



## FLORIM – On the road to Industry 4.0: advanced planning & finite capacity scheduling



## Key facts

### Company

FLORIM CERAMICHE  
S.p.a.

### Challenge

To implement an  
advanced planning &  
finite capacity  
scheduling software

### Solution

COMPASS Supply  
Chain Planning &  
Scheduling software

### Benefits

- “ Finished product  
inventory reduction
- “ Improvement of  
market Service Level
- “ Increase in resource  
productivity

## Links

FLORIM CERAMICHE – <http://www.florim.it>

PLANNET – <http://www.plannet.it> and <http://newsmagazine-plannet.it/>

**Florim Ceramiche SpA** has been worldily recognised as a leader in ceramics industry for more than 50 years, thanks to its commitment to research, innovation and social responsibility. Florim business style can be summarised in these three core principles: the MADE IN FLORIM style. The company core business is the production of porcelain tiles that offers surfaces for all requirements in architecture, interior design and building construction.

1300 employees, with a consolidated turnover of 330 million Euro and 24 million sqm of ceramic material produced per year: these are outstanding FLORIM figures.

### Company VISION

Innovation in technology and aesthetic research ,combined with continuous improvement of production processes and cutting-edge materials lead us to be a constant benchmark for all customers, designers and competitors.

FLORIM various brands are dedicated to cover the broadest market requirements, in order to deliver the more adequate solutions to offer timeless and sustainable products to customers.



### Strategy towards Industry 4.0

It is a widely shared opinion among researchers and professionals that the industry is approaching the threshold of a momentous turning-point, which could take the shape of a new industrial revolution (the fourth one), driven by the innermost integration of digital technology into industrial processes, changing processes and products.

Florim is playing a starring role in this futuristic scenario and thanks to continuous investment in research and technology, the company stands out in the international ceramic framework as far as innovation and manufacturing excellence are concerned.

### COMPASS

In such scenario, the implementation of a new software, integrated to to ERP system SAP R/3, to support the Supply Chain Planning & Scheduling process is one of the key elements in Florim strategy.

The most relevant features of **COMPASS10** implementation in Florim, are summarised below:

“ the MPS process determines the quantity to produce for each item, in order to meet forecast figures and customer orders as well as the target stock profile. MPS planned orders for finished items are generated by a sophisticated algorithm: advanced lot sizing techniques are able to take into account EOQ of common “dry-pressed” semifinished items, the real process constraint when it comes to planning quantity. The lot sizing function is able to increase, if necessary, the quantity of finished items MPS orders, accordingly to minimum lot size defined at BoM lower levels. Surplus quantities are used to cover in advance forecast figures in future buckets of the plan.

“ MPS orders are the input to the MRP run, to determine semifinished dry-pressed items requirements

“ finite capacity simulations and “what-if” scenario analyses ca be run and evaluated adjusting managerial levers (capacity, make or buy, mill allocation, ...); relevant KPIs can be configured to rapidly analyse the result of scheduling runs

“ the **production schedule is calculated in a few seconds:**

- ✓ **optimising production sequences** on the basis of item attributes (size, brand, color..), defining relevance for each production resource...
- ✓ simultaneously considering **availability of additional resources as a constraint** (tools, materials, operators).

### Benefits

Considering the years 2010-2014, Florim has been able to achieve remarkable results:

“ **35% reduction** of finished product **inventory...**

“ maintaining **highest target of service level** (88,8% on-time delivery on a monthly basis and 81,4% customer orders available in stock).