Breakthrough in Demand and Supply Planning using SAP Integrated Business Planning (IBP)

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Introductions

Speakers

Tushar Bhalla is the Chief Architect at Intrigo Systems, with over 12 years of experience in supply chain management. Tushar has been instrumental in the development and implementation of SAP Integrated Business Planning (IBP) projects since the introduction of the tool.

Catherine Clark is the IT Director for the Environmental Technologies Division of Corning Incorporated. She is responsible for IT investments supporting the global manufacturing, supply chain, and commercial capabilities for the division.

Laura Knapp is currently the Short Term Forecasting Manager at Corning Environmental Technologies (CET). Prior to assuming her role as Short Term Forecasting Manager in December 2016, she was the functional project manager for Corning’s IBP implementation.
Introduction - Corning Incorporated
Corning Incorporated

Founded:
1851

Headquarters:
Corning, New York

Employees:
40,000 worldwide

2016 Core Sales:
9.7 billion

Fortune 500 Rank (2016):
313

• Corning is one of the world’s leading innovators in materials science. For more than 160 years, Corning has applied its unparalleled expertise in specialty glass, ceramics, and optical physics to develop products that have created new industries and transformed people’s lives.

• Corning succeeds through sustained investment in R&D, a unique combination of material and process innovation, and close collaboration with customers to solve tough technology challenges.
Corning Market Segments and Additional Operations

Display Technology
- LCD Glass Substrates
- Glass Substrates for OLED and high-performance LCD platforms

Optical Communications
- Optical Fiber and Cable
- Optical Connectivity Solutions
- Wireless Distributed Antenna Systems
- Optical Cables for Consumer Networks
- Copper Connectivity Components

Environmental Technologies
- Emissions Control Products
  - Light-duty gasoline vehicles
  - Light-duty and heavy-duty on-road diesel vehicles
  - Heavy-duty non-road diesel vehicles
  - Stationary

Life Sciences
- Cell Culture and Bioprocess
- Drug Discovery
- ADME/Tox
- Genomics
- Chemistry
- Microbiology
- General Laboratory Products

Specialty Materials
- Corning® Gorilla® Glass
- Display Optics and Components
- Optical Materials
- Optical Systems

Other Products and Services
- Emerging Innovations
- Equity Companies
  - Cormetech, Inc.
  - Eurokera, S.N.C.
  - Samsung Corning Advanced Glass, LLC (SCG)
Emissions control is a life-changing innovation

Life is Breathtaking

Since 1975, the emissions control technology that Corning invented has prevented:

- **4 billion tons** of hydrocarbons
- **4 billion tons** of nitrogen oxide
- **400 billion tons** of carbon monoxide

... from entering the air we breathe

This life-changing technology is also a “life-saving” technology and has prevented >1.5 million pre-mature deaths per year (2,3,4)

The air quality in Beijing ... in the first ten months of 2015 ... PM 2.5 particles dropped by 21.8% compared to last year.

http://gbtimes.com/china/beijing-pm25-levels-improve-substantially

OECD, “The Economic Consequences of Air Pollution”, 2016;
Environmental Technologies

Pioneered cellular ceramic solutions 40 years ago for emission control and set the standard for catalytic converters worldwide.

Advanced substrates and filters help next-generation gasoline and diesel engines attain greater performance while meeting tightening global emissions standards.

Innovation leadership, engineering services, and design expertise help customers achieve their emissions objectives.

Global manufacturing network provides worldwide supply.
Introduction

Intrigo Systems
Black Belts in Enterprise Solutions

250+ highly experienced resources worldwide

Fortune 1000 clients across geographies

200+ successful implementations globally

Thought leaders in advisory, implementation and managed services

Custom in-house softwares for seamless business processes

Strategic and deep seated partnerships with global leaders
Intrigo’s IBP Expertise

Re-Engineering your Supply Chain for Accelerated Growth

SAP IBP launch partner

First partner to implement SAP IBP

Developed agile-based methodology for SAP IBP

Maximum number of IBP implementations

Most customer references

Investment in private cloud environments

Offshore delivery & support for IBP

Global partnership with SAP for development & testing

Shaped and deployed S&OP on HANA

70+
Consultants with SAP IBP expertise

4+
Years in delivering SAP IBP solution
Intrigo’s IBP Implementation Know-how
Delivering Value with Next-Gen Technology and Services
Business Case for IBP
Why did Corning Environmental Technologies Pursue IBP?

Business Case

• Corning’s Sales and Operational Planning (S&OP) process is a 24 month Demand and Supply plan covering all businesses in the division. The S&OP process was
  – Manual excel based process
  – Significant amount of effort to consolidate/validate data
  – Lack of transparency in the data edits as the data flowed from excel sheet to excel sheet. This resulted in multiple conference calls to understand why numbers changed from month to month.

• The objective was to improve the efficiency and accuracy of these processes through the implementation of a central demand and supply planning software.
Why IBP?

- IBP on HANA recognized as strategic, future platform
- Seamless integration of data across Demand, Short Term, and Supply planning
- Delivers one set of numbers visible across the entire organization
- Ability for “what-if” scenario planning
- Excel add-in delivers ease of use for the end users
- Flexible configuration to meet the needs without customizations
- Web UI capabilities to deliver standard reporting / analytics
- Cloud based system: Information available to all users globally at the same time
Business Benefits – Soft Savings

- SAP IBP software enables:
  - Visibility and Velocity of Information
  - Transparency of data sources
  - One Set of Numbers across demand & supply

- People efficiency: hundreds of hours saved
  - Eliminates manual excel sheet hand-offs
  - Redirect FTE savings to analysis / master data management

- Demand and supply are integrated in one database with workflow methodology. This enables:
  - Scenario ease: Transparent & Efficient collaboration on scenarios between supply and demand
  - Reporting and Analytics
Business Benefits – Hard Savings

• **Inventory Reduction**
  • Reduces the inventory held due to uncertainty and the lack of speed due to a monthly planning cycle

• **Expedited Freight Cost Reduction**
  • Due to speed of information flow by the formalization of a weekly demand and supply response process

• **Forecast Accuracy** improvement
  • Statistical modeling and de-biasing techniques
  • Ability to see accuracy impact of forecast changes across contributors
  • Transparency of the source of forecast changes
Scope and Timeline
Intrigo’s Scrum Methodology

Simplifying Project Development for Quicker Delivery and Better Quality

- Creates a sense of urgency – speed to deliver = speed to value
- Provides a mechanism for early course correction using feedback loops
- Ensures users have early and frequent access to workable pieces of configuration
- Develops a framework for evaluating scope and quantifying the impact of changes
- Delivers a means to quickly evaluate progress and status
- Conducts regular testing at the end of each sprint
- Provides a learning opportunity through Conference Room Pilot (CRP)
Scope and Timeline

1. March 2015 – September 2015
   - Internal process re-design of manual processes to build and validate business benefits

2. September 2015 – December 2015
   - Software Selection Process

   - Integrator Selection Process
   - Internal Project Preparation

   - Agile Project Implementation

5. October 2016
   - Parallel Go-Live for Demand

   - First Demand Cycle 100% in IBP
   - Parallel Go-Live IBP Supply.

7. March 2017
   - First Supply Cycle 100% in IBP
Solution Overview
Process Flows

Monthly Planning Process Flow

- Account Team Forecast Update
- New Products Introduction
- Upside Adjustments
- Account Team Forecast
- Demand Analysis
- Demand Review
- Supply Analysis
- Partnership Review
- Supply Review
- Management Adjustments
- Final Forecast Locked
- Upside and Downside Forecast
- Forecast De-Biasing
- Total Forecast with STP
- Forecast Scaling
- Merge STP & Final Forecast for M0,1,2
- Generate Unconstrained Plan
- Division Planner Publish
- Resolve Shortage Alerts (Capacity, WIP, FG)
- Finalize Plant Ops Plans
- Management Adjustments
- Finalize & Lock Supply Plan
- Generate Unconstrained Plan
- Division Planner Publish
- Final Short Term Plan, Interco Transfer Plan Locked

Weekly Planning Process Flow

- Analysis of new Orders
- Catalyzer Forecast De-Biasing
- Final STF Locked
- ST- Demand Analysis
- ST – Plan Generation
- ST – Supply Analysis
- ST Review
- Generate Unconstrained Plan
- Short Term Plan Published
- Review Shortage Alerts for Capacity, FG and WIP Constraints
- Final Short Term Plan, Interco Transfer Plan Locked

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## Project Scope

### Implementation Highlights

### Stakeholders
- Demand Planning
- Supply Planning
- Production (Planning)
- Sales Team
- Indirect –
  - Finance
  - Marketing
  - Product Development

### Key Activities
- Conference Room Pilot
- IBP Tool Training
- IBP End User Training & Testing

### Value Proposition
- Unified Demand Stream
- Visibility and Velocity
- Forecast Error Reduction
- Reduction Inventory Levels
- Scenario Planning
- What-if analysis
- One system of record for Planning
- Minimize manual efforts

### Geographies
- Americas
- EMEA
- Asia Pacific
- Africa

### Users
- 100 + Users Globally

### Deployment
- IBP S&OP
- IBP Demand
- IBP Supply
- JAM Collaboration
- HCI

### Horizon
- Monthly Planning –
  - 24 Months
- Weekly Planning –
  - 13 Weeks

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22 Weeks Implementation + 4 Weeks Post Go-Live Support
Keys to Success
Key Learnings

| Change management | Mitigation plans were in place to manage risk | Training plans are essential | Start early with data understanding and data quality | Business process redesign prior to IT project launch enabled a six month implementation project | Keep the solution design as simple as possible; weigh the addition of complexity when the value tradeoff is clear. |

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Business Benefits
Achieved
Business Benefits Achieved / In process of realizing

One Unified Plan
One Unified Plan that the business can operate to (For Demand, Supply and all manufacturing plants).

Visibility and Velocity of Data
Significant productivity improvements for Demand Analysis driven by transparency of data source for forecast changes and self service analytics / reporting. Ability to See and act on short term demand changes.

Scenario Planning
Ability to quickly run ‘what if’ scenarios across demand & supply Process defined for Upside and Downside scenarios based.

Forecast error reduction
IBP delivers forecast accuracy statistics across data contributors Will begin to leverage the new statistics to measure improvements this year.

Time Efficiency
Reduction in Integration touchpoints between different planning groups System work will be more efficient with greater capability over time.

Hard Savings
Have line of sight to Hard Savings through Inventory reduction and Premium freight reduction as the supply side matures in it’s use of IBP.
Q&A
Upcoming Activities

IBP Workshops
- Chicago
- Houston
- Palo Alto
- Newtown Square
- Vancouver
- Toronto
- Walldorf
- Chennai

Please email ankita@intrigosys.com with your preferred location to register

IBP eBook

Launched week of May 8th

Please email ankita@intrigosys.com to get a free copy
THANK YOU

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