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Product Design Case Study

Quest Marine Hull - Submissions for Concirrus

01 Introduction

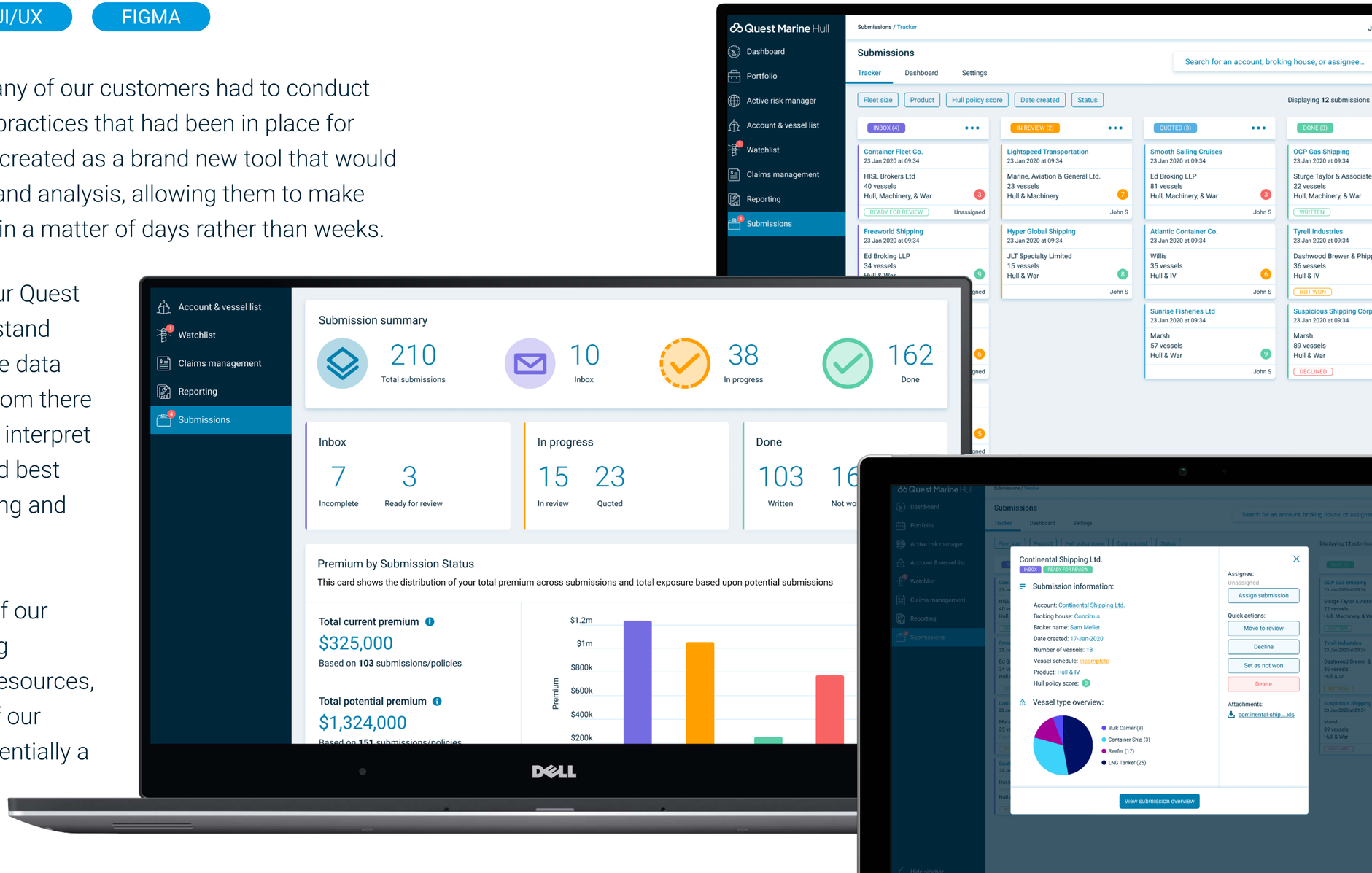
Concirrus

INSURTECH WEB SAAS UI/UX FIGMA

The COVID-19 pandemic changed the way many of our customers had to conduct their business, upsetting traditional business practices that had been in place for decades or even centuries. Submissions was created as a brand new tool that would help our customers automate data ingestion and analysis, allowing them to make faster and more accurate business decisions in a matter of days rather than weeks.

Working directly with existing customers of our Quest Marine Hull product, we first needed to understand how their existing practices worked, and all the data types and formats they would be ingesting. From there our data science team would build a model to interpret the data, and I could create designs that would best display the data to allow for easy understanding and quick decision making.

Development of Submissions allowed many of our customers to massively optimise their existing processes, saving them significant time and resources, and although Submissions was built on top of our existing Quest Marine Hull product, it was essentially a product of its own, and would eventually be expanded to our other product lines.



02 What is a submission?

A submission is a proposal for insurance to an underwriter

Fleet Owner

An individual or organisation with one or more vessels that require insurance. They reach out to a broker to find a suitable insurance policy that will fit the specific needs of their fleet.

Broker

The broker will gather key information such as vessel IMO* numbers and claims history and package them into a submission. This submission is then sent out to various underwriters.

Underwriter

Underwriters will analyse all the information in a submission, decide whether it is a risk they are comfortable with, and then respond to the broker with a quote for insuring the fleet.

*International Maritime Organisation
A specialised agency of the United Nations responsible for regulating shipping

03 The problem to be solved

Early discussions about the problem space identified four main problems to overcome

1. Marine insurance is a bit old fashioned

Lots of printing things out, visiting people at their desks, and handing them lots of paper to look at

2. Data has to be entered manually into one or more systems

Data from ‘submissions’ had to be manually entered into various systems before it can be analysed

3. Submission data is sometimes missing, incomplete, or outdated

Sometimes vessels might be missing an IMO or other data, and that has to be hunted down manually

4. No automated analysis of the data

Even once all the data is collected and entered, it still needs analysing to become useful information

04 Desired outcomes

What did we hope to achieve by solving this problem our customers were having?

A New USP

Automatic processing of submissions is a feature none of our competitors offer. Getting it to market quickly provides Quest Marine Hull with a new USP.

Improved Stickiness

Integrating more tightly into additional parts of our customers' daily workflows means increased reliance on our products and improved customer retention.

Increased Revenue

As a completely new piece of functionality, the submissions module could be an up sell to existing contracts and also bring in new business.

05 The proposal

The proposed solution and how we could add value were defined early on in the discovery process

Ingest

Submissions are already being sent around by email. Using a dedicated email inbox we can ingest these emails and their contents to be analysed.

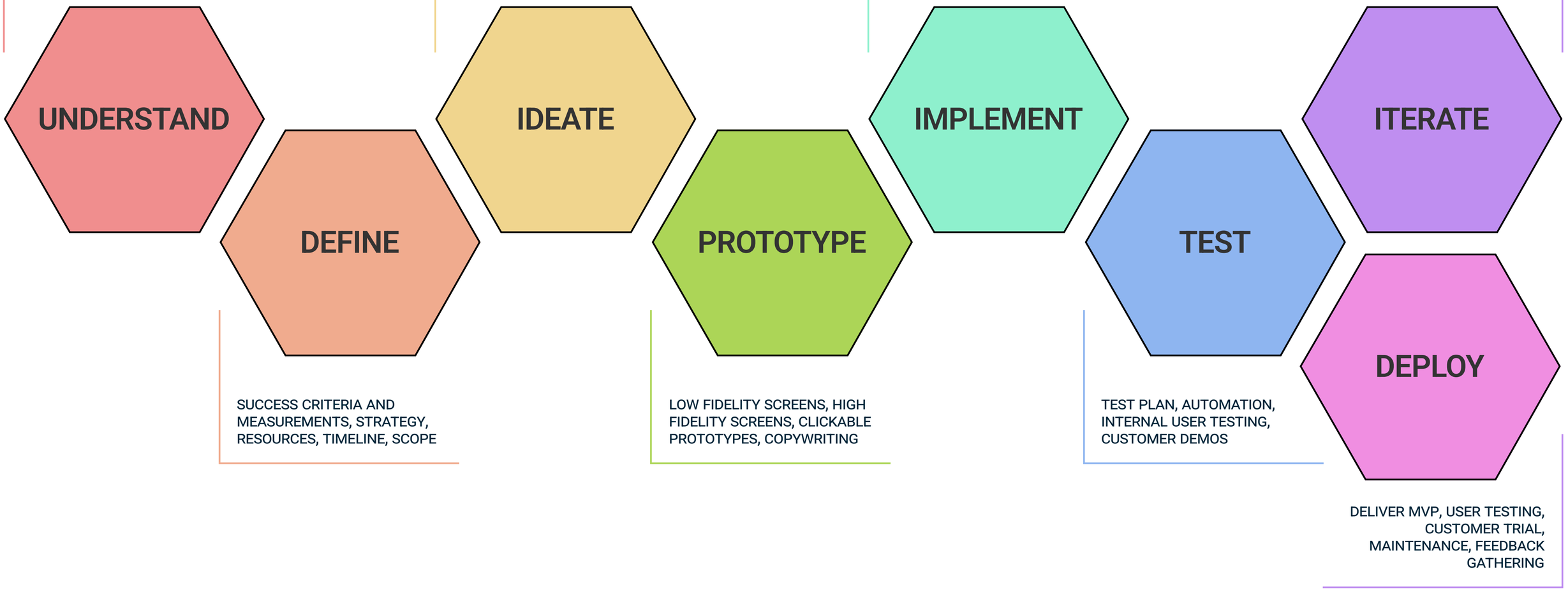
Analyse + Automate

Using technologies such as machine learning and optical character reconition we can scan the incoming emails and attachments for relevant data, and automatically populate them into a digital submission

Enrich

With our own data models and other third party data sources, we can clean the incoming data, find missing information, and enrich the submissions with additional information to speed up the decision making process.

06 Design and development process



07 Initial scope

Having defined the problems, we were able to set the scope of what we wanted the product to achieve

1. Integrated seemlessly with Quest Marine Hull

The new submissions module would be built on top of our existing platform, and should share it's technology stack and design language

2. Trello-style workflow interface

Data extracted from emails should be displayed as individual cards with key data such as fleet name, risk score, and product type visible at a glance

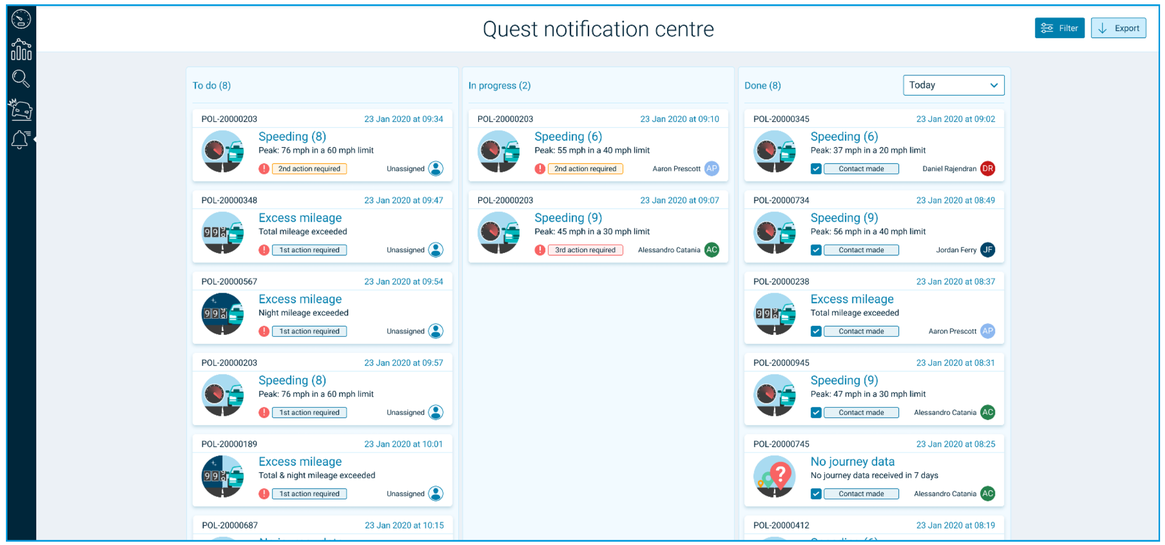
3. Enhanced and detailed views

Each submission should have additional views where a complete set of data attributes can be reviewed and edited

4. Automatic policy creation

Users should be able to automatically create policies from any submission that fits their risk appetite profile

08 The foundation



A primary feature of Quest Automotive was it's notification centre, a card-based work flow tool that allowed call centre operatives at our client car insurer to pick up various notifications and progress them from one state to another.

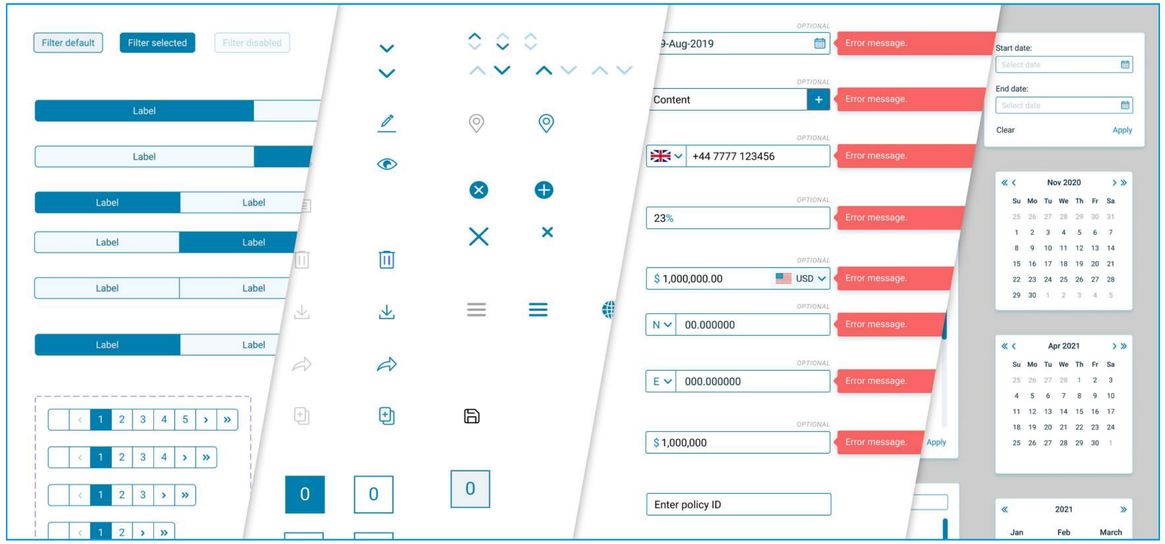
This is multi-column card-based layout was the planned base for Submissions, where each card would represent a single incoming email that had been converted into a submission.

The submissions could then be progressed from one column to another as they changed status and were eventually resolved.

A lot of time and effort had been dedicated to our cross-product component library in Figma, which would later become the basis for Stratus, our product and engineering design system.

Whilst submissions would require some completely new UI components, many would come from Quest Marine Hull, and were already built in a way that meant they could be easily reused for the submissions module MVP.

This would greatly speed up development of the initial high fidelity designs, as I could reused menus, icons, navigation elements, and more.



The project goals were initially very business driven, but the product team had their own

BUSINESS GOALS

Rapid development

Our aim was to have a working MVP within 3 months

Active trials

At least two existing Quest Marine Hull customers to agree to a trial

Trial conversion

Customers should convert to a paid license at the end of the trial

PRODUCT GOALS

Accurate

Data must be populated in the right fields 100% of the time

Fast

The time to ingest and analyse emails should be less than 10 minutes

Platform agnostic

The module should integrate with our other SaaS products with minimal rework

10 Complexity

As with any team taking on a new project, there are often some hurdles to overcome

PROBLEMS

Lack of product familiarity

I was hired to work on the Automotive product and had spent only a small amount of time with the Marine products

Availability of internal resources

Our data science team are always very busy and wouldn't have capacity to support the data modelling activities we required

Short time frames

We needed to produce an MVP very quickly to capitlise on how business was rapidly changing

Lack of domain knowledge

I'd had very little exposure to the way marine insurance operated, since joining Concirrus

SOLUTIONS

Solid support structure

Utilise a cross-functional team who have familiarity with Quest Marine Hull

Utilise external resources

Integrate with a third party to support modelling and analysing the incoming submission data

Optimise for fast design

Reuse existing layouts, designs, and components from existing Quest products

Learn from the best

Spend time speaking with internal subject matter experts, existing clients, and our working group

11 Tools of the trade

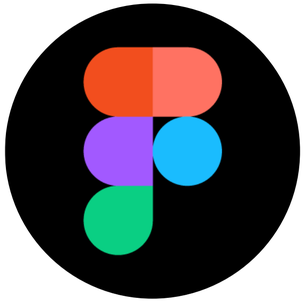
As a design team we used a few key applications during the various stages of our design and development

Flows & Journeys

We use previously used LucidChart for mapping flows, journeys, and other diagrams. Recently we've moved to using Miro, and additionally use it for brainstorming and other collaborative sessions.

Low Fidelity

When we do very early stage layouts and designs, we often rough things out on pen and paper before translating the basic structures into Balsamiq, to create general layout ideas.

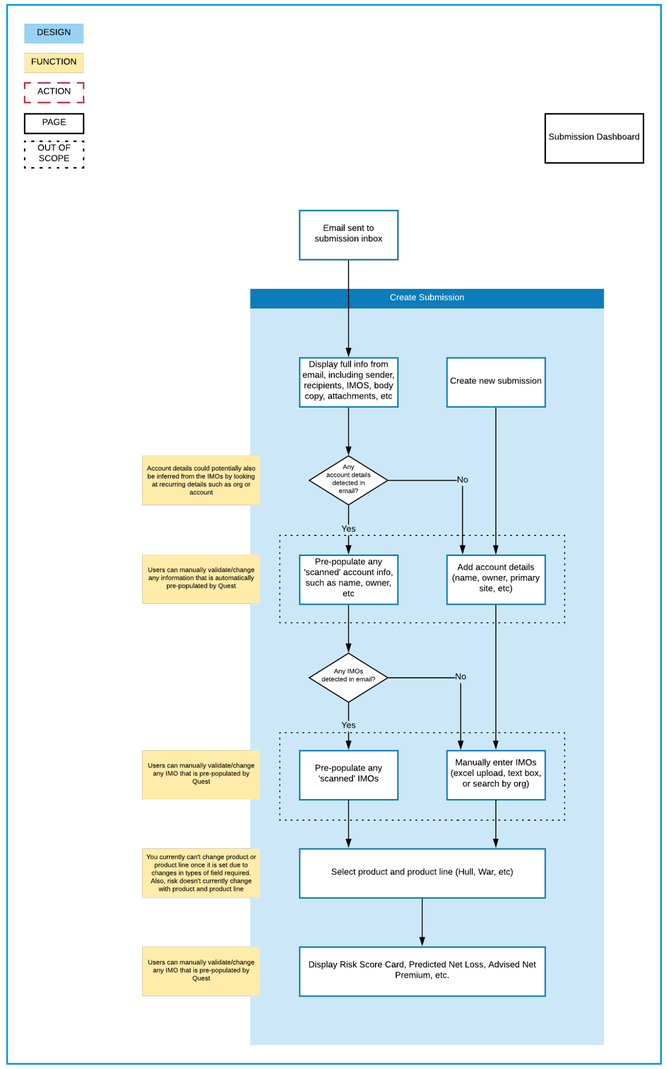


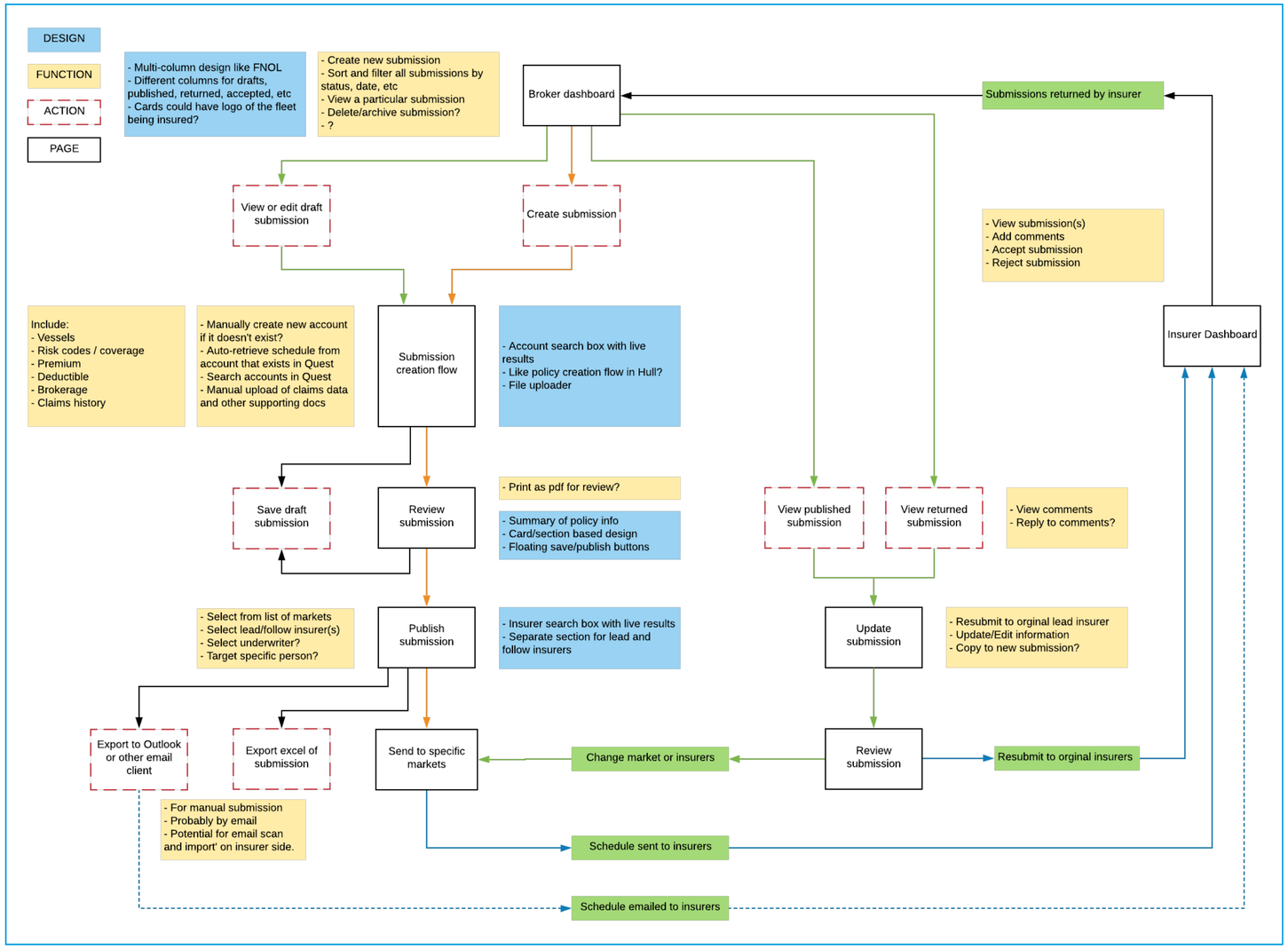
High Fidelity

For our final designs and clickable demos we exclusively use Figma, as it allows us to collaborate quickly and easily across product streams and time zones.

12 Exploratory work

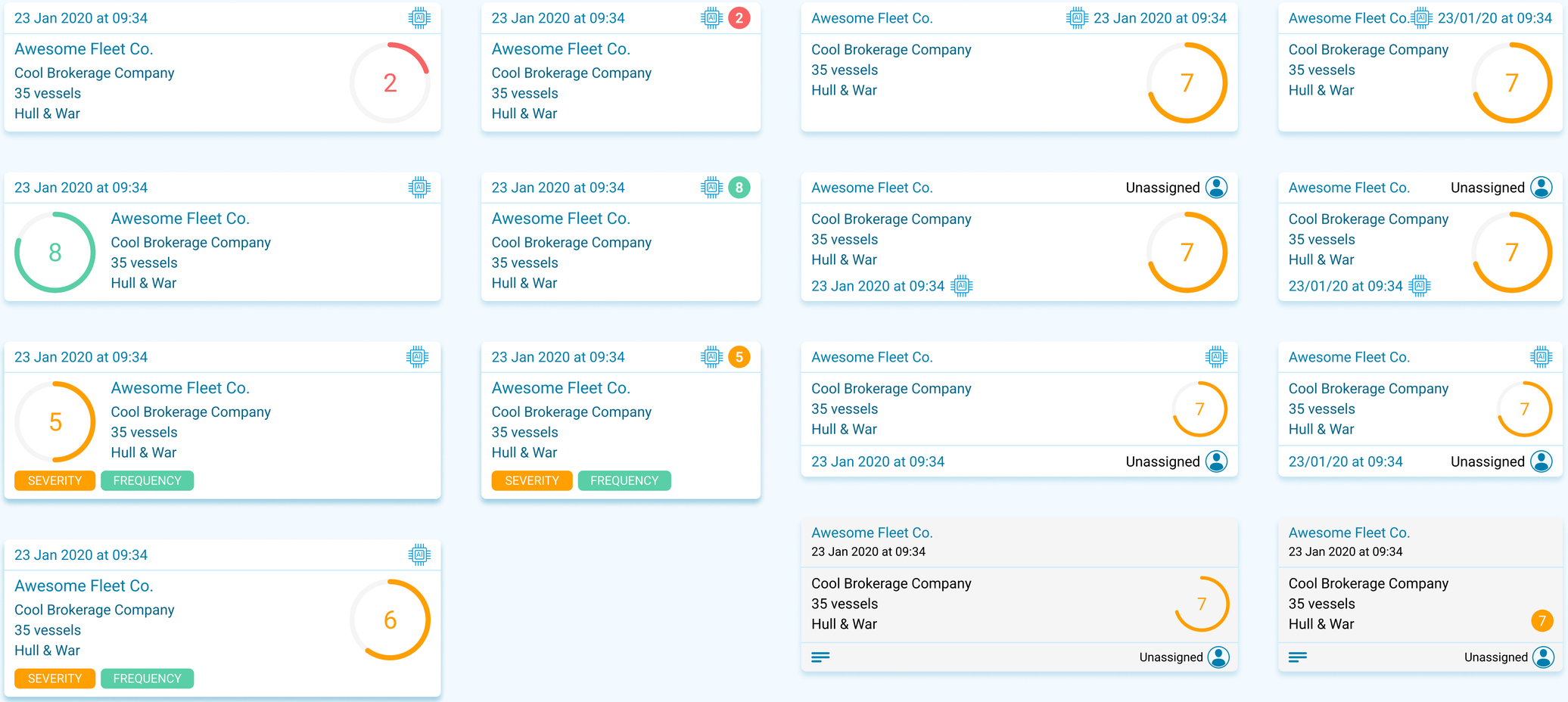
Some examples of the early user flows I mapped out to better understand the problem





13 Expanding the design

I started designing from the bottom up, iterating several times on the cards that would form the tracker



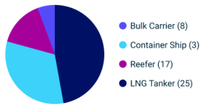
14 UI work

Continental Shipping Ltd.
7m ago
INBOX READY FOR REVIEW

Submission information:

Account: Continental Shipping Ltd.
Broking house: Concirrus
Broker name: Sam Mellet
Inception date: 18-Sep-2021
Number of vessels: 18
Vessel schedule: Incomplete
Product: Hull & IV
Hull policy score:

Vessel type overview:



Assignee:
Unassigned
Assign submission

Quick actions:
Move to review
Decline
Set as not won
Delete

Attachments: Edit
continental-ship....xls

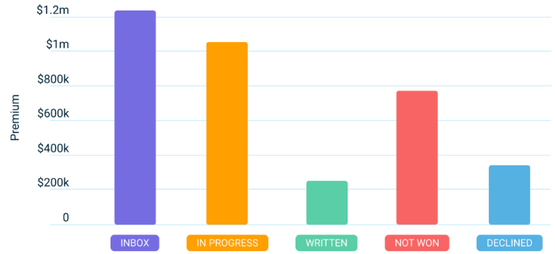
View submission overview

Premium by Submission Status

This card shows the distribution of your total premium across submissions and total exposure based upon potential submissions

Total written premium
$325,000
Based on **103** submissions/policies

Total potential premium
$1,324,000
Based on **151** submissions/policies



View full premium breakdown

Completed submissions by Hull policy score

Submission summary

210 Total submissions
10 Inbox
38 In progress
162 Done

Vessel schedule

Displaying **10** vessels | Quick-fill schedule

Vessel name	IMO number	Sum insured	Increased value	Vessel premium	Cover fro
Panamera	1348480	16,000,000.00 USD	4,000,000.00 USD	73,600.00 USD	25-MAR-2
Sulaco	1895047	8,000,000.00 USD	2,000,000.00 USD	36,000.00 USD	02-JAN-20
Alaskan Lily	2214083	21,000,000.00 USD	5,250,000.00 USD	98,700.00 USD	18-SEP-20
Rocinante	2466633	19,000,000.00 USD	4,750,000.00 USD	100,700.00 USD	13-MAR-2
Normandy	2738650	4,500,000.00 USD	1,125,000.00 USD	40,500.00 USD	25-OCT-20
Rodger Young	3156034	23,000,000.00 USD	5,750,000.00 USD	23,000.00 USD	09-JUL-20
Prometheus	3393592	10,000,000.00 USD	2,500,000.00 USD	34,000.00 USD	08-AUG-2
Serenity	4768731	24,000,000.00 USD	6,000,000.00 USD	134,400.00 USD	26-NOV-2
Discovery	4959523	9,500,000.00 USD	2,375,000.00 USD	42,500.00 USD	14-FEB-20
Athena	5355501	7,350,000.00 USD	1,837,500.00 USD	35,000.00 USD	29-APR-20

Add vessels | Remove vessels

Hull policy score

6
Frequency
HIGH
Severity
MEDIUM

Expected loss

$975,000

Inbox

7 Incomplete
3 Ready for review

~3.2 submissions received per day

In progress

15 In review
23 Quoted

~4.2 days to review

Done

103 Written
16 Not won
43 Declined

63.6% hit rate

Written premium by Vessel type

Vessel type:	Total Premium:
Bulk carrier (12)	$1,256,084
Container ship (10)	$812,756
Passenger ship (9)	$743,935
Tanker ship (4)	$467,346
Ro-Ro ferry (3)	$375,353
Other (3)	$283,756

Total **107** vessels

Not won by Reason

Not won | Declined

Reason
- Quoted price not accepted by client (11)
- Quoted deductible not accepted by client (6)
- T&Cs not accepted by client (3)

Total **59** submissions/policies

Hyper Global Shipping 4d ago
Inception date: 23 Jan 2020
JLT Specialty Limited
15 vessels
Hull & War
8
John S

Atlantic Container Co. 1w ago
Inception date: 23 Jan 2020
Willis
35 vessels
Hull & IV
6
John S

Container Fleet Co. 7m ago
Inception date: 23 Jan 2020
HISL Brokers Ltd
40 vessels
Hull, Machinery, & War
3
READY FOR REVIEW
Unassigned

Lightspeed Transportation 4d ago
Inception date: 23 Jan 2020
Marine, Aviation & General Ltd.
23 vessels
Hull & Machinery
7
John S

Smooth Sailing Cruises 1w ago
Inception date: 23 Jan 2020
Ed Broking LLP
81 vessels
Hull, Machinery, & War
3
John S

OCP Gas Shipping 3w ago
Inception date: 23 Jan 2020
Sturge Taylor & Associates
22 vessels
Hull, Machinery, & War
10
WRITTEN
John S

15 Gathering initial feedback

We had numerous resources for getting initial feedback on the value proposition of our Submissions tool

SMEs

We first talked to our internal Subject Matter Experts who had experience working at or with marine insurance underwriters, to best understand the problem that potential clients are facing.

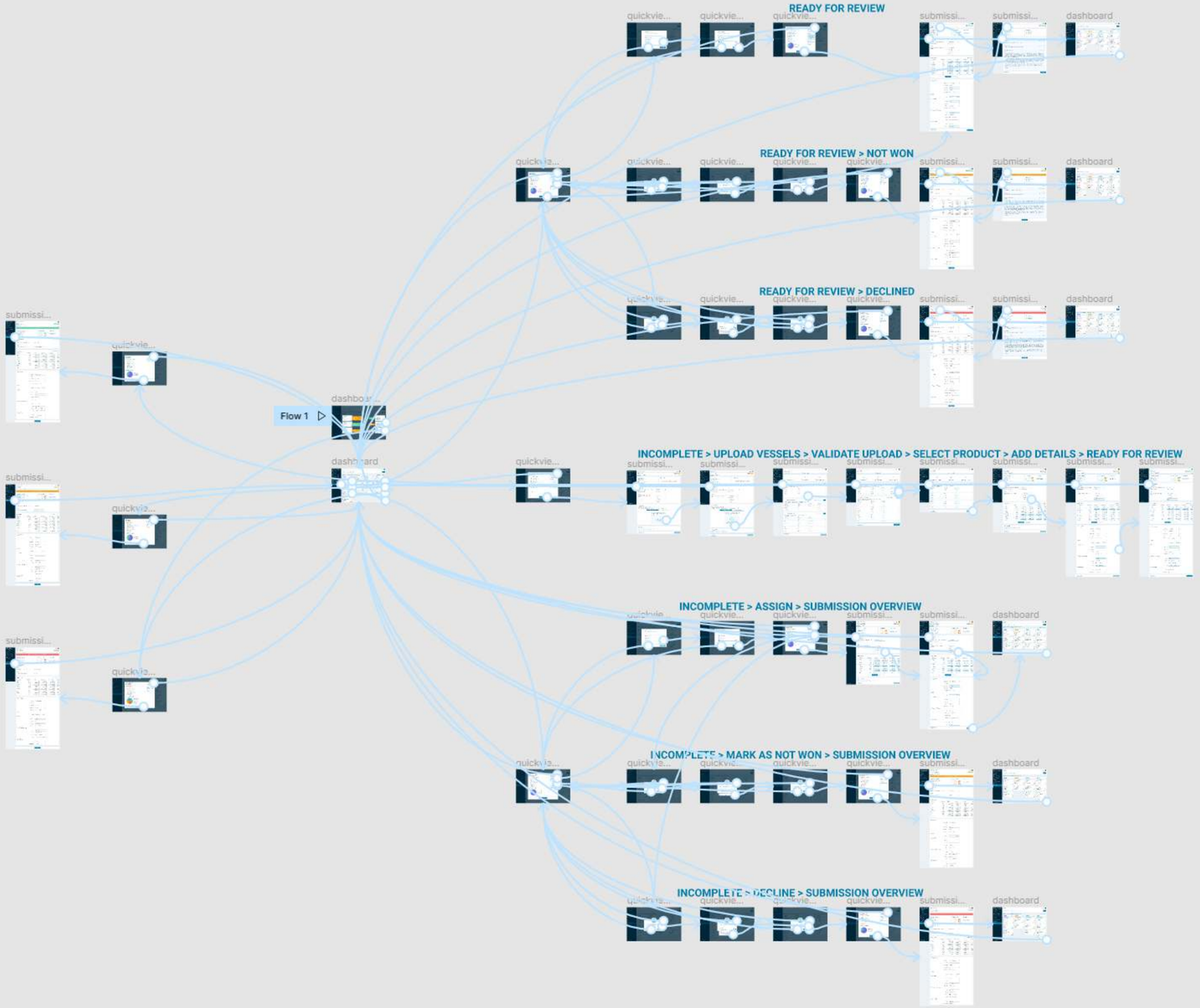
Existing Clients

We then spoke to some of our existing underwriter clients who use Quest Marine Hull and might be interested in participating in a trial of the product, and helping to train our data models.

Working Group

Finally we assembled a ‘Working Group’ that consisted of team members familiar with our potential trial clients and their business, but were not necessarily marine insurance SMEs.

16 Prototype



17 Continuous improvement

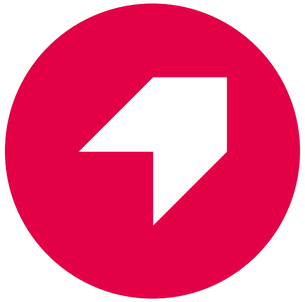
As design and development of the submissions module continued, we made sure to gather regular feedback

Internal

We ran regular usability testing sessions with our working group, starting with low fidelity designs, up until we had a clickable prototype. This helped identify early usability and design issues so they could be remedied.

External

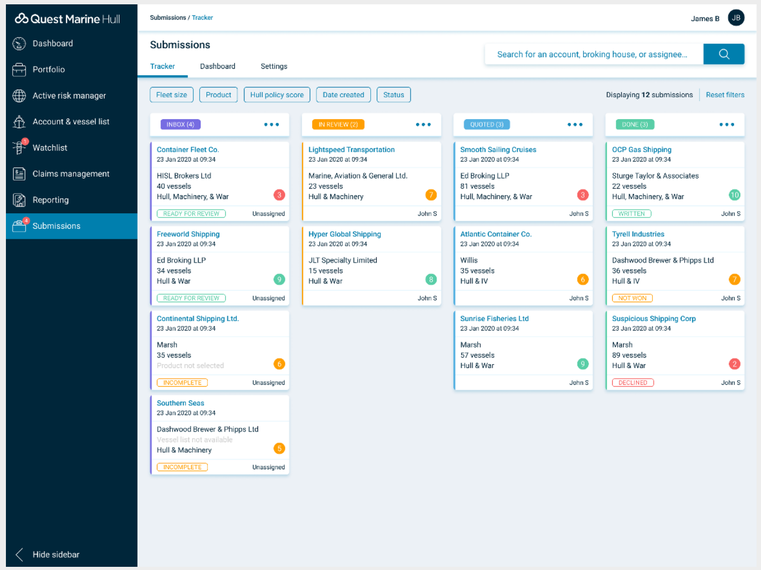
With high fidelity designs and a clickable prototype complete, our SME was able to engage with our potential trial customers and prosopects, validate our solution and gather feedback, so we could integrate it into the MVP.

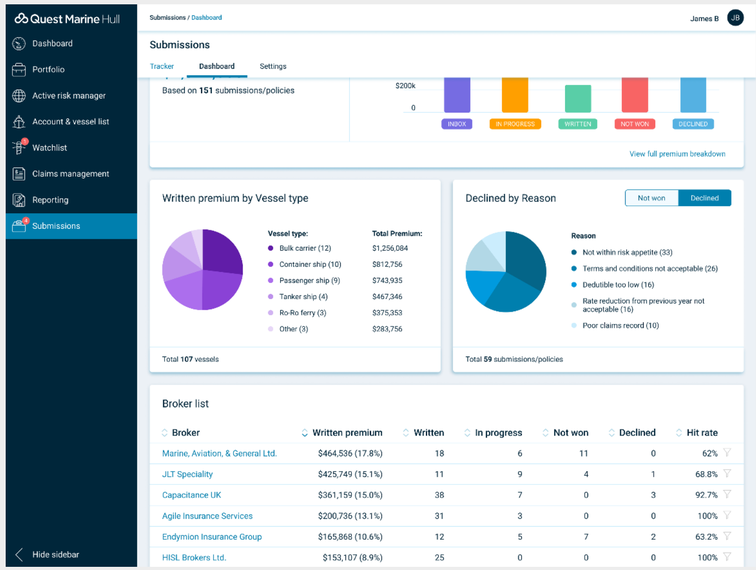


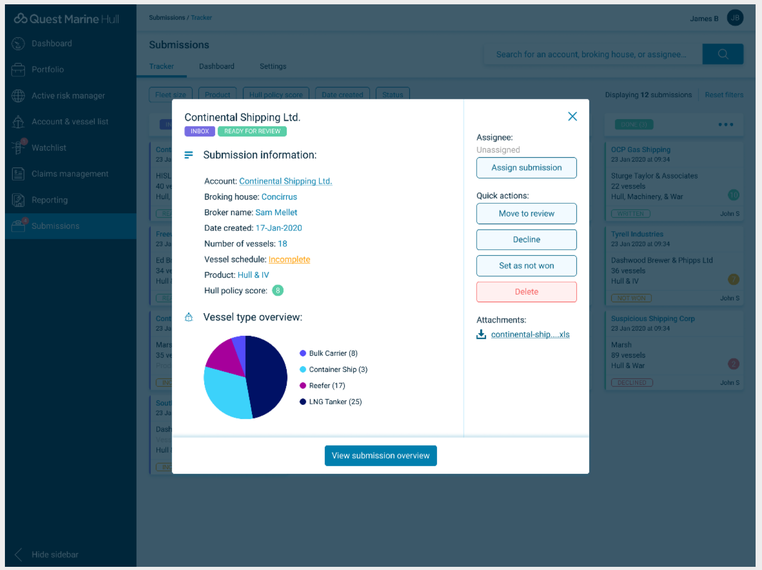
Analytics

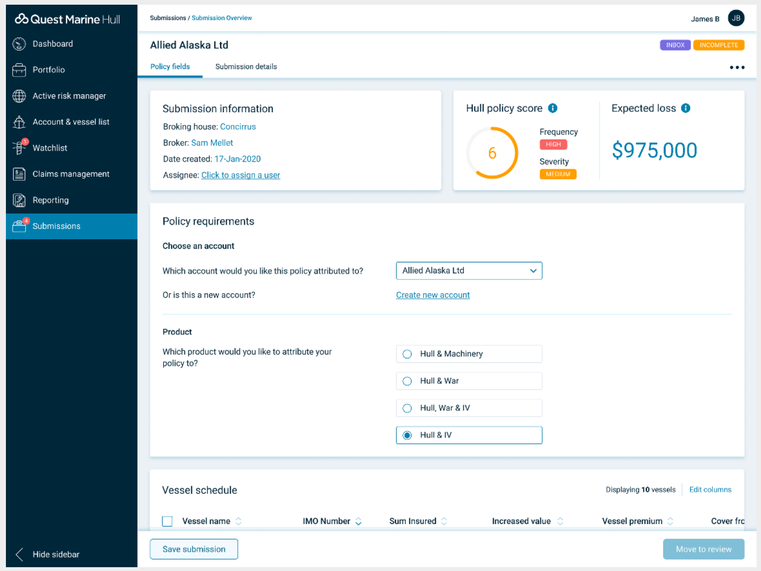
To gather information on usage, user journies, account activity, and more, we used Pendo, a product analytics app. This allowed us to create multiple custom dashboards and reports to monitor usage of the submissions module.

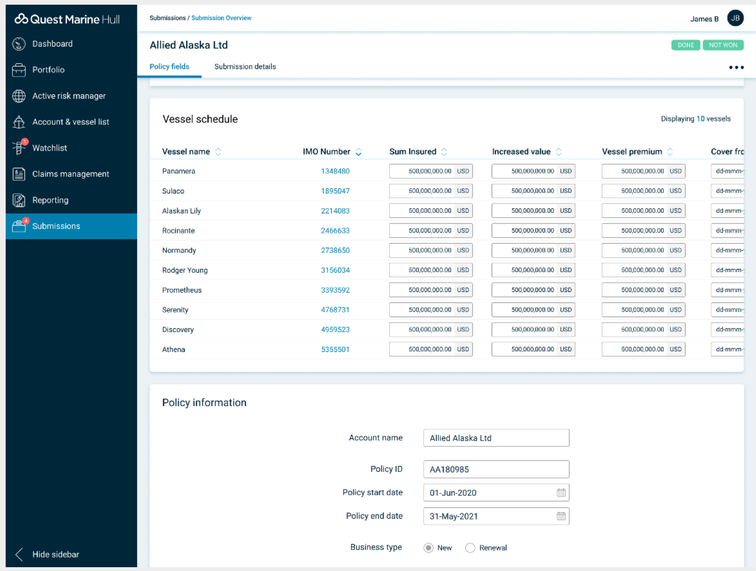
18 Screenshots

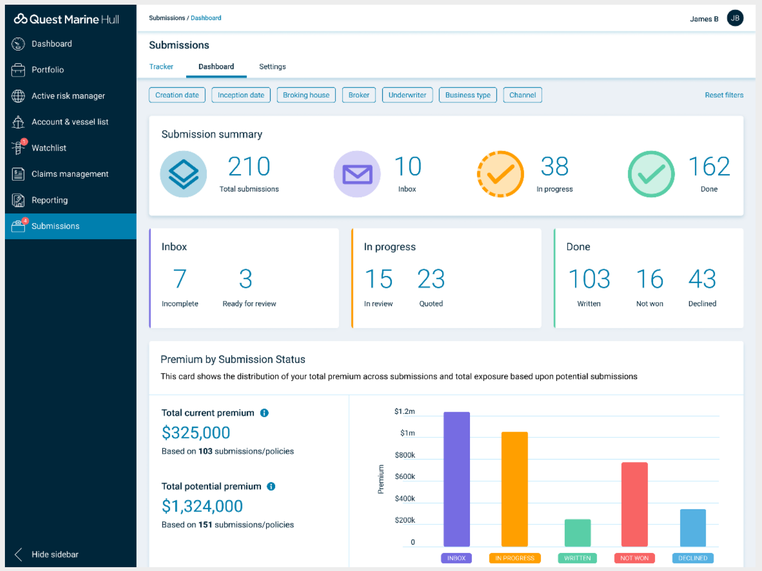












19 Trial period

We had an MVP of the submissions module ready for customer trials within our 3 month window

1. Deployed to two customers

We ran a rolling two-week trial period with regular interaction between customers and our sales and product teams

2. Teething problems

The data models that analysed and ingested data from emails still required training as we'd mostly built them using 'perfect' examples of submissions

3. Rapid fixes

Switched from 2-week to 1-week sprints to deploy fixes and improvements more quickly to our trial customers

4. Tour guides

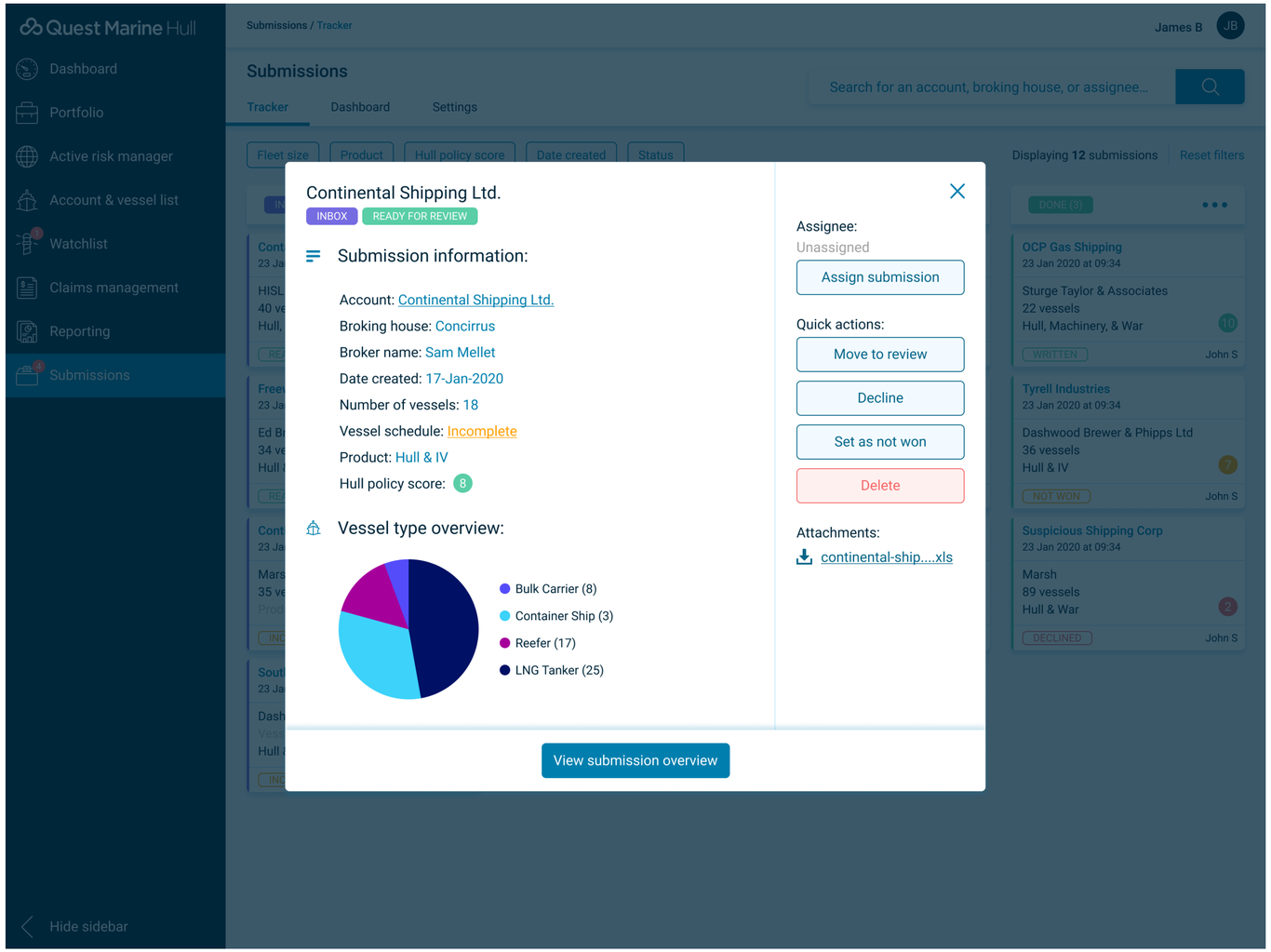
Using Pendo we were able to create lots of in-app guides to educate users on features, and guide them around the submissions module

20 Product improvements

Switching to 1-week sprints helped to rapidly improve the product experience and back-end performance

	At Launch	At 3 weeks	At 6 weeks
Accuracy	65%	92%	100%
Ingestion Time	~5m	~3m	<2m
Maximum Fleet Size	~70	~200	>377

21 What the customer said



"It could be a real game changer... if it works like you say it does"

- During early discussions with existing customer

"We can see the value in it, but we're just not getting it yet"

- Early on in the trial period

"We would find it difficult to return to how we were doing things before"

- Three months after converting to a paid license

Measuring success against outcomes

The desired outcomes were more difficult to measure in the short term following the rollout of the product

Increased Revenue

An increase in revenue was the most easy outcome to prove, as conversions from our customers on trial accounts to paid licenses meant and increase in their recurring contract value.

A New USP

The submissions tool was a powerful sales tool, even in the early stages when it was just a clickable prototype, and the finished product was instrumental in closing several new deals.

Improved Stickiness

Whilst feedback from our trial customers was very positive, it remained to be seen whether it would help with customer retention when contract renewal discussions would take place.

Measuring success against goals

At the end of the trial period, we reviewed our initial goals before planning further roadmap development

1. **Rapid development**

   MVP was completed within the time frame, but not deployed to trial customers for another month, due to additional testing and refinement

2. **Active trials**

   We started our trial period with our two customers, and had two more interested towards the end of our trial period

3. **Trial conversion**

   Both customers converted to a paid license at the end of the trial period, thanks to consistent improvements to the product and regular communication

4. **Net Promoter Score**

   By the end of the trial period we had a NPS of 9

That’s a wrap

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