

# decisionOS

## The operating system for trusted enterprise decision-making powered by Causal AI.

decisionOS enables organizations to gain true business value by embedding Causal AI into their decision-making workflows. Causal AI unlocks higher forms of machine learning intelligence by understanding cause-and-effect relationships and directly enhancing human decision-making.

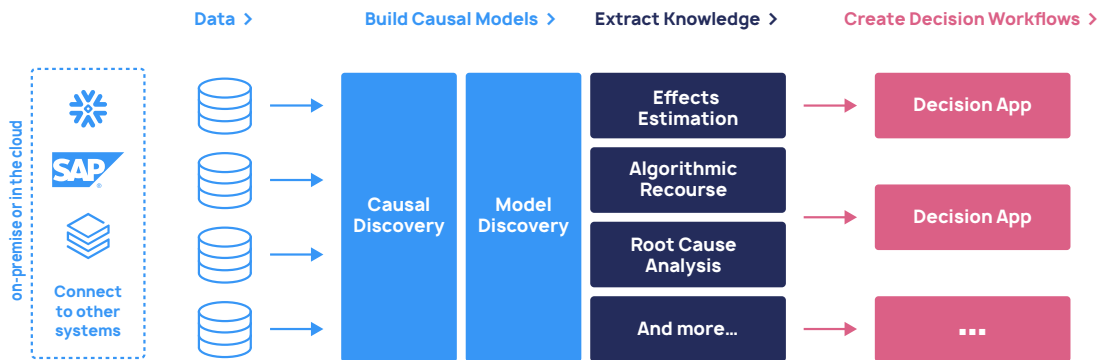
### Go from Data to Better Decisions

Fair, Trustworthy, Explainable AI

- **Uncover cause and effect within you data**
- **Transform causal drivers into explainable causal models**
- **Extract knowledge - answer "why" and "what-if" questions about business critical scenarios**
- **Build decision-making applications for business users that can be directly embedded into your existing workflows**

**Understanding the causal drivers behind demand is critical. causaLens enhances our supply chain visibility and empowers our domain experts to run powerful what-if analyses."**

Takashi Hiramatsu  
Senior Manager, MLCC Planning  
Department, Murata



### Key Features

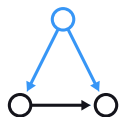
<p><b>Causal Graph &amp; Model Discovery</b></p> <p>Rapidly add, edit, and review causal relationships in an iterative discovery process using decisionOS' state-of-the-art algorithms and your deep domain expertise.</p>	<p><b>Comprehensive Effect Estimation</b></p> <p>decisionOS helps you understand the effect of interventions by using methods for calculating average, conditional average, heterogeneous, and individual treatment effects.</p>	<p><b>Algorithmic Recourse</b></p> <p>Algorithmic recourse suggests the best set of interventions to obtain a desired outcome, while accounting for real world constraints such as costs.</p>
<p><b>Deep Jupyter Integration</b></p> <p>Real time interaction between Jupyter notebooks and decisionApps for sharing data and state. Directly embed apps into notebooks for unparalleled interactivity and reporting.</p>	<p><b>True Root Cause Analysis</b></p> <p>Root cause analysis can help to explain the occurrence of certain outliers, often unfavorable, events and also may be able to provide recommendations for actions to remedy these in the future.</p>	<p><b>Open Source Support</b></p> <p>decisionOS supports the most popular open source packages as first class citizens while allowing you to easily extend the ecosystem with others.</p>

# Product Capabilities



## Human Guided Causal Discovery

Identify the cause and effect relationships within your data using a wide range of powerful causal discovery algorithms designed to function rapidly even on complex data. decisionOS combines the best causal discovery algorithms from our R&D lab and the wider open source community. Enable cross-functional collaboration by allowing subject-matter experts to inject domain expertise to enhance causal discovery, via an intuitive user interface.



## Causal Model Building

Transform causal drivers into an explainable model that represents cause-effect relationships and their functional forms. decisionOS provides novel architectures for building structural causal models or causally-enabled decision trees to maximize performance and trustworthiness. decisionOS is extensible with all popular open-source software packages, giving data scientists the freedom to build models with any software.



## Causal Decision Intelligence

Transform model outputs from predictions to actionable recommendations, by orchestrating interventions and counterfactuals. Our flagship causal decision intelligence engines include:

- Recourse engines for designing optimal courses of action
- Tools for detecting biases and promoting fairness
- Counterfactual engines for scenario planning and why-questions



## Decision Apps SDK for Causal AI

Data scientists can create full stack applications written in pure Python which are customized to business user needs. The Decision App SDK comes packed with components to visualize and evaluate business challenges in a causal way.

## Organizations are using decisionOS to augment their decision-making capabilities in areas such as:

### Pricing and Promotion

decisionOS uses debiased ML to isolate the effects of promotional campaigns and eliminate biases caused by fast-moving, unpredictable factors like seasonal holidays or competitor activity.

### Order Management

decisionOS helps manufacturers identify the specific causes of failures through true root cause analysis, reducing uncertainty and allowing for targeted remedial action..

### Customer Retention

While traditional predictive ML models can predict likely churners, they don't recommend a course of action to prevent churn. decisionOS identifies the true drivers of churn and recommends optimal actions to prevent it.

### Marketing Mix Optimization

decisionOS transforms marketing and sales data into causal attribution models, showing all causal relationships that drive conversions and providing automated spending allocation optimizations.

**And many more...** decisionOS can be applied for a wide range of use case.

**Contact us** to learn how we can help solve your most challenging business problems.

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[causalens.com](https://causalens.com) | [info@causalens.com](mailto:info@causalens.com)

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