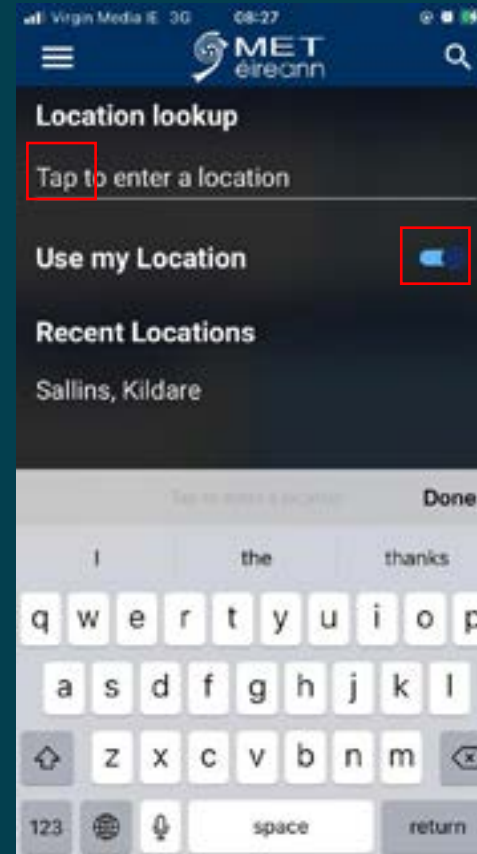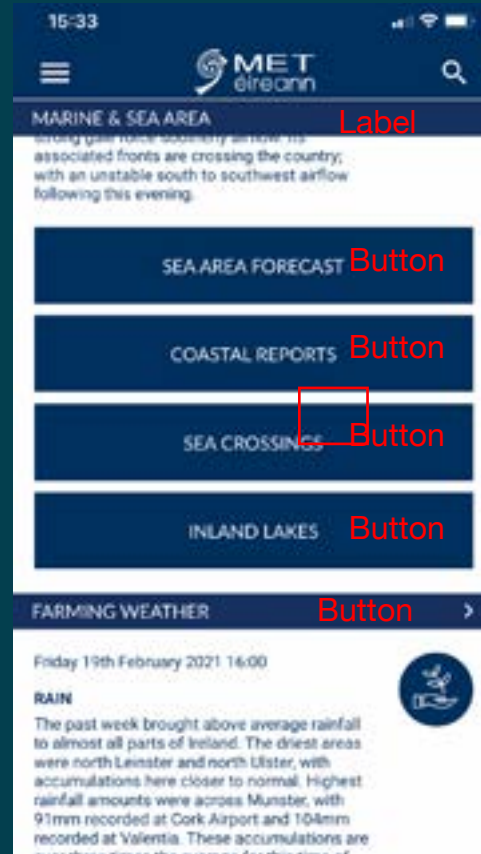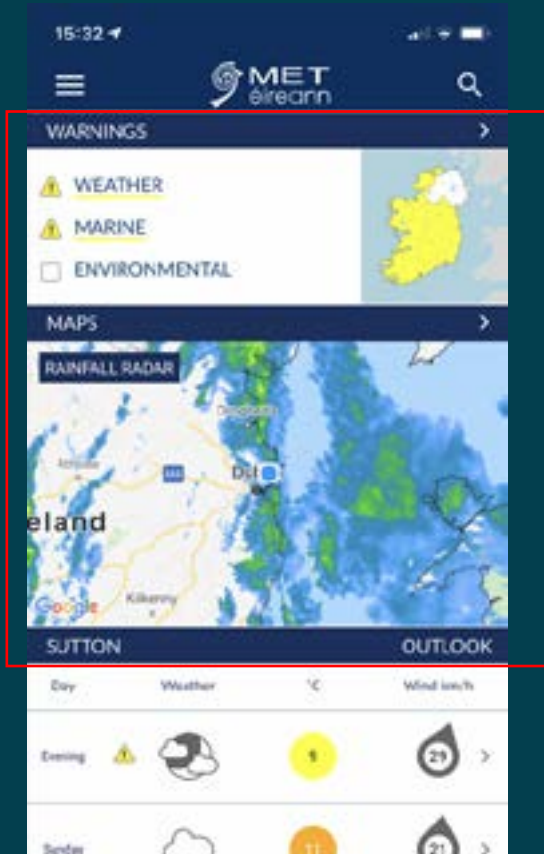# Met Éireann | weather app

My Project was to take the Met Éireann weather app and reimagine a new improved user experience.

To do this I explored different ways I could try and make the app more intuitive & efficient through research, analysis, and best practices in UX design.

Problems Identified

On first opening:

Information Heirarchy
The map takes up more than a third of the screen - people instantly need to scroll to find the weather.

Navigation Items
Not always identified clearly Confusing to operate.

Location
Location search issues no cursor, limited search options, hard to learn were location services are.

Content Heavy & Language
not easy to understand, inconsistent in use Wind speed is refered to in Knots, Force & kmph across app.

Focused User Group

Millions of Irish people use the sea for recreational purposes all year round. Knowning how the weather conditions effect their local sea area is vital for their safety. Different watersports require different weather criteria, for example

- Kitesurfers need information about wind speed, direction and gusts

- Standup Paddle boarders need to know about wave height and swell timings

Each sport differs but nearly all watersports require local tide information.

Met Eireann's current app has some of this information but it is difficult to locate and is often buried in content.

Taking on board the usability issues like information heirarchy, search location and visual clutter I have chosen to focus on improving the app with this user group in mind.

Research Plan

Using a **User Centred Design** approach I planned my project appropiately.

Empathise
- User Research
- User Interviews
- Surveys

Define
- Personas
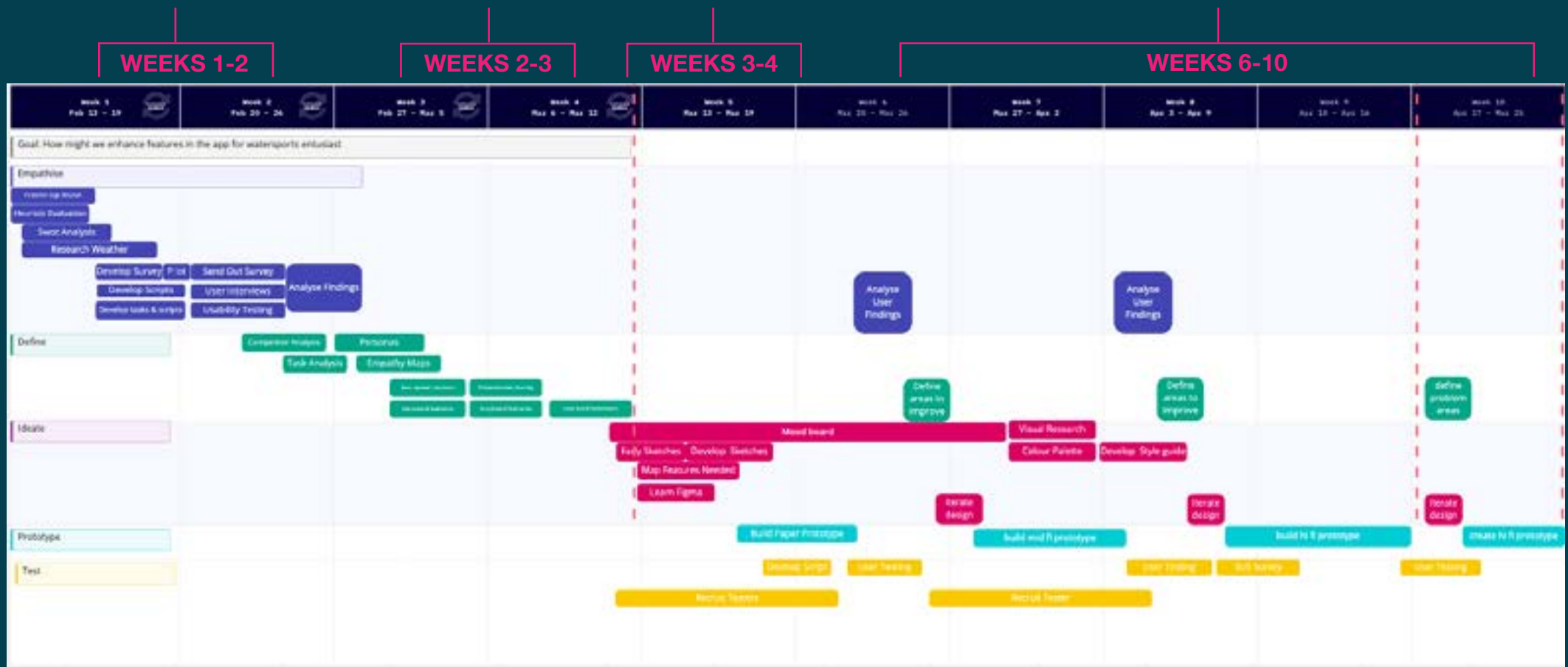- Story boards
- Task anaylsis

Ideate
- Explore Ideas
- Brainstorm
- Sketch

Prototype
- Wire frame
- Prototype Build
- Design Thinking

Test
- Usability Test
- Feedback
- Iteration

WEEKS 1-2   **WEEKS 2-3**   **WEEKS 3-4**   **WEEKS 6-10**

Goals & Objectives of Research

- Determine the need for met eireann to include more detailed weather information for watersport enthusiasts

- Establish what features users are interested in, when using a weather forecasting app

- Learn the behavior of users when it comes to preparing for an outdoor water activity

- Discover which apps the user currently uses and why

- Identify opportunites for improvement and enhancement for the user group

Research Choices |

Quantitative

SURVEY

>gain insights from target user group

> identify what platforms people use to get their weather information

> gather criteria about their weather needs

> see how often they are active in the water and learn what type of water activities they take part in

CLUSTER MAPPING

> identify user patterns, and

groupings to help build personas

HEURISTIC EVALUATION

> use a set of principles to measure efficency and effectiveness

>hightlight areas for improvement & discover what areas need urgent attention

COMPETITOR ANALYSIS

> determine who the competitors are

> evaluate their strengths & weakness against met eireann

> inspire for solutions

ANALYSE CUSTOMER APP REVIEWS

> discover attitudes towards app

> learn what the major problem people are having

> learn what people like

Qualitative

USER INTERVIEWS

> understand how they plan for their activity

> discover their habits they have around weather and activity

> learn what they like about other weather apps they use and why they use it

USABILITY TESTING   w/ Think Aloud

> understand how users navigate the app

> get their impression of the app and what they like/dislike

> identify any fustrations with the app

> learn what needs to be improved

Research Methods & Results

The following types of research were undertaken

- **Heuristic Evaluation**
- **Competitor Analysis**
- **Task Analysis**
- **SWOT Analysis**
- **Customer App Review**
- **User Survey**
- **Data Clustering**
- **User Interviews**

- **Usability Testing**
- **Affinity Mapping**
- **Personas**
- **Scenarios (as is & to be)**
- **User Journey Maps**
- **Storyboards**
- **User testing**
- **A/B Testing**

Competitor Analysis | compare chart

FREE VERSIONS FEATURES	🌀	〰	mtnw	◔	☀	∪	The Weather Channel
Tides	✗	✗	✓	✓	✗	✓	✗
Save Favorite Locations	✗	✓	✓	✓	✓	✓	✓
Daily Weather Push Notification	✗	✓	✗	✓	✓	✓	✓
Weather Warning Alerts	✓	✓	✗	✗	✓	✓	✓
Radar & Weather Maps	✓	✓	✓	✓	✓	✓	✓
Share Weather Button	✗	✓	✗	✓	✗	✓	✗
Customise App	✗	✓	✓	✓	✗	✓	✗
Weather Widget	✓	✓	✗	✓	✓	✓	✗
Select Different Measurements Units	✗	✓	✓	✓	✓	✓	✓

Survey | results & findings

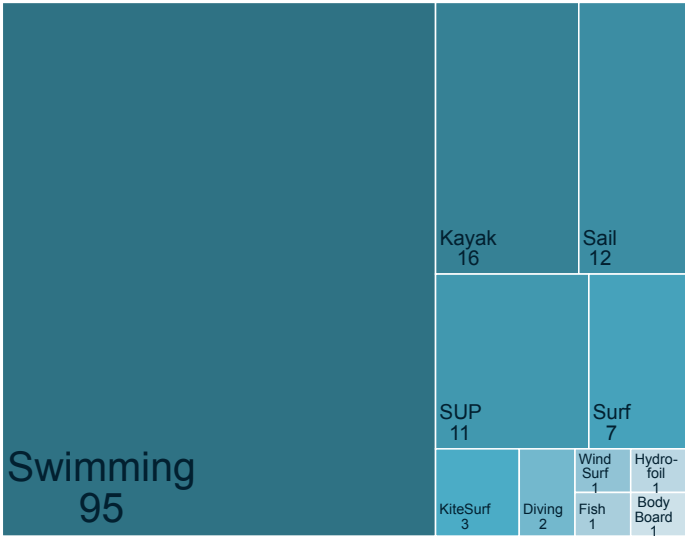137 people were surveyed in relation to their water activities and how they get their weather information. here are some findings:
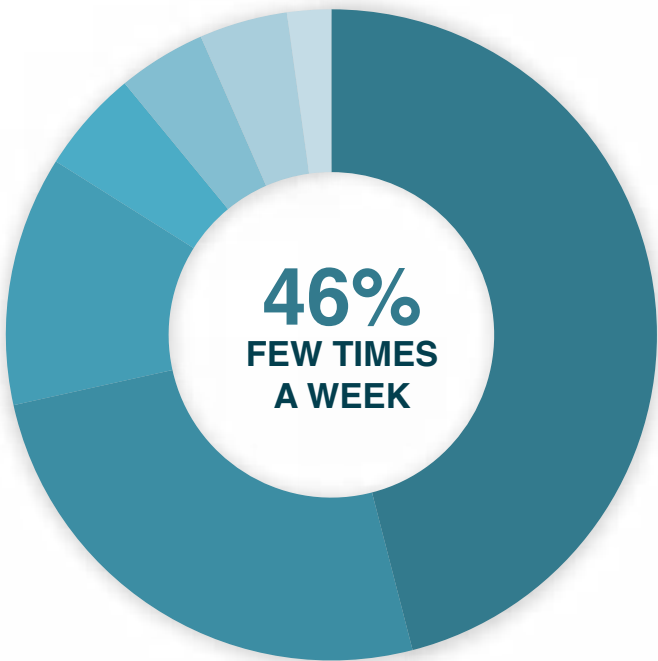
46% FEW TIMES A WEEK

- 46% Few times a week
- 26% Everday
- 13% active in summer
- 5% Few times a year
- 4% Once a week
- 4% Once a month
- 2% 2-5 times a month
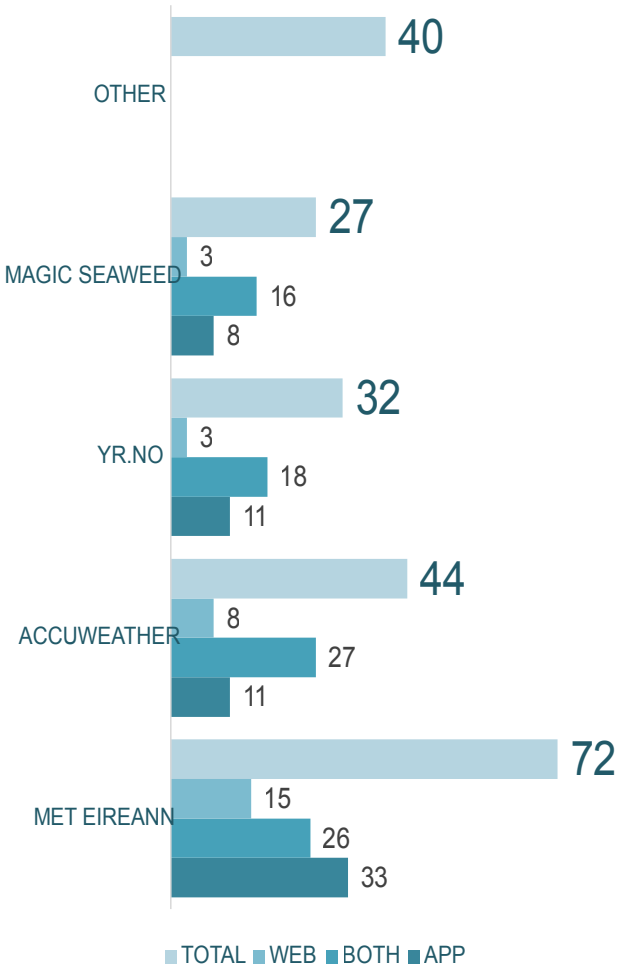
How often do you take part in a water activity?

Swimming 95
Kayak 16
Sail 12
SUP 11
Surf 7
KiteSurf 3
Diving 2
Wind Surf 1
Hydro-foil 1
Fish 1
Body Board 1

What water activities do you do?

55% APP
28% BOTH
17% WEBSITE

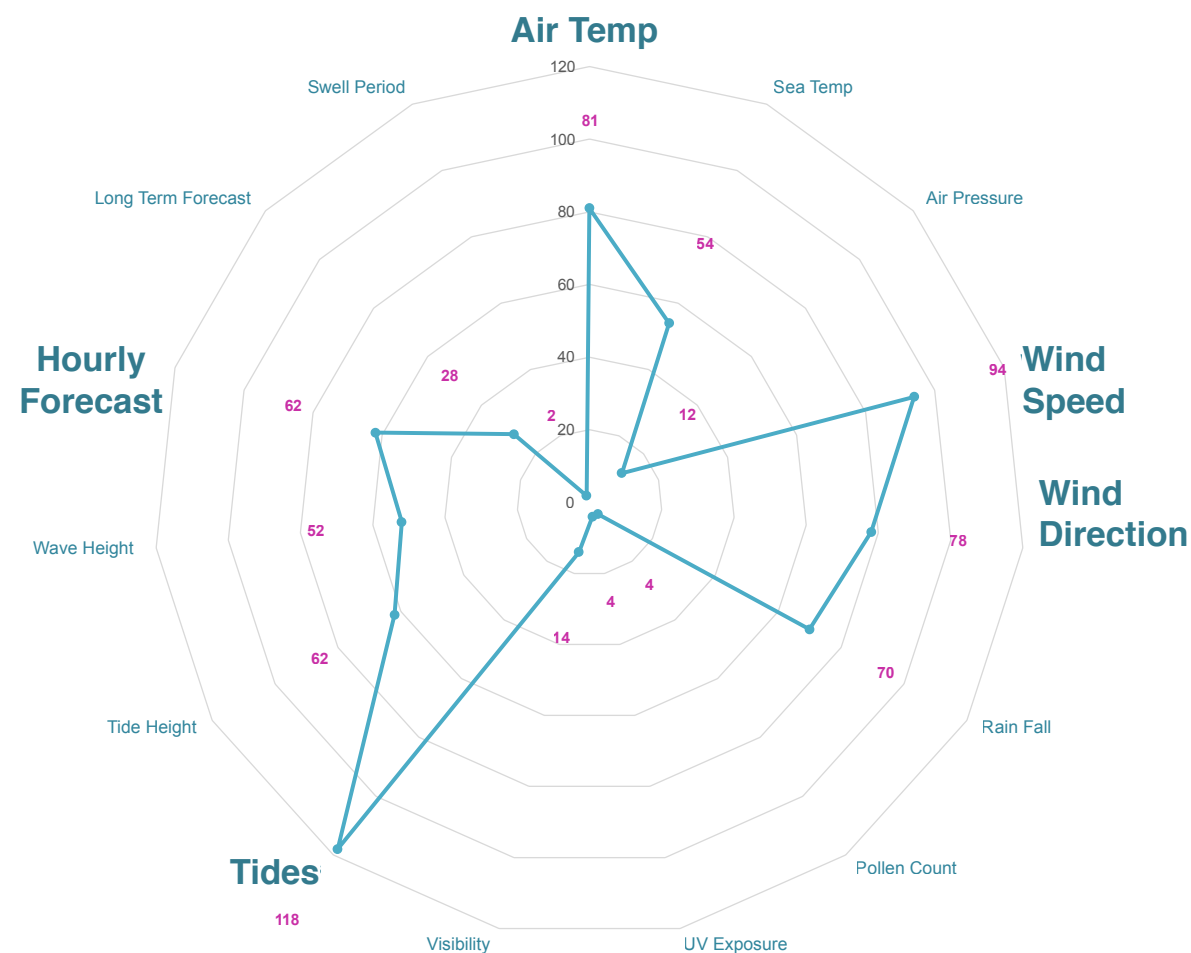## Which of these do you prefer to use when checking the weather?

85%

of respondents
do their water activity in the sea

## Which of these do you prefer to use when checking the weather?

	TOTAL	WEB	BOTH	APP
OTHER	40			
MAGIC SEAWEED	27	3	16	8
YR.NO	32	3	18	11
ACCUWEATHER	44	8	27	11
MET EIREANN	72	15	26	33

Survey | results & findings

Air Temp 120, 100, 80, 60, 40, 20, 0

81, 54, Swell Period, Sea Temp, Air Pressure

Long Term Forecast

Wind Speed 94

Hourly Forecast 62

Wind Direction 78

28, 2, 12

52, 14, 4, 4, 70

Wave Height

Tide Height 62

Tides 118

Visibility, UV Exposure, Pollen Count, Rain Fall

What weather information is most important to you for your outdoor water activities? Select all that apply.

"I use separate websites for tides, waves, wind and weather. Having all reliably together would be great."
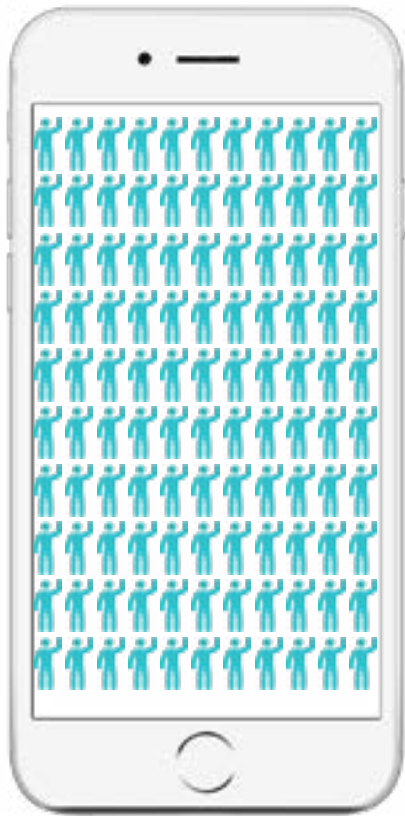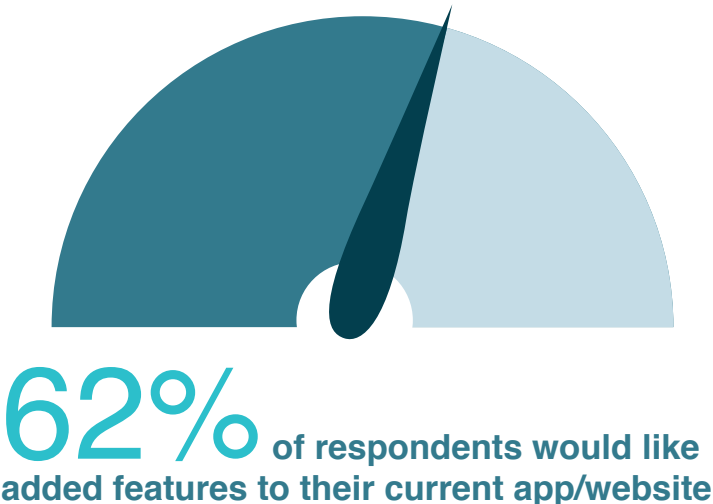
99 people check the weather daily

12 people check the weather hourly
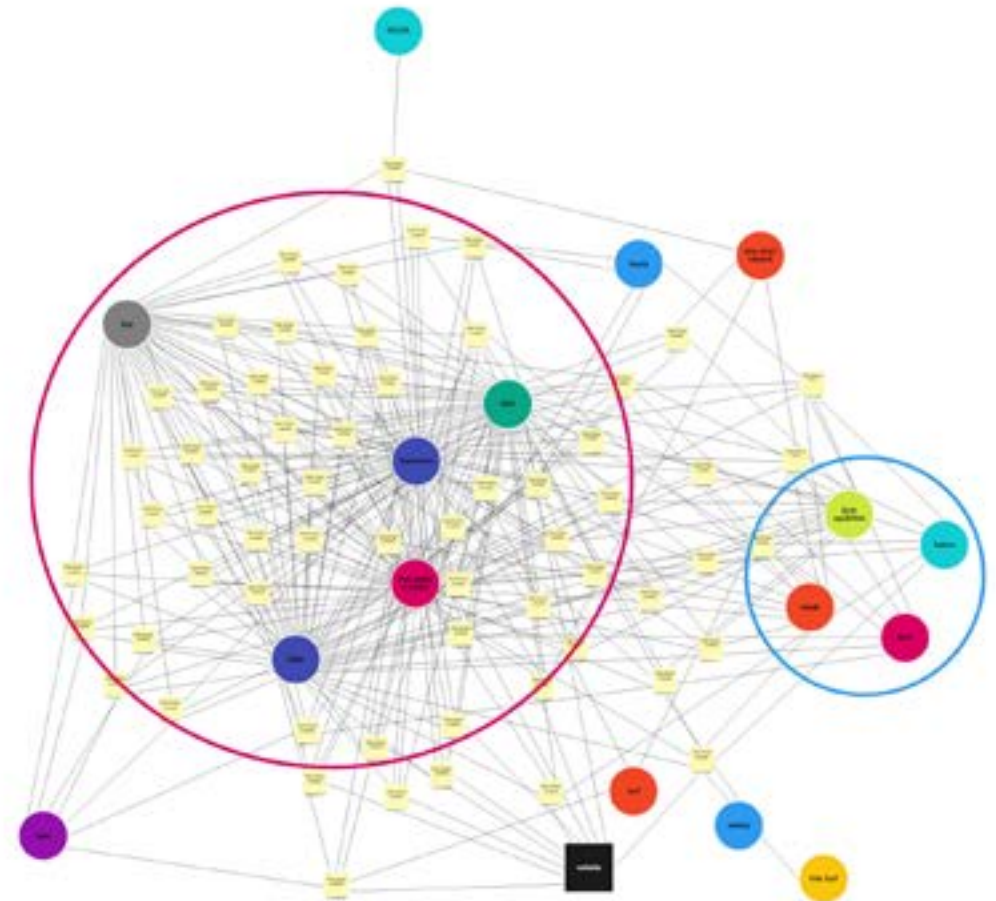
6 people check the weather weekly

19 people check the weather when needed

62% of respondents would like added features to their current app/website

Clustering | results & findings

EVERYDAY SEA USERS
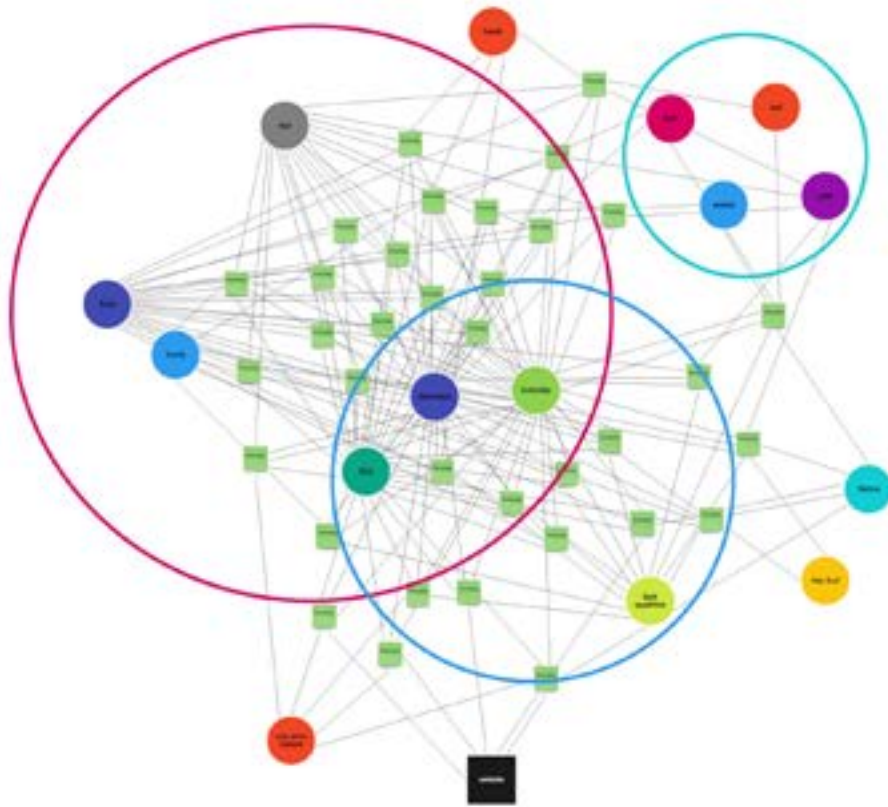
FEW TIMES A WEEK USER

User Interviews | results & findings

- **User Quotes, identifying behaviours & preferences**

"I see met eireann more as a general overview but when want detail I go to windguru because it has my favourite spots"

"I'd check the forecast two days before i'd go kitesurfing & then the day before and if it was looking good I might not check again,"

"I like the hourly forecast with Accuweather that i can do it for today and tomorrow, I like to see how the weather is going to change"

"We have a swim group on Whatsapp everyday someone put up the tides and what the weathers going to be like...just anyone noone in charge"

Usability Testing | results & findings

> "It's a pain I have to go to another app to get to what I feel is a bit more specific"

> "Info I'm looking for isn't on the front page I will have to go look for the info I need"

P1	Tasks	P2
Warnings & MAP	10 second glance what do they remember	Warnings & MAP
Finds ok but wind direction icon confused user	Find forecast Tomorrow at 3	Finds but a little slowly
Finds ok but is unsure how they got there had to retrace steps -understands info but "nice to have tides"	Find sea area forecast	Finds it again a slowly Information needs to be read over again to "get a sense of it"

Key Findings & Insights

- Users need to use multiple apps to find out the weather details they need

- Apps are most common form for user to retrieve weather information

- Tidal information and sea conditions are a high priority for users

- Users like to plan ahead, for both solo and group activities

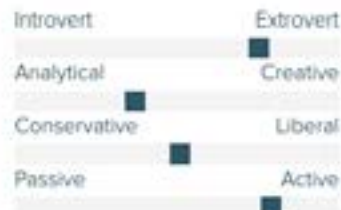- Users would welcome improvements to app

Persona |

Michael Russell

"A pessimist complains about the wind an optimist expects it to change and a realist adjusts his kite"

Age: 52
Work: Company Director
Family: Married with Kids
Location Dublin

Personality

Introvert	Extrovert
Analytical	Creative
Conservative	Liberal
Passive	Active

Goals

- Easily Scan weather forecast and wind conditions
- View weather forecasts snapshot on one screen to share
- Add favourite locations for planning activity
- View hourly, daily, weekly forecasts

Frustrations

- Has to use a separate app for tides
- Confusing Graphics for wind

Passions

- Kitesurfing
- Mountain Biking
- Sailing
- Family Time
- Irish Rugby

Bio

Michael works as a company director it's a high stress job, his office is near to the coast. When he can he like's to go for a swim in the sea at lunch time, it helps him focus his thoughts. Sometimes he goes with a colleague. He is an outdoor enthusiast who also likes KiteSurfing, Sailing, Kayaking, Mountain Biking, Hiking, Running and walking. At the weekends he likes to go kitesurfing/mountainbiking with friends or kayaking/hiking with the family. Its important to Michael to be able to easily access the weather forecast so he can plan ahead.
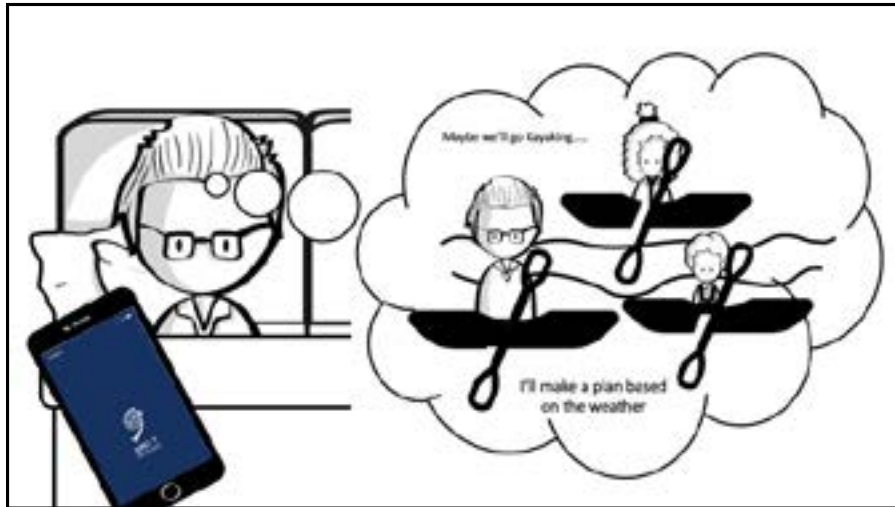
Motivation

Health /Fitness

Achievement

Nature/Outdoors

Social

Checking the Weather

Weather App

Weather Website

News

Brands
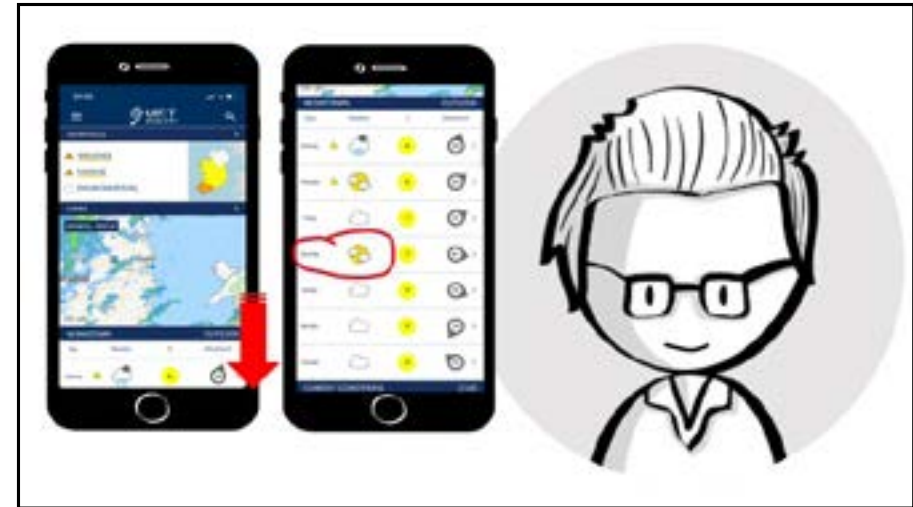
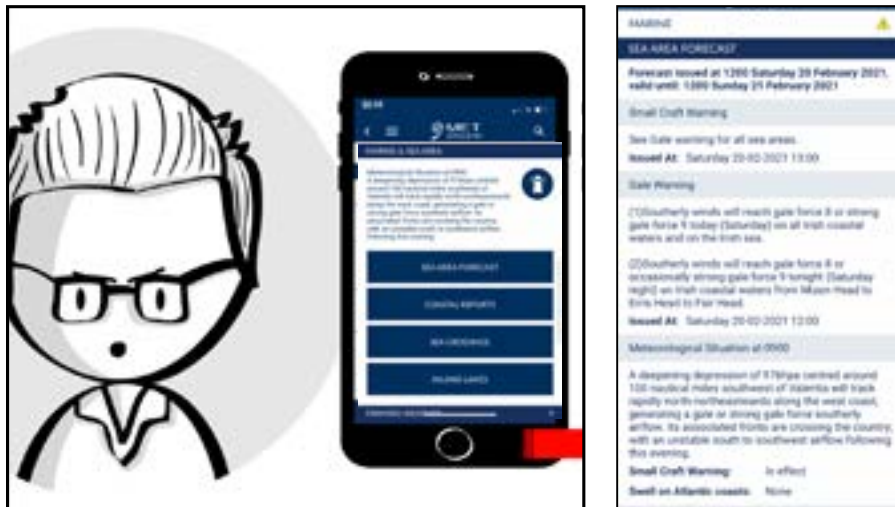SPECIALIZED | DAKINE | Apple

Twitter | RTÉ News

Met Éireann

Story Boards

Micaheal wants to plan a kayak trip out with the kids for the weekend ahead.
He opens up the weather app to see what the weather will be like on Saturday.

He scrolls down the page to find Saturdays weather , he can see it's going to be a nice day but a little windy.

Scrolling down he looks to find information about tides and what the sea conditoins will be like. He can't find any tides information and is over whelmed by the amount of information.

To get a clearer understanding of the weather he wants to know he need to find that in other apps

User Need Statement

When Michael uses the met eireann weather app to plan ahead for his weekend of water activities, he wants to be able to customise the weather criteria for that activity so he doesn't have to search for it elsewhere.

Design Goals & Solutions

- **Make weather easy to find**
- **Add an activity Selector**
- **Add a personalised weather feature**
- **Add customs weather alerts**

- **Redesign of app and visual hierachy**
- **New feature with onboarding**
- **Allow the user to create activities with their required weather criteria**
- **Allow the user to save favourite locations**
- **Design a way for user to add activity details to calendar**
- **Design a way for user to share activity details**
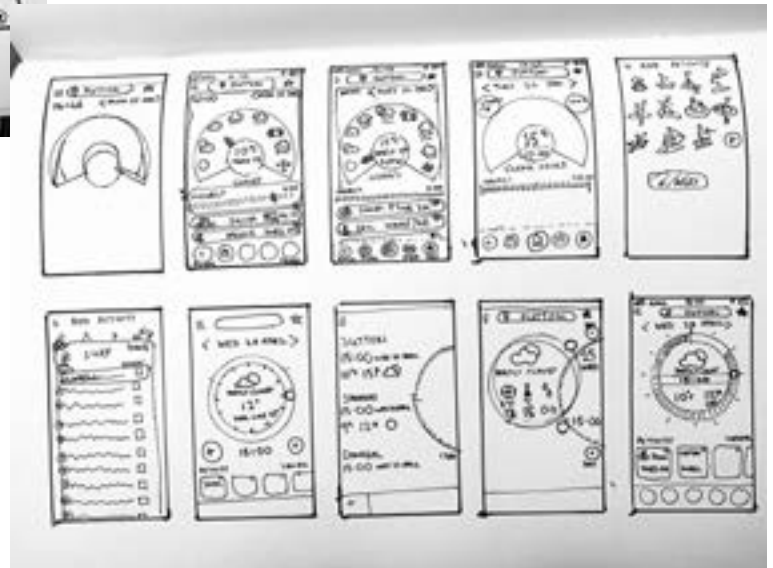- **Allow the user to create alerts for activity**

Prototype Design

- Sketches
- Paper Prototype
- Wireframe /Mid Fidelity Prototype
- Visual & Design Research
- Mood Boards
- Style Guide
- High Fidelity Prototype

Early Sketches | brainstorming
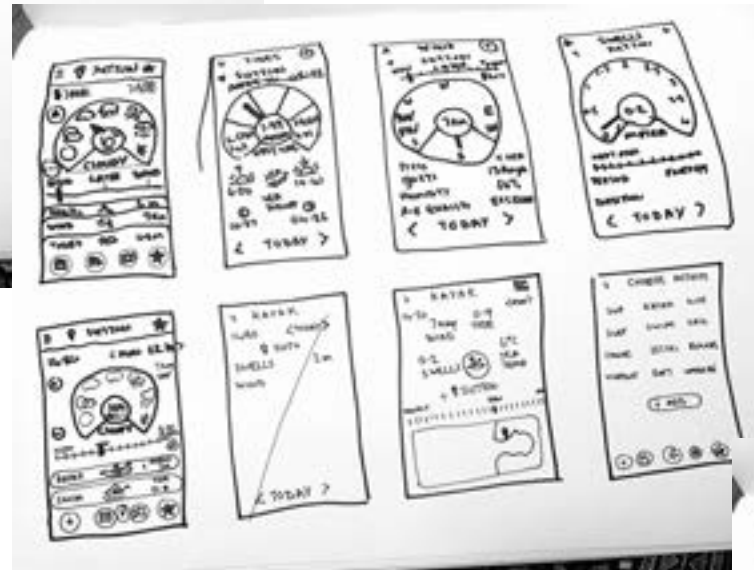
**Brainstorming with quick sketches
to help visualise an inital concept**

Paper Prototype | concept

User Testing Think Aloud

4 user tests performed

2 target users

Users were asked to follow onboarding screens and then asked to preform 3 tasks to see if they understood how the app worked.

Some areas for improvemet in next iteration:

- Make a clearer way to exit on-boarding with lets begin button.

- Extra onboard need to explain activity widget

- Simplify main weather information

- Change tray labelling

Its cool!! I'd use it for all my water activities

# Mid Fidelity Prototype | wireframe

User Testing Think Aloud

3 user tests performed

All target users

Areas to improve in next iteration

- Further issues with onboarding part about tray icons needs to be better.

- Introduction screen needed

- Create clearer understanding of activity widget

- Reduce arrow by time wheel confusing

- Explain tide information clearer

Simple to use ticks all the boxes for me...brings together the 2 key things I use!

Visual Research |
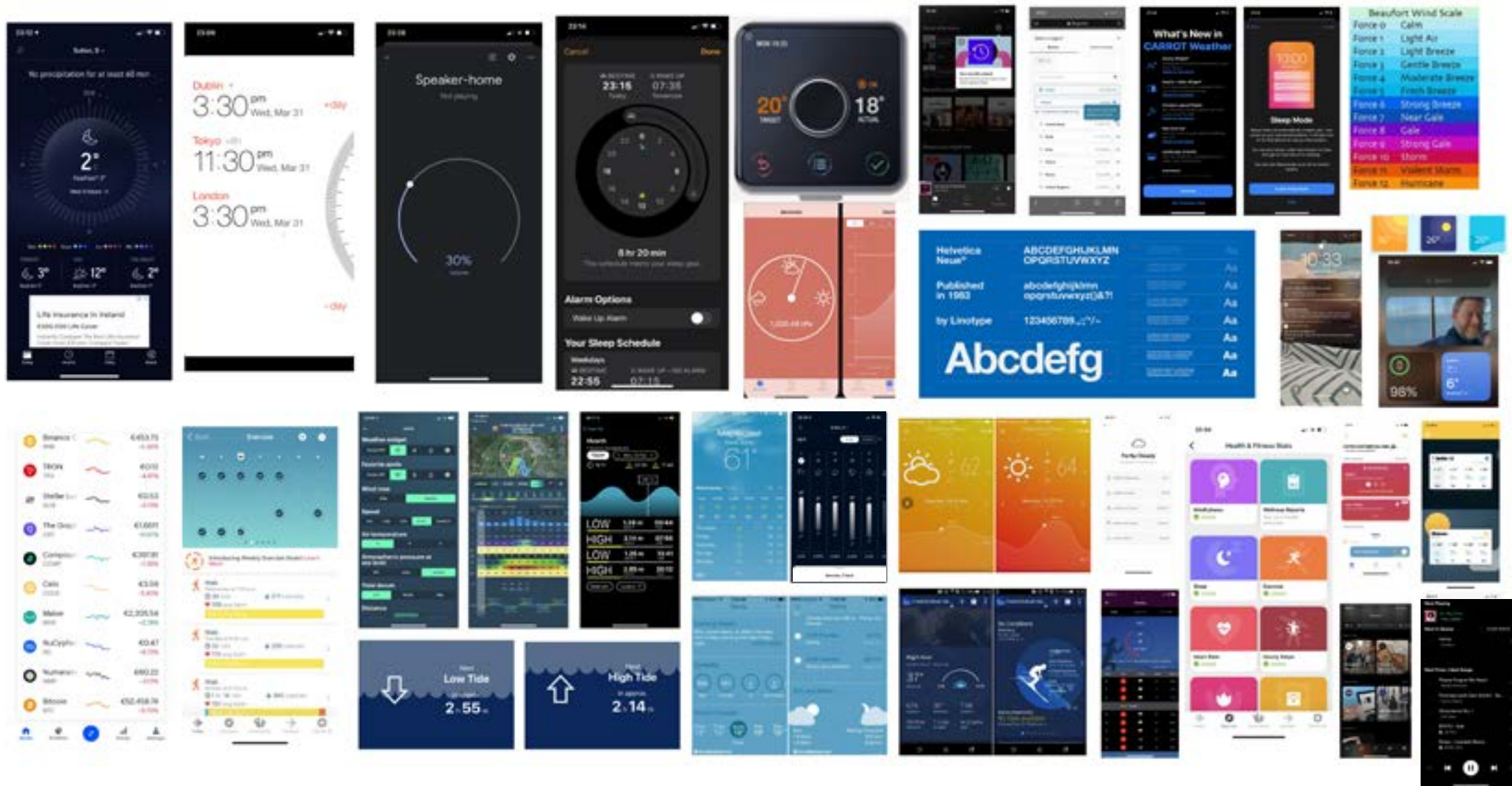
Dials | **Onboarding Styles** | **Font type** | **Weather Layout Patterns** | **Naviagation patterns** | **App Trays** | **Tide Apps** |

informative Layouts | **Activitiy Apps** | **Widget Boxes** | **UI Patterns** | **Drag & Drop**

Mood Board |

Blue is seen as trustworthy, dependable, and committed. The color of ocean and sky, blue is a constant and calming influence in our world. Blue has equal appeal to both men and women.

at the gooey heart of each pop is a drool-worthy experience

OUTDOORS

Neue Helvetica

Blue - trustworthy & dependable | Evoke a sense of outdoors, sky & sea | simple intiuitive & tactile design

Style Guide |

Colour Palette

Weather Icons

Activity Icons

Element Icons

Button & Navigation Components

Typography

Focus text
Helvetica Neue Light 36pt

LOCATION TEXT
Helvetica Neue Light 18pt

TITLE 1
Helvetica Neue Regular 16pt

FOCUS SUBTITLE
Helvetica Neue Light 14pt

TITLE 2
Helvetica Neue Medium 12pt

SUBTITLE
Helvetica Neue Regular 12pt

Body
Helvetica Neue Light 12pt

CAPTION
Helvetica Neue Light 14pt

LABEL
Helvetica Neue Light 8pt

Tone of Voice

- Informative
- Relatable
- Formal but fun at times!
- Positive
- Relaible
- Clear & Concise

High Fidelity Prototype | onboarding

High Fidelity Prototype | walkthrough
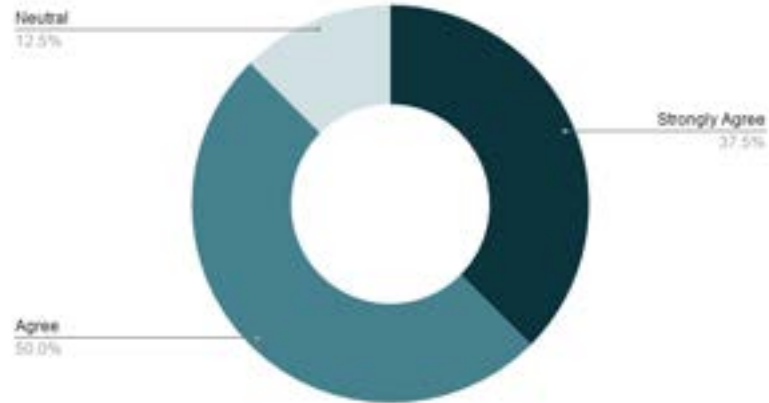

5 user tests performed

2 target users

Areas to improve in next iteration

- Add alternate input options for date and time for accessibilty, prehaps a calendar pop up or number scroll

- Revise the onboarding text case to make easier to read

- Highlight the ability for the user to create their own activity, future possibility to grow to an overall outdoor activity weather app
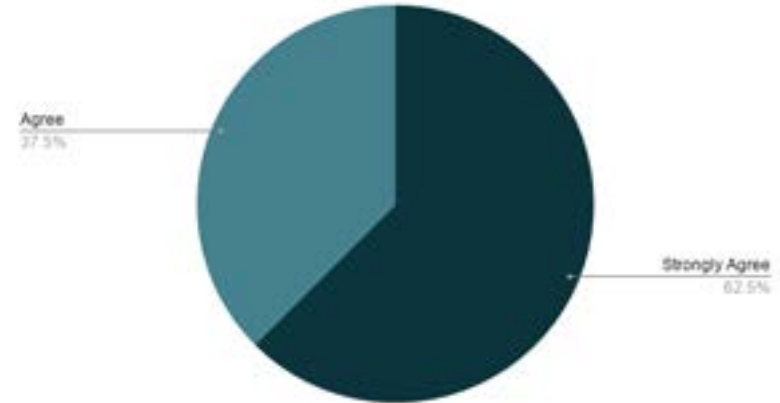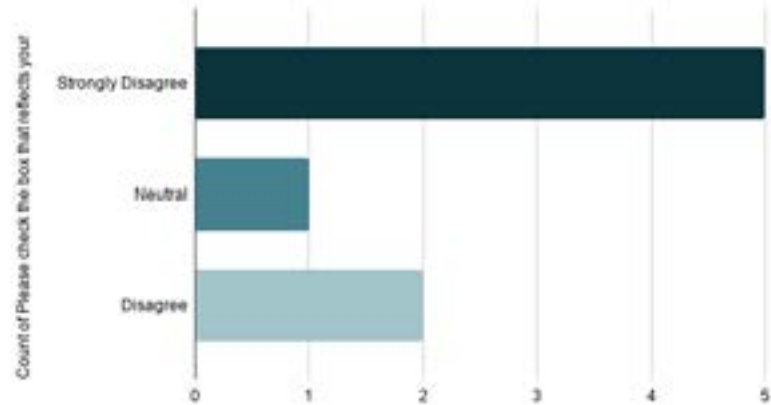
SUS Questionaire

results

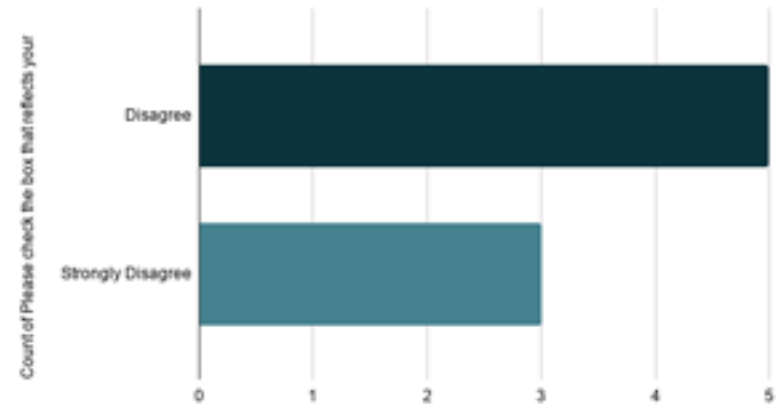I think that I would like to use this app frequently

Neutral
12.5%

Strongly Agree
37.5%

Agree
50.0%

I thought the app was easy to use.

Agree
37.5%

Strongly Agree
62.5%

I found the app very cumbersome to use.

Count of Please check the box that reflects your

Strongly Disagree

Neutral

Disagree

0 1 2 3 4 5

I thought there was too much inconsistency in the app.

Count of Please check the box that reflects your

Disagree

Strongly Disagree

0 1 2 3 4 5

Conclusion

- I learnt different techniques on how to analyse and intrepret lots of interesting data

- All usabilty testing on prototypes was done via desktop or laptop, as this was the easiest route in lockdown. I think the user experience would have been enhanced using a real mobile

- When focussing on a target user group it is beat to use them for testing, test users who dont take part in water sports knew little about sea weather

- It was hard to create the desired effect in figma, ideally the time wheel would turn fluidly and the user would have much more control with the ability to swipe the wheel quickly to advance days or turn it slower for 30 minute intervals

- Overall user feedback was very positive and people felt it was intuitive to use
-