Measurement Methods

## Impact: Define Measurement Methods Overview

You can manage the Impact's Measurement Methods on the **IMPACT OF EVENTS > MEASURE > Measurement Methods** page:

The Measurement Methods for Likelihoods page is where we designate how likelihoods are to be derived or assigned:

1. **For objectives** given the **parent objective**
2. **For events** given the **covering objectives**
3. **For events** with no **objectives**

You can assign the measurement options For Objectives and For Events on separate pages, or the same page by selecting from the three tabs:
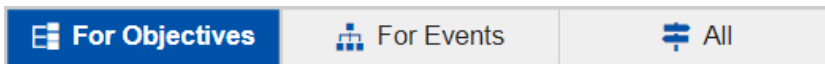
For example, in the model with objectives hierarchy as shown below:
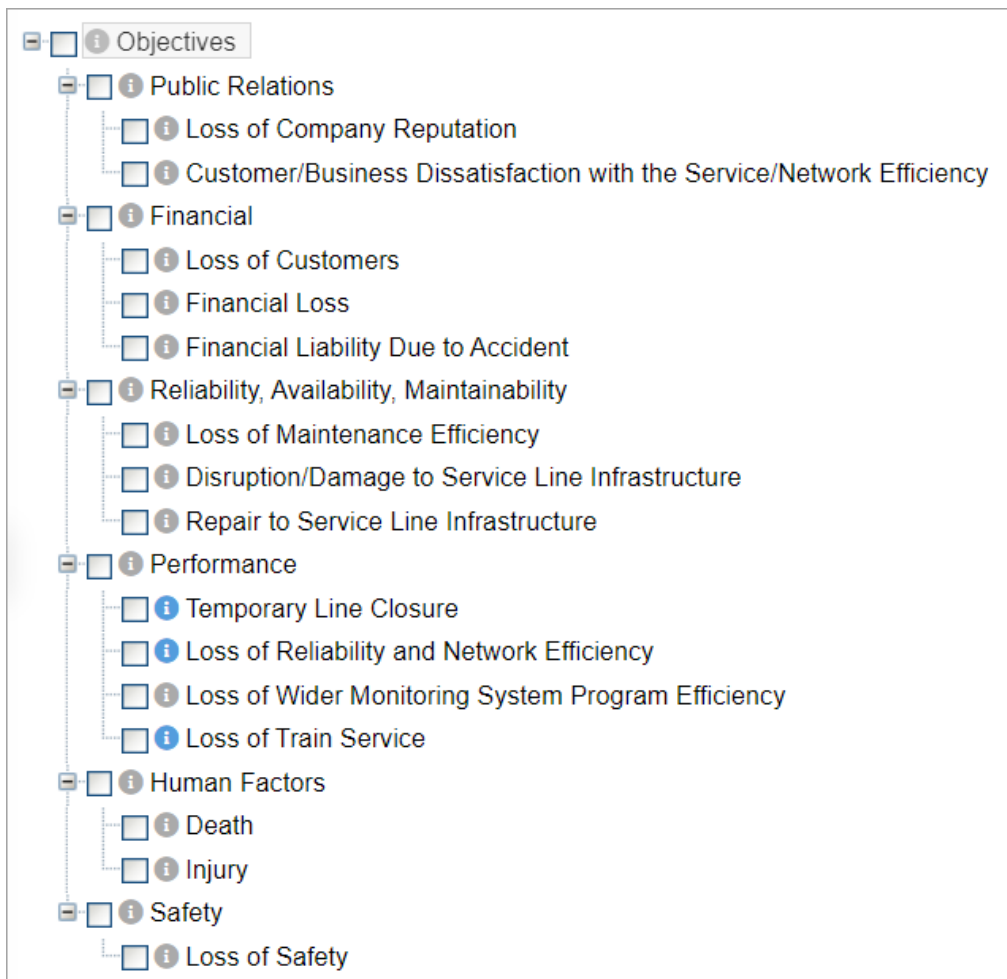
The nodes that have children are the non-covering objectives. (e.g. Public Relations, Financials ..).

The nodes that have no children are the covering objectives (e.g.Loss of Company Reputation, Customer Service Dissatisfaction.., ..)

Depending on the selected tab, the measurement options (Measurement Type, Scale, and other Advanced Options) will be displayed to the right of the objective elements (first column).

- **For Objectives** - measurement options are available for the **non-covering objectives** to define how to measure the children with respect to the non-covering objective.
- **For Events** - measurement options are available for the covering objectives to define how to measure the events given the covering objective
- **All** - measurement options are available both for non-covering and covering objectives which allow defining the two mentioned above on the same page.

Measure Objective Importance/Event Objectives With Respect To	Measurement Type Default (E): Rating Scale	Measurement Scale	Action
Objectives	Pairwise Comparison ∨		Copy
Public Relations	Pairwise Comparison ∨		Copy 👁
Loss of Company Reputation	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Customer/Business Dissatisfaction with the Service/Network Efficiency	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Financial	Pairwise Comparison ∨		Copy 👁
Loss of Customers	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Financial Loss	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Financial Liability Due to Accident	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Reliability, Availability, Maintainability	Pairwise Comparison ∨		Copy 👁
Loss of Maintenance Efficiency	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Disruption/Damage to Service Line Infrastructure	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Repair to Service Line Infrastructure	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎
Performance	Pairwise Comparison ∨		Copy 👁
Temporary Line Closure	Rating Scale ∨	Default Impact Scale ∨	Copy 👁✎

For Objectives | For Events | All | Manage Scales
Measurement Methods | Search...
Total Judgments: 101

The following measurement types are available for evaluating Objectives:

- Pairwise Comparisons
- Direct

and for evaluating events with respect to Objective:

- Rating
- Direct
- Step Function
- Utility Curve
- Pairwise Comparisons
- Pairwise with Given Impact

Depending on the selected tab, the Total Judgments is displayed at the bottom of the page.

Total Judgments: 101

Measurement Methods for Evaluating Objectives

Measurement Methods for evaluating objectives can be found on the **IMPACT OF EVENTS > MEASURE > Measurement Methods > For Objectives** tab.

This is where we designate how objective impacts are to be derived or assigned for those objectives (elements) in the objectives hierarchy given their parent objective (non-covering objective).
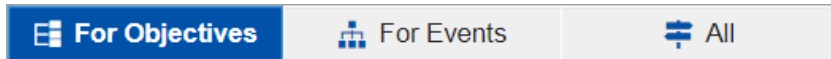
NOTE: You can also define Measurement Methods for Objectives in **All** mode where the measurement methods options For Objectives and For Events options are available.

When the **For Objectives** tab is selected, only the non-covering objectives have available measurement options to the right.

In our example, "Objectives" (non-covering objective) children: Public Relations, Financial, Reliability..., and Performance, are to evaluate using Pairwise Comparisons, as specified on the options to the right of the "Objectives" node or their parent.

Measure Objective Importance With Respect To	Measurement Type
⊟ Objectives	Pairwise Comparison ⌄
⊟ Public Relations	Pairwise Comparison ⌄
— Loss of Company Reputation	
— Customer/Business Dissatisfaction with the Service/Network Efficiency	
⊟ Financial	Pairwise Comparison ⌄
— Loss of Customers	
— Financial Loss	
— Financial Liability Due to Accident	
⊟ Reliability, Availability, Maintainability	Pairwise Comparison ⌄
— Loss of Maintenance Efficiency	
— Disruption/Damage to Service Line Infrastructure	
— Repair to Service Line Infrastructure	
⊟ Performance	Pairwise Comparison ⌄
— Temporary Line Closure	

Similarly, the children below "Public Relations" will also be evaluated using the Pairwise Comparisons, as specified on the measurement options to the right of Public Relations.

⊟ Objectives	Pairwise Comparison ⌄
⊟ Public Relations	Pairwise Comparison ⌄
— Loss of Company Reputation	
— Customer/Business Dissatisfaction with the Service/Network Efficiency	

You can change the Measurement Type by selecting from the pull-down menu:

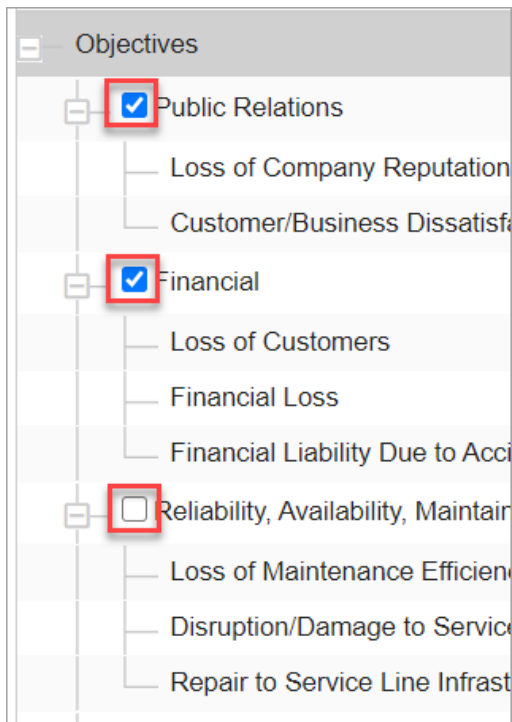| Measurement Type |
|---|
| Pairwise Comparison ⌄ |
| **Pairwise Comparisons** |
| Direct |

You can copy the measurement options from one non-covering objective to one or more non-covering objective(s).

Simply click   📋 Copy   to the right of the non-covering threat you want to copy.

Checkboxes will appear to the left of the other non-covering nodes. Check the nodes you want to paste the measurement options to.

You can also check all the nodes at the bottom of the page.

Once done, click Proceed.

You can jump to the specific evaluation step of the given covering objective by clicking

Measurement Methods for Evaluating Events WRT Objectives

Measurement Methods for evaluating events given objectives can be found on the **IMPACT OF OF EVENTS > MEASURE > Measurement Methods > For Events** tab.

This is where we designate how impacts are to be derived or assigned for the events given the covering objectives in the objectives hierarchy.

> **NOTE:** You can also define Measurement Methods for Events given Objectives in **All** mode where measurement methods options For Objectives and For Events options are available.

When the **For Events** tab is selected, only the covering objectives have available measurement options to the right.

Measure Event Objectives With Respect To	Measurement Type Default: Rating Scale	Measurement Scale	Action
Objectives			
Public Relations			
Loss of Company Reputation	Rating Scale	Default Impact Scale	Copy
Customer/Business Dissatisfaction with the Service/Network Efficiency	Rating Scale	Default Impact Scale	Copy
Financial			
Loss of Customers	Rating Scale	Default Impact Scale	Copy
Financial Loss	Rating Scale	Default Impact Scale	Copy
Financial Liability Due to Accident	Rating Scale	Default Impact Scale	Copy
Reliability, Availability, Maintainability			
Loss of Maintenance Efficiency	Rating Scale	Default Impact Scale	Copy
Disruption/Damage to Service Line Infrastructure	Rating Scale	Default Impact Scale	Copy
Repair to Service Line Infrastructure	Rating Scale	Default Impact Scale	Copy
Performance			
Temporary Line Closure	Rating Scale	Default Impact Scale	Copy
Loss of Reliability and Network Efficiency	Rating Scale	Default Impact Scale	Copy

Total Judgments: 71

From above, the events with respect to "Loss of Company Reputation" will be evaluated using Rating as specified on the options to the right of this covering objective

You can change the Measurement Type by selecting from the pull-down menu:

You can change or create a new measurement scale (if applicable) by selecting from the pull-down:
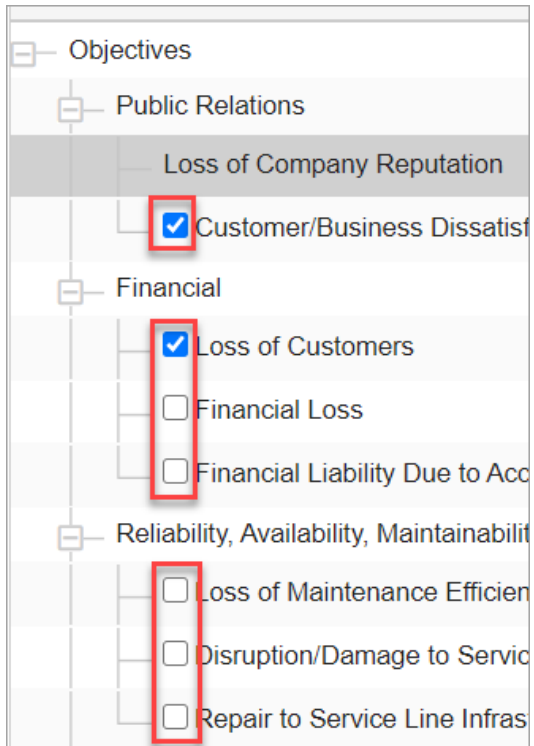

You can edit the currently selected scale by clicking

You can also copy the measurement options from one covering objective to one or more covering objective(s).
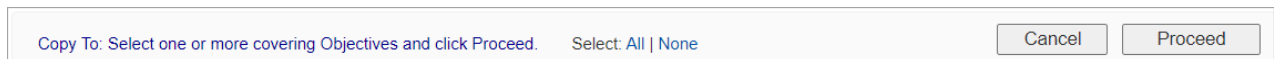
Simply click **[Copy]** to the right of the covering objective you want to copy.

Checkboxes will appear to the left of the other covering nodes. Check the nodes you want to paste the measurement options to.

You can also check all the nodes at the bottom of the page.

Once done, click Proceed.

Copy To: Select one or more covering Objectives and click Proceed.   Select: All | None   [Cancel] [Proceed]

You can jump to the specific evaluation step of the given covering objective by clicking [👁]