

Academic Training



Process Mining KICKSTARTER

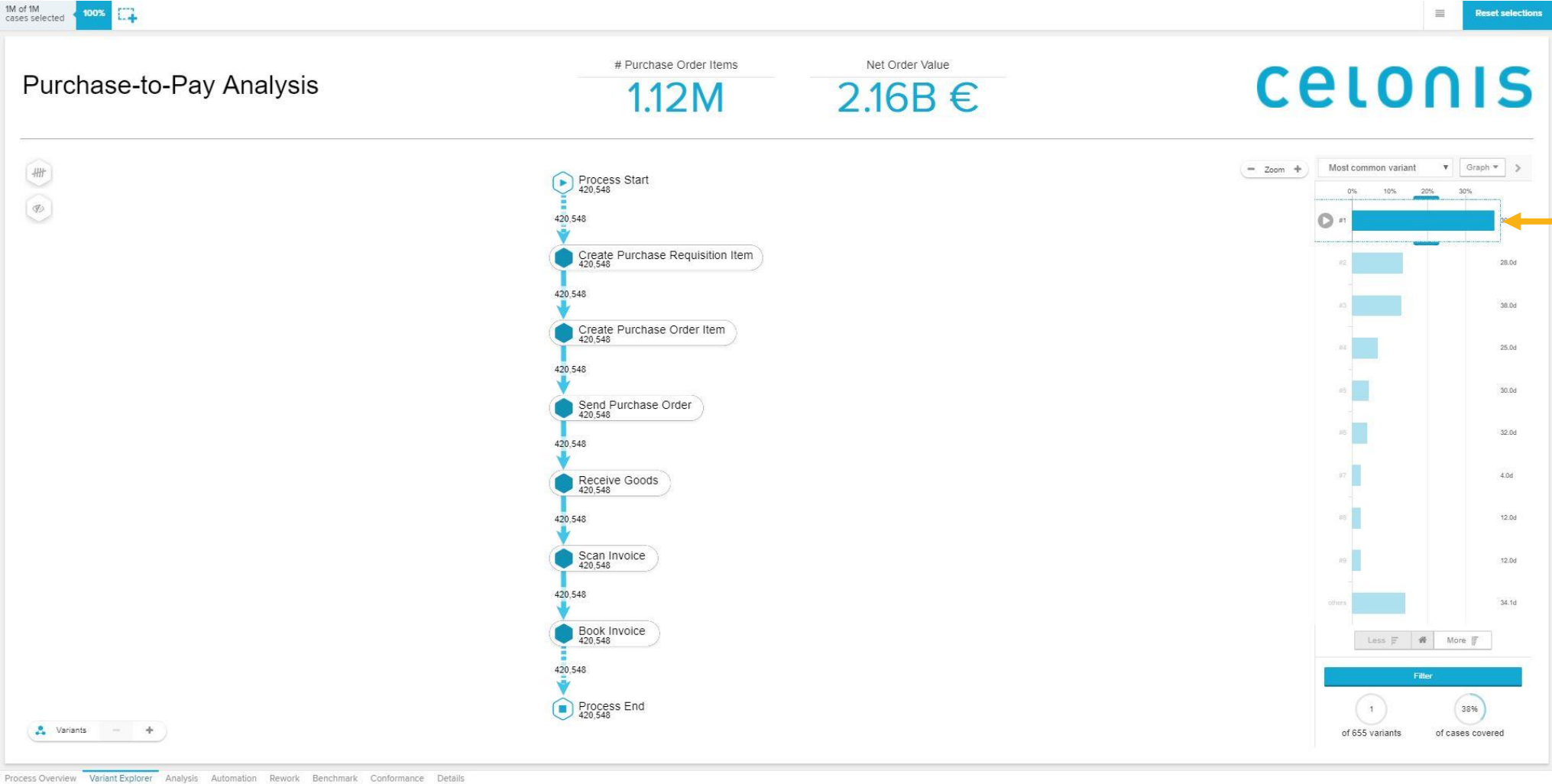
Solution Manual

Please open the P2P process and navigate to the “**Variant Explorer**” sheet. In this step, you will learn how to interpret the process graph and how to identify inefficiencies and bottlenecks. Please note that one or multiple answers might be correct.

YOUR TASKS

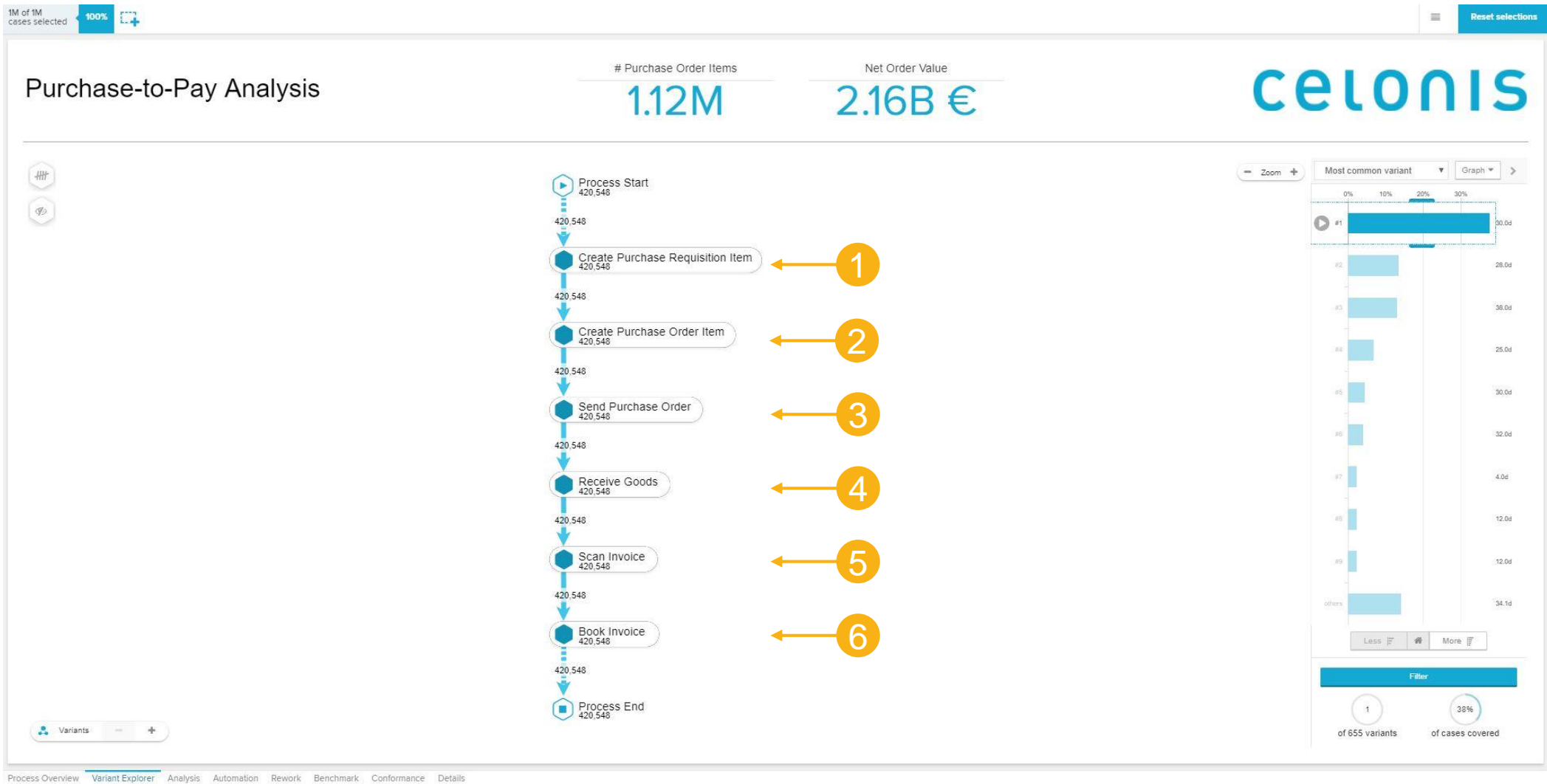
Please answer the following questions using the functionality of the variant explorer.

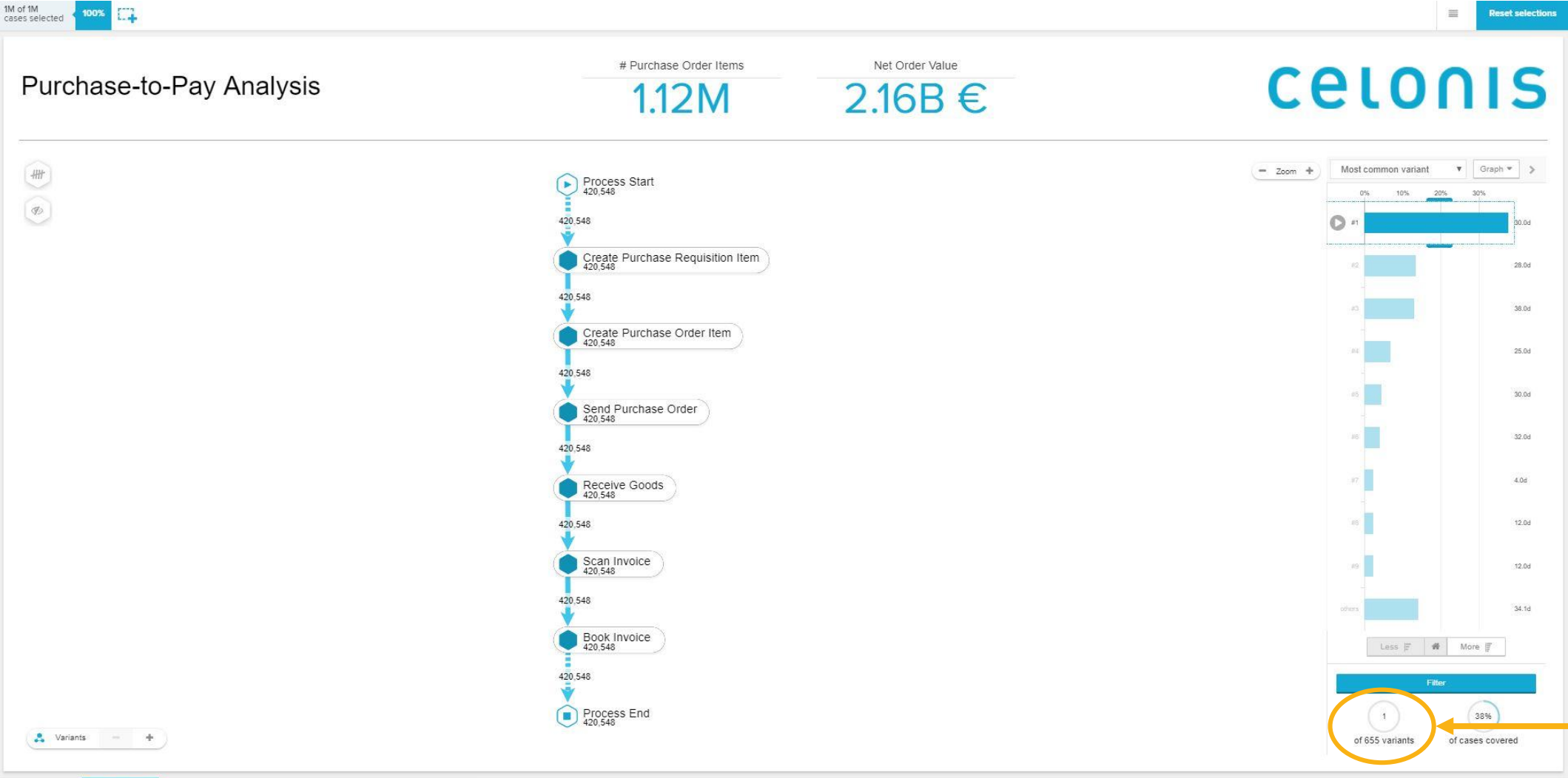
1. What does the initial path (first variant) display?
 - a. The initial path shows the complete ‘as is’ process
 - b. The initial path shows the target (‘to be’) process
 - c. The initial path shows the most frequent ‘as is’ process flow across all process patterns
2. How many activities does the happy path (most common variant) consist of?
 - a. 6
 - b. 7
 - c. 8
 - d. 9
3. How many different process variants exist?
 - a. 1
 - b. 38
 - c. 655



Variants

A variant is a sequence of activities from process start to process end. Increasing the number of variants, i.e. the level of detail, the process will reveal less common paths and activities. The initial path shows the most frequent 'as is' process flow across all process patterns





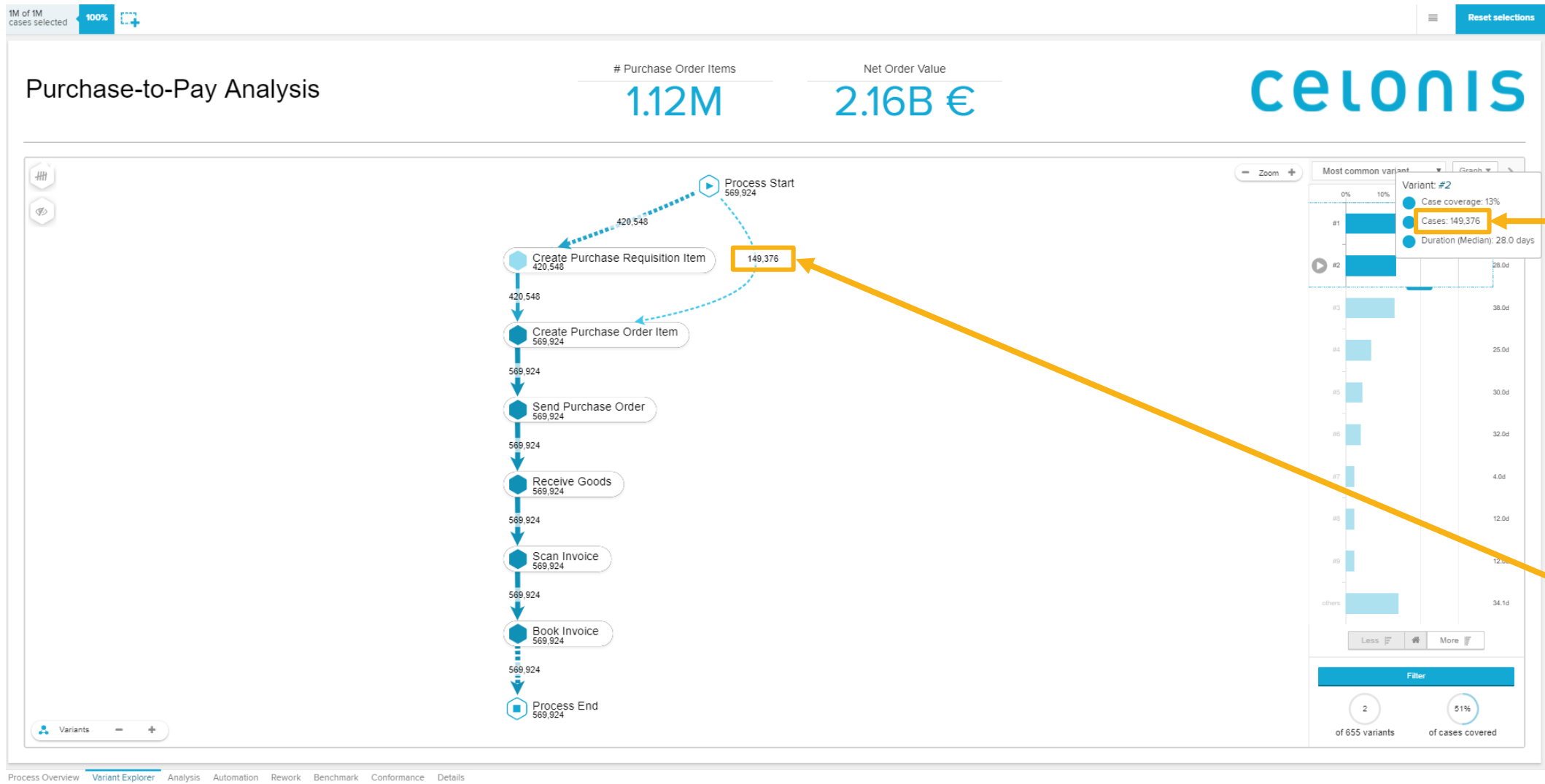
Here you can see the number of different process variants in the dataset.

4. How many purchase order (PO) items follow the second process variant?
 - a. 37,270
 - b. 38,089
 - c. 107,688
 - d. 149,376

5. What's the overall average throughput time (in days) for the happy path from process start to end?
 - a. 28
 - b. 30
 - c. 38
 - d. 655

6. Display the first 17 variants in the variant explorer.
How does the 17th most common variant look like (use process animation)?
 - a. The quantity is changed after the purchase requisition item is created
 - b. The purchase order item is blocked after the order is print and sent
 - c. Payment blocks are set and removed
 - d. The currency is changed after the order is print and sent

TASK 4 - SOLUTION

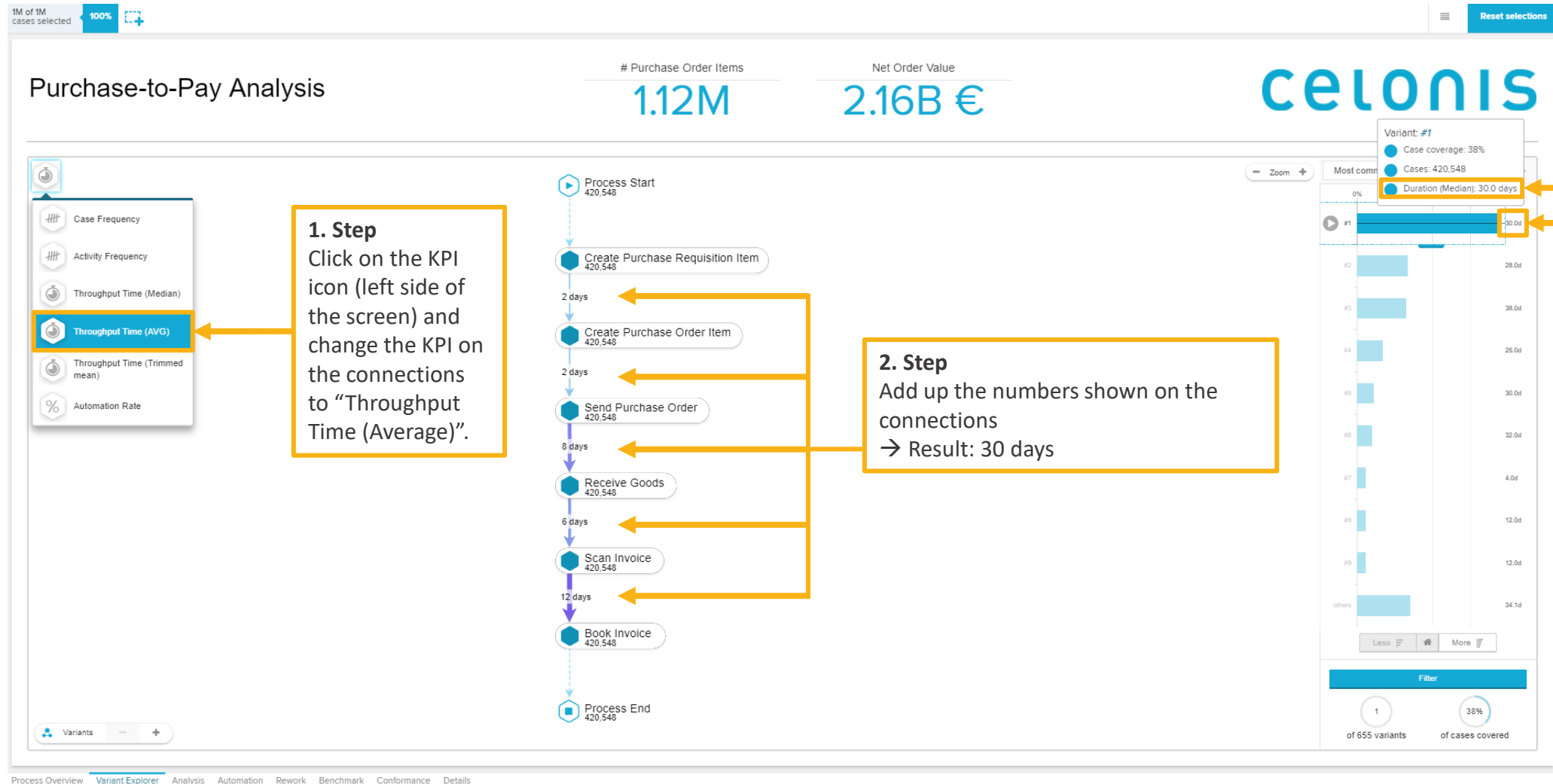


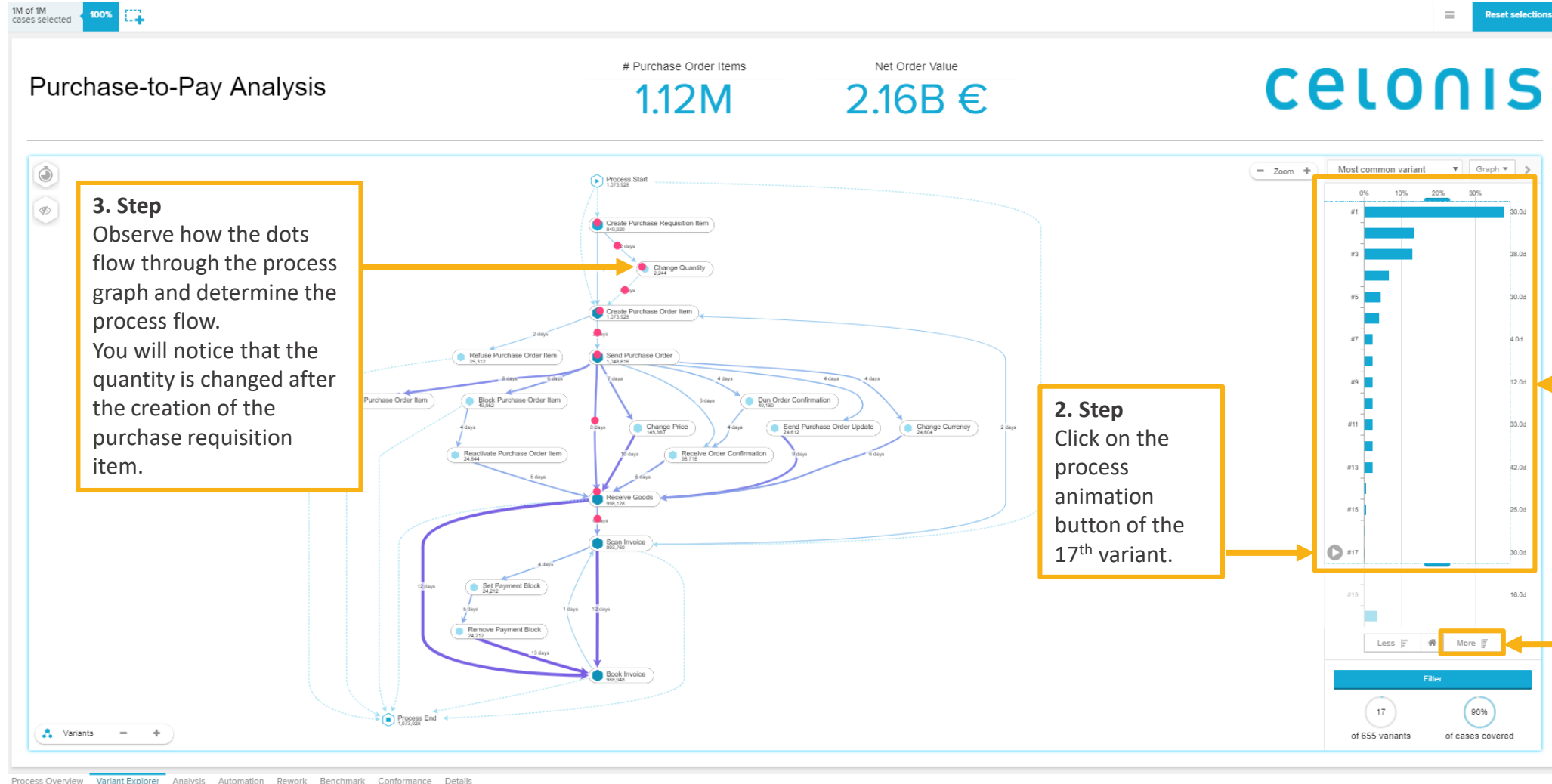
Select the first two process variants, then you will see the number of cases following this variant in the process graph.

If you point with the cursor on the bar of the second variant, you will notice a pop-up window, showing you the details of the variant.

Alternatively, you can see the number of cases shown by the number on the connection between process start and the initial activity.

Correct Answer: D





Drill down the process data

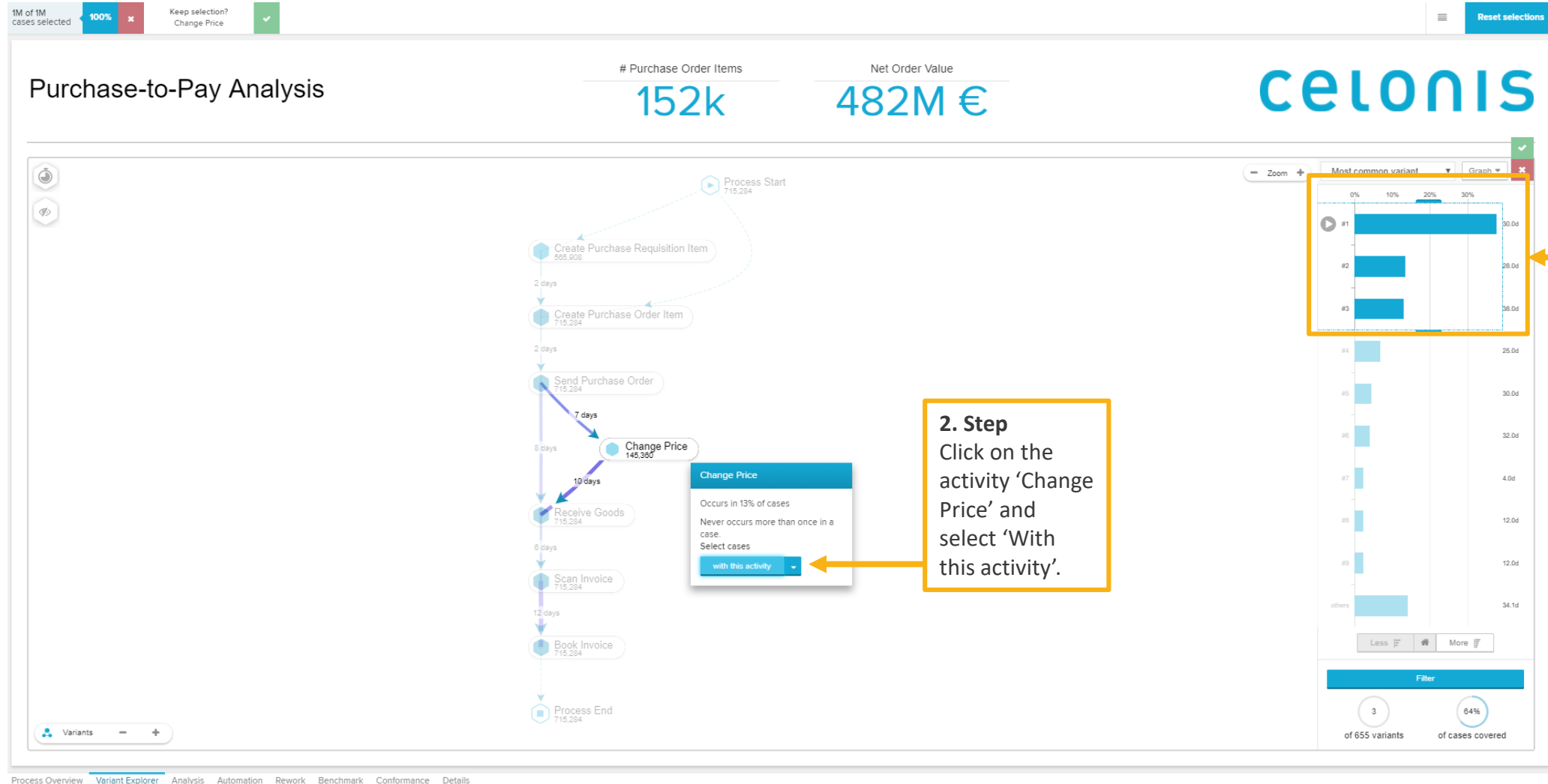
Now you will learn to explore the power of filtering and how to get deeper insights into business processes. Please answer the following questions using filters within the “**Variant Explorer**” sheet.

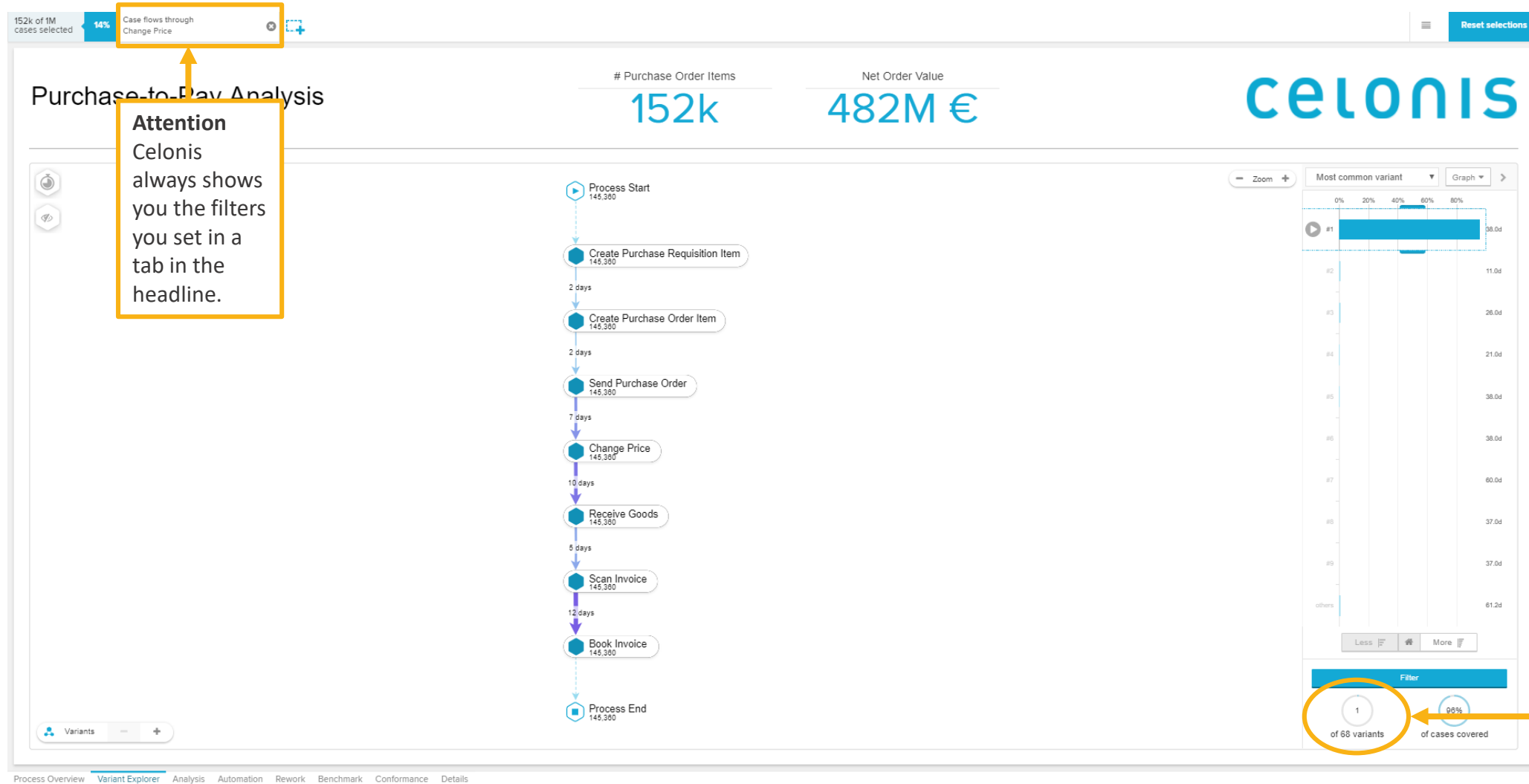
YOUR TASKS

7. How many different variants exist for PO items with price change?
 - a. 1
 - b. 3
 - c. 68
 - d. 655

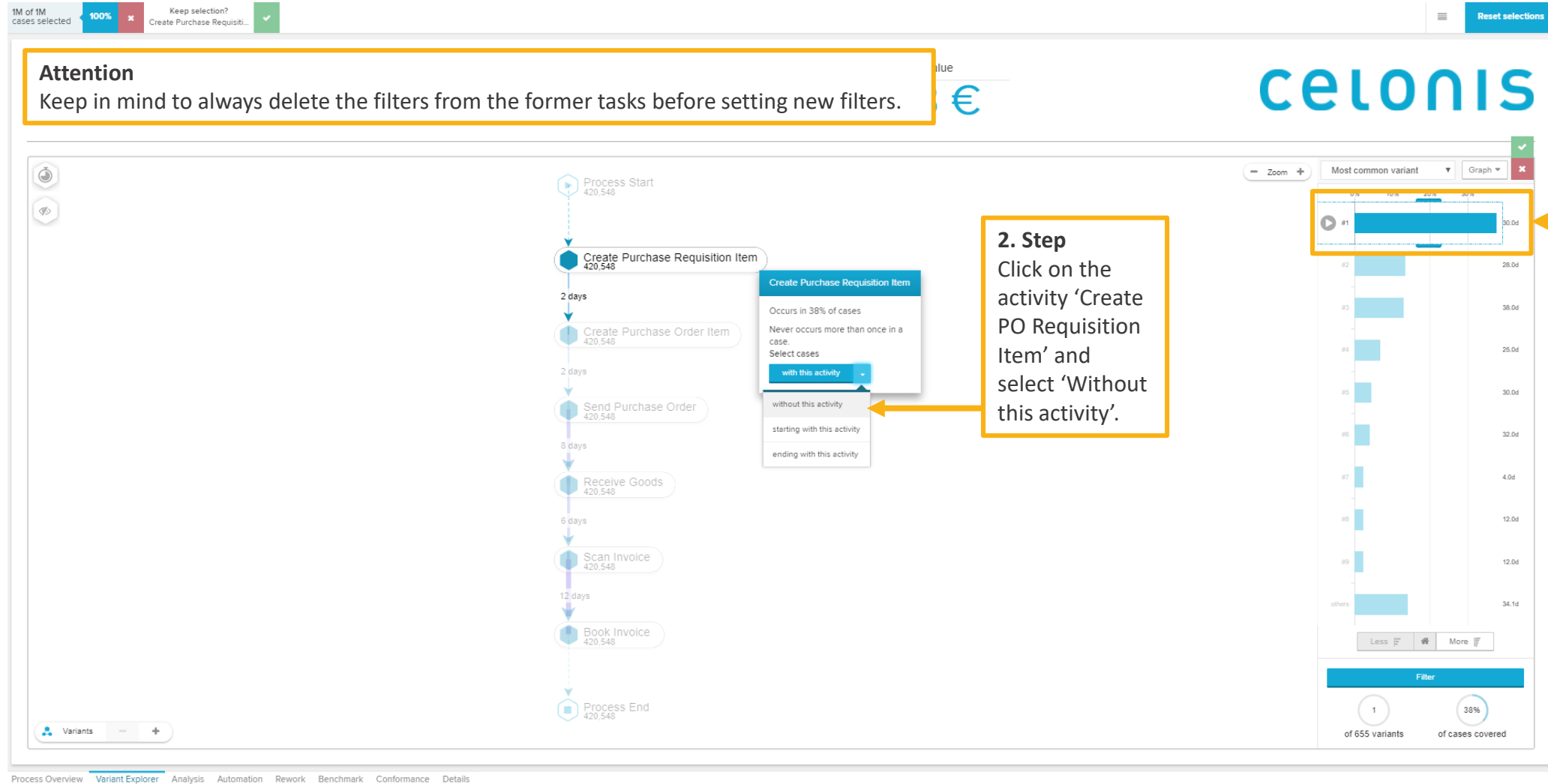
8. Let’s look at PO items without purchase requisitions. How does the second most common variant look like for those?
 - a. The process starts with the scan of the invoice
 - b. The purchase order items are deleted
 - c. The purchase order items are refused
 - d. The price is changed after purchase order is sent out to vendor

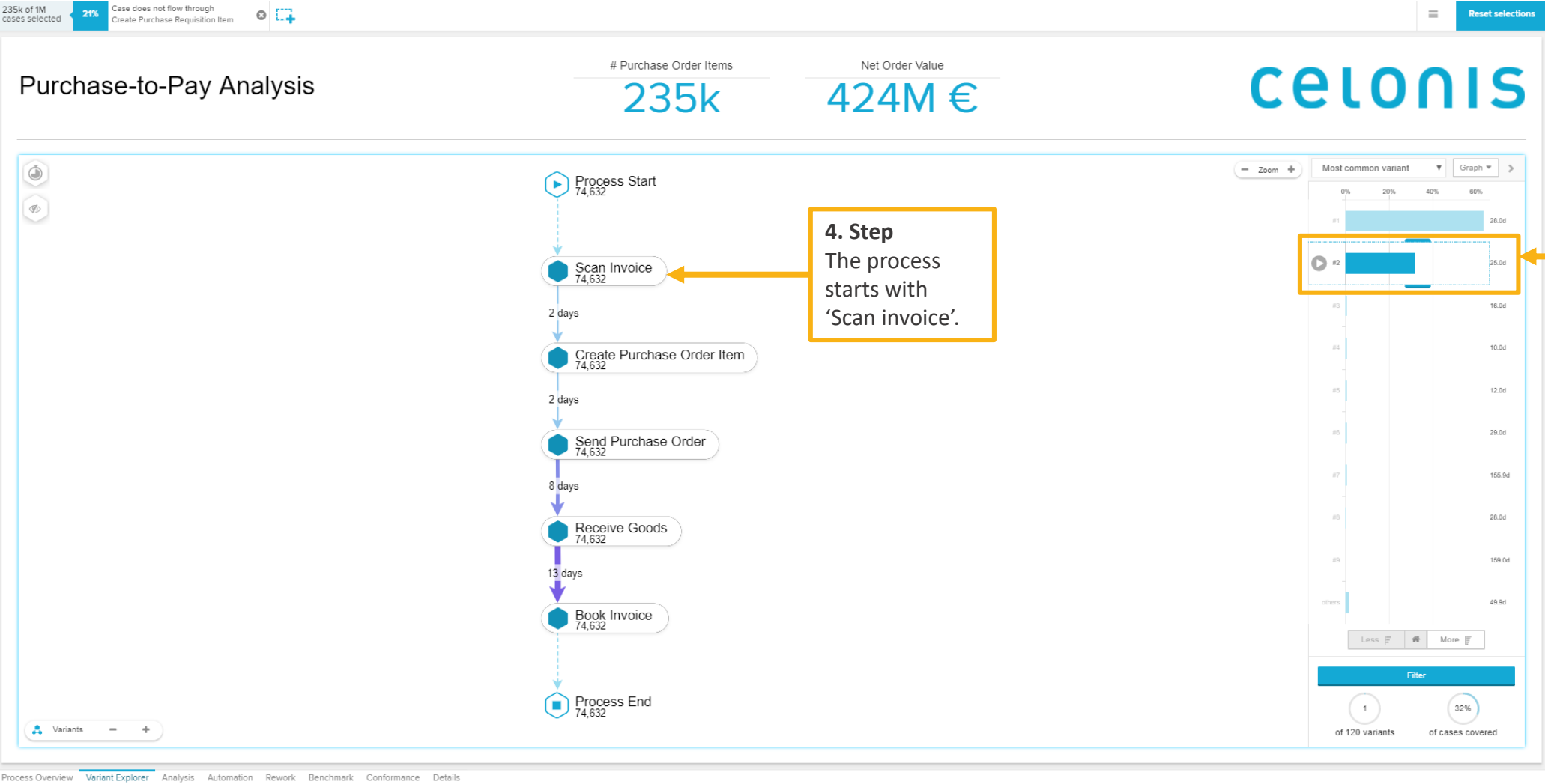
9. Filter on purchase order items that are blocked (show the 10 most common variants), yet not reactivated. How does the main variant look like?
 - a. After blocking the purchase order item, the quantity is changed
 - b. The process ends with the purchase order items being blocked
 - c. After blocking the purchase order item, the goods receipt is cancelled

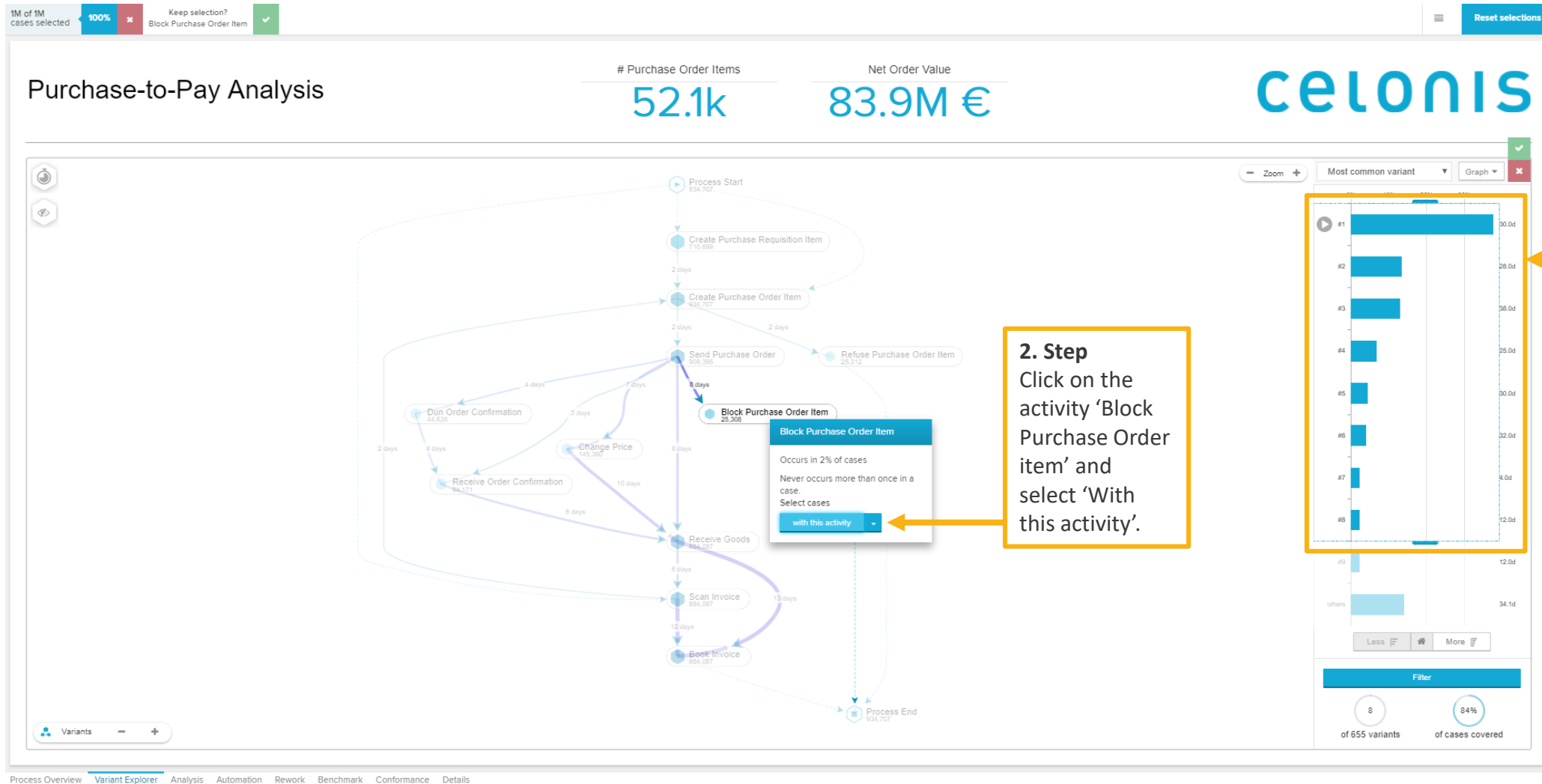


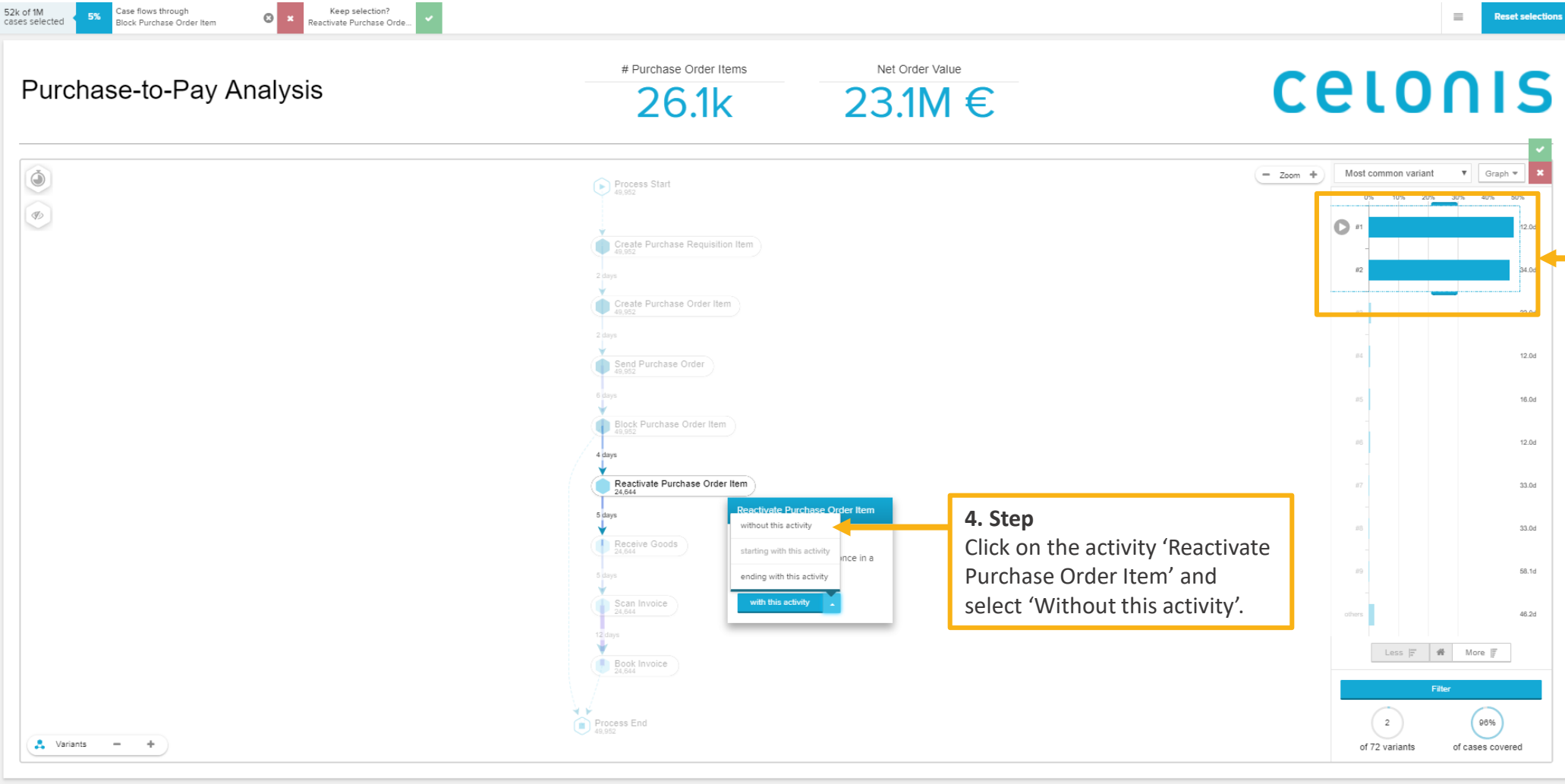


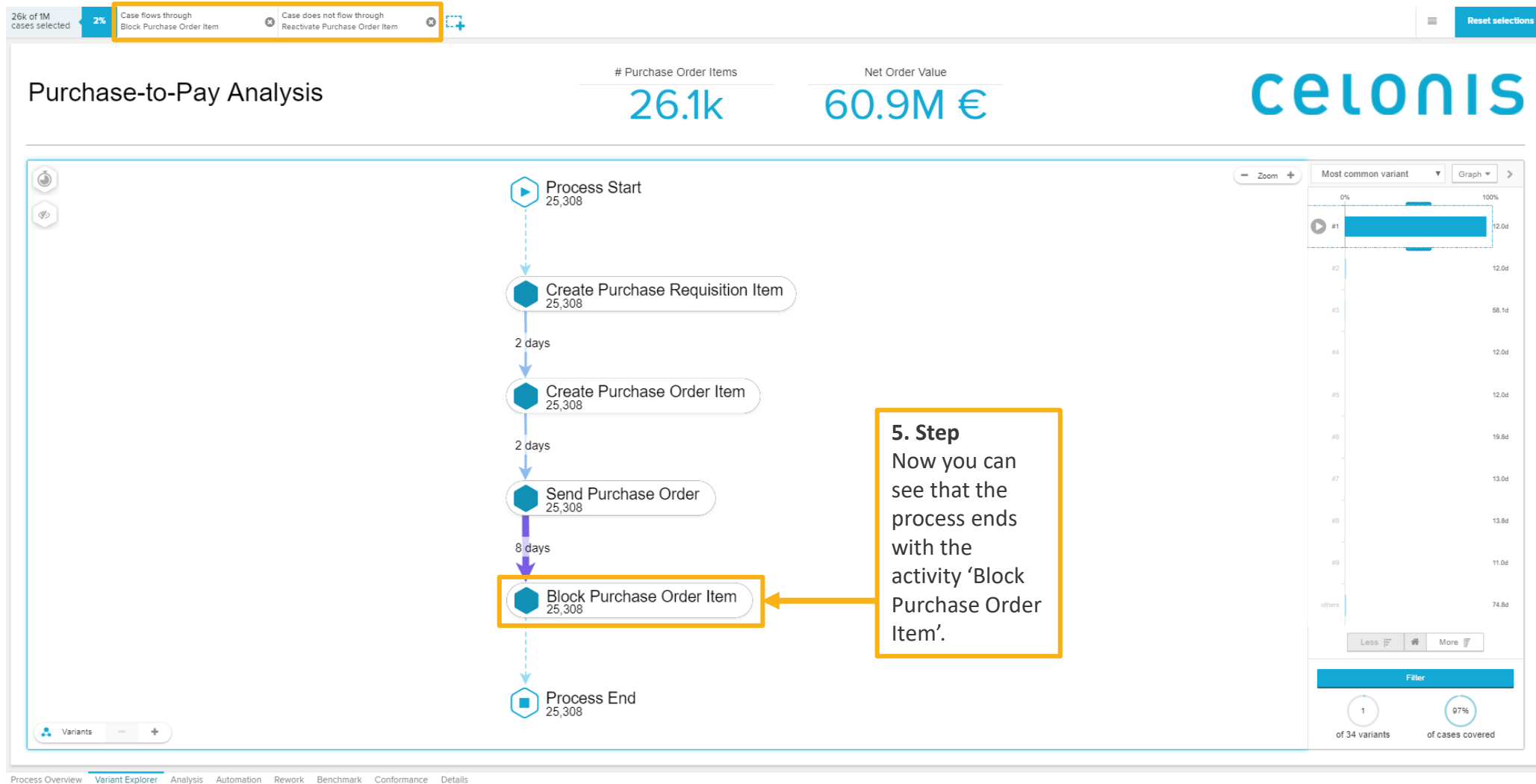
3. Step
Here you can see the number of variants including 'Change price' as an activity.











Work with an analysis

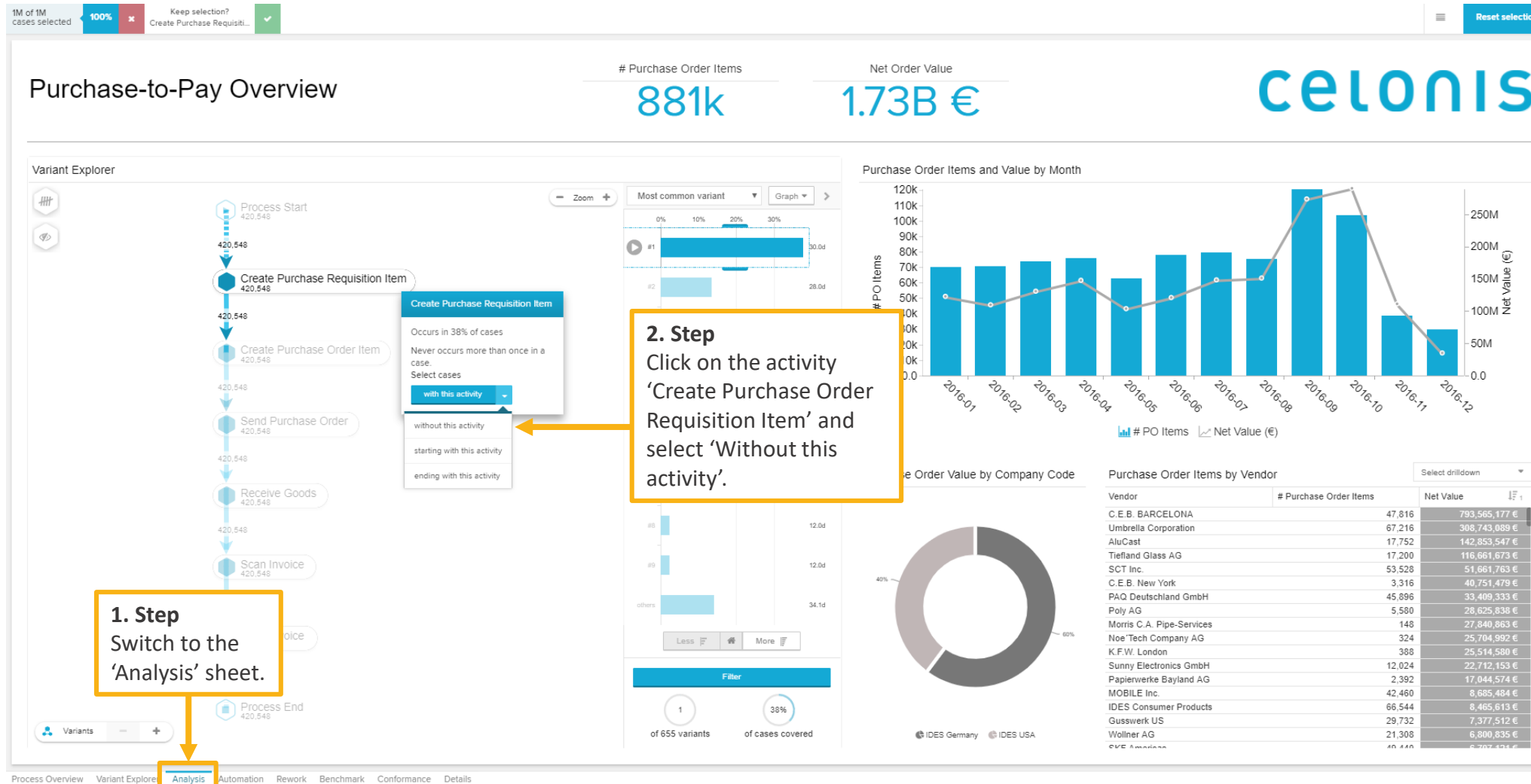
After learning the basic functions in Celonis, you continue with a more in-depth analysis of the process. For this task, go to the “**Analysis**” and the “**Details**” sheet.

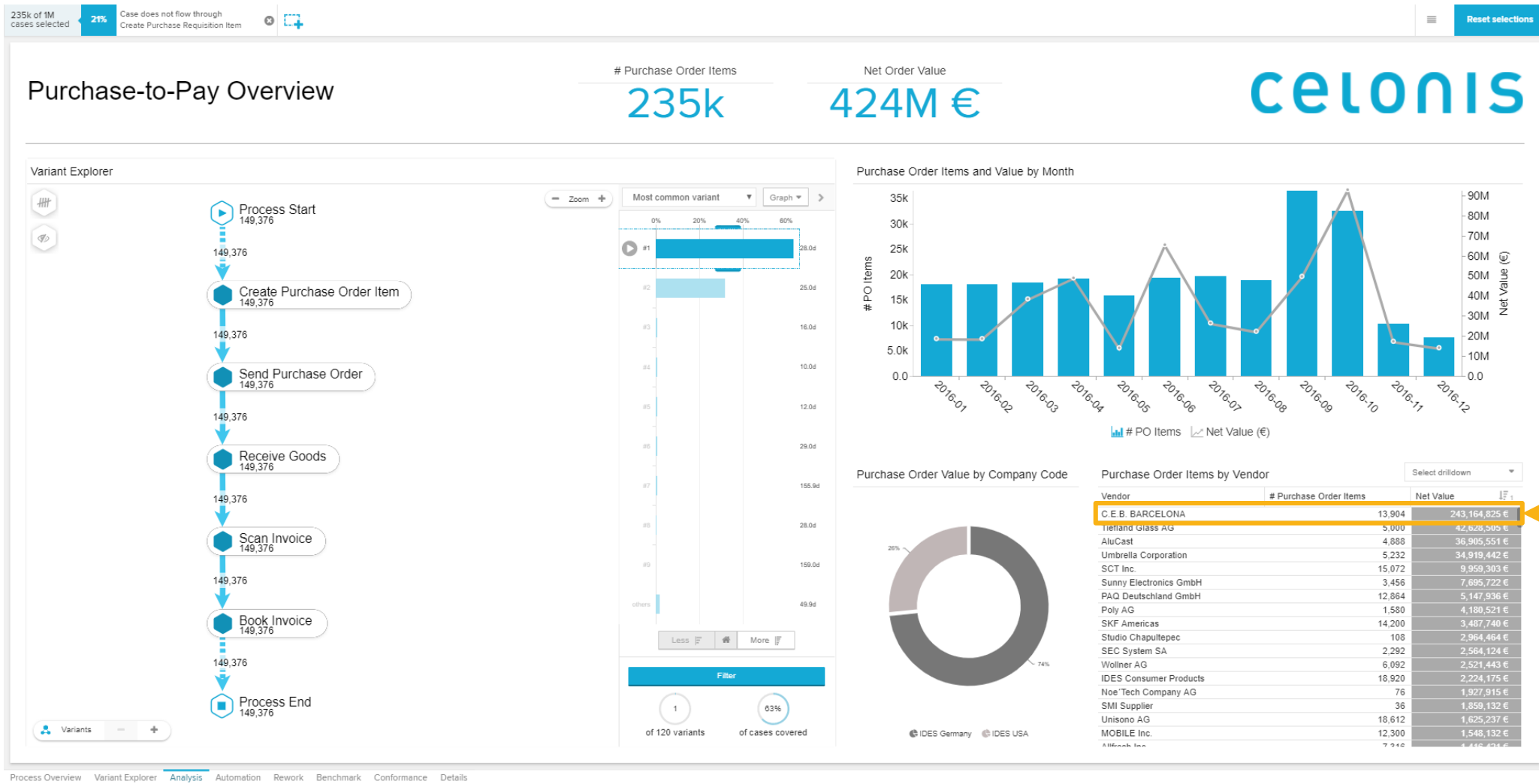
YOUR TASKS

10. Look at purchase order items without purchase requisitions. Who is the dominant vendor for these positions in terms of net value?
 - a. IDES Consumer Products
 - b. C.E.B. Barcelona
 - c. Tiefland Glass AG

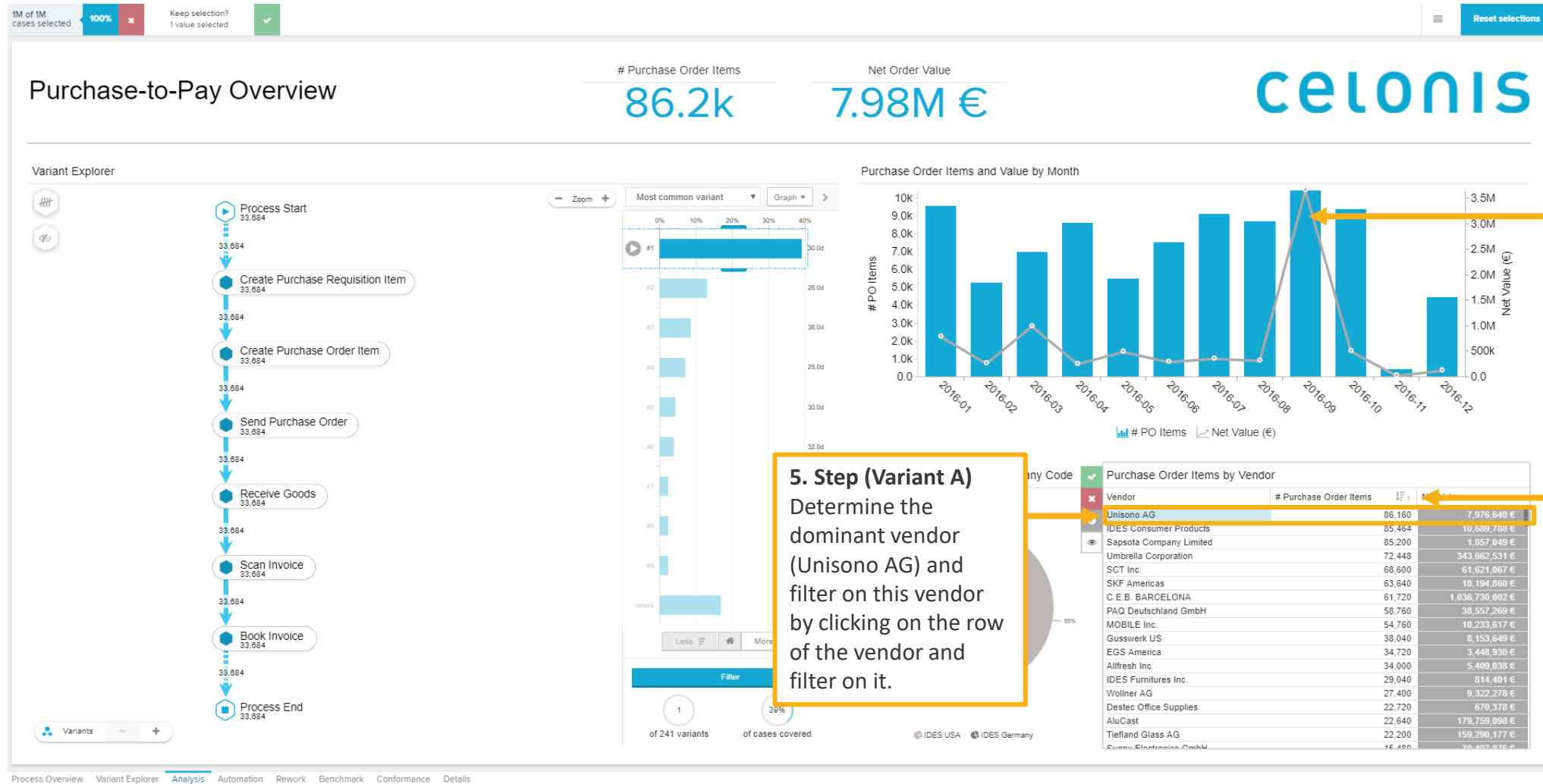
11. Have a look at Unisono AG (top 3 vendor in terms of number of PO items).
Observing the number of PO items and the net value over time, what attracts your attention?
 - a. There is an unusual peak in the net value in September 2016
 - b. The number of PO items is strongly decreasing over time with December 2016 being the month with the lowest net order value
 - c. There is a high accumulation of purchases towards the end of the year with a peak in net order value in November 2016

12. In the ‘Details sheet’, have a look at the PO item with the Purchasing Document Number 0000097360.
What is the material group of the goods being ordered?
 - a. Monitors
 - b. SMI Demo Scenarios
 - c. Bulbs





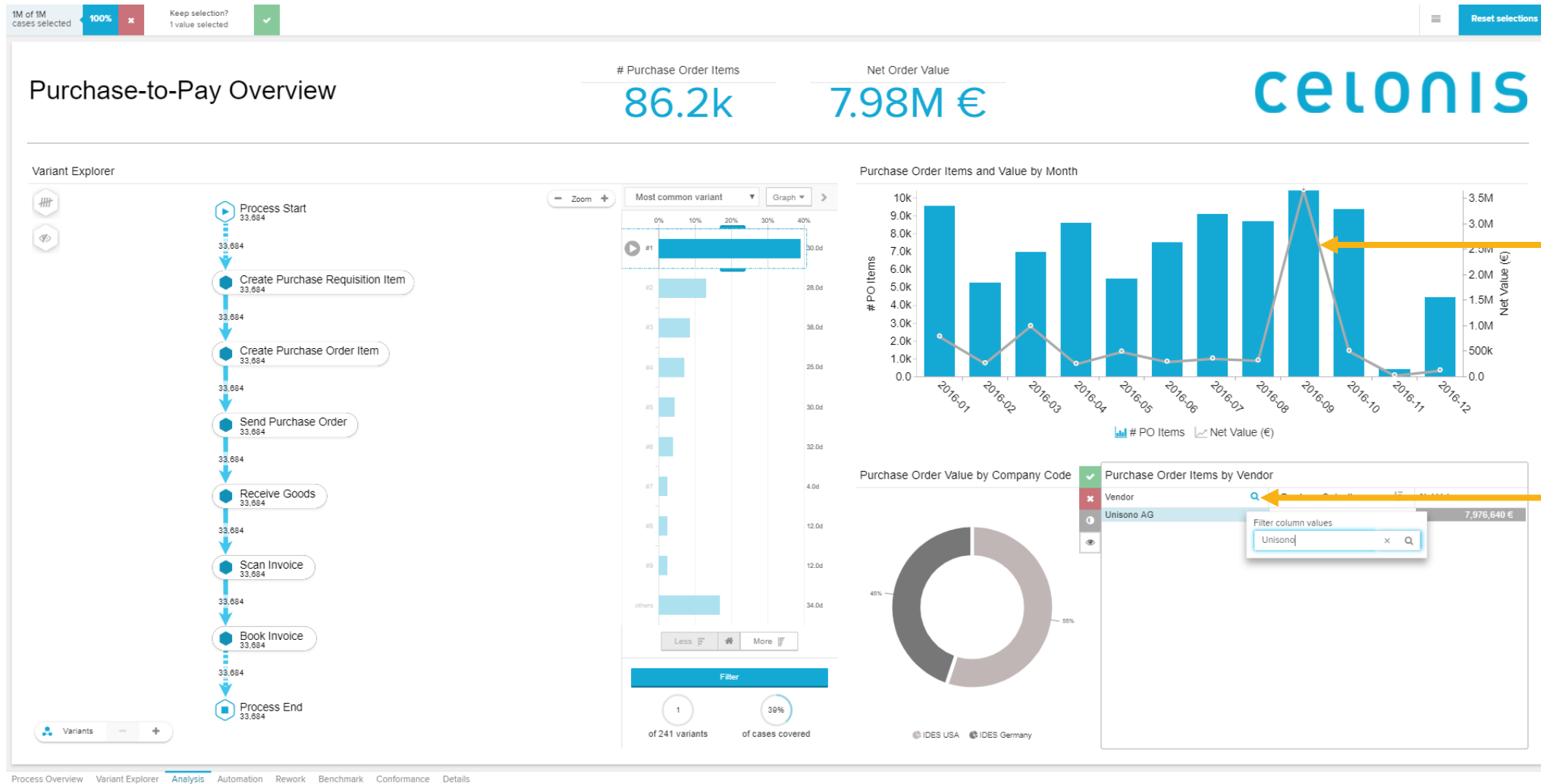
TASK 11 – SOLUTION (VARIANT A)



6. Step (Variant A)
You will see that there is a peak in the net value of the orders in September 2016.

4. Step (Variant A)
Sort the PO item column in descending order (just click on the column '# Purchase Order Items' to add or change an ordering).

TASK 11 – SOLUTION (VARIANT B)



5. Step (Variant B)
You will see that there is a peak in the net value of the orders in September 2016.

4. Step (Variant B)
Click on the 'Vendor' column and search for 'Unisono AG'. Afterwards, click on the vendor name and filter on it.

Correct Answer: A

1M of 1M cases selected
100%

Reset selections

Purchase-to-Pay Analysis

Purchase Order Items

Net Order Value

Automation

Throughput Time

1.12M
2.16B €
48%
29 Days

celonis

Details

Client	Purchasing Document	Vendor Name	Order Quantity	Net Value
800	0000263498	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000087446	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000146130	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000116788	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000058104	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000234156	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000204814	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000175472	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000028762	C.E.B. BARCELONA	234,567	32,653,903 €
800	0000175154	C.E.B. BARCELONA	300,000	18,792,000 €
800	0000263180	C.E.B. BARCELONA	300,000	18,792,000 €
800	0000087756	Noe Tech Company AG	1,000,000	12,528,000 €
800	0000263497	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000116787	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000087445	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000204813	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000175471	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000028761	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000146129	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000234155	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000058103	C.E.B. BARCELONA	3,000,000	11,136,000 €
800	0000233197	C.E.B. New York	100,000,000	9,280,000 €
800	0000262539	K.F.W. London	100,000,000	9,280,000 €
800	0000174513	Morris C.A. Pipe-Services	100,000,000	9,280,000 €
800	0000027803	Morris C.A. Pipe-Services	100,000,000	9,280,000 €
800	0000086487	C.E.B. New York	100,000,000	9,280,000 €
800	0000145171	Morris C.A. Pipe-Services	100,000,000	9,280,000 €
800	0000057145	C.E.B. New York	100,000,000	9,280,000 €
800	0000203855	C.E.B. New York	100,000,000	9,280,000 €
800	0000115829	K.F.W. London	100,000,000	9,280,000 €
800	0000175782	C.E.B. BARCELONA	1,000,000	7,424,000 €
800	0000097322	Umbrella Corporation	566,244,000	7,093,905 €
800	0000067980	Umbrella Corporation	566,244,000	7,093,905 €
800	0000097702	SCT Inc.	555,660,000	6,961,308 €
800	0000028209	C.E.B. BARCELONA	380,000	6,693,698 €
800	0000097983	AluCast	529,200,000	6,629,818 €
800	0000068922	Umbrella Corporation	508,032,000	6,364,625 €
800	0000098264	AluCast	508,032,000	6,364,625 €
800	0000098536	AluCast	502,740,000	6,298,327 €

2. Step
Use the search function by clicking on the 'Purchasing Document' column and enter the document number 0000097360.

1. Step
Switch to the 'Details' sheet.

Process Overview
Variant Explorer
Analysis
Automation
Rework
Benchmark
Conformance
Details

1M of 1M cases selected100%

Reset selections

Purchase-to-Pay Analysis

Purchase Order Items

1.12M

Net Order Value

2.16B €

Automation

48%

Throughput Time

29 Days

celonis

Details

Client	Purchasing Document	Item	Company Code	Plant	Material Group Text	Material	Order Quantity	Net Value
800	0000097360	30020	IDES AG	1200	Bulbs	Current convey	1,132,488,000	1,418,781 €

3. Step

The material group of this order is 'Bulbs'.

Process Overview

Variant Explorer

Analysis

Automation

Rework

Benchmark

Conformance

Details

Congratulations!

**You successfully finished the PROCESS MINING KICKSTARTER training!
Continue with the next training and become a Business Process Analyst.**

**... and for any questions, just contact the Academic Alliance Team
(academic.alliance@celonis.com)**