ArcGIS for Local Authorities - Next Generation Applications

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esri South Africa

THE SOUTHERN AFRICA ESRI USER CONFERENCE 2023

Welcome

Presentation Overview

1. Background of AFLA
2. Demo: AFLA Portal and TPAMS
3. Demo: AFLA Billing Viewer
4. Demo: eVRMS
5. Audience questionnaire
6. AFLA Users Feedback
7. Q&A

Background

What is ArcGIS for Local Authorities (AFLA)?

- Suite of modules developed by Esri South Africa specifically for the South African Municipal market

Where does AFLA come from?

- AFLA was developed due to numerous customers asking Esri for a system to automate their town planning and building plan processes i.e. AFLA was designed based on inputs received from our customers. AFLA Version 1 was release in 2014/15 with Version 2 being released in 2020/21

What software is required?

- AFLA is developed on the Esri Platform and requires ArcGIS Enterprise, Workflow Manager and ArcGIS Pro.

Background Continued ……

What are the IT Infrastructure options for deploying AFLA?

- There are three options available when it comes to deploying AFLA namely, in a managed environment hosted by Esri South Africa, in the Cloud (Azure) or on-premise

What current AFLA Modules are available (Core Modules)?

- AFLA Portal, TPAMS (Town Planning Application Management System), BPAMS (Building Plan Application Management System), CMS (Cemetery Management System), PLAMS (Municipal Property and Lease Management System), WAMS (Wayleaves Application Management System), eVRMS (Valuation Role Management System) and Billing Viewer (Visualize financial data per property)

What modules are on the AFLA Roadmap?

- ITAMS (Informal Traders Application Management System), Outdoor Advertising, Zoning Certificate & more.

Current AFLA Clients

No	Title	Status	TPAMS	BPAMS	CMS	WAMS	PLAMS	BV
1	Bitou	Active Production	1	1	1	0	0	1
2	Buffalo City	Testing Production	1	1	0	1	1	1
3	Bushbuckridge	Active Production	1	1	0	0	0	1
4	Collins Chabane Municipality	Active Production	0	1	0	0	0	1
5	Drakenstein	Active Production	0	0	1	1	0	1
6	Emalahleni	Active Production	1	1	0	0	0	0
7	George	Active Production	0	0	0	0	0	1
8	Gert Sibande District M. (Msukaligwa)	Active Production	1	0	0	0	0	1
9	Kouga	Inception	1	1	1	0	1	1
10	KwaDukuza (KZN)	Configuration	1	1	0	0	0	0
11	Mahikeng LM	Testing Production	1	1	0	0	0	1
12	Makhado Municipality	Active Production	0	1	0	0	0	0
13	Makhuduthamaga (Limpopo)	Active Production	1	1	1	0	0	1
14	Mopani	Testing Staging	1	0	0	0	0	0
15	Mossel Bay LM	Active Production	0	0	0	0	0	1
16	Oudtshoorn	Active Production	0	0	0	0	0	1
17	Overstrand	Active Production	0	0	0	0	0	1
18	Polokwane (Limpopo)	Configuration	1	1	1	0	0	1
19	Sol Plaatjie	Active Production	1	1	0	0	1	1
20	Stellenbosch	Active Production	1	1	1	1	0	1
21	Swartland	Active Production	0	0	0	0	0	1
22	Swellendam	Testing Staging	1	1	1	0	0	1
23	Thaba Chweu	Active Production	1	0	1	0	0	1
24	Theewaterskloof	Active Production	1	0	0	0	0	1
25	uMzimkhulu Local Municipality	Testing Staging	0	0	1	0	0	0
			16	**14**	**9**	**3**	**3**	**20**

25 Clients
&
66 modules

Rudolf - Demos

Demo of AFLA

AFLA TPAMS and AFLA Portal

AFLA Billing Viewer

AFLA Valuations System - eVRMS

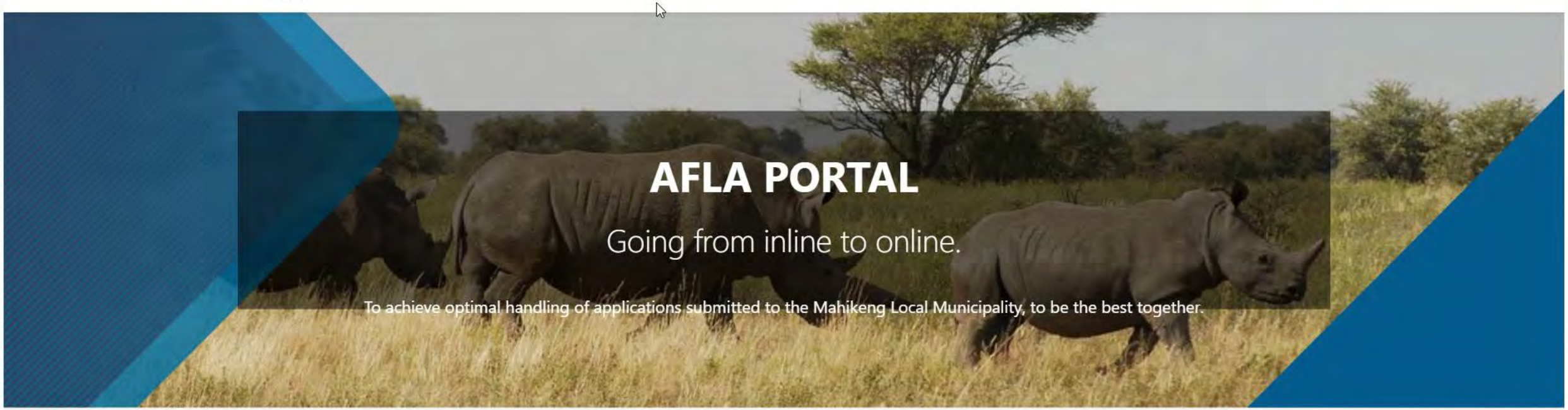
AFLA Portal (External Applicants)

InPrivate | AFLA Portal | AFLA

https://dww-mahikeng.esri-southafrica.com/aflaportal/

MAHIKENG

Login



AFLA PORTAL

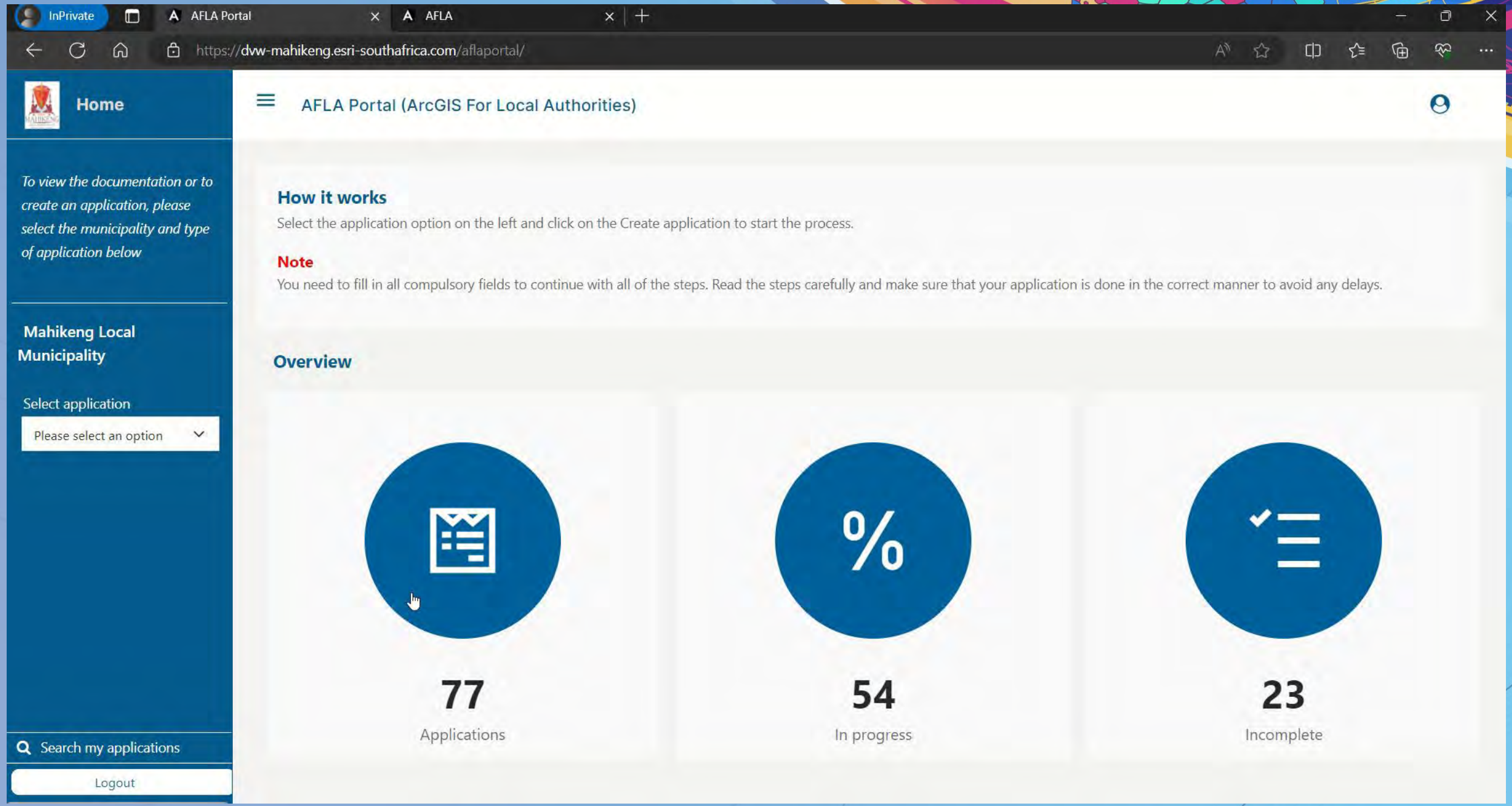
Going from inline to online.

To achieve optimal handling of applications submitted to the Mahikeng Local Municipality, to be the best together.

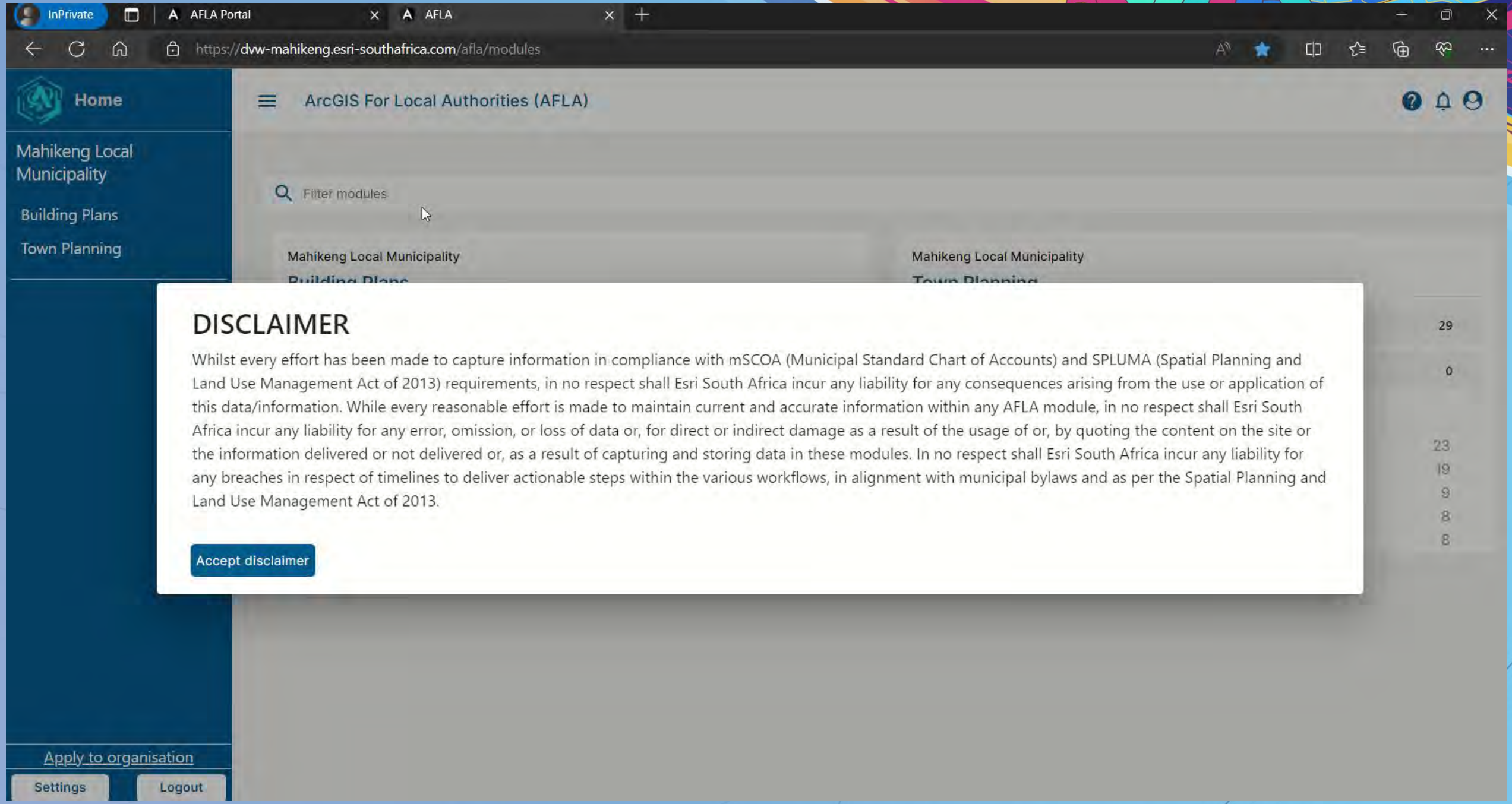
About AFLA PORTAL

The AFLA PORTAL system has been designed and developed by Esri South Africa to assist local authorities to diminish queues and promote faster turnaround times on land development applications. The AFLA system is accessible to members of the public, enabling online submission of applications.

AFLA Portal (Track Applications)


InPrivate
AFLA Portal
AFLA
https://dvw-mahikeng.esri-southafrica.com/aflaportal/
Home
AFLA Portal (ArcGIS For Local Authorities)
To view the documentation or to create an application, please select the municipality and type of application below
Mahikeng Local Municipality
Select application
Please select an option
How it works
Select the application option on the left and click on the Create application to start the process.
Note
You need to fill in all compulsory fields to continue with all of the steps. Read the steps carefully and make sure that your application is done in the correct manner to avoid any delays.
Overview
77
Applications
54
In progress
23
Incomplete
Search my applications
Logout

AFLA TPAMS (Internal Administration)


InPrivate
AFLA Portal
AFLA
https://dvw-mahikeng.esri-southafrica.com/afla/modules
Home
ArcGIS For Local Authorities (AFLA)
Mahikeng Local Municipality
Building Plans
Town Planning
Filter modules
Mahikeng Local Municipality
Mahikeng Local Municipality
DISCLAIMER
Whilst every effort has been made to capture information in compliance with mSCOA (Municipal Standard Chart of Accounts) and SPLUMA (Spatial Planning and Land Use Management Act of 2013) requirements, in no respect shall Esri South Africa incur any liability for any consequences arising from the use or application of this data/information. While every reasonable effort is made to maintain current and accurate information within any AFLA module, in no respect shall Esri South Africa incur any liability for any error, omission, or loss of data or, for direct or indirect damage as a result of the usage of or, by quoting the content on the site or the information delivered or not delivered or, as a result of capturing and storing data in these modules. In no respect shall Esri South Africa incur any liability for any breaches in respect of timelines to deliver actionable steps within the various workflows, in alignment with municipal bylaws and as per the Spatial Planning and Land Use Management Act of 2013.
Accept disclaimer
29
0
23
19
9
8
8
Apply to organisation
Settings
Logout

AFLA TPAMS (Management Reporting)

Mahikeng Local Municipality

TPAMS applications application

Quick Dates	Date	Due In (Days)	Overdue (Days)	Assigned To
None	30/08/2023 and before	None	0+	None

Submitted Applications

Ref # | 2022/1
Date | 14/11/2022, 17:55

Ref # | 2022/10
Date | 15/11/2022, 13:24

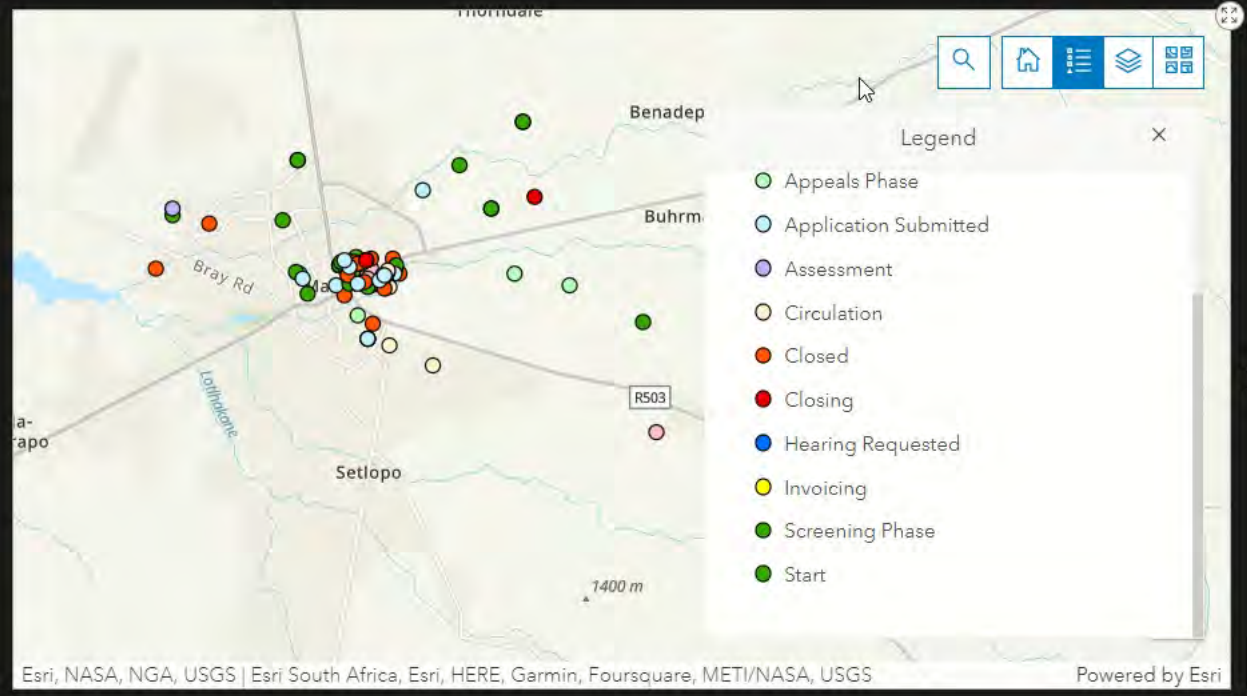
Ref # | 2022/7
Date | 15/11/2022, 13:08

Ref # | 2022/2
Date | 15/11/2022, 12:04

Submitted Applications

84

Submitted Applications



Open Applications

87%

Open : 73 | Total : 84

Completed Applications

13%

Completed 11 | Total 84

Status

Status | Application Type

Execution Count

Step | Start : Acknowledge Application Received

User | Mojapelo, Maredi William

Step | Notify applicant of appeal closure

User | Msweli, Nompumelelo

Step | Set closeout status

User | Msweli, Nompumelelo

Step | Set closeout status

User | Mokwena, Lebo

Execution Count

1.2k

AFLA Billing Viewer

AFLA Finance - Billing Viewer Dashboard

Allotment / Town Name: None

Ward No: None

Owner
20617
Accounts

Occupier
4961
Accounts

Indigents
247

Balance - Plus 90 day Debt
R2M
Sum of outstanding balances

Total number of properties
22842

No Valuation
43
Properties with no market value

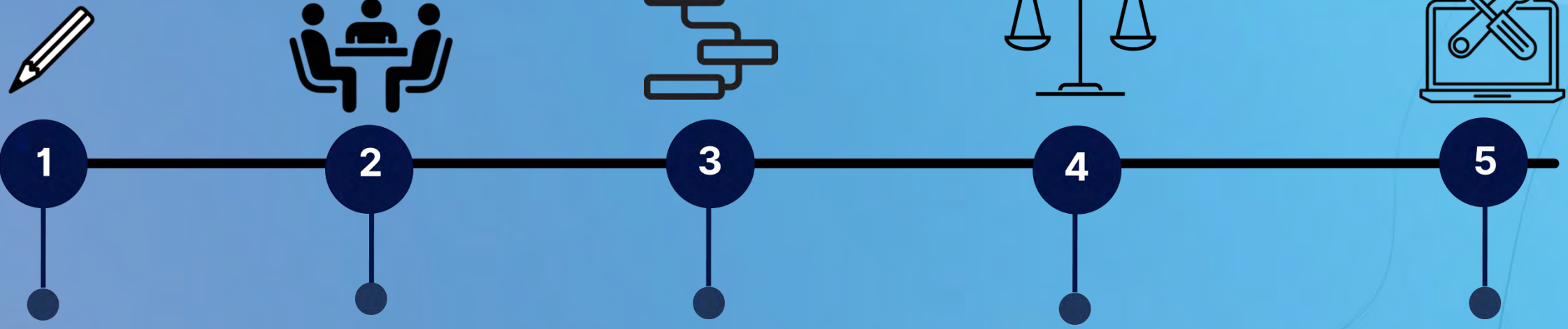
R 0 Valuation
0
Properties with R 0 market value

Plus 90 day Debt per Service Type

AFLA eVRMS

GV TIMELINE

FROM START TO FINISH



PHASE 1
DATA PREPARATION

- Admin requirements
- Land audit
- Market report

PHASE 2
DRAFT VALUATION ROLL

Calculation of property values in municipality using eVRMS

PHASE 3
OBJECTION PROCESS

Processing of objections to calculated property values in eVRMS . Objections are either rejected or new values calculated and the valuation roll is updated.

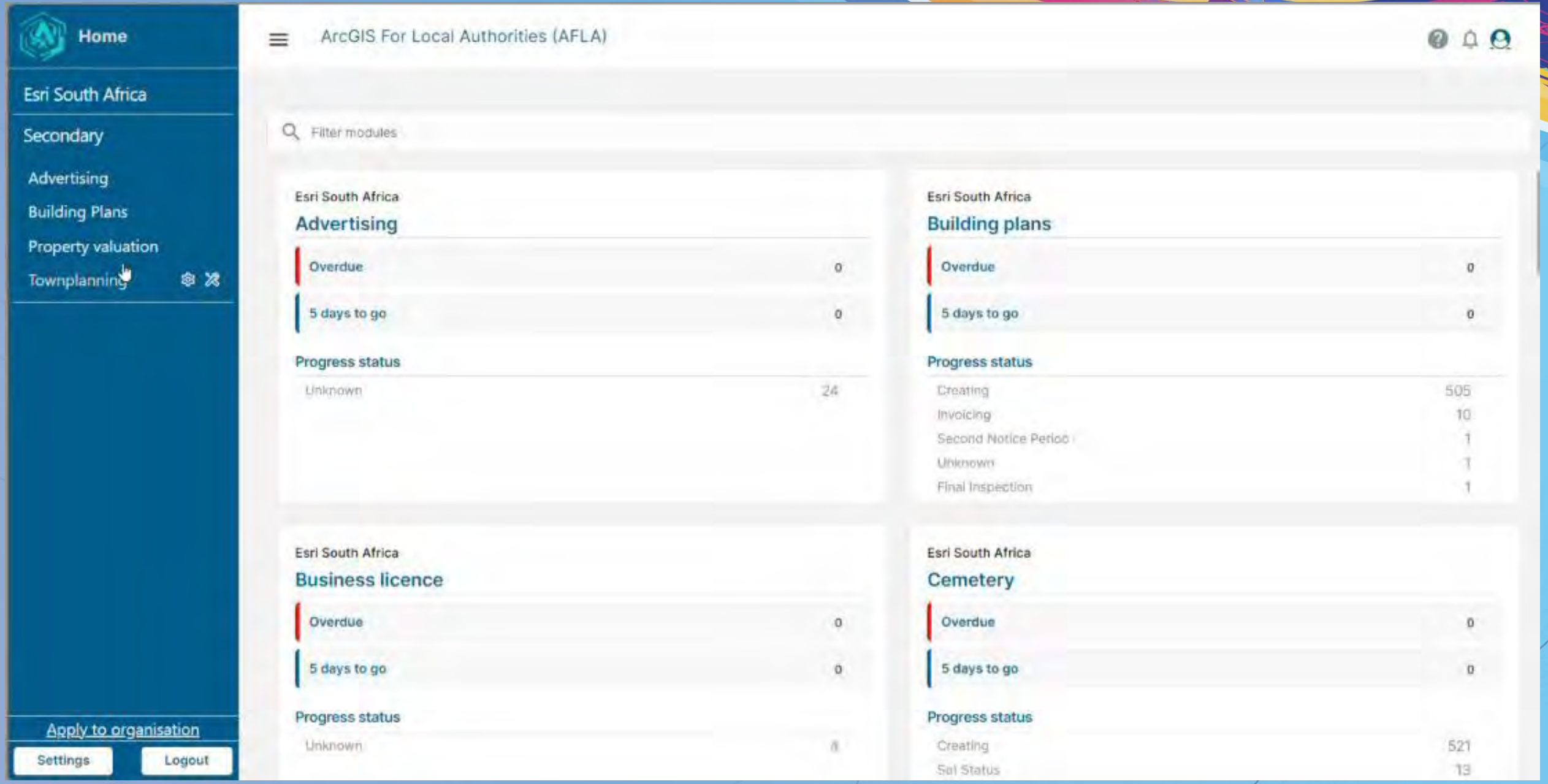
PHASE 4
APPEALS PROCESS

Processing of appeals in eVRMS if objections are unsuccessful. Appeals are either rejected or new values calculated and the valuation roll updated

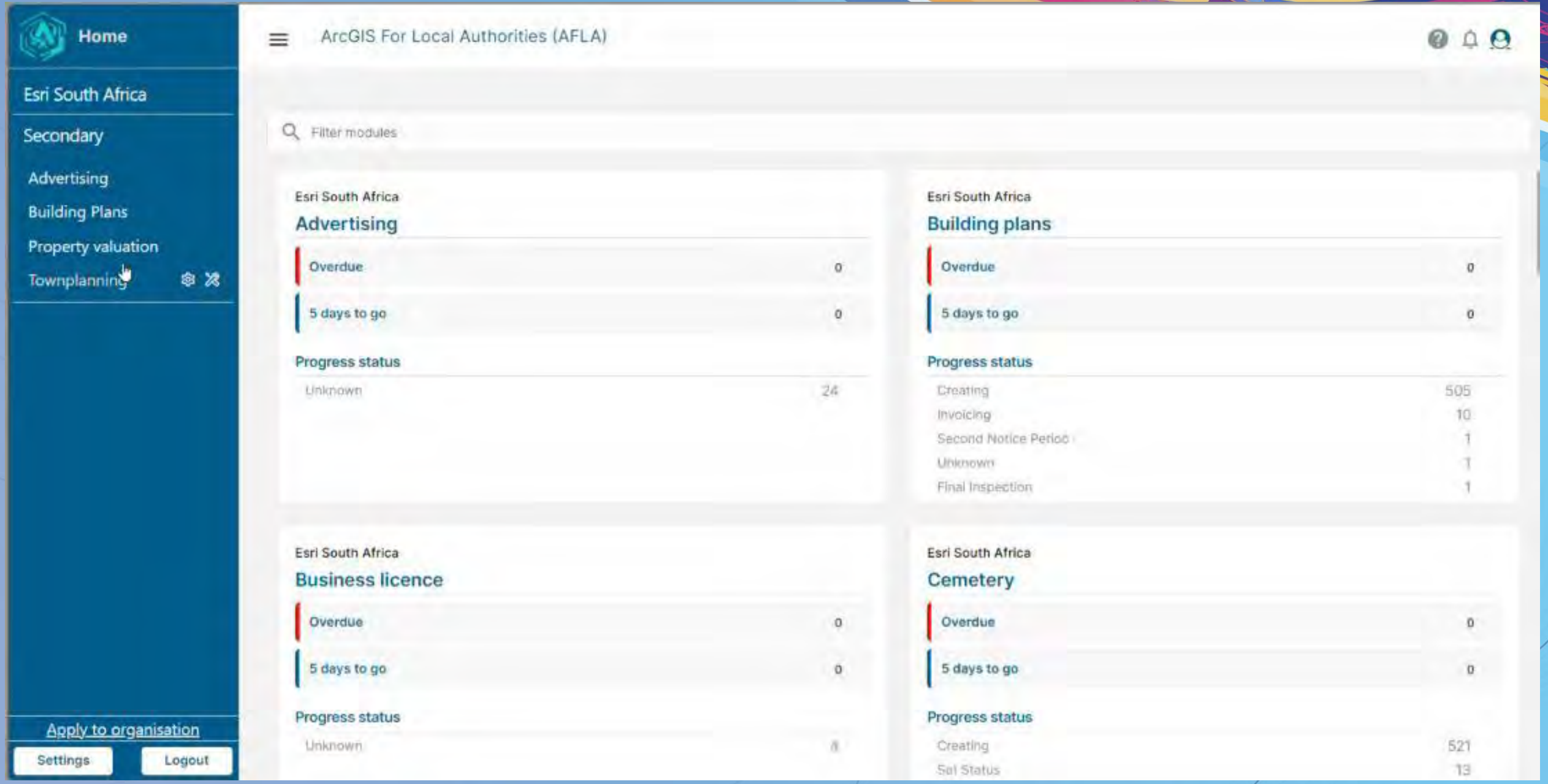
PHASE 5
VALUATION ROLL MAINTENANCE

Material changes to property attributes and new properties (Supplementary Valuation Rolls)

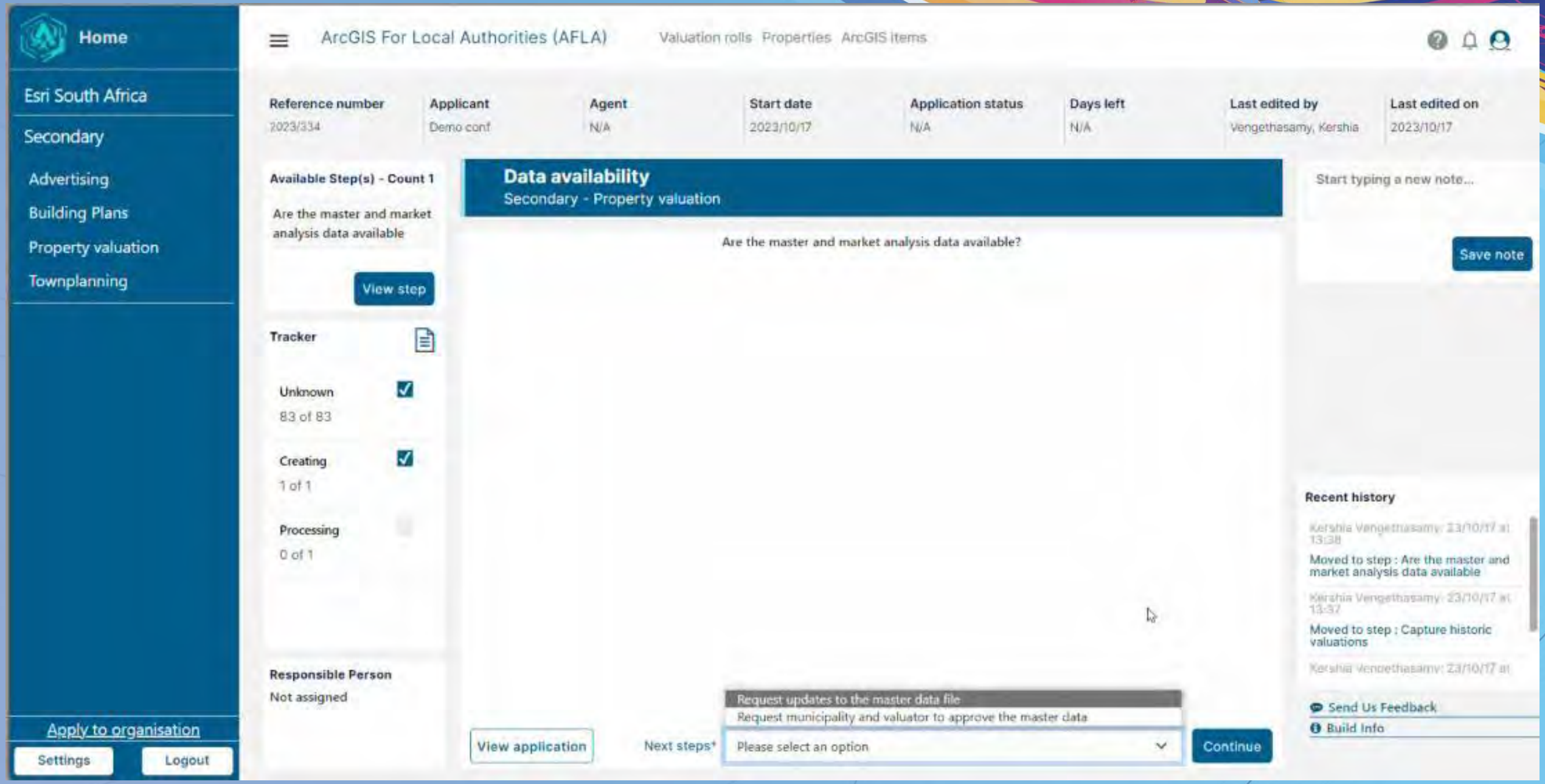
CREATE GENERAL VALUATION ROLL



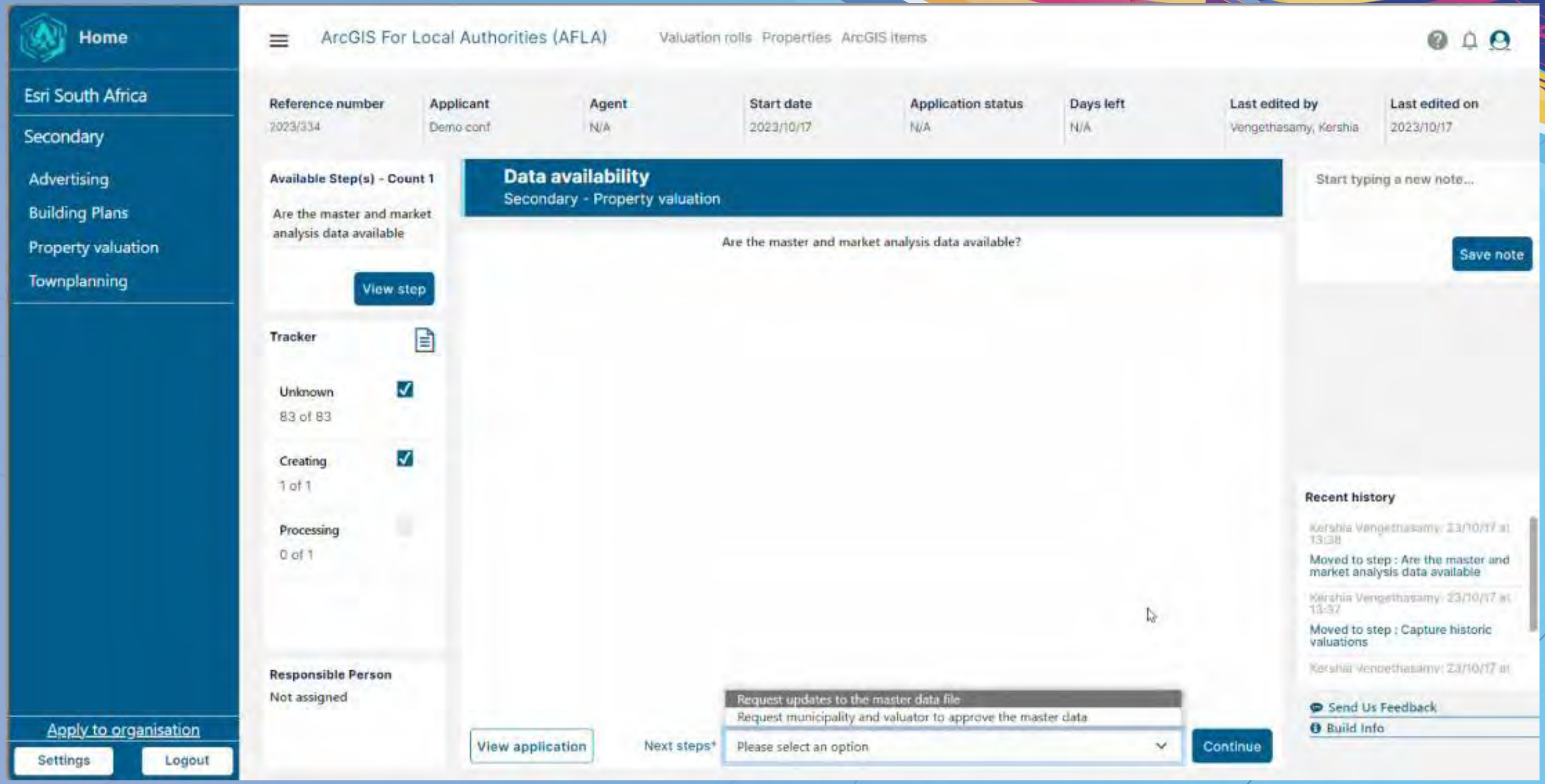
CREATE GENERAL VALUATION ROLL



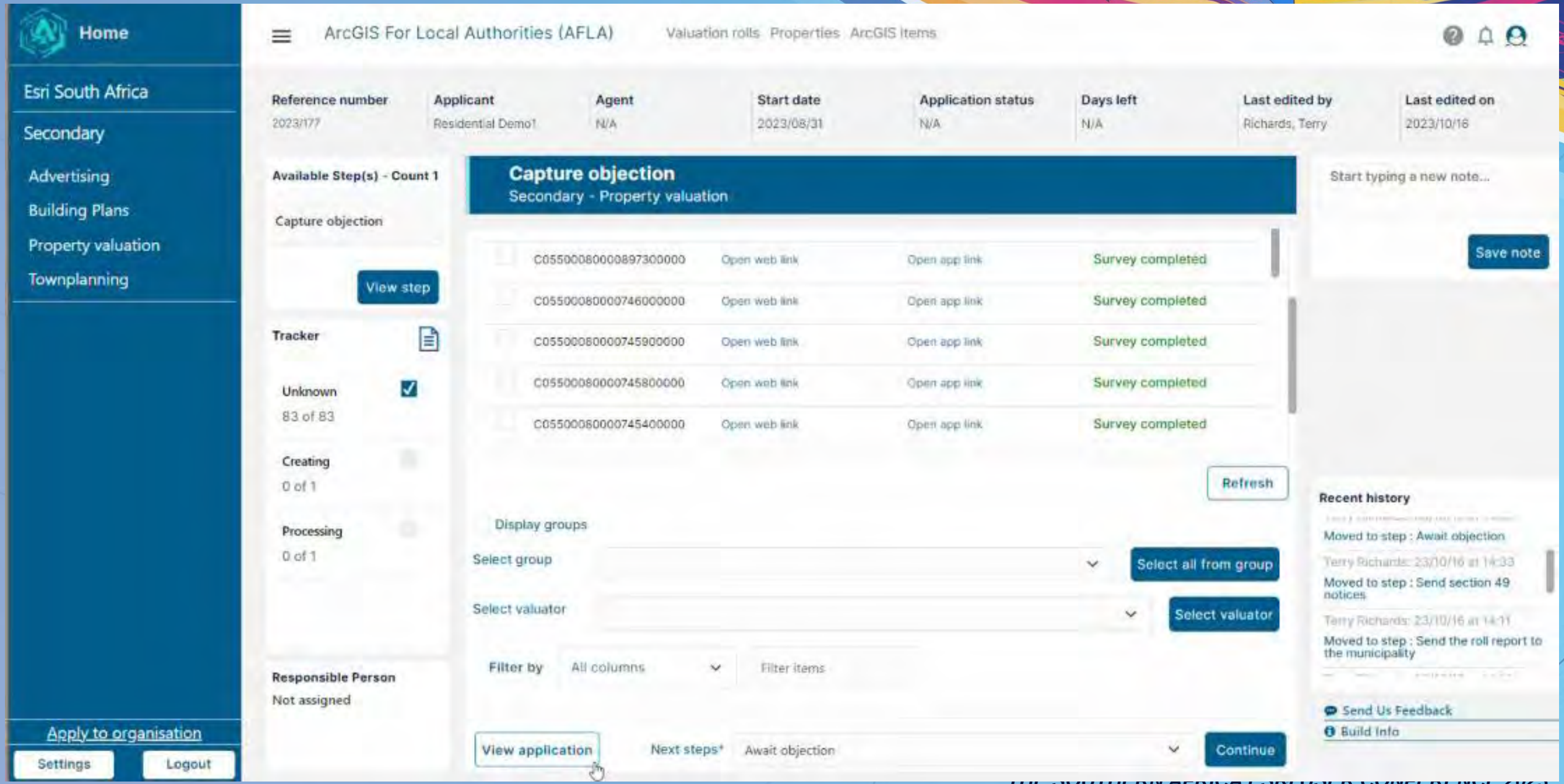
MARKET ANALYSIS



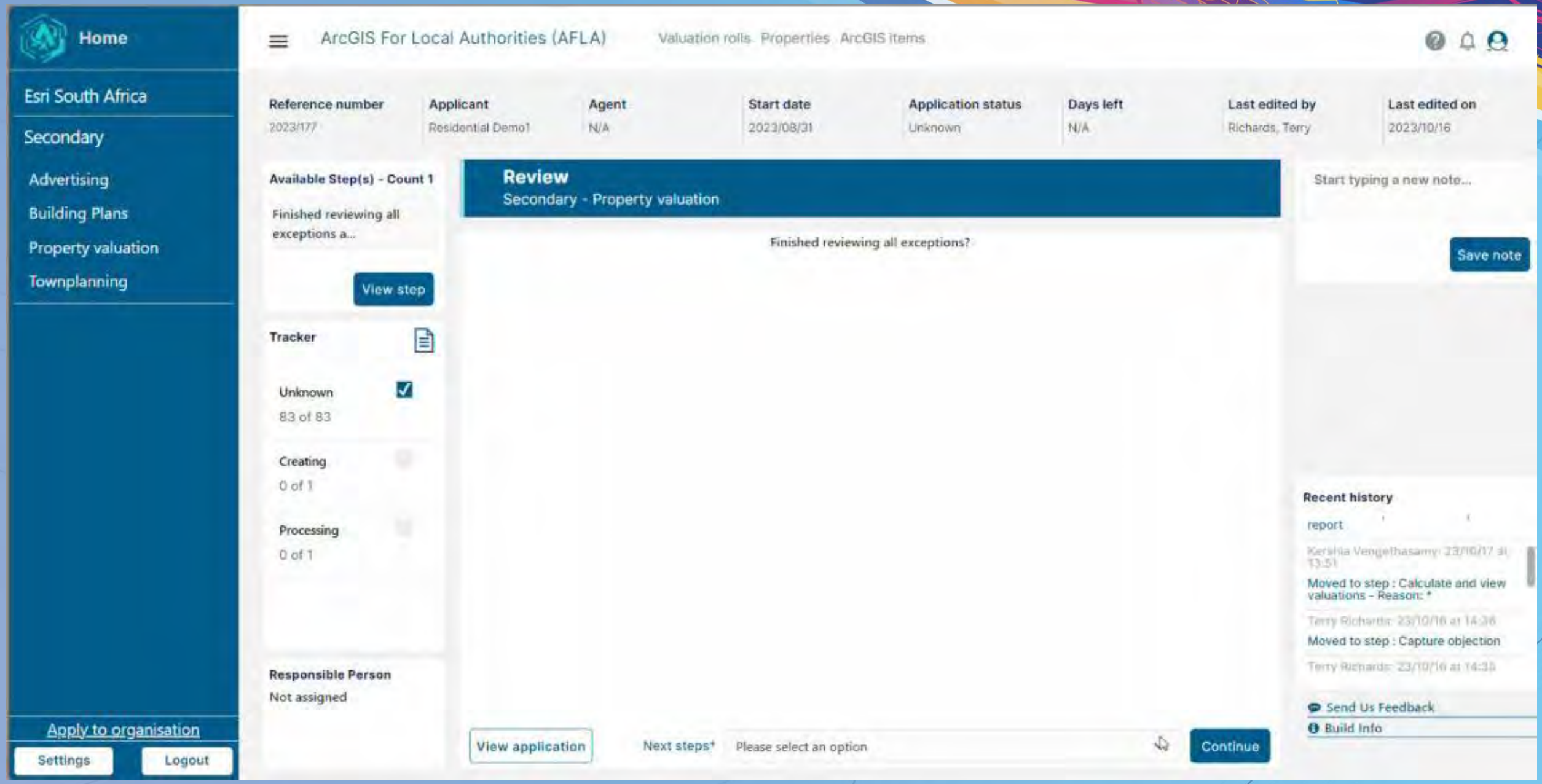
REQUEST PROPERTY SURVEYS



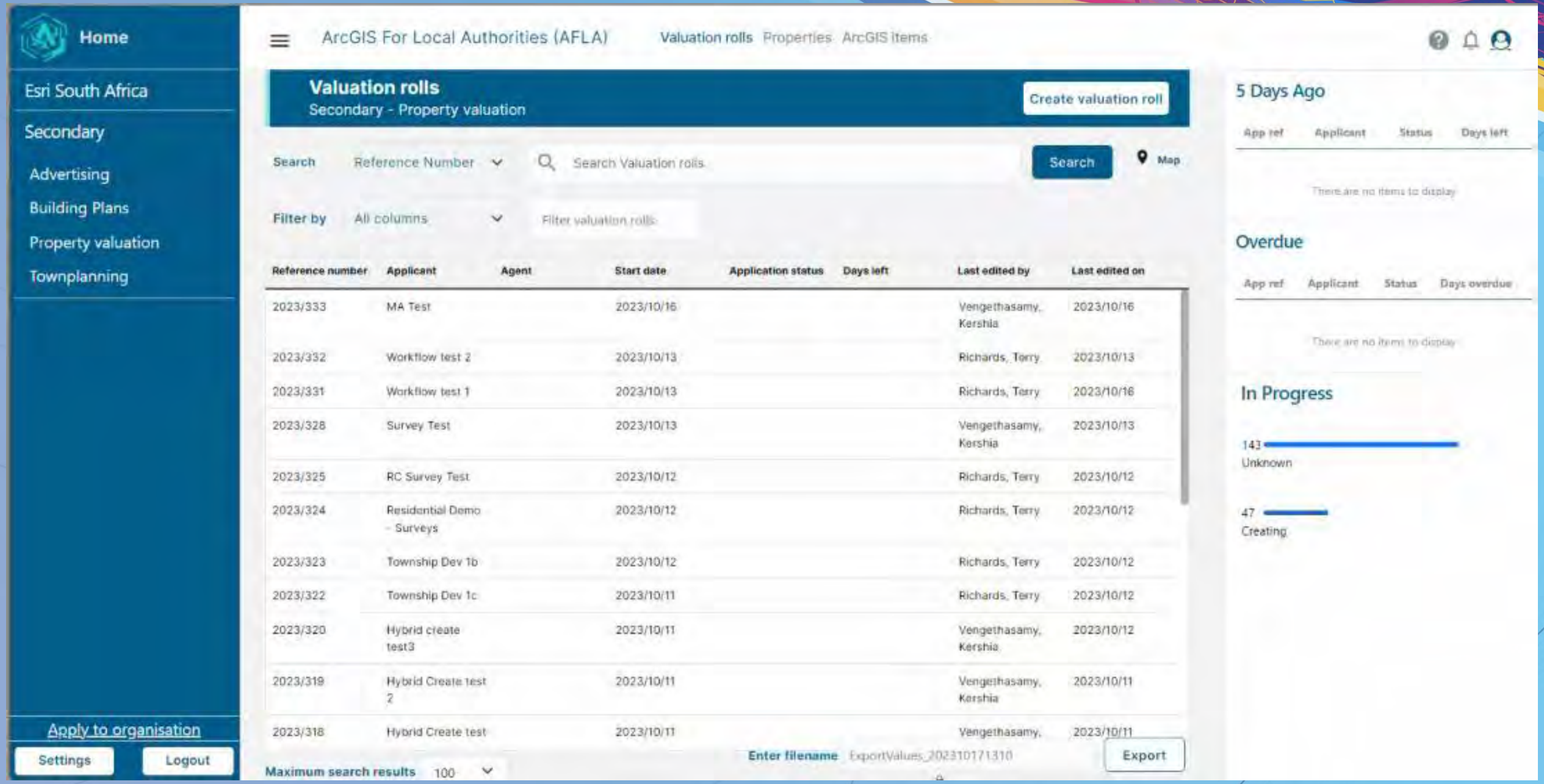
CALCULATE AND VIEW VALUATIONS



DRAFT ROLL REPORT



ATTRIBUTE AND PARAMETERS



AFLA eVRMS Tools

Viewed from South
Location
Invalid Date
Viewed from West
Location
Invalid Date
Viewed from North
Location
Waiting for capetown.esri-southafrica.com...
Viewed from East
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12452
2165
16120
3109
3111
3110
18956
15356
3099
3116
3106
2833
3108
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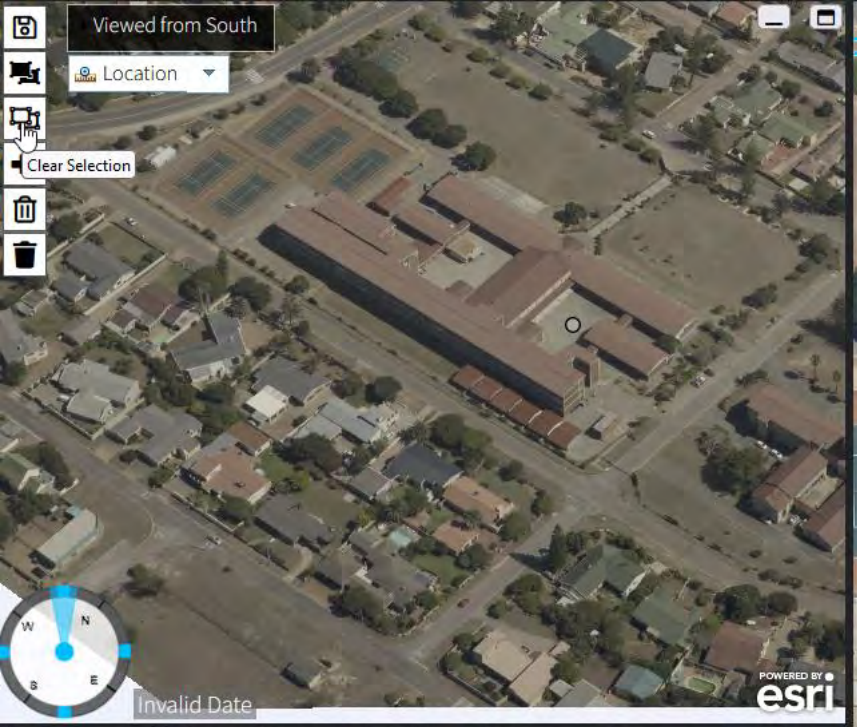
3114
Mossel Bay
unicipality (owner), Surveyor General, ...
POWERED BY esri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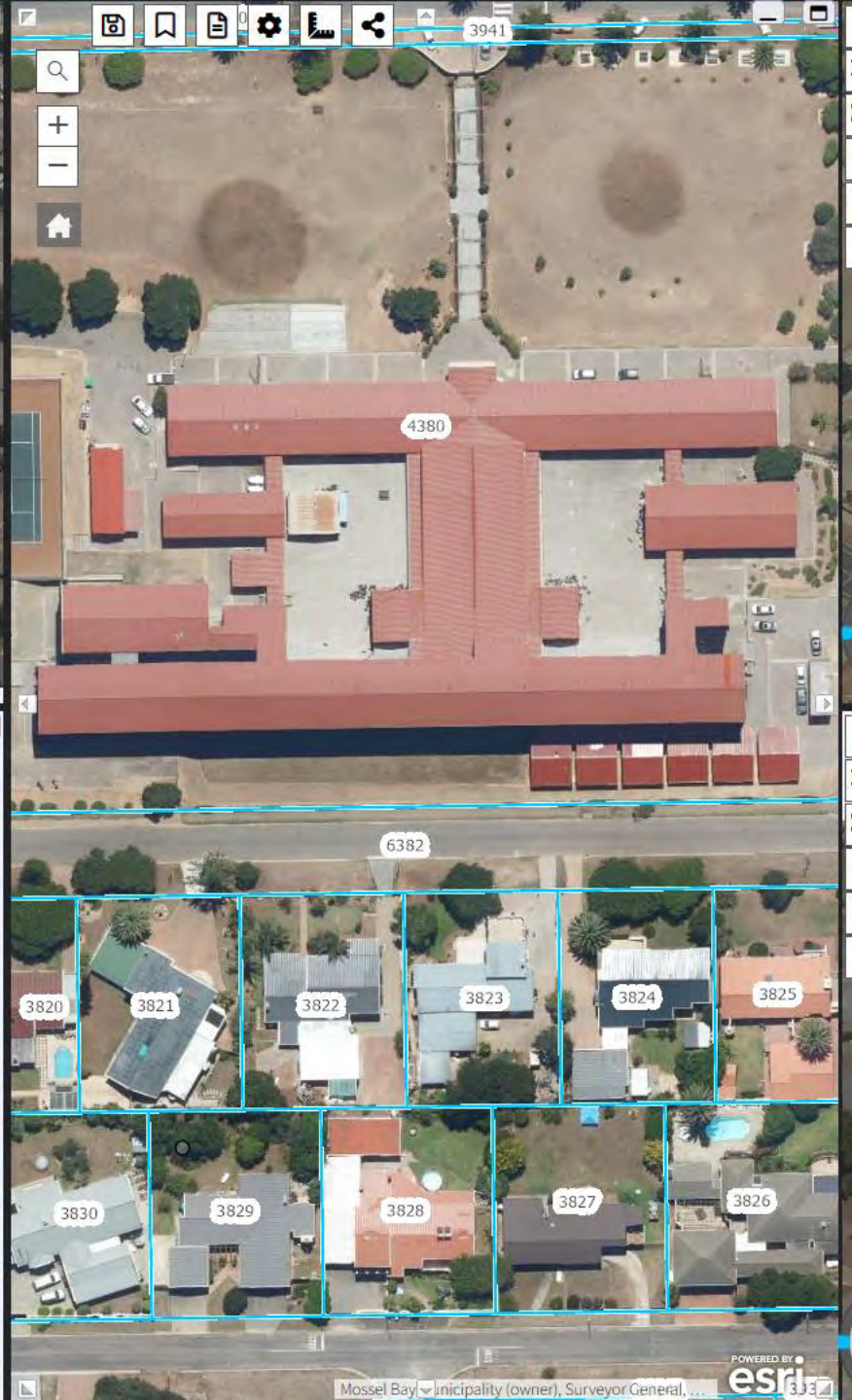
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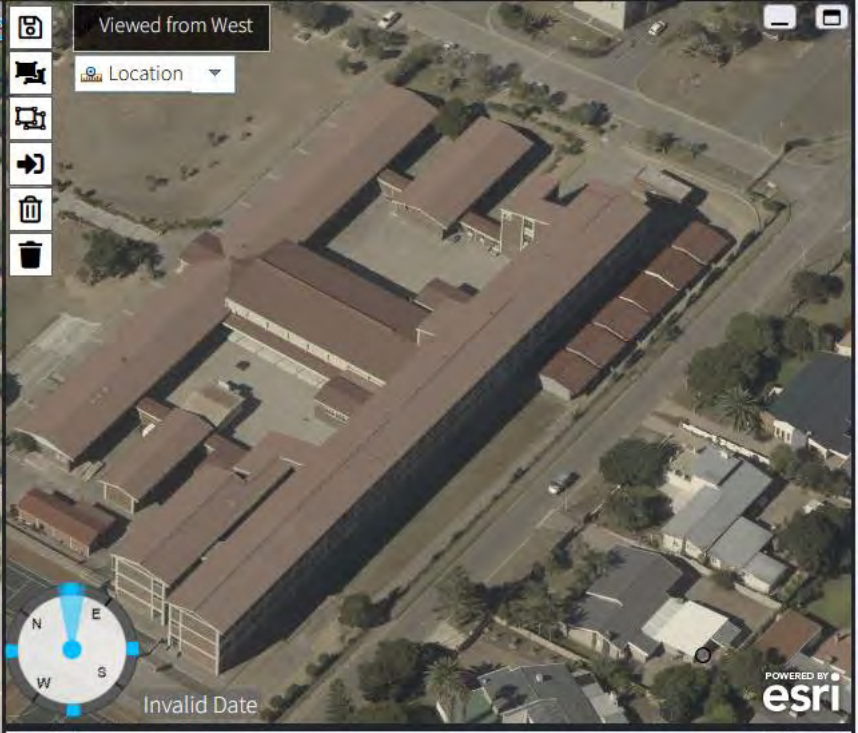
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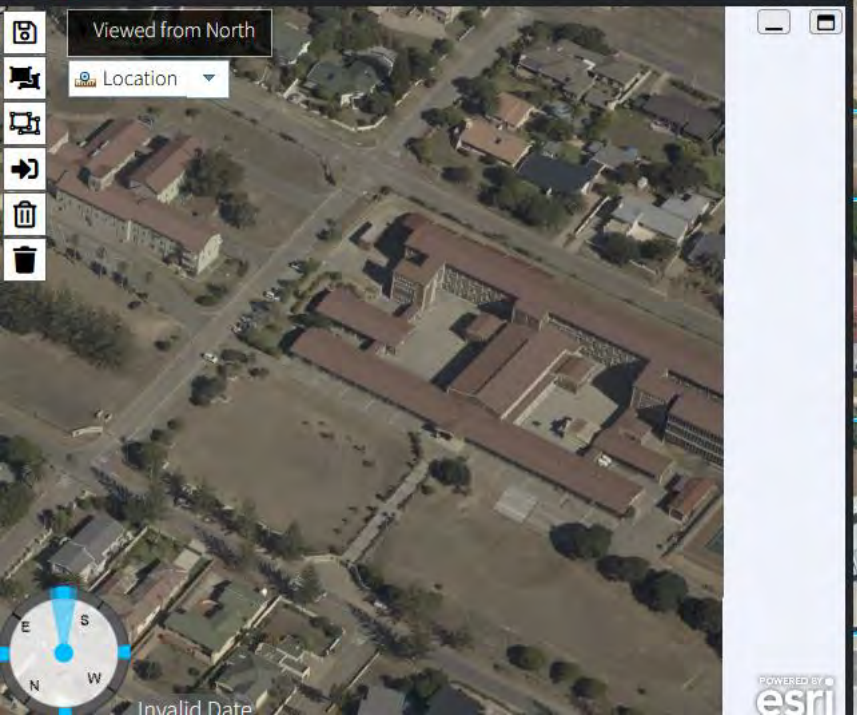
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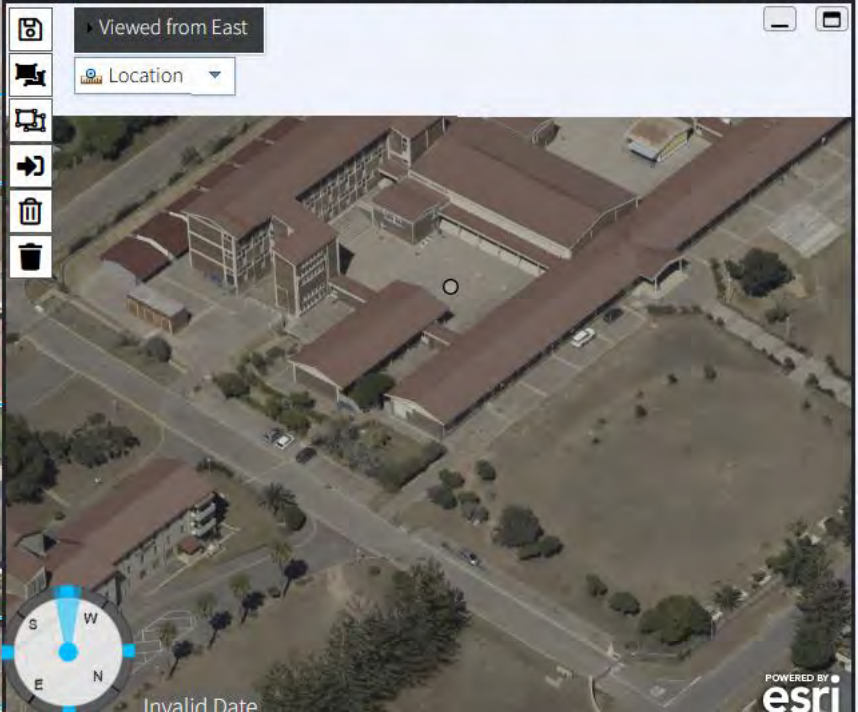
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Audience Questionnaire (5 minutes)

SURVEY RESULTS

ALFA – Problems Experienced when implementing AFLA

Ms Rishile Chauke

Sol Plaatje Municipality

esri South Africa

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AFLA IMPLEMENTATION

2022-2023

- Sol Plaatje actively deployed AFLA over the past year
- During this deployment we had training for all users (Town planners, Building Inspectors & administrators).
- A few problems were encountered during the training and testing phase of the project
- The problems encountered include, inadequate resources, resistance to change, technical challenges and scalability issues.

Inadequate Resources:

- A lack of sufficient human, financial, or technical resources

Resistance to Change:

- People often resist change, which can manifest as resistance to adopting new systems or processes.

Technical Challenges:

- Technical issues during implementation, such as compatibility problems, or unforeseen bugs. These caused delays and affect the program's functionality.

Scalability Issues:

- A program may work well in small-scale testing but may struggle to scale when deployed more widely.
- One user could have a seamless process when testing the application process, but once all users were on the web we experienced a slow performance in the system

Mitigation Plan

- Upgrade PC’s and workstations
- Train users adequately until they are comfortable with changes
- Check network and environment to ensure it can accommodate workload and capacity
- Ensure that there are enough human and financial resources to source compatible workstations

Thank you Rishile

Our AFLA Journey

Mr. Goodwill Maponya

Mopani District Municipality

esri South Africa

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Project Details

- **Problem Statement:** Mopani District Municipality identified

the need to implement an online application management system for the lodging of town planning applications to aid its local municipalities to function more efficiently and to enhance their revenue generation process.

- **AFLA Module:** Town Planning Application Management System (TPAMS)
- **Deployment:** Hosted
- **Project Date:** 2022-2023

Project Timelines

Phase 1
Inception

- Kick-off and Inception meeting
- Report provided outlining the process to be followed to successfully implement the TPAMS module

Phase 2
User Requirements

- Creating a system workflow using the municipal bylaws as reference, through multiple workshops which included representatives from each of the local municipalities to provide inputs
- Finalizing and approving the workflow
- Providing Esri South Africa with required documentation (Tariffs, Templates, User lists & Roles)

Phase 3
Build and Configuration

- Solution was built on a staging environment to fully test and pass each process, before deploying onto the hosted production environment
- User Acceptance Testing (UAT) completed successfully

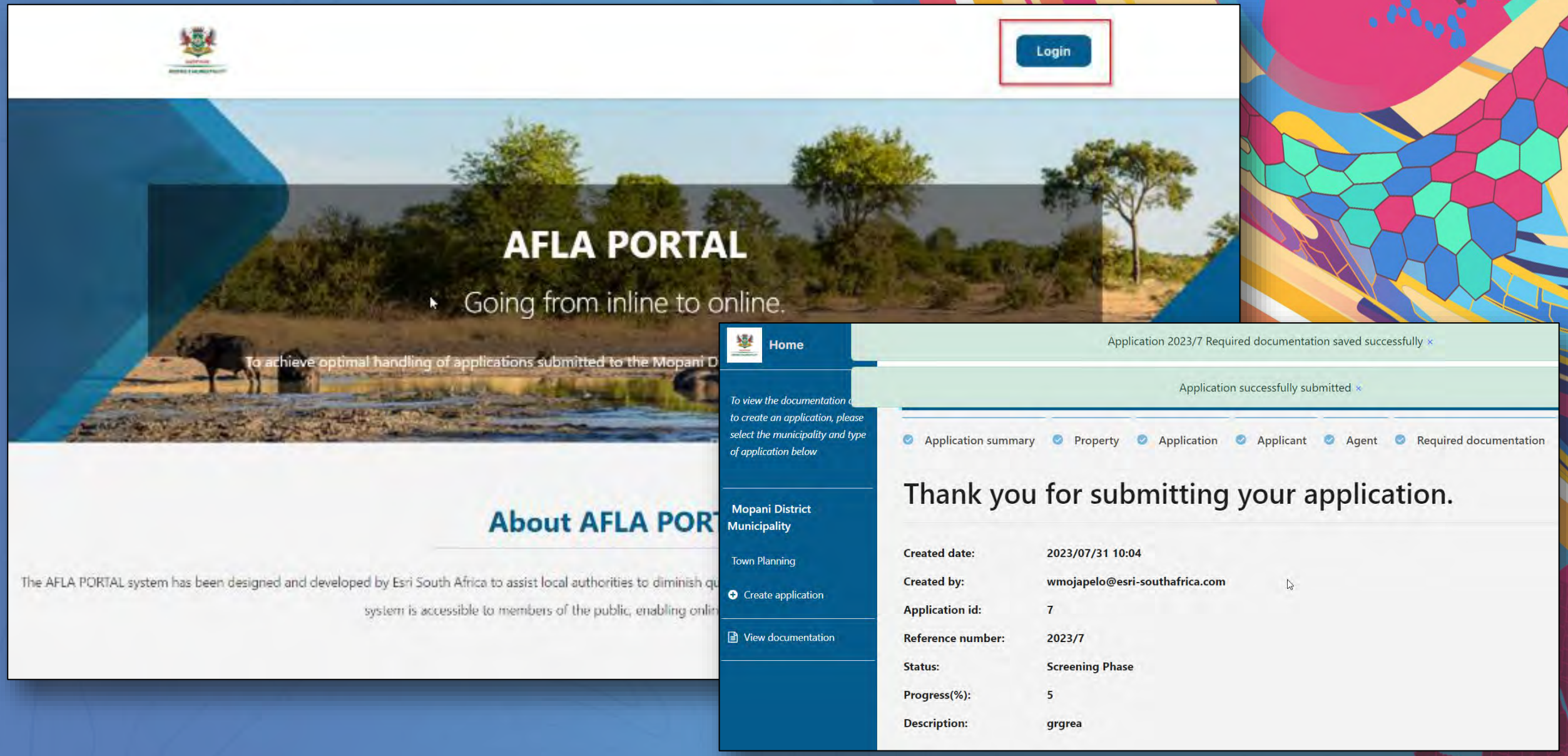
Phase 4
Deployment

- Solution was deployed onto the hosted production environment

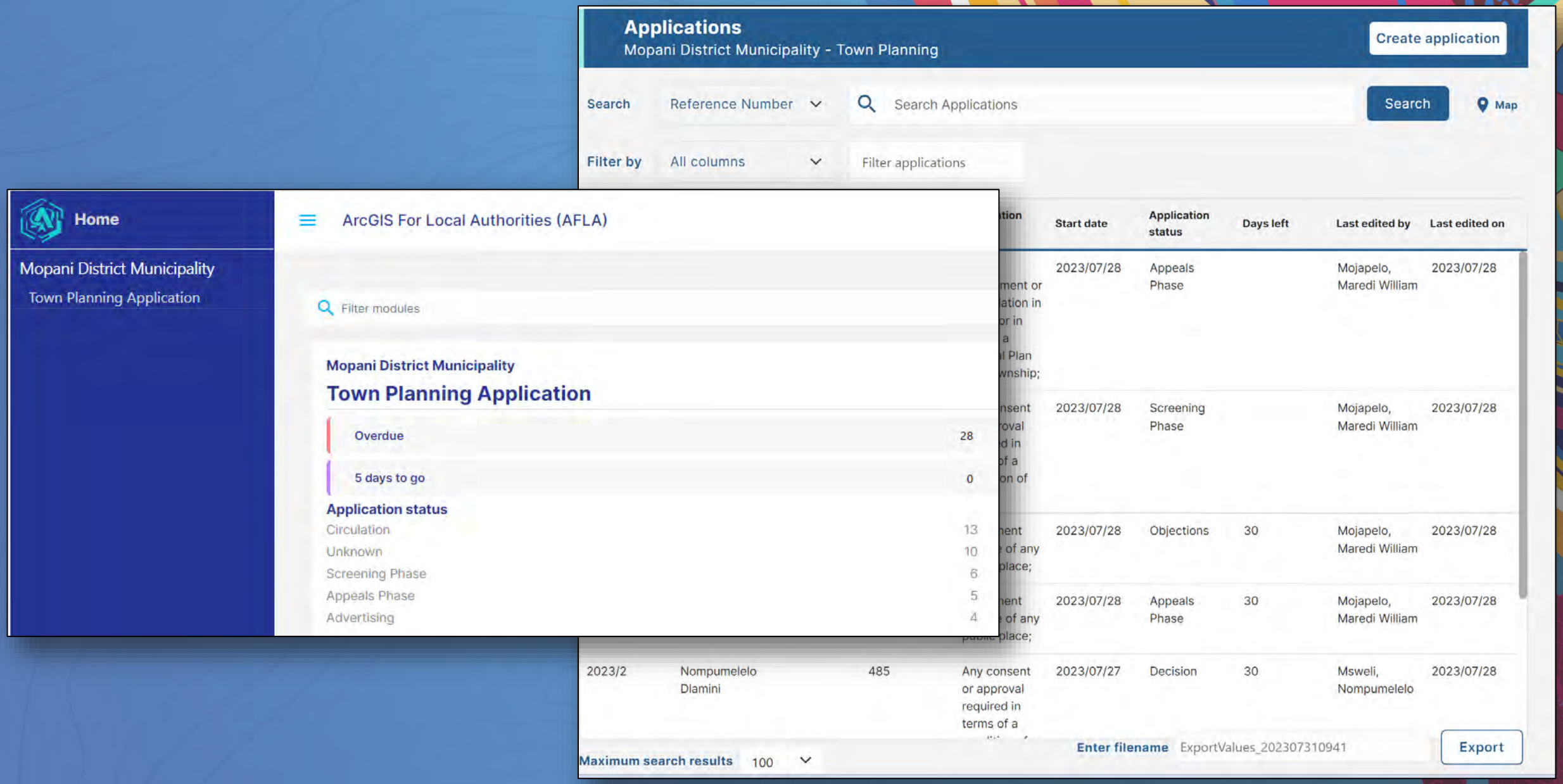
Phase 5
Training

- Multiple training sessions were held at the Esri South Africa Midrand office. Training included:
  - End-user training
  - System administrator training

Online Submission Portal



Internal Application Window



Thank you Goodwill

AFLA – OUR EXPERIENCE

Ms Noludwe Gunguta

Buffalo City Metro

esri South Africa

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Background

- AFLA was implemented as a result of audit findings.
- This meant that the implementation of AFLA was of urgent concern for compliance.
- No other system of this nature used before

CHALLENGES

- Issues with hosting - initially going to use Azure, but had financial constraints
- Lack of change management from HR- this results in resistance to change
- Hardware compatibility – old computers
- Poor attendance of user training

OVERCOMING

- Issues hosting on Azure - upgrade and use our internal environment to host.
- Resistance to change challenge - Communicate the benefits of GIS, involve key stakeholders early in the planning process, and address concerns proactively.
- User Training challenge - Develop comprehensive training programs, offer ongoing support, and encourage user engagement through workshops and tutorials.
- Hardware compatibility - provision of compatible hardware for the crucial people to be part of the workflow of AFLA

MARKETING CAMPAIGN (Intertrial and External)

BENEFITS FOR THE CITY

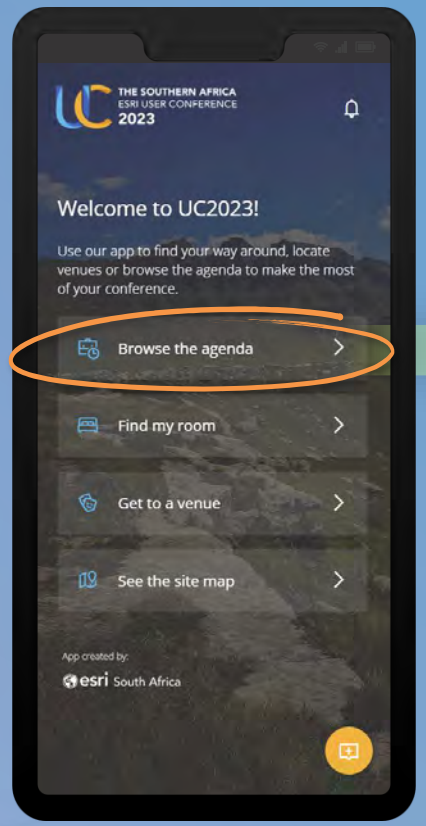
- Improved Service Delivery
- Revenue generation
- Improved turnaround time
- Prevents loss of documents and improves record keeping

Thank you Noludwe

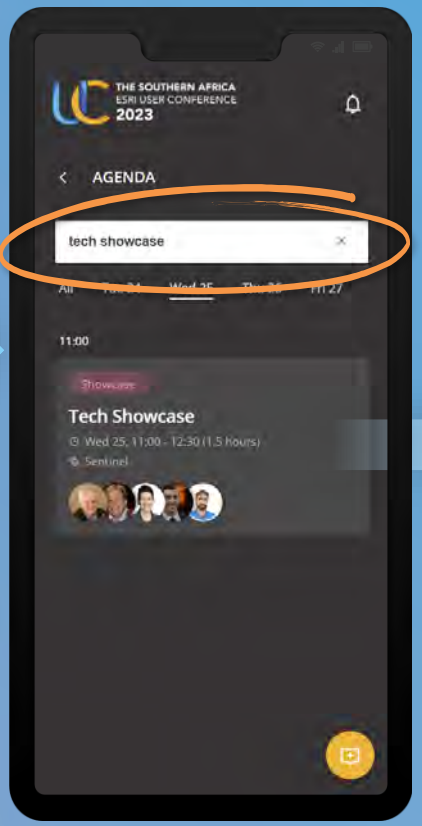
Questions & Answers ?

Please share your feedback in the UC2023 app

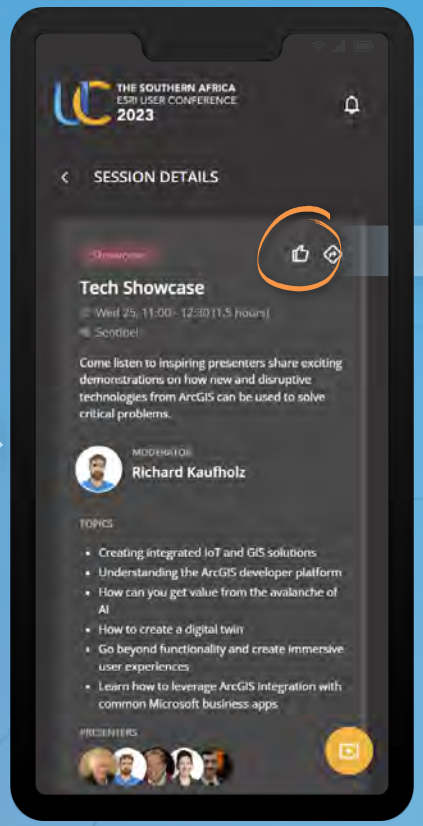
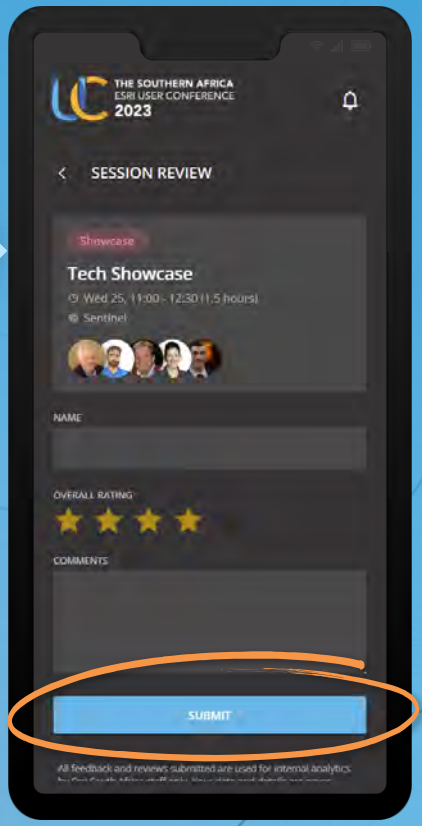
Open
uc2023.esri-southafrica.com
and browse the agenda



Search and select the session you attended



Click the “thumbs up” icon



Complete and submit your review