



PARTNER

Building Intelligent and Sustainability Scenario with SAP BTP

EP320-SAP Analytics Cloud Maintenance Cost & Sustainability Planning

Exercise04 – Sustainability Planning Story

This document will guide you step by step on the process of creating sustainability planning story

THE BEST RUN



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DISCLAIMER

All functionality presented here is subject to change and may be changed by SAP at any time for any reason without notice.

OBJECTIVE

The objective of this exercise is to provide the steps needed to create SAP Analytics Cloud story to plan and analyze key process indicators of sustainability

SCENARIO

This exercise follows the scenario you were introduced to in the demo Maintenance Cost & Sustainability Planning for Bagnoli & Co.

This exercise explains how to create SAP analytics cloud story to analyze the past performance of sustainability KPIs , how to predict energy rate utilizing the predictive capabilities of SAP analytics cloud and how to configure value driver tree to simulate the key components of sustainability.

ENVIRONMENT ACCESS – SAP ANALYTICS CLOUD

Before the exercise, please obtain the Tenant details and Login Credentials of SAP Analytics Cloud provided to you as instruction below.

SAP Analytics Cloud (To login SAP Analytics Cloud and perform the exercise.)

- Tenant URL
- Username: Your assigned User ID
- Password: Your assigned User Password

For the Bootcamp participants, please use the SAP Analytics Cloud tenant provided by SAP, and your assigned user id and password.


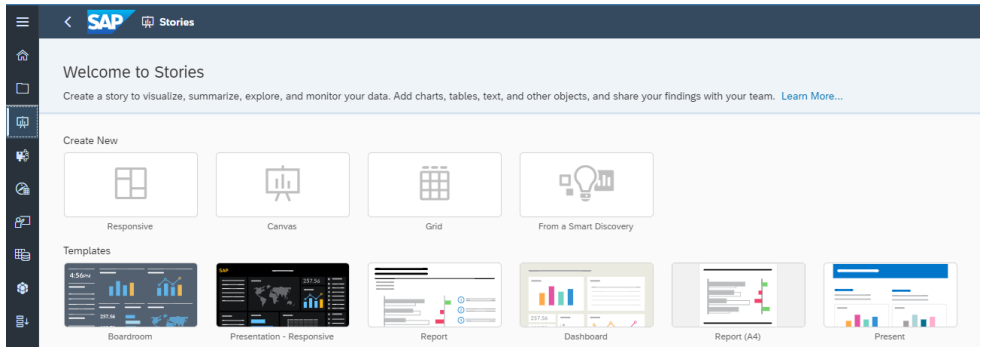
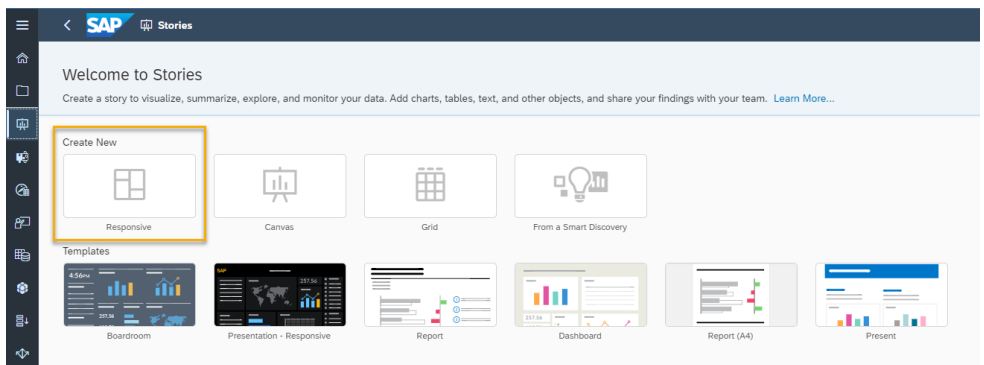
- The SAP Analytics cloud tenant URL is available in the dedicated Microsoft Teams > General (Channel) > System Access (Tab) > SAP Analytics Cloud (Section), which you have been invited.
- Your assigned user id and password for SAP Analytics Cloud are communicated individually via email.

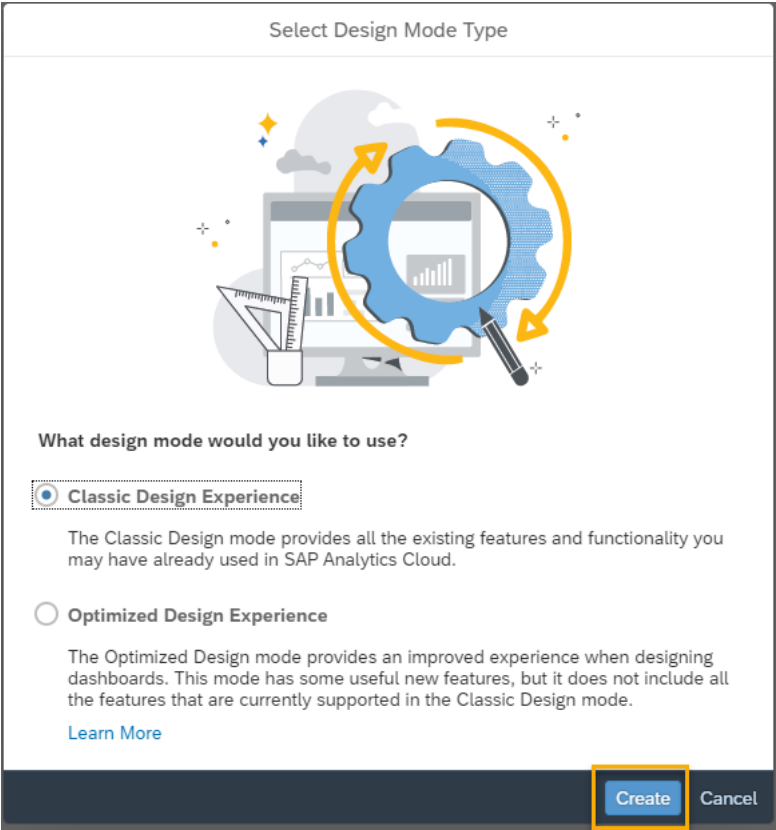
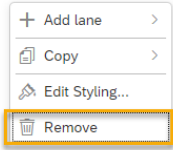
PREREQUISITES

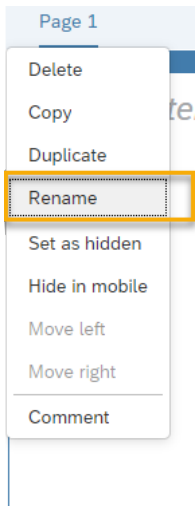
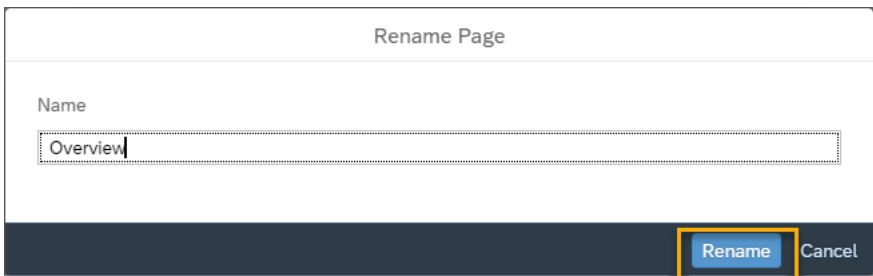
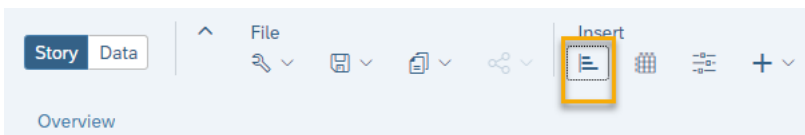

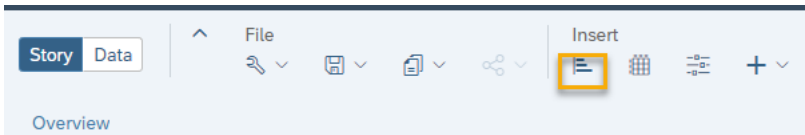
You have completed exercise 1, 2 and 3

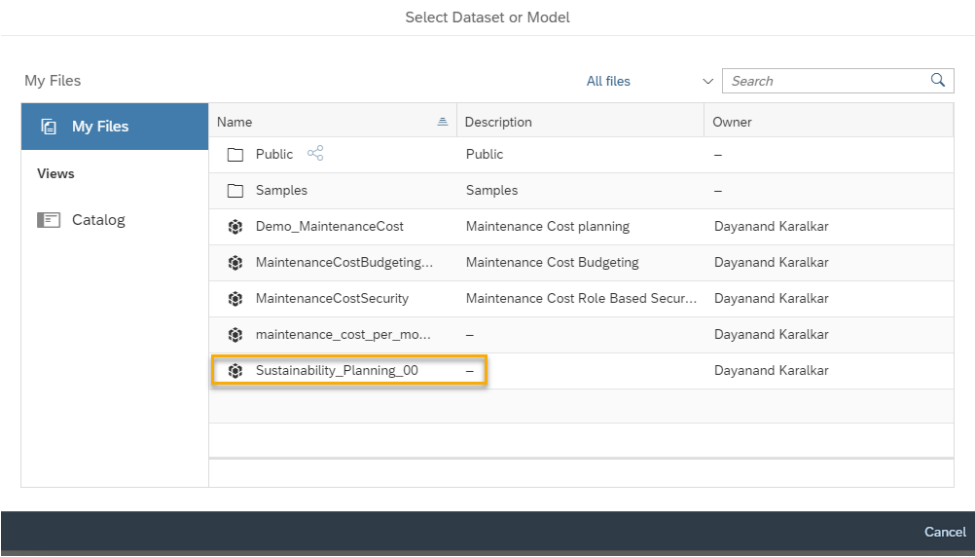

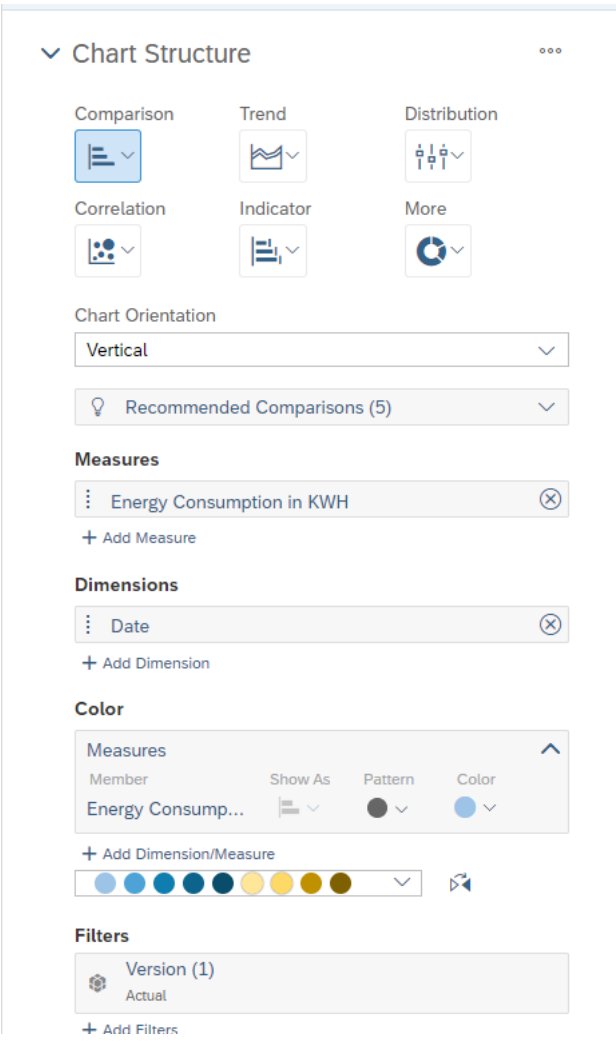
EXERCISE STEP DETAILS

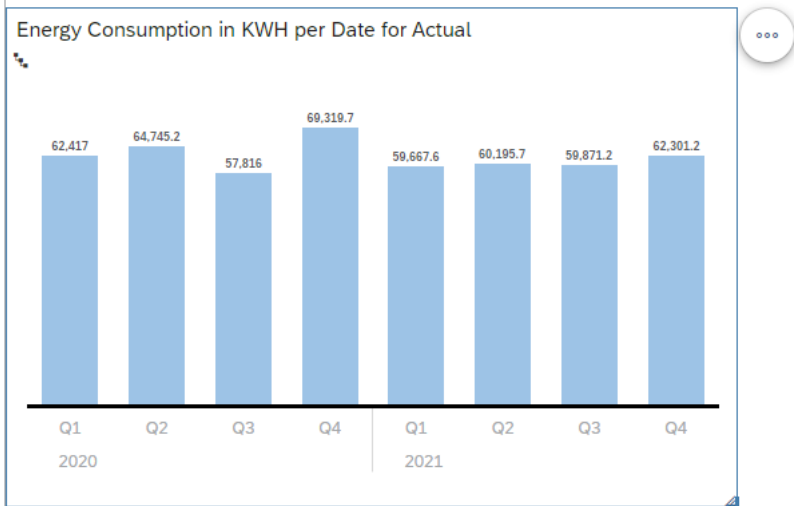
Explanation	Screenshot
<p>Log on to SAP Analytics Cloud with the given tenant URL and assigned user credential mentioned above.</p> <p>Go to the Home Screen.</p>	

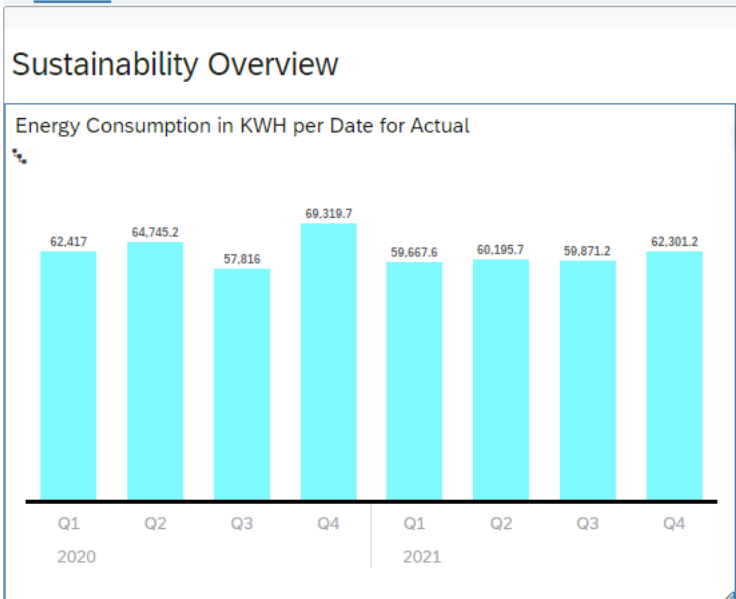

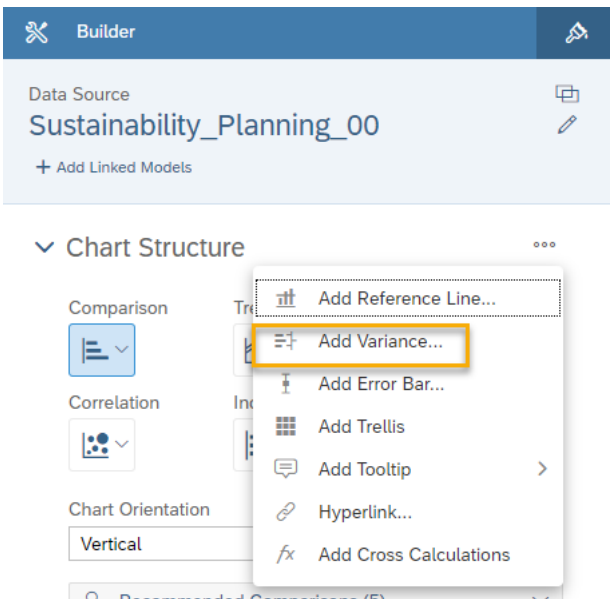
Explanation	Screenshot
<p>Click on the stories  Icon, the system opens home page for Stories.</p>	
<p>Click on Create New -> Responsive</p>	

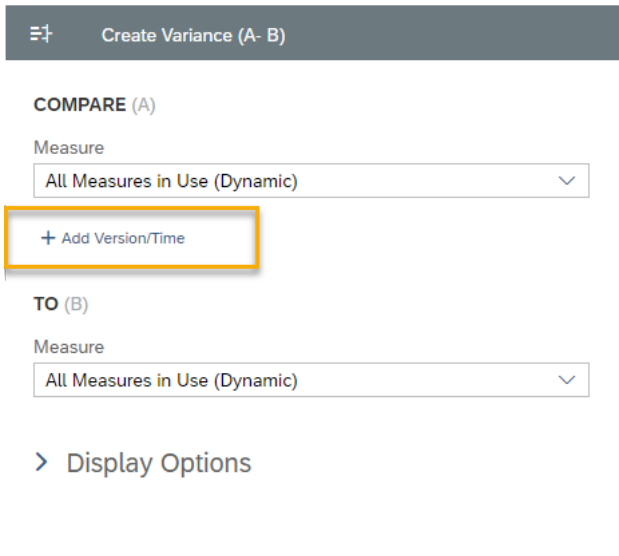
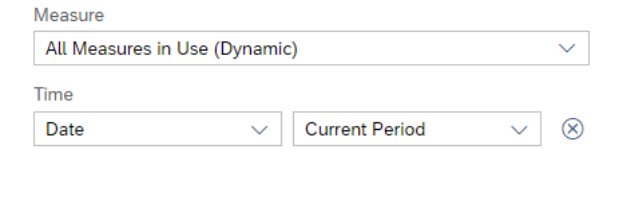
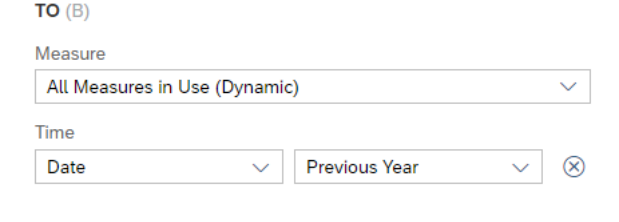
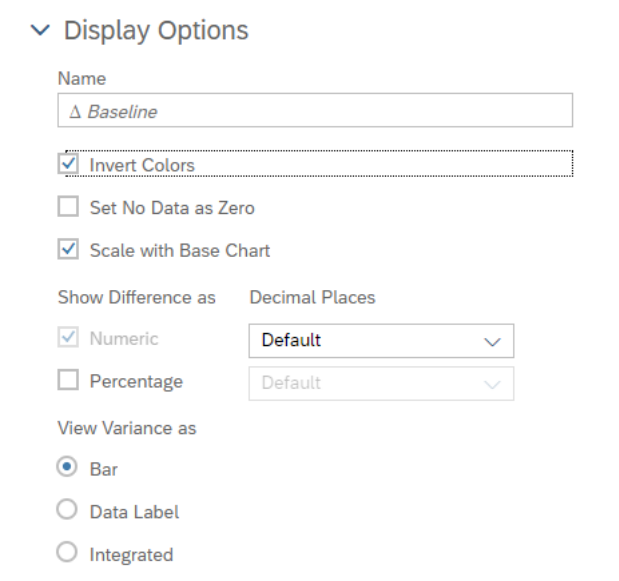
Explanation	Screenshot
<p>In the design mode selection pop up select Classic Design Experience and click Create</p>	 <p>The screenshot shows a dialog box titled "Select Design Mode Type". It contains an illustration of a gear, a laptop, and a pencil. Below the illustration, the text asks "What design mode would you like to use?". There are two radio button options: "Classic Design Experience" (which is selected) and "Optimized Design Experience". Below each option is a brief description. At the bottom right, there are two buttons: "Create" (highlighted with a yellow box) and "Cancel".</p>
<p>Right Click on the right lane and choose Remove</p>	 <p>The screenshot shows a right-click context menu with four options: "Add lane", "Copy", "Edit Styling...", and "Remove". The "Remove" option is highlighted with a yellow box.</p>

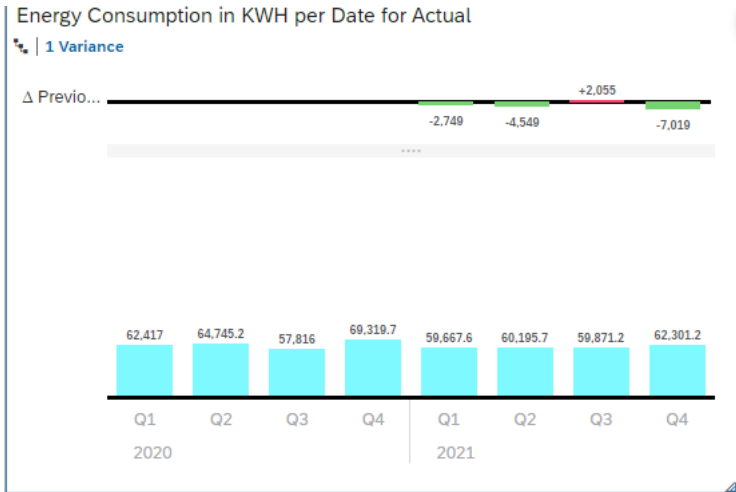
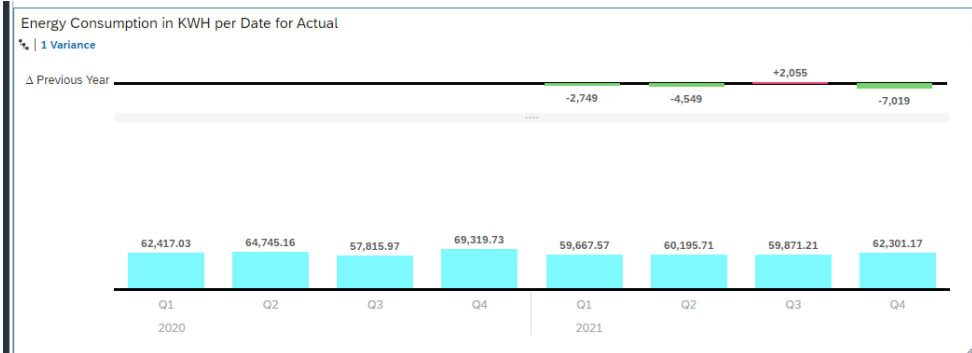
Explanation	Screenshot
Click on the Page 1 and select Rename	 <p>A screenshot of a context menu for 'Page 1'. The menu is open, showing options: Delete, Copy, Duplicate, Rename (highlighted with an orange box), Set as hidden, Hide in mobile, Move left, Move right, and Comment.</p>
Rename the page as "Overview" and click on Rename	 <p>A screenshot of the 'Rename Page' dialog box. The 'Name' field contains the text 'Overview'. At the bottom right, the 'Rename' button is highlighted with an orange box, next to a 'Cancel' button.</p>
Provide title "Sustainability Overview"	 <p>A screenshot of the 'Overview' page header. The 'Insert' button, represented by a document icon, is highlighted with an orange box. The header also shows 'Story' and 'Data' tabs, and a 'File' menu.</p>
Click on  to insert a Chart	 <p>A screenshot of the 'Overview' page header, identical to the previous one. The 'Insert' button is highlighted with an orange box.</p>

Explanation	Screenshot
<p>In the model selection pop-up, select the Sustainability planning model created in Exercise 1</p>	 <p>The screenshot shows a 'Select Dataset or Model' dialog box. On the left, there's a sidebar with 'My Files' and 'Catalog' views. The 'My Files' view is selected, showing a table of files. The file 'Sustainability_Planning_00' is highlighted with a yellow border. The table has columns for Name, Description, and Owner. The 'Sustainability_Planning_00' file is listed with a description of '-' and owner 'Dayanand Karalkar'.</p>
<p>Configure the chart as below, Type: Bar Orientation: Vertical Measure: Energy Consumption in KWH Dimension: Date Make sure the date Hierarchy is Year, Quarter Month and Level is set to 3 by clicking on the  on the date dimension Filters: Version-> Actual</p>	 <p>The screenshot shows the 'Chart Structure' configuration panel. The chart type is set to 'Bar'. The orientation is set to 'Vertical'. The measure is 'Energy Consumption in KWH'. The dimension is 'Date'. The date hierarchy is set to 'Year, Quarter Month and Level is set to 3'. The filter is set to 'Version (1) Actual'.</p>

Explanation	Screenshot																											
The energy Consumption chart is displayed in the story as per the configuration	<div><h3>Sustainability Overview</h3><p>Energy Consumption in KWH per Date for Actual</p><table><thead><tr><th>Quarter</th><th>Year</th><th>Energy Consumption (KWH)</th></tr></thead><tbody><tr><td>Q1</td><td>2020</td><td>62,417</td></tr><tr><td>Q2</td><td>2020</td><td>64,745.2</td></tr><tr><td>Q3</td><td>2020</td><td>57,816</td></tr><tr><td>Q4</td><td>2020</td><td>69,319.7</td></tr><tr><td>Q1</td><td>2021</td><td>59,667.6</td></tr><tr><td>Q2</td><td>2021</td><td>60,195.7</td></tr><tr><td>Q3</td><td>2021</td><td>59,871.2</td></tr><tr><td>Q4</td><td>2021</td><td>62,301.2</td></tr></tbody></table></div>	Quarter	Year	Energy Consumption (KWH)	Q1	2020	62,417	Q2	2020	64,745.2	Q3	2020	57,816	Q4	2020	69,319.7	Q1	2021	59,667.6	Q2	2021	60,195.7	Q3	2021	59,871.2	Q4	2021	62,301.2
Quarter	Year	Energy Consumption (KWH)																										
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Q3	2021	59,871.2																										
Q4	2021	62,301.2																										
Click on the color section and input the hex value 7df9ff to change the color of the bars	<div><div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div></div><div><div></div></div><div><div>Hex: 7df9ff</div><div><div>R: 125G: 249B: 255</div><div>H: 183S: 51V: 100</div></div></div></div>																											

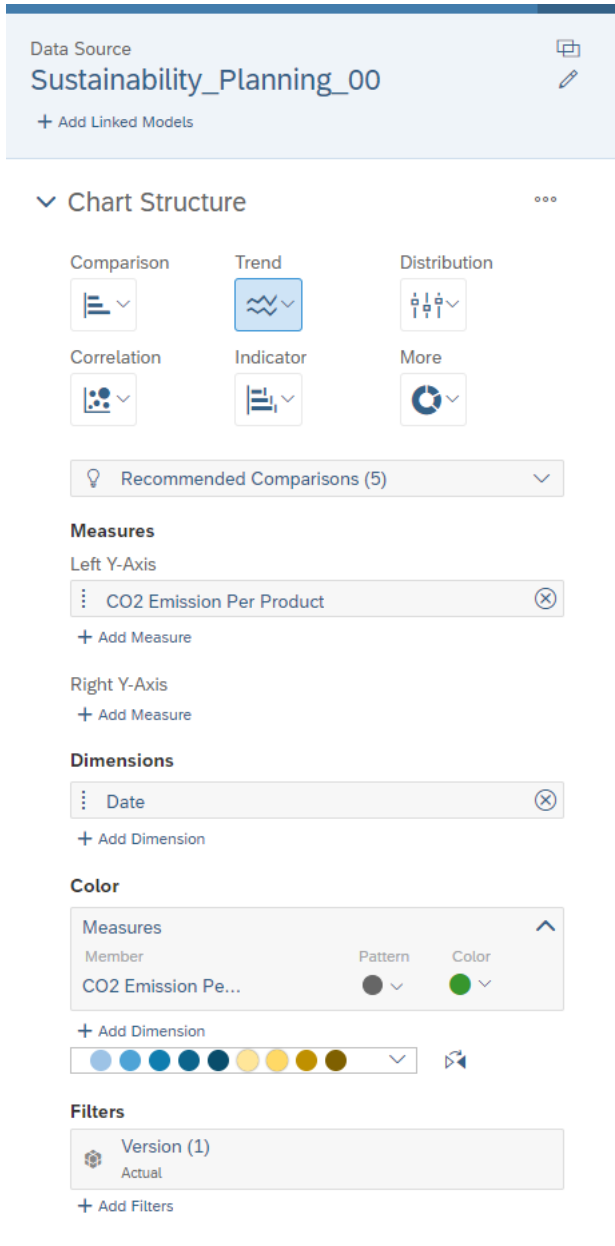
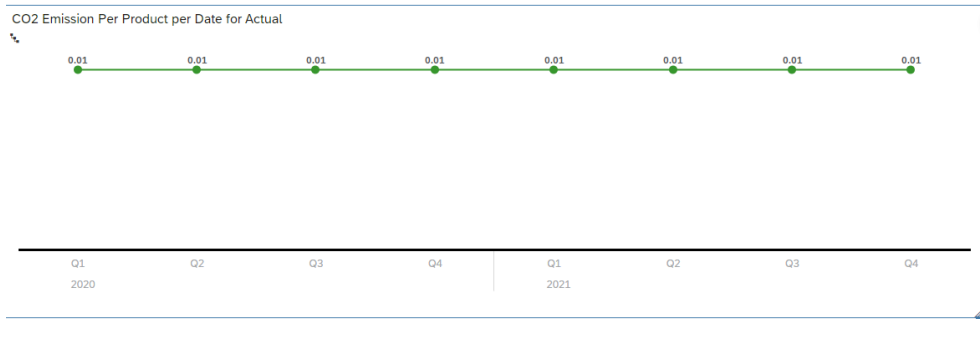
Explanation	Screenshot															
The chart display is changed as per the color selected	 <p>Sustainability Overview</p> <p>Energy Consumption in KWH per Date for Actual</p> <table><thead><tr><th>Year</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr></thead><tbody><tr><td>2020</td><td>62,417</td><td>64,745.2</td><td>57,816</td><td>69,319.7</td></tr><tr><td>2021</td><td>59,667.6</td><td>60,195.7</td><td>59,871.2</td><td>62,301.2</td></tr></tbody></table>	Year	Q1	Q2	Q3	Q4	2020	62,417	64,745.2	57,816	69,319.7	2021	59,667.6	60,195.7	59,871.2	62,301.2
Year	Q1	Q2	Q3	Q4												
2020	62,417	64,745.2	57,816	69,319.7												
2021	59,667.6	60,195.7	59,871.2	62,301.2												
<p>We need to compare the change in energy consumption resulted due to proactive maintenance.</p> <p>Click on  on the right hand of Chart Structure and select Add Variance</p>	 <p>Builder</p> <p>Data Source Sustainability_Planning_00</p> <p>+ Add Linked Models</p> <p>Chart Structure</p> <ul style="list-style-type: none">ComparisonCorrelationChart Orientation: Vertical <p>Dropdown menu options:</p> <ul style="list-style-type: none">Add Reference Line...Add Variance...Add Error Bar...Add TrellisAdd TooltipHyperlink...Add Cross Calculations															

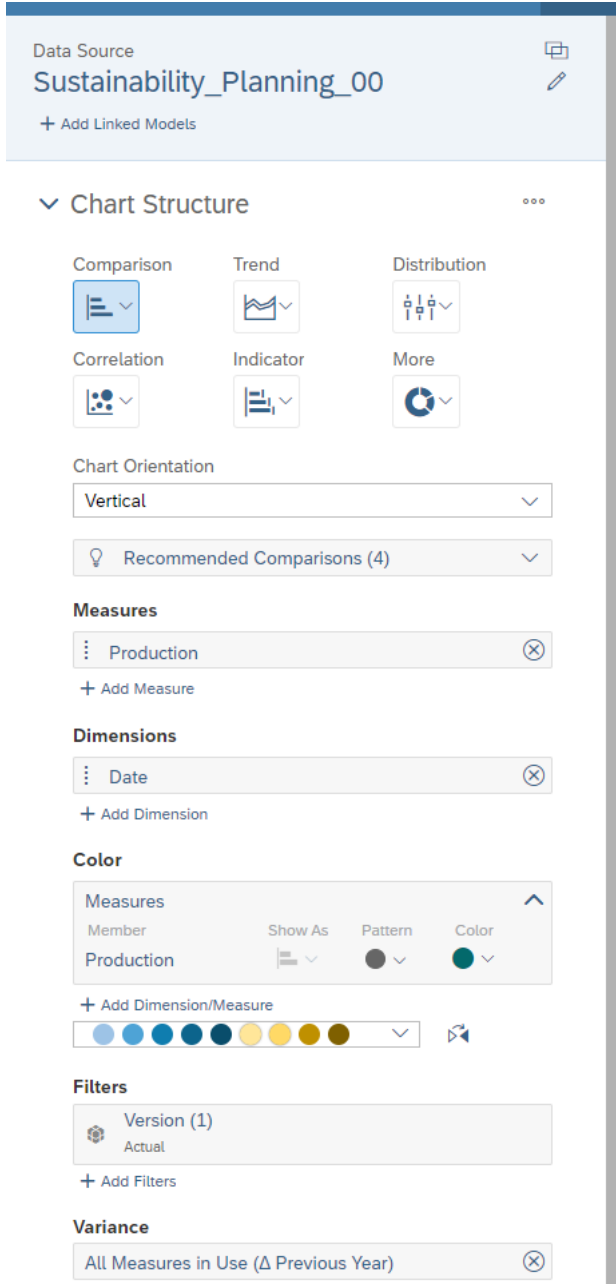
Explanation	Screenshot
The variance Configuration screen appears. Click on the + Add Version/Time	
In the drop down select Date Current Period	
In To section, for Time dimension select Date Previous year	
In Display Option Select Invert Colors as lower energy consumption is a positive sign	

Explanation	Screenshot															
The chart displays the variance configured	 <p>Energy Consumption in KWH per Date for Actual</p> <p>1 Variance</p> <p>Δ Previous...</p> <p>-2,749 -4,549 +2,055 -7,019</p> <table><tr><th>Year</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr><tr><td>2020</td><td>62,417</td><td>64,745.2</td><td>57,816</td><td>60,319.7</td></tr><tr><td>2021</td><td>59,667.6</td><td>60,195.7</td><td>59,871.2</td><td>62,301.2</td></tr></table>	Year	Q1	Q2	Q3	Q4	2020	62,417	64,745.2	57,816	60,319.7	2021	59,667.6	60,195.7	59,871.2	62,301.2
Year	Q1	Q2	Q3	Q4												
2020	62,417	64,745.2	57,816	60,319.7												
2021	59,667.6	60,195.7	59,871.2	62,301.2												
Resize the chart as required	 <p>Energy Consumption in KWH per Date for Actual</p> <p>1 Variance</p> <p>Δ Previous Year</p> <p>-2,749 -4,549 +2,055 -7,019</p> <table><tr><th>Year</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr><tr><td>2020</td><td>62,417.03</td><td>64,745.16</td><td>57,815.97</td><td>69,319.73</td></tr><tr><td>2021</td><td>59,667.57</td><td>60,195.71</td><td>59,871.21</td><td>62,301.17</td></tr></table>	Year	Q1	Q2	Q3	Q4	2020	62,417.03	64,745.16	57,815.97	69,319.73	2021	59,667.57	60,195.71	59,871.21	62,301.17
Year	Q1	Q2	Q3	Q4												
2020	62,417.03	64,745.16	57,815.97	69,319.73												
2021	59,667.57	60,195.71	59,871.21	62,301.17												

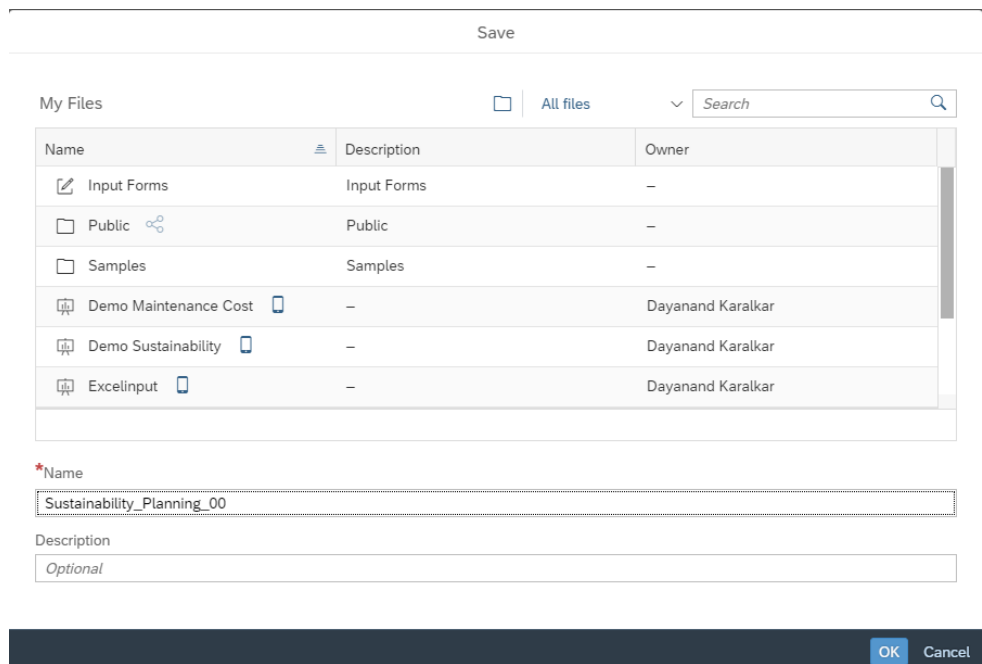
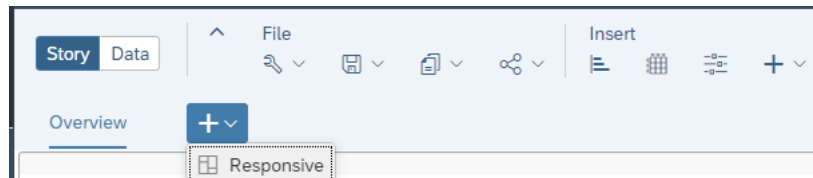
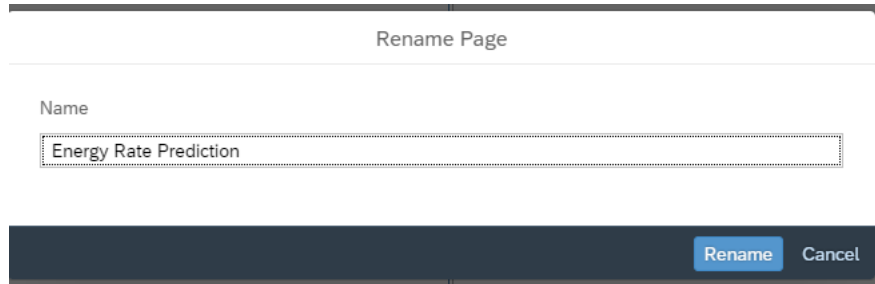
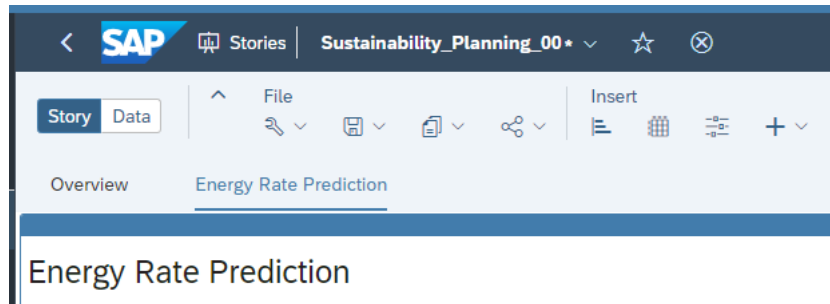
Explanation	Screenshot
<p>Insert Another chart to show the energy consumption per product</p> <p>Configure the chart as shown,</p> <p>Type: Line</p> <p>Y Axis: Energy Consumption per product</p> <p>Dimension Date</p> <p>Color: 7df9ff</p>	<p>The screenshot displays the 'Chart Structure' configuration panel. At the top, there are icons for different chart types: Comparison, Trend (selected), Distribution, Correlation, Indicator, and More. Below these is a 'Recommended Comparisons (5)' section. The 'Measures' section shows 'Energy Consumption per product' assigned to the Left Y-Axis. The 'Dimensions' section shows 'Date' assigned to the Right Y-Axis. The 'Color' section shows 'Energy Consump...' with a color picker set to 7df9ff. The 'Filters' section shows 'Version (1)' with 'Actual' selected.</p>



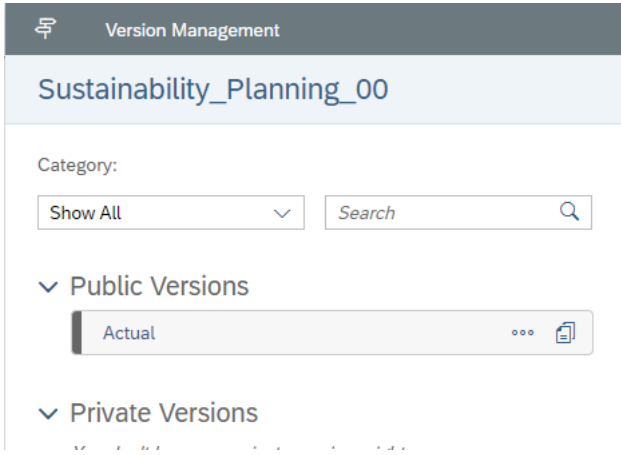
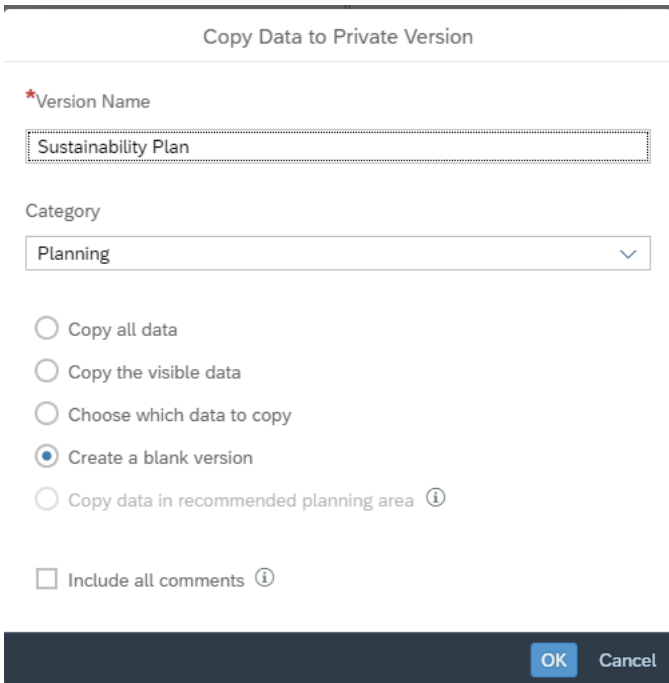
Explanation	Screenshot
Insert charts for CO2 emission comparison	<div><div><div><div>Chart Structure</div><div><div>Comparison</div><div>Trend</div><div>Distribution</div><div>Correlation</div><div>Indicator</div><div>More</div></div><div>Chart Orientation</div><div>Vertical</div><div>Recommended Comparisons (4)</div><div>Measures</div><div>CO2 Emission in KG</div><div>+ Add Measure</div><div>Dimensions</div><div>Date</div><div>+ Add Dimension</div><div>Color</div><div>Measures</div><div>Member</div><div>CO2 Emission in ...</div><div>Show As</div><div>Pattern</div><div>Color</div><div>+ Add Dimension/Measure</div><div>Filters</div><div>Version (1)</div><div>Actual</div><div>+ Add Filters</div><div>Variance</div><div>All Measures in Use (Δ Previous Year)</div></div></div></div>
CO2 Emission Comparison	<div><div><div>CO2 Emission in KG per Date for Actual</div><div><div>Δ Previous Year</div><div><div>-83</div><div>-137</div><div>+62</div><div>-211</div></div></div></div><div><div><div>1,878.74</div><div>1,948.82</div><div>1,740.25</div><div>2,086.51</div><div>1,795.98</div><div>1,811.88</div><div>1,802.11</div><div>1,875.25</div></div><div><div>Q1</div><div>Q2</div><div>Q3</div><div>Q4</div><div>Q1</div><div>Q2</div><div>Q3</div><div>Q4</div></div><div><div>2020</div><div>2021</div></div></div></div>

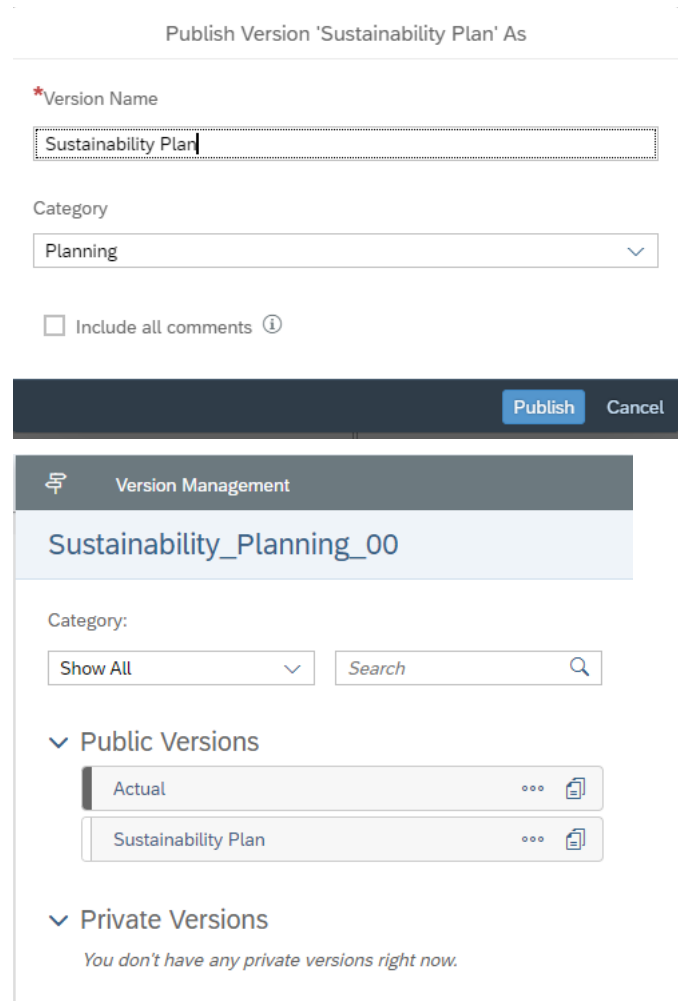


Explanation	Screenshot																		
<p>Insert chart to show the trend of CO2 emission per Product</p>	 <p>The screenshot displays the configuration for a chart titled "Sustainability_Planning_00". In the "Chart Structure" section, the "Trend" chart type is selected. The "Measures" section shows "CO2 Emission Per Product" assigned to the Left Y-Axis. The "Dimensions" section shows "Date" assigned to the Right Y-Axis. The "Color" section shows the measure "CO2 Emission Pe..." with a green color selected. The "Filters" section shows "Version (1)" with "Actual" selected.</p>																		
<p>CO2 Emission Per Product Trend</p>	 <p>The chart displays "CO2 Emission Per Product per Date for Actual". The data shows a constant value of 0.01 for each quarter from Q1 2020 to Q4 2021.</p> <table border="1"> <thead> <tr> <th>Quarter</th> <th>CO2 Emission Per Product</th> </tr> </thead> <tbody> <tr><td>Q1 2020</td><td>0.01</td></tr> <tr><td>Q2 2020</td><td>0.01</td></tr> <tr><td>Q3 2020</td><td>0.01</td></tr> <tr><td>Q4 2020</td><td>0.01</td></tr> <tr><td>Q1 2021</td><td>0.01</td></tr> <tr><td>Q2 2021</td><td>0.01</td></tr> <tr><td>Q3 2021</td><td>0.01</td></tr> <tr><td>Q4 2021</td><td>0.01</td></tr> </tbody> </table>	Quarter	CO2 Emission Per Product	Q1 2020	0.01	Q2 2020	0.01	Q3 2020	0.01	Q4 2020	0.01	Q1 2021	0.01	Q2 2021	0.01	Q3 2021	0.01	Q4 2021	0.01
Quarter	CO2 Emission Per Product																		
Q1 2020	0.01																		
Q2 2020	0.01																		
Q3 2020	0.01																		
Q4 2020	0.01																		
Q1 2021	0.01																		
Q2 2021	0.01																		
Q3 2021	0.01																		
Q4 2021	0.01																		

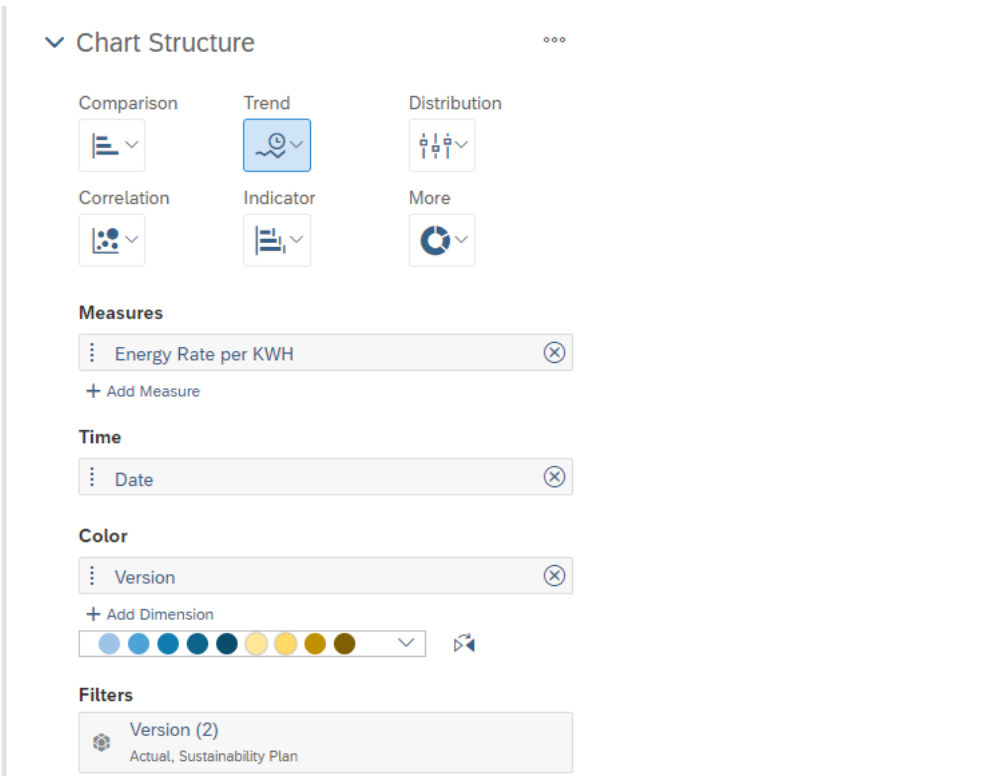
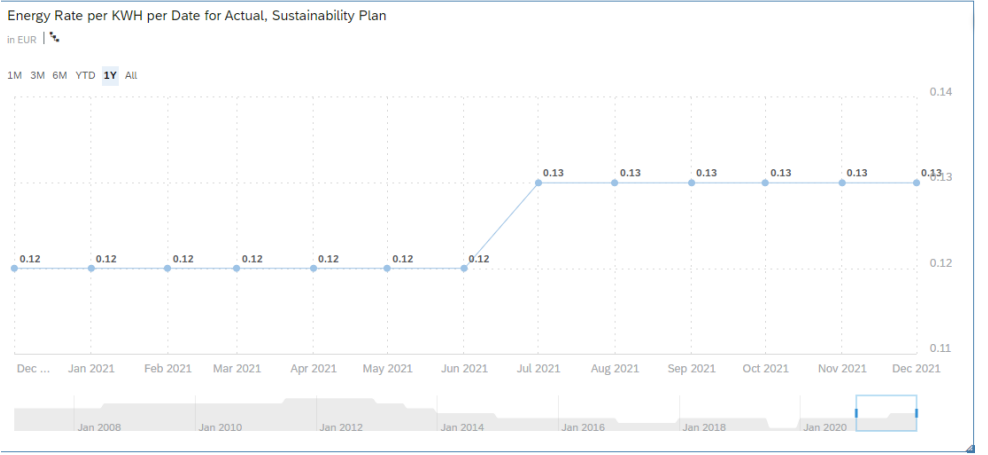
Explanation	Screenshot
<p>Insert Chart to compare the Production after the implementation of Proactive maintenance</p>	 <p>Untick the Invert colours as increase in production is a positive sign</p>


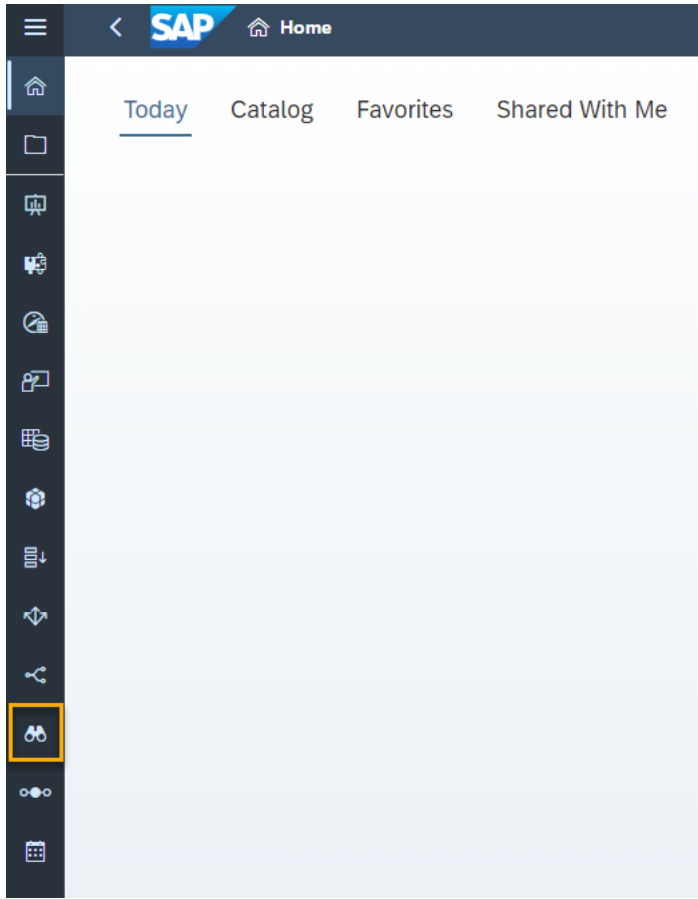
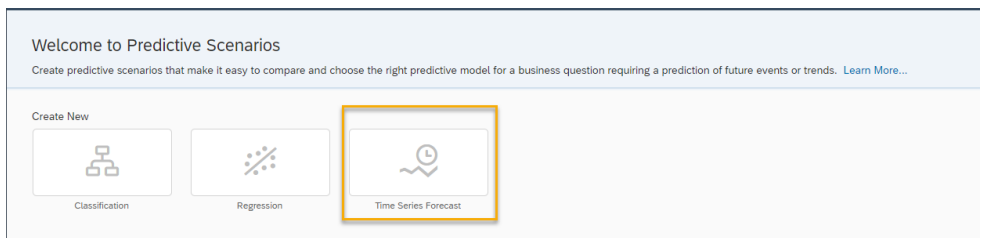
Explanation	Screenshot
	<div><div><div>COMPARE (A)</div><div>Measure</div><div>All Measures in Use (Dynamic)</div><div>+ Add Version/Time</div><div>TO (B)</div><div>Measure</div><div>All Measures in Use (Dynamic)</div><div>Display Options</div><div>Name</div><div>Δ Baseline</div><div><div><input type="checkbox"/> Invert Colors</div><div><input type="checkbox"/> Set No Data as Zero</div><div><input checked="" type="checkbox"/> Scale with Base Chart</div></div><div>Show Difference as Decimal Places</div><div><div><input checked="" type="checkbox"/> Numeric</div><div>Default</div></div><div><div><input type="checkbox"/> Percentage</div><div>Default</div></div><div>View Variance as</div><div><div><input checked="" type="radio"/> Bar</div><div><input type="radio"/> Data Label</div><div><input type="radio"/> Integrated</div></div></div></div> <div><div>Production per Date for Actual</div><div>1 Variance</div><div>Δ Previous Year</div><div><div><div>313,701.23</div><div>324,133.35</div><div>305,576.48</div><div>330,987.90</div><div>331,354.20</div><div>334,263.01</div><div>332,060.48</div><div>346,218.65</div></div><div><div>Q1</div><div>Q2</div><div>Q3</div><div>Q4</div><div>Q1</div><div>Q2</div><div>Q3</div><div>Q4</div></div><div><div>2020</div><div>2021</div></div></div><div><div>+17,653</div><div>+10,130</div><div>+26,484</div><div>+15,231</div></div></div>
The production comparison chart is displayed as configured	

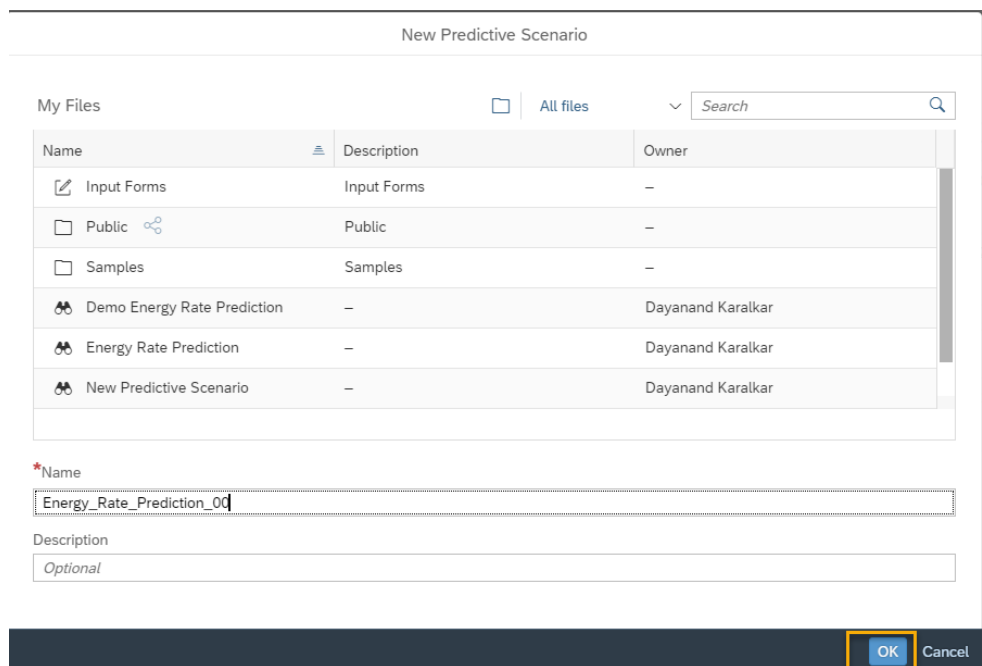
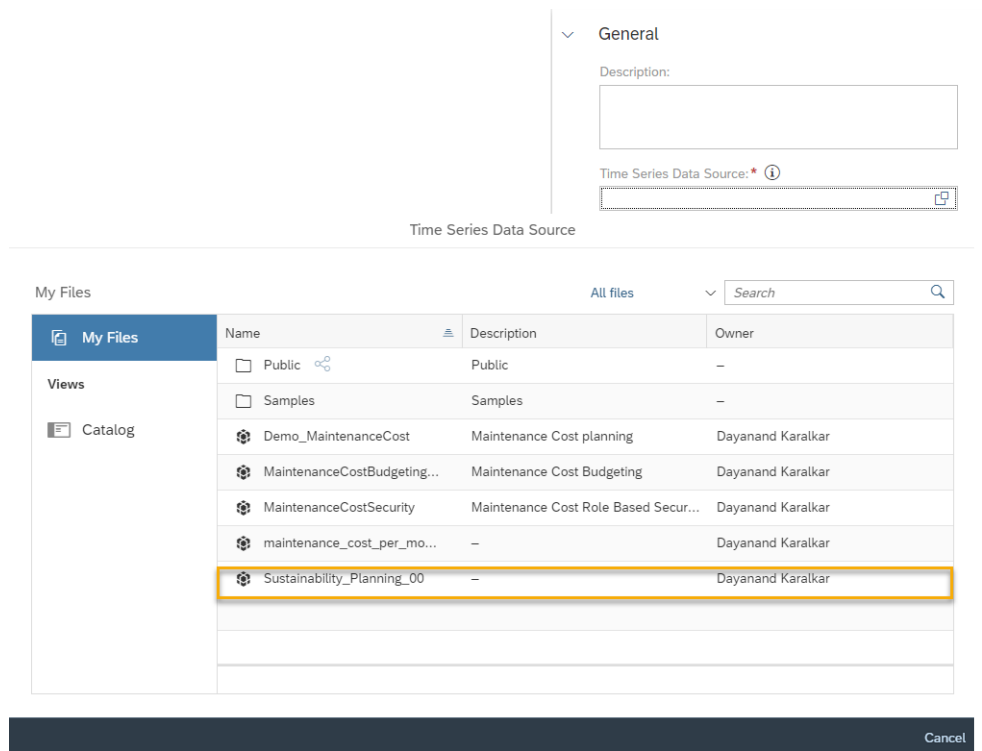
Explanation	Screenshot
Save the Story as Sustainability_Planning_XX	
Energy Rate Prediction	
Insert a New Responsive Page in the story	
Rename the page as Energy Rate Prediction	
In the title enter Energy Rate Prediction	

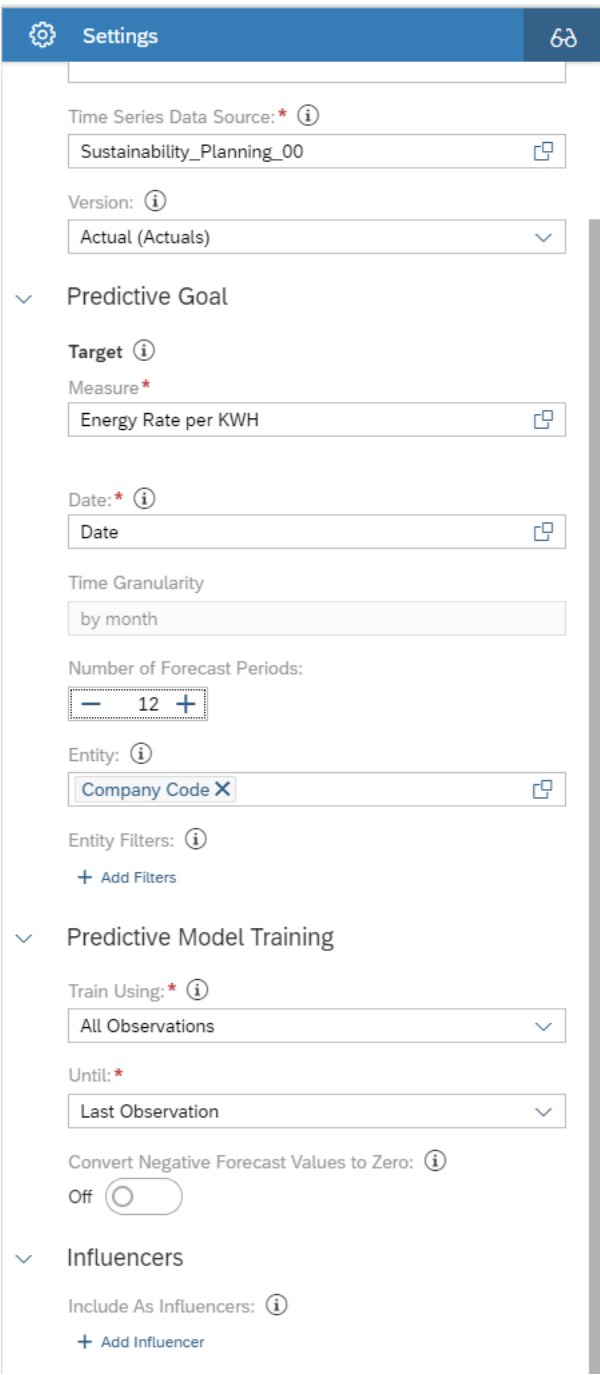

Explanation	Screenshot
From the insert menu Insert a table 	
Click on the table and click on Version Management 	
Following the same steps as Maintenance cost planning Create a Public version Sustainability Plan	

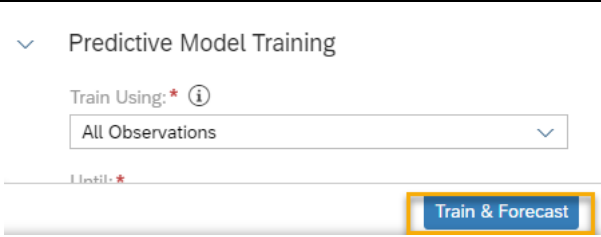
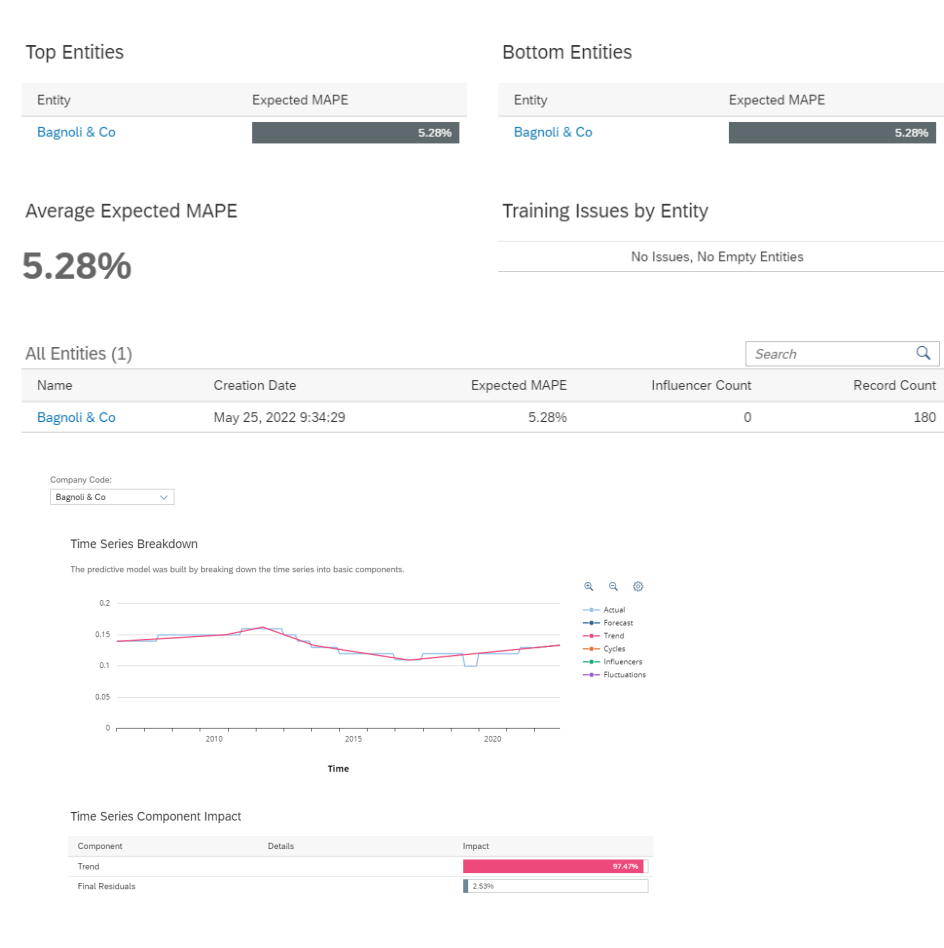
Explanation	Screenshot
	 <p>The screenshot shows the 'Publish Version' dialog for 'Sustainability Plan' with the category set to 'Planning'. Below the dialog is the 'Version Management' interface for 'Sustainability_Planning_00', displaying a list of public versions: 'Actual' and 'Sustainability Plan'.</p>
Close the version Management	
<p>Click on  beside the table and choose Remove</p>	 <p>The screenshot shows a table for 'Sustainability_Planning_00' with columns 'Measures', 'Version', and 'Sustainability Plan'. The 'Actual' version is listed with a value of 496,333.55. A context menu is open, showing various actions, with the 'Remove' option at the bottom highlighted by a red box.</p>


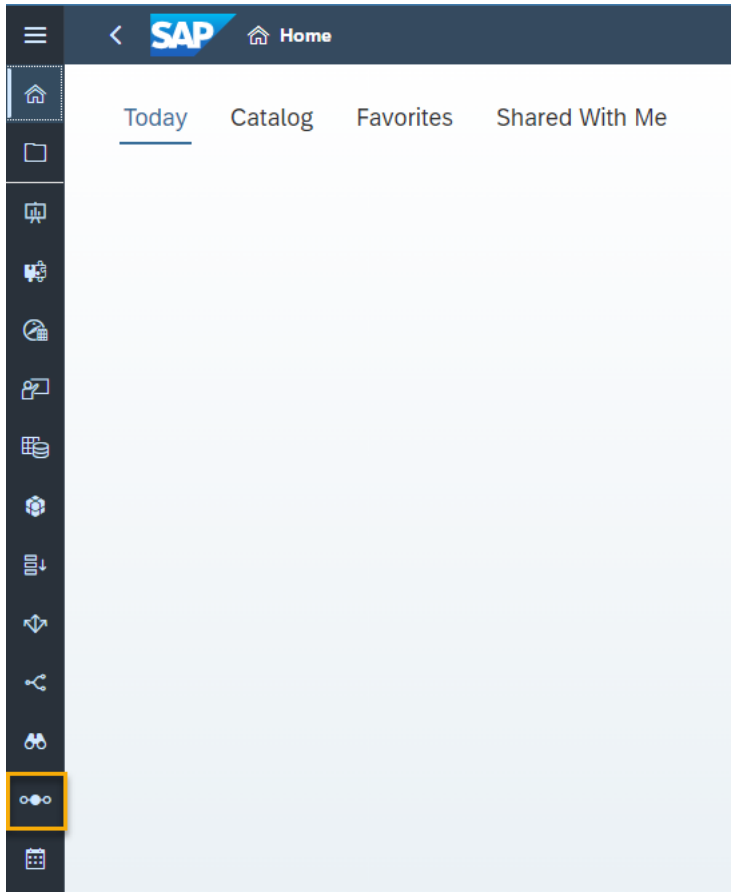
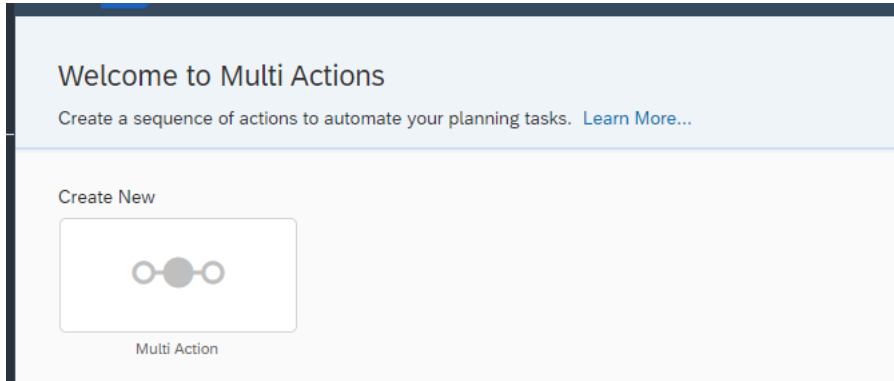

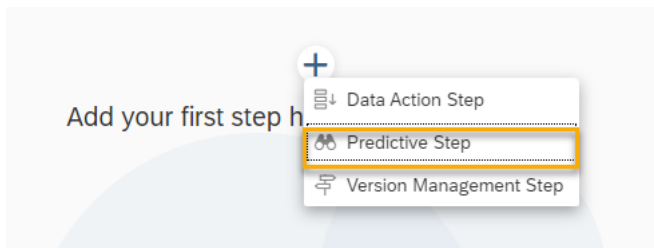
Explanation	Screenshot
Insert Chart for energy rate and configure as shown . there is no data in Plan version yet hence for selecting the filter switch on the unbooked member option	
The Time series chart is added to the story	
Save the story and Navigate back to the homepage	

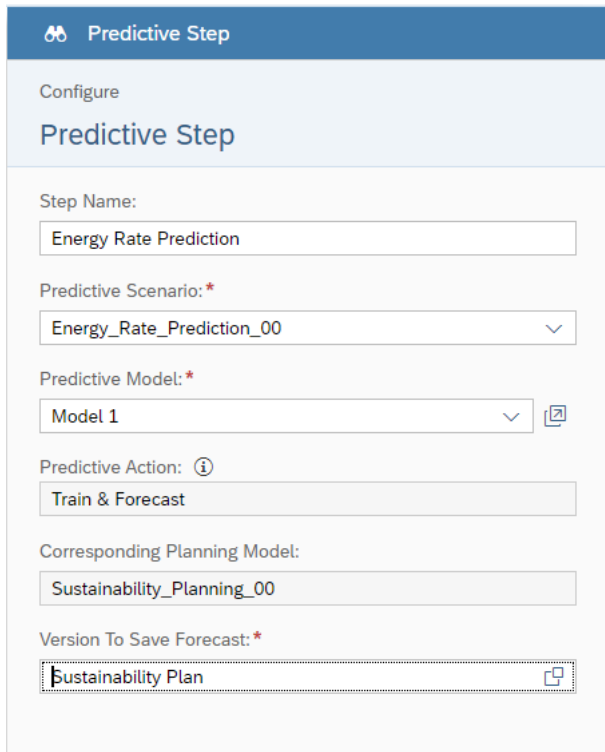

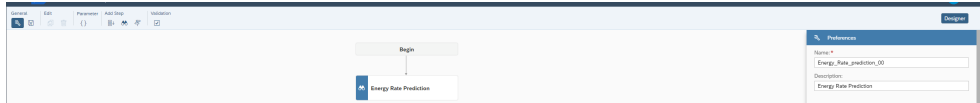

Explanation	Screenshot
<p>On the home page click on  (predictive Scenario)</p>	 <p>The screenshot shows the SAP Home page. The top navigation bar includes the SAP logo and a 'Home' link. Below the navigation bar, there are tabs for 'Today', 'Catalog', 'Favorites', and 'Shared With Me'. On the left side, there is a vertical sidebar with various icons. The icon representing 'Predictive Scenario' (a pair of glasses) is highlighted with a yellow box.</p>
<p>The predictive scenario configuration page opens. In the Create new click on Time Series Forecast</p>	 <p>The screenshot shows the 'Welcome to Predictive Scenarios' page. It includes a header with the title 'Welcome to Predictive Scenarios' and a sub-header 'Create predictive scenarios that make it easy to compare and choose the right predictive model for a business question requiring a prediction of future events or trends. Learn More...'. Below this, there is a section titled 'Create New' with three options: 'Classification', 'Regression', and 'Time Series Forecast'. The 'Time Series Forecast' option is highlighted with a yellow box.</p>

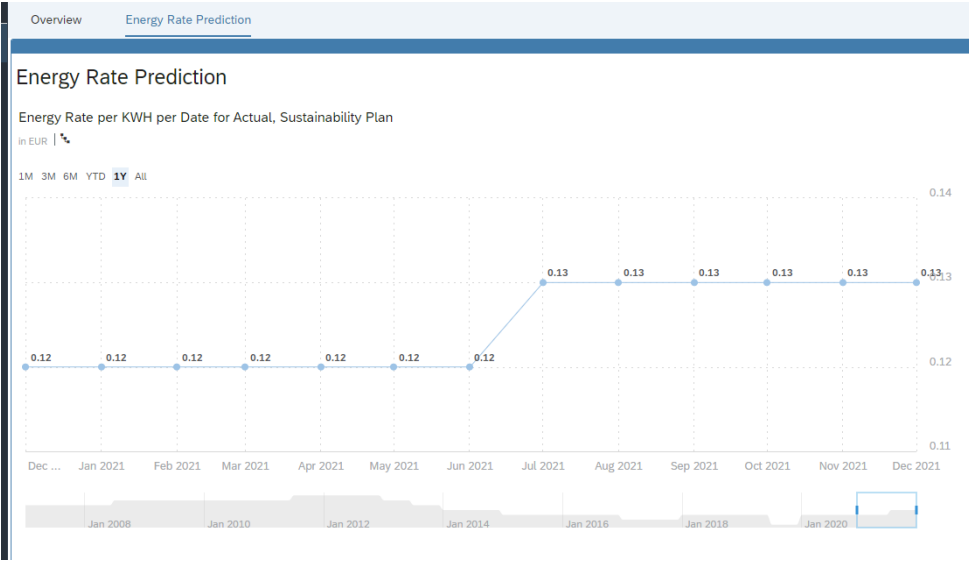

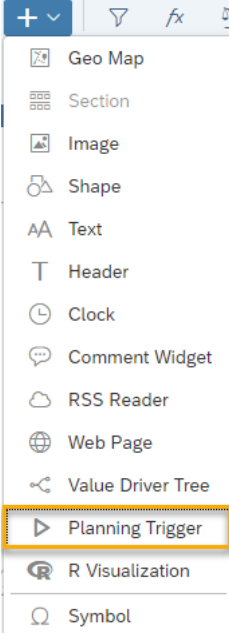
Explanation	Screenshot																								
<p>In the new Predictive Scenario Screen provide name Energy_Rate_Prediction_00 and Click OK</p>	 <p>The screenshot shows the 'New Predictive Scenario' dialog box. At the top, there's a 'My Files' section with a table listing various files. Below this, there are input fields for 'Name' and 'Description'. The 'Name' field contains 'Energy_Rate_Prediction_00'. The 'Description' field is empty. At the bottom right, the 'OK' button is highlighted with a yellow box, and the 'Cancel' button is next to it.</p> <table><tr><th>Name</th><th>Description</th><th>Owner</th></tr><tr><td>Input Forms</td><td>Input Forms</td><td>-</td></tr><tr><td>Public</td><td>Public</td><td>-</td></tr><tr><td>Samples</td><td>Samples</td><td>-</td></tr><tr><td>Demo Energy Rate Prediction</td><td>-</td><td>Dayanand Karalkar</td></tr><tr><td>Energy Rate Prediction</td><td>-</td><td>Dayanand Karalkar</td></tr><tr><td>New Predictive Scenario</td><td>-</td><td>Dayanand Karalkar</td></tr></table>	Name	Description	Owner	Input Forms	Input Forms	-	Public	Public	-	Samples	Samples	-	Demo Energy Rate Prediction	-	Dayanand Karalkar	Energy Rate Prediction	-	Dayanand Karalkar	New Predictive Scenario	-	Dayanand Karalkar			
Name	Description	Owner																							
Input Forms	Input Forms	-																							
Public	Public	-																							
Samples	Samples	-																							
Demo Energy Rate Prediction	-	Dayanand Karalkar																							
Energy Rate Prediction	-	Dayanand Karalkar																							
New Predictive Scenario	-	Dayanand Karalkar																							
<p>The predictive scenario configuration opens. In the data source select your sustainability Model</p>	 <p>The screenshot shows the 'Time Series Data Source' configuration window. On the right, there's a 'General' section with a 'Description' field and a 'Time Series Data Source' dropdown. Below this, there's a 'My Files' section with a table listing various files. The 'Sustainability_Planning_00' file is highlighted with a yellow box.</p> <table><tr><th>Name</th><th>Description</th><th>Owner</th></tr><tr><td>Public</td><td>Public</td><td>-</td></tr><tr><td>Samples</td><td>Samples</td><td>-</td></tr><tr><td>Demo_MaintenanceCost</td><td>Maintenance Cost planning</td><td>Dayanand Karalkar</td></tr><tr><td>MaintenanceCostBudgeting...</td><td>Maintenance Cost Budgeting</td><td>Dayanand Karalkar</td></tr><tr><td>MaintenanceCostSecurity</td><td>Maintenance Cost Role Based Secur...</td><td>Dayanand Karalkar</td></tr><tr><td>maintenance_cost_per_mo...</td><td>-</td><td>Dayanand Karalkar</td></tr><tr><td>Sustainability_Planning_00</td><td>-</td><td>Dayanand Karalkar</td></tr></table>	Name	Description	Owner	Public	Public	-	Samples	Samples	-	Demo_MaintenanceCost	Maintenance Cost planning	Dayanand Karalkar	MaintenanceCostBudgeting...	Maintenance Cost Budgeting	Dayanand Karalkar	MaintenanceCostSecurity	Maintenance Cost Role Based Secur...	Dayanand Karalkar	maintenance_cost_per_mo...	-	Dayanand Karalkar	Sustainability_Planning_00	-	Dayanand Karalkar
Name	Description	Owner																							
Public	Public	-																							
Samples	Samples	-																							
Demo_MaintenanceCost	Maintenance Cost planning	Dayanand Karalkar																							
MaintenanceCostBudgeting...	Maintenance Cost Budgeting	Dayanand Karalkar																							
MaintenanceCostSecurity	Maintenance Cost Role Based Secur...	Dayanand Karalkar																							
maintenance_cost_per_mo...	-	Dayanand Karalkar																							
Sustainability_Planning_00	-	Dayanand Karalkar																							

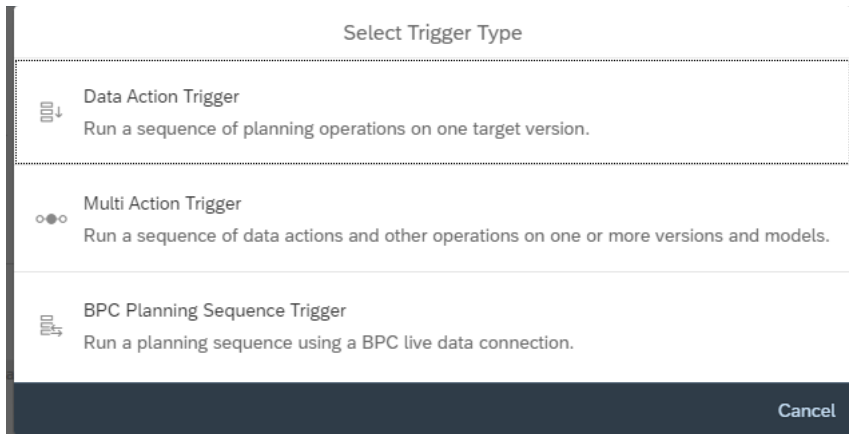
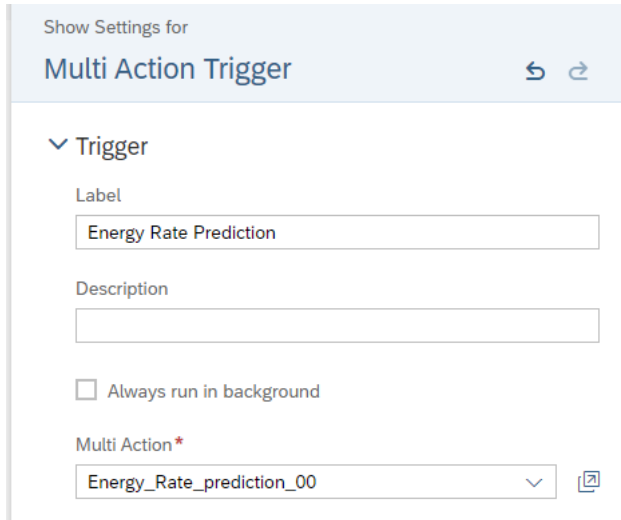

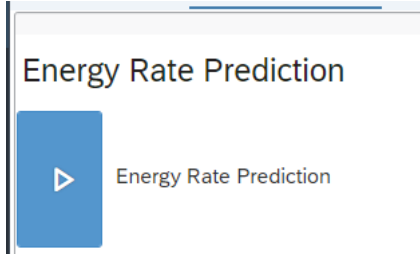
Explanation	Screenshot
<p>Configure the setting as below</p> <p>Version: Actual</p> <p>Target measure: Energy Rate Per KWH</p> <p>Date: Date dimension of the model</p> <p>Time Granularity :- month</p> <p>Number of Forecast Periods :- 12</p> <p>Entity : Company Code</p> <p>Predictive Model training</p> <p>Train Using: - All observation</p> <p>Until:- Last Observation</p>	
<p>Click on  to save the settings</p>	


Explanation	Screenshot
Click on “ Train & Forecast”	
The model provides the results of the prediction	
Navigate Back to the Home Page	
MultiAction Configuration	

Explanation	Screenshot
<p>We need to provide users the functionality to run predictive forecast from SAP Analytics cloud stories. To enable that the predictive scenario configured should be available to the users in SAC stories. Multi Action is used to configure such scenario.</p> <p>From home screen click on  to create Navigate to a Multi Action Screen</p>	
<p>The Multi action Configuration screen opens. Click on Create -> New</p>	
<p>Click on  Add your first step here, or use the toolbar</p> <p>And select Predictive Step</p>	

Explanation	Screenshot
<p>Configure the step as below, Name: Energy Rate Prediction Predictive Scenario: Select the predictive scenario you have created in the previous step System derives the Model: Model1 Version: Sustainability Plan</p>	
<p>Click on  and provide name as Energy_Rate_Prediction_00 Description: Energy rate prediction</p>	
<p>Click on  to Save the Multi Action</p>	
Including Multi Action in the Story	

Explanation	Screenshot
<p>Open the Sustainability planning story in Edit mode and navigate to the Energy Rate prediction page</p>	 <p>Overview Energy Rate Prediction</p> <p>Energy Rate Prediction</p> <p>Energy Rate per KWH per Date for Actual, Sustainability Plan</p> <p>in EUR</p> <p>1M 3M 6M YTD 1Y All</p> <p>Dec ... Jan 2021 Feb 2021 Mar 2021 Apr 2021 May 2021 Jun 2021 Jul 2021 Aug 2021 Sep 2021 Oct 2021 Nov 2021 Dec 2021</p> <p>Jan 2008 Jan 2010 Jan 2012 Jan 2014 Jan 2016 Jan 2018 Jan 2020</p>
<p>Click on  in the insert menu and select Planning Trigger</p>	 <p>+ ▾</p> <p>Geo Map</p> <p>Section</p> <p>Image</p> <p>Shape</p> <p>Text</p> <p>Header</p> <p>Clock</p> <p>Comment Widget</p> <p>RSS Reader</p> <p>Web Page</p> <p>Value Driver Tree</p> <p>▶ Planning Trigger</p> <p>R Visualization</p> <p>Symbol</p>


Explanation	Screenshot
Click on Multi Action Trigger	
In the Multi Action select the multi action configured in the last step. Provide label as “Energy Rate Prediction”	
Place the Multiaction on top of the chart and click  to save the story	
Click on the Multi Action to execute it	

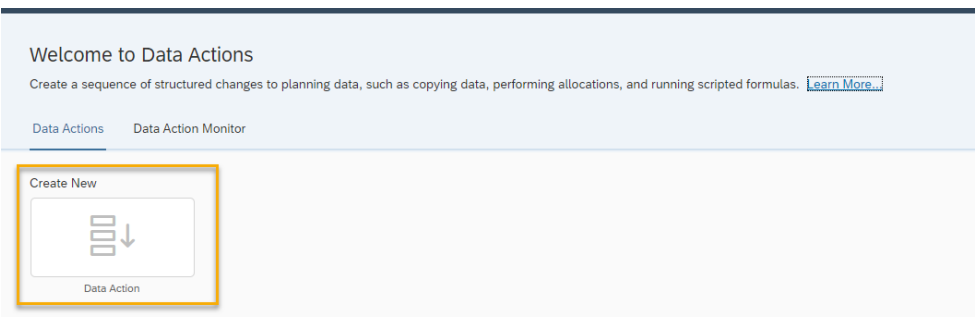
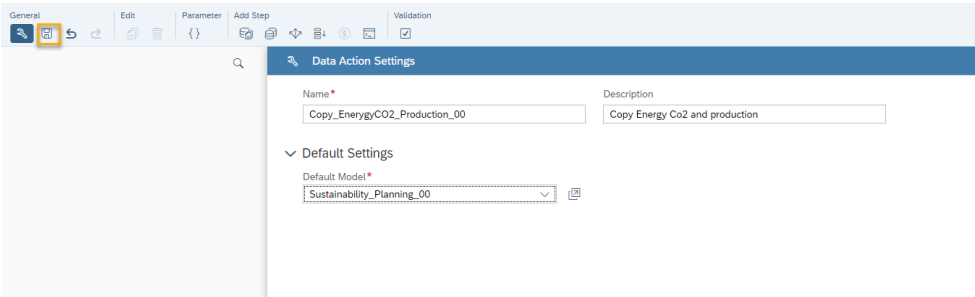

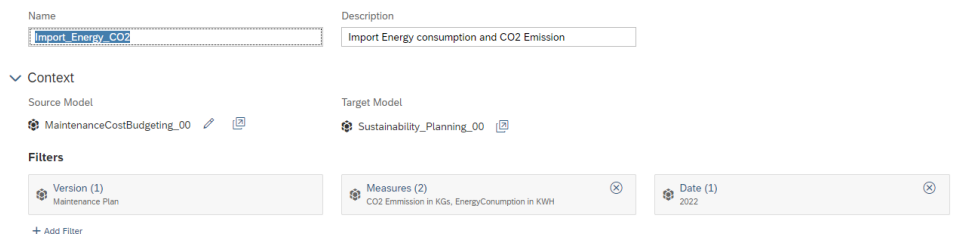
Explanation	Screenshot
The Multi action triggers the predictive scenario and provides the energy rate for 2022	
Change the color palette to select differentiate the Actual and Plan values more clearly	
Click on  to save the story	

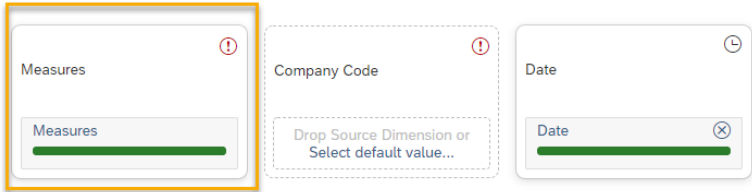

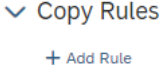


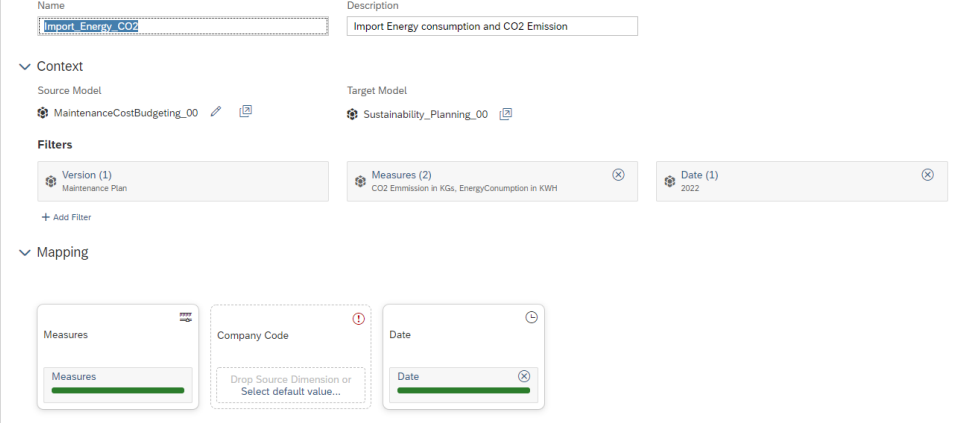
Colloboration with Maintenance Planning

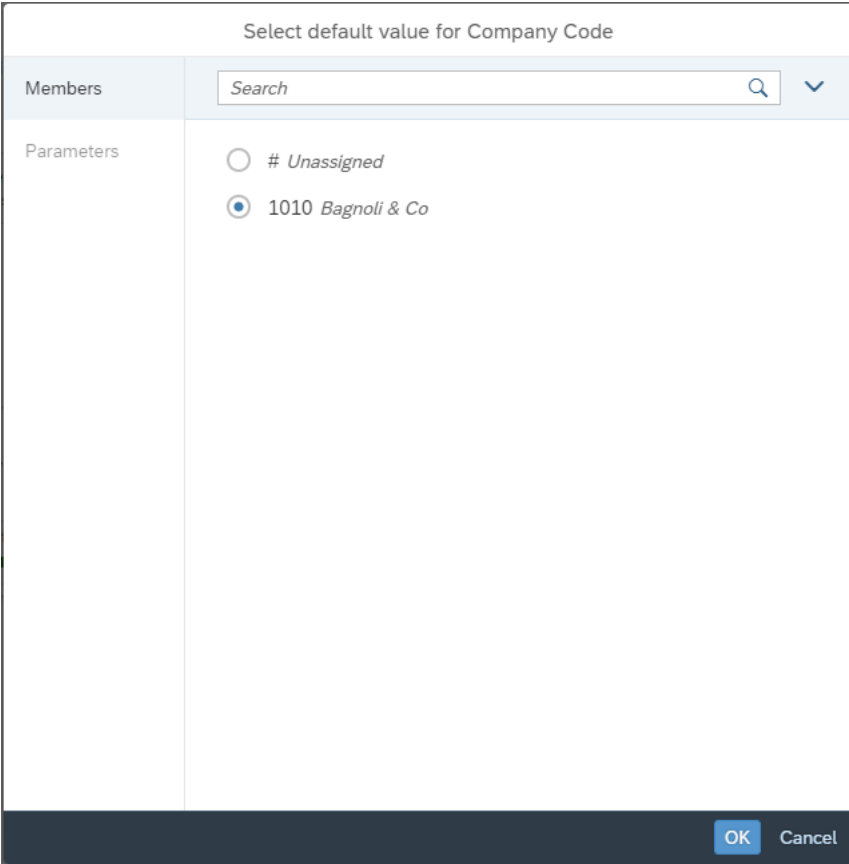
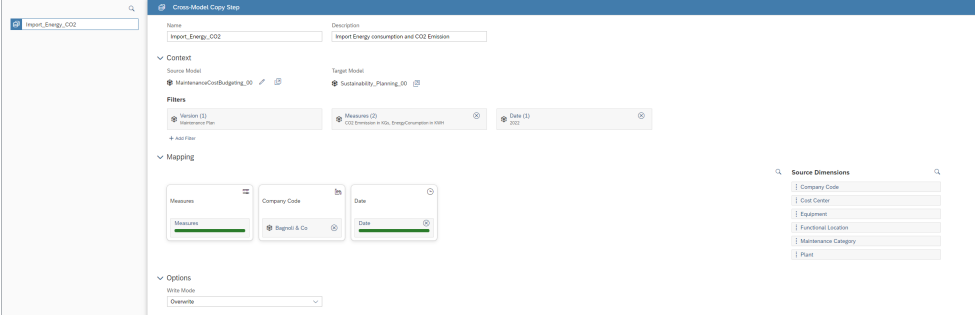

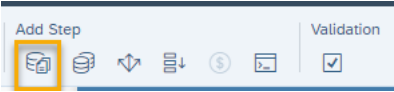

The Smart Factory application has provided us the energy consumption and CO2 emission per equipment. We have loaded that data into the Maintenance Planning Model and created maintenance Plan. The sustainability Planner will get that plan and look at the impact of that plan on Sustainability KPIs.

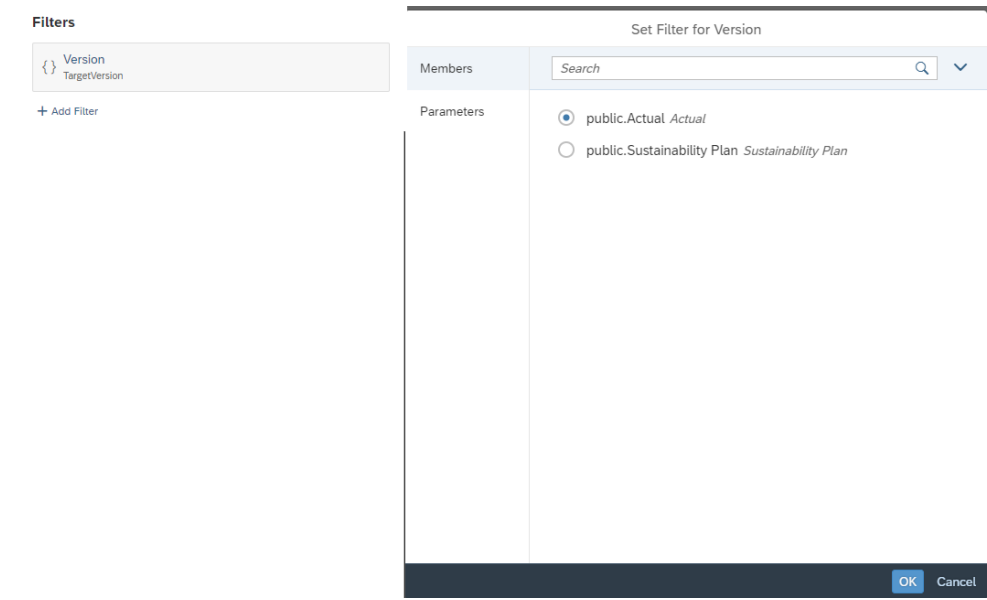
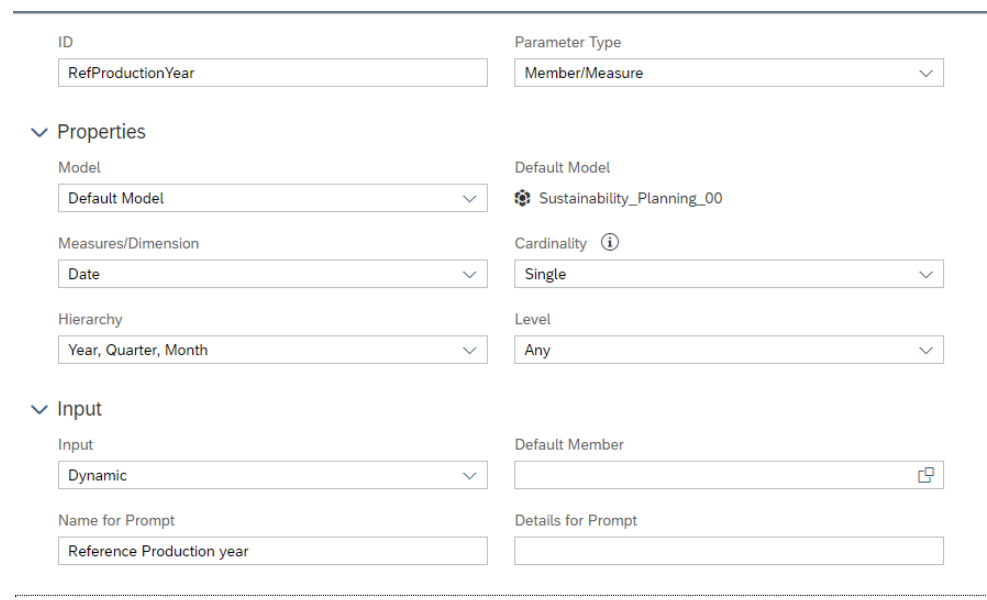
Also, the sustainability planner will plan the production based on the historical data. In this section we will configure Data actions to get the Energy Consumption from Maintenance Cost Planning and create production plan based on history

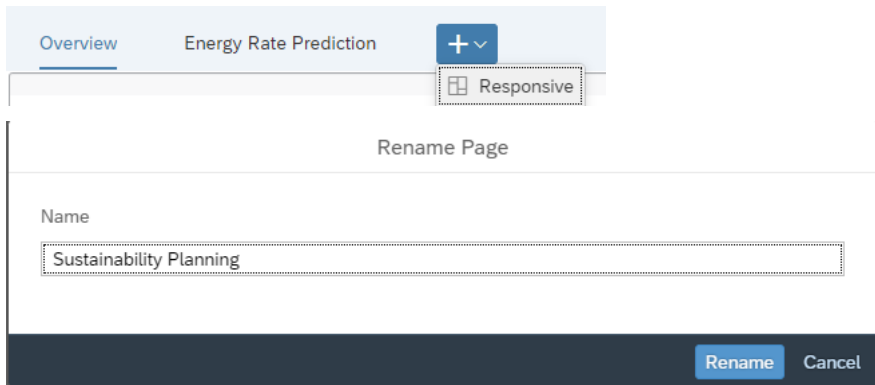

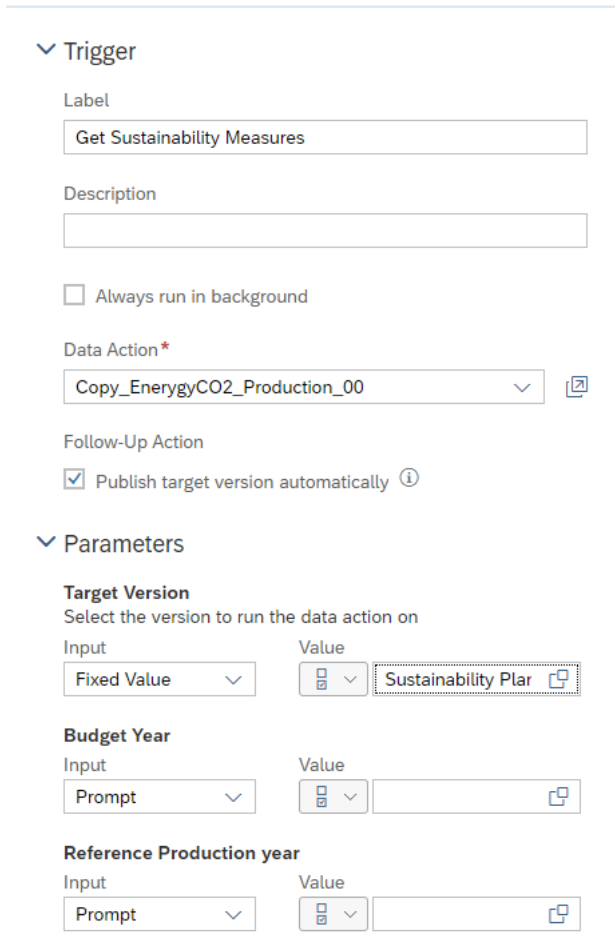
Click on  on Home Screen of SAP Analytics Cloud to Navigate to the Data Action Page	
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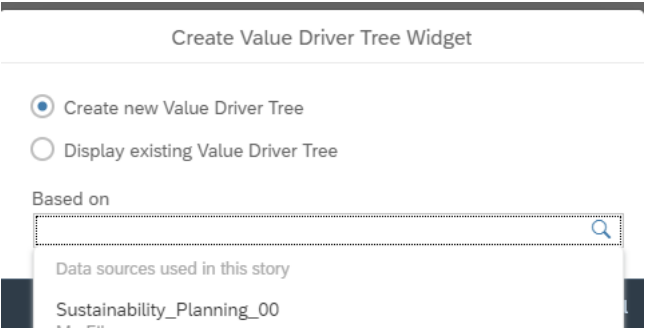
Explanation	Screenshot
<p>Click on Create New</p>	
<p>Provide name and the base model for the data action Name: Copy_EnergyCO2_Production_XX Default Model : Sustainability Model you have created Description: Copy Energy CO2 and production and click Save</p>	
<p>From the Add Step and cross model copy step</p>	
<p>Configure the step as below Name: Import_Energy_CO2 Description: Import Energy & Co2 Emission</p> <p>Context Souce Model : Your Maintenance Cost Planning Model</p> <p>Filters Version(available by default) Maintenance Plan Add filter for Measures and select CO2 Emission in KG Energy Consumption in KWH Add Filter for Date and Select 2022</p>	

Explanation	Screenshot
In the mapping section click on Measures	 <p>Mapping</p> <p>Measures</p> <p>Company Code</p> <p>Date</p>
In the measure mapping Select No Auto generation	 <p>Auto-Generated Copy Rules</p> <p>Auto-Generation Strategy: ⓘ</p> <p>No Auto-Generation</p>
In copy rule section click on + Add Rule	 <p>Copy Rules</p> <p>+ Add Rule</p>
In the From measure Select CO2 Emission in KGs And select the Target measure CO2 Emission in KG in the To measure	 <p>Copy Rules</p> <p>From (Measures) To (Measures)</p> <p>CO2 Emission in KGs CO2 Emission in KG-K ✓ ×</p>
Add another rule to copy the energy consumption	 <p>Copy Rules</p> <p>From (Measures) To (Measures)</p> <p>CO2 Emission in KGs CO2 Emission in KG-K ✓ ×</p> <p>Energy Consumption in KWH Energy Consumption in KWH-K ✓ ×</p>
Click Done. The system navigates back to the step configuration	 <p>Name: Import Energy CO2</p> <p>Description: Import Energy consumption and CO2 Emission</p> <p>Context</p> <p>Source Model: MaintenanceCostBudgeting_00</p> <p>Target Model: Sustainability_Planning_00</p> <p>Filters</p> <p>Version (1) Maintenance Plan</p> <p>Measures (2) CO2 Emission in KGs, Energy Consumption in KWH</p> <p>Date (1) 2022</p> <p>Mapping</p> <p>Measures</p> <p>Company Code</p> <p>Date</p>













Explanation	Screenshot
Click on the Company Code and select the company code from the member list and click ok	
Keep the Write Mode to Overwrite and Save the step	
Add a Copy Step by clicking on 	
Configure the step as below Name: Copy_Production Description : Copy Production	

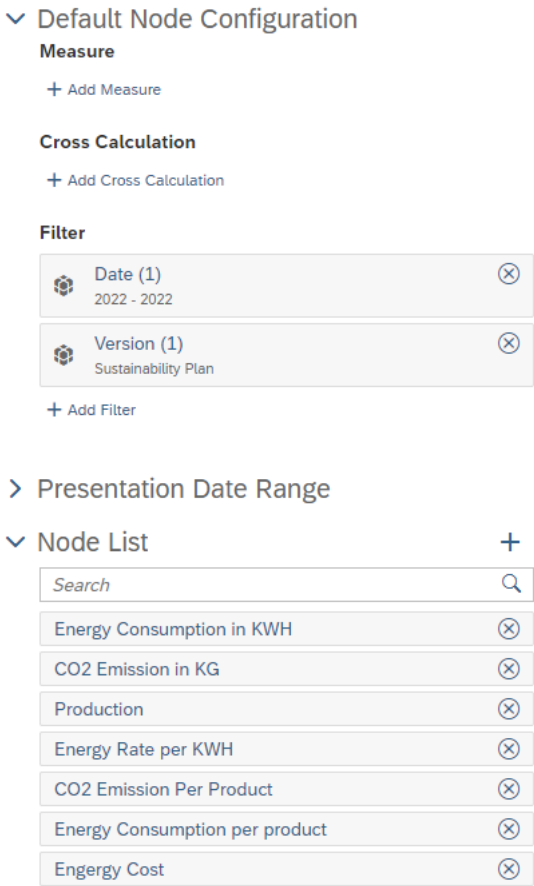
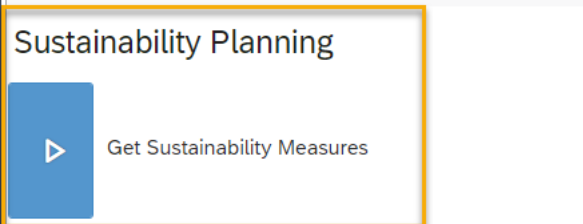
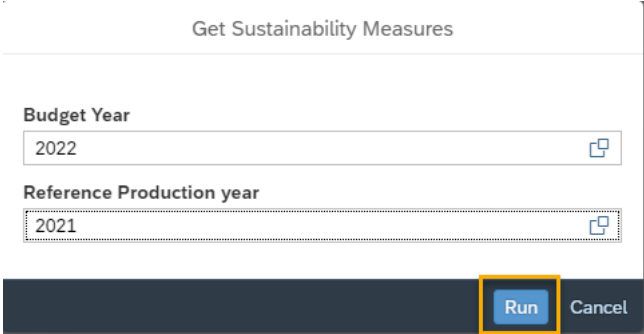
Explanation	Screenshot
In the Filters click on Version and select Actual From the Member List and click OK	
Click on the parameter and define two parameters to allow user to chose from which year the production is to be copied and what is the budget year. Follow the same steps in exercise 3 to create parameters for data actions	

Explanation	Screenshot
Open the Sustainability Planning Story in edit mode and add a new page and rename it as “Sustainability Planning”	
Click on the title and provide Sustainability Planning as title	
Insert the data action we have created in the previous step to import the data of Sustainability KPIS And Configure the Data Action as shown	

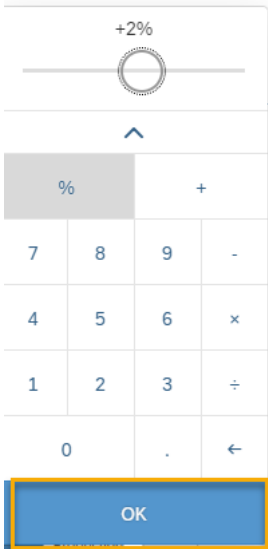
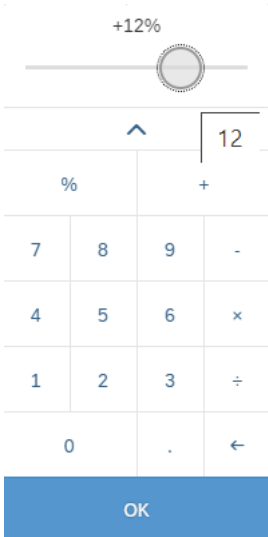
Explanation	Screenshot
<p>In the Insert click on  and choose Value Driver Tree</p>	 <p>The screenshot shows a 'Tools' menu with various options. The 'Value Driver Tree' option is highlighted with an orange box. Other options include Geo Map, Section, Image, Shape, Text, Header, Clock, Comment Widget, RSS Reader, Web Page, Planning Trigger, R Visualization, and Symbol.</p>
<p>The value Driver tree Widget opens. Select New Value Driver tree and select the sustainability Model as Source</p>	 <p>The screenshot shows the 'Create Value Driver Tree Widget' dialog box. The 'Create new Value Driver Tree' option is selected. The 'Based on' dropdown shows 'Sustainability_Planning_00'.</p>

Explanation	Screenshot
<p>Value Driver tree is inserted in the Story</p>	
<p>Click on Auto-Create Value Driver Tree from Model...</p> <p>System ask us to select the measure we would like to have in the value driver tree. Select all measures of the model and click OK</p>	

Explanation	Screenshot
In the value Driver tree configuration change the Version to Sustainability Plan	<div><div><div>▼ Default Node Configuration</div><div><div>Measure</div><div>+ Add Measure</div></div><div><div>Cross Calculation</div><div>+ Add Cross Calculation</div></div><div><div>Filter</div><div><div><div><div></div><div>Date (1)</div><div>2022 - 2022</div><div></div></div></div><div><div><div></div><div>Version (1)</div><div>Sustainability Plan</div><div></div></div></div><div>+ Add Filter</div></div></div><div><div>> Presentation Date Range</div></div><div><div>▼ Node List<div>+</div></div><div><div><div>Search</div><div></div></div><div><div>Energy Consumption in KWH</div><div></div></div><div><div>CO2 Emission in KG</div><div></div></div><div><div>Production</div><div></div></div><div><div>Energy Rate per KWH</div><div></div></div><div><div>CO2 Emission Per Product</div><div></div></div><div><div>Energy Consumption per product</div><div></div></div><div><div>Energy Cost</div><div></div></div></div></div></div></div>

Explanation	Screenshot
<p>System provides the values of the KPI in the value Driver Tree</p>	 <p>✓ Default Node Configuration</p> <p>Measure</p> <p>+ Add Measure</p> <p>Cross Calculation</p> <p>+ Add Cross Calculation</p> <p>Filter</p> <p> <input type="checkbox"/> Date (1) 2022 - 2022 </p> <p> <input type="checkbox"/> Version (1) Sustainability Plan </p> <p>+ Add Filter</p> <p>> Presentation Date Range</p> <p>✓ Node List +</p> <p>Search</p> <p>Energy Consumption in KWH</p> <p>CO2 Emission in KG</p> <p>Production</p> <p>Energy Rate per KWH</p> <p>CO2 Emission Per Product</p> <p>Energy Consumption per product</p> <p>Energy Cost</p>
<p>Run the Data Action included the story to get the Energy Consumption, CO2 Emission and Production</p>	 <p>Sustainability Planning</p> <p>Get Sustainability Measures</p>
<p>Provide the Budget Values and the reference year for production and click on Run</p>	 <p>Get Sustainability Measures</p> <p>Budget Year</p> <p>2022</p> <p>Reference Production year</p> <p>2021</p> <p>Run Cancel</p>


Explanation	Screenshot
The data action Runs Successfully and populates the KPIs	 <p>New VDT Widget</p> <ul style="list-style-type: none">Energy Cost: Energy Cost in EUR, 30,254.46, 2022Energy Rate p...: Energy Rate per K..., 0.13, 2022Energy Consu...: Energy Consumpti..., 242,035.66, 2022Energy Consu...: Energy Consumpti..., 0.18, 2022Production: Production, 1,343,896.34, 2022CO2 Emission ...: CO2 Emission Per ..., 0.01, 2022CO2 Emission ...: CO2 Emission in KG, 7,285.22, 2022
Click on the production KPI in the value driver tree . System provide us a slider to adjust the Production KPI and see the impact of the change	 <p>Sustainability Planning</p> <p>Get Sustainability Measures</p> <p>New VDT Widget</p> <ul style="list-style-type: none">Energy Cost: Energy Cost in EUR, 30,254.46, 2022Energy Consu...: Energy Consumpti..., 0.18, 2022CO2 Emission ...: CO2 Emission Per ..., 0.01, 2022CO2 Emission ...: CO2 Emission in KG, 7,285.22, 2022Production: Production, 1,343,896.34, 2022 <p>Calculator overlay: 0%, %, +, 7, 8, 9, -, 4, 5, 6, x, 1, 2, 3, ÷, 0, ., ←, OK</p>

Explanation	Screenshot
In the slider increase the production by 2 % and see the impact	
Similarly change the energy rate by some percentage and analyze the impact on energy Cost	

Explanation	Screenshot																												
	<div><p>New VDT Widget</p><p>The screenshot displays a 'New VDT Widget' interface with a search icon in the top right and a navigation arrow in the bottom left. It features a hierarchical tree of data cards. The 'Energy Cost' card (36,305.35 EUR) is linked to the 'Energy Rate p...' card (0.15). The 'Energy Rate p...' card is linked to the 'Energy Consu...' card (242,035.66). The 'Energy Consu...' card is linked to the 'Production' card (1,370,774.27). The 'Production' card is linked to the 'CO2 Emission ...' card (7,285.22 KG). The 'CO2 Emission ...' card is linked to the 'CO2 Emission ...' card (0.01). Each card includes a database icon and the year 2022.</p><table><tr><th>Metric</th><th>Value</th><th>Unit</th><th>Year</th></tr><tr><td>Energy Cost</td><td>36,305.35</td><td>EUR</td><td>2022</td></tr><tr><td>Energy Rate p...</td><td>0.15</td><td></td><td>2022</td></tr><tr><td>Energy Consu...</td><td>242,035.66</td><td></td><td>2022</td></tr><tr><td>Production</td><td>1,370,774.27</td><td></td><td>2022</td></tr><tr><td>CO2 Emission ...</td><td>7,285.22</td><td>KG</td><td>2022</td></tr><tr><td>CO2 Emission ...</td><td>0.01</td><td></td><td>2022</td></tr></table></div>	Metric	Value	Unit	Year	Energy Cost	36,305.35	EUR	2022	Energy Rate p...	0.15		2022	Energy Consu...	242,035.66		2022	Production	1,370,774.27		2022	CO2 Emission ...	7,285.22	KG	2022	CO2 Emission ...	0.01		2022
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Explanation	Screenshot																																																								
Include a table to show all the KPIs in table format. Configure the table as shown	<div><div>Table Structure</div><div><div>Cross-tab</div><div><div><div></div></div></div><div><div><input checked="" type="checkbox"/> Adaptive Column Width</div><div><input type="checkbox"/> Arrange Totals / Parent Nodes Below</div><div><input checked="" type="checkbox"/> Optimized Presentation ⓘ</div></div><div>Rows<div><div>Company Code</div><div>Measures<div>7 Model Measures</div></div></div><div>+ Add Measures/Dimensions</div></div><div>Columns<div><div>Version</div><div>Date</div></div><div>+ Add Measures/Dimensions</div></div><div>Filters<div><div>Date (1)<div>2022</div></div><div>Measures (7)<div>Energy Consumption in KWH, CO2 Emission in KG, Producti...</div></div><div>Version (1)<div>public.Sustainability Plan (Sustainability Plan)</div></div></div><div>+ Add Filters</div></div></div></div> <div>The planner can look at the table if required to get the details.</div> <div><div>Sustainability_Planning_00</div><div><div>1 Filter</div><div><div>Version</div><div>Sustainability Plan *</div></div><div><div>Date</div><div>2022</div><div>> Q1 (2022)</div><div>> Q2 (2022)</div><div>> Q3 (2022)</div><div>> Q4 (2022)</div></div><table><tr><th>Company Code</th><th>Measures</th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>Bagroli & Co</td><td>Energy Consumption in KWH</td><td>242,035.66</td><td>59,667.57</td><td>60,195.71</td><td>59,871.21</td><td>62,301.17</td></tr><tr><td></td><td>CO2 Emission in KG</td><td>7,285.22</td><td>1,795.98</td><td>1,811.88</td><td>1,802.11</td><td>1,875.25</td></tr><tr><td></td><td>Production</td><td>1,370,774.27</td><td>337,981.28</td><td>340,948.29</td><td>338,701.68</td><td>353,143.02</td></tr><tr><td></td><td>Energy Rate per KWH</td><td>€0.15</td><td>€0.14</td><td>€0.15</td><td>€0.15</td><td>€0.15</td></tr><tr><td></td><td>CO2 Emission Per Product</td><td>0.01</td><td>0.01</td><td>0.01</td><td>0.01</td><td>0.01</td></tr><tr><td></td><td>Energy Consumption per product</td><td>0.18</td><td>0.18</td><td>0.18</td><td>0.18</td><td>0.18</td></tr><tr><td></td><td>Energy Cost</td><td>€36,305.35</td><td>€8,552.35</td><td>€9,029.36</td><td>€9,180.25</td><td>€9,552.85</td></tr></table></div></div>	Company Code	Measures						Bagroli & Co	Energy Consumption in KWH	242,035.66	59,667.57	60,195.71	59,871.21	62,301.17		CO2 Emission in KG	7,285.22	1,795.98	1,811.88	1,802.11	1,875.25		Production	1,370,774.27	337,981.28	340,948.29	338,701.68	353,143.02		Energy Rate per KWH	€0.15	€0.14	€0.15	€0.15	€0.15		CO2 Emission Per Product	0.01	0.01	0.01	0.01	0.01		Energy Consumption per product	0.18	0.18	0.18	0.18	0.18		Energy Cost	€36,305.35	€8,552.35	€9,029.36	€9,180.25	€9,552.85
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Explanation

Click on  to save the story

Screenshot

