

CASE STUDY

Improving profitability for a global flour producer with Industrial Mathematics

BOLT

Type
Agriculture

Module
Strategic

The Customer

Our client is one of the world's largest flour millers, with ten mills worldwide producing millions of tonnes of product per year. They coordinate grain purchases and shipping logistics globally of several thousand metric tonnes of wheat daily for their customers.

The Problem

Our client's aim was to achieve an optimal product sales portfolio and reveal opportunities to minimise costs. Planning for fluctuations in availability and cost of raw commodities, logistical constraints associated with the widespread locations of its mills, and the variety of flour products needed to service customer demand had proven a highly complex problem.

The Solution

Polymathian deployed BOLT, a cloud-based supply chain optimisation decision support tool, resulting in:

- Reduction in production cost while maintaining product quality
- Intelligent stockpiling of product in order to facilitate blending to fulfil varying customer demand
- Detailed vessel planning to achieve most cost-effective shipping and procurement

The Challenges

The global grain market trades grains of varying qualities which are priced according to attributes and market demand, and sensitive to fluctuations in availability

Each customer/locale required different blends of raw grains and flours of varying qualities

How to produce logistics schedules that would reduce procurement and shipping costs

Storage capacity constraints had to be considered

The Value



13%

Improvement to profitability



50%

Reduction in raw material requirements



Time saving

Automating manual planning processes

