# I & I PEER CHECK-IN:

TIME TRACKING SYSTEM FOR TRANSNET ENGINEERING R&D

Group: Susan, Thapelo S, Jed, Imraan, Wing

# THE NEED

- The South African Revenue Services (SARS) incentivises companies to spend money in R&D by allowing them tax incentives/rebates per approved research project.
- TE's aim to be an Original Equipment Manufacturer (OEM) into Africa and the Middle East so the number of billable worked hours must be captured per resource per project to **price products/services** correctly.
- Even though old systems were implemented, the **usage is low** and the mandatory requirements stated above are still not addressed.

# DESIGN THINKING PROCESS: APPLIED TO THE TIME TRACKING SYSTEM

#### **TEST**

Try out the strategies and get feedback from stakeholders.

#### **EMPATHIZE**

Get to know the Engineers and their concerns.

## DESIGN THINKING

#### **PROTOTYPE**

Transform the ideas to workable strategies.

#### DEFINE

Construct a point of view based on the Engineer's needs.

#### IDEATE

Create innovative solutions to the address challenges.

# **EMPATHIZE**

• Conducted **interviews** with Engineers/Principal Engineers Responses:

"Rearrange GUI. The workflow should be date>time>task" – N. Mahomed

"Lunch counter that takes the assigned time from the booked time" – K. Boshoff

"Does the time submitted be done chronologically? The start time should be populated with previous end time" – S. Shangase

"Make a special function to capture leave – start and end day" – C.Seindis

Shadowed the users:

Went through the system from end to end trying to capture time



## PROBLEM STATEMENT

Develop an easy-to-use and low-administrative time-tracking system for Engineers that will enable a clear audit trail of billable working hours for audit purposes and customer billing while allowing Management to view team productivity.

### STAKEHOLDER IDENTIFICATION

Stakeholder	Personas	Role objective
Engineers	Direct Users (Input to System)	Daily project tracking
Principal Engineers (Managers)	Direct Users (Input to System) Team/Project Management:	Project tracking Team Performance
(Managers)	(Output of System)	View resource allocation
Project Managers	Project Management (Output of System)	Improve project tracking Project end date forecasting
Finance, SARS & DST	Auditors (Output of System)	Billable working hours per project Audit trial of engineer time spent % time worked on projects

## PAIN POINTS, CHALLENGES, DECISIONS

Main Challenges/Pain Points:	Key Decisions / Design Criteria
Leave Capturing per day	Integrate to HR systems
Too many clicks to capture	2 click process max
GUI not user friendly	Design Flow for GUI
Time per minute selection is overkill	Log only hours per project
Daily tracking tedious/ weekly tracking – forget what was done	Auto-populate activities – confirm if correct
Too many types of tasks/phases to select from	Reduce number of tasks per project

### IDEATE List of assigned No user input, only confirmation of project automatically Log only hours per allocation added project not time Less than 2 clicks to sequentially track a task Link to SAP, other use a machine learning sharing platforms Sign on machine model to see what you Must be able to add like Calendar, Google means you at work generally would be ad-hoc projects and Keep, TFS, etc. doing at a time and include till allocated predict options for you to select to site work Víew:

- Time capture
- Finance view
- Management view

use counters instead of inserting time

Multi-platform: mobile and laptop

Shortlist tasks - 5 max per personal, management and project

task

Possible to add management as a

# **NEXT STEPS:**

- Prototype and Testing
- Complete Report..
- Complete Slides