

About ASPEN Platform

ASPEN Platform



Salient Features

User Interface	Programmatic Interface	
RESTful API	Streaming API	
Security		
Visualization		
Data Preparation		
Model Creation	Model Consumption	
CPU	GPU	Custom Business Logic
Database Access		

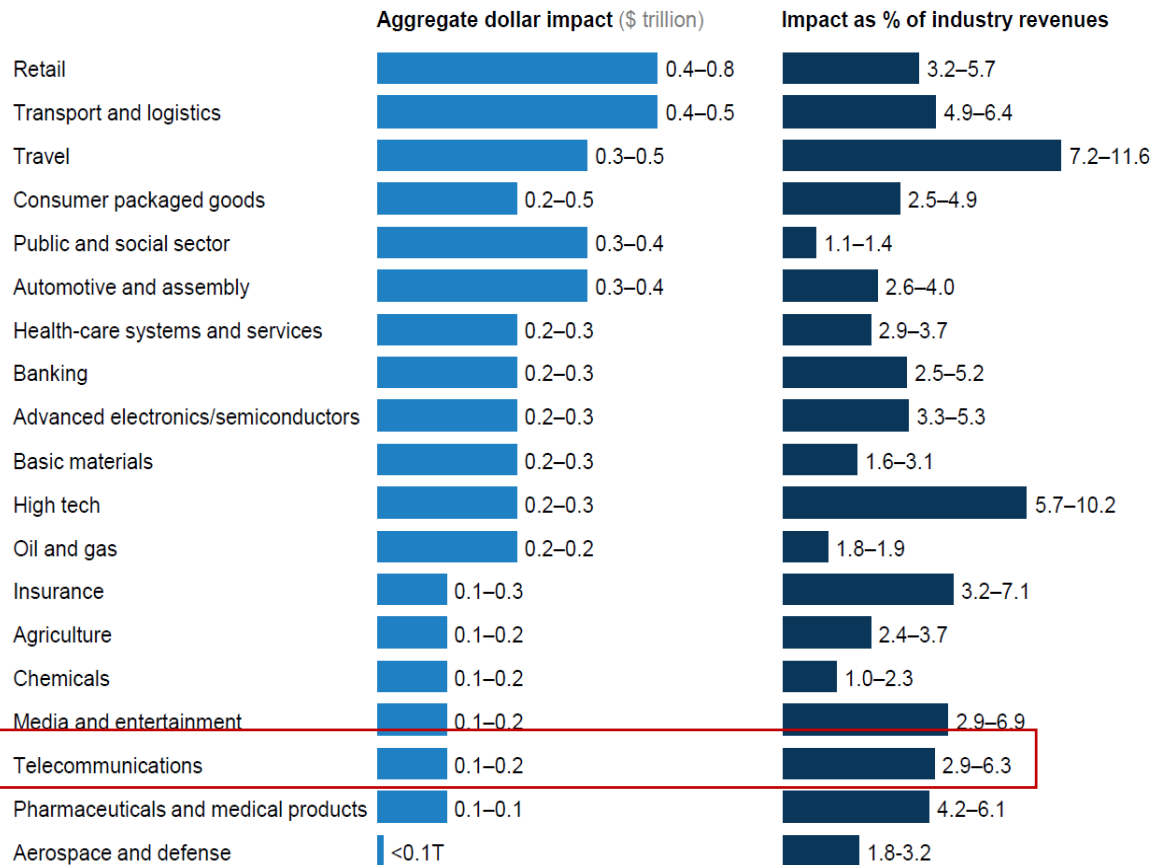
A technically rich cost-effective platform for AI/ML solutions delivery across different verticals that operates on the PaaS business model

Market Study on AI impact*

* McKinsey Global Institute Study, 2018

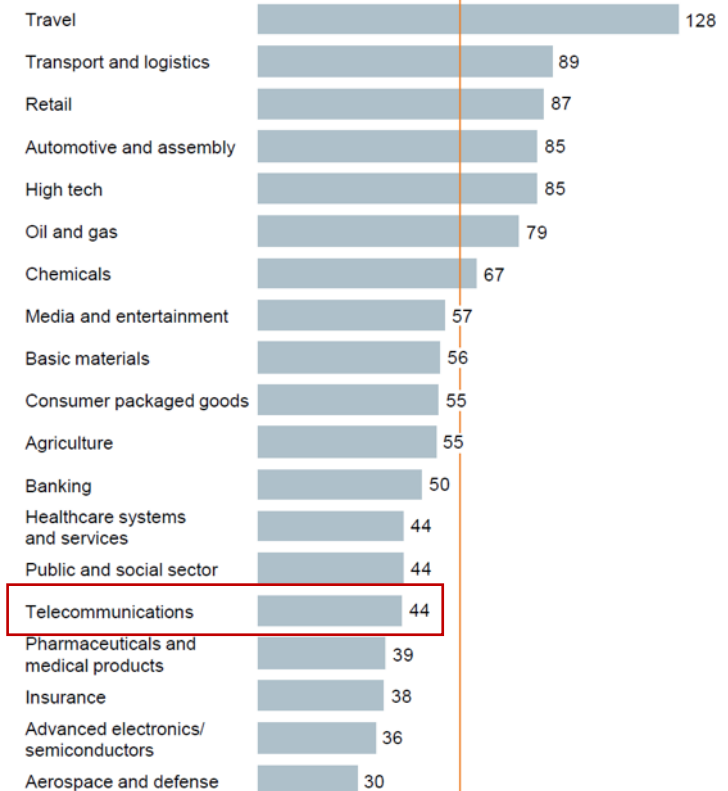
Business Value

The potential value of AI by sector



Prediction Performance

Potential incremental value from AI over other analytics techniques



Average = 62

In TELECOM, AI /ML is predicted to offer 44 percent improvement in prediction accuracy over traditional analytics

ASPEN charter is in high impact areas of AI

Focus Areas

Telecom

Customer Experience Management

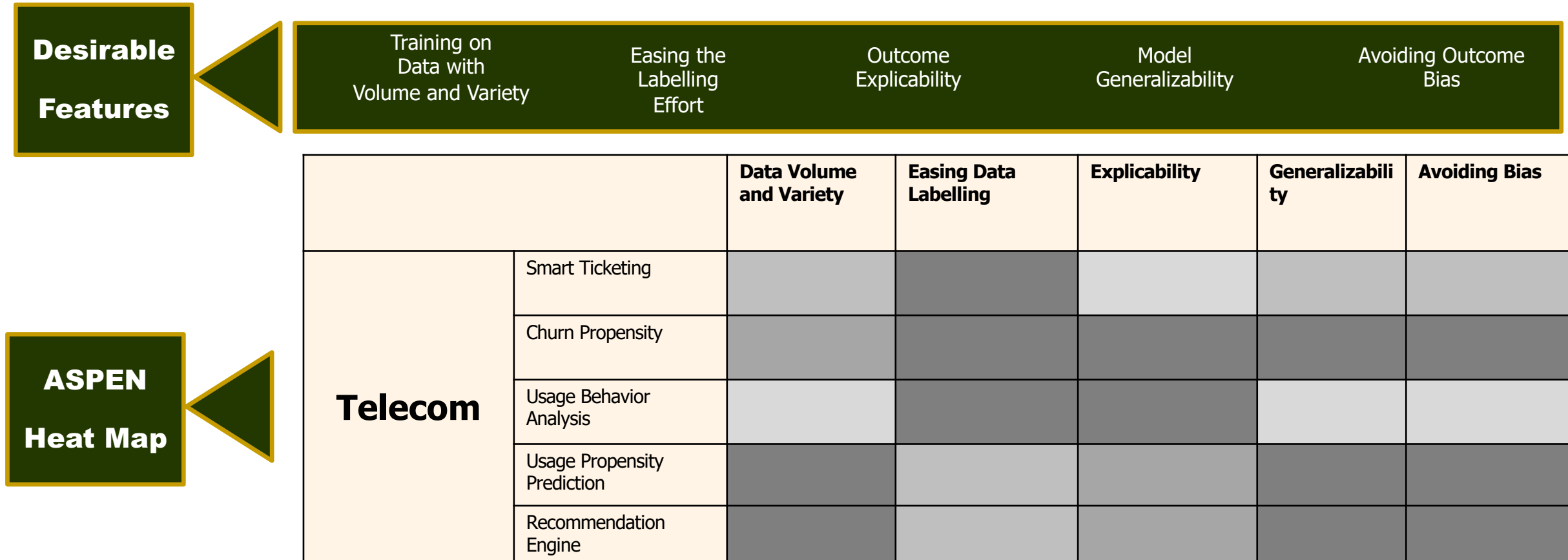
- Smart Ticketing
- App Usage based Churn Propensity Prediction
- Usage Behavior Scoring
- Usage Propensity Prediction
- Recommendation System

McKinsey Study -2018 Identifies Customer Experience Management as a High Impact Area for AI in Telecom Sector



ASPEN Unique Value Proposition

ASPEN encapsulates all desirable features for AI implementation



Innovative Frameworks Embedded in ASPEN Platform



Sparse Weighted Auto-encoder

Intuition Behind

- Data fusion leads to analysis in high-dimension spaces (> 1000 dimensions)
- In a high-dimension most of the volume is in an “annulus” at the surface
- Our algorithm for prediction is built on interactions among data elements and will intelligently adapt to the above sparsity in volume



Welfare Inducing Recommendation Engine

- Current Service Plan Offer recommendations available in market are often customer centric
- Service providers are constantly under pressure to deliver Quality of Service under contention created by recommendations
- Our Recommendation Engine drives win-win proposition for the two sides of the marketplace- Customers and Service Providers

Application Areas

Customer Experience Management

Next-Product-to-Buy

ASPEN Solutions

Smart Ticketing and Social Media Analytics

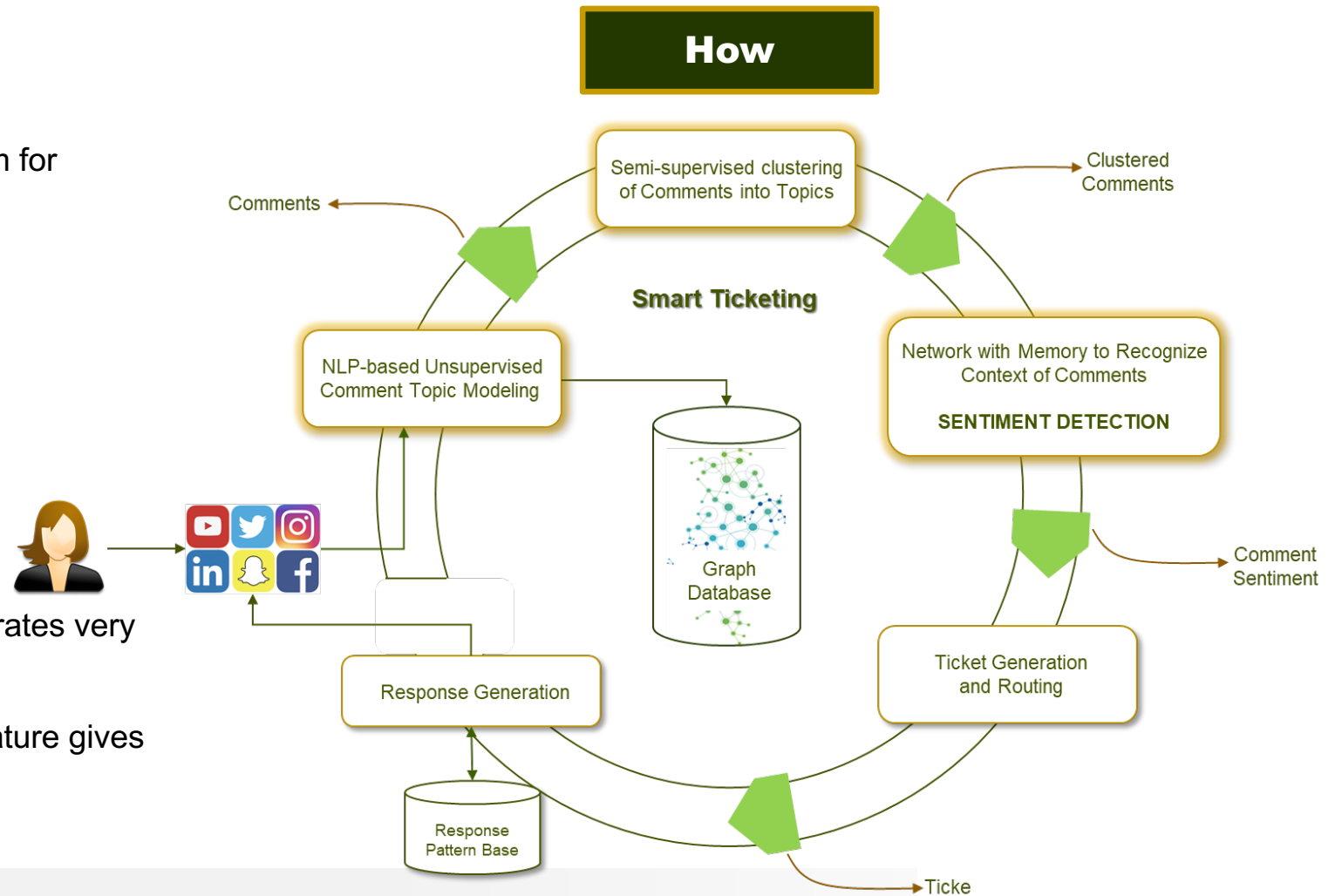
What

- An AI/ML-powered solution built on ASPEN platform for
 - Customer sentiment analysis
 - Ticket generation and routing
 - Response generation

Features

- State-of-the-Art unsupervised topic modelling generates very coherent topic clusters
- Memory-based network with context recognition feature gives accurate sentiment classification
- Supports social media analytics

How



ASPEN Solutions: Usage Behaviour Analysis

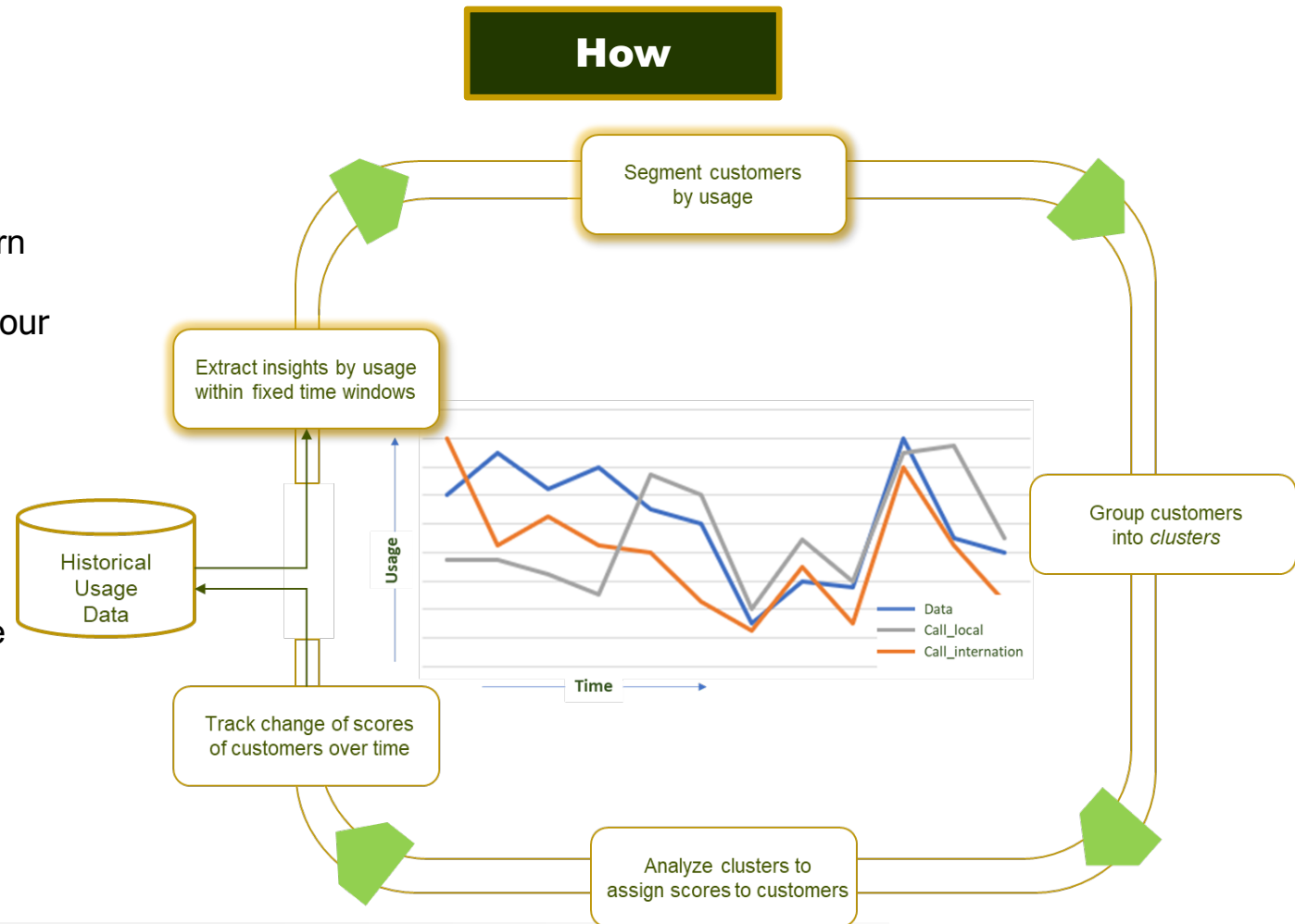
What

- An Explainable AI solution built on ASPEN platform -
 - Assigns a SCORE to a customer based on usage pattern
 - Tracks score changes to detect changes in usage behaviour
 - Support easy-to-discern behaviour segmentation

Features

- **Customer Score** derived from usage pattern across multiple activities
- Easy to explain behavioural segmentation of customers
- A configurable model to dynamic usage behaviour analysis
- Parallelizable scoring algorithm for scalability

How



ASPEN Solutions

Churn Propensity Prediction

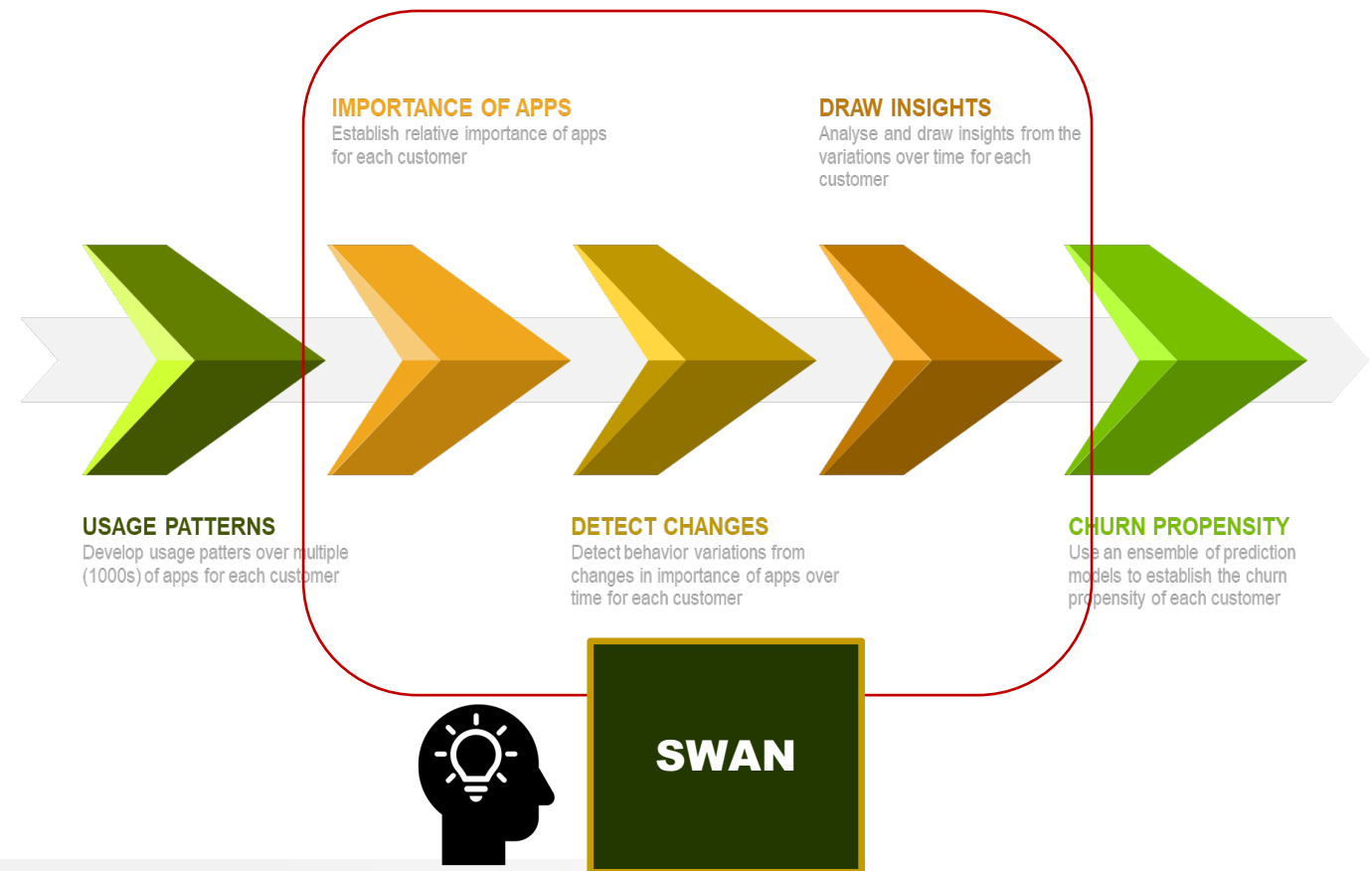
What

- App usage pattern based prediction of churn propensity
- Analyses dynamic variations in apps used and changes in their usage patterns running in foreground or background
- Predicts churn propensity of each customer and tracks its variations with time

Features

- First-Of-A-Kind app usage based churn prediction model
- High dimensional (~ 10K apps) usage analysis through our innovative SWAN framework
- Usage modelling using a graphical model of functional dependencies among apps
- Scales with Parallelization

How



ASPEN Solutions Under Development

- **Usage Propensity Prediction**

- Predicting how a customer's future usage will be distributed among apps being used

- **Welfare Inducing Recommendation Engine**

- A welfare-friendly recommendation engine driven by game theoretic modeling that offers a win-win proposition to the Customers and Service Providers