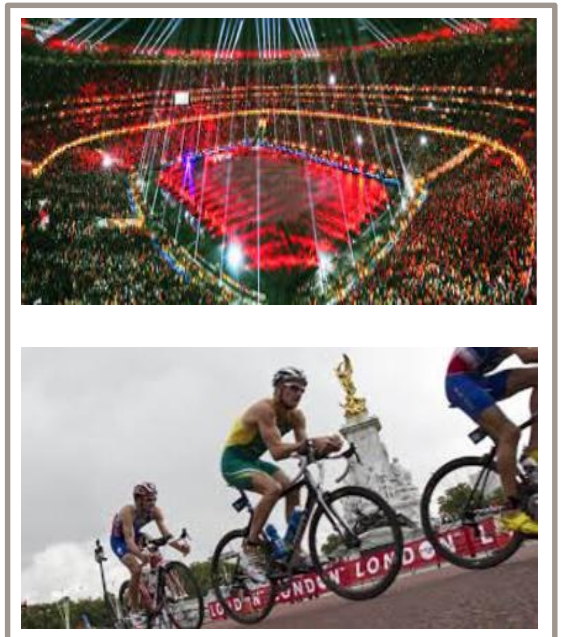
Case Study Extension !

- The Good News is GBI has been now taken over by a giant holding company GHC .
- The GHC has associated sports businesses and have expressed to extend these product lines in the existing set up of GBI, as separate manufacturing plants ! So it’s an additional scope for the project phase II ☺ .
- The new product lines are :
  - Sports Wear (Apparel & Shoes)
  - Sports Drinks (Juice, Vitamin Supplements & Treated Water)
  - Sports Merchandising (Model Toys, Accessories)
  - Sports Event Management Division.



Production Planning

Based on the huge success of phase I , GBI has now decided to take up deployment of Manufacturing Management : PP Module.

GBI currently uses a standard production processes. The process begins with sales forecasts based on sales history combined with the present market demand. Material Requirement Planning is used for planning .

This simple process has served GBI well until now due to its small size and closely connected operations. However, as GBI has grown and its operations have become more dispersed and complex, GBI's management has come to realize that it needs to reevaluate how GBI produces products s co n ta adva age of the most effective and efficient processes. To accomplish this objective, management eeds t amilia e it f with e various options available to GBI for executing the planning & production process. In additi it wa lyze e pro ss steps and their impact in greater depth.

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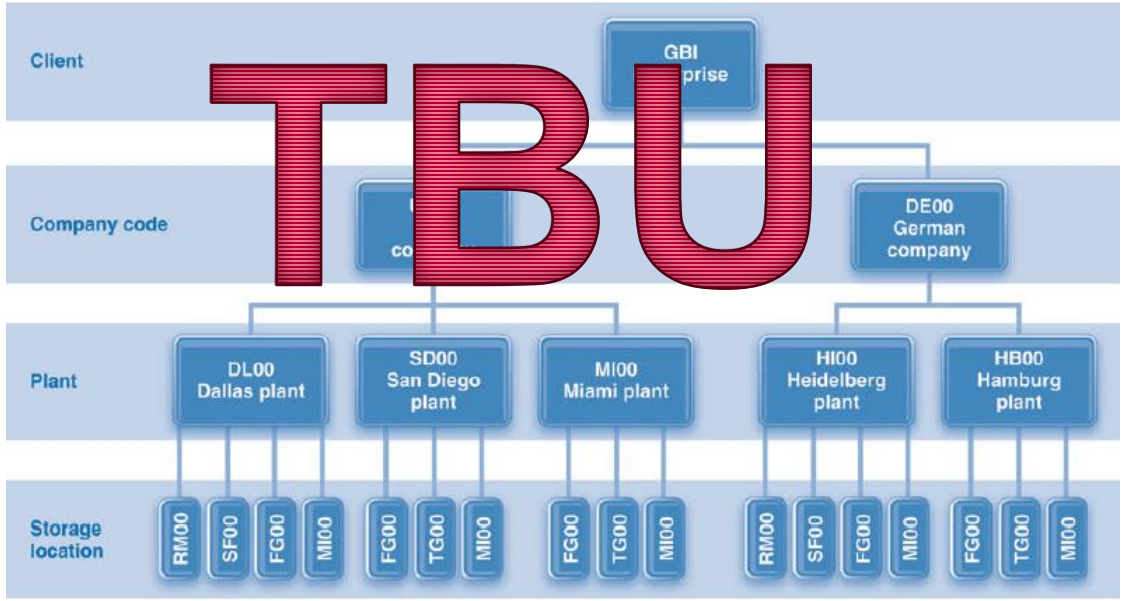
Once management has attained a thorough understanding of the tactical and strategic aspects of this current planning & production process, it can then design and implement a new process that best meets GBI's needs. It can also determine the best way to manage this process using the SAP ERP system.

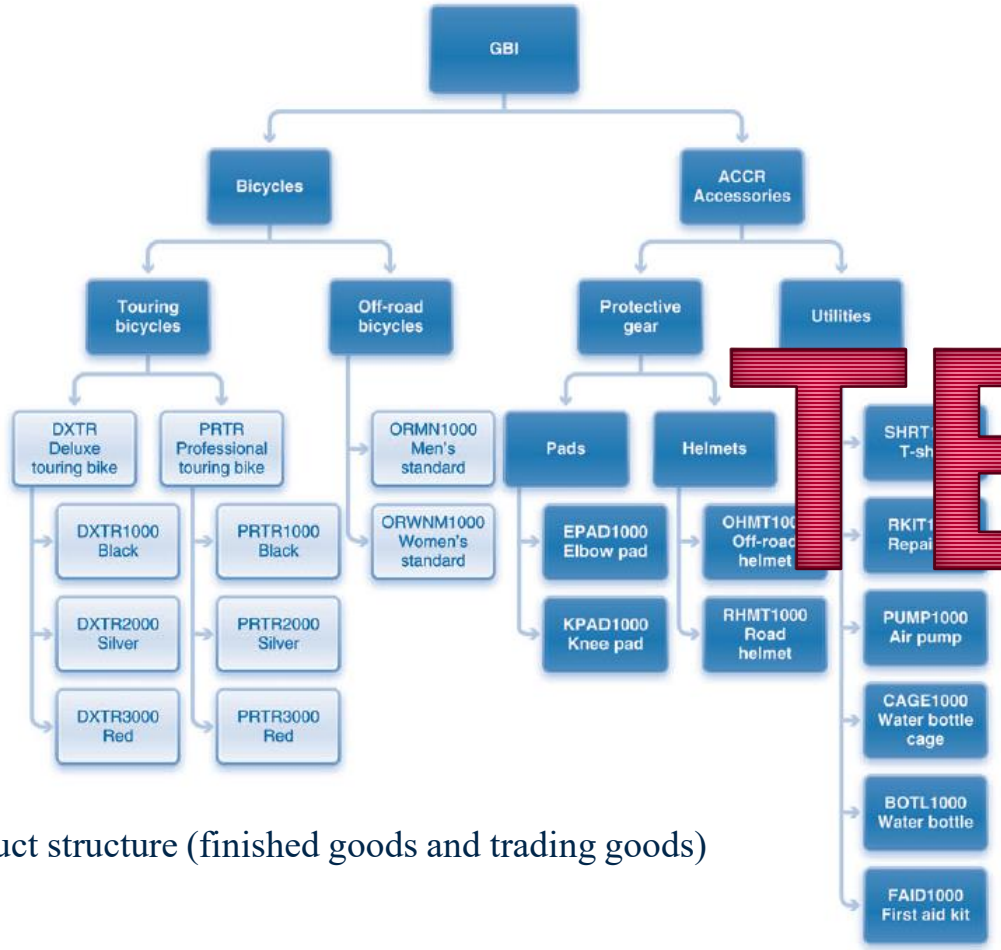
Organization Data – PP/MM

- GBI has one company in the United States and one in Germany, each of which has its own manufacturing/purchasing organization. There are 3 plant in GBI US and 2 in GBI DE.
- GBI has one production planner & supervisor each per plant .North America (NXX) and one for Europe (EXX).
- GBI has a very self-driven and efficient team to The Dallas plant has four storage locations. It stores raw materials (RM00), semifinished good (SF00), finished goods (FG00), and miscellaneous materials (MI00). The Miami and San Diego plants, which are distribution centers (DCs), both have three storage locations to store finished goods (FG00), trading goods (TG00), and miscellaneous materials (MI00). The structure of storage locations in Germany is similar to that of the U.S. company. The manufacturing facility in Heidelberg has a structure similar to that in Dallas, and the Hamburg plant has a structure similar to the plants in Miami and San Diego.



Material Master Data

Commonly used material types by GBI are raw materials, semi-finished goods, finished goods, and trading goods.



GBI's product structure (finished goods and trading goods)

Raw Materials	Semifinished Goods	Finished Goods	Trading Goods
• Derailleur gear assembly • Frame • Seat kit • Handle bar • Pedal assembly • Chai • Brak • Warr docum • acka g • Tire • Tube • Wheel • Nuts and bolts	• Wheel assembly	• Deluxe touring bike (3 colors) • Professional touring bike (3 colors) • Men's standard off-road bike • Women's standard off-road bike	• Elbow ads • Knee pads • Off-road helmet • Road helmets • Repair kit • Air pump • Water bottle cage • First aid kit • T-shirt

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GBI's Material List

Material Master Data

- **Raw materials** (ROH) are purchased from an external source—a vendor—and used in the production process. Typically, raw materials are not sold to end-customers. Consequently, the material master will contain data related to procurement and production but not fulfillment. Examples of raw materials utilized by GBI are frames, wheels, tires, and tubes.
- **Semifinished goods** (HALB) are typically produced in-house from other materials (e.g., raw materials) and are used in the production of a finished good. Consequently, data related to production must be maintained for semifinished goods. Front wheel assemblies are an example of semifinished goods from GBI. GBI purchases tires, wheels, and tubes and then uses these raw materials to create wheel assemblies.
- **Finished goods** (FERT) are created by the production process from other materials, such as raw materials and semifinished goods. They are generally not purchased. As a result, the material master for finished goods will include data related to production and fulfillment, but not procurement. An example of a finished good from GBI is the deluxe touring bicycle, which is produced from raw materials (e.g., frames) and semifinished goods (e.g., wheel assemblies).
- **Trading goods** (HAWA), like raw materials, are purchased from a vendor. Unlike raw materials, however, trading goods are resold to customers. Significantly, the company does not perform any additional processing of the material prior to reselling it. Therefore, the material master for trading goods will include data related to purchasing and selling but not production. An example of a trading good from GBI is a helmet. GBI simply purchases the helmets from a supplier and resells them to its customers; no other steps are involved.
- GBI wants to groups its materials as logically as possible for ensure efficiency in its business operations. For example, all of the materials used in the production of bicycles, such as tires and tubes—which are raw materials—and wheel assemblies—which are semifinished goods—can be included in one material group called *production*. As another example, all bicycles, which are generally finished goods but can also be trading goods, can be placed into one group called *sales*. Alternatively, bicycles can be grouped based on how they are used, such as *touring* and *off-road*.

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Vendor Master Data**

- Both GBI US and GBI DE have 12 vendors that supply raw materials and trading goods. These vendors are listed below;

GBI US Vendors	GBI DE Vendors
• Olympic Protective Gear • Boomtown Tire & Wheel • Dallas Bike Basics • Lightbulb Accessory Kits • Space Bike Composites • Night Rider Aluminum Products • Spy Gear • Rapids Nuts n Bolts • Green Blazers Seats • Fun n the Sun Seats n Bars • Sunny Side Up Tire • Redwood Kits	• Burgmeister Zubehör OHG • Pyramid Biking • ABS Brakes GmbH • Flat Tire and More • Gummi Schultze • Lohs chrau • hick oke • Main rbon • ell ar • Cologi upplies • Sachsen Stahl AG • Run & Fun

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** Data for reference . YOU may use it for external activities .

PP Business Functions

- GBI would want to stricter control over all the master data. Certain fields like ‘strategy group’ should be editable only for power user in change mode. For other users it should be display only. Certain fields in Basic data view are irrelevant for GBI business and should be hidden for all users.
- GBI Design department has a special request for additional Design approval of changes by production department in important product master data fields.
- For each item GBI would like to maintain controlled design &/or approved supplier list. That item should be manufactured in-house using such a controlled information & can be sourced (external activity/ with material) only from an approved supplier.

- GBI would like to adopt best in class planning model in strategic , tactical & operational planning . GBI confirmed that they have historical data for last five years which they sometimes use for budget projections.
- For a particular model in sports category , GBI undertak ustomi order oo . r faste ommunication of customized orders GBI would want to send order reports via email to prime-clients.
- Consumables , standard fasteners & spares are planned eparate based safe stock echanism.

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- GBI would like to adopt Lean Manufacturing Model. Thus are open for standardization & automation of manufacturing processes.
- For better utilization of capacity & logistics , GBI envisages sharing sources and manufacturing setups internally . At the same time , they are open to offer their spare capacity in open market .
- GBI has requested for certain checks during job card release like material availability , capacity availability , printing of SOP .
- GBI needs live order execution progress report .

PP Business Functions

- In GBI , the raw materials are manned in main storage locations and needs approved SR for issuance . Going forward , GBI envisage to deploy SAP WM for managing inventory.
- GBI needs to review machine & operator efficiency .
- Being Quality conscious organization , GBI has requested to setup quality control & quality assurance processes in manufacturing .
- Though rarely required , GBI needs rework process set up in system .
- GBI requires , traceability for products to manage product warrantee &/or recall.

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- GBI has requested for setting up a monitoring & controll mecha ackin e cos w as the manufacturing progresses . They are using standard costing for all finished products.

- In near future GBI is launching customer portal so as to allow customer to place order for customized sports cycle.
- GBI is considering backward integration & planning to setup a seamless tube production line ,in the available plant premises (both in US & EU) . The system should be setup for accommodating such a situation.

SAP PP – Topics

- Enterprise Structure
- Master Data
- SOP – Sales & Operations Planning
- Production Planning – Forecasting, Demand Management, Long Term Planning, MPS
- Consumption Based Planning
- MRP – Planning, Evaluation
- SFC – Order Status, Checks, Output
- SFC – Capacity Leveling, Backorder Processing
- SFC – Process Integration, Goods Movement, Confirmation, Product Costing (Period End Closing)
- Special Processes – External Activity, Parallel Processing, Subcontracting, Rework
- Capacity Planning
- Repetitive Manufacturing
- KANBAN Processing
- Product Cost Planning
- Engineering Change Management
- Batch Management
- Integration – PP-QM (In process Inspection), PP-SD (Transfer Of Requirements), PP-MM (Capacity) , PP-CO (Product Costing), PP-FI (GI, Confirmation, GR, Settlement), PP-PS (ETO).

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SAP PP_PI – Topics

- Master Data
- Production Planning – Forecasting, Demand Management, Long Term Planning, MPS
- Consumption Based Planning
- MRP – Planning, Evaluation
- SFC – Order Status, Checks, Output
- SFC – Process Integration, Goods Movement, Confirmation, Product Costing (Period End Closing)
- Special Processes – External Activity, Parallel Processing, In-house Subcontracting, Rework
- Capacity Planning
- Process Management - Repetitive Manufact
- Product Cost Planning
- Engineering Change Management
- Batch Management
- Integration – PP-QM (In process Inspection), PP-SD (Transfer Of Requirements), PP-MM (Capacity) , PP-CO (Product Costing), PP-FI (GI, Confirmation, GR, Settlement), PP-PS (ETO).

System Requirement

- SAP IDES ECC6.0 EHP7 and above
- SAP User Id’s to be created with complete authorisation

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