

Continuous a11y improvements

Integrating continuous accessibility improvement in
agile development



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Perth Web Accessibility Camp

Hello, I'm Tim Damen

```
{  
  "Front-end dev",  
  "Accessibility lead",  
  "focustrap podcast host",  
  "www.timdamen.io",  
}
```



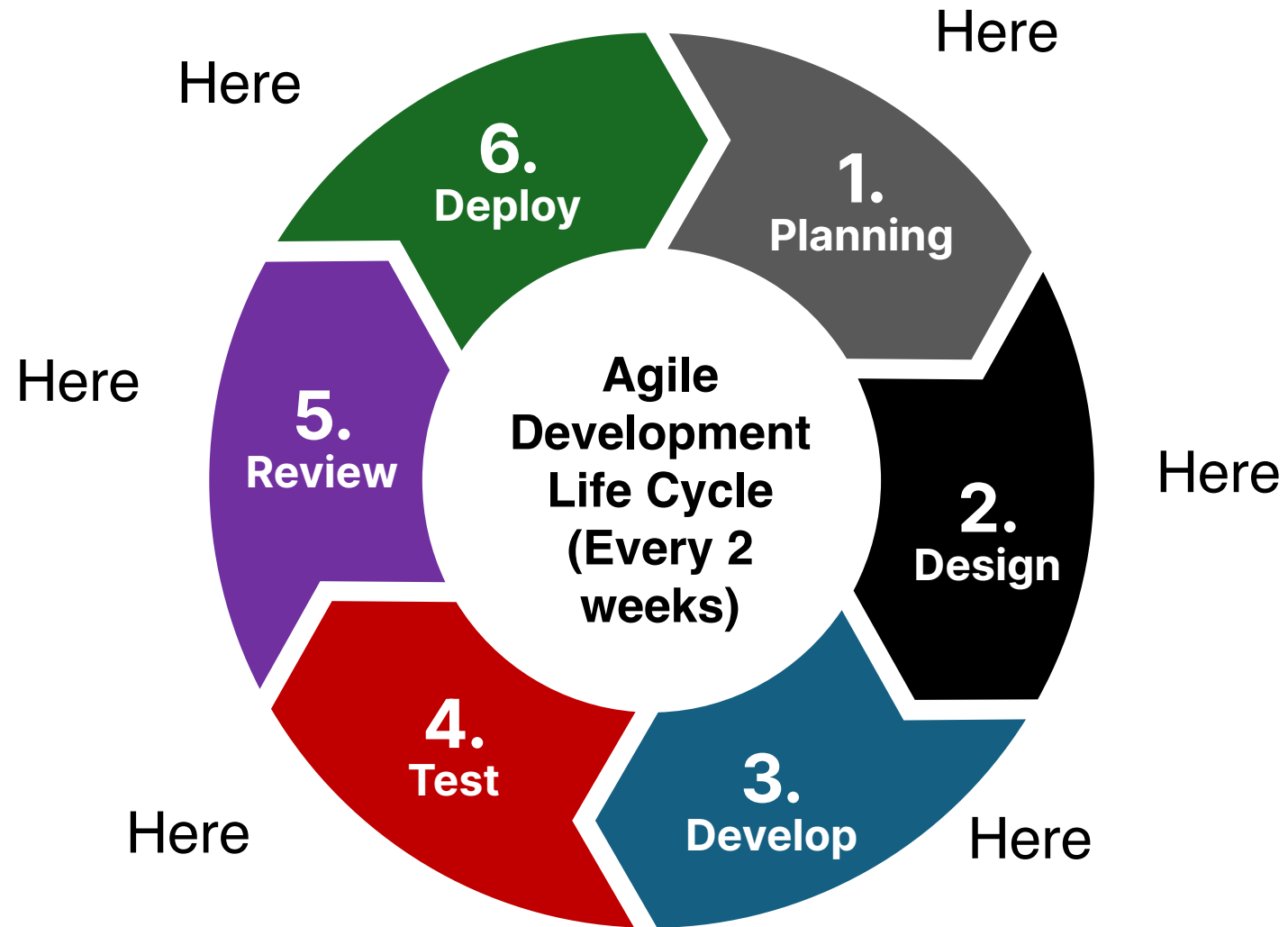
ABN ARMO Bank

A personal bank in a digital age

- Third-largest **Dutch bank**.
- About **six million customers** in the Netherlands.
- **Headquarters:** Based in Amsterdam, with a strong presence in the European financial sector.
- **Innovation Leader:** Known for embracing digital transformation, ABN AMRO invests in technology to enhance customer experience and operational efficiency.



Accessibility checks should be done:



Continuous a11y improvements

Goal: teach engineering teams how to build accessible software continuously

How: prevent releasing inaccessible new features

Leading initiatives via the a11y guild

1. (Role based) a11y training
2. Frequent WCAG test insights
3. A11y acceptance criteria
4. Automation and monitoring



Organisation-wide approach

1. Accessibility has management support
2. There is a person who has final responsibility for digital accessibility.
3. Accessibility is included in processes and permanent budget and capacity are allocated.

If not, start advocating

(Role based) a11y training

Managing digital accessibility: a joint effort of various departments and roles

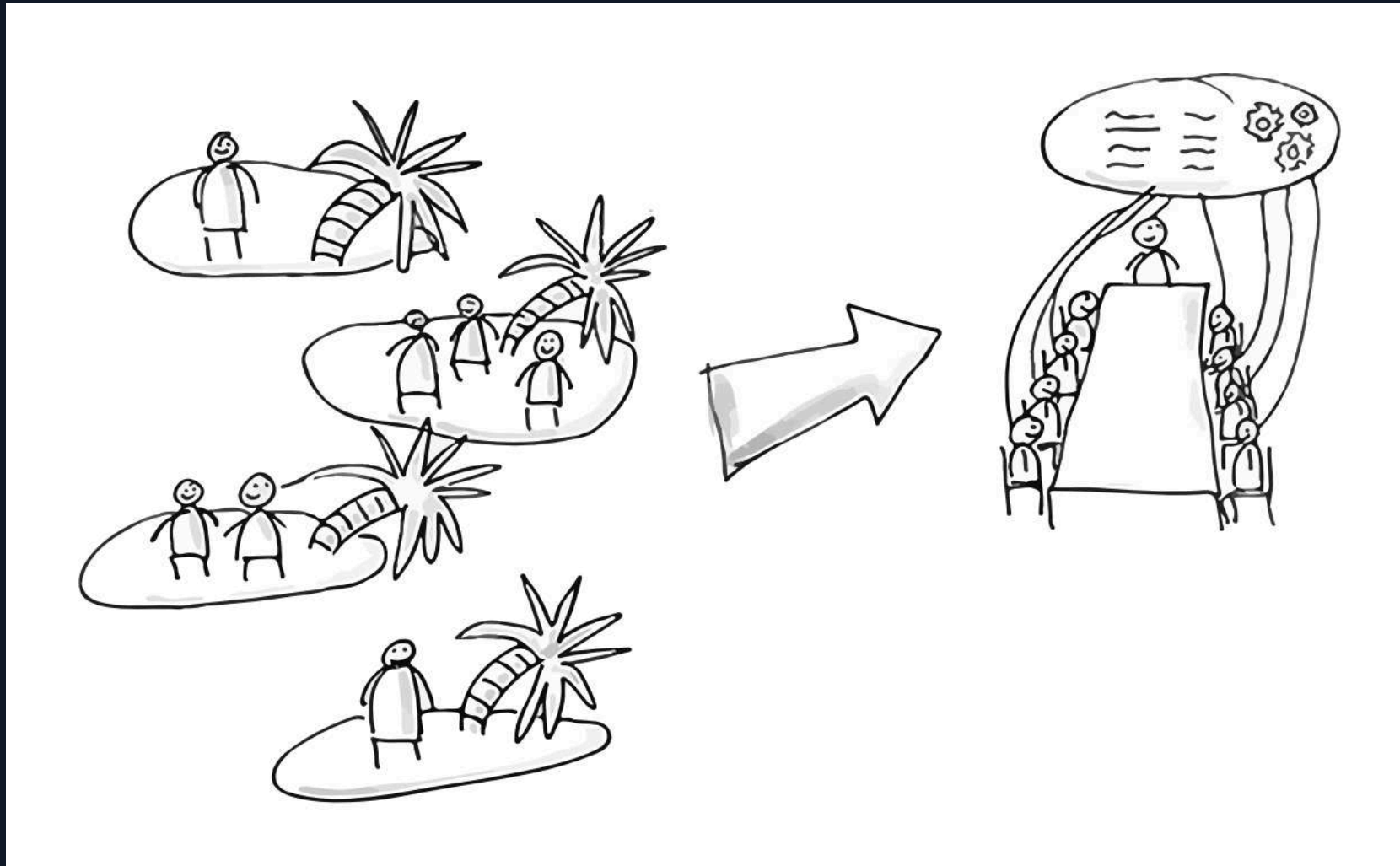


Illustration: Iacobien Riezebosch, Firm Ground

Where to start: building knowledge

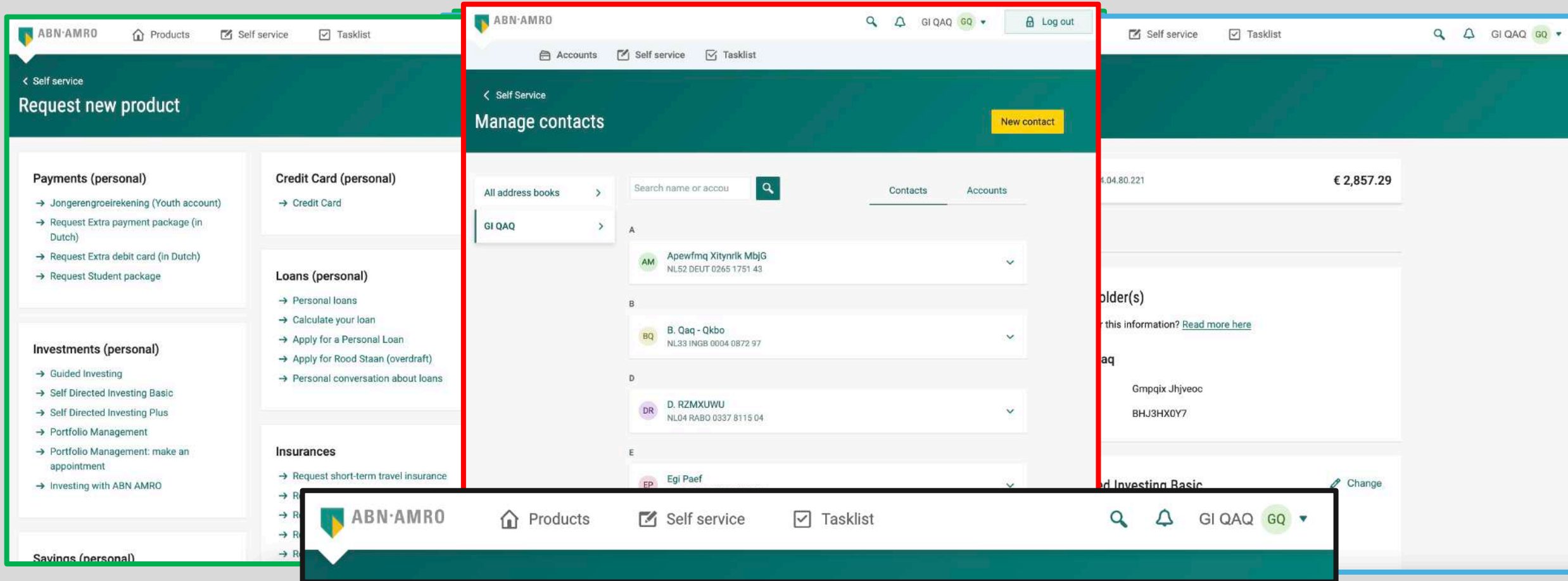
Intro a11y training for every role.

Specialist training for Devs, Designers, Testers and other roles.

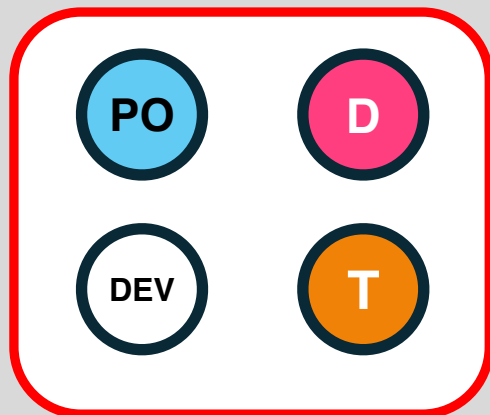
Online training certifications.

Internal researching and knowledge sharing sessions.

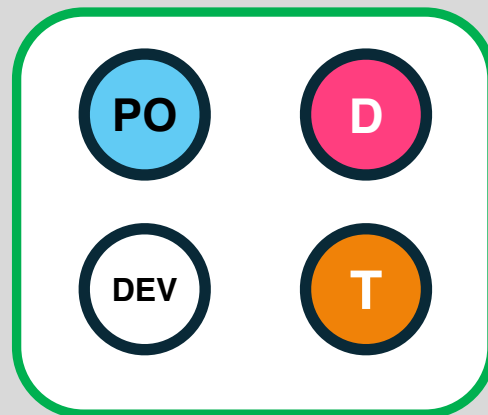
Frequent WCAG test insights



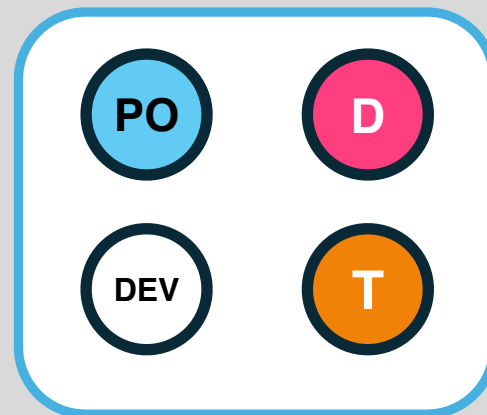
Dev Team A



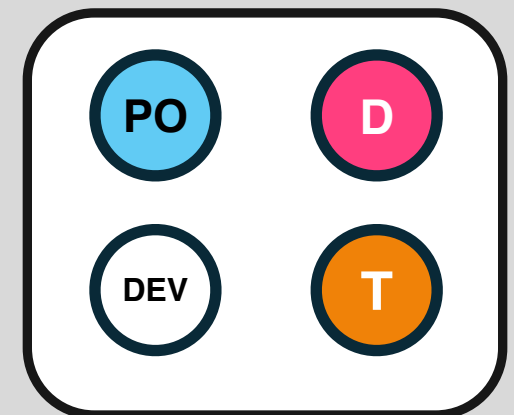
Dev Team B



Dev Team C



Dev Team D

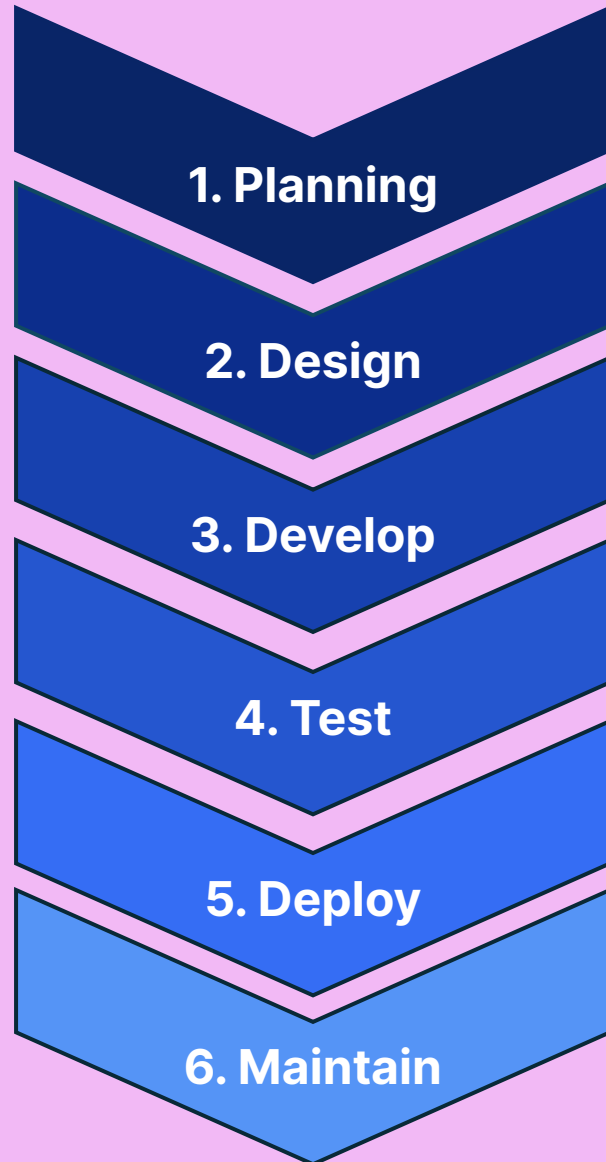


WCAG-EM (Evaluation method)

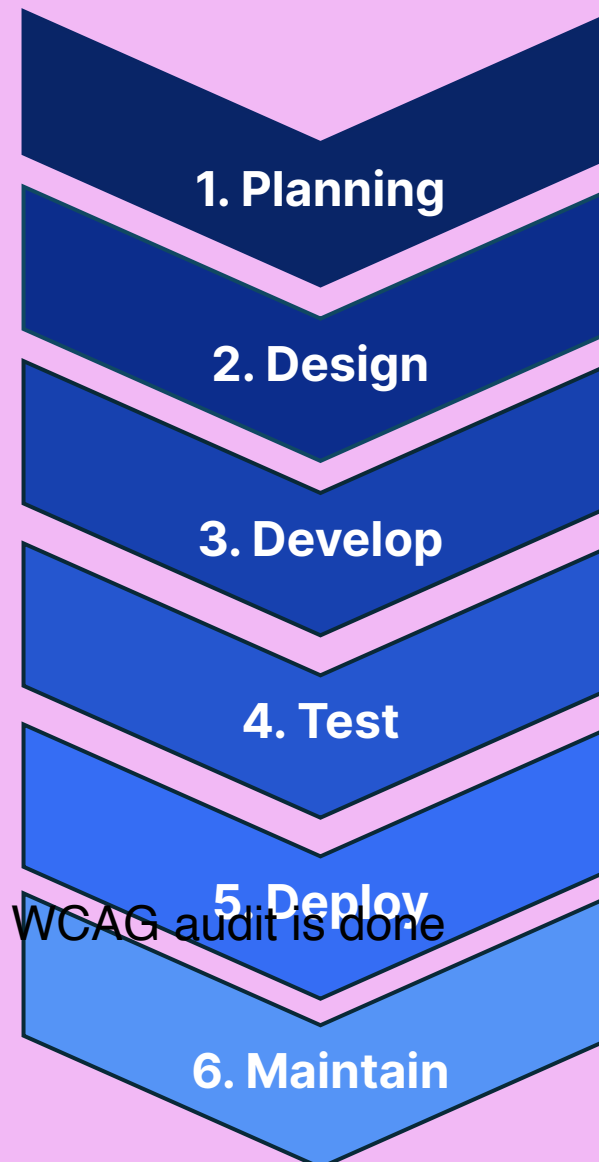
Large sample size (different page) → **could be a lot of different teams**

Not mandatory to show all issues per WCAG requirement
→ **Potential to miss a lot of issues**

Current situation a11y auditing

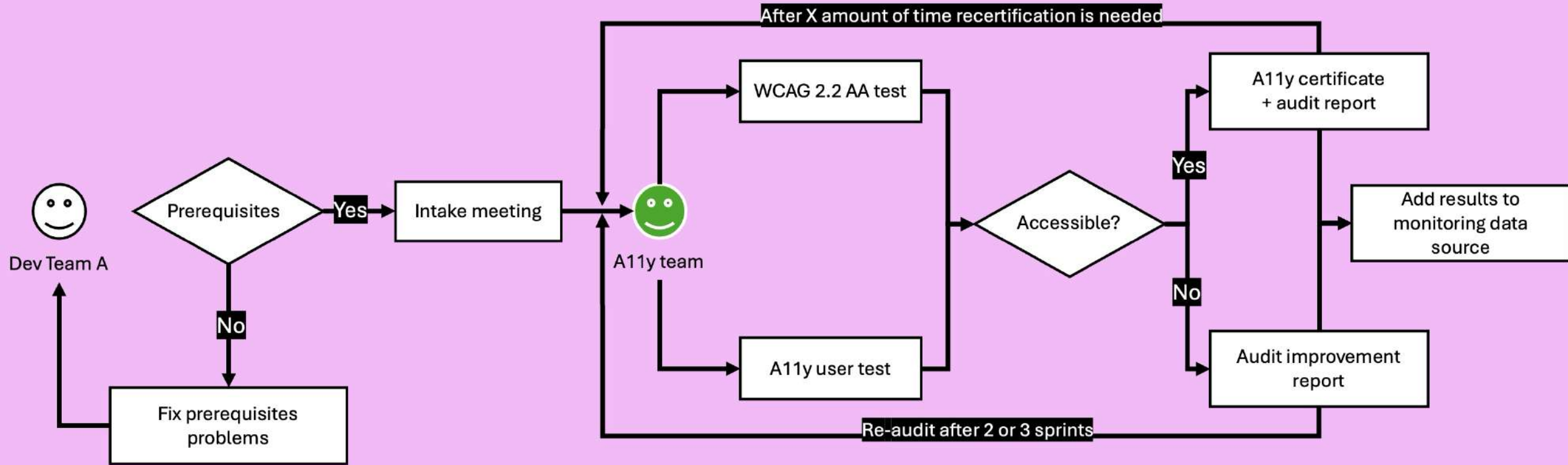


< somewhere here an WCAG audit is done
“Months go by”



< Audit is done

The accessibility feedback loop



The accessibility feedback loop

1. Meet the Prerequisites
2. Intake meeting
3. Accessibility team (or champion) starts WCAG audit
4. If audit is successful team receives a11y certificate
5. If audit is not successful team receives improvement report
6. Monitor on data
7. After the team completed all improvements, start at 3 again

Dev teams need something like this!

Issues

1. [Main menu does not work with keyboard](#) (2.1.1)
2. [Focus style missing](#) (2.4.7)

Issue 1

Main menu does not work with keyboard

Problem

The main menu does not work with just a keyboard. The links are marked up like this:

```
<div class="link 202034rsfd oiarjgeoi" onclick="woo()">About us</div>
```

Solution

Use `<a>` tags for the links, and use the `href` attribute for the location to link to, like this:

```
<a href="/about-us">About us</a>
```

The `<a>`-tag works with keyboard out of the box, does not rely on JavaScript and makes it easier for search engines to understand what is going on.

WCAG criterion:

2.1.1: Keyboard [🔗](#)

Difficulty:

High

Severity:

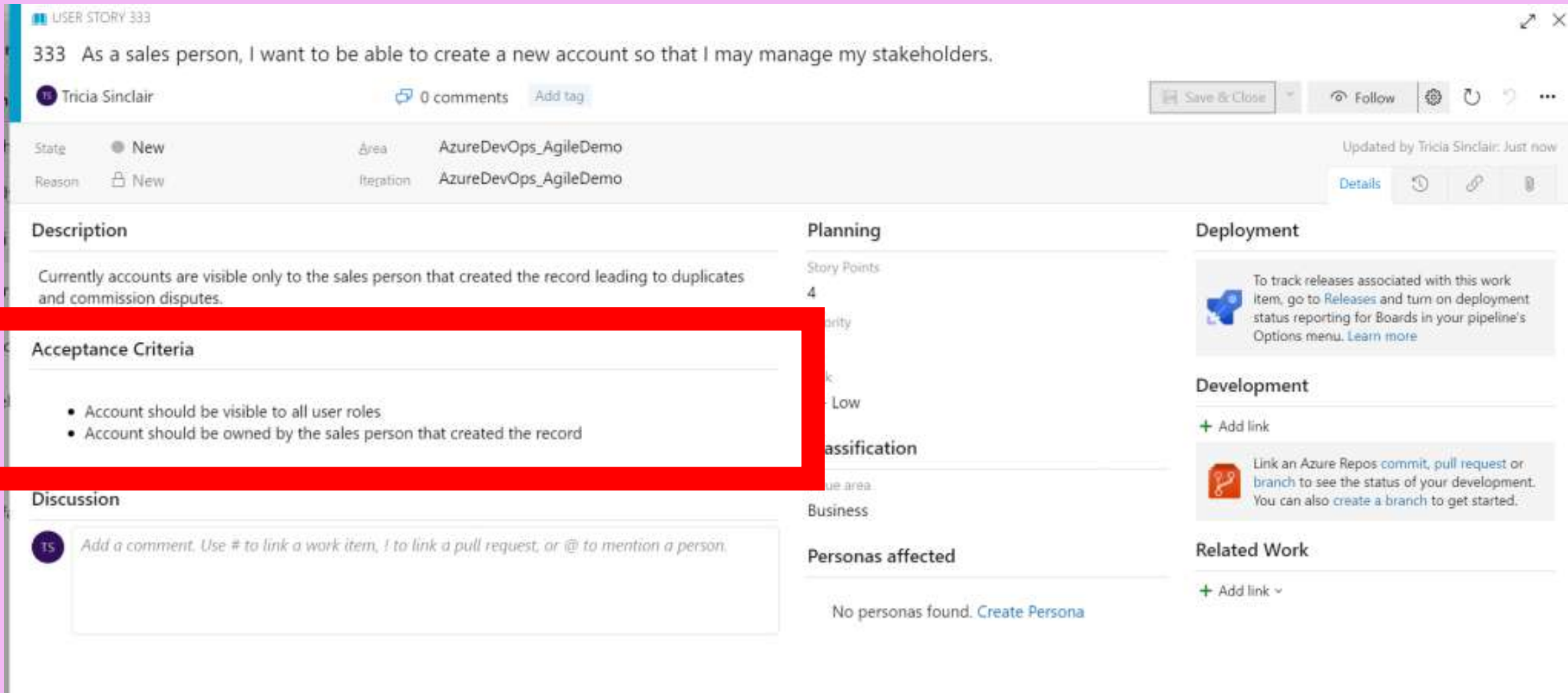
High

Sample:

[blog-post](#)

A11y acceptance criteria

Acceptance criteria



The screenshot displays a Microsoft Azure DevOps interface for a user story. The story is titled "333 As a sales person, I want to be able to create a new account so that I may manage my stakeholders." and is created by Tricia Sinclair. It has 0 comments and is currently in the "New" state. The story is associated with the "AzureDevOps_AgileDemo" area and iteration. The description states: "Currently accounts are visible only to the sales person that created the record leading to duplicates and commission disputes." The acceptance criteria, which are highlighted with a red rectangle, are:

- Account should be visible to all user roles
- Account should be owned by the sales person that created the record

The interface also shows sections for Planning (Story Points: 4, Priority: Low), Deployment (To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more), Development (Add link), Classification (Business), and Personas affected (No personas found. Create Persona).

Example 1: adding a <table>

Scenario 1: A screen reader user hears the purpose of a table.

GIVEN a user navigates a web application with a screen reader

WHEN the user sets focus on a table heading or caption

THEN the screen reader announces the caption or a heading to describe its purpose

Example 2: adding a <button>

Scenario 1: A keyboard user can access and select a button.

GIVEN a user navigates a web application with a keyboard

WHEN the user sets focus on the button with the keyboard's ***Tab*** key

THEN the system shows a **visual indicator** that button is selected

List of templates based on WCAG SC's

Related a11yAC for audio and video:

In this section you can find a set of **accessibility acceptance criteria** that could be used for creating stories and for audio and video. Please note that the full set of BDDs will depend on the application; here are some general scenarios.

⊖ A11yAC for audio and video

A11yAC for audio and video

Audio and Video player ⇨ *A11yAC for keyboard users*

Scenario 1: A keyboard user can access and select an audio or a video player.

GIVEN a keyboard user navigates a web application that contains an audio or video player

WHEN the user sets focus on an audio or video player with the keyboard's **Tab** key

THEN the system shows a **visual indicator** that the audio or video player is selected

Scenario 2: A keyboard user can trigger the **play** action on an audio or video player with an **Enter** key.

GIVEN a keyboard user sets focus on a play control on an audio or video player

WHEN the user presses the **Enter** key

THEN the system starts playing the audio or video action

Scenario 3: A keyboard user can trigger the **play** action on an audio or video player with a **Spacebar** key.

GIVEN a keyboard user sets focus on a play control on an audio or video player

WHEN the user presses the **Spacebar** key

THEN the system starts playing the audio or video action

Automation and monitoring

Automation (max 30%)

General automation with AXE-Core on as many levels.

Context related automation with “testing-library” and “guidepup”

Add to CI/CD pipeline.

Gather information from pipeline to monitor on.

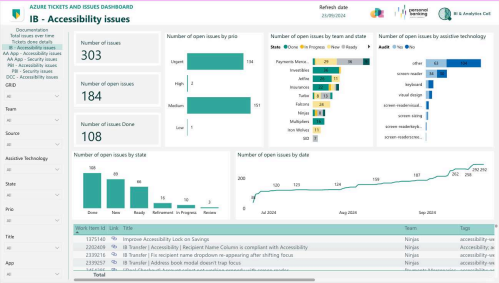
Monitor data sources

Azure devops tickets

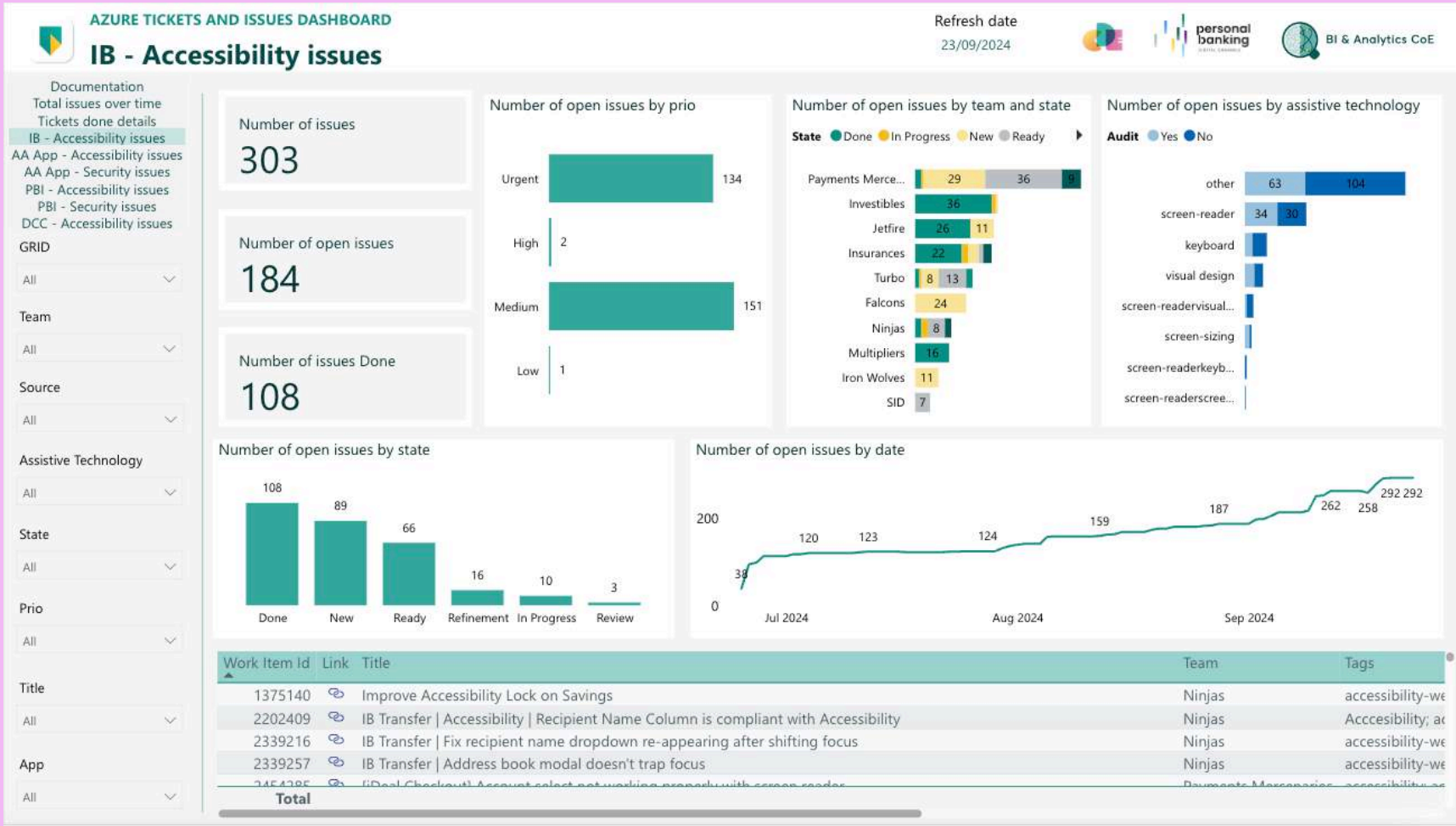
Lighthouse pipeline results

WCAG audit results

Dashboard



Monitoring



Summary

- Intro
- (Role based) a11y training
- Frequent WCAG test insights
- A11y acceptance criteria
- Automation and monitoring

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