



PegaWorld*iN*spire

How Pega Customer Decision Hub Can Solve Day-to-day Marketing Operations

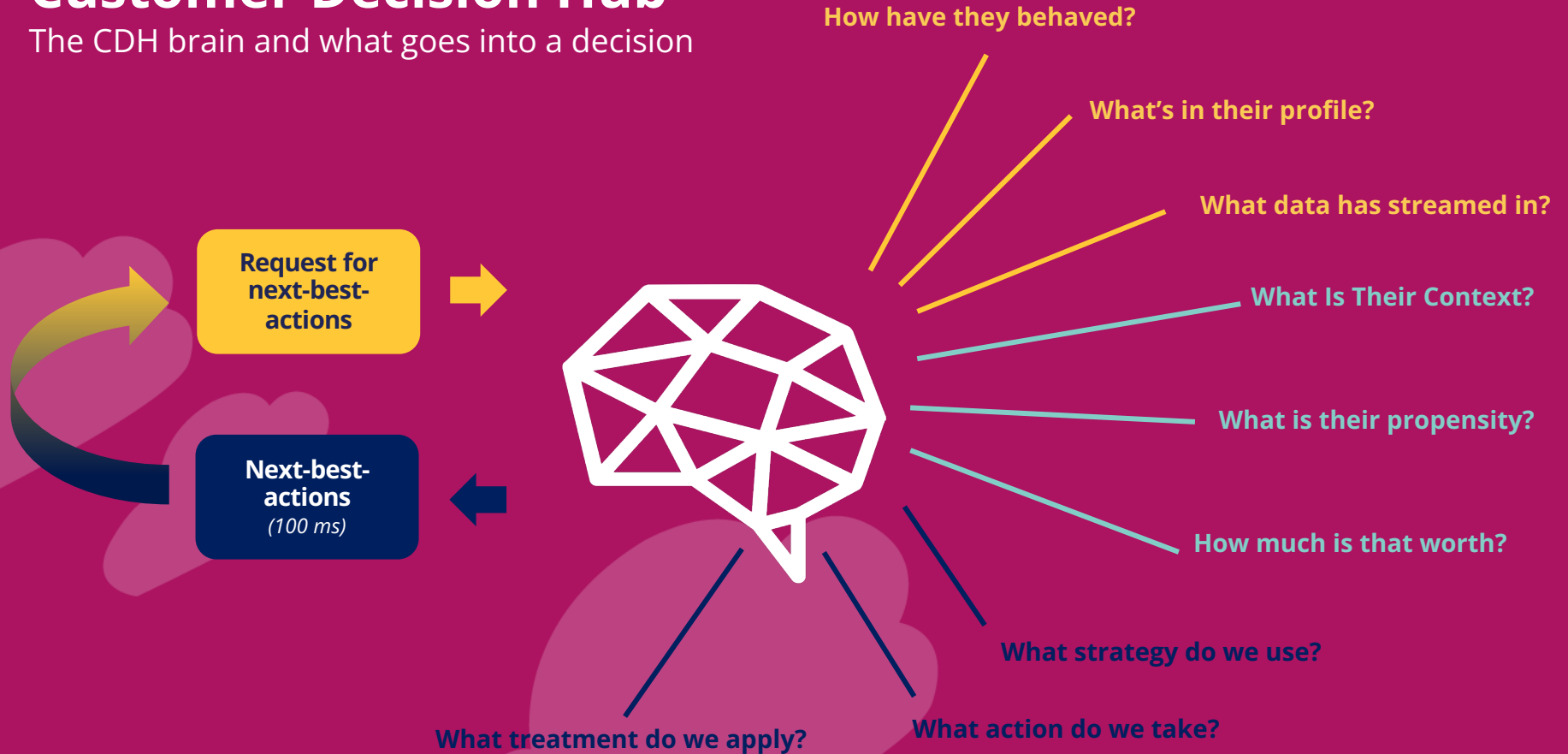
Philip Mann

Business Excellence Director, Pega



Customer Decision Hub

The CDH brain and what goes into a decision



Customer Decision Hub

The AI brain and what goes into a decision



Customer action library

Engagement policies

Constraints

Arbitration

The next best action(s)

The right message, paired with the right treatment, delivered at the best time, in the preferred channel



Web



In-person



Chat



Mobile



Email

Business operations

1:1 customer engagement



Making The Adoption Of CDH Easier

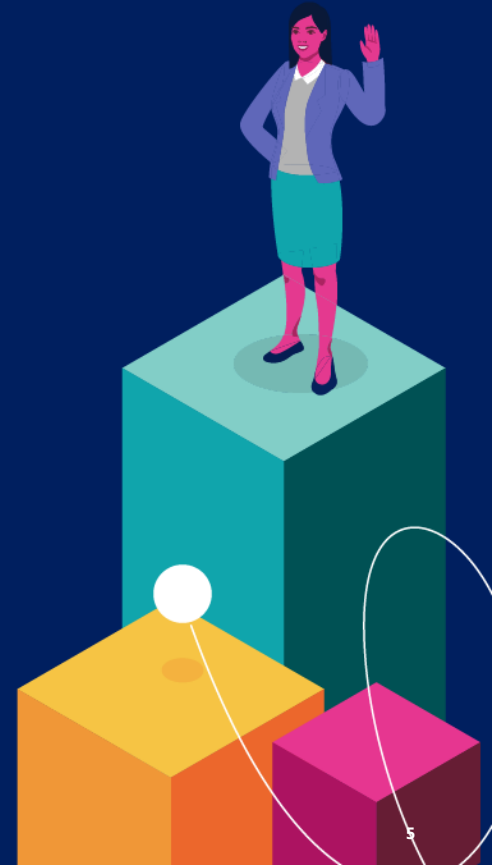
CDH best practices based on direct client engagement and collaboration

Pega



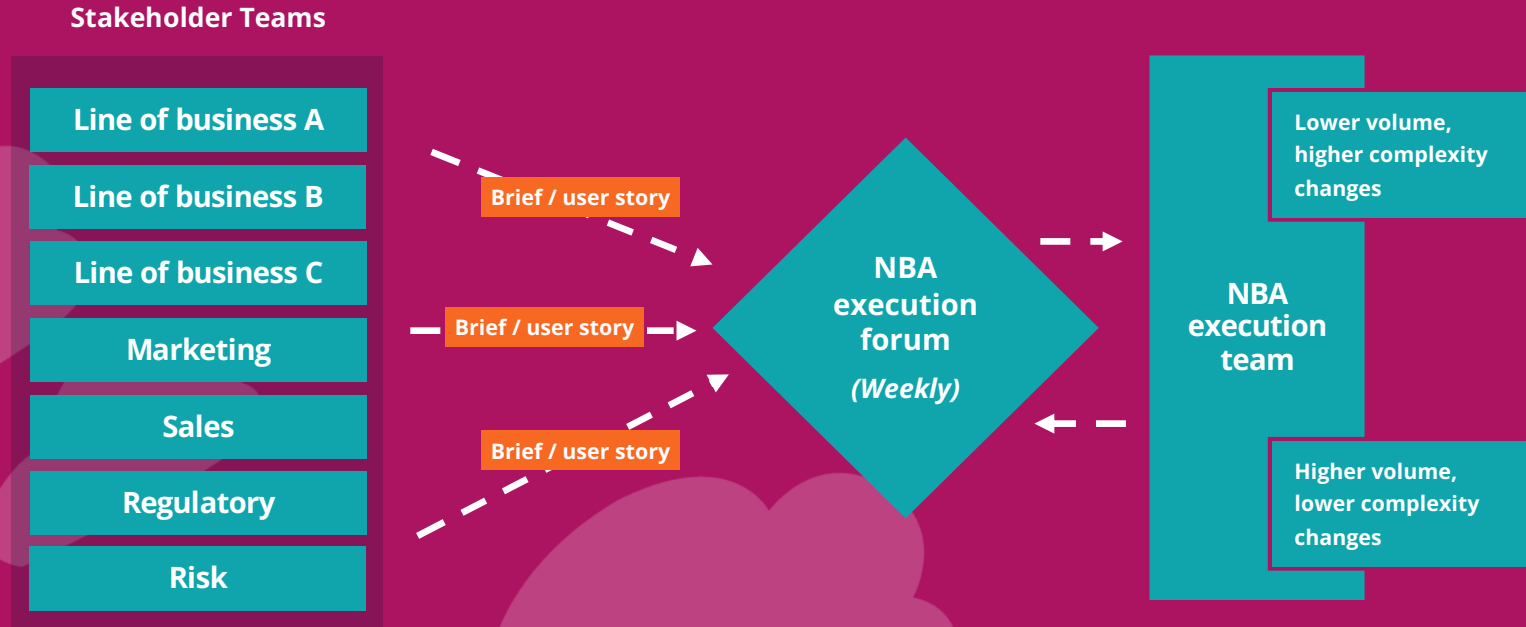
Clients

Partners



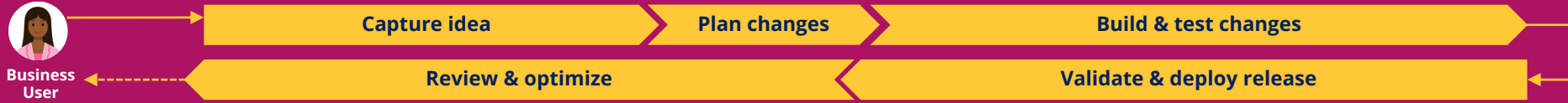
1:1 Business Operations

How business ideas are managed to production



Business Operations Process

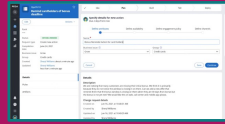
A high level view of business as usual with CDH



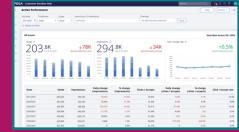
NBA designer



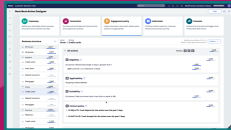
1:1 Ops manager



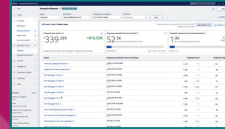
Performance tracker



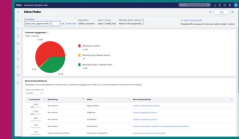
Audience simulation



Scenario planner



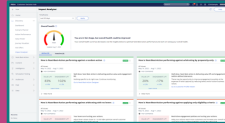
Value finder



Prediction studio



Impact analyzer

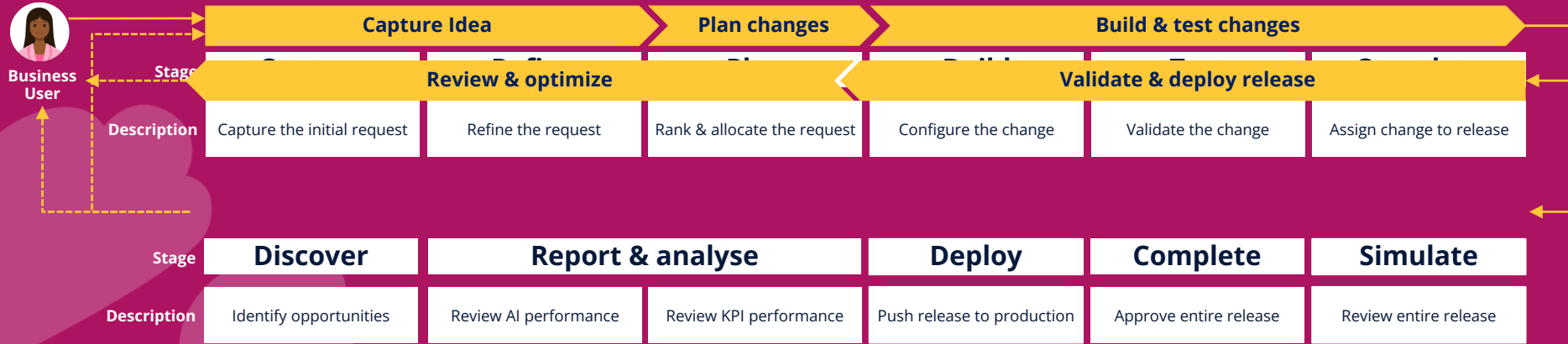


Customer profile viewer



Business Operations Process

A medium level view of business as usual with CDH



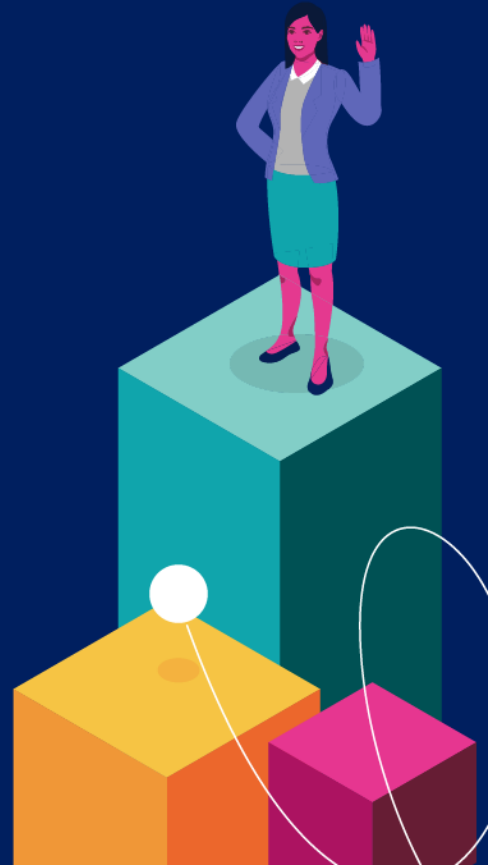
The scenario

A real-world use case to be explored



Introducing The Scenario

- This is a retail bank already live with Customer Decision Hub
- We have 2 product owners with requests this week:
 - Jack owns the credit card business
 - Diane owns mortgages and home loan products
- Jack has a new service offering and needs to launch various new comms in multiple channels
- Diane has a new mortgage calculator she wants to promote. She also is going to have an emergency request for a one-off outbound message



Business Operations Process

Capturing the idea



Business user

Capture idea

Capture

Capture the initial request

Acquisition – credit cards

1

Learn about world traveler visa card

2

Balance transfer for world traveler visa card

3

30 days 5% cashback

4

2x points using apple pay for 30 days

5

Welcome to your new world traveler visa card

6

FX savings with your world traveler visa card

Grow – credit cards

Nurture – credit cards

The screenshot shows a PEGA interface for 'BestPractice standard release'. A modal window titled 'New operations change request' is open over a 'Pulse' chat interface. The form fields are as follows:

- Name: Learn about World Traveller Visa Card
- Select type: Create new action, Update existing action, Other
- Completion date: 17/05/2023
- Are you making this change to fix a production defect?: Yes, No
- Business issue: Acquire
- Group: Credit cards
- Description: This is the main acquisition message for the new card
- Remaining: 346 characters
- Attach files: Filename [] Attach
- Buttons: Cancel, Create

Business Operations Process

Refining the idea



Business user

Capture idea

Refine

Refine the request

Grow –
credit cards

4

2x points using apple pay for 30 days

Engagement policy

- Standard card eligibility rules
- Has world traveler visa card
- Has not accepted offer before
- Does not have low credit score

Channel treatments

- Web
- Email

Business value: \$500

The screenshot displays the PEGA interface for a business operation request. The top navigation bar includes 'Idea', 'Plan', 'Build', 'Test', and 'Deploy'. The main content area is titled 'Define action details' and shows a progress bar with four stages: 'Define attributes', 'Define availability', 'Define engagement policy', and 'Define channels'. The 'Define engagement policy' stage is currently active. Below the progress bar, there are several sections for defining the action level, eligibility, applicability, suitability, and contact policy. The 'Intended action level' is set to 'Customer'. The 'Eligibility' section includes rules like 'Standard CC Rules', 'Has World Traveler CC', and 'Has Not Accepted Before'. The 'Applicability', 'Suitability', and 'Contact policy' sections each have an input field for text and a dropdown menu for value selection. At the bottom, there is a 'Details' section with a 'Description' field and 'Change request details' including 'Created on' (May 15, 2023 at 02:55:31 PM) and 'Created by' (BusinessUser). Navigation buttons for 'Back', 'Save', and 'Continue' are visible at the bottom of the main content area.

Business Operations Process

Planning the changes



Business user

Capture idea

Plan changes

Plan

Rank & allocate the request

1

2

3

4

5

6

7

8



1

2

5

6

3

4

7

8

PEGA Change requests

Showing 9 of 9

Change requests	Idea	Plan	Build	Test	Deploy
9	0	0	9	0	0

Rank #	ID	Change request	Release type	Stage	Type	Created by	Completion date	Status
1	OpsCR12	Mortgage alert for 30 days	BestPractice standard rel...	Build	Other	BusinessUser	17/05/2023	IN QUEUE
2	OpsCR11	Try updated mortgage calculator for refinancing	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
3	OpsCR5	Balance transfer for World Traveller Visa Card	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
4	OpsCR10	Try updated mortgage calculator for new mortgage	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
5	OpsCR14	2x points using Apple Pay for 30 days	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
6	OpsCR8	Welcome to your new World Traveller Visa Card	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
7	OpsCR6	30 days 5pc cashback	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
8	OpsCR9	FX savings with your World Traveller Visa Card	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE
9	OpsCR4	Learn about World Traveller Visa Card	BestPractice standard rel...	Build	Create new action	BusinessUser	17/05/2023	IN QUEUE

Business Operations Process

Building the changes



Business user

Capture idea

Plan changes

Build & test changes

Build

Configure the change

The screenshot shows the PEGA configuration interface for an engagement policy. The main area is titled "Configure engagement policy" and includes sections for "Action context", "Eligibility", "Applicability", and "Suitability". The "Eligibility" section shows "Inherited from Mortgages" and "Group eligibility has not been defined." The "Applicability" section shows "Inherited from Mortgages" and "Group applicability has not been defined." The "Suitability" section shows "Set conditions" with a rule: "Account type is equal to Mortgage". The left sidebar shows a "Create action" for "Try updated mortgage calculator for refinancing" with details like Rank 2, Status NEW, and various dates and group information.

The screenshot shows the PEGA Next-Best-Action Designer interface. It features a visual equation: Customer relevance (Propensity x Context weighting) x Business priority (Business value x Business levers) = Final priority. Below this, there are several configuration sections: "Propensity" (0 thresholds defined), "Context weighting" (10 contexts defined), "Business value" (1 threshold defined), "Business levers" (2 levers defined), and "Business structure weighting" (2 issues and 1 group have weighting). The "Business structure weighting" section shows a table with columns for "Issue / Group" and "Weighting".

Issue / Group	Weighting
Acquire / Mortgages	10
Grow / Mortgages	10

Business Operations Process

Testing the changes



Business user

Capture idea

Plan changes

Build & test changes

Test

Validate the change

The screenshot shows the PEGA Build console for a process named "Learn about World Traveller Visa Card". The "Run validation" step is active, showing a progress bar that is 2 of 2 processed. A table below lists the validation results:

Persona name	Persona context	Attributes	Desired outcome	Actual outcome	Result	Detail
CC Inbound Customer Persona	CC Inbound Customer Persona_Customer1		Not receive	Not received	PASS	Details
Inbound Prospect Persona	Inbound Prospect Persona_Customer1		Receive	Received	PASS	Details

Buttons for "Back", "Save", and "Finish" are visible at the bottom.

The screenshot shows the PEGA Customer Decision Hub interface for a customer named Sunny Gleason (CUST1004). It displays various customer attributes and a table of recommended actions.

Customer Profile Viewer

Context: Customer Type: Customer ID: CUST1004

Customer: Sunny Gleason (CUST1004)

Email address: Sunny.Gleason@example.com

Lifetime value: 900

Churn risk: Medium

Credit risk: High

Overview | Next best actions | Behavioral data | Decision history | Interaction history

Make Next Best Action decisions for the customer in the specified channel. The results are determined by engagement policies, constraints and propensity.

Direction: Inbound Channel: Web Real-time container: NextBestAction Page placements (in priority order): Context (optional):

Show all decision results Show only decision results that will be delivered

All results Top treatments

Capture response

Issue	Group	Name	Treatment	Channel	Priority	Density	Results
Nurture	Creditcards	Earn2RewardsPoints	Tryupdatemortgagecalculatorfor...	Web	0.67	1	PASSSED
Nurture	Creditcards	LearnaboutWorldTravellerVisaCard	WelcometoyournewWorldTraveller...	Web	0.60	2	PASSSED
Acquire	Creditcards	BalanceTransferforWorldTraveller...	BalanceTransferforWorldTraveller...	Web	0.55	3	PASSSED
Nurture	Creditcards	Earn2RewardsPoints	Tryupdatemortgagecalculatorfor...	Web	0.54	4	PASSSED
Acquire	Mortgages	Tryupdatemortgagecalculatorfor...	Tryupdatemortgagecalculatorfor...	Web	0.53	5	PASSSED
Acquire	Auto loans	AutoNew6Months	AutoNew6Months_Web_1	Web	0.34	6	PASSSED
Acquire	Creditcards	LearnaboutWorldTravellerVisaCard	LearnaboutWorldTravellerVisaCar...	Web	0.34	7	PASSSED
Acquire	Mortgages	TakeOutAdvisor	TakeOutAdvisor_Web_1	Web	0.33	8	PASSSED
Acquire	Mortgages	FirstMortgagePHH	FirstMortgagePHH_Web_1	Web	0.32	9	PASSSED
Acquire	Mortgages	FirstMortgage	FirstMortgage_Web_1	Web	0.32	10	PASSSED
Acquire	Creditcards	NewBasicCreditCardVisa	NewBasicCreditCardVisaWeb	Web	0.31	11	PASSSED
Acquire	Auto loans	AutoNew8Months	AutoNew8Months_Web_1	Web	0.31	12	PASSSED

Business Operations Process

Completing the changes



Business user

Capture idea

Plan changes

Build & test changes

Complete

Assign change to release

OpicR-11
Try updated mortgage calculator for refinancing

Rank 2
Status: PENDING-TESTING

Validate artifacts
Due 3 days from now
Review the artifacts generated for this change request.
Click on submit to move this change request to the next stage. Return to build will route this work back to the Build stage.

Artifact	Artifact type	Status	Build subcase
Things to consider when refinancing your mortgage Web 1	Treatment	Created successfully	OpicA.2
WebTreatmentEligibility	Proposition filter	Updated successfully	OpicA.2
Things to consider when refinancing your mortgage	Action	Created successfully	OpicA.2
NBA_Nurture_Mortgages_A_Customer	Proposition filter	Updated successfully	OpicA.2
Accounts option	When rule	Created successfully	OpicA.2
At least 1 mortgage account	When rule	Created successfully	OpicA.2

Buttons: Cancel, Return to build, Submit

Details
Description
Change request details
Created on: May 15, 2023 at 02:46:00 PM
Created by: BusinessUser
Updated on: May 16, 2023 at 09:31:37 AM
Updated by: System

Action to create
Things to consider when refinancing your mortgage

Availability
Status: Inactive
Start date: May 17, 2023 at 12:00 AM
End date: ---
Priority

OpicR-17
Update lever for mortgages

Rank 1
Status: DEPLOYMENT READY

Complete this change request
Due 5 days from now
Review the list of created or updated artifacts. If correct, click approve to complete this change request. You may also reject this change request if necessary.

Artifact	Artifact type	Status	Completed by	Build subcase
nba	Business Arbitration	Updated successfully	NBA Designer	OpicMT.3

Buttons: Cancel, Approve, Return to build, Reject and discard changes

Details
Description
Add 10% lever to acquire and grow mortgages for next two weeks.
Change request details
Created on: May 17, 2023 at 06:45:31 AM
Created by: TeamLead
Updated on: May 17, 2023 at 06:50:35 AM

Business Operations Process

One time communications



Business user

Capture idea

Plan changes

Build & test changes

Emergency request to send an email out today to all customers with a particular mortgage product!

+ Create custom Action

Compliance Mandatory Send a required or compliance message related to a product, service, or recent action a customer may have taken. Examples are notices about privacy or changes to terms and conditions. OUTBOUND	Lifecycle event Transactional Engage with customers around lifecycle events to build trust and brand loyalty. Examples are happy birthday or a product anniversary. OUTBOUND	Limited-time offer Promotional Promote an offer for a brief period of time. Examples are seasonal or end-of-quarter promotions. OUTBOUND INBOUND
Re-engagement Promotional Re-engage customers who have expressed interest. Examples are a shopping cart abandonment or an indication of interest. OUTBOUND INBOUND	Retention Promotional Engage with customers to ensure they remain loyal, to prevent them from leaving, or win them back. Examples are a one-time credit of \$50 or a discount on your existing services. OUTBOUND INBOUND	Sales Promotional Promote a new or upgraded product or service. Examples are marketing or promotional offers for a new credit card or phone upgrade. OUTBOUND INBOUND
Announcement One-time Send a message to a specific group of customers on an alternate schedule. Examples are the closing of a retail location or message from the CEO. OUTBOUND	Emergency One-time Send a message to a specific group of customers on an alternate schedule. Examples are a service outage or other disruption of service. OUTBOUND	

UN Define audience
Due in 2 days • Urgency 45

Attributes Target audience Treatments Delivery

Who would you like to communicate to?
 Select an existing audience Build a new audience Request an audience to be built

Audience *
WT Card Customers

Criteria
Customer Email contains "@uplusbank.com"
and Customer Accounts type in "WTCC"

Audience count: 250 of 10,000,000 [Preview audience list](#)

Get current audience count
 Refresh audience when the action is sent

Cancel Save for later Submit

Business Operations Process

Simulating the release



Business user



Simulate

Review entire release

Next-Best-Action Designer

Business structure

Product	Value
All issues	6,517
All groups	6,517
Acquire	3,287
Credit cards	2,830
Auto loans	3,287
Deposit accounts	---
Mortgages	3,287
Grow	3,215
Credit cards	3,215
Deposit accounts	---
Mortgages	---
Nurture	6,517
Webinars	---
Credit cards	5,133
Mortgages	6,517

All actions

Action	Value
Eligibility	3,215
Applicability	3,215
Suitability	3,215
Contact policy	3,215

Scenario Planner

Projected value capture: £74.65K

Responses (available from last 30 days): 2.5K

Projected responses (next run/representation): 896

Issue	Responses (available from last 30 days)	Projected reach	Projected responses
Acquire	1,030 (27% of 3,754)	2,437	1,483
Grow	556 (12% of 1,735)	2,013	1,410
Nurture	939 (29% of 3,241)	2,067	1,893

Business Operations Process

Completing the release



Business user

Capture idea

Plan changes

Build & test changes

Review & optimize

Validate & deploy release

Complete

Approve entire release

Ethical Bias Policy

Bias fields **Bias threshold**

Bias threshold

Define the bias thresholds for each business issue.

When an ethical bias check is done in Simulation Testing, a full report with all statistics will be provided for all actions. You will receive a warning for all actions that exceed the threshold the distribution is measured by comparing the people receiving an action relative to the people not receiving an action.

Cross Sell

Gender

0.8 - 1.25 Rate ratio

Gender

Show a warning if the detected shift exceeds the following threshold:

- 1 Rate ratio (No shift)
- 0.9 - 1.11 Rate ratio
- 0.8 - 1.25 Rate ratio
- 0.66 - 1.5 Rate ratio
- 0.5 - 2 Rate ratio
- No detection

Change requests

Search...

Change requests by anyone All stages

Showing 8 of 8

Rank	ID	Change request	Release type	Stage	Type	Created by	Completion date	Status
1	OpqCR-17	Update loan for mortgages	BestPractice standard rel...	Deploy	Other	TeamLead	17/05/2023	DEPLOYMENT READY
2	OpqCR-11	Try updated mortgage calculator for refinancing	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY
3	OpqCR-5	Balance transfer for World Traveller Visa Card	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY
4	OpqCR-10	Try updated mortgage calculator for new mortgage	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY
5	OpqCR-14	2x points using Apple Pay for 30 days	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY
6	OpqCR-8	Welcome to your new World Traveller Visa Card	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY
7	OpqCR-6	30 days Sp1 cashback	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY
9	OpqCR-4	Learn about World Traveller Visa Card	BestPractice standard rel...	Deploy	Create new action	BusinessUser	17/05/2023	DEPLOYMENT READY

Business Operations Process

Deploying the release



Business user

Capture idea

Plan changes

Build & test changes

Review & optimize

Validate & deploy release

Deploy

Push release to production

PEGA Customer Decision Hub

Revision: Update business rule changes (R-3)

Overview Audit

Change requests within this revision

Name	ID	Objective	Updated	Due	Status	Assigned to
Learn about World Traveller Visa Card	OpiCR-4	New Action	3 hours ago		Resolved-Completed	
30 days 5pct cashback	OpiCR-6	New Action	3 hours ago		Resolved-Completed	
Welcome to your new World Traveller Visa Card	OpiCR-8	New Action	3 hours ago		Resolved-Completed	
2x points using Apple Pay for 30 days	OpiCR-14	New Action	3 hours ago		Resolved-Completed	
try updated mortgage calculator for new mortgage	OpiCR-10	New Action	3 hours ago		Resolved-Completed	
balance transfer for World Traveller Visa Card	OpiCR-5	New Action	3 hours ago		Resolved-Completed	
try updated mortgage calculator for refinancing	OpiCR-11	New Action	3 hours ago		Resolved-Completed	
Update lever for mortgages	OpiCR-17	Default Objective	3 hours ago		Resolved-Completed	
Update NBA test	OpiCR-16	Default Objective	4 hours ago		Resolved-Withdrawn	
FX savings with your World Traveller Visa Card	OpiCR-9	New Action	1 day ago		Resolved-Completed	

Segmentation rules

Name	Type	Updated	Updated by	Status
No rules included in this revision				

Actions menu: Simulate revision, Update, Deploy revision, Create change request, Withdraw

DEPLOYMENT MANAGER Account: PEGA Project: DM CDH

Business change pipeline: Standard Business Pipeline

Development	Staging	Business Operations	Production
#15 21 Feb 2023 08:53:19	#15 21 Feb 2023 08:53:19	#15 21 Feb 2023 08:53:19	#15 21 Feb 2023 08:53:19

Deployment history (4)

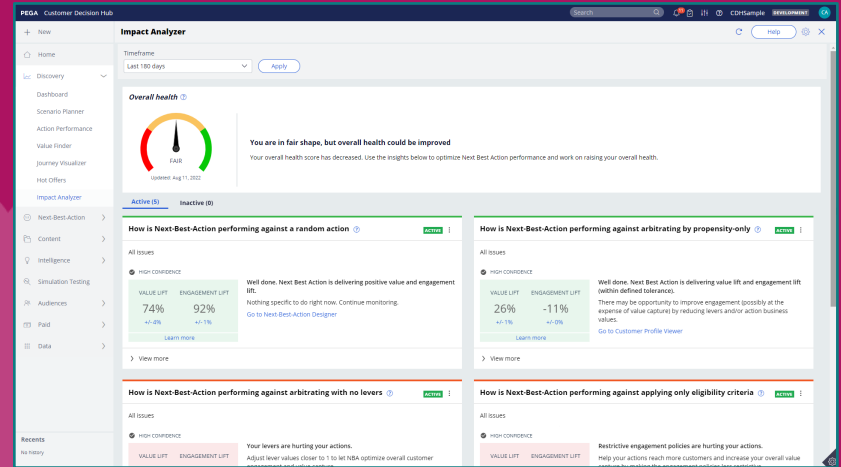
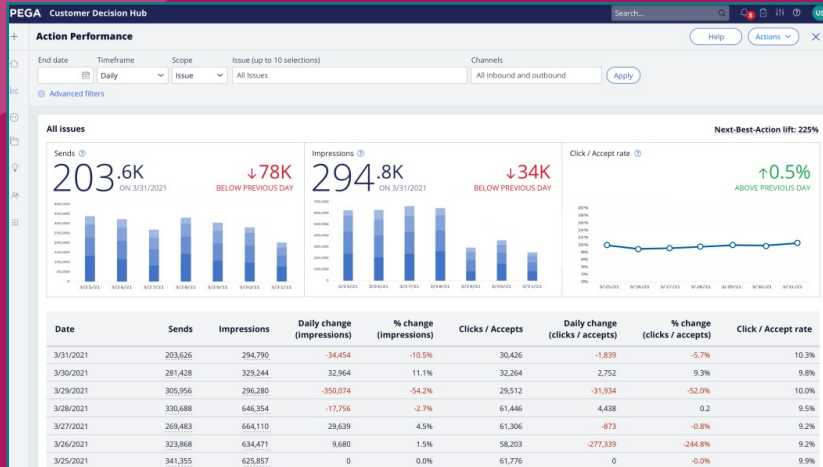
- Completed #15 RevisionManager 21 February, 2023 08:53:19 AM Production View Report
- Completed #14 RevisionManager 15 February, 2023 04:44:25 AM Production View Report
- Completed #13 RevisionManager 15 February, 2023 04:20:05 AM Production View Report
- Completed #12 RevisionManager 10 February, 2023 07:49:38 AM Production View Report

Business Operations Process

Reviewing the KPIs



Business user



Business Operations Process

Reviewing the AI



Business user

Capture idea

Plan changes

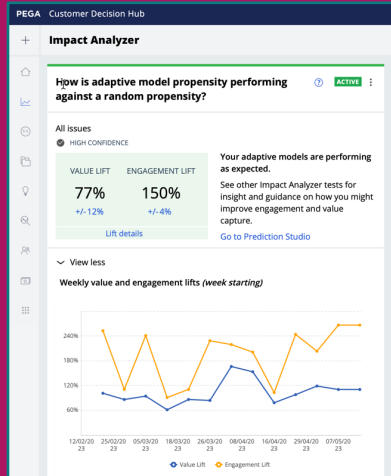
Build & test changes

Review & optimize

Validate & deploy release

Report & analyse

Review AI performance



Business Operations Process

Identifying opportunities



Business user

Capture idea

Plan changes

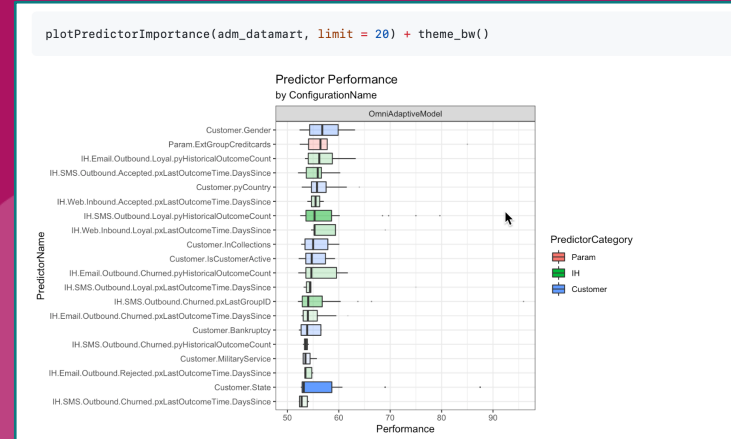
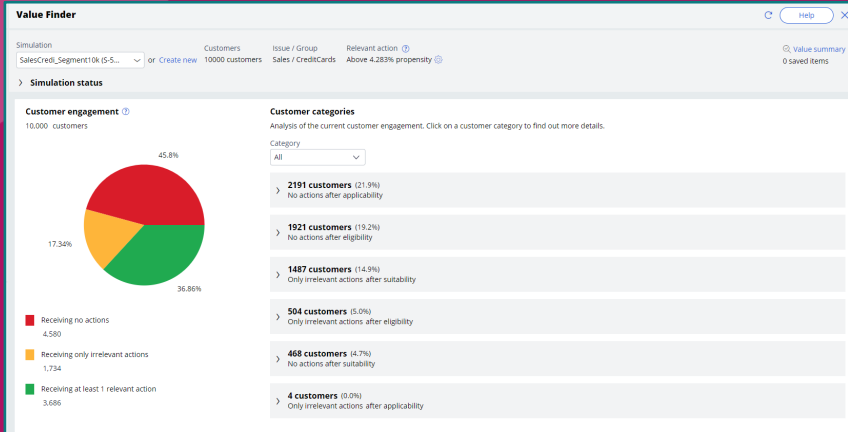
Build & test changes

Review & optimize

Validate & deploy release

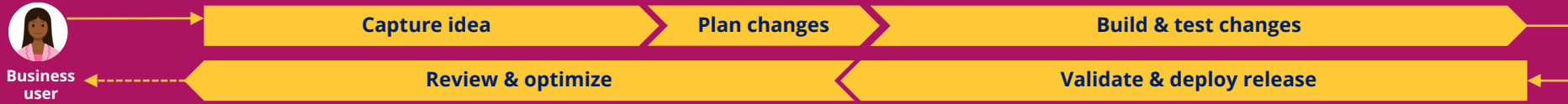
Discover

Identify opportunities



Business Operations Process

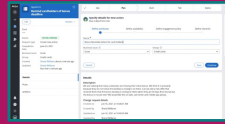
A high level view of Business As Usual with CDH



NBA designer



1:1 Ops manager



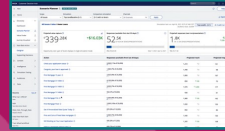
Performance tracker



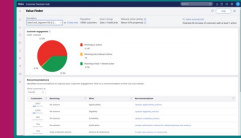
Audience simulation



Scenario planner



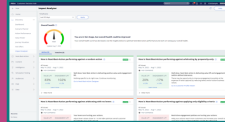
Value finder



Prediction studio



Impact analyzer



Customer profile viewer





+300%

Offer conversion rate



50B

Decisions per year

**WELLS
FARGO**

+10X

Customer engagement



NatWest

+600%

Response rate



HSBC

+265%

Revenue per contact



35-1

Return on investment



Rabobank

400%

Web click-through

TÜRKİYE \$ BANKASI

960K

Monthly offer accepts

CIBC

+300%

Sales opportunities



46M

Decisions per month



#1

Customer experience



98%

Faster time-to-market

Swedbank

+200%

Positive CX per year



8 week

First deployment



+20%

Market share

Questions?





PegaWorldiNspire

