# xAI Workbench

## Jumpstart Guide

Getting the most from your trial

simMachines
An InRule Technology® Company

TIME TO COMPLETE
**30 MINUTES**

At InRule Technology®, our mission is to make automation accessible across the enterprise.

Our machine learning technology turns artificial intelligence into actionable intelligence, empowering anyone to understand all the factors that go into a single prediction – all without sifting through code.

In about thirty minutes, this jumpstart guide will enable you to:

- **Navigate xAI Workbench with ease**
- **Understand a prediction returned from a classifier model**
- **Dig into the factors behind a specific prediction**
- **Interpret information from a cluster model**
- **Examine the model creation process, including model tuning**

Throughout this guide, you'll find links to corresponding videos that demonstrate everything we're doing.

Navigate xAI Workbench with ease >>>

Understand the difference between traditional ML and predictions with the why® >>>

Deliver smarter anything >>>

Visualize what a model has learned >>>

Easily tune a model >>>

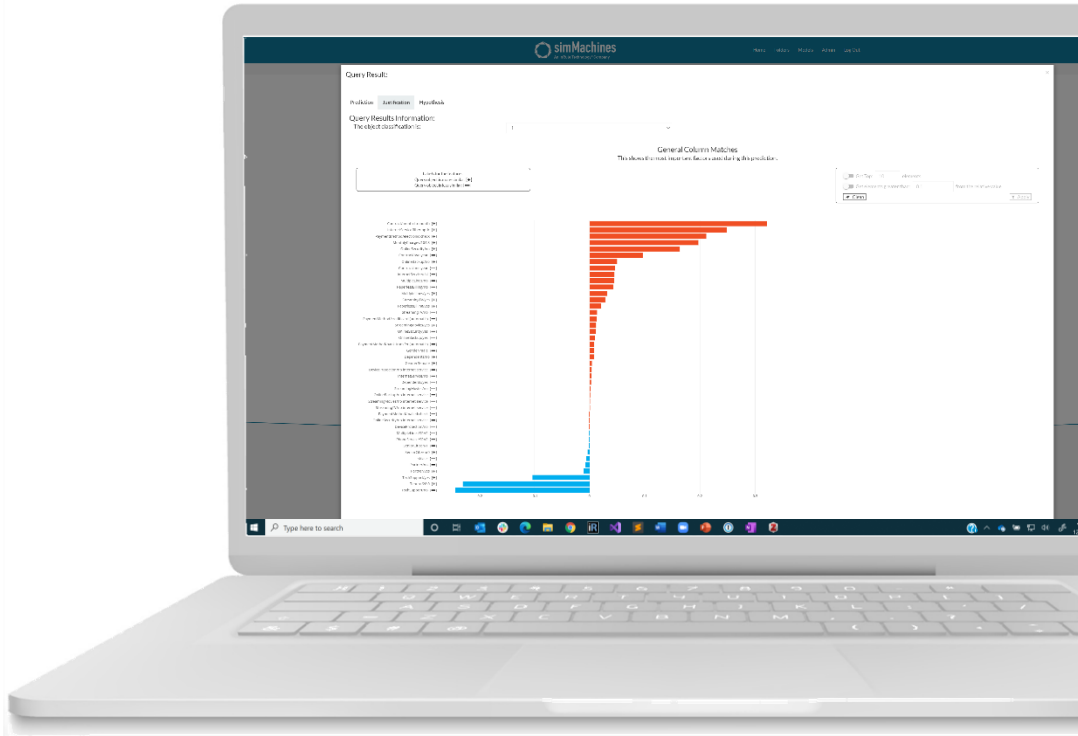
Use your trial to explore everything InRule Technology's explainable AI solutions have to offer and reach out to us with any questions. This will ensure you make an informed buying decision – with certainty that our platform has the functionality and support you need.

inrule

# Navigate xAI Workbench with ease

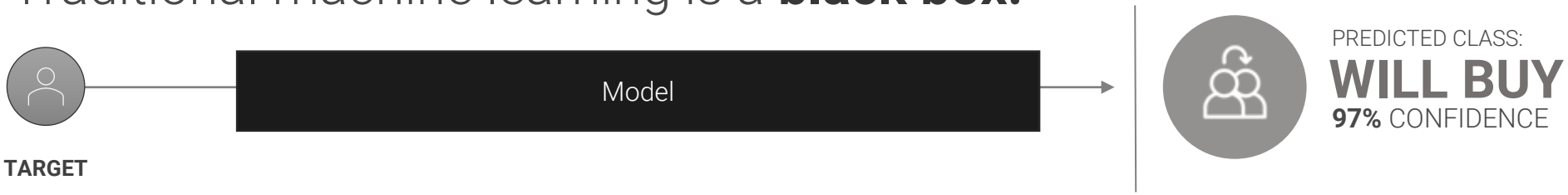
TIME TO COMPLETE
**2-3 MINUTES**

Unlike traditional machine learning platforms which only deliver a prediction and confidence score, or rank feature importance only as they relate to the model itself, our **predictions with the why®** make it easy for analytics and business teams to apply machine learning quickly and effectively with an easy-to-use workbench and explainable outputs – all without code, and with detailed factors behind **every single prediction**.



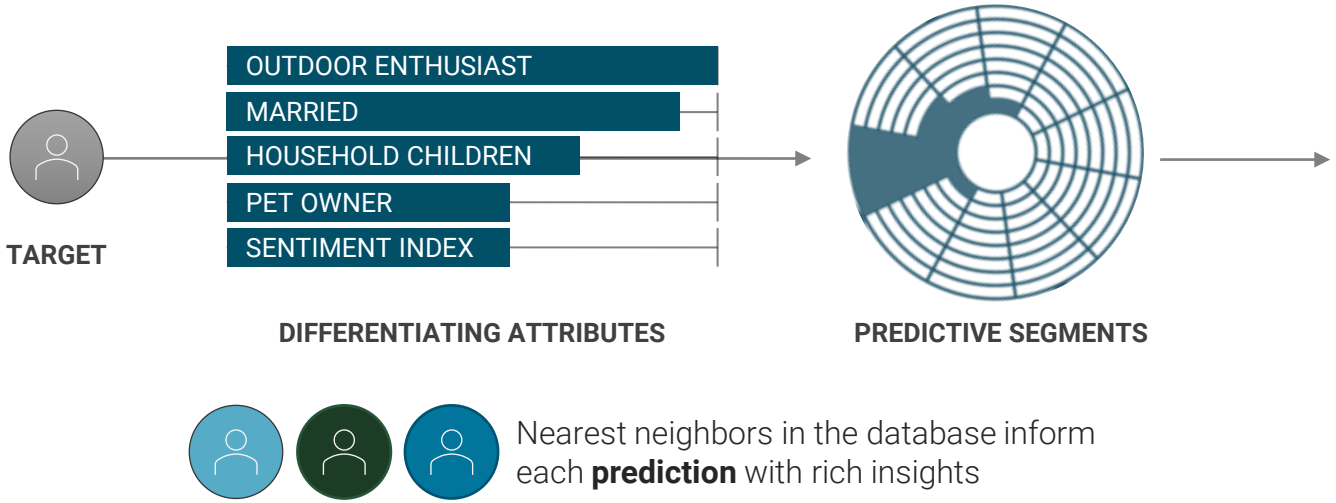

**Watch Now:** Navigate xAI Workbench with Ease

# Traditional machine learning is a **black box.**



# We Open the Box – to Deliver Smarter Anything

With user-controlled granularity and feature selection, our single-pass prediction and clustering deliver high precision models with dynamically weighted attributes by segment for ultimate **transparency** and **explainability**.






Nearest neighbors in the database inform each **prediction** with rich insights

PREDICTED CLASS:
**WILL BUY**
**97%** CONFIDENCE

**contextual intelligence** enables a more relevant decision on the offer or recommendation to present

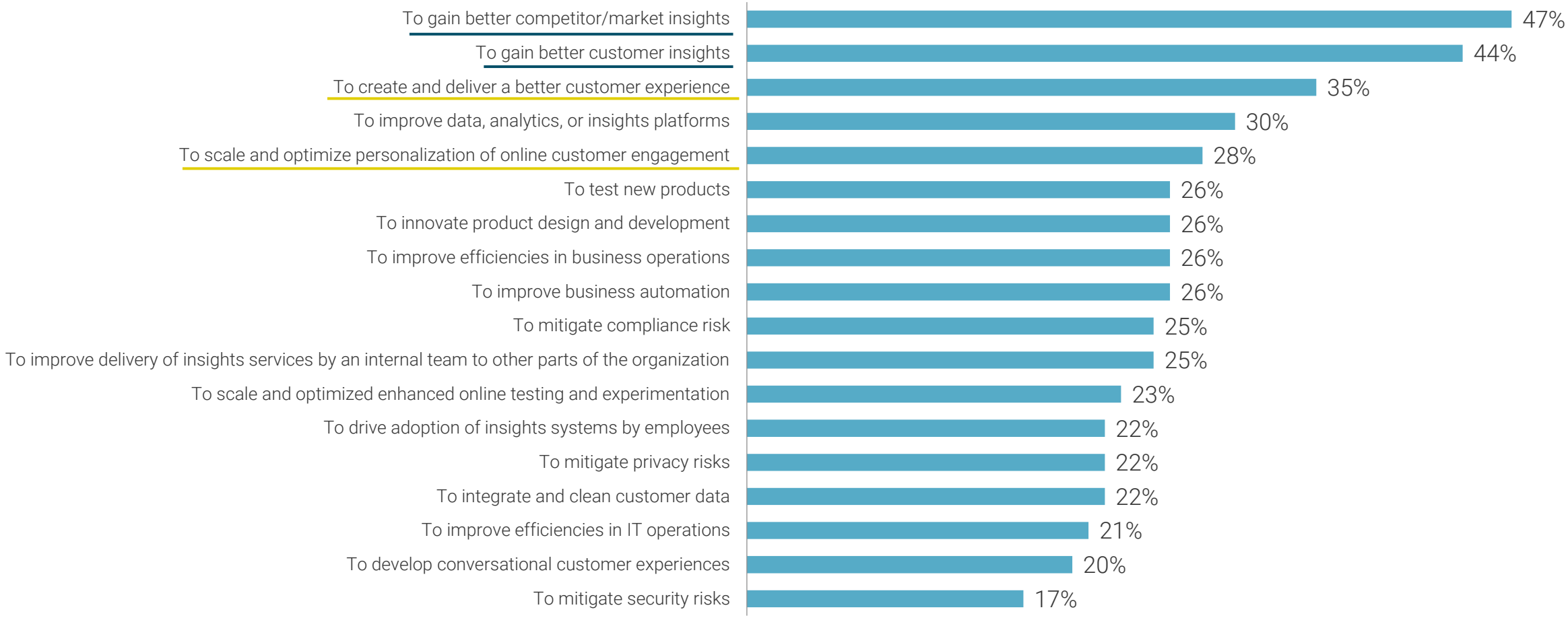
# Our Expertise: Dynamic Predictive Segmentation (DPS)

Our predictive technology clusters and segments based on an action, outcome or other meaningful business objective.

These outcomes drive a segmentation schema comprised of **intent** and **action** – not just descriptive statistics.

# Firms are seeking insights from AI technology

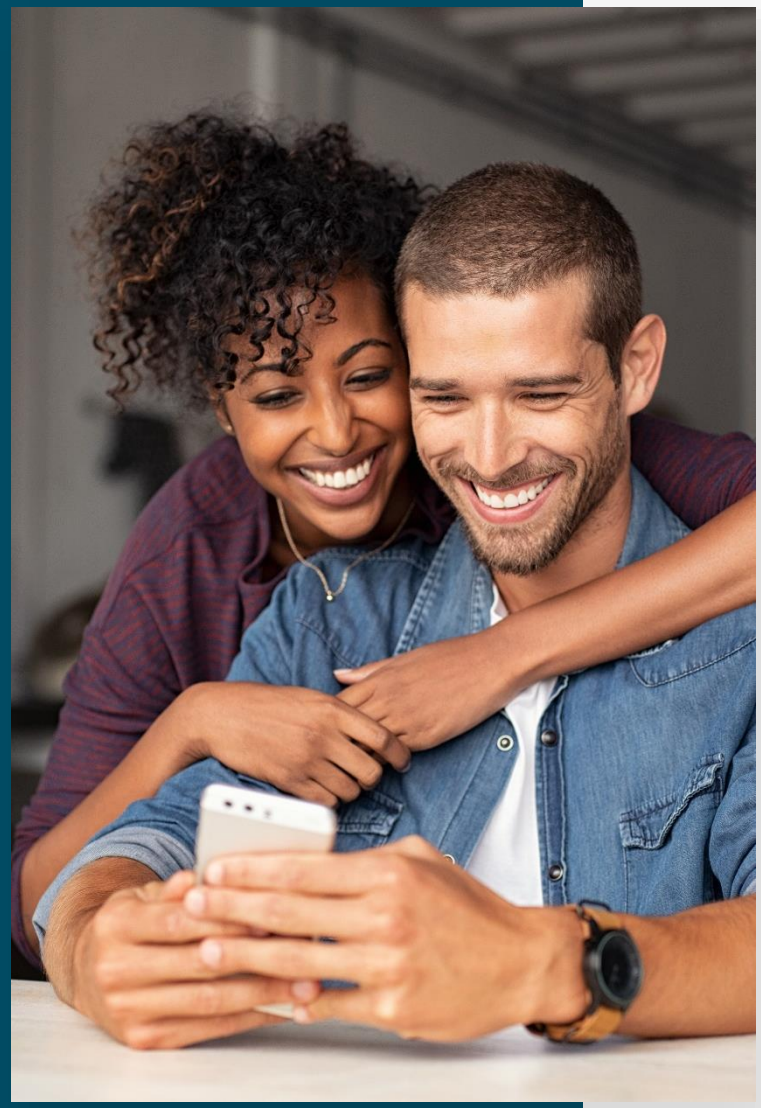
In a recent commissioned study conducted by Forrester Consulting, we asked, “For which of the following [use cases] is your firm planning to use or currently using AI technologies?”




Base: 302 US application development and delivery decision-makers with knowledge of business rule management tools
Source: A commissioned study conducted by Forrester Consulting on behalf of InRule, March 2021

# Churn Reduction / Retention

The real-world success story that inspired these trial examples



## CHALLENGE

Large international telecommunications provider needed to reduce churn for pre-paid phone cards.

## SOLUTION

We deployed dynamic predictive segmentation to enable proactive churn prevention.

We created predictions of who was likely to defect based on past defectors. Every prediction's "Why" factors are different. We then created clusters of similar predictions. Each cluster was assigned a corresponding action.

In one case of this example, the prediction is based on a group of customers with a family plan who were recently divorced, with children no longer in the household. The corresponding action for this prediction is: "Offer these customers an individual plan."

## RESULT

30% reduction in churn among contacted customers.

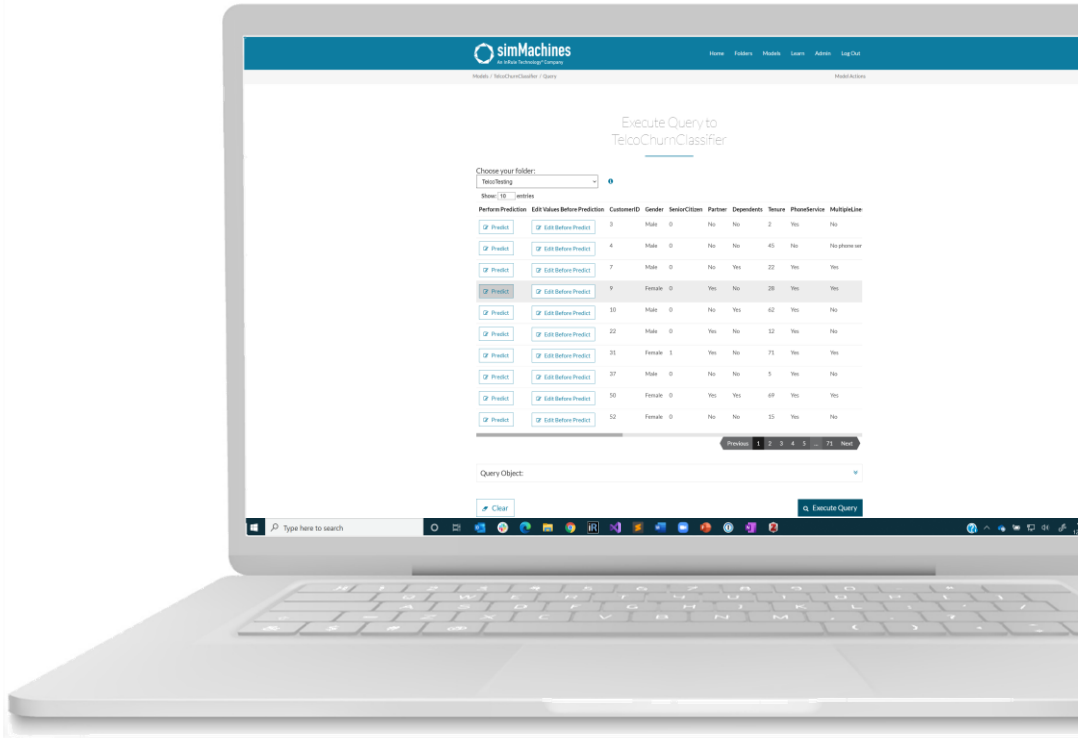
# Deliver smarter anything

TIME TO COMPLETE
**5-7 MINUTES**

Classification models are ideal for many applications across a variety of industries. Classifiers can help find answers to vital questions that impact business outcomes, including:

- Behavior prediction: does this prospect's behavior indicate traits we see in others in a specific persona group?
- Risk assessment: where should I focus my claim audit?
- Hypothesis testing: if we change X, will we get a better result?

In this exercise, we'll query a classifier model to understand the likelihood a customer might churn – and learn how to interpret the factors that went into that prediction.




**Watch Now:** Working with a Classifier Model

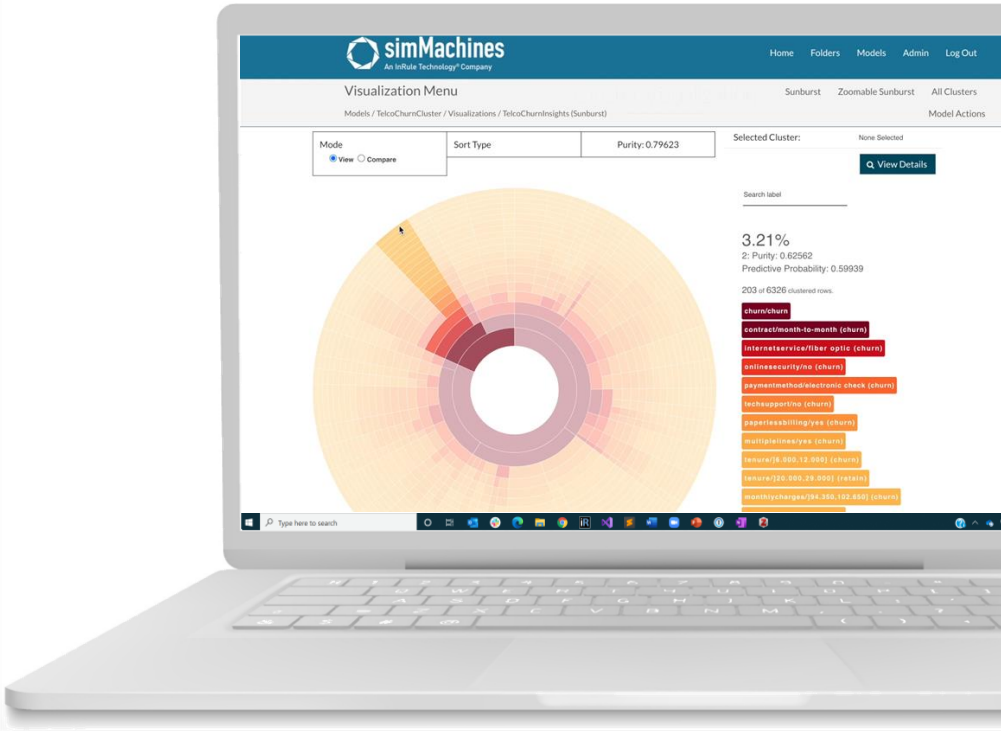
# Visualize what a model has learned

TIME TO COMPLETE
**7-10 MINUTES**

See how easy it is to visualize what a model has learned and how its insights compare with ground truth in this demonstration of our semi-supervised clustering capabilities.

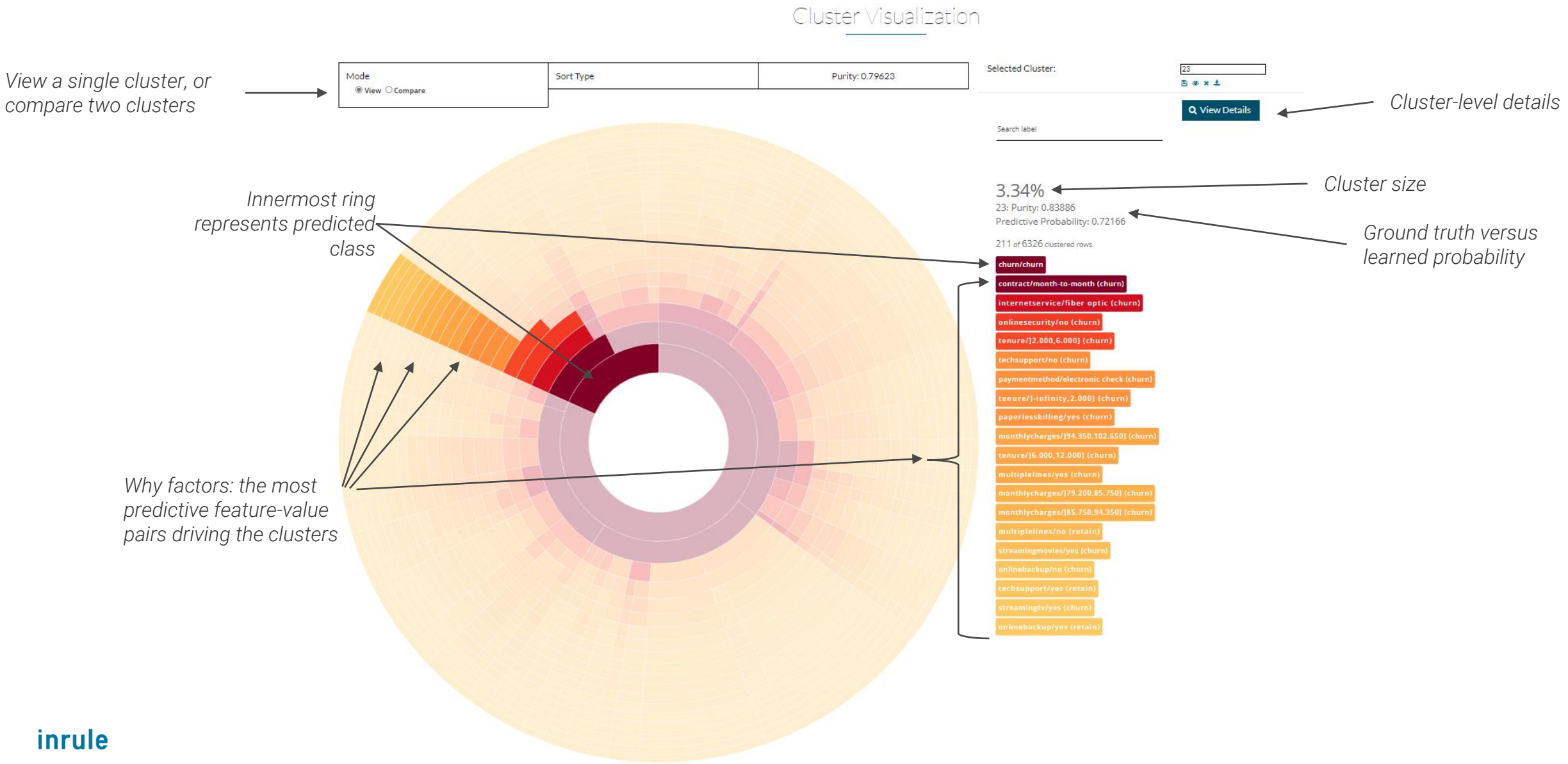
We will also explore the details behind clusters, drilling in to get a cluster-specific analysis of any feature in a given cluster.

**Watch Now:** Working with the Clustering Engine



# Visualize what a model has learned

Anatomy of a cluster visualization



# Easily tune a model

TIME TO COMPLETE
**3-5 MINUTES**

Finding the ideal parameters to use is done through an experiment process called hyperparameter optimization.

xAI Workbench offers two optimization approaches.

**Exhaustive grid search** evaluates every parameter combination provided by the user.

**Bayesian optimized search** tries to selectively explore the parameter space to find the ideal result, faster.

In this exercise, we'll look at a completed grid search, and explore the performance metrics of the various experiments that were executed, including both threshold-neutral and threshold- and class-specific metrics.


**Watch Now:** Tuning a Model

# THANK YOU