large  Medium  
 Small

✓

## GENERAL LEARNINGS AND NEXT STEPS

- Multiple service definitions in AGOL
- Design survey with report format in mind
- Dashboard
- Geonet is invaluable

## NATURAL ASSETS/LAND-USE CHANGE

- Environmental issues
- Animal welfare
- Fading infrastructure
- Need to increase productivity

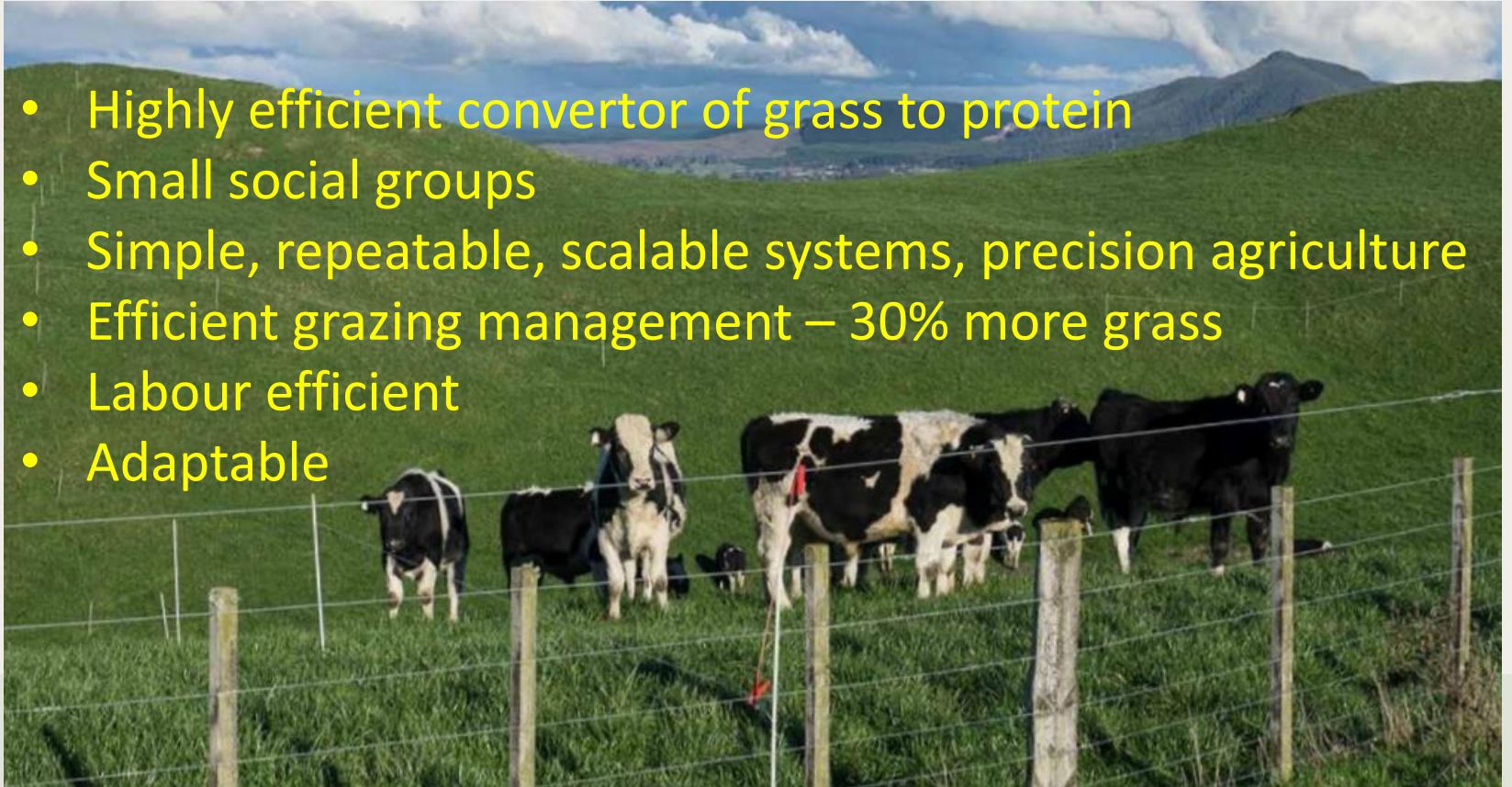
## THE NORTHLAND LAND-USE PROJECT



- **Steep and broken land removed from farming**
  - **Reduced environmental risk**
  - **Reduced health and safety risk**
  - **Forestry and carbon revenue**
  - **Opportunity to isolate all waterways**
  - **Cost effective fencing**

## EFFICIENT BEEF SYSTEMS

- Highly efficient convertor of grass to protein
- Small social groups
- Simple, repeatable, scalable systems, precision agriculture
- Efficient grazing management – 30% more grass
- Labour efficient
- Adaptable



## SYSTEM LAYOUT DESIGN

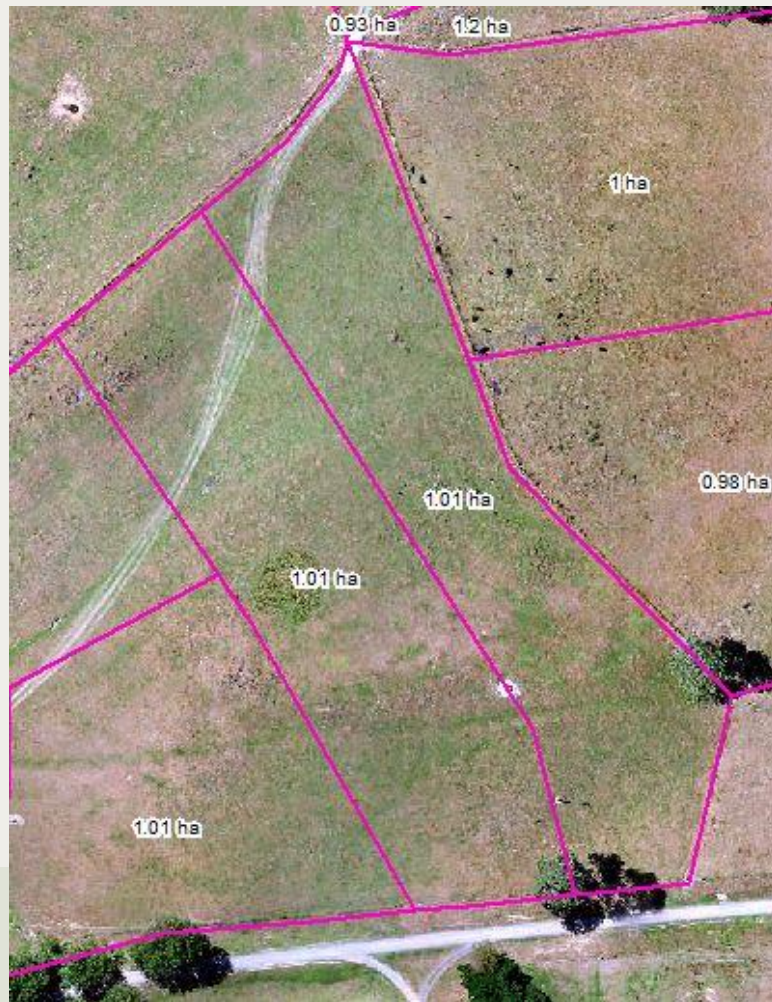
- Paddock polygon dataset
- Basic ArcGIS editing tools
  - Copy line parallel
  - Cut polygon





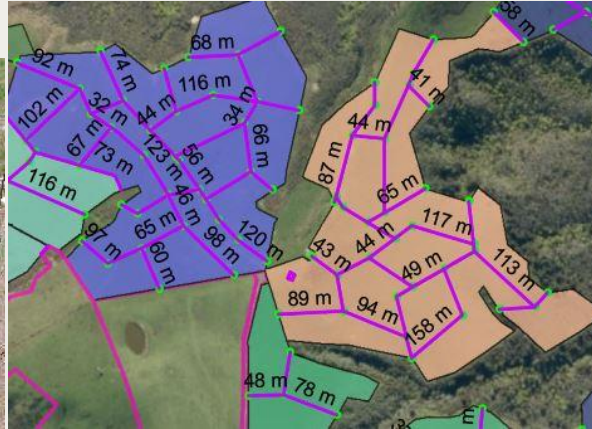
## SYSTEM DESIGN

- Basic ArcGIS Cut polygon tool
- Label formatting

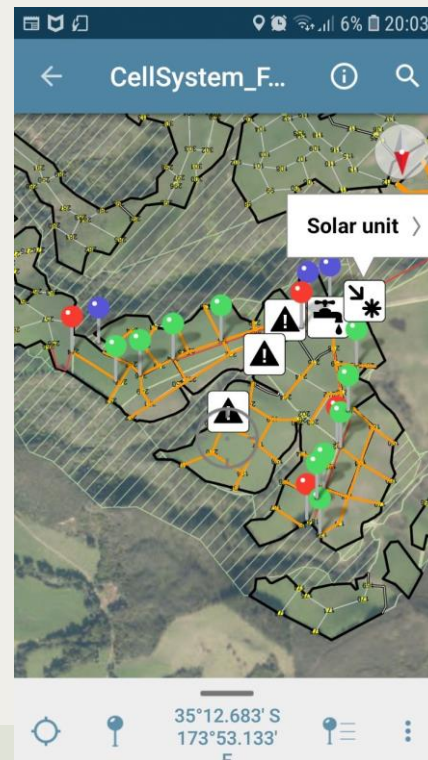


# PLAN ELEMENTS

- Geometry conversion (polygon to line to point)



# PLAN TO GROUND TRANSFER

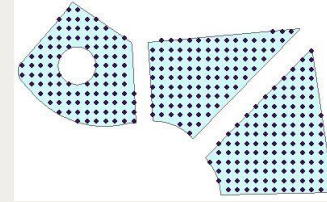


## 2D MAPS TO LANDSCAPE MODEL

- 3D



- Point grid in polygon
- Realistic symbols
- Varied symbology by attribute
- Animation



Current paddocks

~0.6 ha Bull Beef cell  
plan

Cells on drone  
imagery

Cells, radiata & eucalypt  
plantings on steeper areas,  
poplar shade – year 5

Plantings year 10,  
pohutukawas on  
riparian boundary  
starting to show

Plantings year 15

Plantings year 20





