AI Infused Planning and Forecasting with IBM Planning Analytics Webinar

Nov 12th, 2020 1 pm ET
Speaker: Xavier Osorio, CPA, CMA

Data-fueled insights are driving a new paradigm. AI can help make sense of this complex, constant onslaught of data and find actionable insights.

In this webinar, you'll learn more about:

- Predictive Planning and Forecasting

- Guided workflow and AI-generated plans

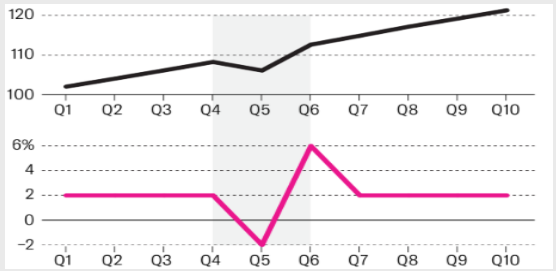
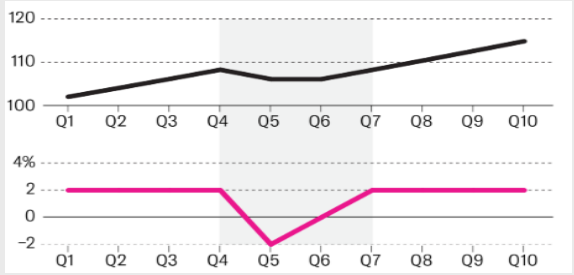
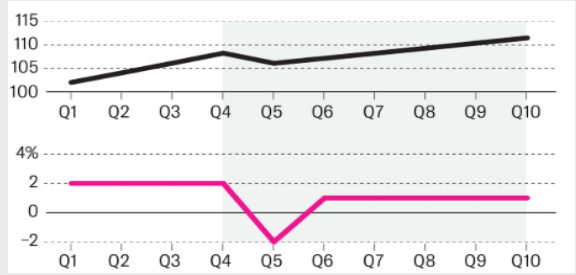
- Operationalization of plans and budgets

- Advanced pattern detection and forecasting

accuras IBM

Do I have enough inventory to cover customer demand?
Is this product profitable?
How do I evaluate the impact of this new product into my sales forecast?

Different scenarios will **drive vastly different impact, demanding tailored approaches** triggered on leading indicators

GDP Level GDP Growth (%)	**V-shaped** 	**U-shaped** 	**L-shaped** 
Description	Output displaced but shock absorbed by annual growth rates; growth soon rebounds	Shock persists, growth path resumes but some permanent loss of output	Significant structural damage to the economy's supply side
Leading Indicators	• Rebound by Q2 in US / Europe after initial drop in demand • Working populations change some habits but most economic activity persists • Vaccine / cure is discovered • Travel restrictions ease • Closed institutions reopen	• US/Europe economic slowdown until Q3/Q4 • Coronavirus found to be more transmissible than anticipated • General shift in most daily behaviors • Certain sectors deeply affected • Coronavirus is most important factor in the global economy for >4 months	• Global recession • Consumer confidence does not recover until 2021 or beyond • Companies with no direct connection to the virus start reporting a slump in business • Job cuts lead to less income, which leads to less spending, which leads to more job cuts
Prioritized Response Dimensions	Customer & employee welfare / safety, virtual ways of working, cash flow (shift spend to optimize demand), ensure security of supply, implement cost reductions	Commercial survival; aggressive promotion strategies, enterprise agility, harsh cost reduction tactics (e.g. reengineer supply chain, close / suspend locations & ops), CSR	Ecosystem reconfiguration, permanently closing underperforming geographies / BUs / channels, restructure operations, M&A, partnerships, cash conservation, refinancing

Amidst this dramatic change and uncertainty, **situational awareness and an orchestrated, responsive strategy and playbook** are key

1

Mobilize response task force

Move with the speed of a fully aligned organization while ensuring consistency and clarity of communication

- Create crisis management team with representatives from all functions; teams within different countries and geographies as well to handle specific situations and regulations
- Quickly establish communications channels with legal/HR involvement (if not already in place) to provide a unified disaster response to employee concerns and commonly asked questions
- Draft public responses (with legal approval) to communicate situation to clients

2

Prioritize stakeholder safety and health

Prioritize the physical and mental health of employees, customers, and partners

- Encourage all employees to work from home and close offices wherever possible
- Stand up Slack channels, websites, office hours to communicate directly with employees once ready
- Establish digital communication channels with clients, partners and shareholders
- Provide access to dedicated telehealth resources and trauma counselors for workforce
- Ensure leadership's commitment to remote work to demonstrate commitment to the new normal

3

Ensure business continuity

Operate at full capacity to avoid losing revenue, while also solidifying relationships with clients as a dependable ally

- Establish new remote-work norms including dedicated team slack channels, morning stand-ups, and scheduled touch points throughout the day with your team
- Protect the current work already in the pipeline
- Build business continuity plans for delivery of work in new ways (e.g. new employees, new employment contract types, shift in skills)
- Re-visit ongoing transformations to determine new prioritization (e.g. will ongoing cognitive initiatives help to ensure better continuity in term while cutting costs in long term?)

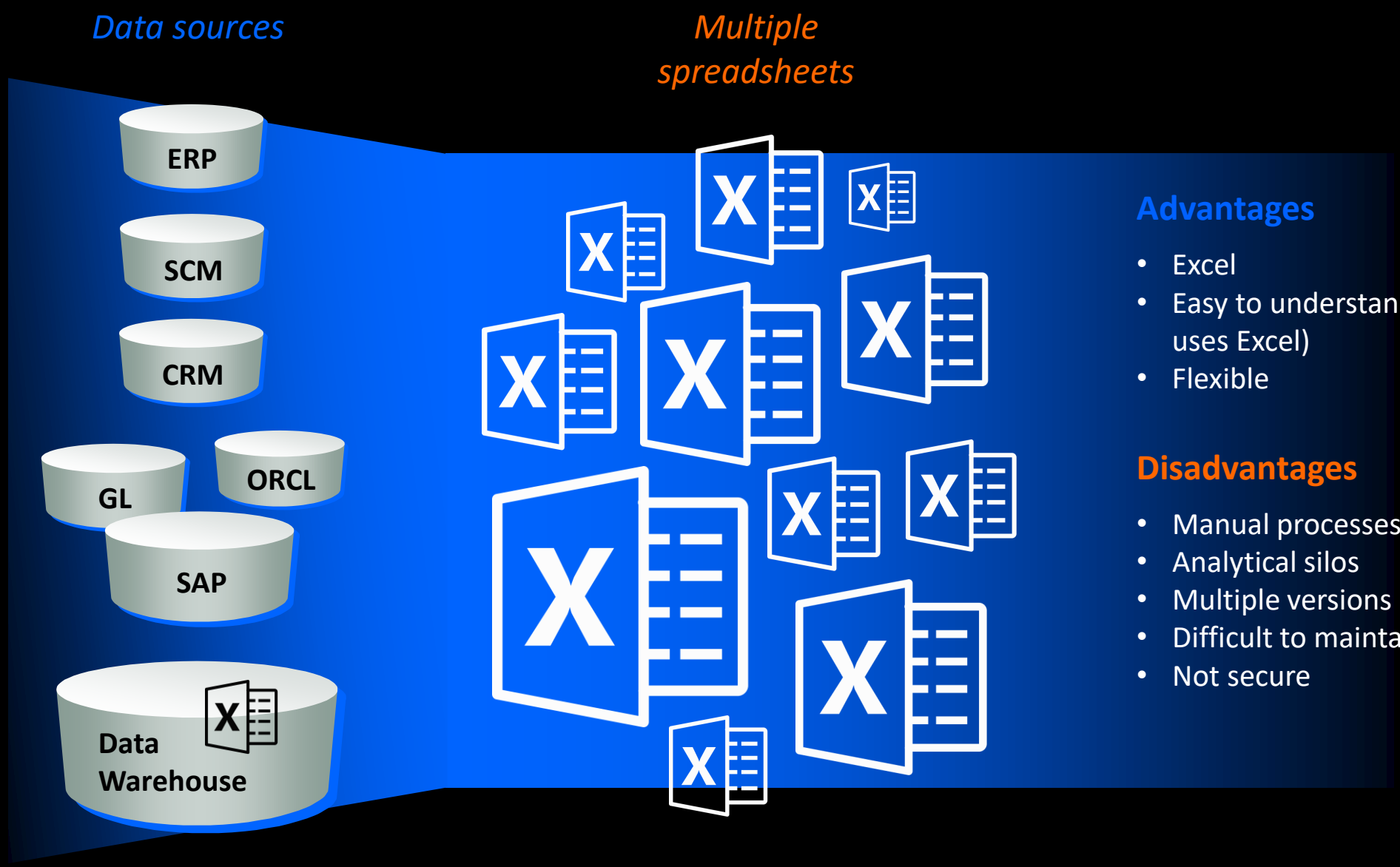
4

Revise business planning

Establish revised baseline for 2020 priorities and lay the foundation for a dynamic response strategy in near- and long-term

- Establish leadership-sponsored prioritization criteria to inform revised 2020 business planning
- Ensure leadership sponsorship and alignment in new priorities
- Engage in robust economic forecasting and demand side modeling to guide best-case, worst-case, and likely scenarios in Q2, Q3, Q4 and beyond
- Establish the framework for dynamic business planning against scenario analysis

Spreadsheet-based planning and analytics



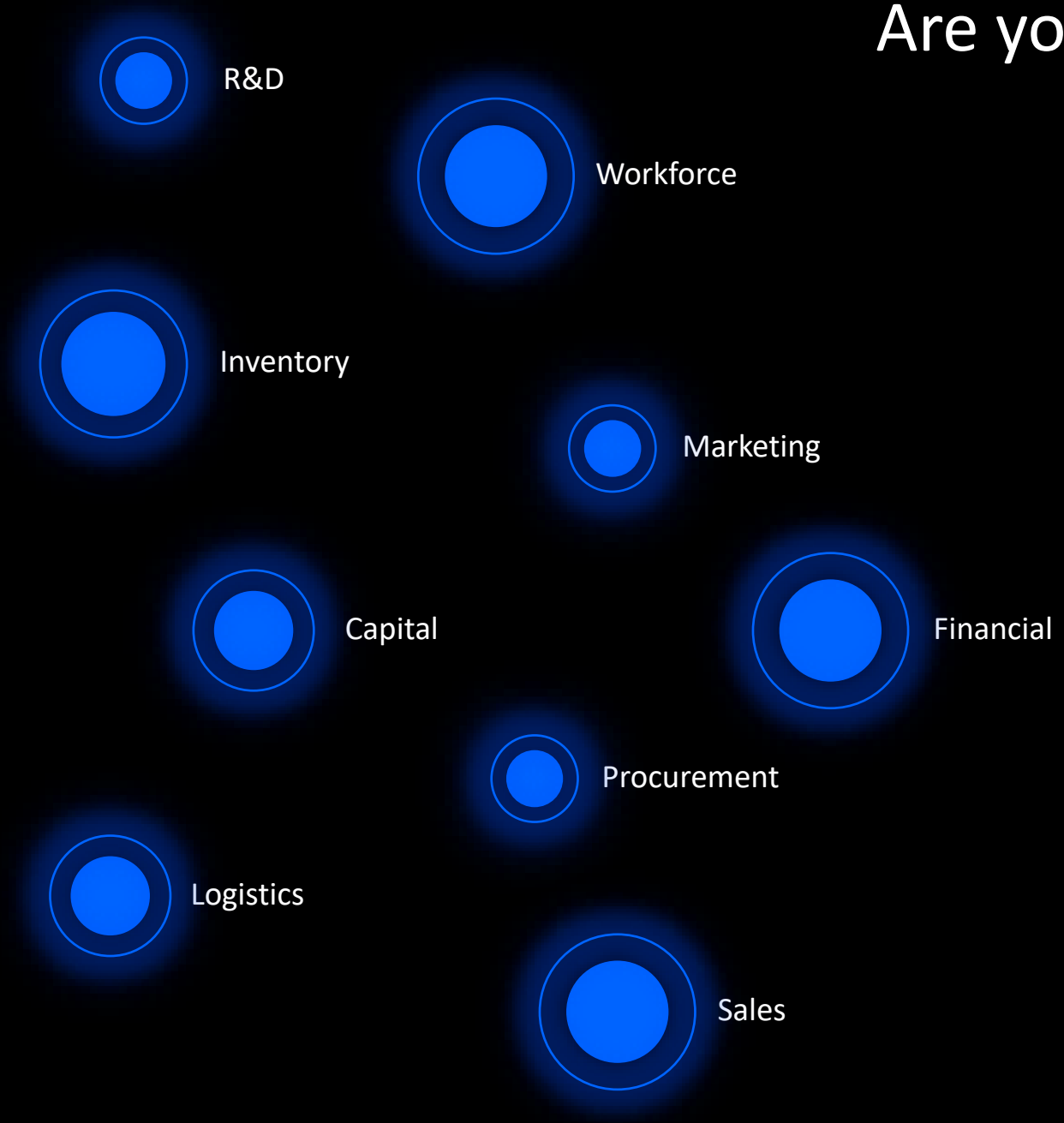
Advantages

- Excel
- Easy to understand (everyone knows and uses Excel)
- Flexible

Disadvantages

- Manual processes
- Analytical silos
- Multiple versions of the truth
- Difficult to maintain
- Not secure

Are your plans integrated?



Good decisions are integrated

Coordinated decisions lead to coordinated execution to drive greater business performance.

Integrated planning

Applying planning and analysis across the organization

HR

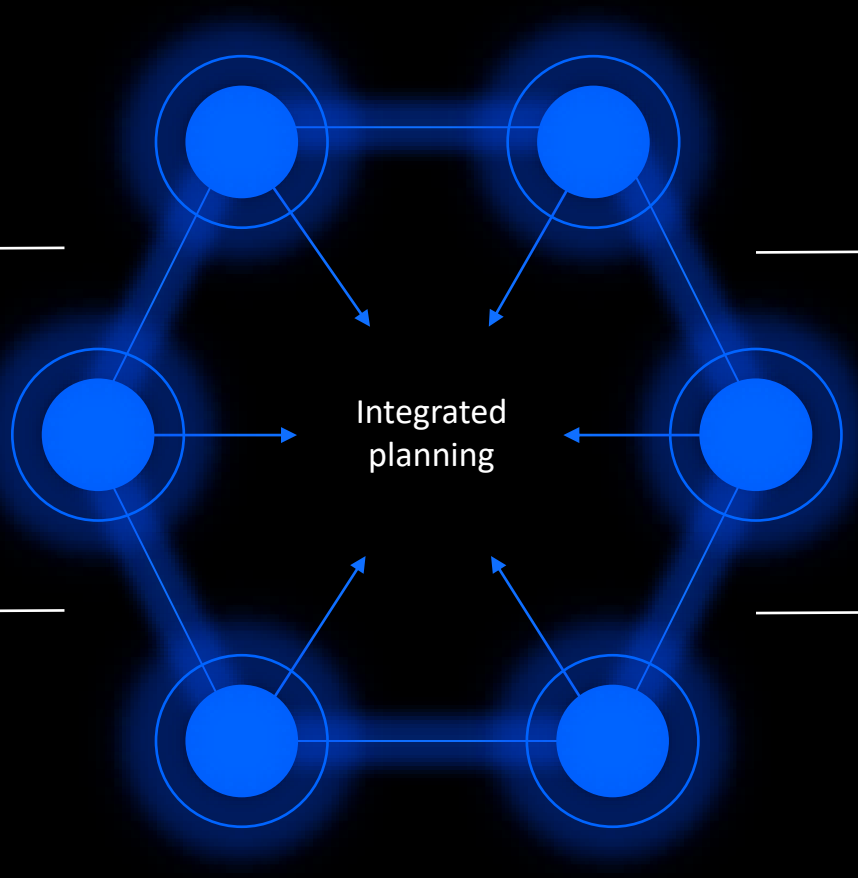
Workforce planning
Headcount and staffing planning
Salary & compensation planning

Operations

Demand planning
Supply chain planning
Sales & operations planning
Inventory planning

Marketing

Promotion planning
Revenue planning
Customer profitability
Customer churn analysis



Sales

Sales forecasting
Sales territory planning
Sales quota planning
Sales capacity planning

Finance

Financial planning & analysis
Strategic planning
Capital planning
Expense planning

IT

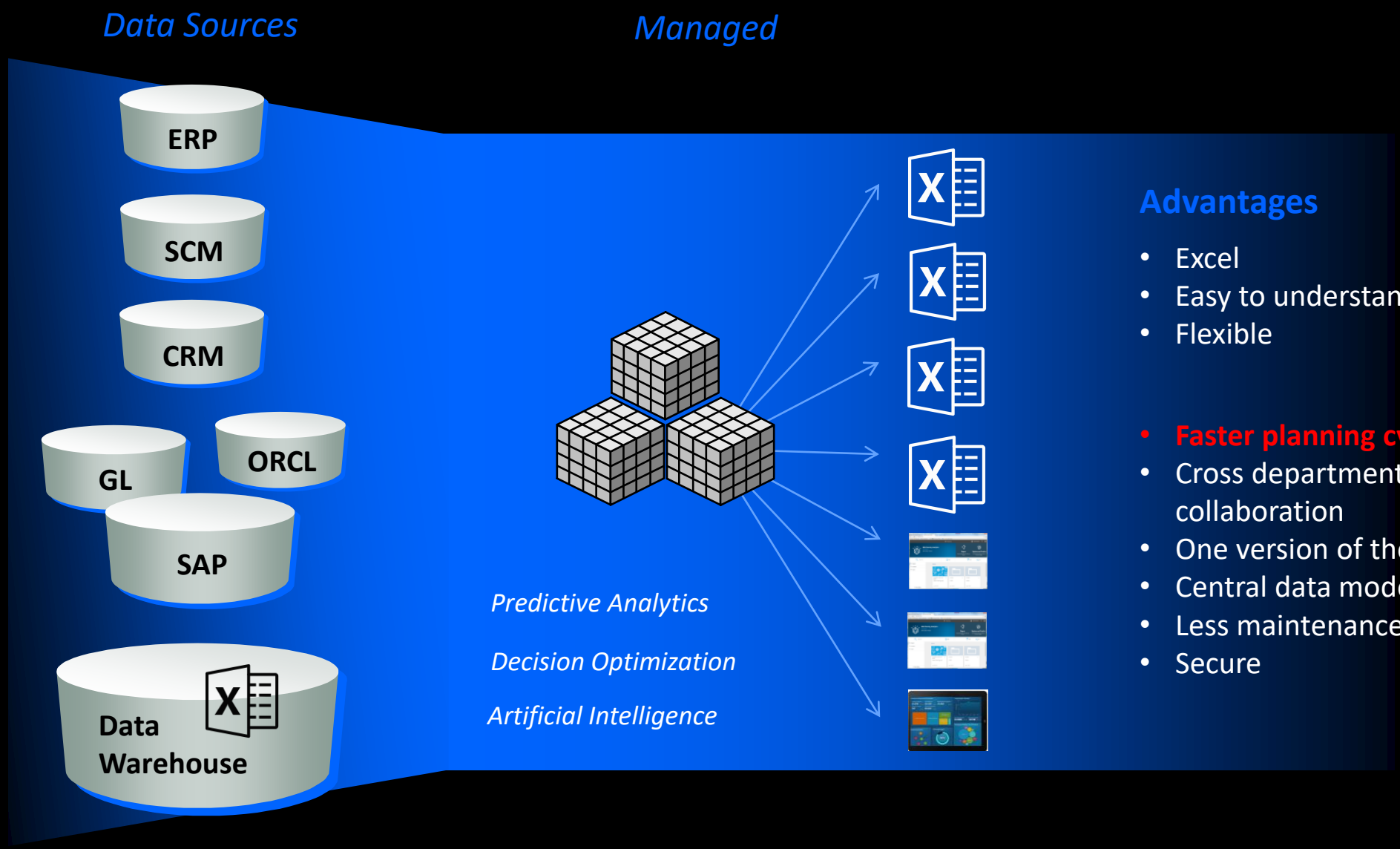
IT portfolio planning
Project planning
IT budgeting

Organizational strategy alignment

Collaborative decision making

Better business results

Integrated planning with IBM Planning Analytics



Advantages

- Excel
- Easy to understand
- Flexible

- **Faster planning cycles**
- Cross departmental & organization collaboration
- One version of the truth
- Central data models
- Less maintenance
- Secure

IBM Planning Analytics

Deploy based on your business needs and IT strategy

90-Day Free Trial

Full product capabilities

Upgrade to full use

Client Hosted

You're in control with a cloud ready locally deployed install

IBM Cloud

IBM Hosted Cloud
Dedicated environment for enterprise scale

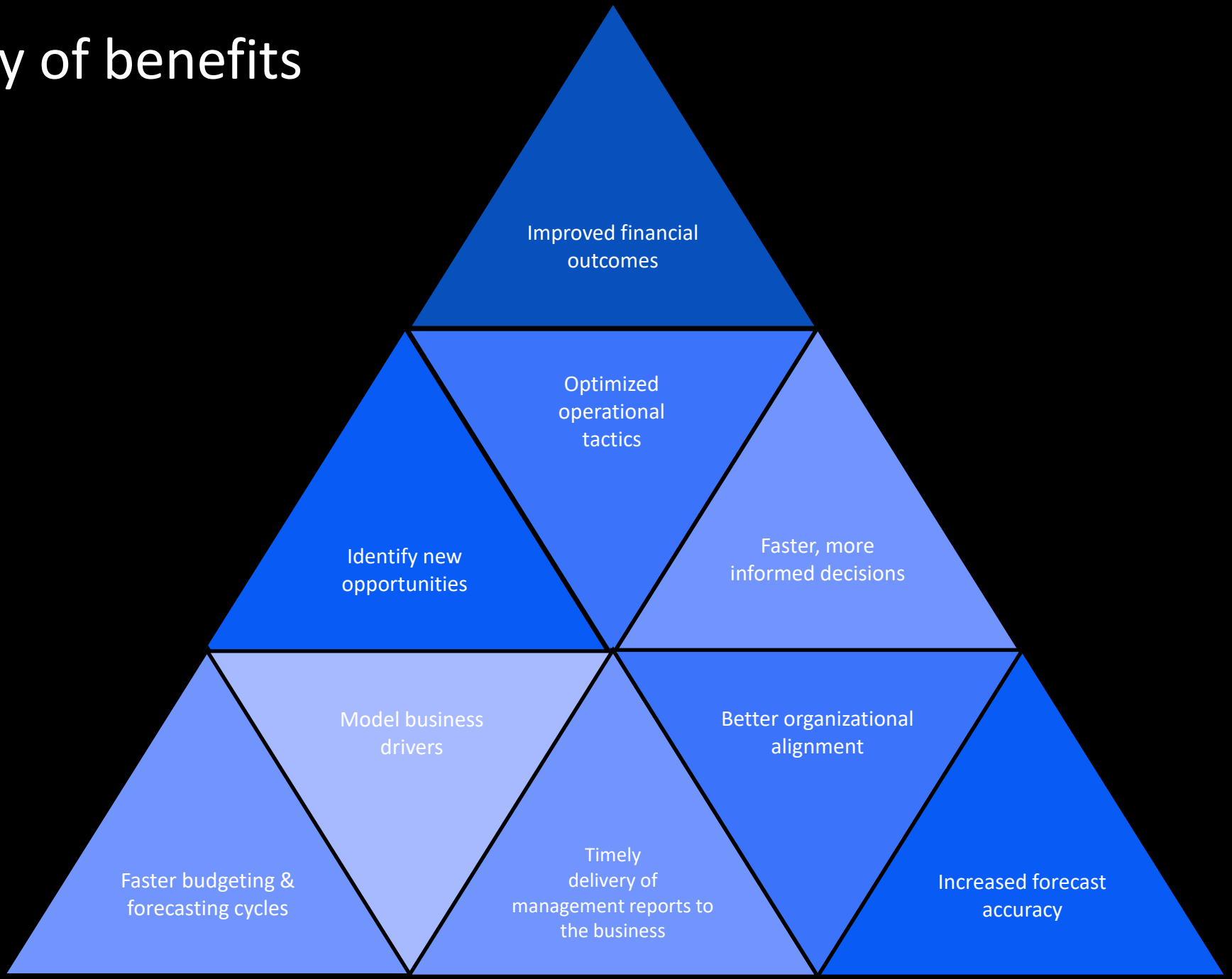
On-Demand Cloud Service
From a single user license

IBM Cloud Pak for Data

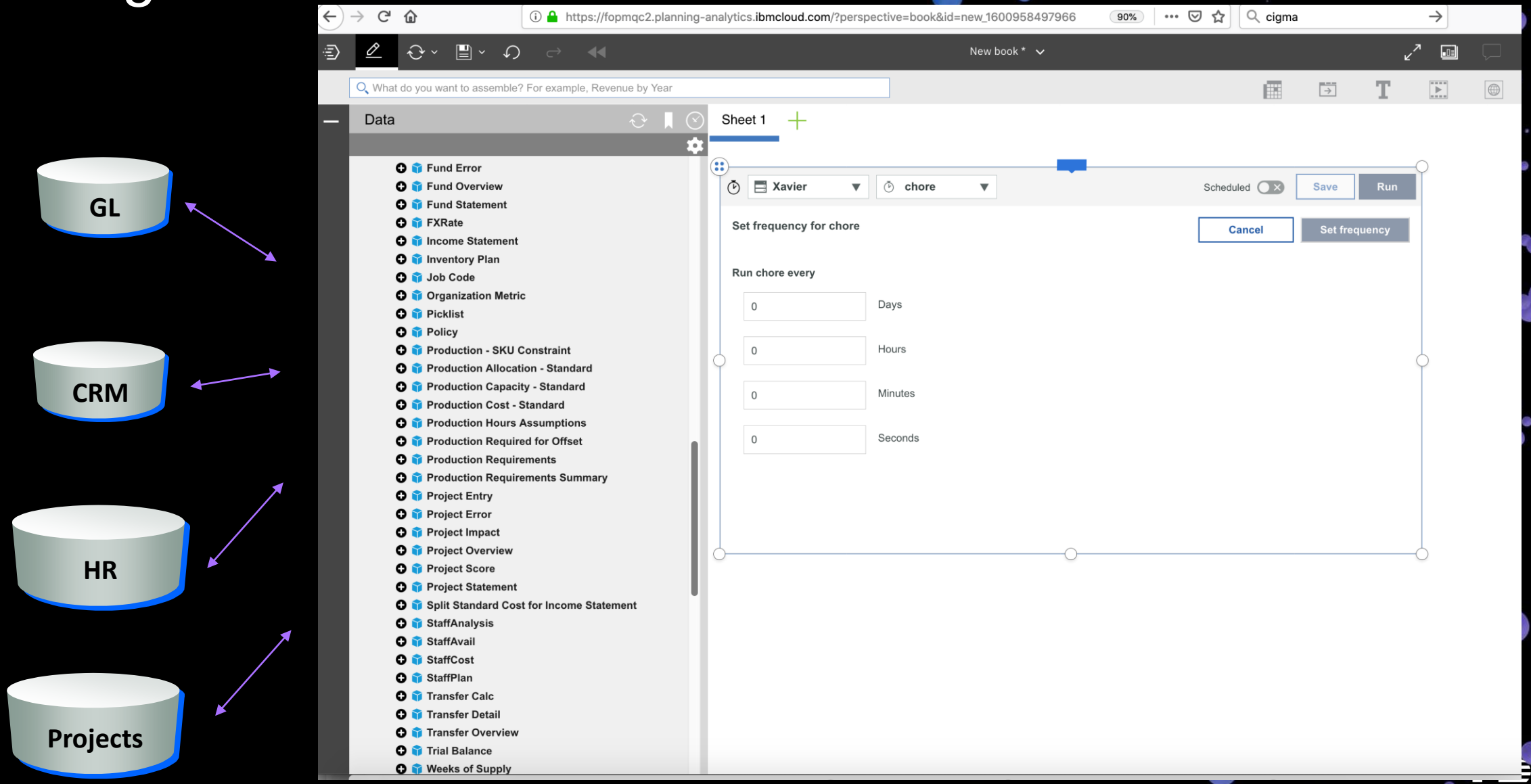
Enterprise container platform

Deployable across any cloud, hybrid or multi-cloud environment.

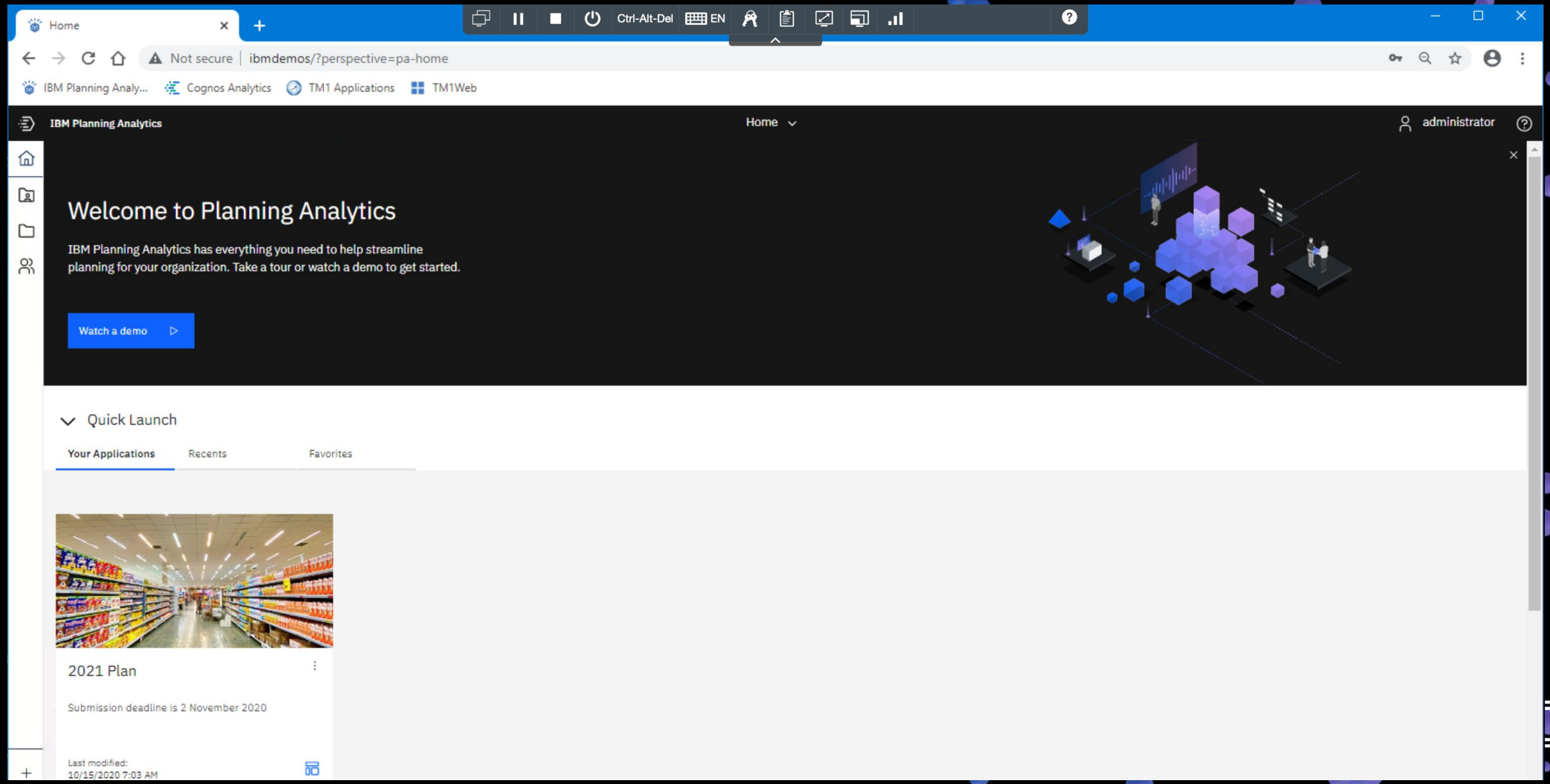
A hierarchy of benefits



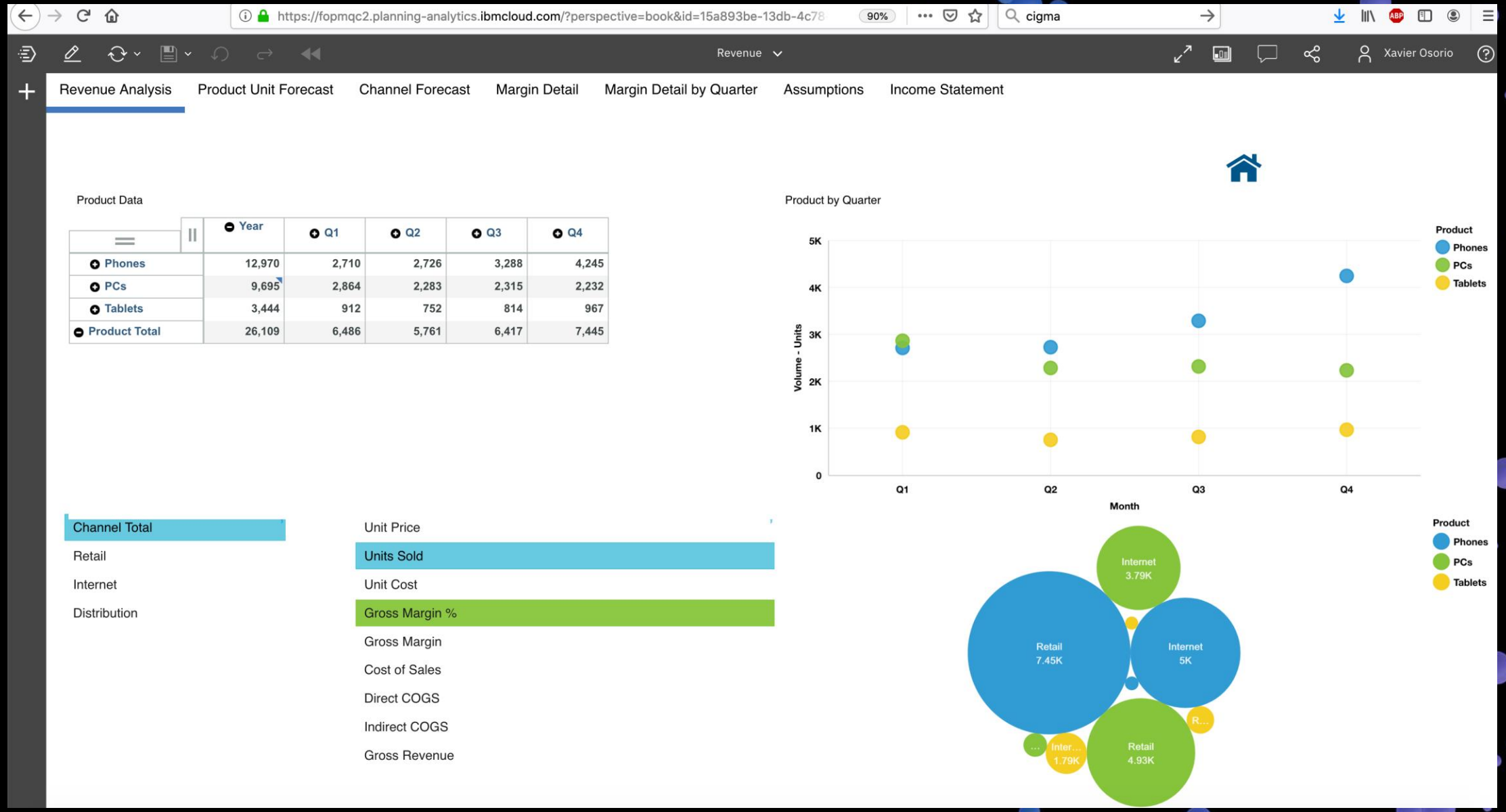
Moving data into PA



PA - Workspace



The Book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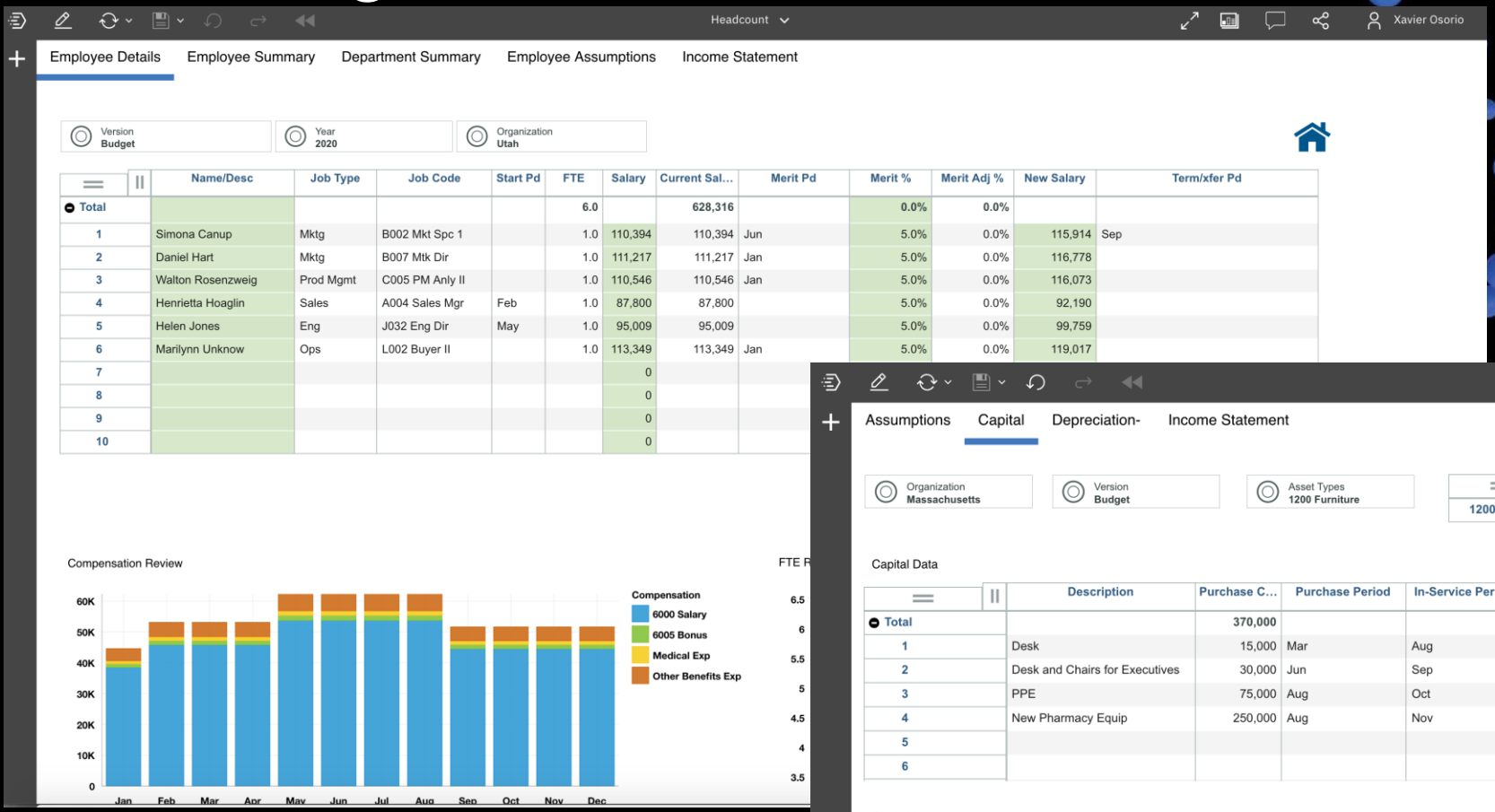
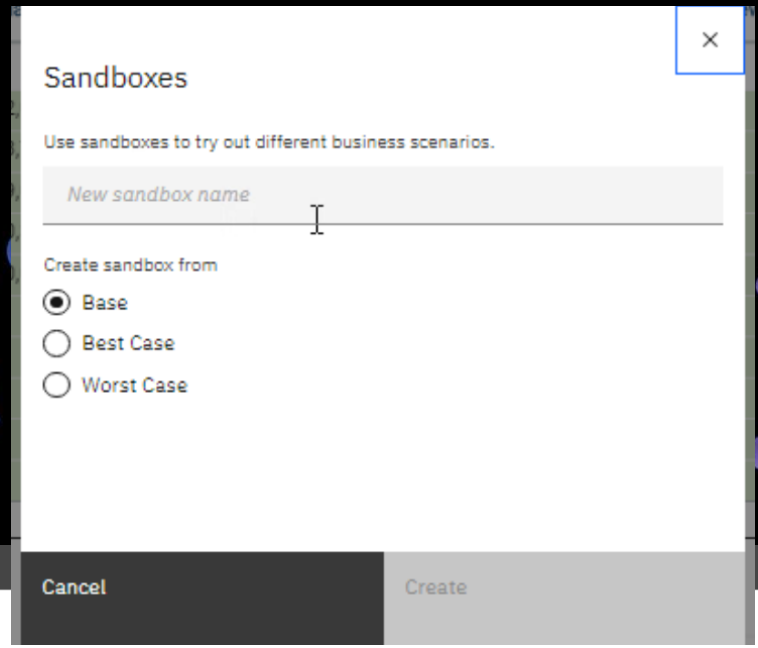
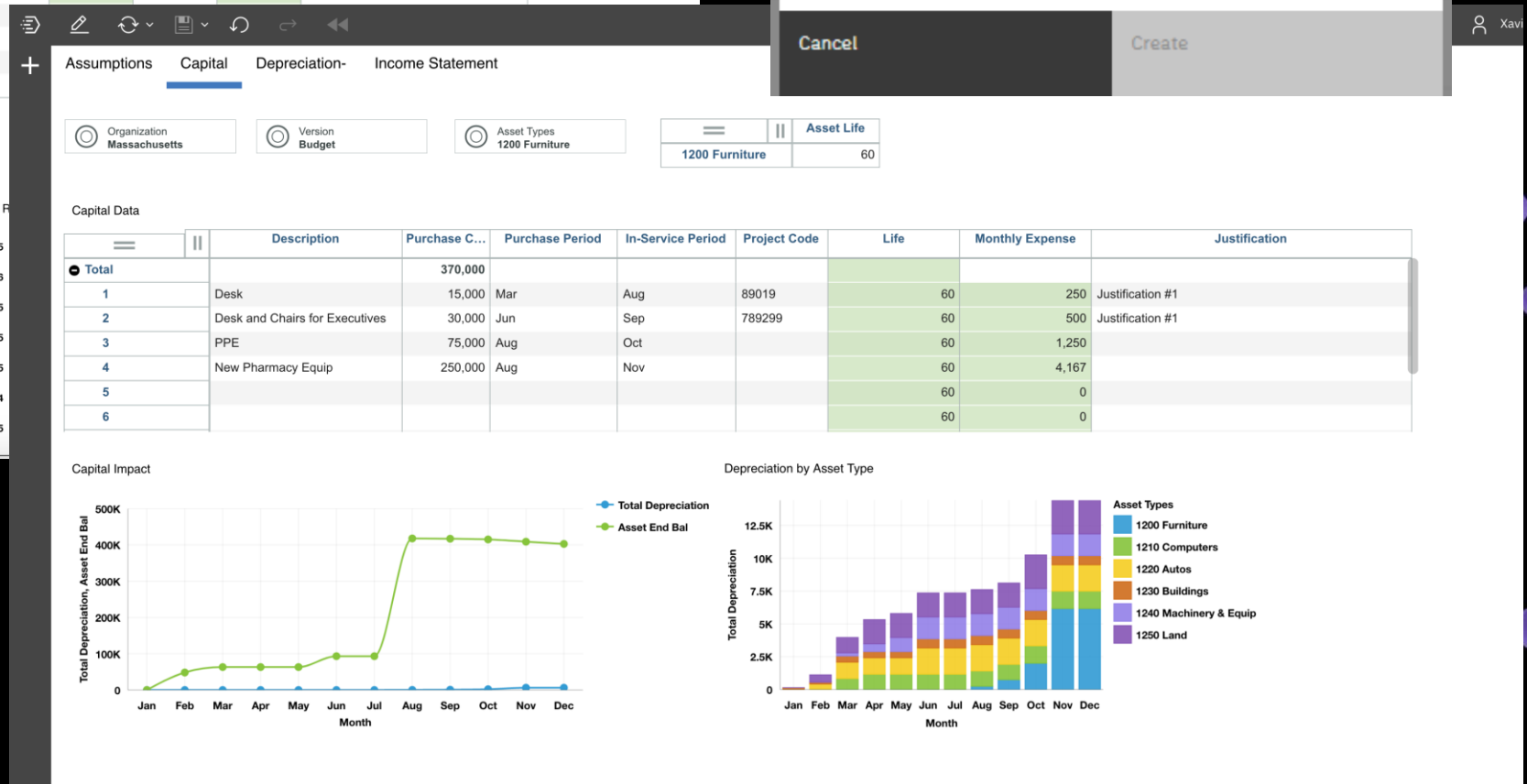
Revenue
Xavier Osorio
Revenue Analysis
Product Unit Forecast
Channel Forecast
Margin Detail
Margin Detail by Quarter
Assumptions
Income Statement
Product Data
Year
Q1
Q2
Q3
Q4
Phones 12,970 2,710 2,726 3,288 4,245
PCs 9,695 2,864 2,283 2,315 2,232
Tablets 3,444 912 752 814 967
Product Total 26,109 6,486 5,761 6,417 7,445
Product by Quarter
Product
Phones
PCs
Tablets
5K
4K
3K
2K
1K
0
Volume - Units
Q1
Q2
Q3
Q4
Month
Channel Total
Retail
Internet
Distribution
Unit Price
Units Sold
Unit Cost
Gross Margin %
Gross Margin
Cost of Sales
Direct COGS
Indirect COGS
Gross Revenue
Internet
3.79K
Retail
7.45K
Internet
5K
Retail
4.93K
1.79K

Planning



	Name/Desc	Job Type	Job Code	Start Pd	FTE	Salary	Current Sal...	Merit Pd	Merit %	Merit Adj %	New Salary	Term/xfer Pd
Total					6.0		628,316		0.0%	0.0%		
1	Simona Canup	Mktg	B002 Mkt Spc 1		1.0	110,394	110,394	Jun	5.0%	0.0%	115,914	Sep
2	Daniel Hart	Mktg	B007 Mtk Dir		1.0	111,217	111,217	Jan	5.0%	0.0%	116,778	
3	Walton Rosenzweig	Prod Mgmt	C005 PM Anly II		1.0	110,546	110,546	Jan	5.0%	0.0%	116,073	
4	Henrietta Hoaglin	Sales	A004 Sales Mgr	Feb	1.0	87,800	87,800		5.0%	0.0%	92,190	
5	Helen Jones	Eng	J032 Eng Dir	May	1.0	95,009	95,009		5.0%	0.0%	99,759	
6	Marilynn Unknow	Ops	L002 Buyer II		1.0	113,349	113,349	Jan	5.0%	0.0%	119,017	
7						0						
8						0						
9						0						
10						0						



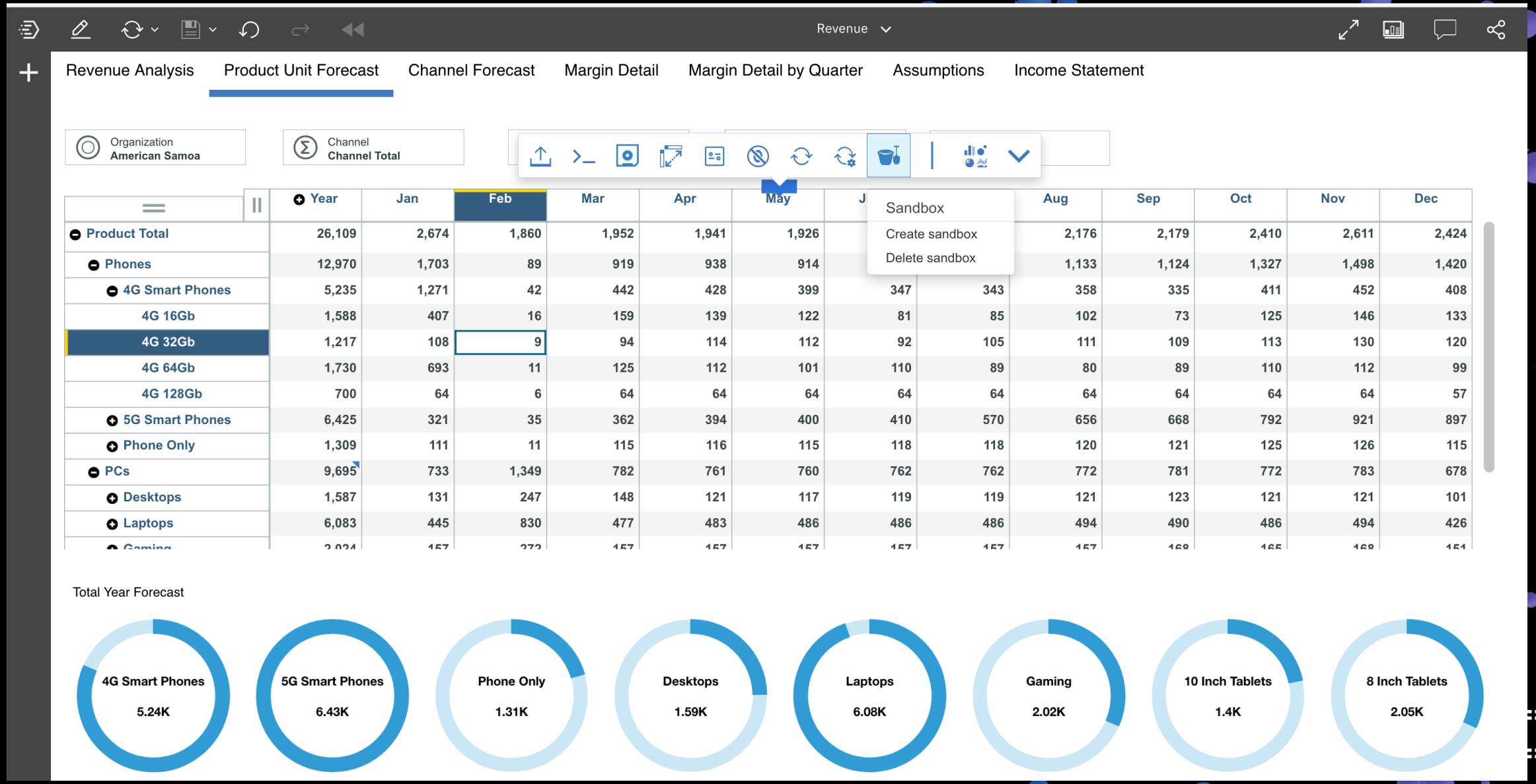


	Asset Life
1200 Furniture	60

Capital Data

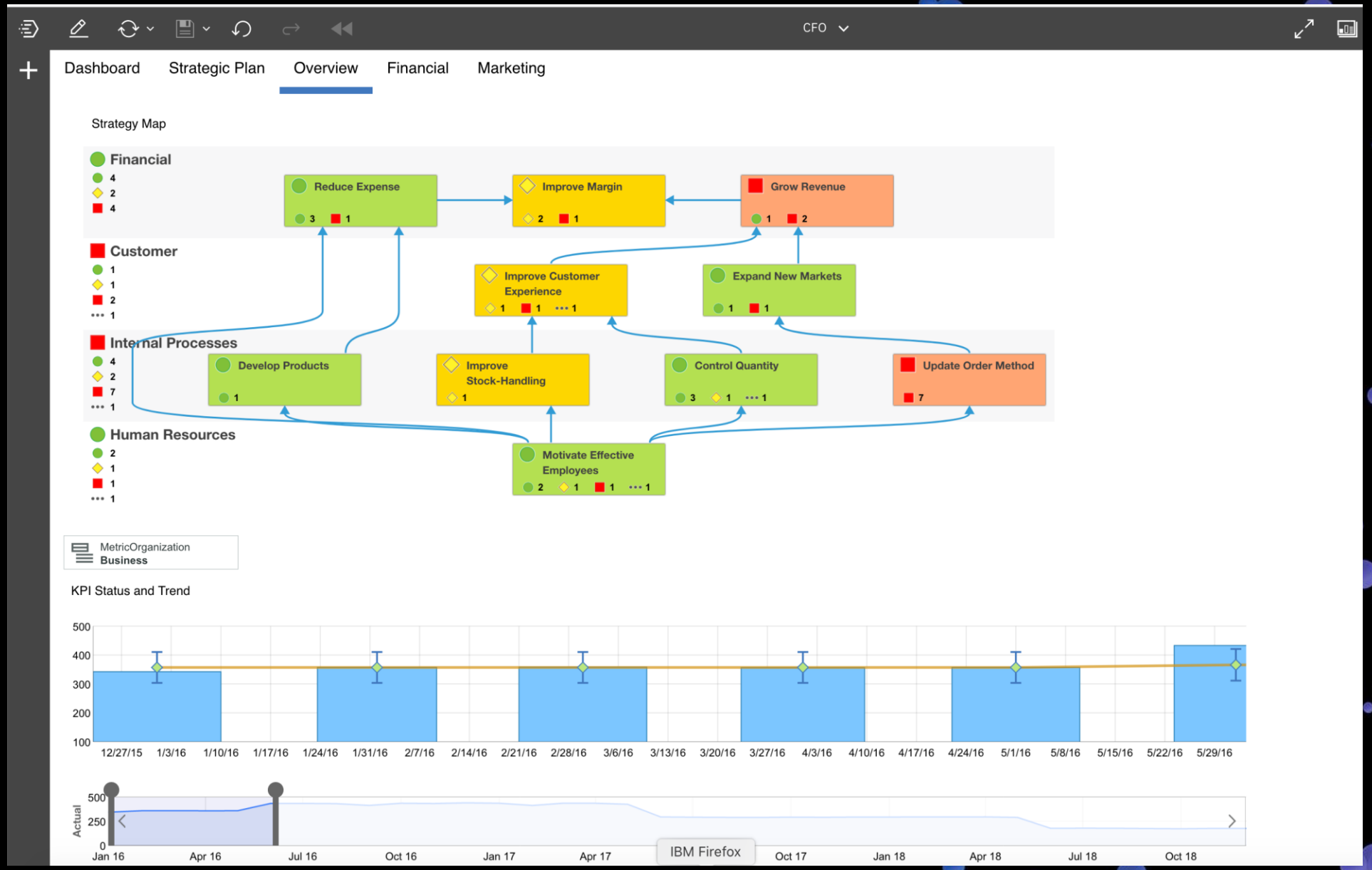
	Description	Purchase C...	Purchase Period	In-Service Period	Project Code	Life	Monthly Expense	Justification
Total		370,000						
1	Desk	15,000	Mar	Aug	89019	60	250	Justification #1
2	Desk and Chairs for Executives	30,000	Jun	Sep	789299	60	500	Justification #1
3	PPE	75,000	Aug	Oct		60	1,250	
4	New Pharmacy Equip	250,000	Aug	Nov		60	4,167	
5						60	0	
6						60	0	

Planning



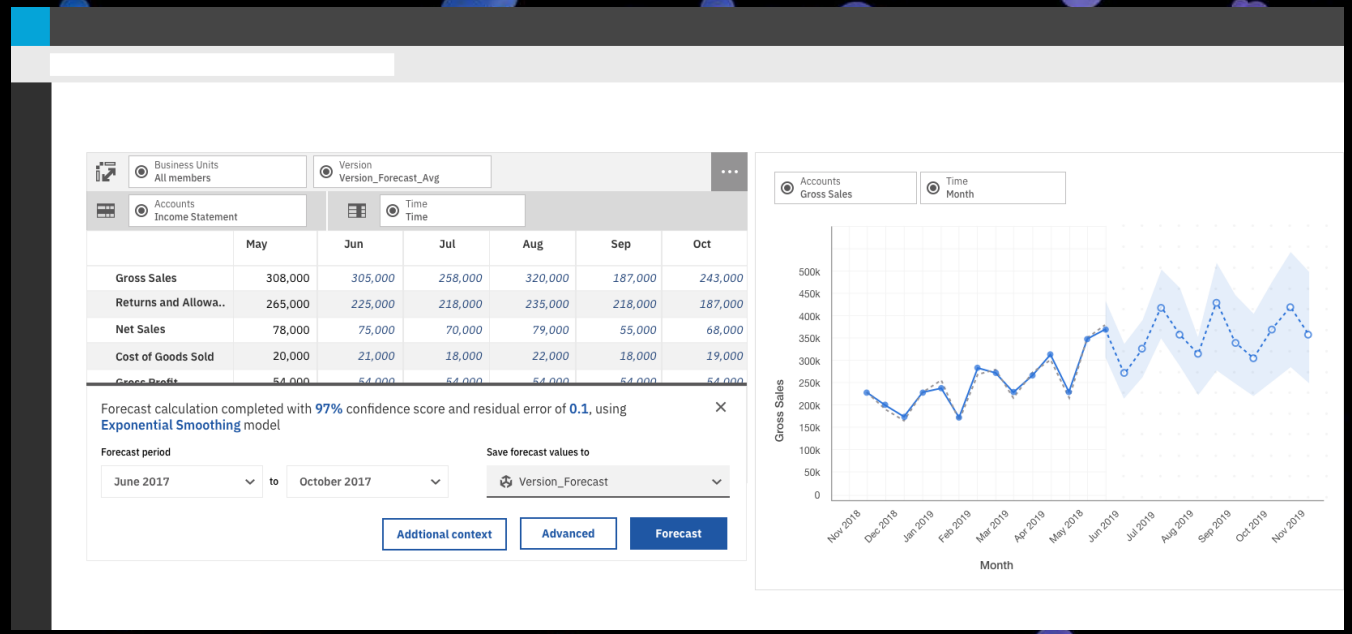
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Product Total	26,109	2,674	1,860	1,952	1,941	1,926		2,176	2,179	2,410	2,611	2,424
Phones	12,970	1,703	89	919	938	914		1,133	1,124	1,327	1,498	1,420
4G Smart Phones	5,235	1,271	42	442	428	399	347	343	358	335	411	452	408
4G 16Gb	1,588	407	16	159	139	122	81	85	102	73	125	146	133
4G 32Gb	1,217	108	9	94	114	112	92	105	111	109	113	130	120
4G 64Gb	1,730	693	11	125	112	101	110	89	80	89	110	112	99
4G 128Gb	700	64	6	64	64	64	64	64	64	64	64	64	57
5G Smart Phones	6,425	321	35	362	394	400	410	570	656	668	792	921	897
Phone Only	1,309	111	11	115	116	115	118	118	120	121	125	126	115
PCs	9,695	733	1,349	782	761	760	762	762	772	781	772	783	678
Desktops	1,587	131	247	148	121	117	119	119	121	123	121	121	101
Laptops	6,083	445	830	477	483	486	486	486	494	490	486	494	426
Gaming	2,024	157	272	157	157	157	157	157	157	168	165	168	151

Monitor the Business

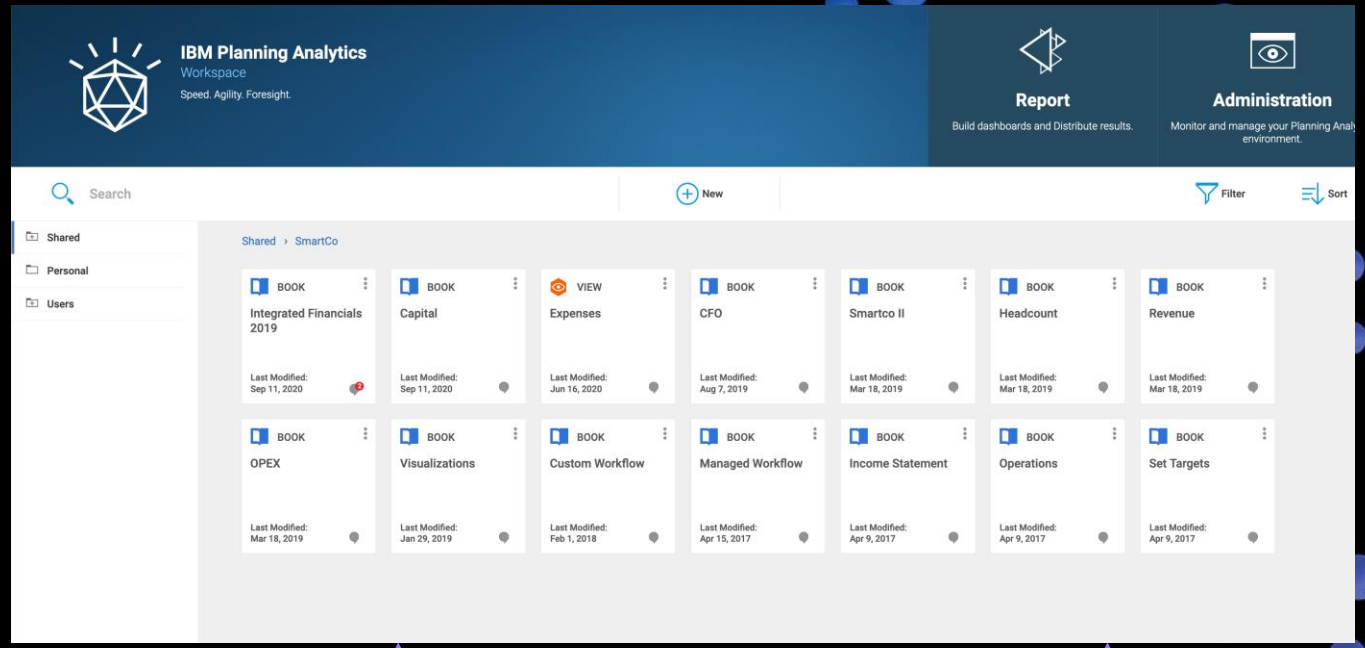


AI forecasting

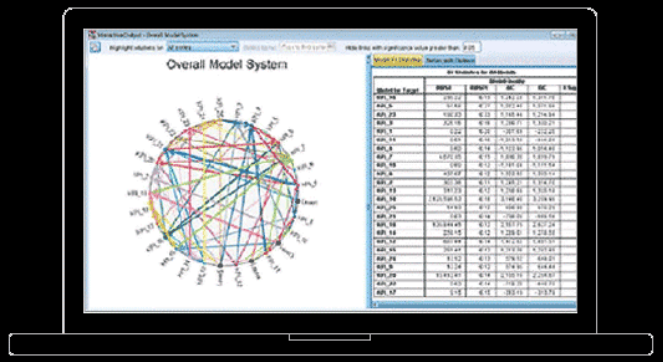
- Time-series based predictions
- Minimal data movement
- Guide people through a normally advanced forecasting operation



Infuse Planning Analytics with AI



IBM - SPSS



IBM – Decision Optimization

Infuse Planning Analytics with AI

Predictive Forecast

Products: Total Product Types | Markets: US

	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Actuals	1,595	1,737	2,282	1,533	1,946	1,410	1,894	1,523	1,686	1,589	1,360	1,518

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Statistical Base Forecast	1,526	1,993	2,209	1,466	1,876	1,345	1,825	1,457	1,619	1,524	1,298	1,

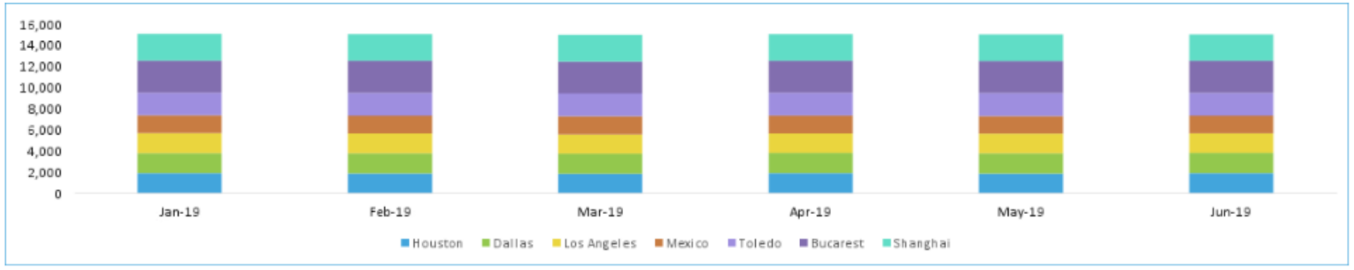
Overview | Predictive Forecast | Demand Forecast | Scenarios | Capacity Limits | Production Plan | Allocation Comparison | Income Statement

Production

Products: Total Product Types
Measures: Production Units

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	2019
Houston	1,876	1,855	1,831	1,879	1,840	1,885	11,166
Dallas	1,903	1,903	1,888	1,918	1,918	1,912	11,442
Los Angeles	1,873	1,855	1,822	1,819	1,849	1,837	11,055
Mexico	1,693	1,703	1,720	1,702	1,666	1,678	10,162
Toledo	2,158	2,161	2,176	2,179	2,197	2,170	13,041
Bucarest	3,029	3,035	3,005	3,023	3,014	3,032	18,138
Shanghai	2,525	2,526	2,522	2,510	2,528	2,495	15,106
200SPromotion — Total Plants	15,057	15,038	14,964	15,030	15,012	15,009	90,110

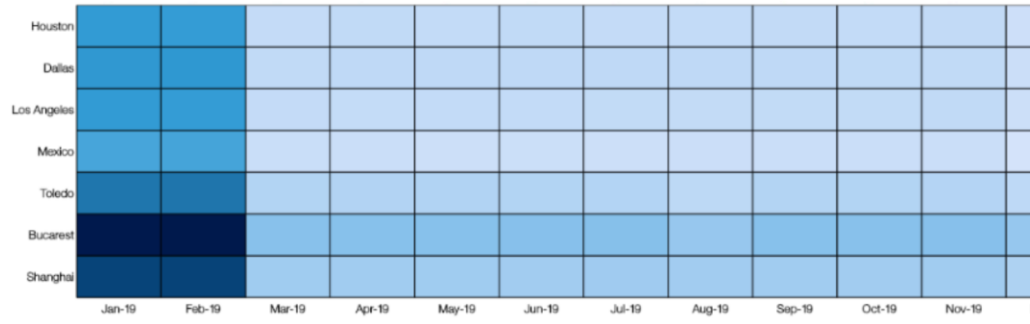
Create Production Plan



Overview | Predictive Forecast | Demand Forecast | Scenarios | Capacity Limits | Production Plan | Allocation Comparison

Version: JointPromotion

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
Houston	4,984	4,935	1,832	1,880	1,841	1,886	1,829	1,841	1,871
Dallas	5,056	5,063	1,889	1,919	1,919	1,913	1,919	1,925	1,919
Los Angeles	4,976	4,935	1,823	1,820	1,850	1,838	1,862	1,853	1,862
Mexico	4,498	4,529	1,720	1,702	1,666	1,678	1,672	1,693	1,705
Toledo	5,734	5,747	2,177	2,180	2,198	2,171	2,150	1,952	2,159
Bucarest	8,046	8,072	3,006	3,024	3,015	3,033	3,048	2,711	3,021
Shanghai	6,707	6,718	2,522	2,510	2,528	2,495	2,537	2,495	2,516
Total Plants	40,000	40,000	14,967	15,034	15,016	15,013	15,016	14,469	15,052



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Thanks for attending

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