



PARTNER

openSAP - Building AI and Sustainability Solutions on SAP BTP

Week5 - Collaborative Enterprise Planning with SAP Analytics Cloud

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

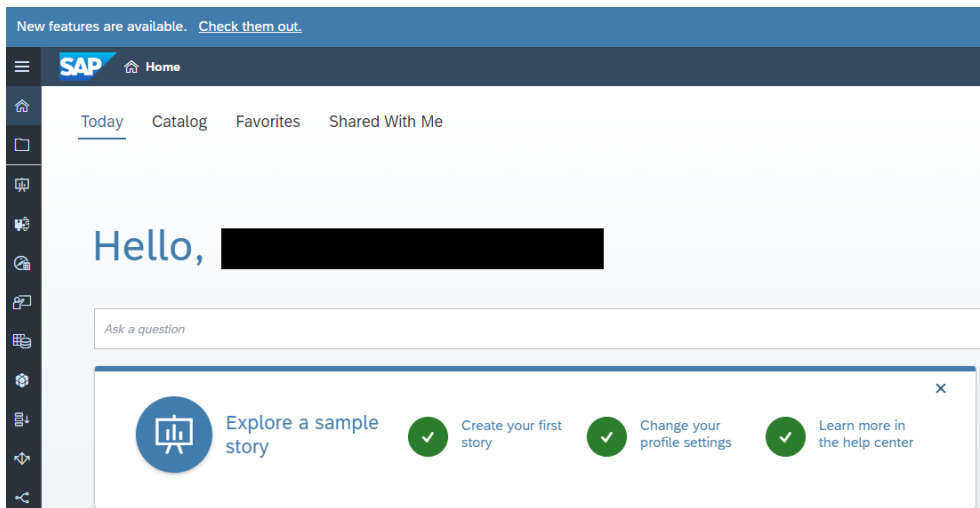

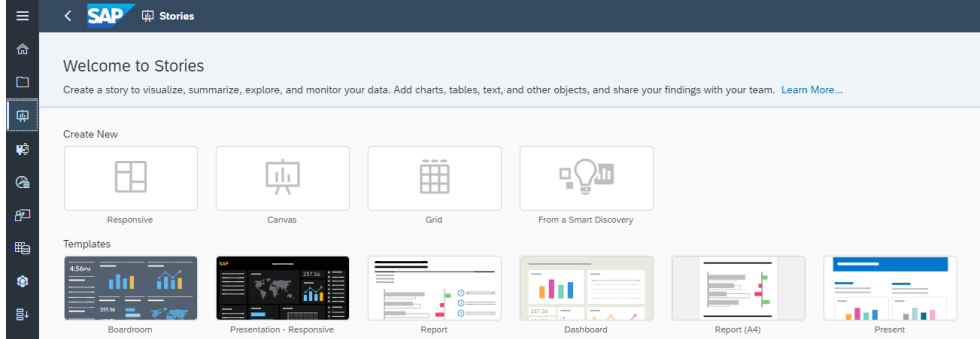
Before the exercise, please set up your SAP Analytics Cloud trial account via this tutorial: [Set up your SAP Analytics Cloud Trial Account](#)

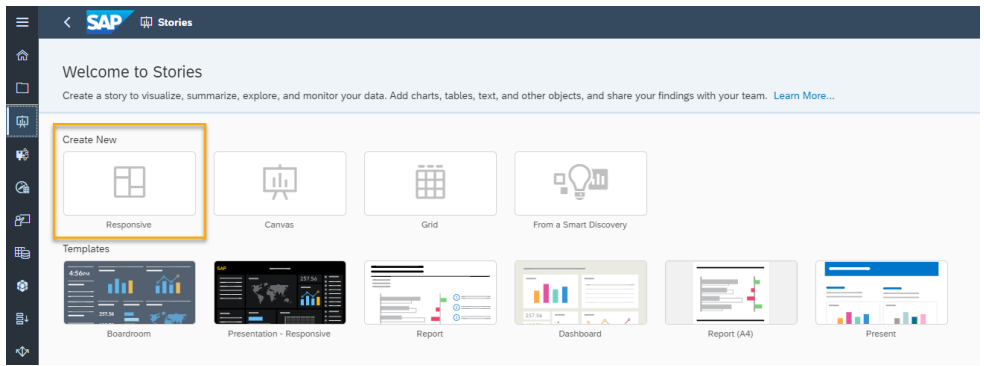
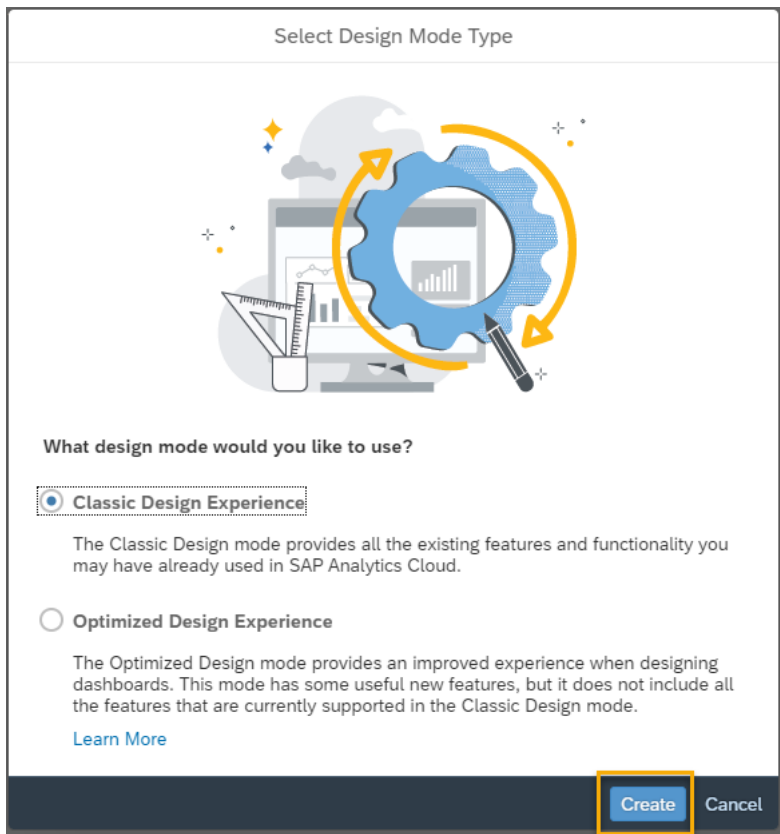
Please make sure you have already registered in order to be able to [Try SAP Analytics Cloud for free](#)

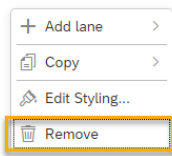
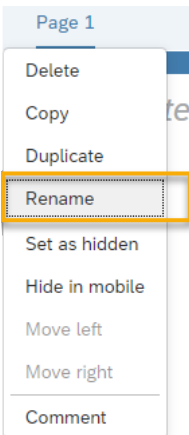
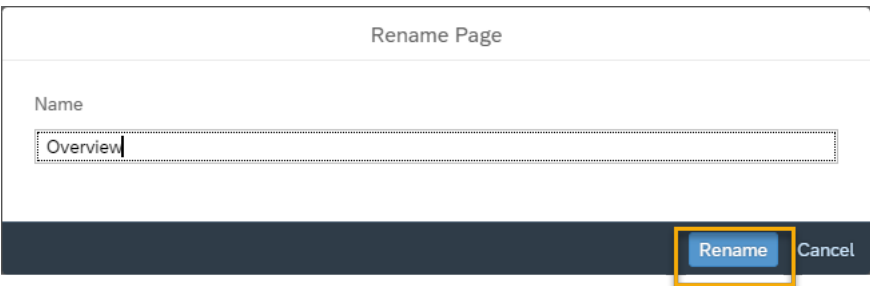
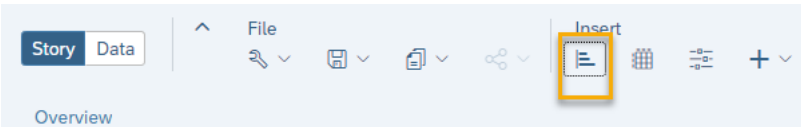
PREREQUISITES


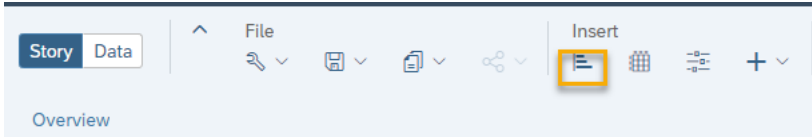
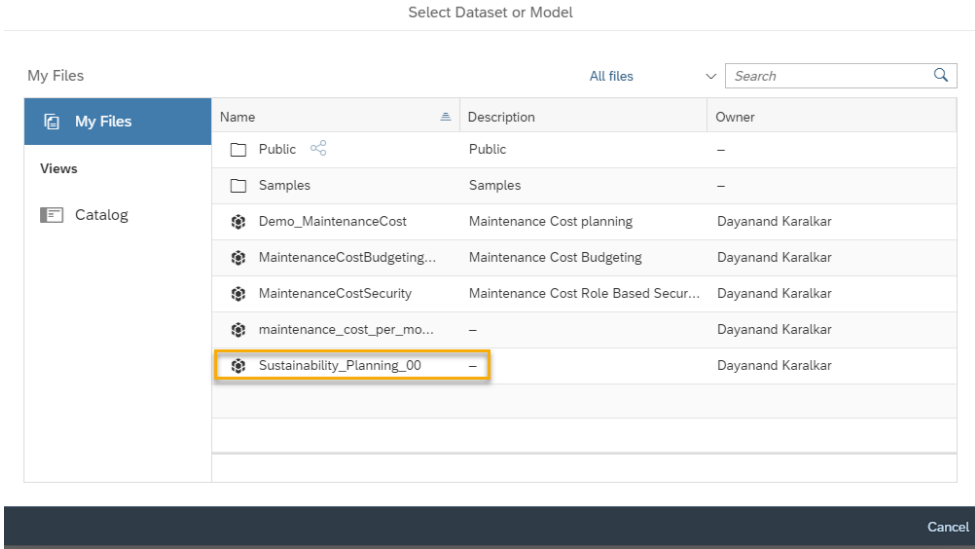
You have completed exercise 1, 2 and 3


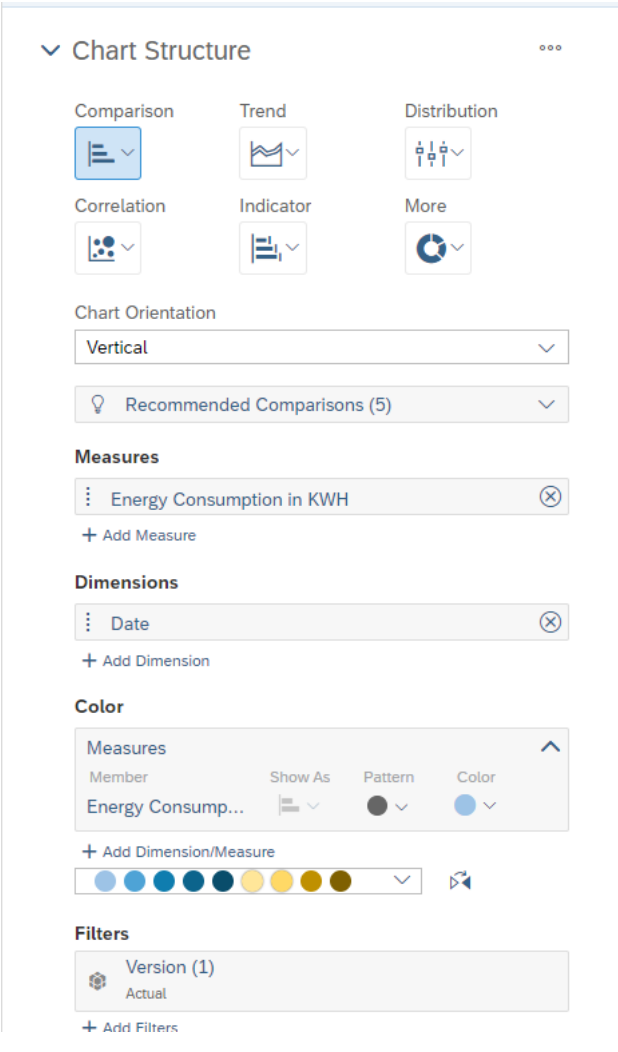
EXERCISE STEP DETAILS

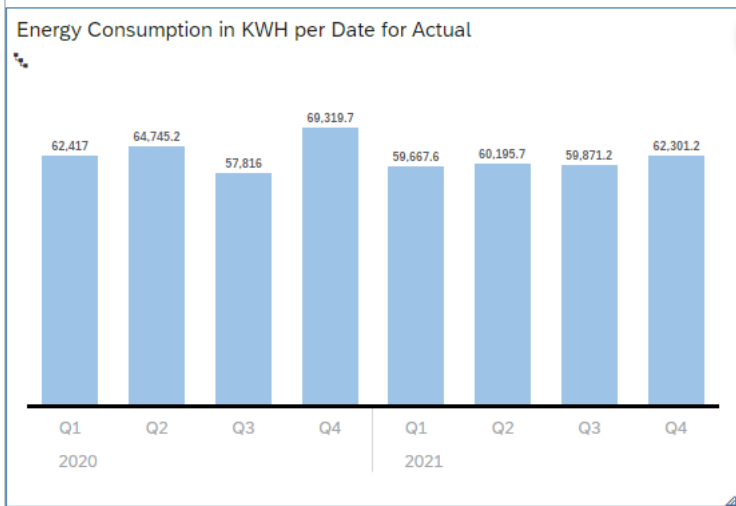
Explanation	Screenshot
<p>Log on to SAP Analytics Cloud with the given tenant URL and assigned user credential mentioned above.</p> <p>Go to the Home Screen.</p>	
<p>Click on the stories  Icon, the system opens home page for Stories.</p>	

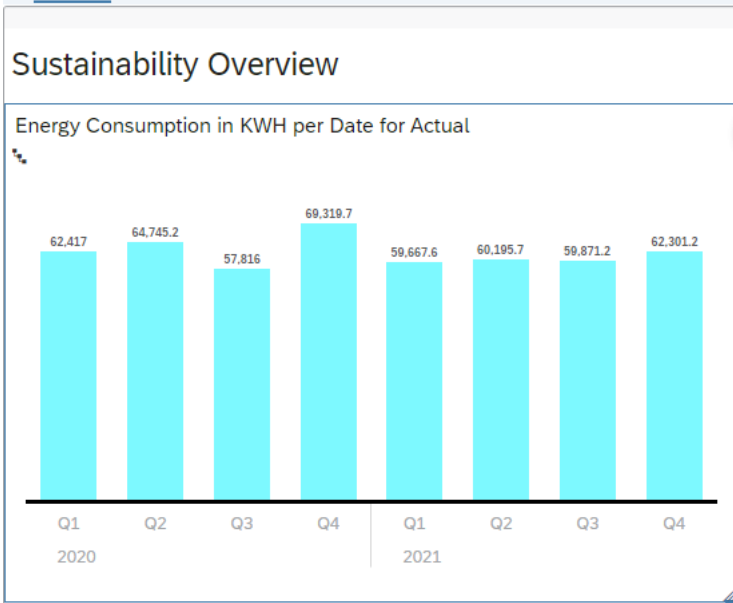

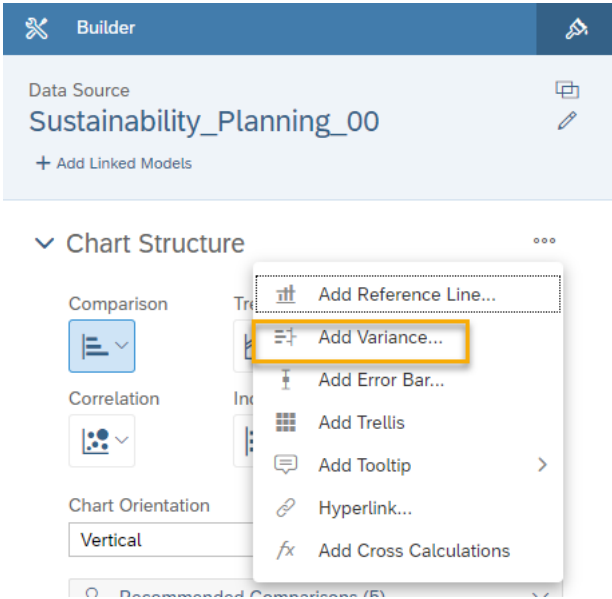
Explanation	Screenshot
<p>Click on Create New -> Responsive</p>	 <p>The screenshot shows the SAP Analytics Cloud 'Stories' interface. At the top, there's a 'Welcome to Stories' message. Below it, the 'Create New' button is highlighted with a yellow box. The 'Create New' menu is open, showing 'Responsive' as the selected option. Other options include 'Canvas', 'Grid', and 'From a Smart Discovery'. Below these, there are several templates: 'Boardroom', 'Presentation - Responsive', 'Report', 'Dashboard', 'Report (A4)', and 'Present'.</p>
<p>In the design mode selection pop up select Classic Design Experience and click Create</p>	 <p>The screenshot shows the 'Select Design Mode Type' dialog box. It features a large graphic of a gear and a pencil. Below the graphic, the question 'What design mode would you like to use?' is displayed. Two options are listed: 'Classic Design Experience' (selected with a radio button) and 'Optimized Design Experience' (unselected). The 'Classic Design Experience' option is highlighted with a yellow box. Below the options, there is a 'Learn More' link. At the bottom right, the 'Create' button is highlighted with a yellow box, and the 'Cancel' button is also visible.</p>

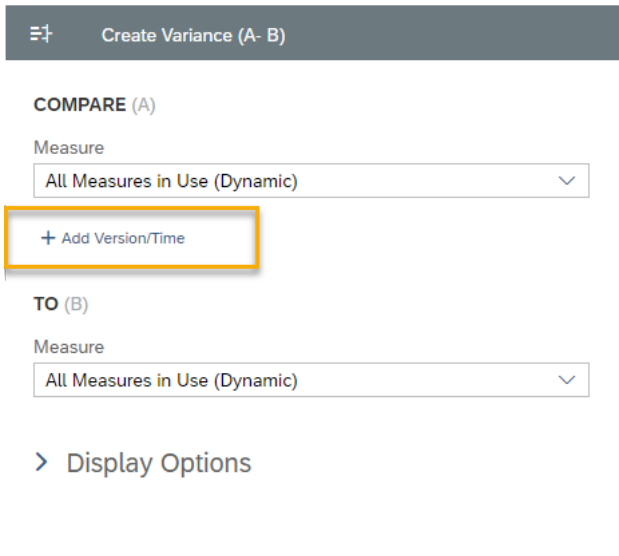
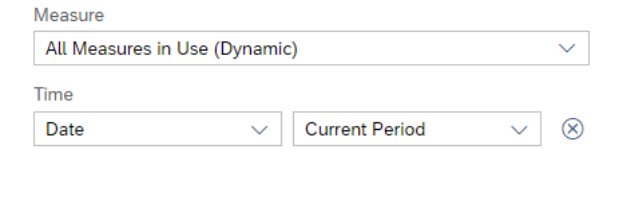
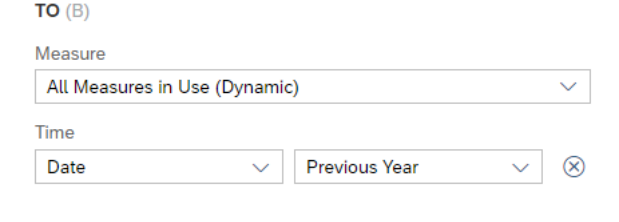
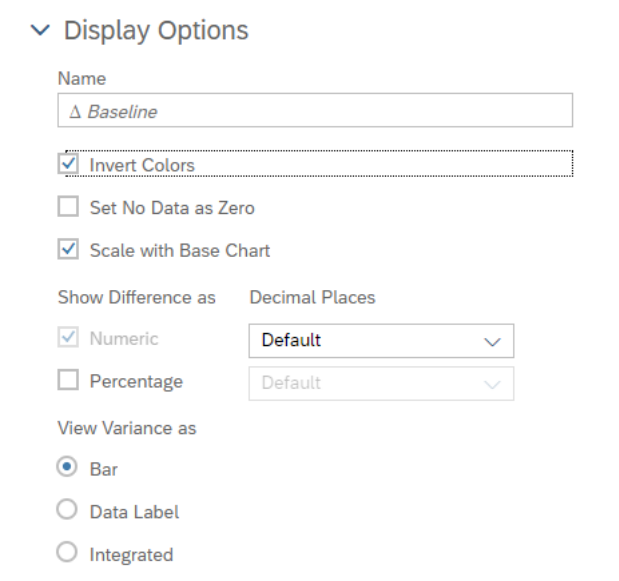
Explanation	Screenshot
Right Click on the right lane and choose Remove	 <p>A screenshot of a right-click context menu. The menu is white with a light gray border. It contains four items: '+ Add lane >', 'Copy >', 'Edit Styling...', and 'Remove'. The 'Remove' item, which has a trash can icon, is highlighted with a yellow rectangular box.</p>
Click on the Page 1 and select Rename	 <p>A screenshot of a page context menu. The menu is white with a light gray border. It contains several items: 'Page 1' (highlighted in blue), 'Delete', 'Copy', 'Duplicate', 'Rename', 'Set as hidden', 'Hide in mobile', 'Move left', 'Move right', and 'Comment'. The 'Rename' item is highlighted with a yellow rectangular box.</p>
Rename the page as "Overview" and click on Rename	 <p>A screenshot of the 'Rename Page' dialog. The dialog has a title bar 'Rename Page'. Below it is a text input field labeled 'Name' containing the text 'Overview'. At the bottom right, there are two buttons: 'Rename' and 'Cancel'. The 'Rename' button is highlighted with a yellow rectangular box.</p>
Provide title "Sustainability Overview"	 <p>A screenshot of the application toolbar. The toolbar has tabs for 'Story' and 'Data'. Below the tabs is a row of icons for various actions: a magnifying glass, a folder, a document, a link, and a plus sign. The 'Insert' menu is open, showing a list of options. The 'Overview' option is highlighted with a yellow rectangular box. Below the toolbar, the text 'Overview' is visible.</p>

Explanation	Screenshot
Click on  to insert a Chart	
In the model selection pop-up select the Sustainability Planning model created in Exercise 1	

Explanation	Screenshot
<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</p> <p>by clicking on the  on the date dimension</p> <p>Filters: Version-> Actual</p>	 <p>The screenshot displays the 'Chart Structure' configuration interface. At the top, there are icons for 'Comparison', 'Trend', 'Distribution', 'Correlation', 'Indicator', and 'More'. Below these is a 'Chart Orientation' dropdown set to 'Vertical'. A section for 'Recommended Comparisons (5)' is visible. The 'Measures' section contains 'Energy Consumption in KWH'. The 'Dimensions' section contains 'Date'. The 'Color' section shows 'Measures' with 'Energy Consump...' and options for 'Show As', 'Pattern', and 'Color'. A 'Filters' section at the bottom shows 'Version (1)' with 'Actual' selected.</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
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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>																											

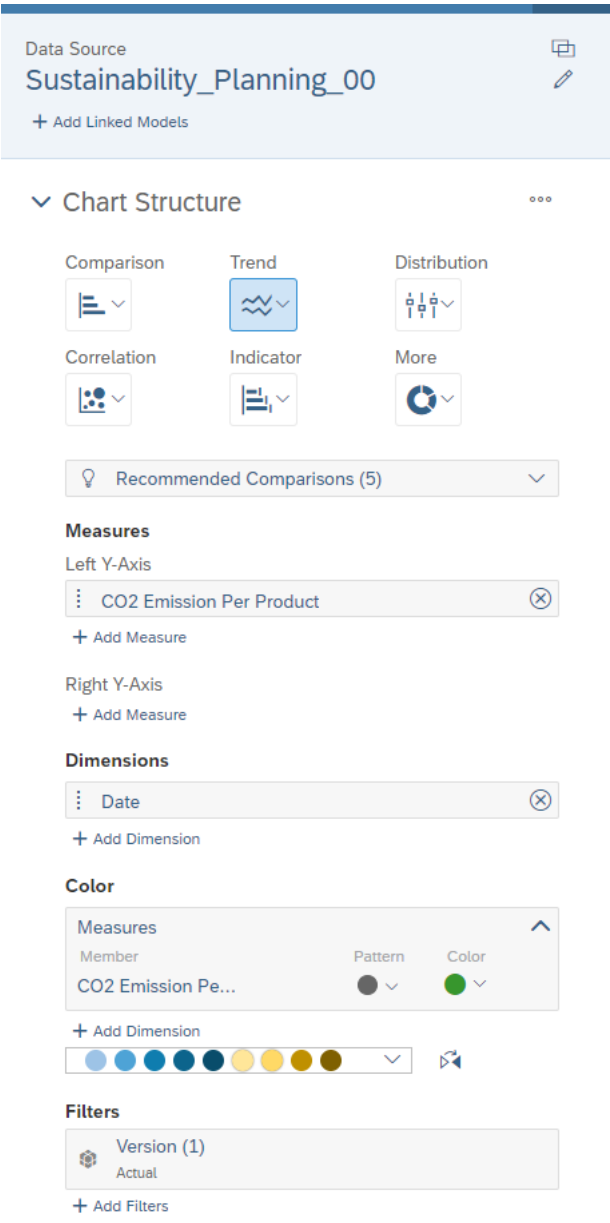
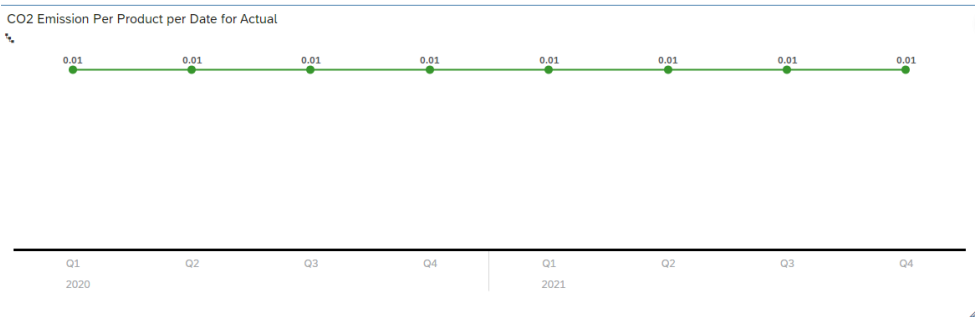
Explanation	Screenshot																											
The chart display is changed as per the color selected	 <p>Sustainability Overview</p> <p>Energy Consumption in KWH per Date for Actual</p> <table><tr><th>Quarter</th><th>Year</th><th>Energy Consumption (KWH)</th></tr><tr><td>Q1</td><td>2020</td><td>62,417</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></table>	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
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We need to compare the change in energy consumption resulted due to proactive maintenance. Click on  on the right hand of Chart Structure and select Add Variance	 <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">Add Reference Line...Add Variance...Add Error Bar...Add TrellisAdd TooltipHyperlink...Add Cross Calculations																											

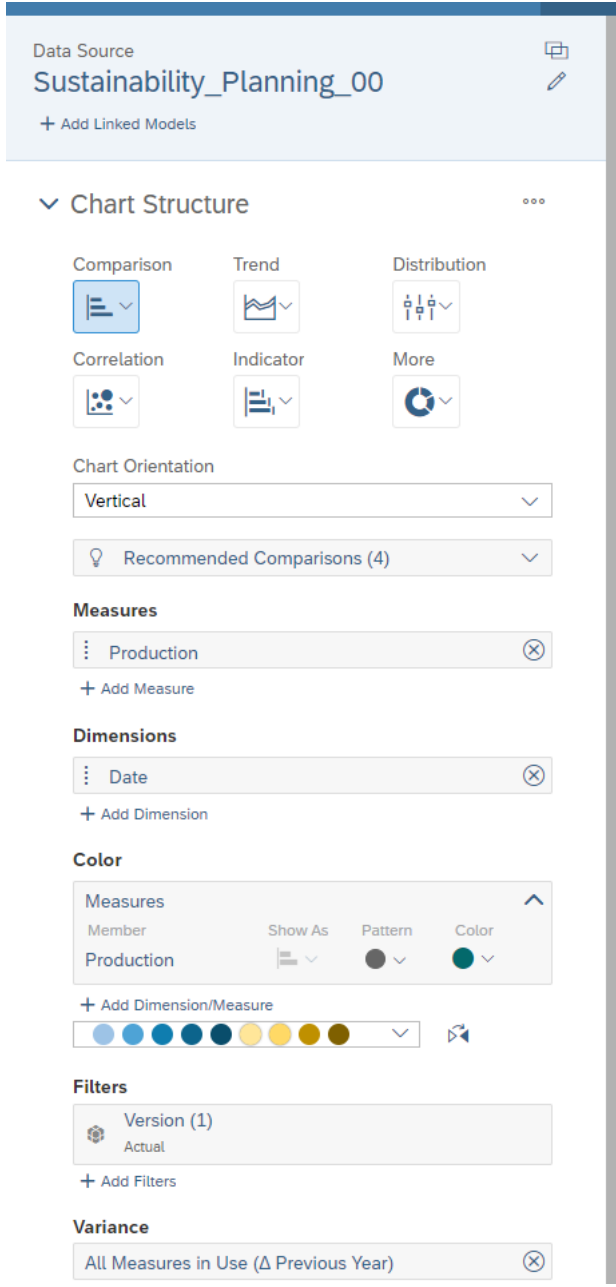
Explanation	Screenshot
<p>The variance Configuration screen appears. Click on the + Add Version/Time</p>	
<p>In the drop down select Date Current Period</p>	
<p>In To section, for Time dimension select Date Previous year</p>	
<p>In Display Option Select Invert Colors as lower energy consumption is a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

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 Year</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>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></tbody></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
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2020	62,417	64,745.2	57,816	60,319.7												
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Resize the chart as required	<p>Energy Consumption in KWH per Date for Actual</p> <p>1 Variance</p> <p>Δ Previous Year</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>62,417.03</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></tbody></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
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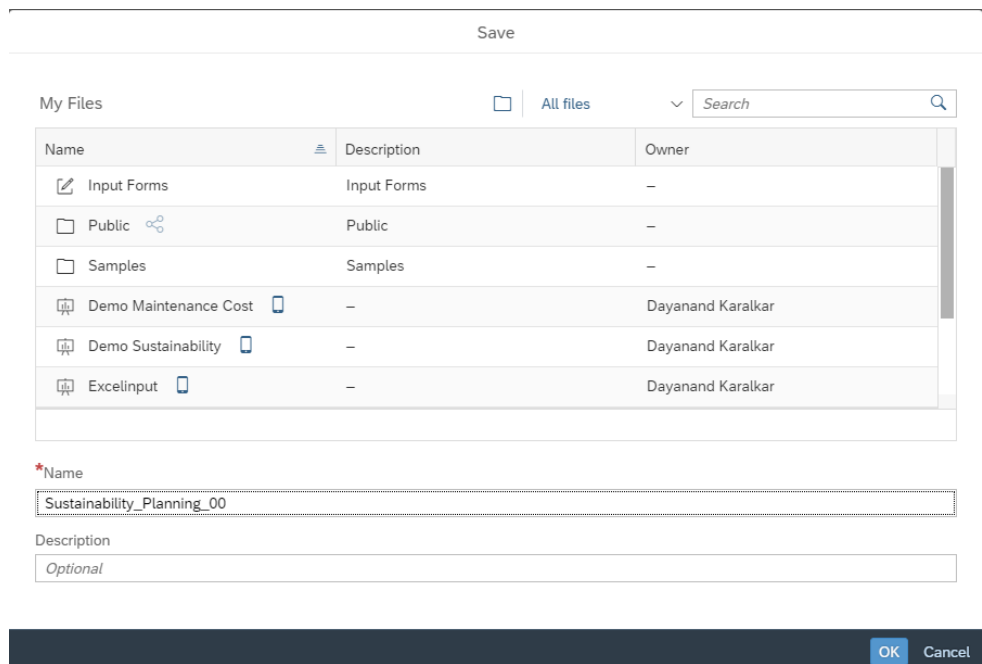
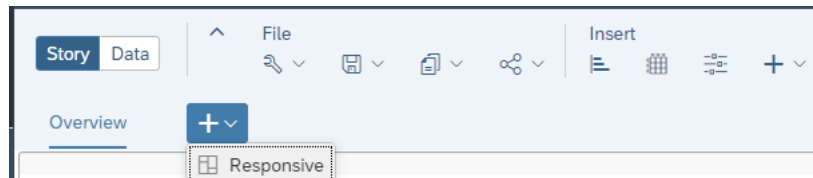
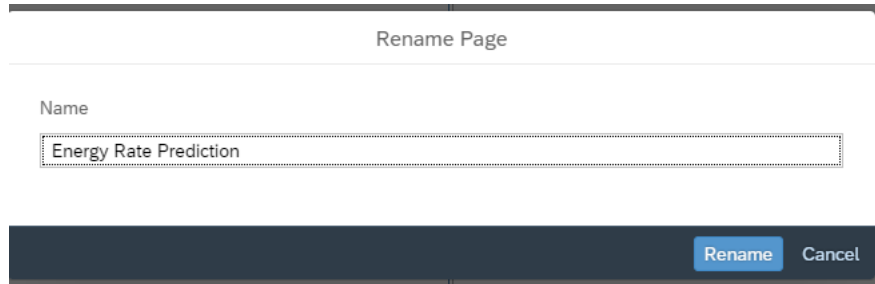
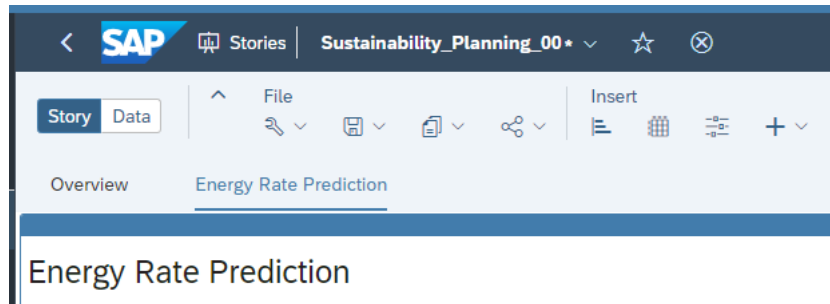
Explanation	Screenshot
<p>Insert Another chart to show the energy consumption per product</p> <p>Configure the chart as shown,</p> <p>Type: Line</p> <p>Y Axis: Energy Consumption per product</p> <p>Dimension Date</p> <p>Color: 7df9ff</p>	<p>The screenshot displays the configuration panel for a chart. At the top, the 'Chart Structure' section includes icons for Comparison, Trend (selected), Distribution, Correlation, Indicator, and More. Below this is a 'Recommended Comparisons (5)' dropdown. The 'Measures' section shows 'Energy Consumption per product' on the left Y-axis. The 'Dimensions' section shows 'Date'. The 'Color' section shows 'Energy Consump...' with a color picker set to a teal color. The 'Filters' section shows 'Version (1)' with 'Actual' selected.</p>



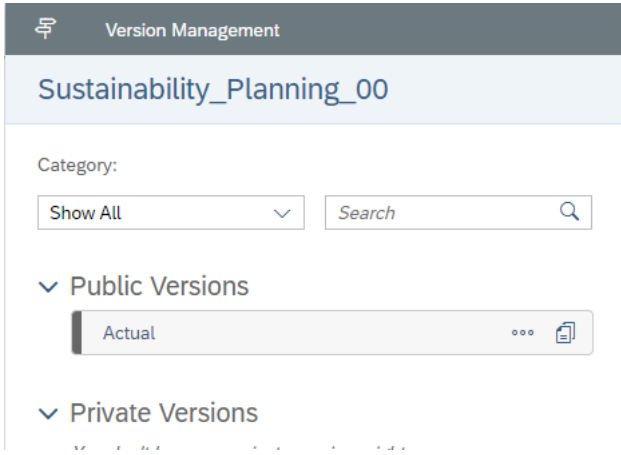
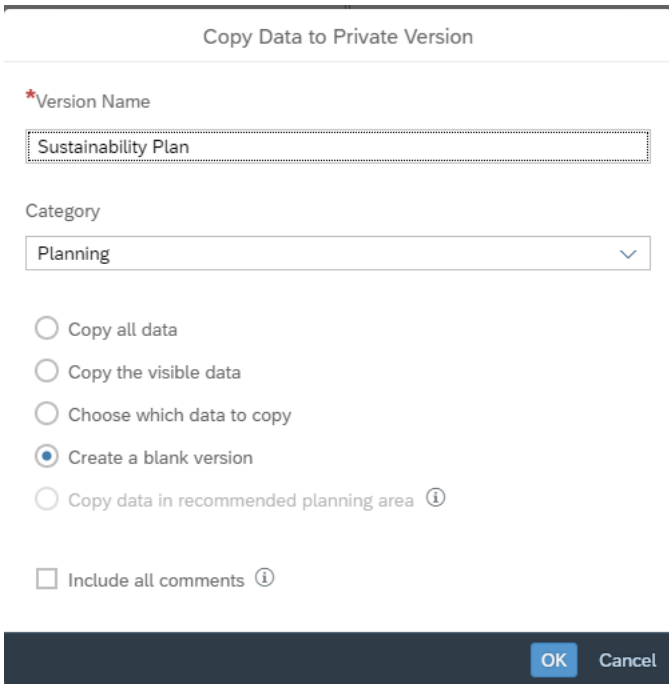
Explanation	Screenshot
Insert charts for CO2 emission comparison	<div><div><div><div>Chart Structure</div><div><div>Comparison</div><div>Trend</div><div>Distribution</div><div>Correlation</div><div>Indicator</div><div>More</div></div><div>Chart Orientation</div><div>Vertical</div><div>Recommended Comparisons (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> <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>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>
CO2 Emission Comparison	

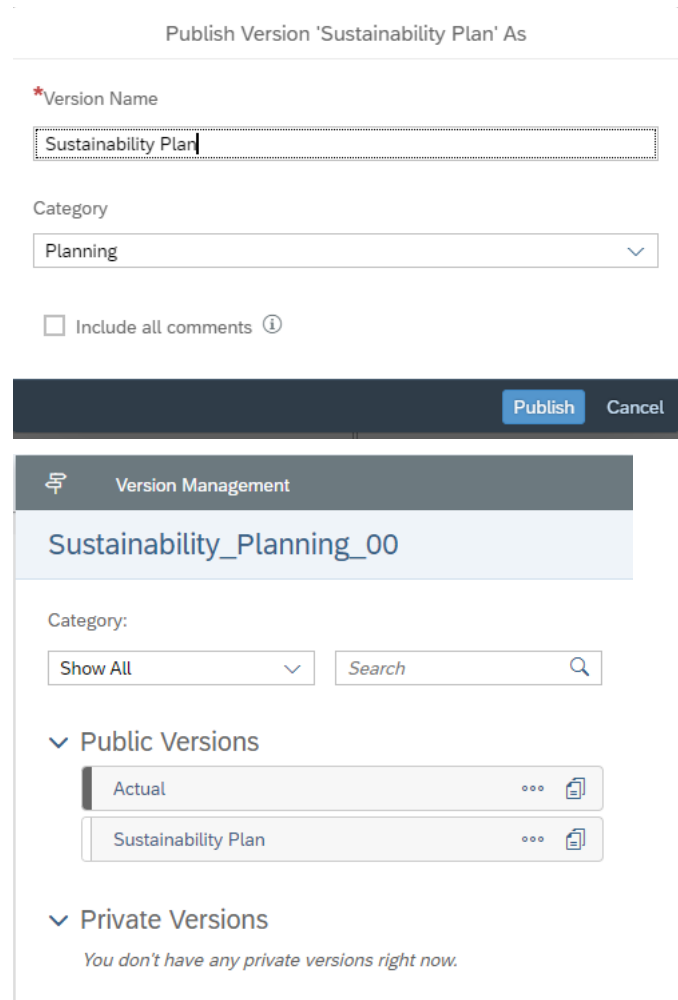


Explanation	Screenshot
<p>Insert chart to show the trend of CO2 emission per Product</p>	 <p>The screenshot displays the configuration for a chart titled "Sustainability_Planning_00". The "Chart Structure" section is active, showing the following settings:</p> <ul style="list-style-type: none"> Comparison: Comparison (selected) Trend: Trend (selected) Distribution: Distribution Correlation: Correlation Indicator: Indicator More: More <p>Below the chart structure, there are sections for:</p> <ul style="list-style-type: none"> Recommended Comparisons (5): A dropdown menu. Measures: <ul style="list-style-type: none"> Left Y-Axis: CO2 Emission Per Product (selected) Right Y-Axis: (empty) Dimensions: <ul style="list-style-type: none"> Date: (selected) Color: <ul style="list-style-type: none"> Measures: CO2 Emission Pe... (selected) Member: (empty) Pattern: (empty) Color: (green) Filters: <ul style="list-style-type: none"> Version (1): Actual (selected) <p>The chart preview at the bottom shows the title "CO2 Emission Per Product per Date for Actual". The x-axis represents time, with labels for Q1 2020, Q2, Q3, Q4, Q1 2021, Q2, Q3, and Q4. The y-axis represents the CO2 emission value, with a label of 0.01. The chart displays a single line with data points at each quarter, all showing a value of 0.01.</p>
<p>CO2 Emission Per Product Trend</p>	 <p>The screenshot displays the chart titled "CO2 Emission Per Product per Date for Actual". The chart shows a line graph with data points for Q1 2020, Q2, Q3, Q4, Q1 2021, Q2, Q3, and Q4. The y-axis represents the CO2 emission value, with a label of 0.01. The chart displays a single line with data points at each quarter, all showing a value of 0.01.</p>

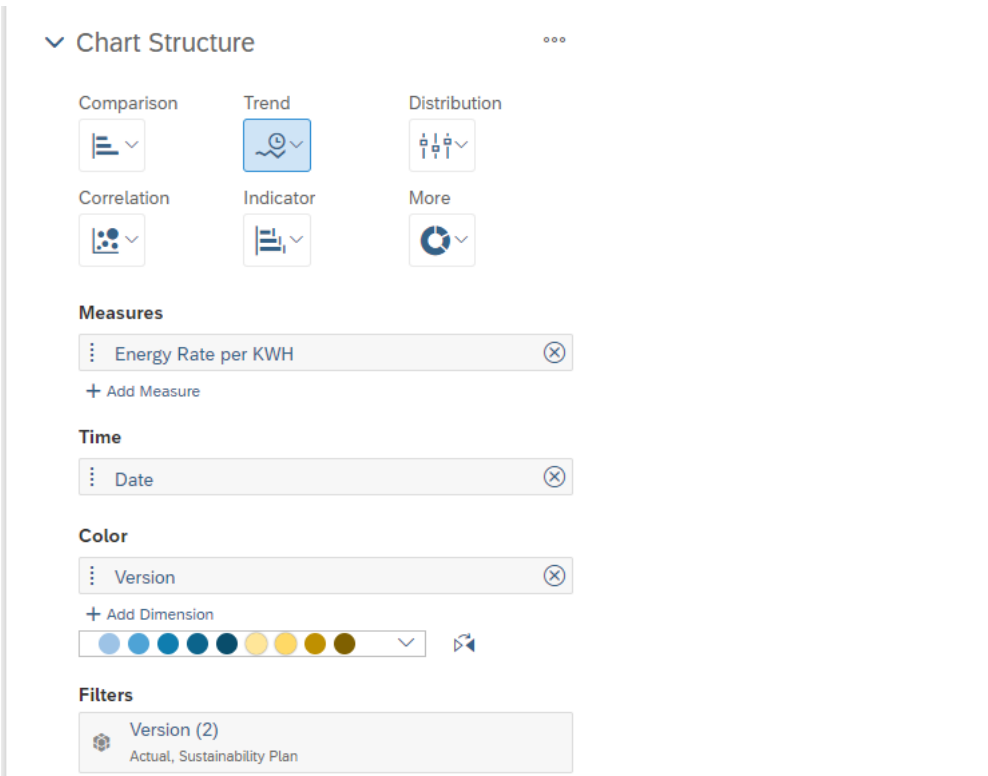
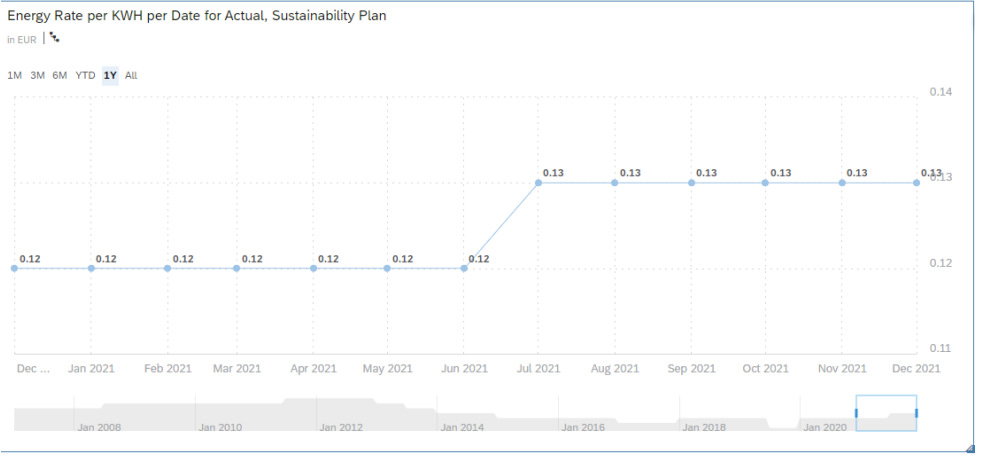
Explanation	Screenshot
<p>Insert Chart to compare the Production after the implementation of proactive maintenance</p>	 <p>The screenshot displays the 'Chart Structure' configuration pane in Power BI. At the top, the data source is 'Sustainability_Planning_00'. The 'Chart Structure' section includes options for Comparison (selected), Trend, Distribution, Correlation, Indicator, and More. Below this, the 'Chart Orientation' is set to 'Vertical'. A section for 'Recommended Comparisons (4)' is visible. The 'Measures' section lists 'Production' with a remove button. The 'Dimensions' section lists 'Date' with a remove button. The 'Color' section shows 'Production' as the member, with options for 'Show As' (Bar), 'Pattern' (Solid), and 'Color' (Green). A color palette is shown below. The 'Filters' section lists 'Version (1) Actual'. The 'Variance' section lists 'All Measures in Use (Δ Previous Year)'.</p> <p>Untick the Invert colours as increase in production is a positive sign</p>


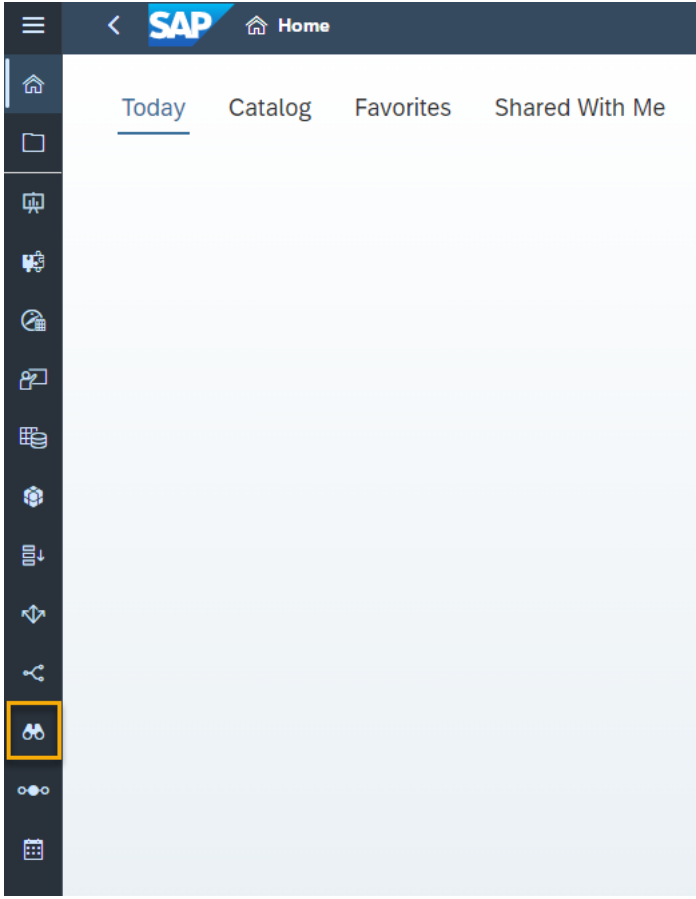
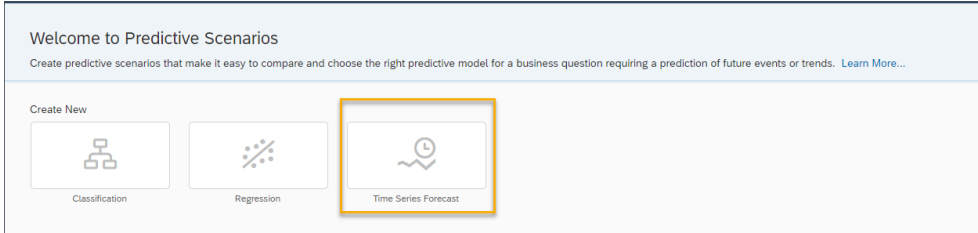
Explanation	Screenshot		
	<div><div><div>COMPARE (A)</div><div>Measure</div><div>All Measures in Use (Dynamic)</div><div>+ Add Version/Time</div><div>TO (B)</div><div>Measure</div><div>All Measures in Use (Dynamic)</div><div>Display Options</div><div>Name</div><div>Δ Baseline</div><div><div><input type="checkbox"/> 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</div><div><div><input checked="" type="checkbox"/> Numeric</div><div><input type="checkbox"/> Percentage</div></div><div>Decimal Places</div><div><div>Default</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> <tr><td>The production comparison chart is displayed as configured</td><td></td></tr>	The production comparison chart is displayed as configured	
The production comparison chart is displayed as configured			

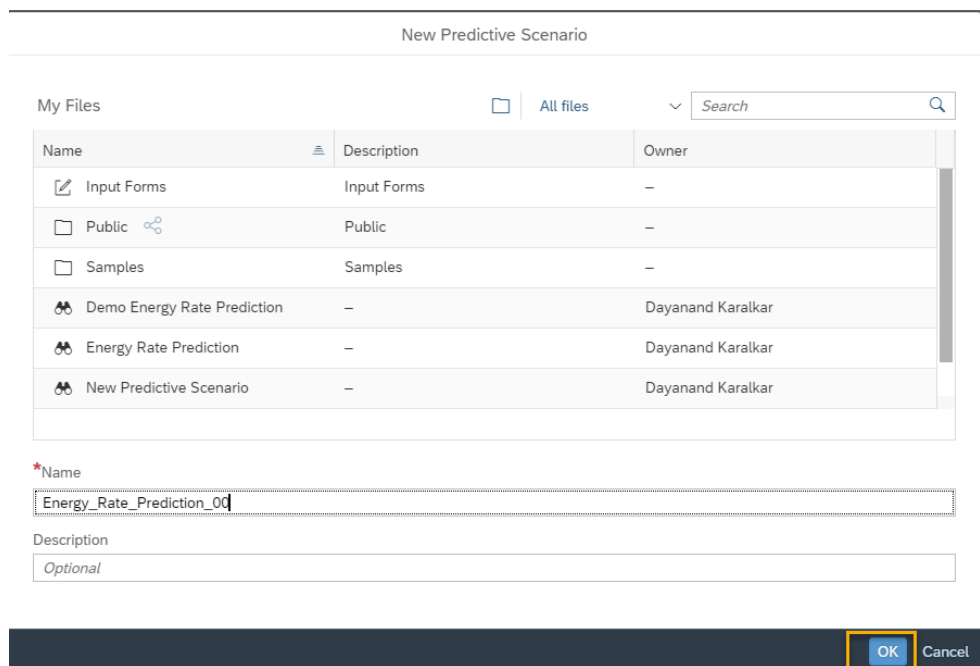
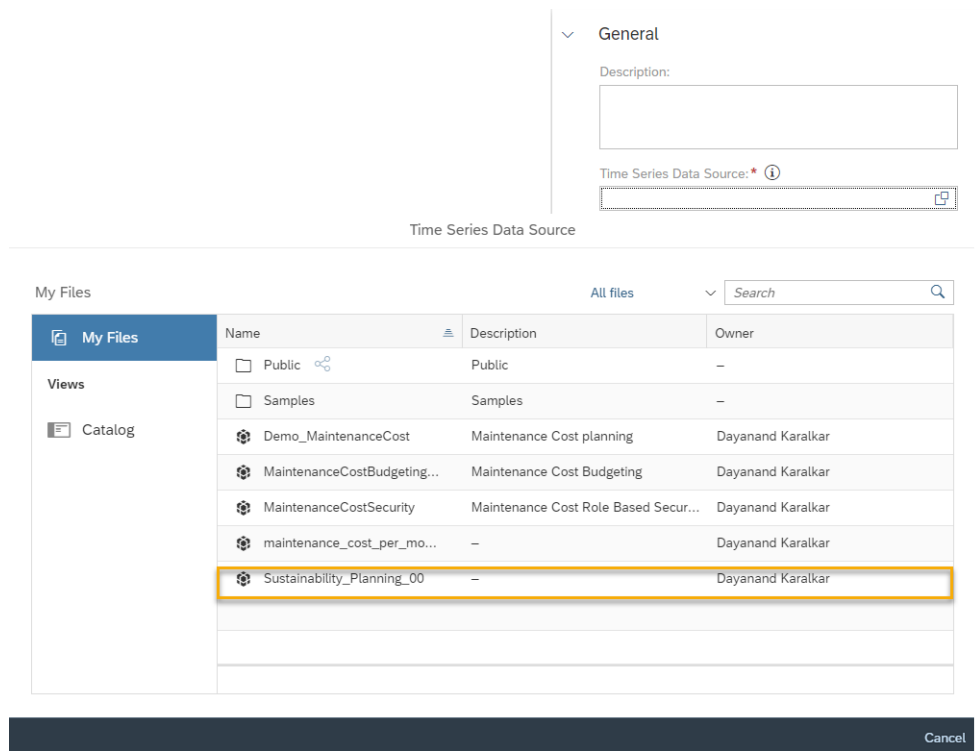
Explanation	Screenshot
Save the Story as Sustainability_Planning_XX	
Energy Rate Prediction	
Insert a New Responsive Page in the story	
Rename the page as Energy Rate Prediction	
In the title enter Energy Rate Prediction	


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 x	

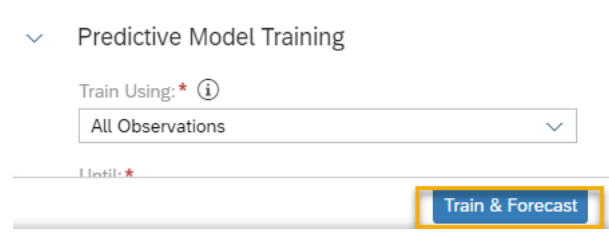
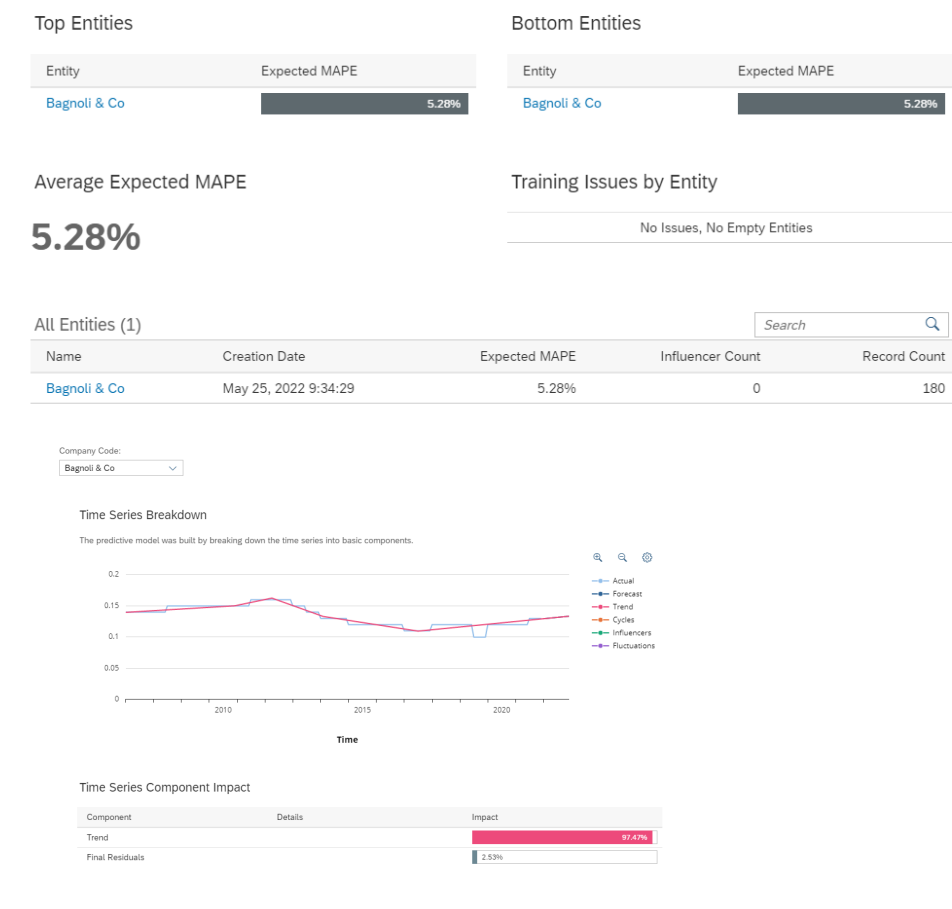
Explanation	Screenshot
	 <p>The screenshot shows the 'Publish Version' dialog for 'Sustainability Plan' with the category 'Planning'. Below it is the 'Version Management' interface for 'Sustainability_Planning_00', showing a list of public versions: 'Actual' and 'Sustainability Plan'. The 'Private Versions' section is empty.</p>
Close the version Management	
<p>Click on  beside the table and choose Remove</p>	 <p>The screenshot shows a table titled 'Sustainability_Planning_00' with columns 'Measures', 'Version', 'Actual', and 'Sustainability Plan'. The 'Actual' column contains the value '496,333.55'. A context menu is open on the right side of the table, with the 'Remove' option highlighted at the bottom.</p>


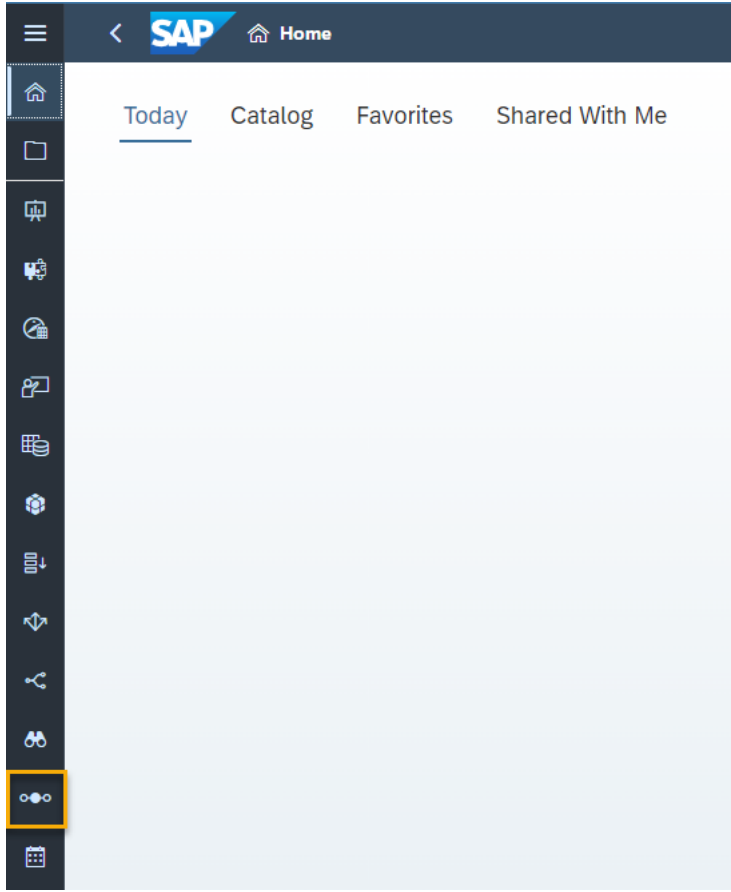
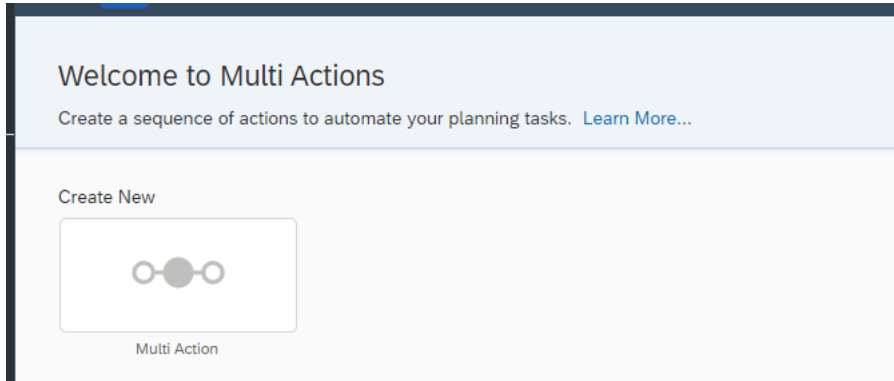

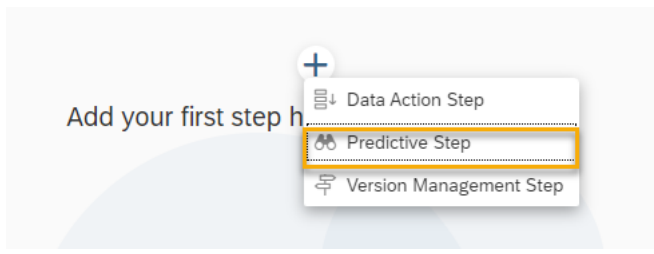
Explanation	Screenshot
Insert Chart for energy rate and configure as shown. there is no data in Plan version yet hence for selecting the filter switch on the “unbooked member” option	
The Time series chart is added to the story	
Save the story and Navigate back to the homepage	

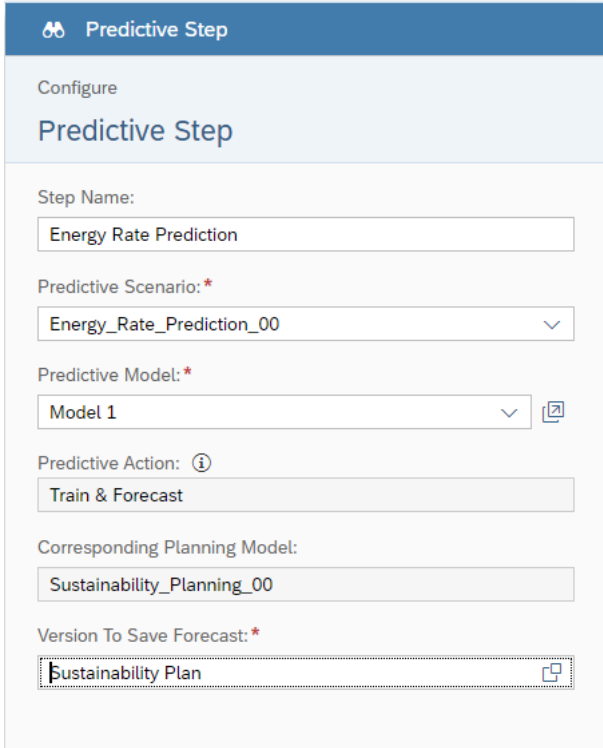

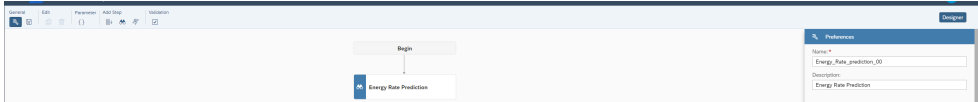

Explanation	Screenshot
On the home page click on  (predictive Scenario)	 <p>The screenshot shows the SAP Home page. The top navigation bar includes the SAP logo and a 'Home' link. Below the navigation bar, there are tabs for 'Today', 'Catalog', 'Favorites', and 'Shared With Me'. On the left side, there is a vertical sidebar with various icons. The icon representing 'Predictive Scenario' (a pair of glasses) is highlighted with a yellow box.</p>
The predictive scenario configuration page opens. In the Create new click on Time Series Forecast	 <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's a form with a 'Name' field containing 'Energy_Rate_Prediction_00' and an empty 'Description' field. 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. It has a 'General' tab with a 'Description' field and a 'Time Series Data Source' dropdown menu. The dropdown menu is open, showing a list of models. The 'Sustainability_Planning_00' model is highlighted with a yellow box. At the bottom right, there is a 'Cancel' button.</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																							

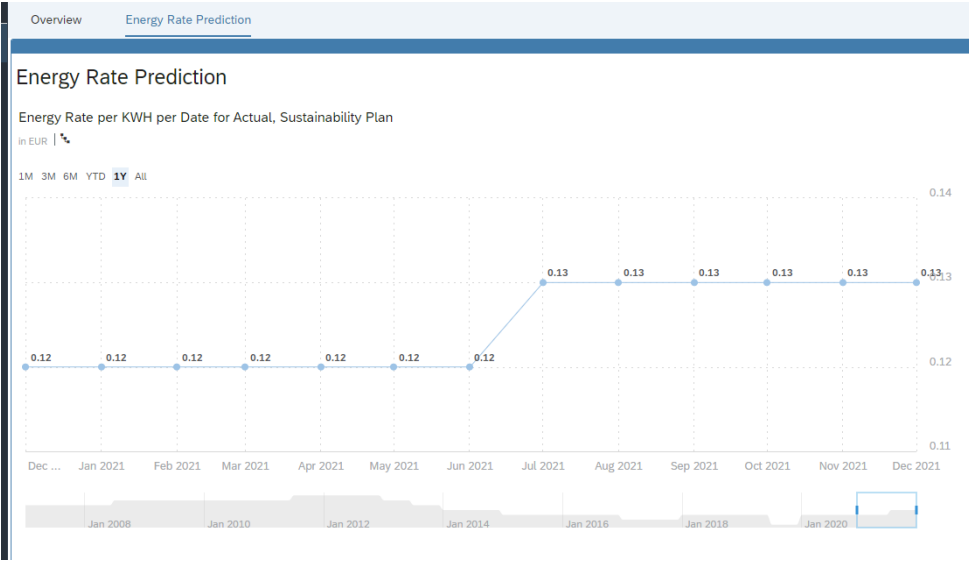

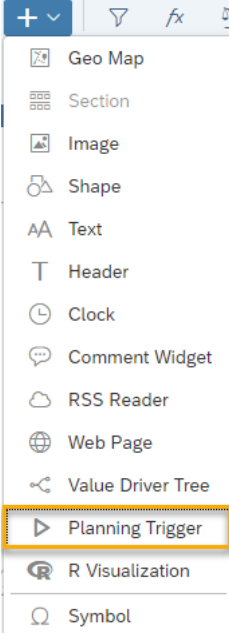
Explanation	Screenshot
<p>Configure the setting as below</p> <p>Version: Actual</p> <p>Target measure: Energy Rate Per KWH</p> <p>Date: Date dimension of the model</p> <p>Time Granularity: month</p> <p>Number of Forecast Periods: 12</p> <p>Entity: Company Code</p> <p>Predictive Model training</p> <p>Train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

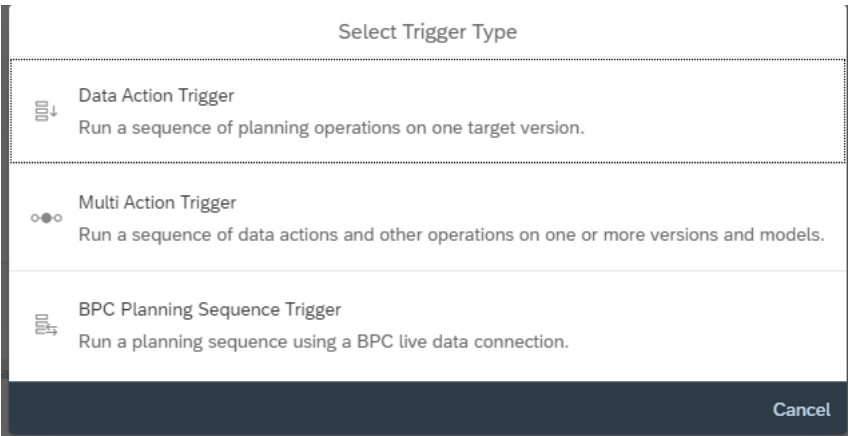
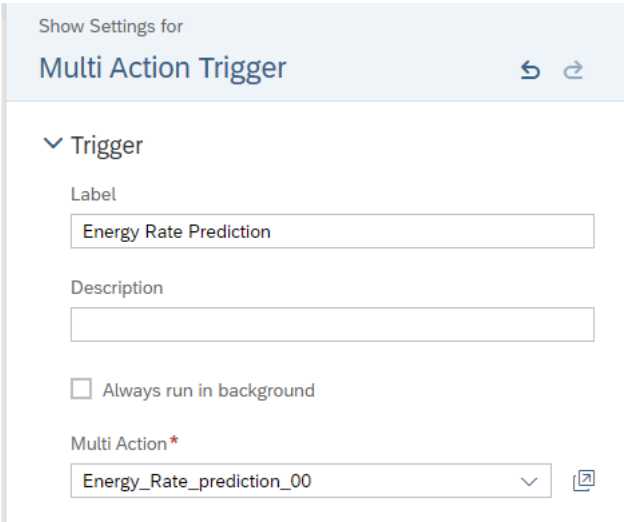

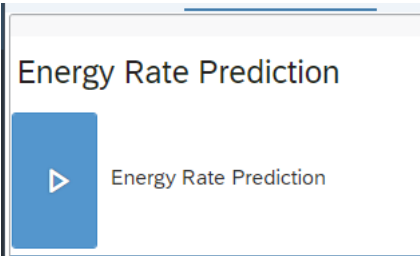
Explanation	Screenshot
Click on “Train & Forecast”	
The model provides the results of the prediction	
Navigate Back to the Home Page	
MultiAction Configuration	


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 “Multi Action Trigger” on top of the chart and click  to save the story	
Click on the “Multi Action Trigger” to execute it	

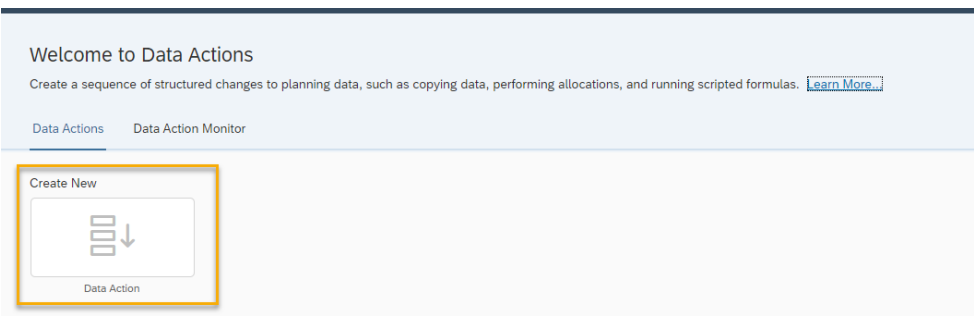
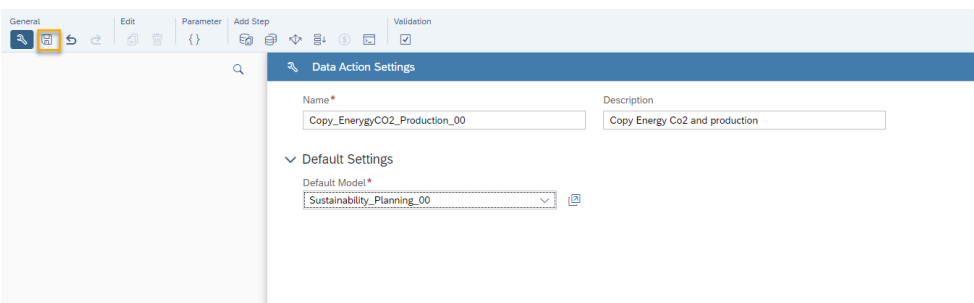
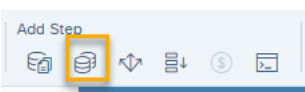
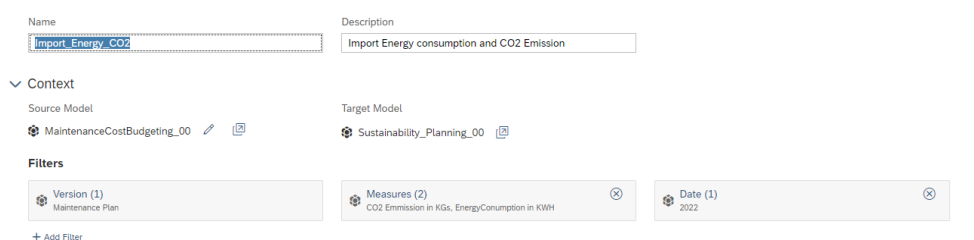
Explanation	Screenshot
The Multi action triggers the predictive scenario and provides the energy rate for 2022	
Change the color palette to select differentiate the Actual and Plan values more clearly	
Click on  to save the story	

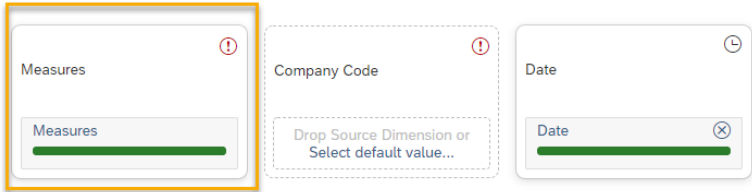


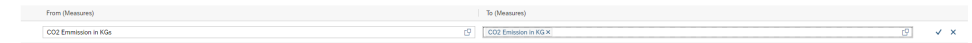
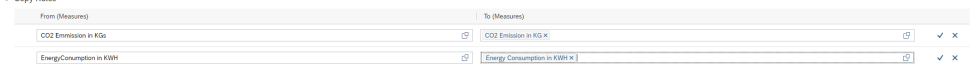
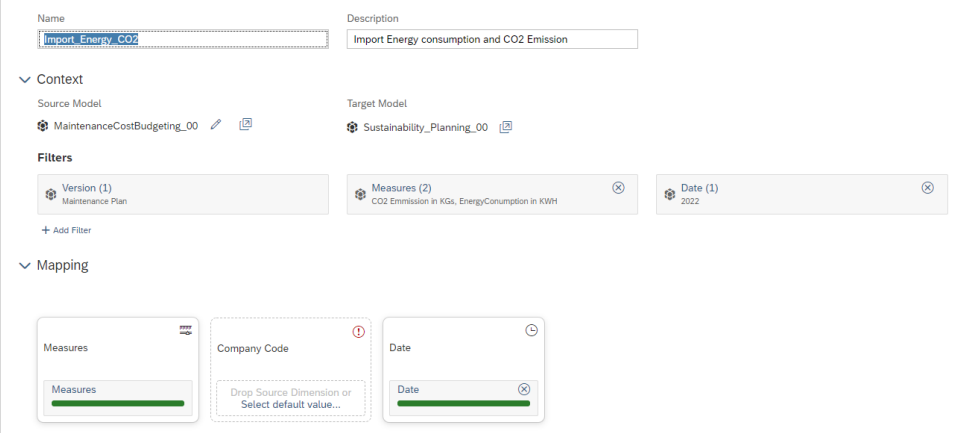
Collaboration with Maintenance Planning

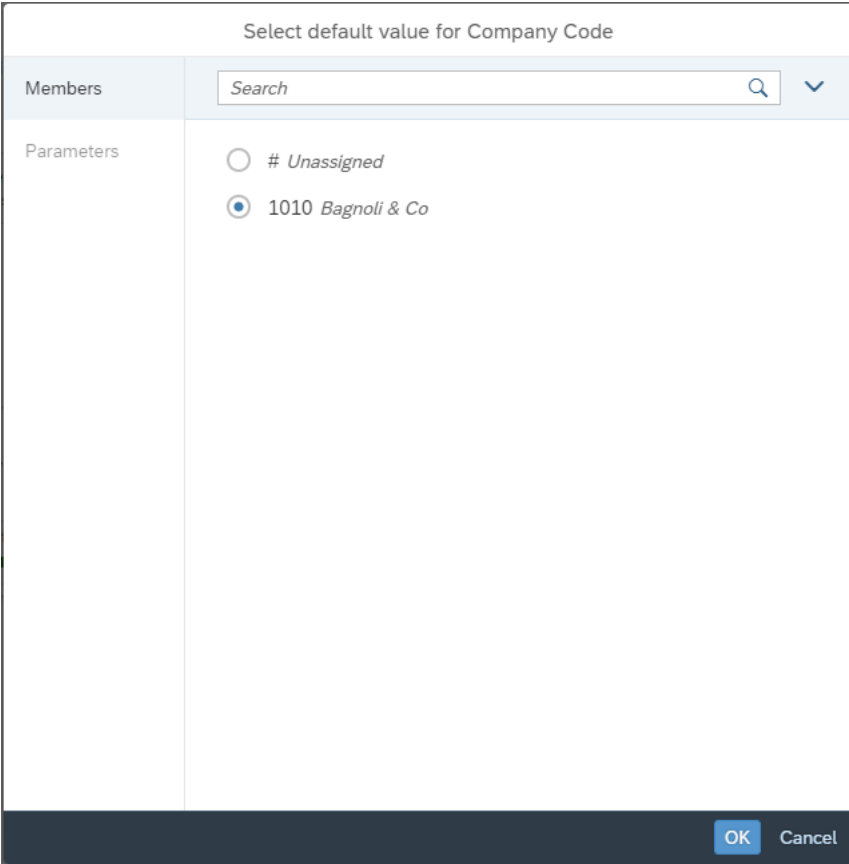
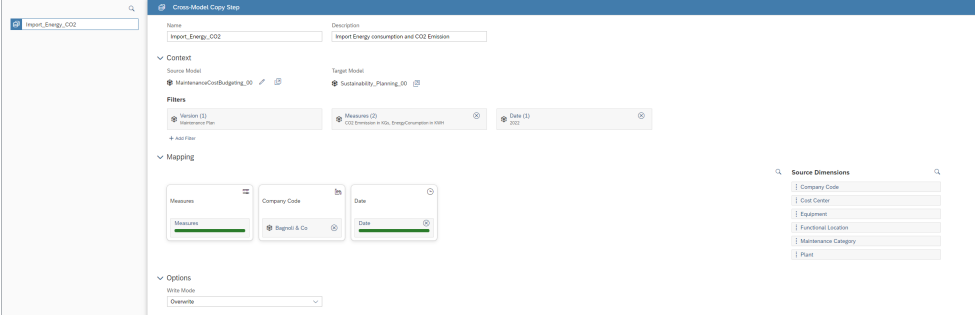

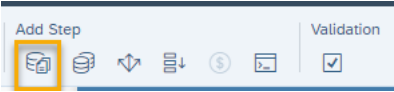

The Smart Factory application has provided us the energy consumption and CO2 emission per equipment. We have loaded that data into the Maintenance Planning Model and created maintenance Plan. The sustainability Planner will get that plan and look at the impact of that plan on Sustainability KPIs.

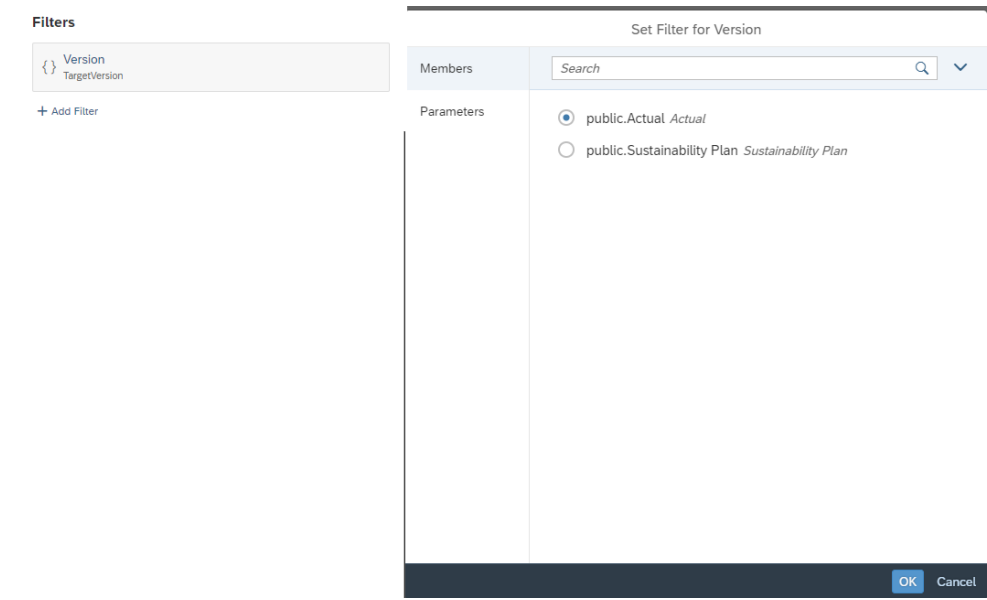
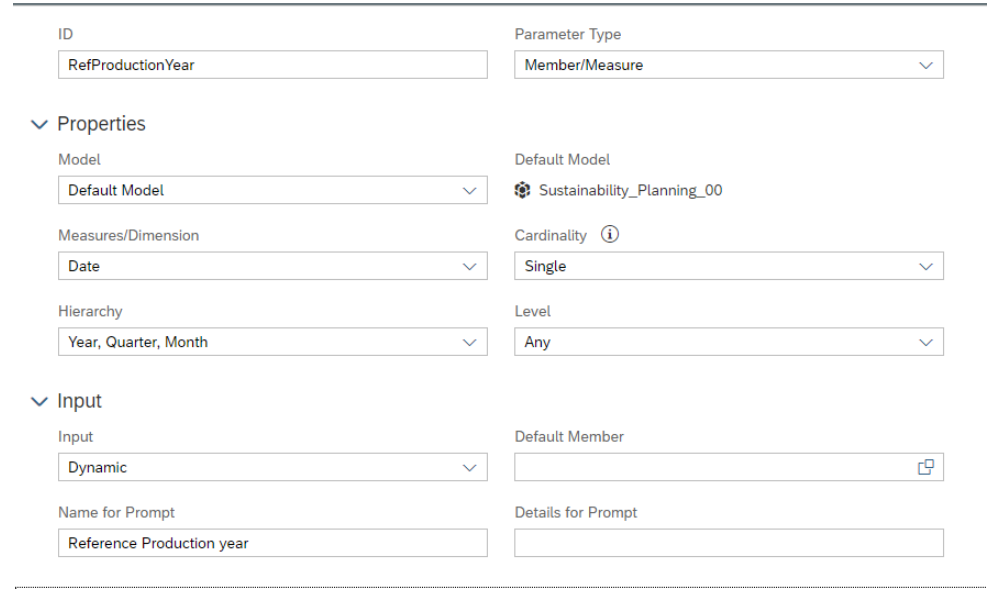
Also, the sustainability planner will plan the production based on the historical data. In this section we will configure Data actions to get the Energy Consumption from Maintenance Cost Planning and create production plan based on history

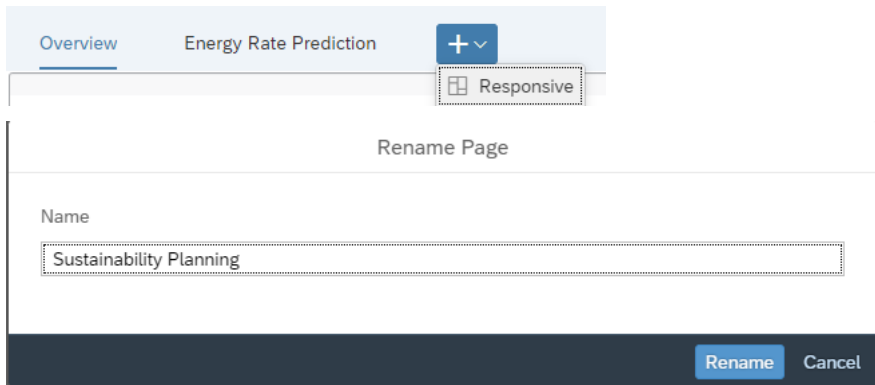

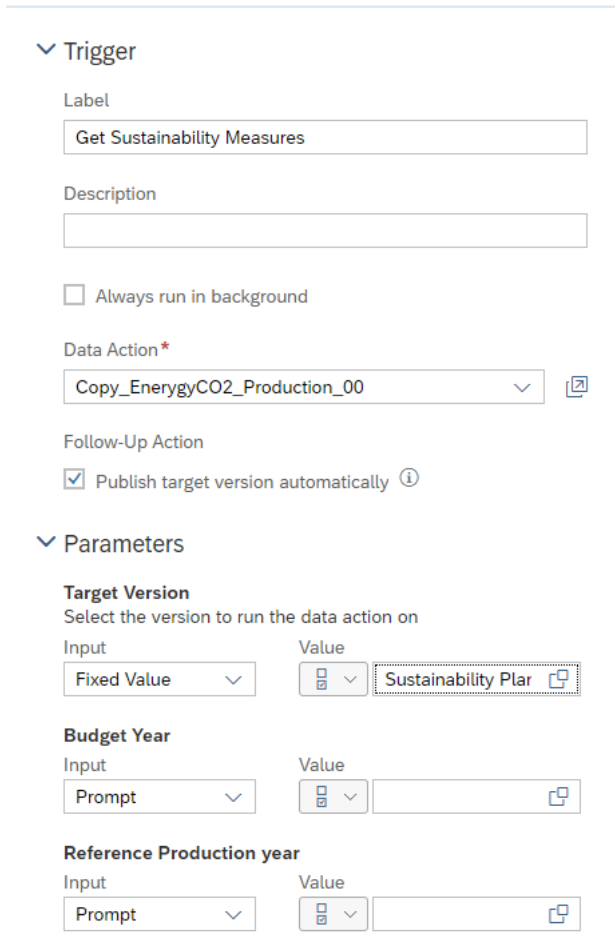
Click on  on Home Screen of SAP Analytics Cloud to Navigate to the Data Action Page	
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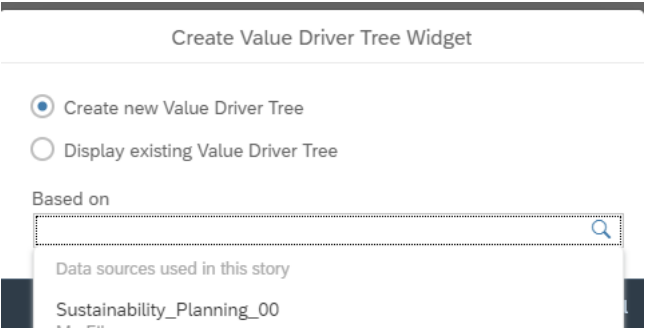
Explanation	Screenshot
<p>Click on Create New</p>	
<p>Provide name and the base model for the data action</p> <p>Name: Copy_EnergyCO2_Production_XX</p> <p>Default Model: Sustainability Model you have created</p> <p>Description: Copy Energy CO2 and production and click Save</p>	
<p>From the Add Step and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

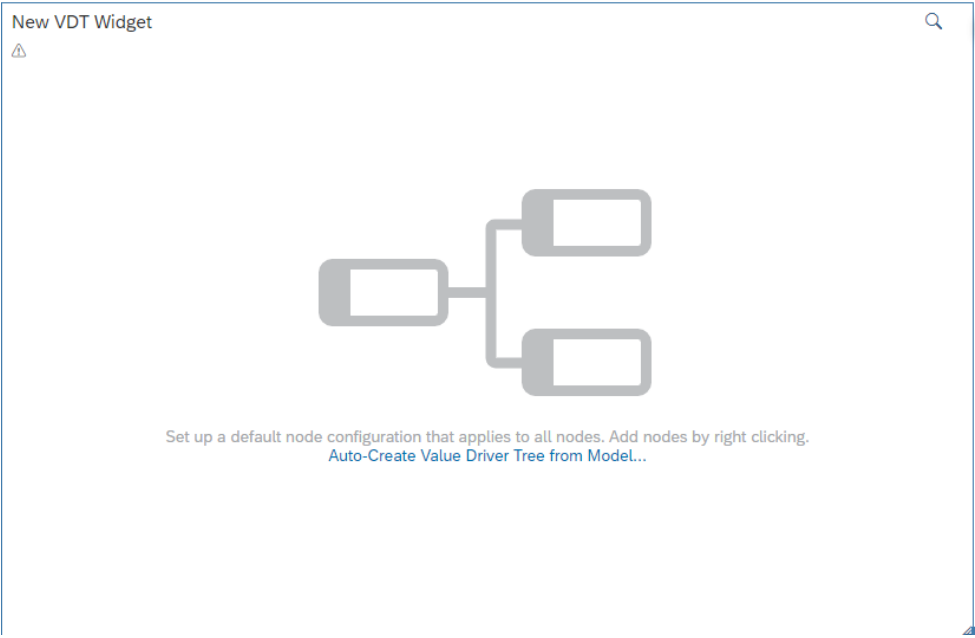
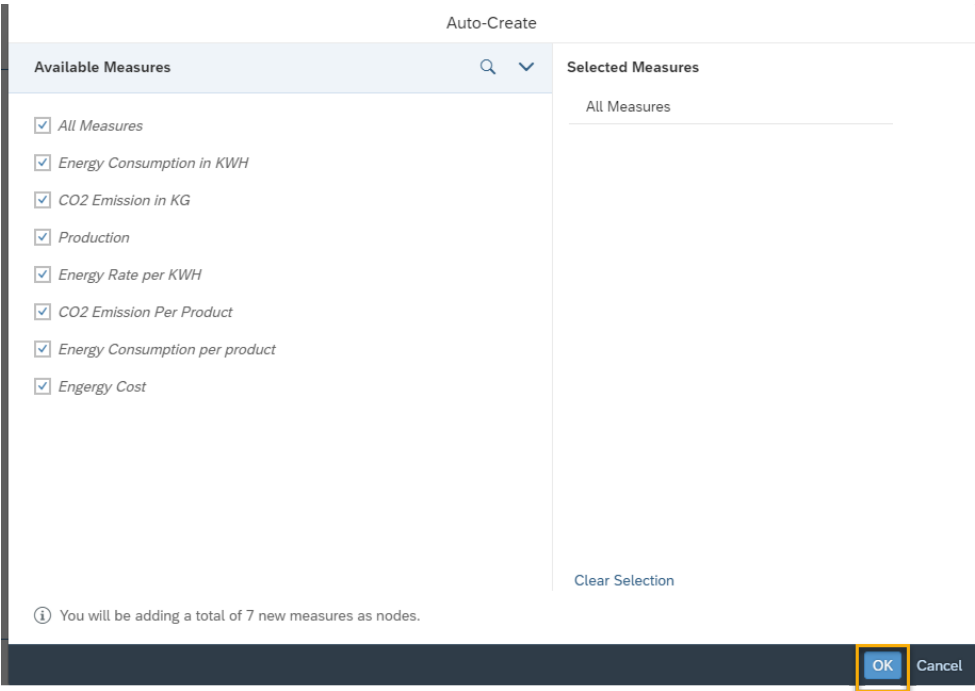
Explanation	Screenshot
In the mapping section click on Measures	 <p>Mapping</p> <p>Measures</p> <p>Company Code</p> <p>Date</p> <p>Drop Source Dimension or Select default value...</p>
In the measure mapping Select No Auto generation	 <p>Auto-Generated Copy Rules</p> <p>Auto-Generation Strategy: ⓘ</p> <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 X ✓ X</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 X ✓ X</p> <p>EnergyConsumption in KWH Energy Consumption in KWH X ✓ X</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, EnergyConsumption in KWH</p> <p>Date (1): 2022</p> <p>Mapping</p> <p>Measures</p> <p>Company Code</p> <p>Date</p> <p>Drop Source Dimension or Select default value...</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	

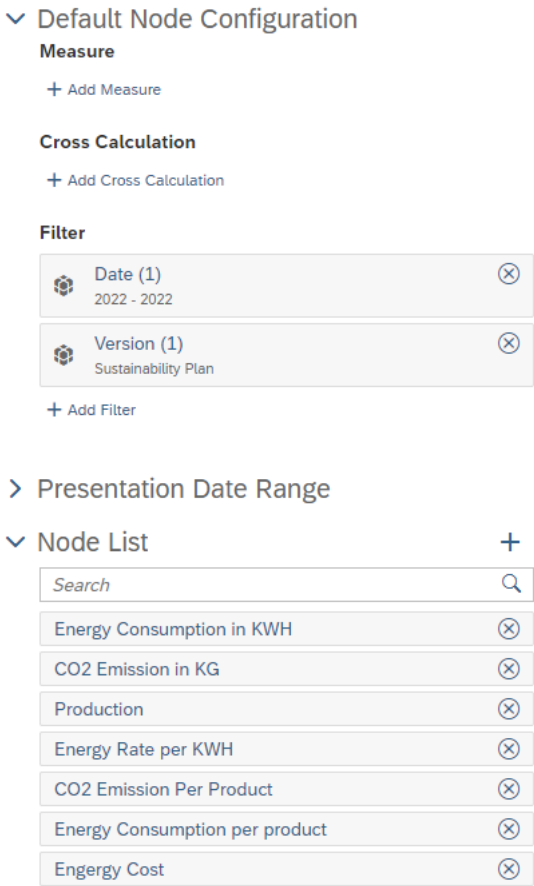
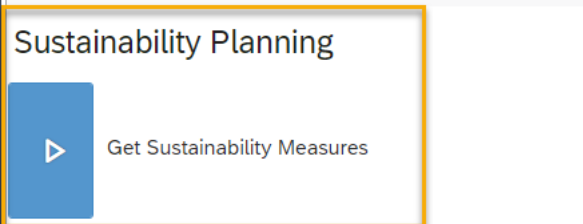
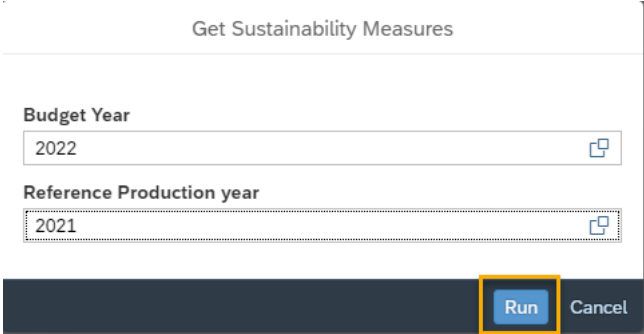
Explanation	Screenshot
In the Filters click on Version and select Actual from the Member List and click OK	
Click on the parameter and define two parameters to allow user to choose from which year the production is to be copied and what is the budget year. Follow the same steps in exercise 3 to create 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”	 <p>The screenshot shows a 'Rename Page' modal dialog. At the top, there are tabs for 'Overview', 'Energy Rate Prediction', and a dropdown menu with a plus icon. Below the tabs is a 'Responsive' toggle switch. The main area of the dialog has the title 'Rename Page'. Underneath, there is a 'Name' label followed by a text input field containing 'Sustainability Planning'. At the bottom right, there are two buttons: 'Rename' and 'Cancel'.</p>
Click on the title and provide Sustainability Planning as title	 <p>The screenshot shows the top navigation bar of the 'Sustainability Planning' story. It has three tabs: 'Overview', 'Energy Rate Prediction', and 'Sustainability Planning'. The 'Sustainability Planning' tab is selected and highlighted with a blue underline. Below the tabs, the title 'Sustainability Planning' is displayed in a large, bold font.</p>
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	 <p>The screenshot shows the configuration interface for a data action. It is divided into two main sections: 'Trigger' and 'Parameters'. Trigger Section: - 'Label': A text input field containing 'Get Sustainability Measures'. - 'Description': An empty text input field. - 'Always run in background': An unchecked checkbox. - 'Data Action*': A dropdown menu showing 'Copy_EnergyCO2_Production_00' with a search icon to its right. - 'Follow-Up Action': A checked checkbox labeled 'Publish target version automatically' with an information icon. Parameters Section: - Target Version: A section header followed by the instruction 'Select the version to run the data action on'. It contains two columns: 'Input' with a 'Fixed Value' dropdown, and 'Value' with a dropdown showing 'Sustainability Plan' and a copy icon. - Budget Year: A section header followed by two columns: 'Input' with a 'Prompt' dropdown, and 'Value' with a dropdown and a copy icon. - Reference Production year: A section header followed by two columns: 'Input' with a 'Prompt' dropdown, and 'Value' with a dropdown and a copy icon.</p>

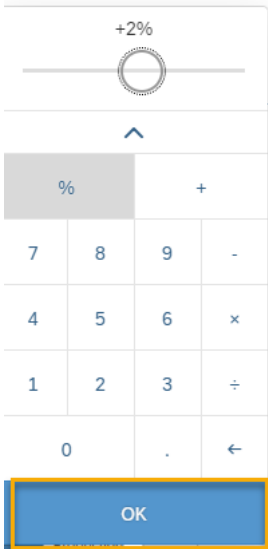
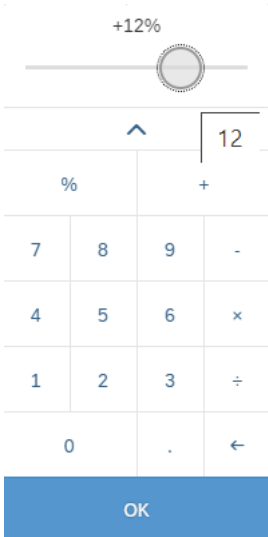
Explanation	Screenshot
<p>In the Insert click on  and choose Value Driver Tree</p>	 <p>The screenshot shows a 'Tools' menu with various options. The 'Value Driver Tree' option is highlighted with an orange box. Other visible options include Geo Map, Section, Image, Shape, Text, Header, Clock, Comment 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' radio button is selected. The 'Based on' dropdown menu is open, showing 'Sustainability_Planning_00' as the selected source. The dialog also includes a search bar and a list of data sources used in the story.</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>The System asks 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> Date (1)</div><div>2022 - 2022</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>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></div></div></div>

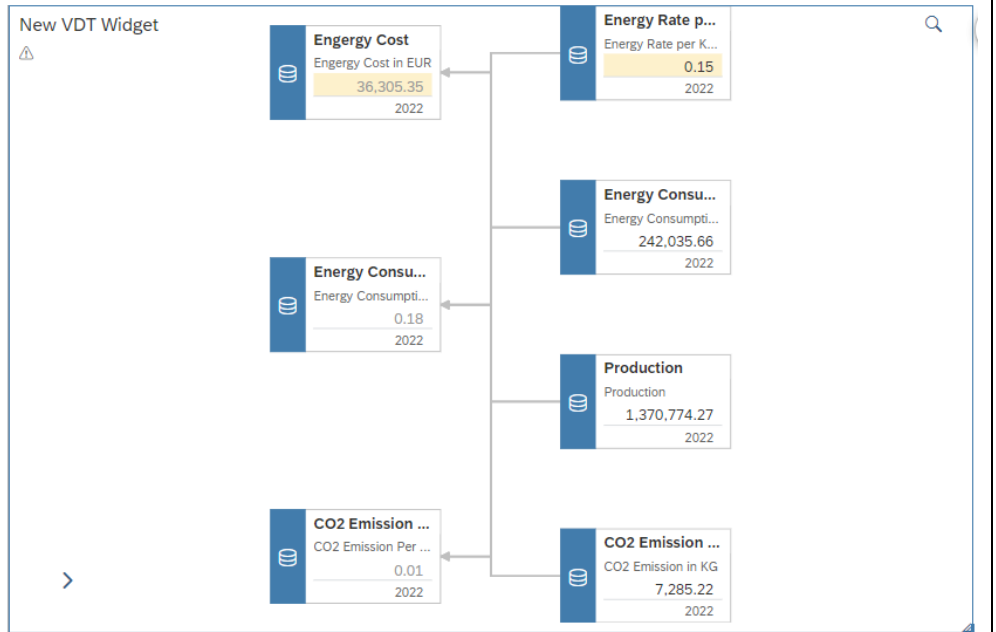
Explanation	Screenshot
<p>System provides the values of the KPI in the value Driver Tree</p>	 <p>✓ Default Node Configuration</p> <p>Measure</p> <p>+ Add Measure</p> <p>Cross Calculation</p> <p>+ Add Cross Calculation</p> <p>Filter</p> <p>Date (1) 2022 - 2022</p> <p>Version (1) Sustainability Plan</p> <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
<p>The data action Runs Successfully and populates the KPIs</p>	 <p>New VDT Widget</p> <ul style="list-style-type: none"> Energy Cost: Energy Cost in EUR, 30,254.46, 2022 Energy Rate p...: Energy Rate per K..., 0.13, 2022 Energy Consu...: Energy Consumpti..., 242,035.66, 2022 Energy Consu...: Energy Consumpti..., 0.18, 2022 Production: Production, 1,343,896.34, 2022 CO2 Emission ...: CO2 Emission Per ..., 0.01, 2022 CO2 Emission ...: CO2 Emission in KG, 7,285.22, 2022
<p>Click on the production KPI in the value driver tree. System provides us a slider to adjust the Production KPI and see the impact of the change</p>	 <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, 2022 Energy Consu...: Energy Consumpti..., 0.18, 2022 CO2 Emission ...: CO2 Emission Per ..., 0.01, 2022 CO2 Emission ...: CO2 Emission in KG, 7,285.22, 2022 Production: Production, 1,343,896.34, 2022

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



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><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><div>Rows</div><div><div><div>Company Code</div><div>Measures</div><div>7 Model Measures</div></div><div><div>+ Add Measures/Dimensions</div></div></div><div><div>Columns</div><div><div><div>Version</div><div>Date</div></div><div><div>+ Add Measures/Dimensions</div></div></div><div><div>Filters</div><div><div><div>Date (1)</div><div>2022</div></div><div><div>Measures (7)</div><div>Energy Consumption in KWH, CO2 Emission in KG, Producti...</div></div><div><div>Version (1)</div><div>public.Sustainability Plan (Sustainability Plan)</div></div><div><div>+ Add Filters</div></div></div></div></div></div><div><div>Sustainability_Planning_00</div><div><div>1 Filter</div></div><table><tr><th></th><th>Version</th><th colspan="5">Sustainability Plan *</th></tr><tr><th></th><th>Date</th><th>2022</th><th>Q1 (2022)</th><th>Q2 (2022)</th><th>Q3 (2022)</th><th>Q4 (2022)</th></tr><tr><th>Company Code</th><th>Measures</th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>Bagroll & 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>Engeny 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></div>		Version	Sustainability Plan *						Date	2022	Q1 (2022)	Q2 (2022)	Q3 (2022)	Q4 (2022)	Company Code	Measures						Bagroll & 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		Engeny Cost	€36,305.35	€8,552.35	€9,029.36	€9,180.25	€9,552.85
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The planner can look at the table if required to get the details.																																																																							

Explanation

Click on  to save the story

Screenshot

