

Mastering ROI for Workplace Safety Interventions in 5 Steps

A Complete Guide to Calculating
Returns, Leveraging Technology,
and Maximizing Safety Investments

Preventing People From Breaking

www.soteranalytics.com



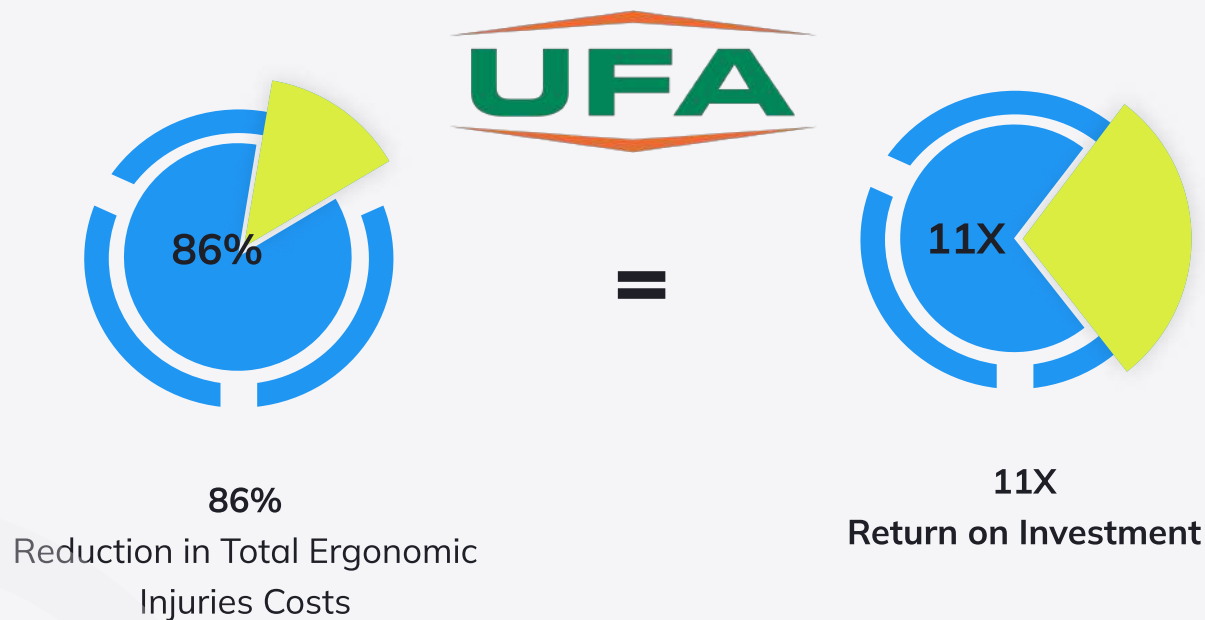
Contents

| | |
|--|----|
| Introduction to ROI | 3 |
| Importance of Calculating ROI | 4 |
| Challenges of Calculating ROI for Safety Interventions | 5 |
| Calculating ROI in 5 Steps | 6 |
| Step 1: Goals | 7 |
| Step 2: Pre-Initiative Injury Costs | 8 |
| Step 3: Solution Efficacy | 11 |
| Step 4: Cost of Initiative | 12 |
| Step 5: Calculate | 13 |
| Example: Calculating the ROI of Soter Solutions | 14 |
| Post Deployment: Evaluate Initiative Effectiveness | 16 |
| Connect with us | 17 |

Introduction To ROI

Return on Investment (ROI) is a key metric for evaluating business investments, including workplace health and safety technology. By calculating ROI, companies can determine the cost-effectiveness of safety interventions and make informed decisions.

Using the **SoterCoach** solution, United Farmer's of Alberta achieved an 86% reduction of total ergonomic injury costs and saw an **11 x Return** on their Investment.



In addition to the direct cost savings for reduced WCB claims, UFA is also trending towards a reduction in their WCB premium, based on the last **3 years of claims**.

Importance of Calculating ROI



Evaluating cost-effectiveness



Allowing comparison of different options



Supporting informed decision-making



Helping to manage risk



Promoting cost savings



Improving workplace safety



Challenges Of Calculating ROI For Safety Interventions

Assigning monetary value

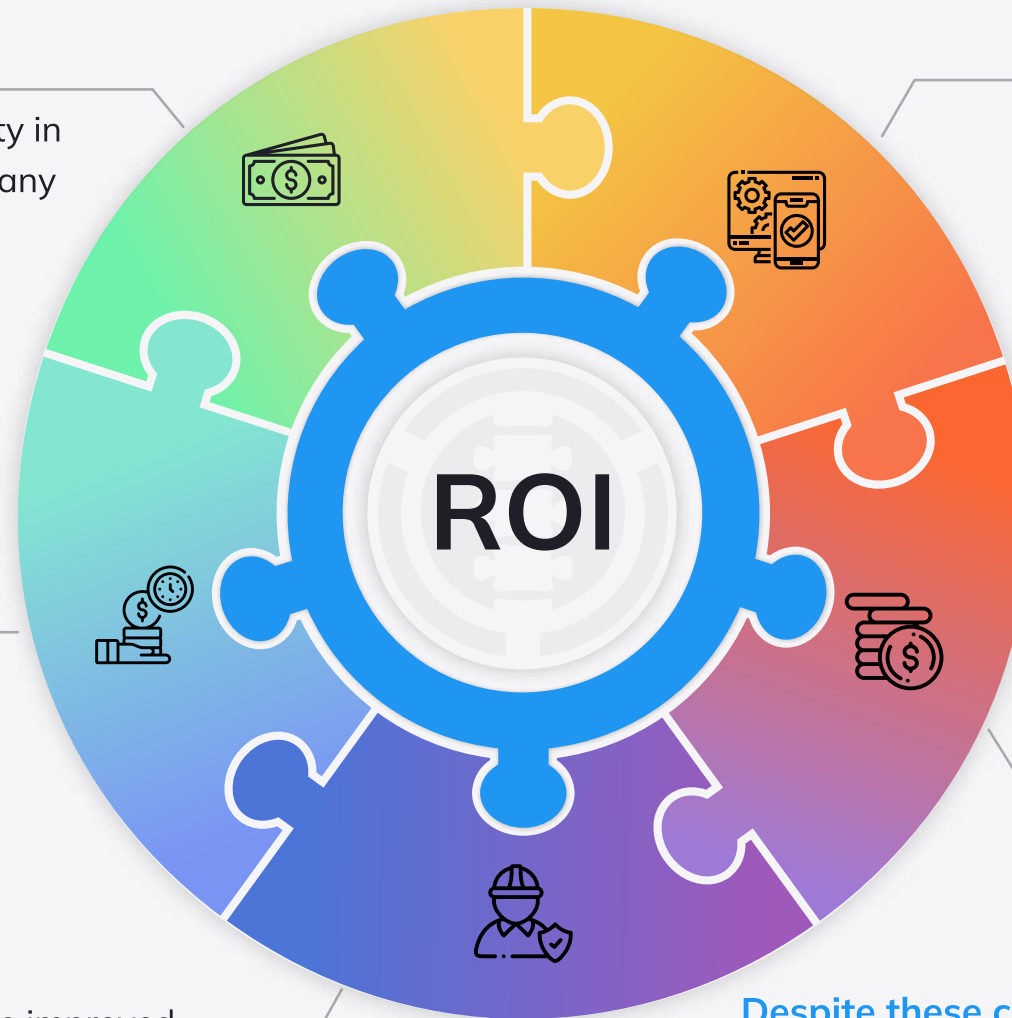
It's challenging to quantify safety in terms of dollars as it involves many intangibles

Long-term benefits

The full benefits of safety interventions, such as safety training, may take years to become apparent

Intangible benefits

Difficult-to-measure benefits like improved employee morale, increased job satisfaction, and reduced turnover rates



Data analysis complexities

Accident/injury data pre and post-intervention, need to be considered and accurately compared, ensuring data relevance to the intervention's goal.

Variability of costs

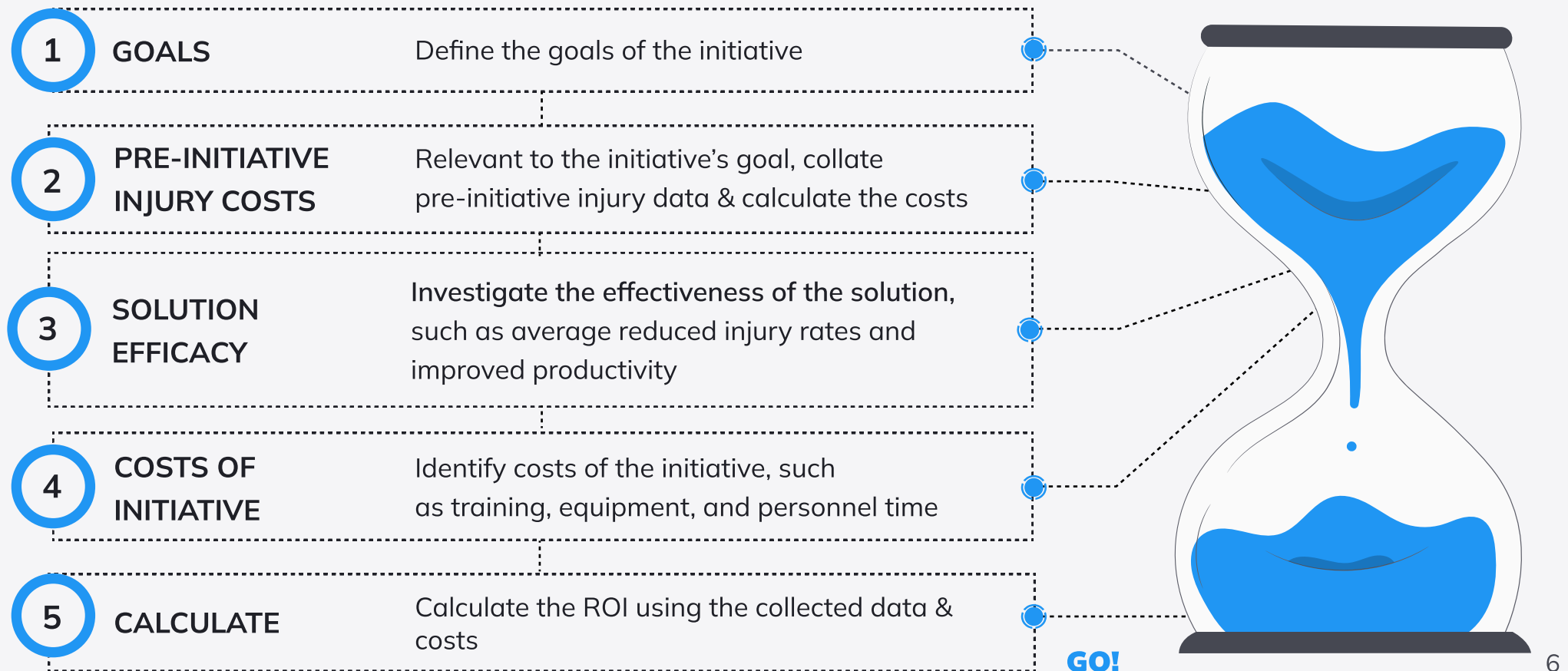
Costs associated with safety interventions can vary widely

Despite these challenges, evaluating safety interventions is crucial to ensure effective resource allocation and worker protection.⁵

Calculating ROI In 5 Steps

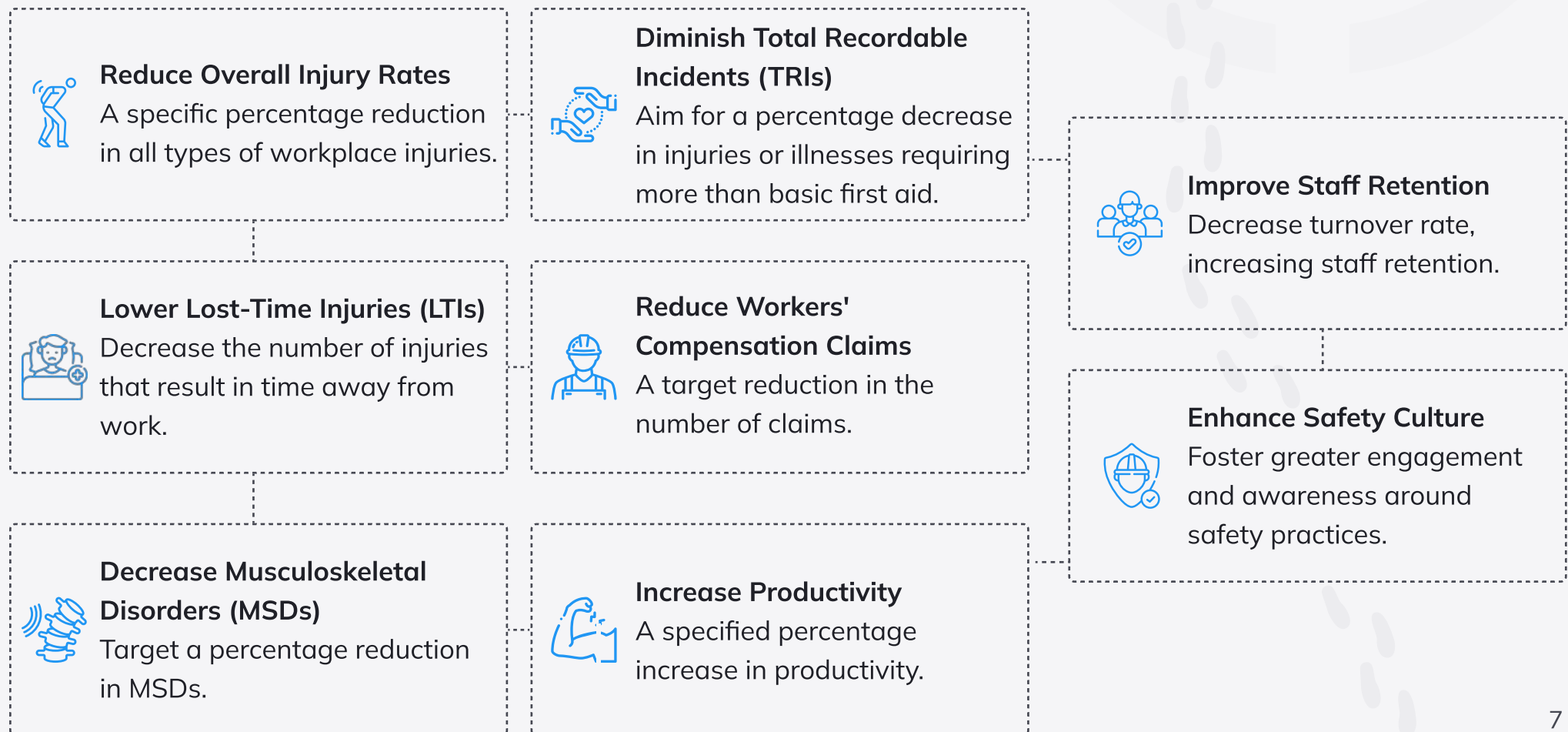
Determining ROI for a safety initiative can take a few weeks to a few months, depending on factors like the initiative's nature, organization size, data availability and quality, and analysis complexity.

To calculate ROI, the **following steps** are needed:



Step 1: Goals

Before implementing a safety technology initiative, you may want to establish certain goals to guide your efforts and gauge your success. Here are some goals you might consider:

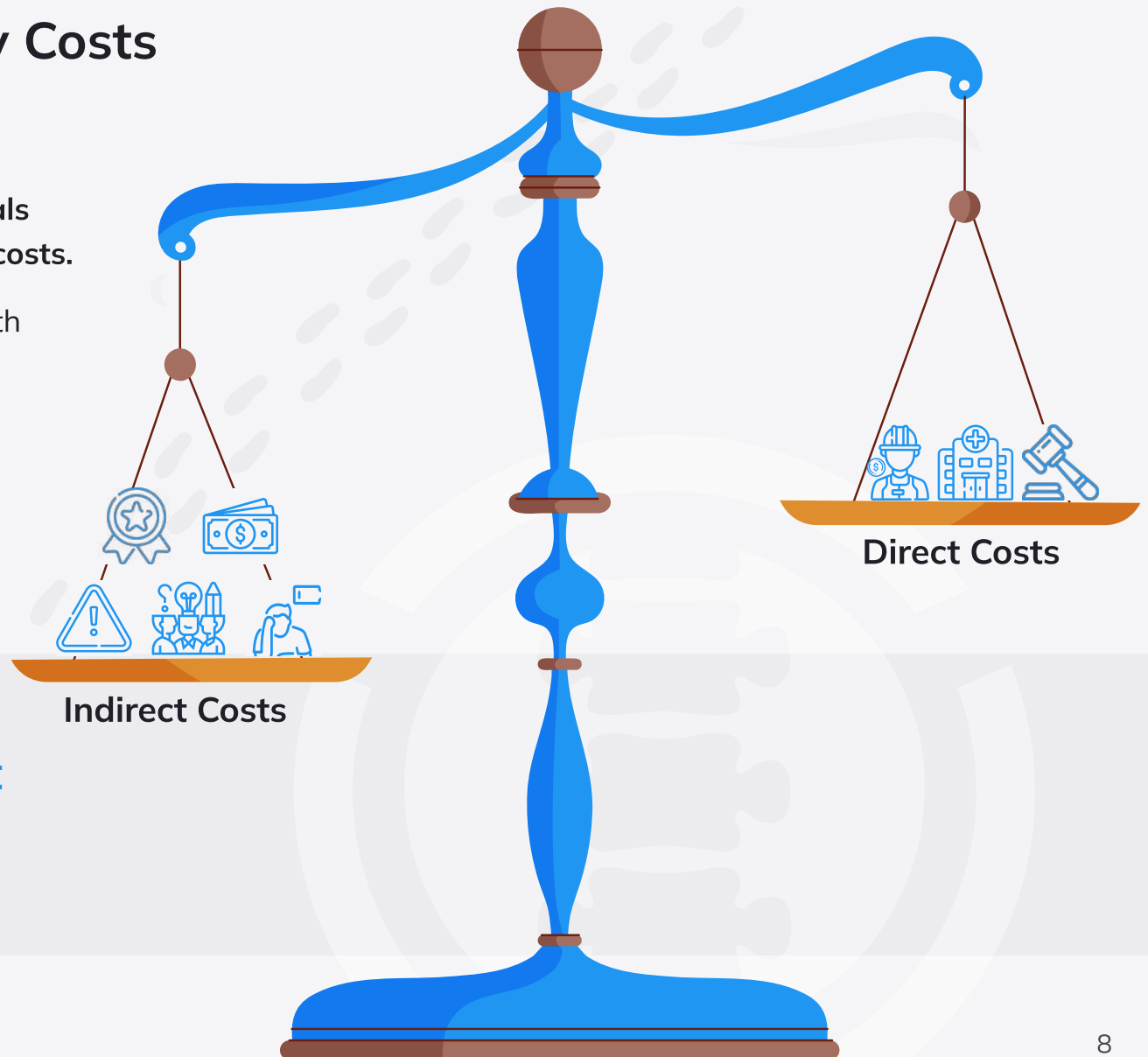


Step 2: Pre-Initiative Injury Costs

After defining the initiative's goals, compile all pre-initiative injury data **pertinent to these goals for a set period and calculate the associated costs.**

In calculating the associated costs, factor in both the direct and indirect expenses of a workplace injury, acknowledging that indirect costs often increase the injury cost by 2 to 10 times.

Different methods, such as the human capital method or the friction cost method, may be used to calculate indirect costs.

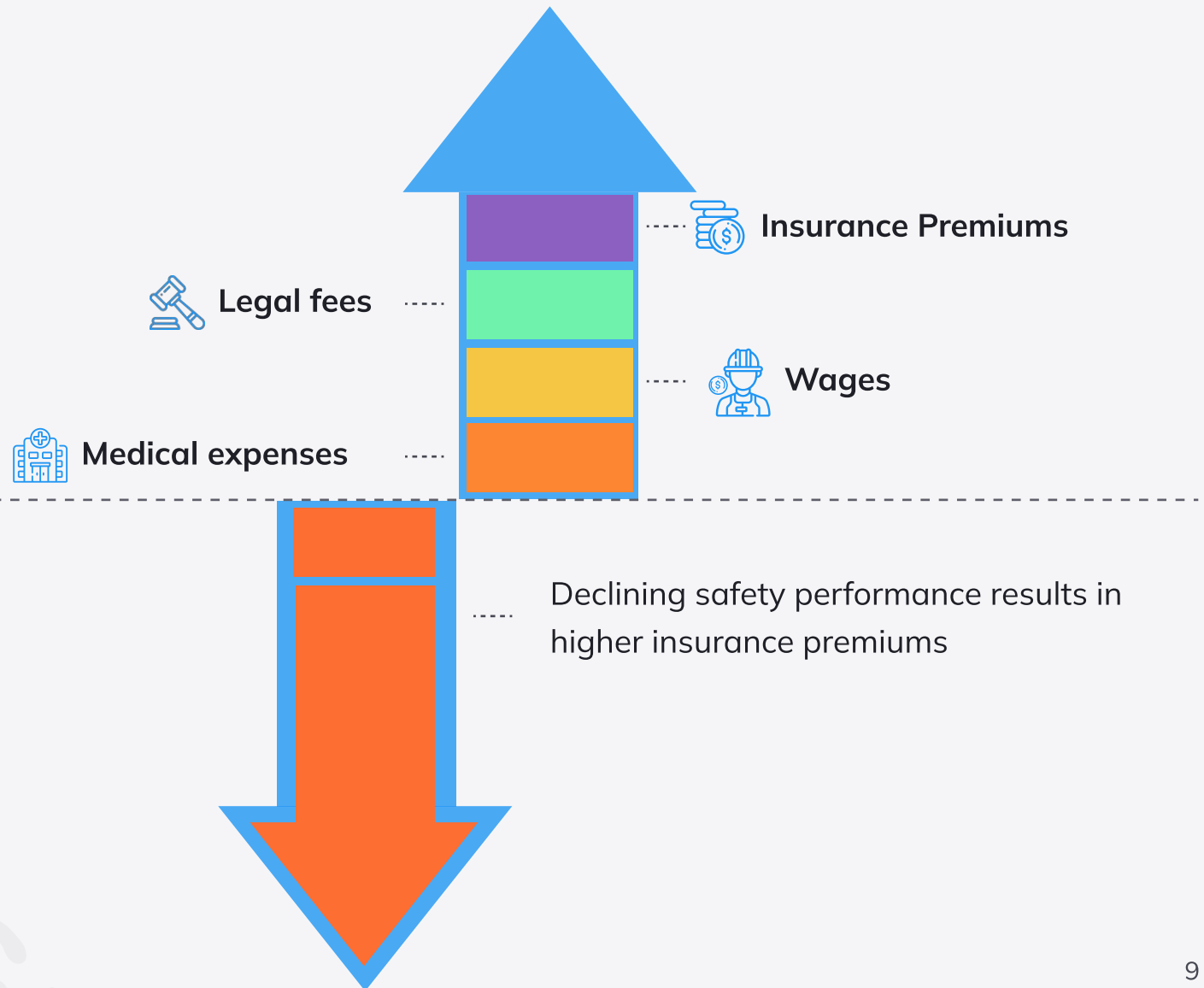


True Cost of an Injury = Direct Costs + Indirect Costs

Step 2: Pre-Initiative Injury Costs

Direct Cost Of Injuries

Direct costs are paid by workers' compensation insurance. Common direct costs include medical expenses, workers' compensation, and legal fees. Calculate the direct costs for a specific period, such as a year.



Step 2: Pre-Initiative Injury Costs

Indirect Costs Of Injuries

Indirect costs, are harder to quantify and can vary significantly among companies. These are all the 'uninsured' additional costs associated with an injury.

Some include:



Training and recruitment



Decreased employee morale / lower efficiency



Replacement wages / compensation

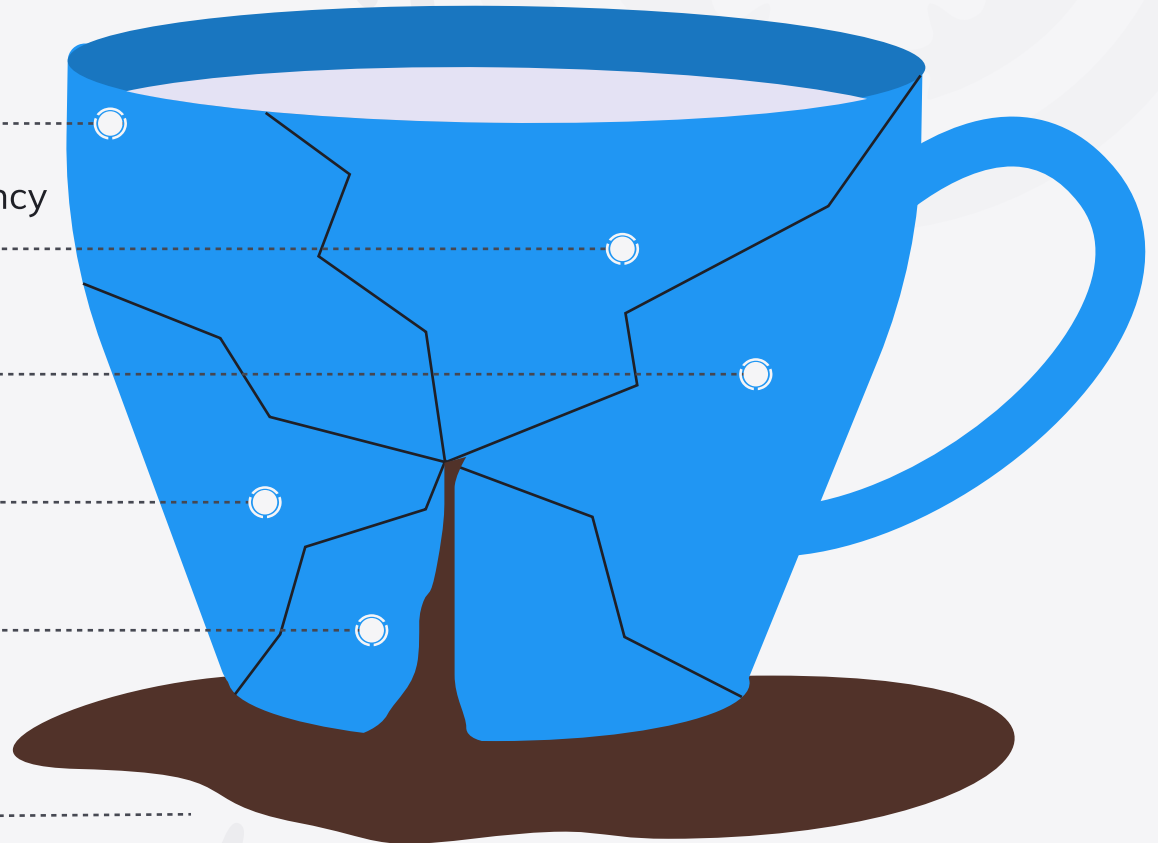


Reputation/customer relations impact



Damage to equipment and facilities

Indirect costs



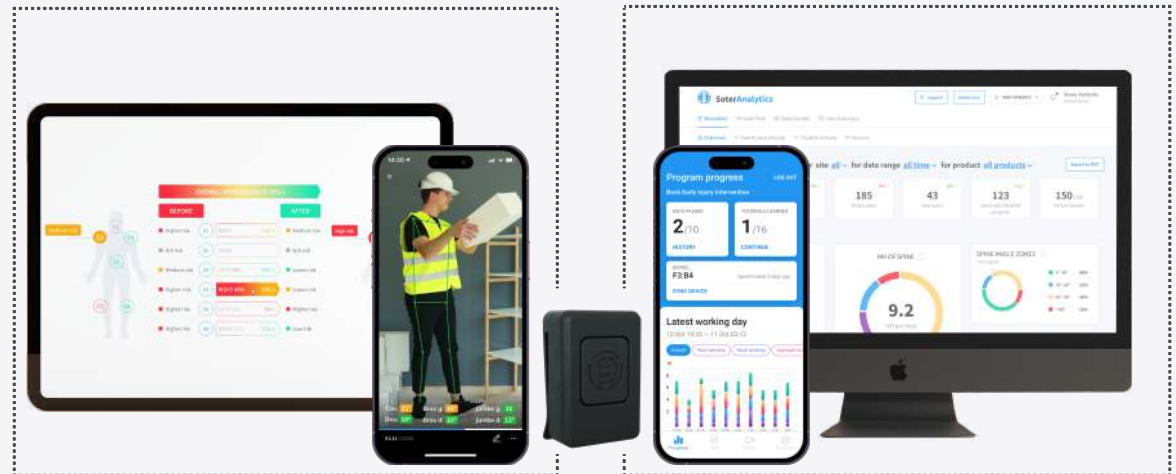
Step 3: Solution Efficacy

To determine the effectiveness of an initiative you must research the supplier's predicted ROI - Solution Efficacy.

To help determine the probable ROI on a safety technology initiative, solution providers offer average effectiveness percentages for their solutions based on historical data, industry benchmarks, or case studies.

The actual effectiveness can vary significantly depending on context, implementation, and the organization. Treat these percentages as general guidance, not guaranteed outcomes.

The Soter Solutions



SoterCoach and **SoterTask** together
have a proven overall effectiveness percentage of 70%.

**To estimate the potential savings from implementing the initiative,
it's crucial to ascertain the effectiveness of the solution.**

Step 4: Costs of Initiative

Deploying a new safety technology initiative involves various costs, which may include but are not limited to:

- Equipment
- Software
- Installation
- Training
- Maintenance
- Operational

To determine the ROI on a safety intervention you must identify the complete the cost of the initiative.



Step 5: Calculate

Armed with the necessary data, you're all set to calculate the projected Return on Investment (ROI) for the safety initiative you're exploring. Apply this formula to quantify your ROI.

① Calculate the savings from the initiative:

$$\text{Pre-Initiative Injury Costs} \times \text{Solution Efficacy} = \text{Savings from Initiative}$$

② Calculate the potential return on investment:

$$\text{ROI} = \frac{\text{Savings from Initiative} - \text{Cost of Initiative}}{\text{Cost of Initiative}}$$

"Savings from Initiative" represents the reduction of costs calculated from obtaining fewer injuries.

"Cost of Initiative" refers to the cost of the safety technology solution.

Example: Calculating the ROI of Soter's Solutions

Here we will use an example of a company with 1,000 employees with the total costs of musculoskeletal injuries per year calculated at \$810,000 and calculate the potential ROI for deploying the Soter solutions.



Example: Calculating the ROI of Soter's Solutions

① Calculate the savings from the initiative:

$$\begin{array}{ccccc} \$810,000 & & 70\% & & \$567,000 \\ \text{Pre-Initiative Injury Costs} & \times & \text{Solution Efficacy} & = & \text{Savings from Initiative} \end{array}$$

② Calculate the potential return on investment:

$$\begin{array}{ccccc} \begin{array}{c} \img alt="Icon of a hand holding money" data-bbox="80 560 120 615" \\ \$567,000 \\ \text{Savings from Initiative} \end{array} & - & \begin{array}{c} \img alt="Icon of a stack of money" data-bbox="405 565 445 610" \\ \$143,210 \\ \text{Cost of Initiative} \end{array} & & \\ \hline & & & = & 296\% \\ & & \begin{array}{c} \img alt="Icon of a coin with a dollar sign" data-bbox="230 695 270 750" \\ \$143,210 \\ \text{Cost of Initiative} \end{array} & & \text{ROI} \end{array}$$

Note: For context, a 100% ROI implies breaking even, as your savings from the initiative equals the total costs invested. While not reflecting a net gain, it signifies a self-financed safety improvement, indirectly benefiting morale, reputation, and productivity potential.

1. Post Deployment: Evaluate Initiative Effectiveness

Once you have deployed the initiative, you can analyze the effectiveness by defining objectives and KPIs for a **predefined period**. This period should be long enough to assess the effectiveness accurately.

1

Establish goals for the safety initiative - e.g. reducing accidents, improving turnover, or increasing worker awareness.

2

Collect baseline KPI data and monitor KPIs post-implementation.

3

Calculate overall effectiveness percentage by comparing post-implementation KPI data with baseline data:

$$\text{Effectiveness Percentage} = \left(\frac{\sum [(\text{Post-implementation KPI} - \text{Baseline KPI}) / \text{Baseline KPI}] / \text{number of KPIs}}{1} \right) \times 100.$$

Remember to consider qualitative factors like employee feedback and safety culture changes. While these factors may be more challenging to quantify, they provide valuable insights into the overall success beyond numerical measurements.



ROI helps evaluate the trade-off between
..... **safety** and **cost**

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REDUCE INJURIES

Up to 86% of reduction in back & shoulder injuries



REDUCE LOST WORKDAYS

Achieve up to 30% of reduction in lost workdays



IMPROVE PRODUCTIVITY

Ensure smooth operations and reduce employee turnover



BOOST ROI

Minimize cost exposure while the benefits are demonstrated

