

The background features a dark blue gradient with a glowing horizontal line. On the left, there are golden circuit board patterns. On the right, there are blue network-like patterns with nodes and lines. The text 'REAL' is in large white letters, and 'SUMMIT 2023' is in smaller white letters below it.

REAL

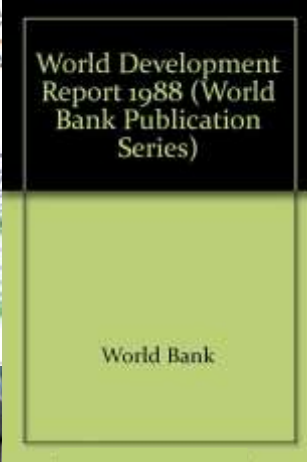
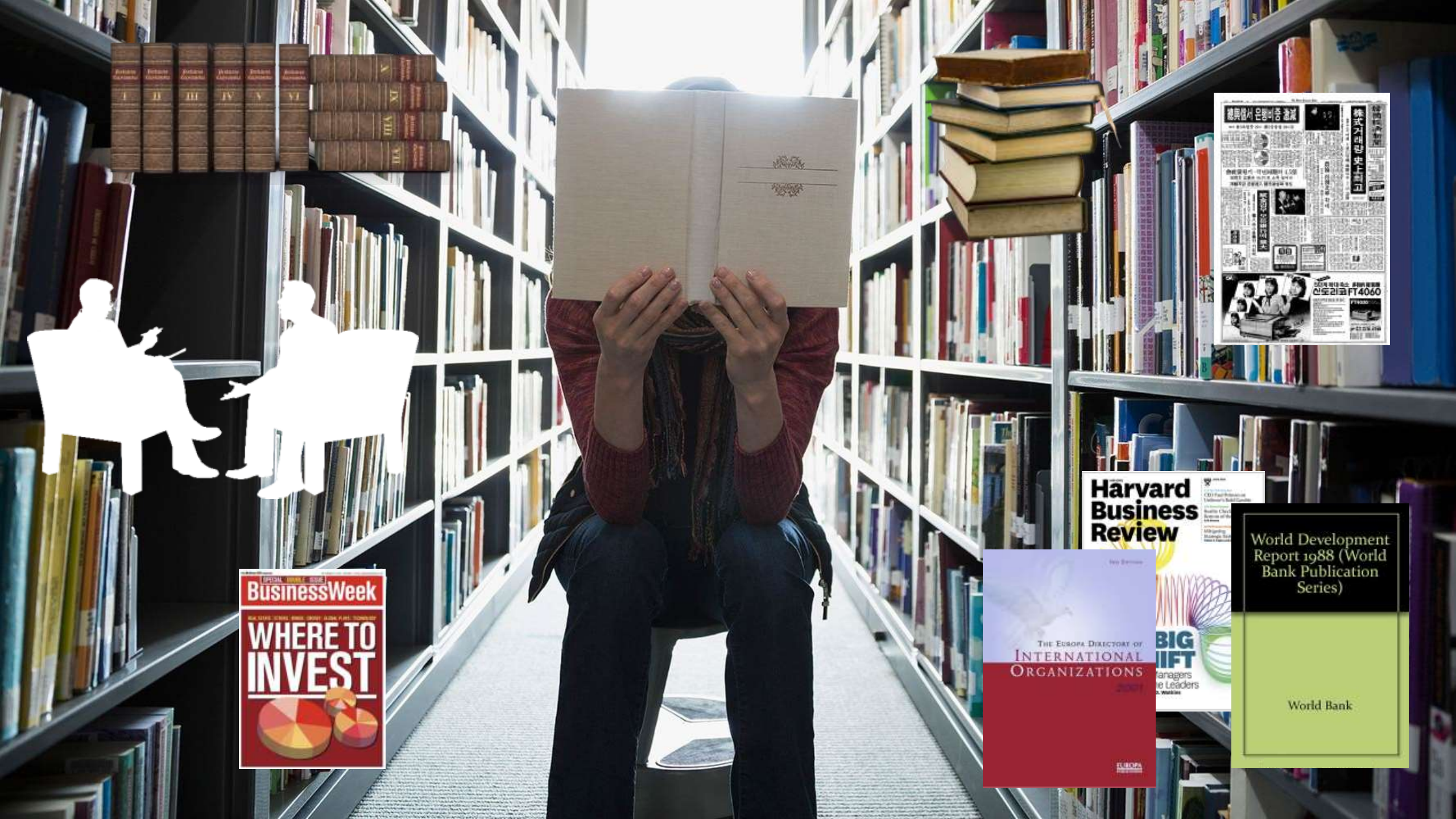
SUMMIT 2023

SAMSUNG SDS

Generative AI와 Graph DB 기반 차세대 SCM혁명

powered by o9 Digital Brain Platform

백영석 전무, CPIM, Presales Lead, o9 Solutions





IBM



YAHOO!



Google!



excite



htc



bing



SAMSUNG



Chat GPT1



Chat GPT2



Chat GPT3



Chat GPT3.5



Chat GPT4



1969 1970 1989 1990 1992 1993 1994 1995 1996 1998 1999 2000 2003 2004 2005 2007 2008 2009 2010 2018 2019 2020 2021 2022 2023
~ 1988 ~ 1991 ~ 1997 ~ 2002 ~ 2006 ~ 2017

AGENDA

I. SCM 혁신 트렌드

II. SCM혁명을 가능하게 하는 디지털기술

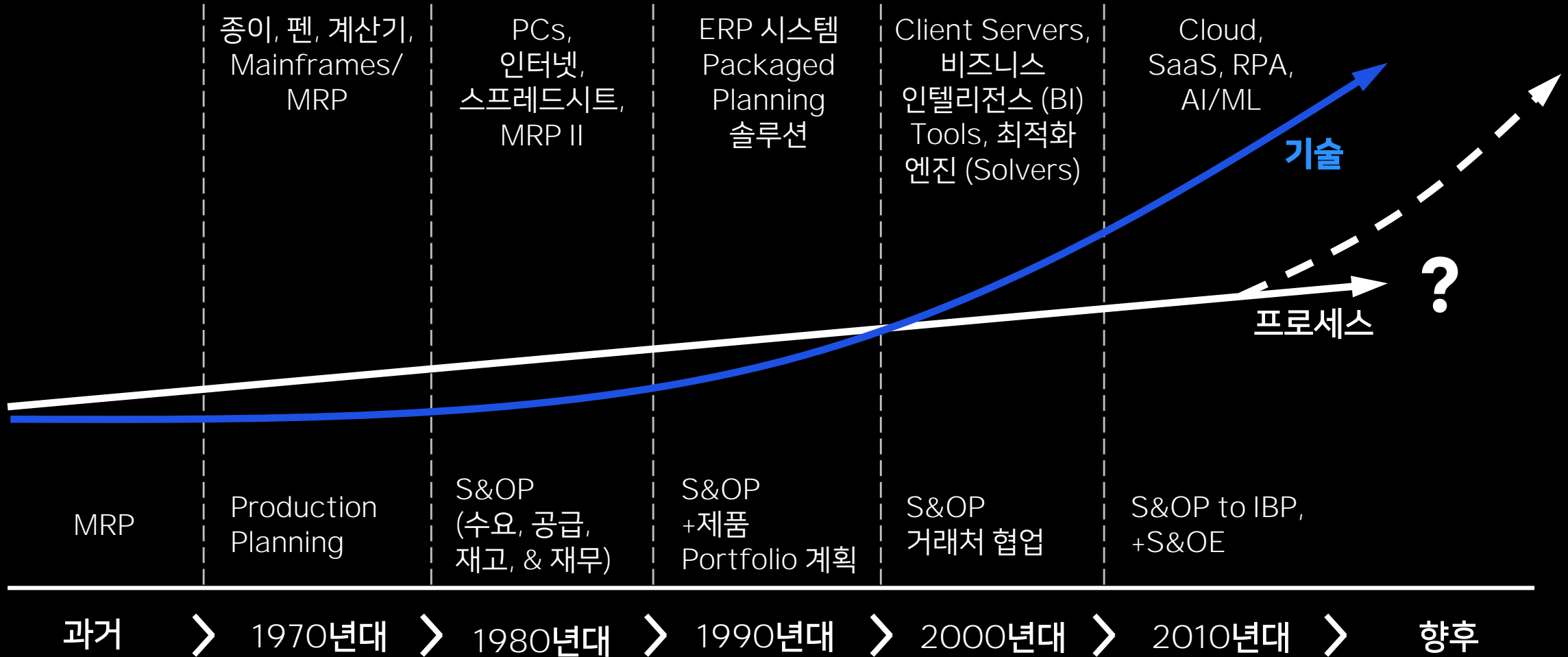
III. 차세대 SCM혁명 추진사례

IV. Value Proposition

S&OP 프로세스의 진화 (Evolution)



S&OP 프로세스의 진화 (Evolution) vs. 기술 혁명 (Revolution)



- MRP: Material Requirements Planning
- S&OP: Sales & Operations Planning

- IBP: Integrated Business Planning
- S&OE: Sales & Operations Execution

차세대 SCM를 위한 Capabilities 요구사항

시나리오
Planning

증분 계획
(Incremental Planning)

수요예측
고도화 / 자동화

의사결정을 위한 Insight
(Analytics)

User Interface (UI) /
User Experience (UX)

Traditional / Legacy Approaches

수작업, Excel로 시나리오
생성 비교

수작업 Parameter 변경 및
Re-Planning 반영

과거 데이터 기반의 통계적
수요 예측

Query 기반 Fact Data 리포팅
(Static Results)

시스템 중심의 Client Server
UI 또는 Web UI

Next-Generation Requirements

In-Memory 기반 실시간 병렬 시뮬레이션,
다양한 시나리오 검토, 최적의 의사결정

공급계획 확정 후, 예외, 변동 상황 반영
Continuous Net Change/증분계획

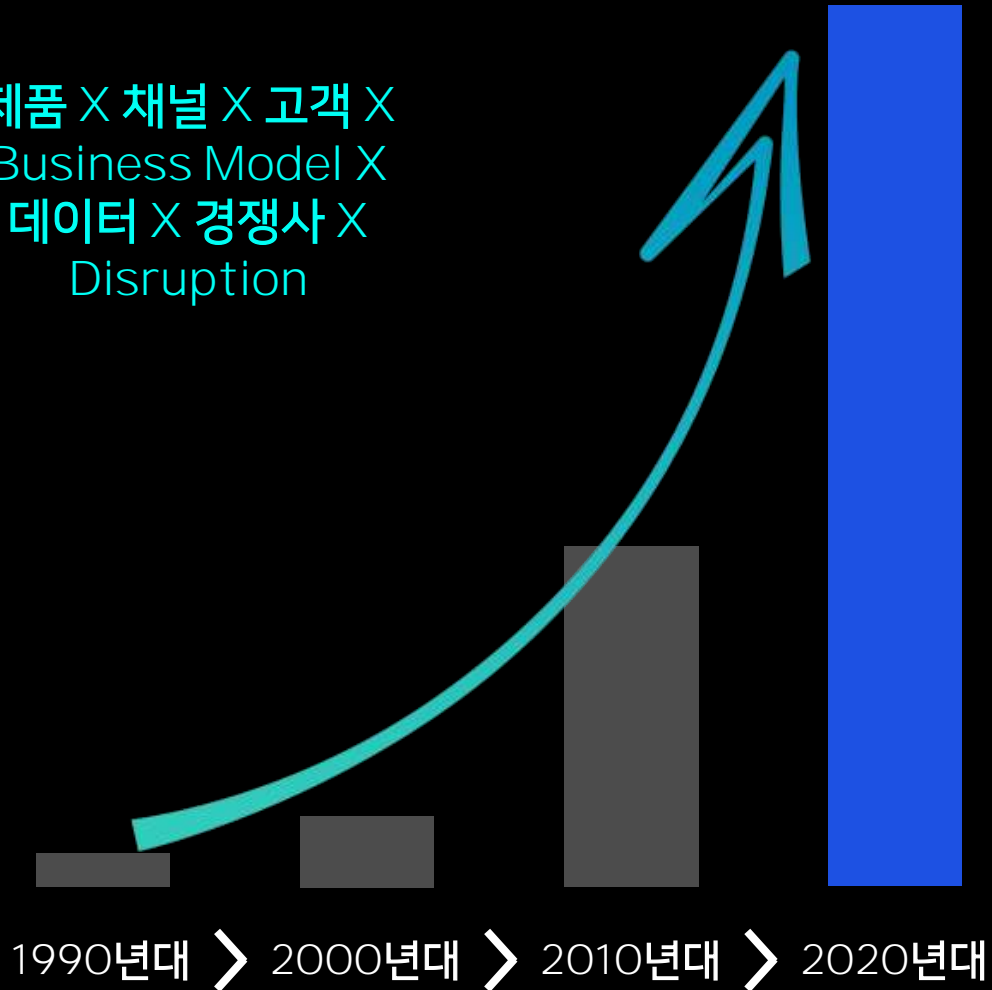
AI/ML기반 다양한 선행지표 및 수요
Drivers 데이터 기반 예측

NLP (자연어처리)기반 대화형 실시간
On-Demand Insight 제공

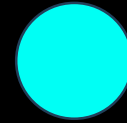
사용자 중심의 Multi-UI/UX: HTML5
기반 Web-, Mobile-, Excel-UIs

차세대 SCM혁명을 위한 최적의 디지털 기술 기반 – Graph DB

제품 X 채널 X 고객 X
Business Model X
데이터 X 경쟁사 X
Disruption



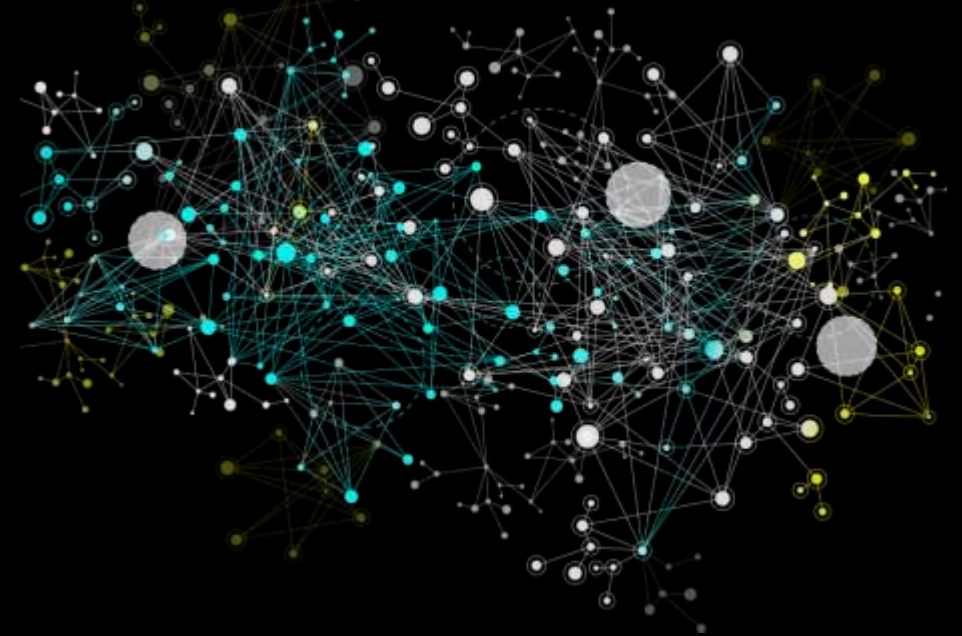
Node / Vertex
대상 객체를 표현



Edge
관계를 표현

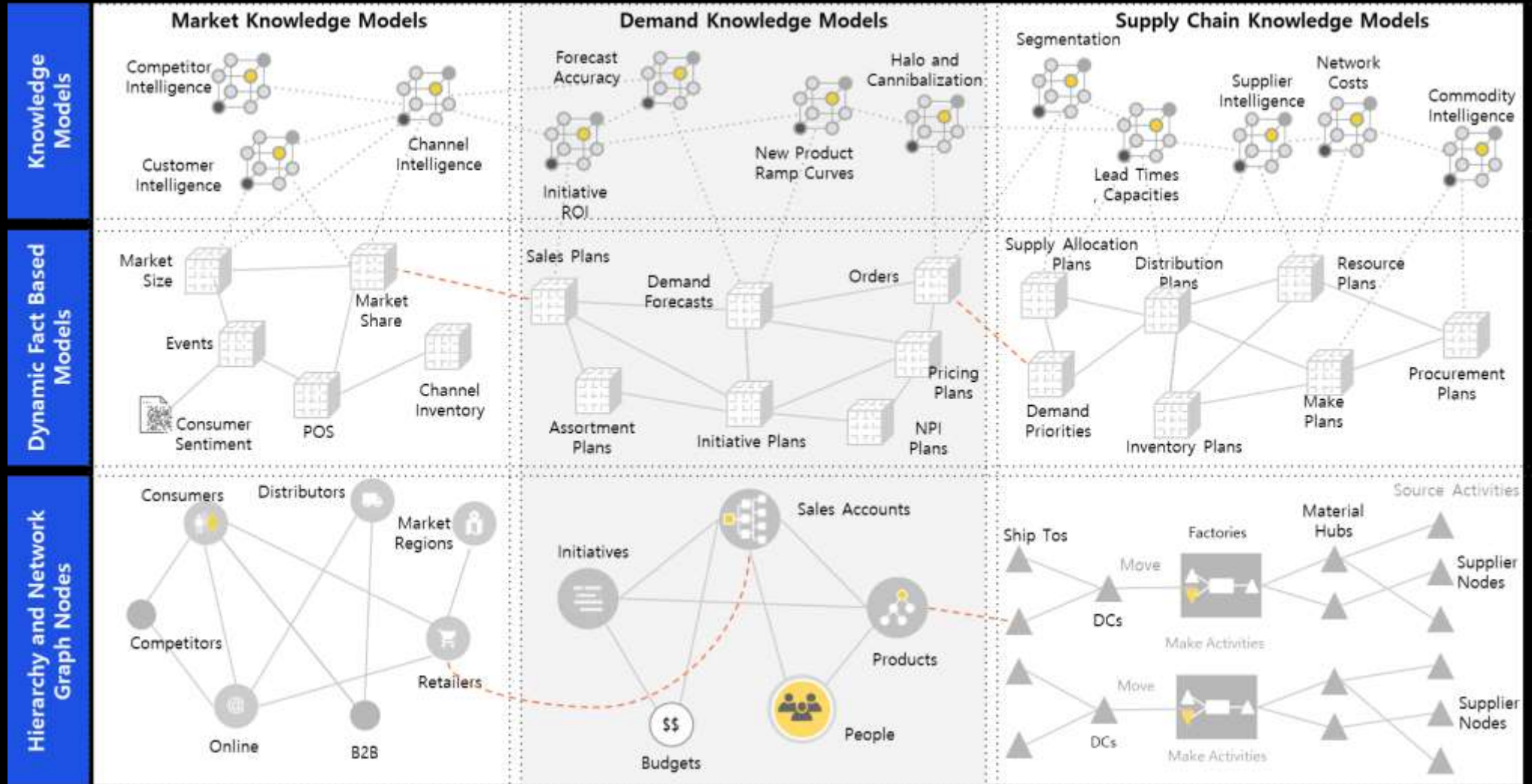


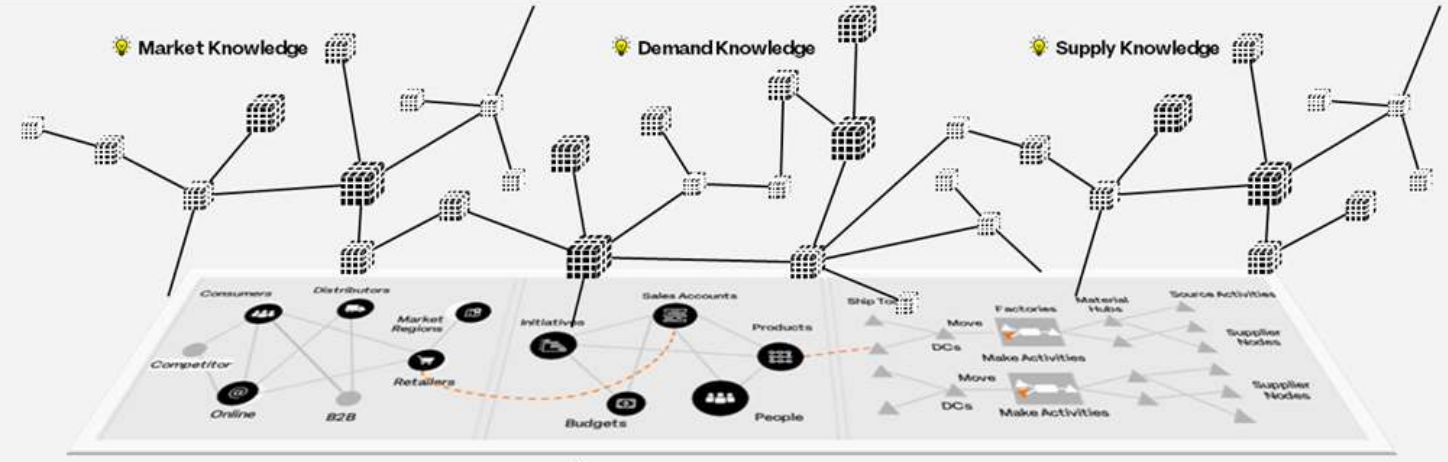
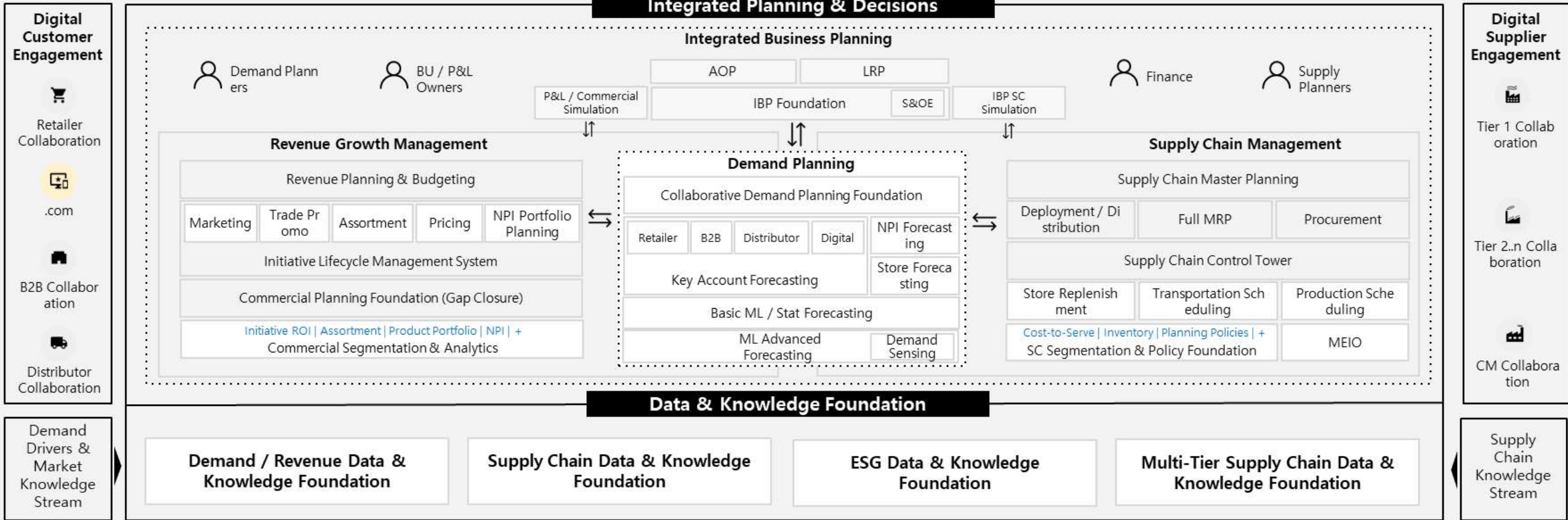
Graph
대상 간 인과관계를 표현



o9 Digital Brain: Enterprise Knowledge Graph

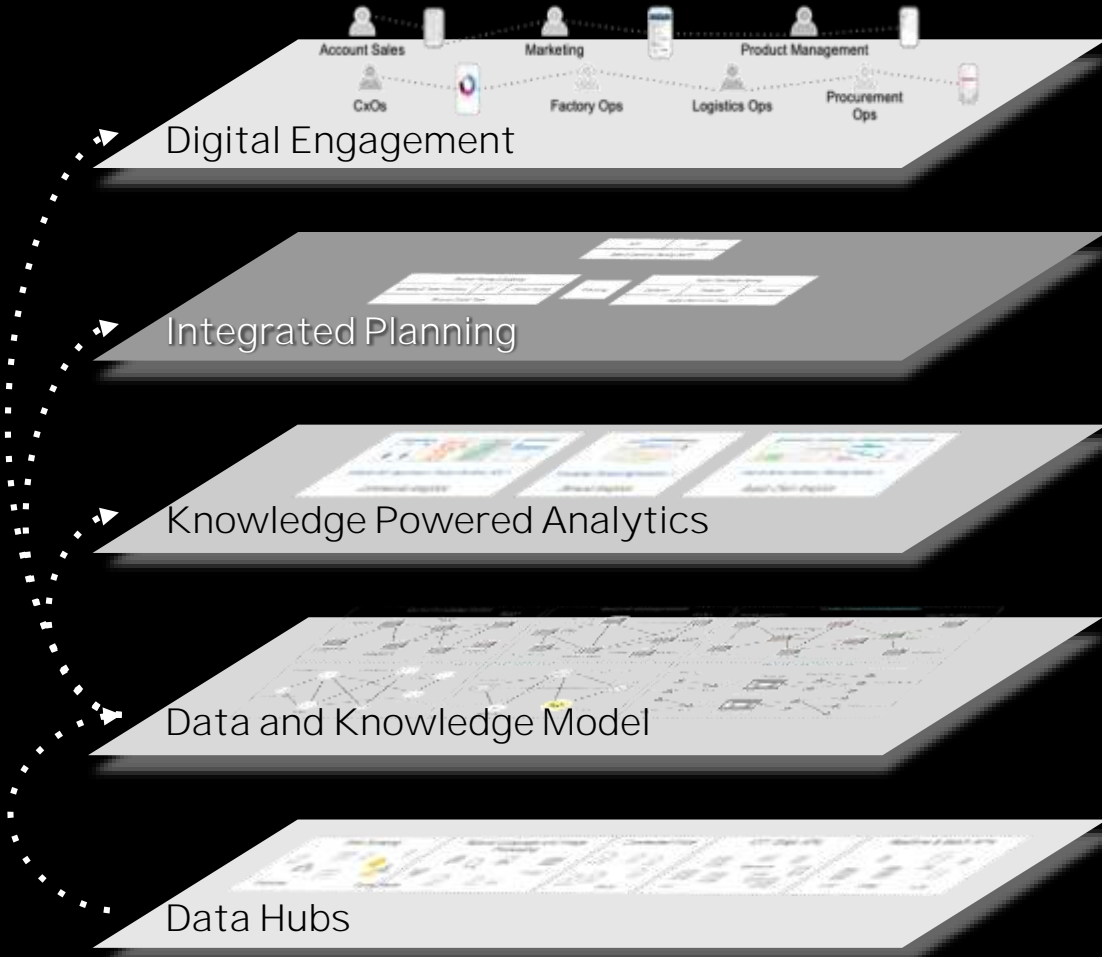
- Real-Time (실시간)
- Big Data를 Knowledge로 전환
- Right Size Modeling (No Fake Details)
- 확장성/유연성
- Intelligence (지능형)





o9 Digital Brain Platform 아키텍처

차세대 SCM 구현을 위한 시에 필요한 핵심 요소들을 이미 아키텍처에 내재화 해왔습니다



모든 역할 (Roles)을 위한 NLP* 기반 UX
 Digital Customer Engagement | Digital Supplier Engagement | Digital Operations

- User Adoption 제고를 위한 설계
- 협업 기능 (메신저, Alert 등)

Building Block 기반 E2E 통합계획 운영 환경
 Demand Planning | Supply Chain Planning | IBP | Revenue Growth Management...

- Lego Block Approach (점진적 확대)
- 통합 연계 계획 운영 환경

ML/AI Analytics, Intelligence 알고리즘
 Commercial Analytics | Demand Analytics | Supply Chain Analytics & Solvers

- 오픈 아키텍처

Enterprise Knowledge Graph (EKG)
 Market Knowledge Models | Demand Knowledge Models | Supply Chain Knowledge Models

- 정형/비정형 데이터를 구조화하여 지식(Knowledge)으로 전환
- 유연성/확장성 제공

기업과 시장 데이터 (Big Data Store)
 ERP, TMS, WMS, CRM 등의 기업용 Applications | IoT | Spreadsheets | Web content | Market Knowledge Streams

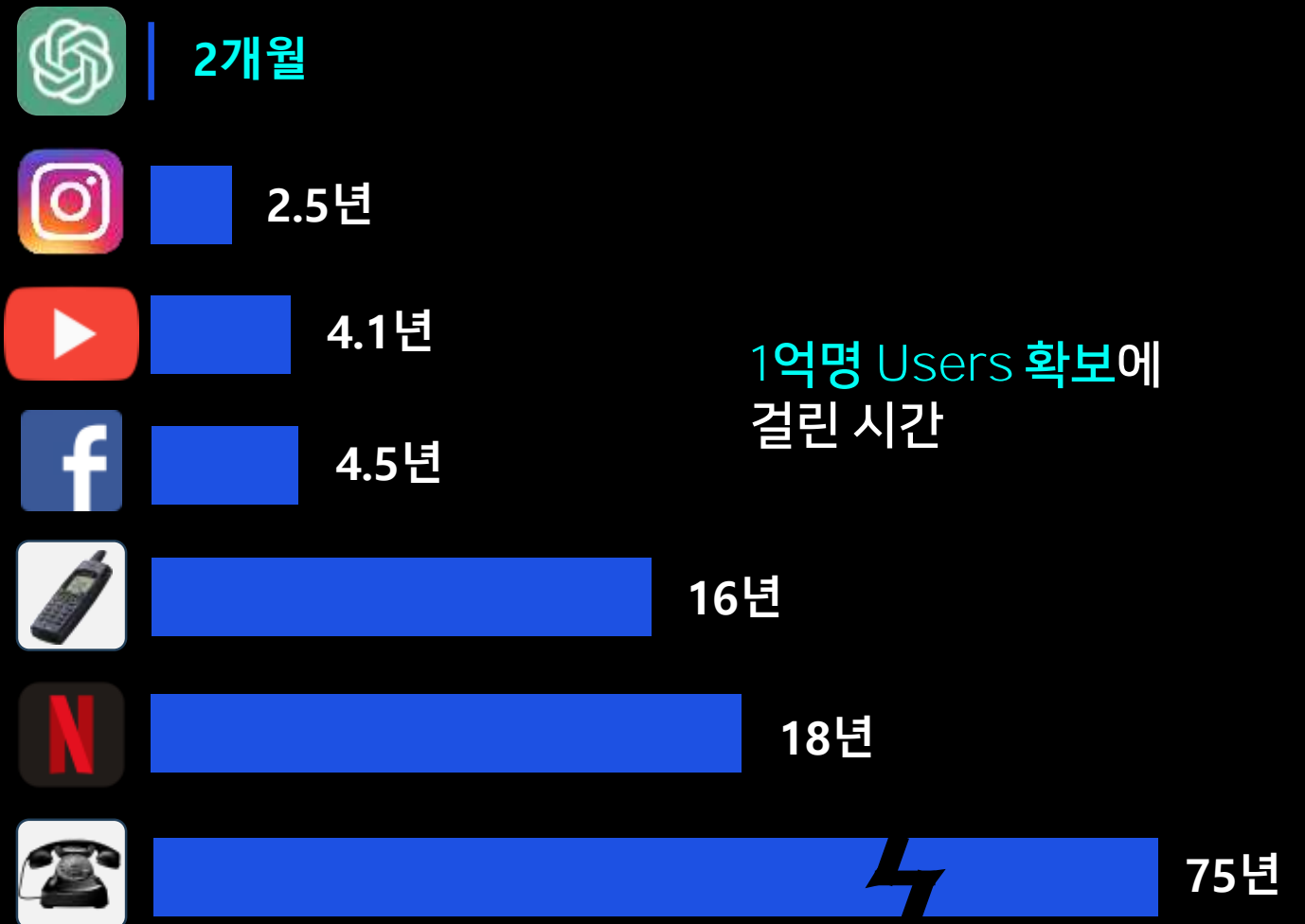
- 데이터 Integration 전문성
- 수요의 선행지표

*NLP: Natural Language Processing, 자연어처리

세상을 바꾸는 Generative AI 기술

Generative AI는 최근 그 어떤 기술보다도 빠르게 일반 대중의 상상력(Imagination)을 사로잡았습니다.

이 엄청난 잠재력으로 인해 경영진은 비즈니스 운영에 어떤 변화를 가져올지 궁금해하고 있습니다.



세상을 바꾸는 Generative AI 기술의 Value Potential

30~50%

생산성(Productivity) 개선

80% >>> 100%

상향 평준화

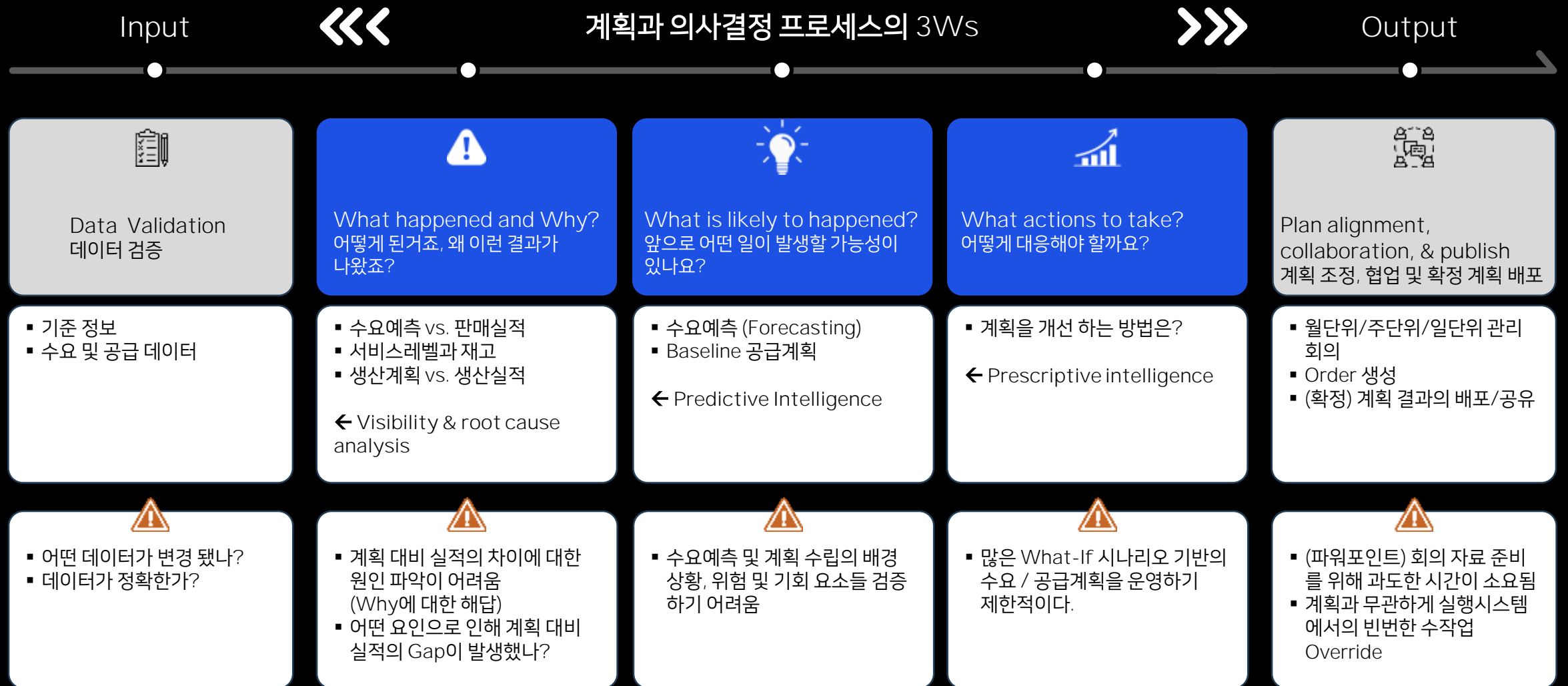
Tribal Knowledge
Significant Value 유실

Digital Knowledge
기하급수적인 증가

2~3 x

Innovation &
Transformation Speed

계획과 의사결정의 핵심 Activities 및 개선기회



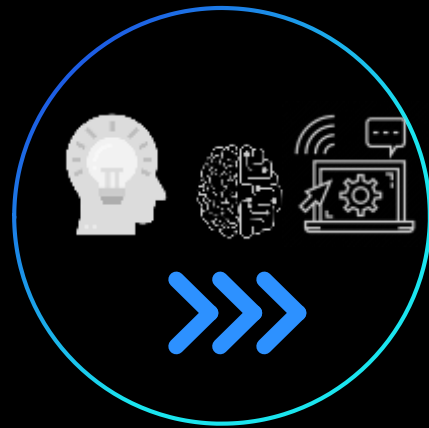
Generative AI Use Cases

모든 수준의 사용자 및 개발자를 위한



Digital Assistants/ Agents

+



Digital Knowledge Converter

+



LLM-enabled UX

+



Digital 디자인 및 모델링 개발

Digital Assistants/Agents



End Users /
Planners



Management



Digital Assistant

YS 최신의 수요예측에 대해 요약해 줄 수 있나요?

전세계 시장에서 2023년 제품 X에 대한 8월에 수행한 수요예측은 7월 예측에 비해 2% 증가했습니다.
예측 요약 보고서 [\[Link\]](#)

2. 8월 예측에서 가장 큰 상승폭은 다음과 같습니다.

US 2,538 units (+4.5%)

EMEA West 17,07 units (+0.5%)

.....

그리고 최고의 하락폭은 다음과 같습니다.

APAC 1,879 units (-3.7%)

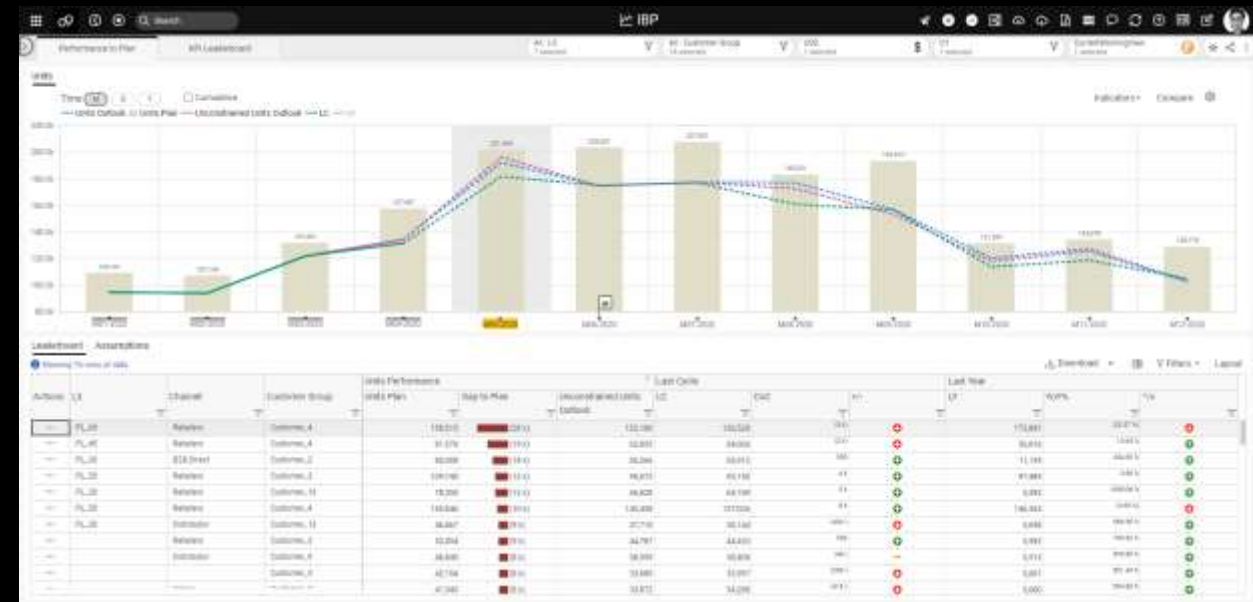
.....

CoC 변동 Report [\[Link\]](#)

3. 예측에 대한 주요 부정적인 리스크는 다음과 같습니다.

.....

Send a message



Tribal to Digital Knowledge 컨버터



Knowledge
Experts



Conversation



Code



Composite
Action
Recipe Library

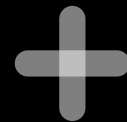
LLM-enabled UX



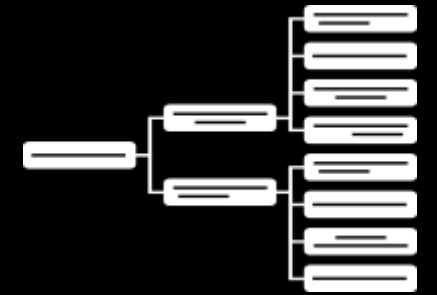
As-Is



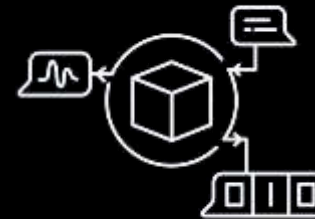
Powered by NLP 1.0



To-Be



Digital Story/
Process Playbook

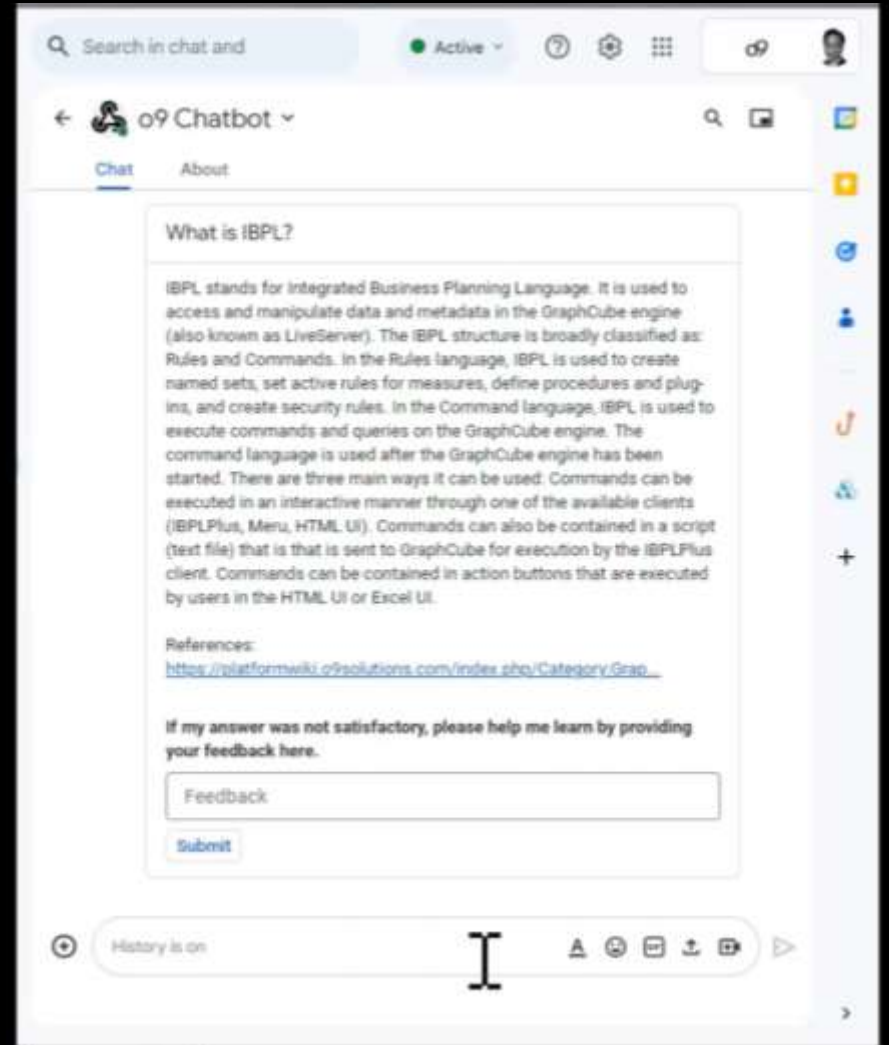
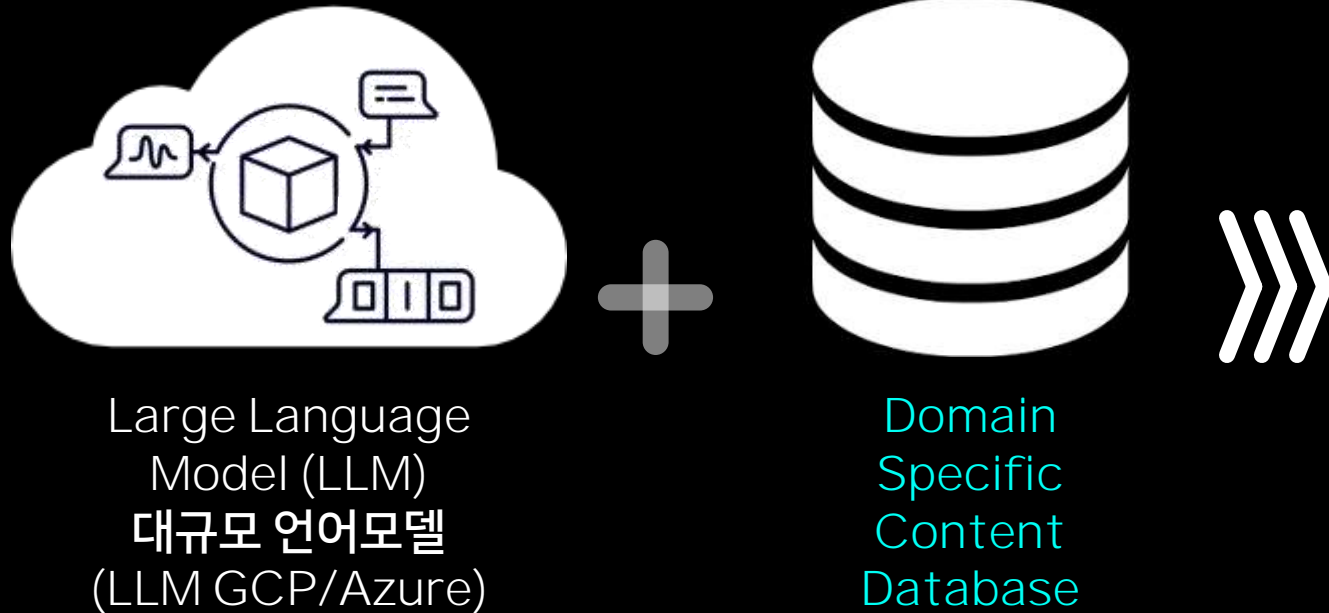


Large Language
Model (LLM)
대규모 언어모델



Domain
Specific
Content
Database

디자인 & 모델링 (Platform 개발 Productivity)



o9 Generative AI Roadmap

o9 Generative AI



Chakri Gottemukkala
Co-Founder and CEO,
o9 Solutions

o9 Takes Big Steps in Augmenting Its Industry-leading Integrated Planning Platform with Generative AI Capabilities

Published: August 17, 2023

o9 Solutions

DALLAS, Aug. 17, 2023 – o9 Solutions, a leading software platform provider for integrated planning and decision-making, announced today that it has taken big steps to augment its Digital Brain platform with generative AI capabilities.

....
On the back of the promising results from its R&D, the Company announced that it is launching beta Generative AI programs with key clients to strengthen the Digital Brain platform's capabilities.

"It is clear to us that Generative and AI more broadly have game-changing potential for transforming planning and decision making. Enterprise productivity, collaboration and knowledge are likely to improve dramatically in the coming years. We will be at the forefront of this change, innovating with our clients in a responsible manner," Gottemukkala said.

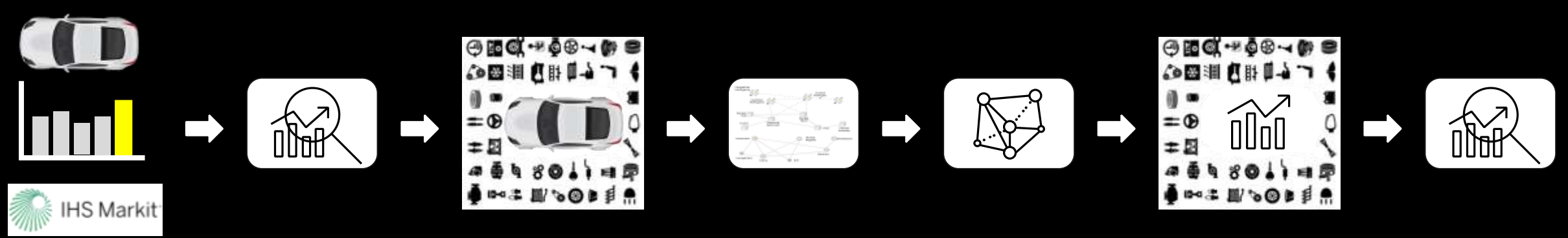
o9 attributes the ranking to its growth trajectory over

Global Industry Leaders leveraging o9 Platform



Improving Market Sensing & Forecasting Accuracy with Driver-Based AI/ML Forecasting

SCHAEFFLER



Automotive OEM Market Insight/ Forecast

Cycle-over-Cycle IHS Forecast Accuracy Monitoring/ Tracking/ Analysis

OEM to Automotive Parts Rate

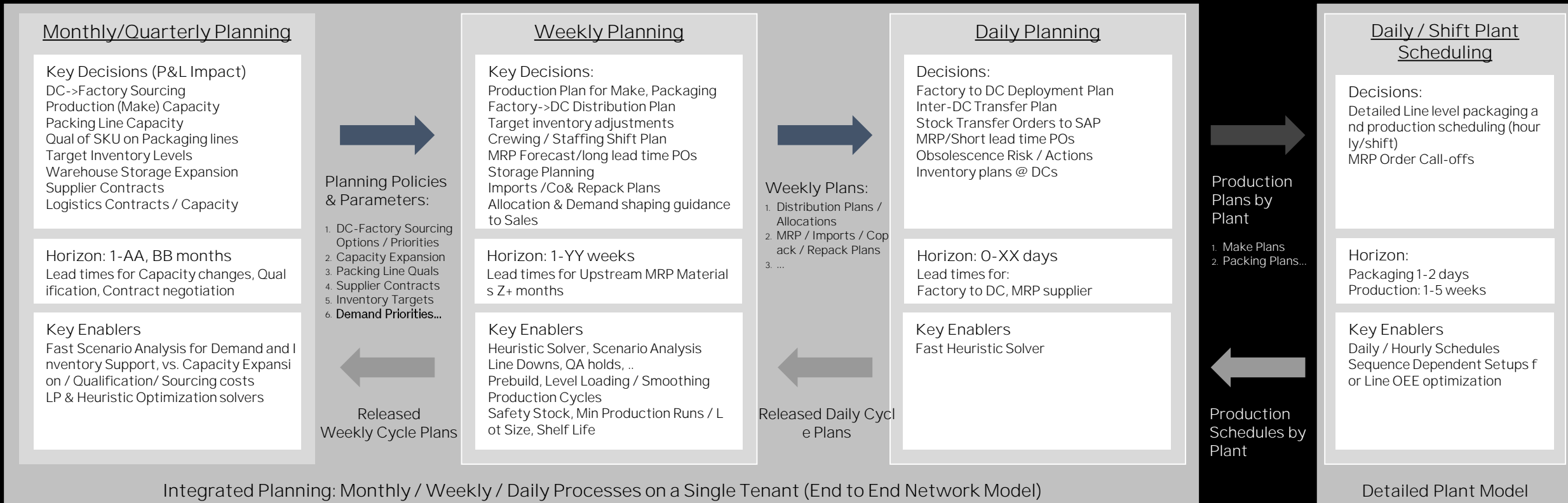
Access to various leading and lagging demand drivers

Machine Learning Driver-based Forecasting at Parts Level

Cycle-over-Cycle Own Forecast Accuracy Monitoring/ Tracking/ Analysis

Integrated end-to-end Supply Chain Planning

ABInBev





AI Hallucinations



Sales

- 납기 서비스 레벨
Delivery Service Levels
- 마케팅/가격 정책 효율
Demand Shaping
Initiative
Effectiveness



Costs

- 원가 절감
Cost of Goods
Sold/Services
- 공급망 운영 비용
Supply chain cost
- 폐기/감가상각비
Write-offs



Inventory

- 재고 운영/관리비용
Inventory holding cost
- 재고 수준
Inventory



Productivity

- 계획담당, 운영담당,
경영자 생산성
Planner & Operations
Roles Productivity

일하는 방식의 변화

From Tribal Knowledge Operating Model to Digital Operating Model

Join aim10x Community:



Thank
You!

MY CONTACT INFO :



REAL

S U M M I T 2 0 2 3

감사합니다

