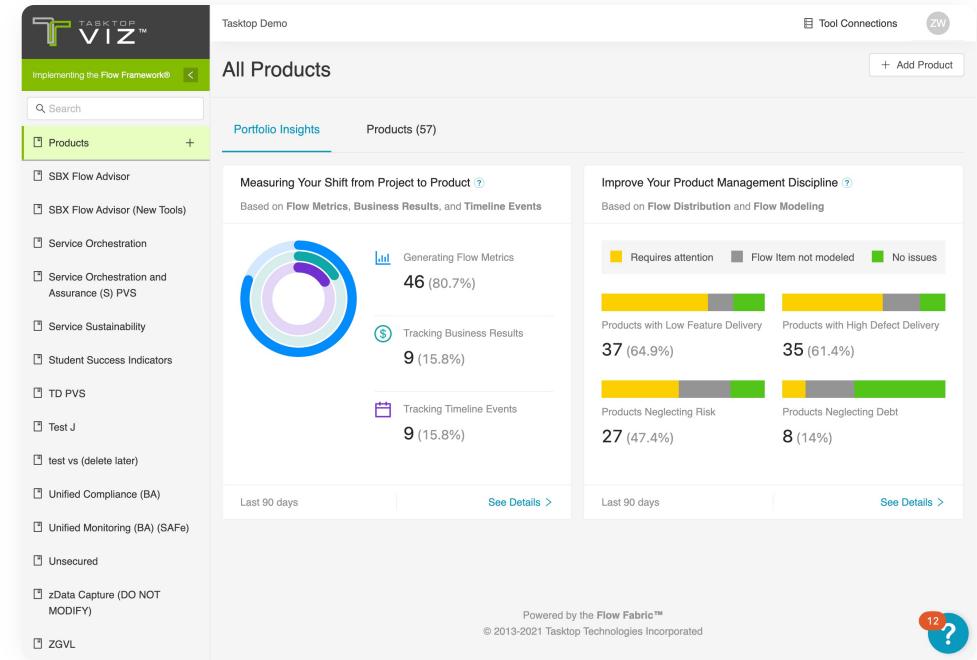


Portfolio Insights

Portfolio insights provide CIOs, IT, and Product Leaders with visibility into the performance, quality, and value of their delivery across all the products they manage, without going into the product detail.



TEAM

- 1~2 product designers
- 1 product manager
- 1 engineer



MY ROLE

- User Research
- Product Design

Introducing **Background**

Our customers, especially product leaders who manage multiple products, have been asking for some type of roll-up view to understand the status of their larger portfolio of products.

Understanding The Problem

User interview, and customer calls told us what customers are asking for is to **aggregate flow metrics across products.**

20 features (Product 1)

+ 30 features (Product 2)

= 50 features in total

Customers

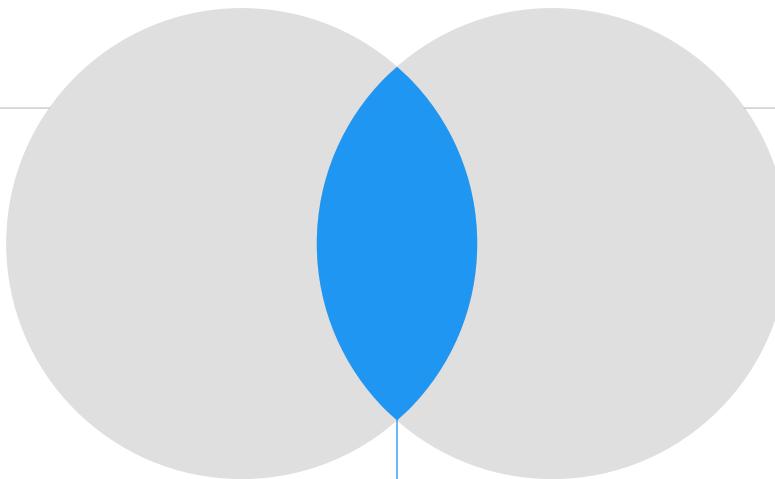
Aggregate Flow Metrics
across products in the
portfolio

Product Strategy

Flow Metrics are only
meaningful at the product
level not across products

Common Ground

Providing summary metrics
across products.



Answering Key Questions



Who are our target personas for this view?



What are the key benefits/values customers can get from it? Key areas?



From the product's perspective, what values this view could bring?



TARGET PERSONAS

CIOs, IT and Product leaders

Oversee product lines, product portfolios or entire groups/divisions/departments.

Identifying Key Objectives



Users can understand how their PVSs perform



Users know systematic issues across the PVSs and how to tackle them



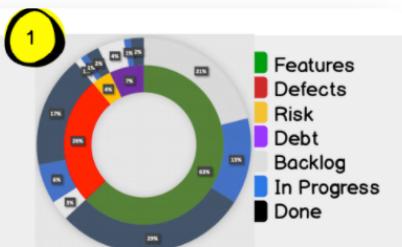
Users can figure out which product value streams require attention



Motivate users to use the product more frequently

Brainstorming Ideas

Measure	Description	Value to customer
Total Products		
Total Flow Items		
Work Load	a.k.a. Flow Load but for above.	
Completed Flow Items	a.k.a. Flow Velocity but for above.	
Average time to complete a flow item	a.k.a. Flow Time for above.	
Backlog, In Progress, Done	Ratio of total flow items that are defined in a backlog, in progress and done.	
Active vs Waiting Time	Ratio of total active time vs wait time for total flow items.	
% of value streams with increasing Flow Velocity		See which PVS's may be able to provide
% of value streams with decreasing Flow Velocity		Able to determine where problems may be
# of value streams that do not have Flow Metric targets set (granted, we don't have the ability to set targets, but why should that hold us back)		
# (or %) of PVS with Flow Efficiency > 85%		Implies poor modeling of Flow States
# (or %) of PVS with Flow Efficiency < 15%		Implies low efficiency
# (or %) of PVS with < 10% Debt in their Flow Distribution		
# new PVS added in past 90 days		
% of products that have not added headcount numbers.		
What types of things do customers want to know about a group of products?		
Which ones are performing better, which are getting worse?		
- x % of products velocity are down 5%. X% are down 10%?		
Which ones are following processes and which are not?		
Which branch of the tree to explore problems?		
How to normalize insights across products? Trends?		
How to look for similarities for products in a group, or across groups?		
- Which state has the longest duration historically of artifacts?		
Point to the Product(s) or to the branch that points them in the right direction?		
- Dimensions see below...		
- Finding the outliers		
Visualize WHERE the problem products are. Context matters.		
Dimensions		
Completed Timeline/Business events (i.e. Headcount is being filled in)		
Similarity of modeling?		
Call out efficiency < 25% or > 75%		
# (or %) of PVS with < 10% Debt in their Flow Distribution		

105Products Flow Time
trending up**89**Products with
Flow Efficiency < 15%**121**Products Flow Time
trending down**134**Products with
Flow Efficiency > 85%**102**Products with
< 10% Debt**197**Products where Flow Load is
x% > Velocity**123**Products with no Timeline
Events**45**

Products with no Headcount

+5
performing
37 +1Products performing
very well**103** +5Products not meeting
their own internal targets**65** +9Products meeting their
own internal targets

{Date From} ~ {Date To}

Products are performing poorly. Use this as diagnostics, not judgement. [Learn more...](#)

oup.

Flow Velocity

121 - Trend
ProductsFlow Velocity has been trending down for more than x
weeks. This could be the results of x, y or z.

elocity and

Flow Distribution

170 - Trend

Products with less than 10% Debt are likely not moving

Flow Metrics Filter

Reset

45 / 100 Products

Poorly Performed Products

Well Performed Products

Flow Velocity

150

Flow Distribution

Feature %

Defect %

Risk %

Debt %

Flow Load

Flow Time

Flow Efficiency

How many products flow velocity trend down ↓ ?

15

How many products flow velocity trend up ↑ ?

18

Products have > 50% features

2

Products with flow load x% > velocity

8

Products with flow time trend up ↑

6

Products with flow efficiency > 85%

7

Digital Billing

Flow Velocity

▲ 15%

Flow Distribution

Flow Load

▼ 25%

Flow Time

> Business Results

Digital Retail

Flow Velocity

▲ 15%

Flow Distribution

Flow Load

▼ 25%

Flow Time

> Business Results

Matthew Davis

Receiving Feedback

Those metrics and questions are interesting but not in a language that our target persona would be interested

1 Chief Product Officer

1 Sr Director of Product Marketing

2 Product Managers

2 Flow Advisors

1 VP Product Strategy

2 Product Designers

Consolidating Ideas via Workshop

The All / Above View

Overview Value Stream Map

(small images)

Viz could choose which one to feature randomly, or put the one of the PVS with the highest Headcount

Features - SAFe® (bottlenecks highlighted)

Features - Scrum (bottlenecks highlighted)

Defects (bottlenecks highlighted)

See more... Click to enlarge and see avg time per state and more details on bottlenecks

Time-to-Market

(All about Flow Time and Flow Velocity)

Who's improving?

- X% (number) of value streams are improving this quarter - with link to see who they are - make this visually simple 30% arrow up | Any findings about what they have in common

Who's deteriorating?

- Y% (number) of value streams are declining this quarter - with link to see who they are | Any findings on what they have in common

See more...

VSM Journey Progress

- Indexes from the Flow Framework®
- Gauge of percentage of value streams tracking flow relative to business results
- Gauge of percentage of value streams tracking headcount and other timeline events
- A metric of "active users per value stream" or something like that
- # new PVS added this week

See more...

Improve Your Time-to-Market

(All about Flow Efficiency)

- Potential to reduce Flow Time: Feature (Epic) by X% | Defect by Y%
- Potential to improve Flow Velocity: Features (Epic) by X% | Defects by Y%
- Top-ranked systemic bottlenecks afflicting flow with their trends (Larry's idea)

If possible, interpreted into human language like "The Release phase accounts for 40% of Flow Time across all products"

- Future: Go deeper and identify the issue: Resource scarcity | lack of automation (CI/CD pipelines, testing) | Process timing (funding approval schedules, end-to-end testing dates) | Dependencies

See more... (perhaps leads to a dedicated area on this with tutorials and such)

Improve Lean-Agile Practices

(All about Flow Load)

- X% (Y number) of value streams exceed the recommended Flow Load per FTE threshold
- Y% (Y number) of value streams have severely stalled WIP (e.g. above 70%) | Finding: Primarily afflicts product value streams practicing SAFe (just an example)
- X% (Y number) of streams' flow time is expected to increase by at least 1 month if all WIP were completed

See more... (perhaps leads to a dedicated area on this with tutorials and such)

Improve Product Management Discipline

(All about Flow Distribution)

- Insights related to Flow Distribution goes here:
 - % of PVSs that have less than 5% debt and risk
 - % of PVSs that have 0% debt and risk
 - % of PVSs that have less than 50% value delivered going towards Features
 - % of PVSs that had less than 15% variability in distribution over xx quarters
- Patterns we detected: E.g. X% of value streams exhibit the death spiral pattern: Y% of value streams look like greenfield products:

See more... (perhaps leads to a dedicated area on this with tutorials and such, tools like the Flow Matrix)

Executive Spotlight

Congratulations! 30% of your portfolio has improved Feature Flow time in the last 6 months

- Warning: 10% of work is being voided without value being delivered
- Alert: 15% of work is "on hold"
- Toxic value stream identified: These 3 value streams inevitably cause initiatives to slow down
- How can we improve visibility? Artifact A, B and C suffer from workflow obscurity

Other "pages" for the following (I like what Larry suggests, having these in the left nav):

- Live Value Stream Map
- Benchmarks deep dive (Future, don't show for now)
- Business Results?
- Compliance and Traceability
- Integrations

Business Outcomes - I don't know how we generalize this up to the All view.

Investment Analysis

(Headcount analysis)

- Top 10 PVSs in terms of investment (# of headcount)
- Bottom 10 PVSs in terms of investment
- Compares investment to results (using headcount number and improvement of FV/FTE)
- Lorem ipsum

Industry Benchmarks (Future)

How do we compare to the industry?

Various benchmarks including...:

- Flow Time for Features
- Flow Time for Defects
- Flow Velocity per FTE
- Flow Load per FTE
- Flow Efficiency for Features
- Flow Efficiency for Defects

ability") - visually pleasing

ame

ing and to-end flow for topics | quarterly flow velocity for topics | include trend | include comparison to historical benchmark (future)

Aug end-to-end Flow Time for Defects | Monthly Flow Velocity for Defects | include trend | include comparison to Desktop benchmark (future)

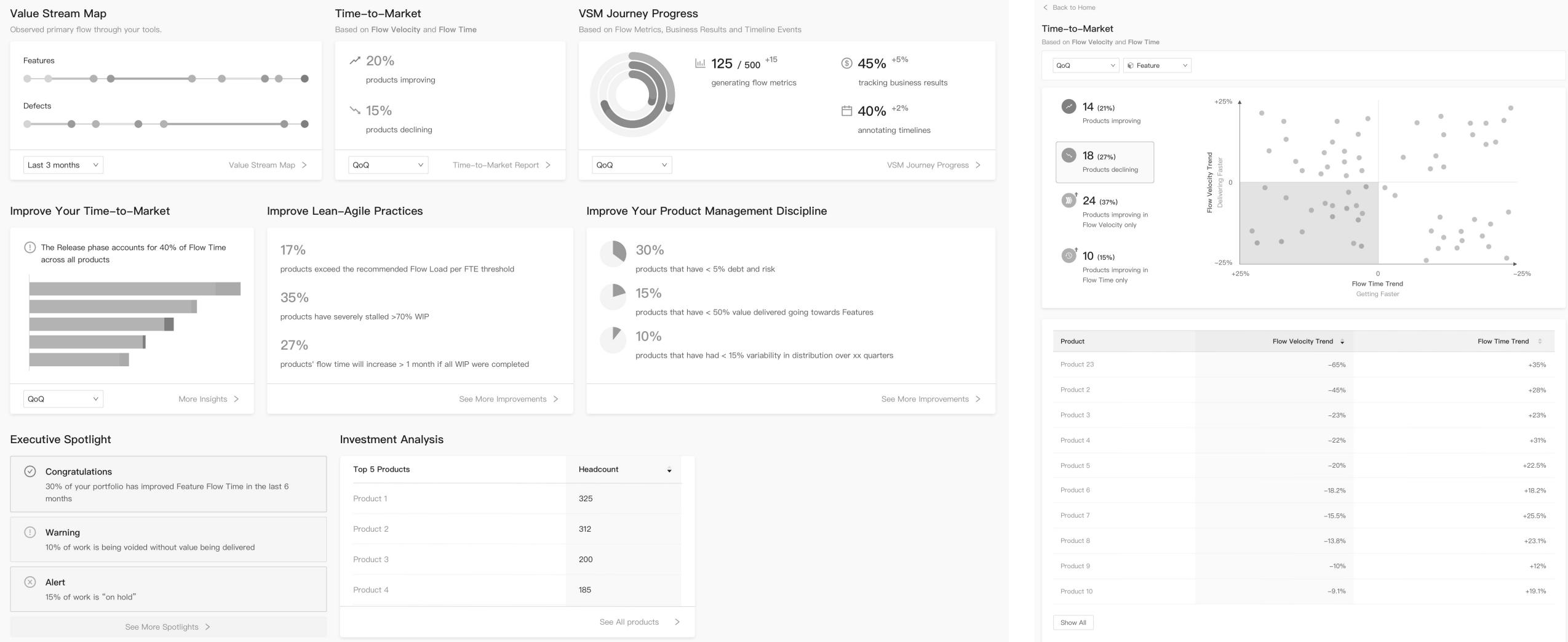
Carmen had suggested: X% of Epics closing within a time period (e.g. monthly) (see Viz Diagnostic)

Support filter and perhaps saved views by Flow Item type or other artifact meta-data based filters (now want to focus on this one team, this one squad, this one component)

Set targets for improvement

What can we do to improve flow?

- Finding: Potential to reduce Feature (Epic) Flow Time by X% | Defect Flow Time by Y% | Include trend vs previous quarter | Include progress towards target | Tie this to cost of delay
- Finding: Potential to improve Feature (Epic) Flow Velocity by Y% | Defect Flow Time by Y% | Include trend vs previous quarter | Include progress towards target
- Support filter by Flow Item type, but also based on artifact meta-data (now want to focus on this one team, this one squad, this one component)



Conducting User Interviews

Validate those metrics or insights are answering the questions they would like to know and UI patterns.

5 customers, 2 of them best met participant profile

Each session is about 45-60 mins

Learning User Feedback

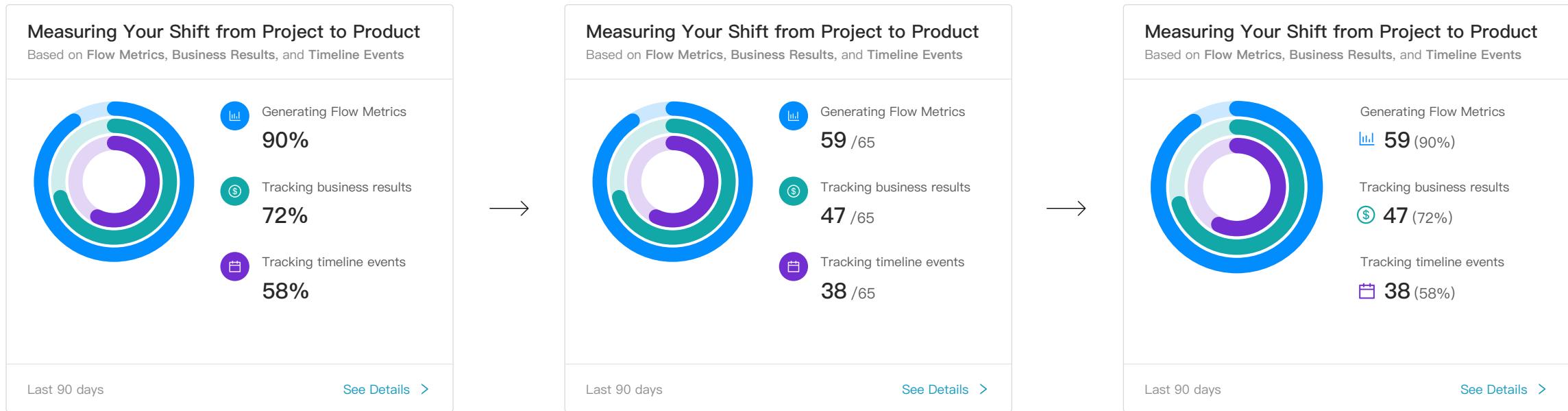
Order of interests:

1. Time-to-Market
2. Improve Lean-Agile Practice
3. Improve Your Product Management Discipline
4. VSM Journey Practice

Identifying Technical Limits

Talk and walk-through early design with engineering to identify technical limitations, scope out things are not approachable and accommodate it in design.

To validating design, I ran test with visualization library in CodeSandbox.

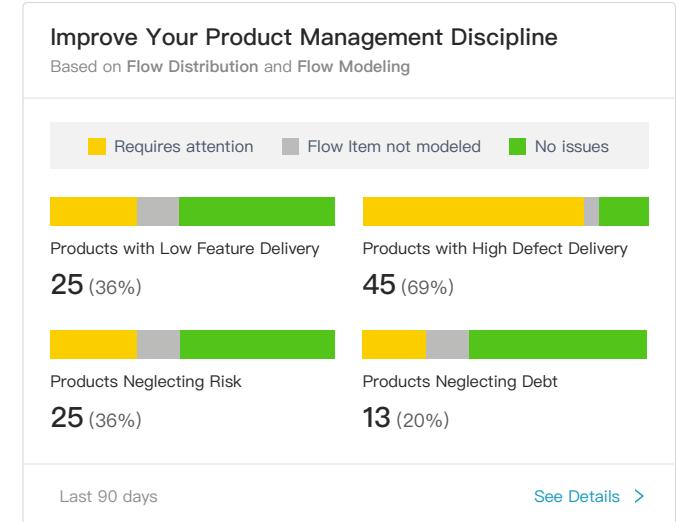
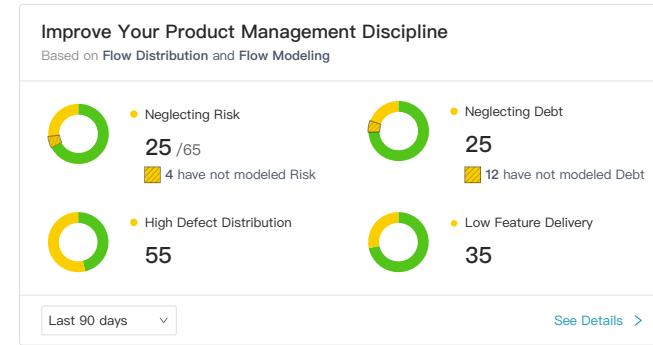
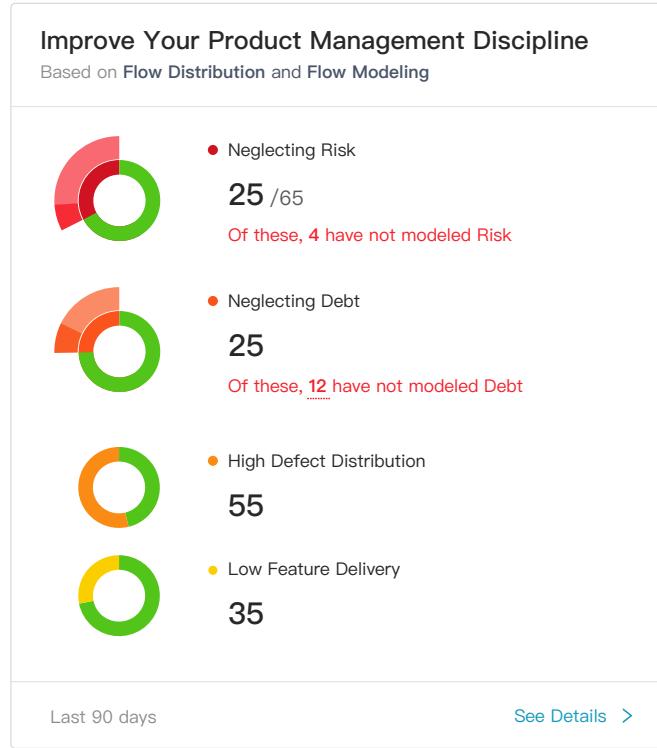


Design Iterations Number

Denominator changes, showing the percentage alone may be misleading

Solution: Provide numerator as well as percentage

** I coded this visualization for engineering.*

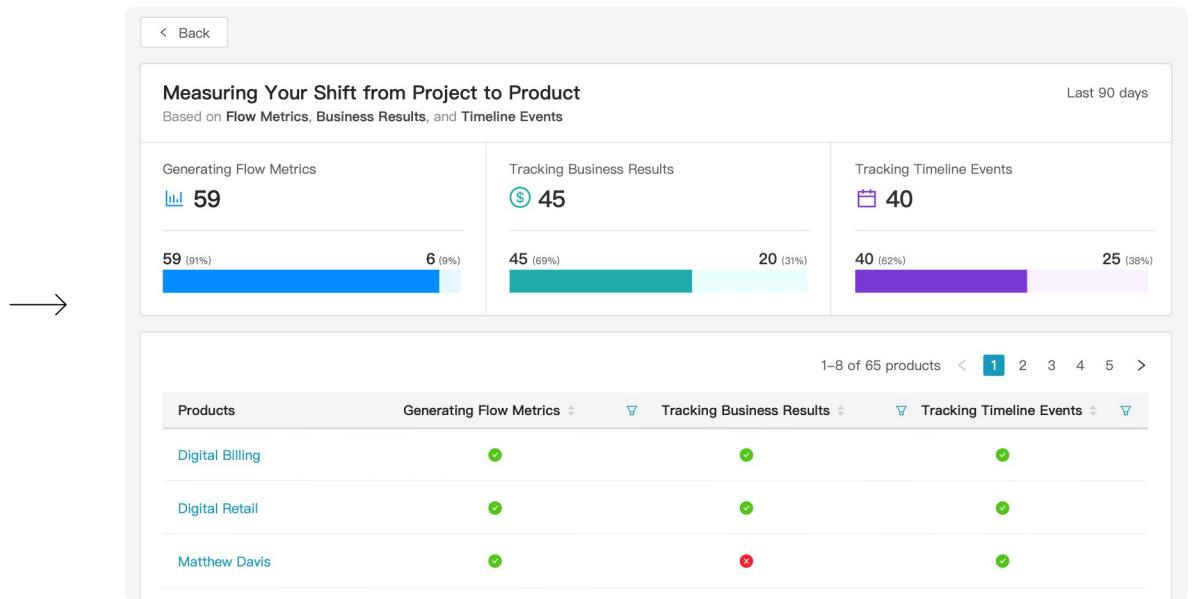
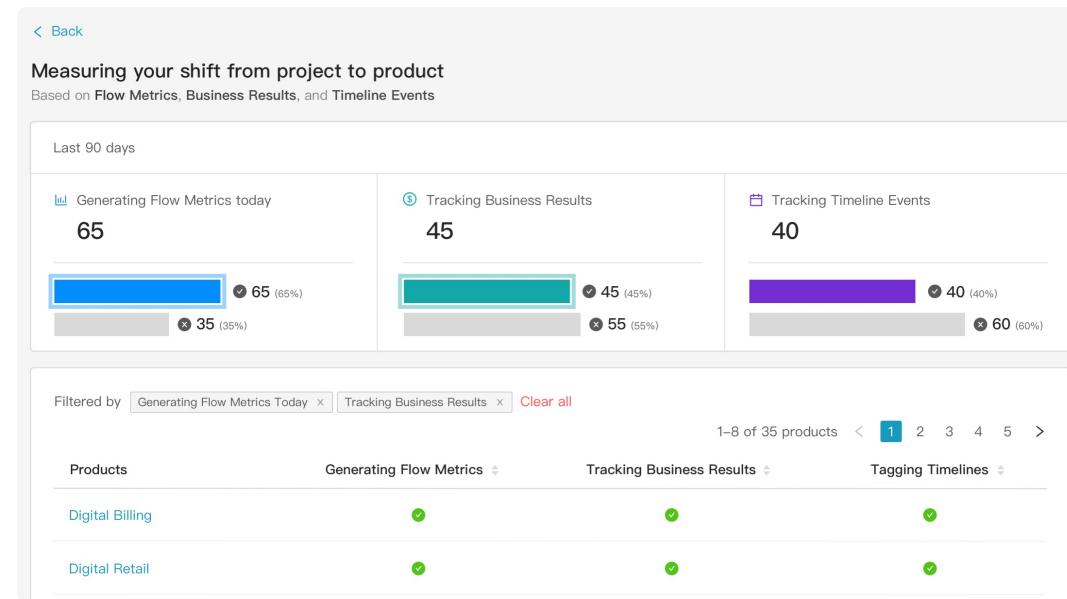


Design Iterations Visualizations

Different darkness of alert color incorrectly indicated different level of severity & repetitive information

Solution: One legend for all, and only keep the most important information

Design Iterations Interactions



It was unclear to users that they could interact with the chart to filter the table. Meanwhile, in a smaller window, users may not realize the table got filtered.

Solution: Simplify the detail screen and have the filters built in the table

Product	Neglected WIP	Time to Work off WIP (days)					
		Feature	Defect	Risk	Debt		
Product 23	90%	128	45	78	60		
Product 2	80%	95	60	75	78		
Product 3	75%	78	78	128	75		
Product 4	72%	75	128	75	45		
Product 5	70%	75	75	95	128		

Product	Severity of neglected WIP and expected Flow Time increase					
	Feature	Defect	Risk	Debt		
Product 23	●	●	●	●		
Product 2	●	●	●	●		
Product 3	●	●	●	●		
Product 4	●	●	●	●		
Product 5	●	●	●	●		
Product 6	●	●	●	●		

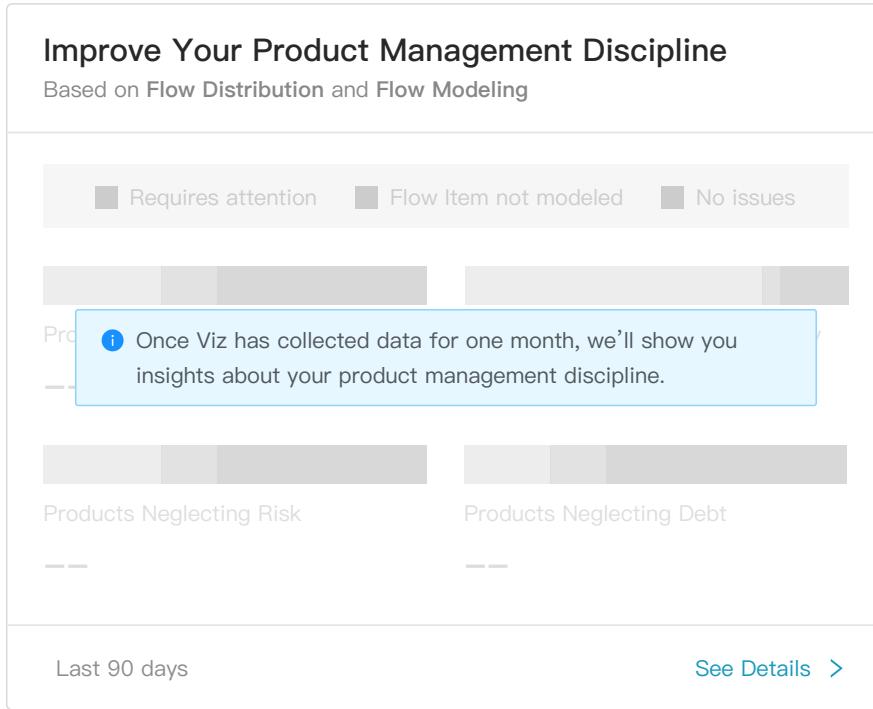


	Severity of neglected WIP and expected Flow Time increase			
	Feature	Defect	Risk	Debt
Auto Insurance	2x	3x	2x	2x
CD Fund Analysis	2x	1.8x	5x	4x
			1.7x	2x
			No data	5x
			2x	3x
			3x	2x
			Not modeled	Good
			2x	2x
			4x	No data
			Good	4x
			4x	4x
Unified Compliance (BA)	Good	Good	Good	4x
Pet Insurance	Good	Good	Good	4x
Infrastructure Services (ASG) PVS	Good	Good	Good	4x
Home Insurance	Good	Good	Good	4x
Claims Management	Good	Good	Good	4x
Service Orchestration	Good	Good	Good	4x

Design Iterations Products Table

Too many details for our target persona & accessibility issues with color blindness

Solution: use number + color



Design Iterations Edge Case

When there is no data available

Solution: Information message to let customers know when the metrics will be available & give a peak to metrics

TASKTOP VIZ™

Implementing the Flow Framework®

Search

Products +

- SBX Flow Advisor
- SBX Flow Advisor (New Tools)
- Service Orchestration
- Service Orchestration and Assurance (S) PVS
- Service Sustainability
- Student Success Indicators
- TD PVS
- Test J
- test vs (delete later)
- Unified Compliance (BA)
- Unified Monitoring (BA) (SAFe®)
- Unsecured
- zData Capture (DO NOT MODIFY)
- ZGVL

Tasktop Demo

All Products

Tool Connections ZW

+ Add Product

Portfolio Insights Products (57)

Measuring Your Shift from Project to Product ⓘ
Based on Flow Metrics, Business Results, and Timeline Events

Category	Count	Percentage
Generating Flow Metrics	46	80.7%
Tracking Business Results	9	15.8%
Tracking Timeline Events	9	15.8%

Improve Your Product Management Discipline ⓘ
Based on Flow Distribution and Flow Modeling

Category	Count	Percentage
Products with Low Feature Delivery	37	64.9%
Products with High Defect Delivery	35	61.4%
Products Neglecting Risk	27	47.4%
Products Neglecting Debt	8	14%

Last 90 days See Details > Last 90 days See Details >

Powered by the Flow Fabric™
© 2013-2021 Tasktop Technologies Incorporated

Tasktop Demo

All Products

Tool Connections ZW

+ Add Product

Portfolio Insights Products (57)

< Back

Measuring Your Shift from Project to Product
Last 90 days Based on Flow Metrics, Business Results, and Timeline Events

Category	Count	Percentage
Generating Flow Metrics	46	80.7%
Tracking Business Results	9	15.8%
Tracking Timeline Events	9	15.8%

1-25 of 57 Products 1 2 3 >

Products	Generating Flow Metrics	Tracking Business Results	Tracking Timeline Events
1 - NEW PVS	Green	Red	Red
1 - WF - OC VS	Green	Red	Red
1 - WF - SAFe Value Stream	Green	Red	Red
1 - WF SAFe Value Stream	Green	Red	Red
1 - WF Trade Group	Green	Red	Red
1 - WF VS	Green	Red	Green
1. IT Infrastructure Monitor...	Green	Green	Green
Auto Insurance	Green	Red	Green
CD Fund Analysis	Green	Red	Red
CD Home Insurance	Red	Red	Green
CG Mobile Apps	Green	Green	Red
CHAIN (BA) (SAFe)	Green	Red	Red
Claims Management	Green	Red	Red
Contact Center PVS	Green	Red	Red
Core	Green	Red	Red
Customer Facing Platform...	Green	Red	Red
DAD PVS	Green	Red	Red
DF Weather Service	Green	Red	Red
DM Example Backend Plat...	Green	Red	Red
DM IT Development Value...	Green	Red	Green
DM Systems Engineering	Green	Red	Red
Enrollment Management	Green	Green	Red
Event Lifecycle Visibility I...	Green	Red	Red
Everyday Banking	Red	Red	Red
Factory Zero HMC	Green	Green	Red

1-25 of 57 Products 1 2 3 >

Powered by the Flow Fabric™
© 2013-2021 Tasktop Technologies Incorporated

Learning Feature Adoption

Since the “Portfolio Insights” was released on March 26, 2021, I generated reports via Pendo (tool we use to learn customer behaviors):

of Customers Views: **34** / 71 (48%)

Average time spent on it: **5** / 15 mins (33.3%)

“ Overall, it looks good. It helps me quickly find out which products need attention, but I am looking forward to more insights from other perspectives.”

Summarizing Key Turning Points

- When customers' wants are different from product strategy, provide ideas and validate with customers **instead of endless interviews**
- Consult directly with the leadership team to get their take on the insights as they are our target persona
- Identify technical limitations and available data: with the knowledge of technical limitations, we scoped down the feature and prioritized the ones we can accomplish.
- Engage people not heavily involved in the feature design process: this allows fresh eyes to look at the design and point out where information is not comprehensive enough.