

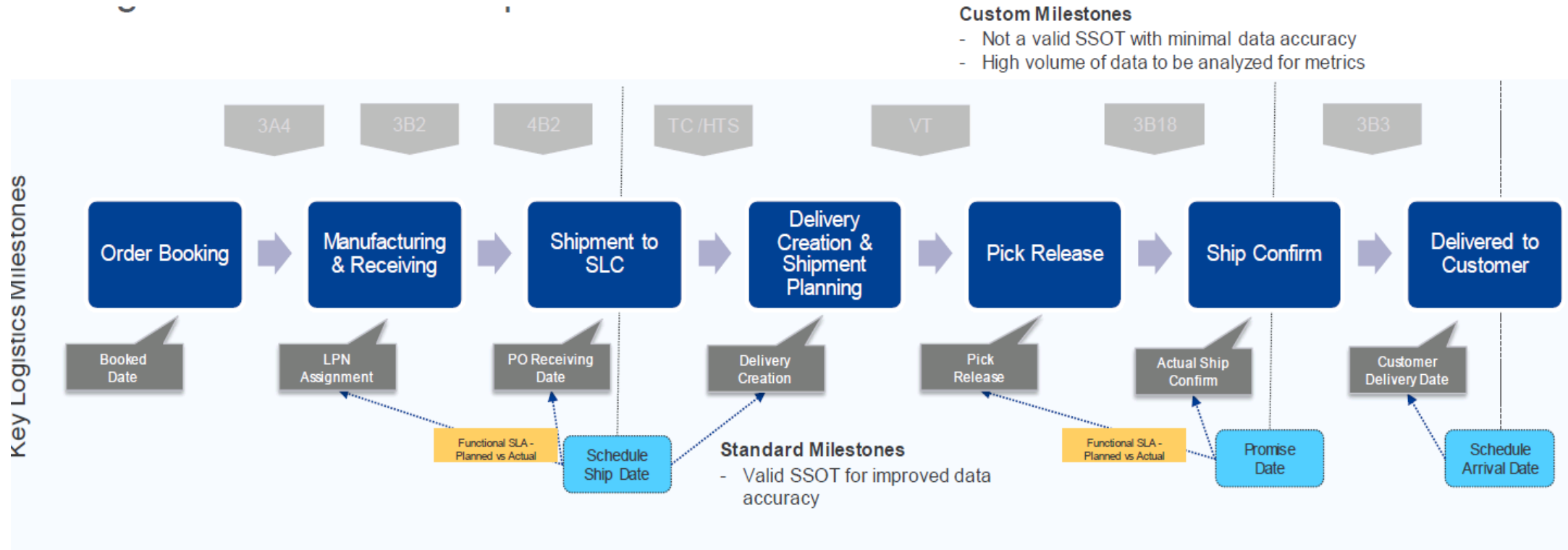
Supply Chain Logistics Predictability

By Gurdeep Kalra, For Data Incubators Challenge

Need for Supply Chain Logistics On-Time Predictability Solution

- On-time delivery is mission critical for a successful supply chain, seeking a solution that would improve the service and help team with
 - –Improved Customer Experience by meeting the growth expectations of both internal and external customers
 - –Optimized planning & cost reduction
 - –Accelerating Revenue Recognition
- Insight Engine compiles of lanes, service levels, modes of transport ecto
 - –Continuous learning of the metrics
 - –Identify & Predict the possible failure points
 - –Recommend/Rectify the failure points
- With the massive transactional available now , Company can begin to make informed of the supply chain decisions and study future scenarios at risk
- Need for Supply Chain Logistics On-Time Predictability Solution

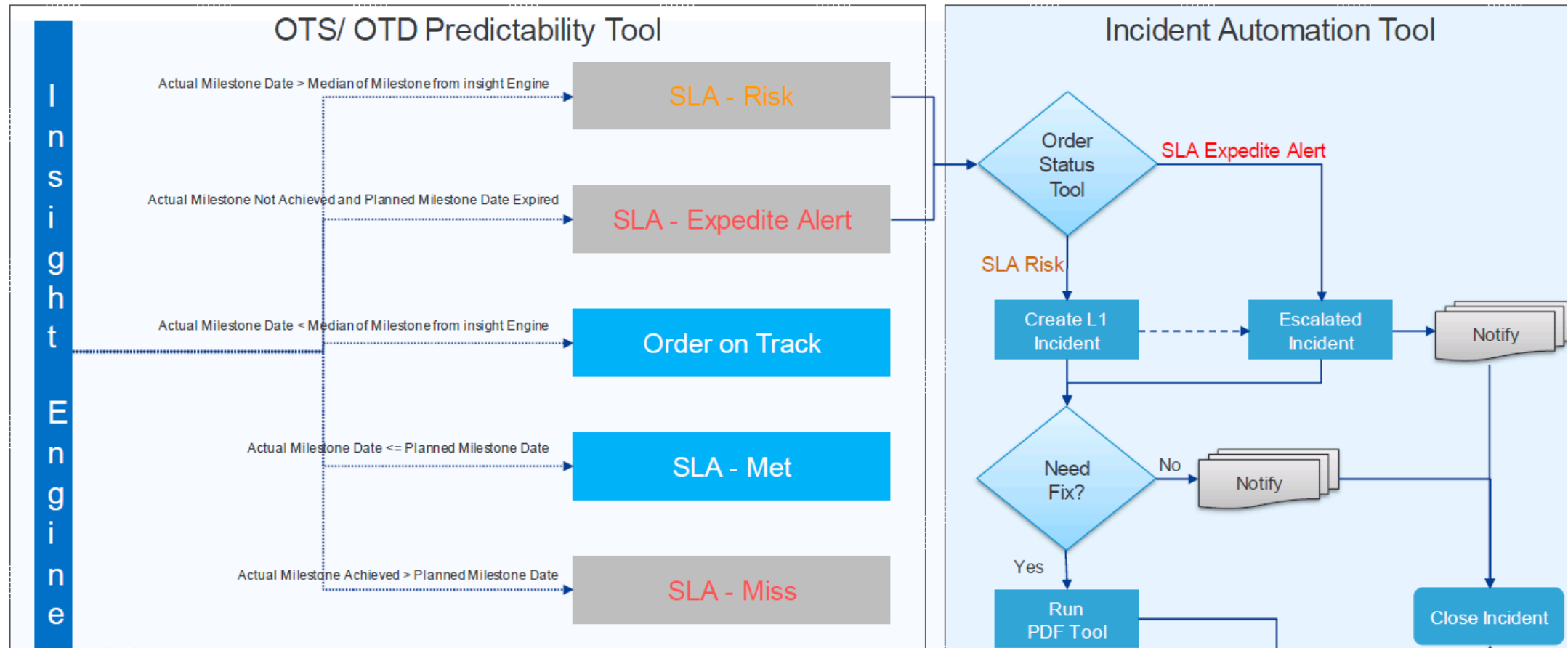
Supply Chain logistics captures following key milestones & milestone dates during the order fulfillment process



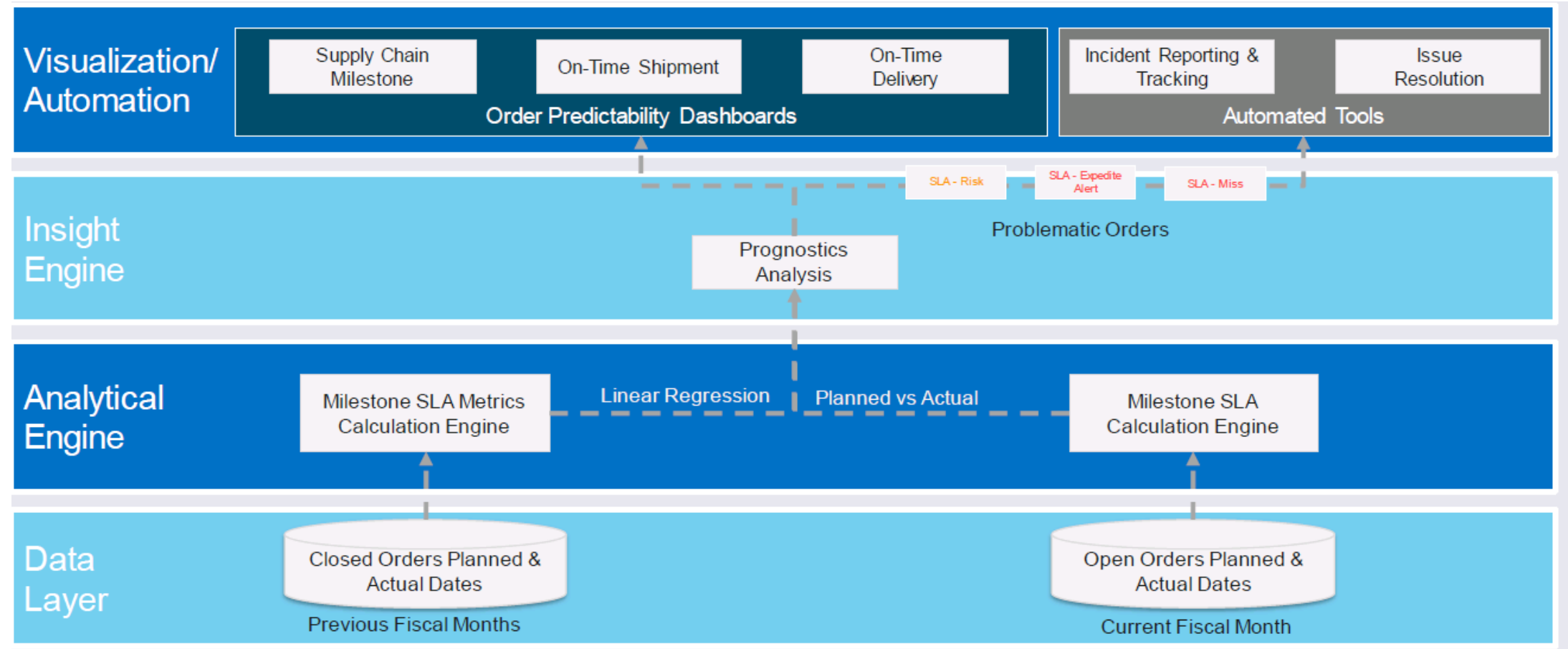
SLA for each logistics milestone is influenced by the following factors



Future State of the application proposes to integrate predictability tool with Order status tool to automate Incident tracking and resolution process



Logical Architecture



Predictability Accuracy analysis

CM Name	# Current Month Order-Ship Sets	# History Orders- Shipsets
ABCDEFGH-HOUSTON-INC	16673	56635
CDEFGH-China-BV	22686	80034
XYZ CIRCUIT DE MX	14748	51667
ZABC ROSEVILLE ESL INC	2712	9358

Milestone	WEEK	SHIP_FROM	MFG_SL	COUNT(*)
1-MFG	Week=04	ABCDEFGH-HOUSTON-INC	SLA - Met	11
1-MFG	Week=05	ABCDEFGH-HOUSTON-INC	SLA - Met	14
1-MFG	Week=06	ABCDEFGH-HOUSTON-INC	SLA - Met	5
1-MFG	Week=07	ABCDEFGH-HOUSTON-INC	SLA - Met	62
1-MFG	Week=07	ABCDEFGH-HOUSTON-INC	SLA - Miss	12
1-MFG	Week=08	ABCDEFGH-HOUSTON-INC	SLA - Met	254
1-MFG	Week=08	ABCDEFGH-HOUSTON-INC	SLA - Miss	37
1-MFG	Week=09	ABCDEFGH-HOUSTON-INC	SLA - Met	269
1-MFG	Week=09	ABCDEFGH-HOUSTON-INC	SLA - Miss	7
1-MFG	Week=10	ABCDEFGH-HOUSTON-INC	SLA - Met	394
1-MFG	Week=10	ABCDEFGH-HOUSTON-INC	SLA - Miss	24
1-MFG	Week=11	ABCDEFGH-HOUSTON-INC	SLA - Met	114

Observations

- Outliers for some of the milestones e.g. Early Shipments as early as 4/5 weeks before the planned date
 - For some lanes buffer time is required for document approvals and printing
- Baseline to be revised/adjusted based on the performance of the shipments and delivery of closed orders.
- SLAs close to the planned dates will result in last minute fallouts due to limited time to respond.

