

Case Study: Aroma compound process

Customer

- Second largest global supplier of Flavours and Fragrances compounds
- Process had market volume of 1400 tonnes
- Selling price of \$50 / kg (annual sales of \$70 million)

Problem

- Process was patented, but the patent had expired
- Danger of competition from Third World suppliers
- Four-stage process featuring two reaction and two distillation stages
- Extremely limited time to find a solution

Solution

- Process parameters were too complex for a conventional approach
- A simulation approach was used to provide optimum conditions quickly
- Predictions were validated by plant performance

The Success of this Strategy

Conventional development			LyraChem approach		
2 years	♂	Project leader	1 year	♂	Project leader
	♂ ♀	Chemists		♂	Chemists
	♂	Chemical engineer		♂	Simulation software consultant
1 year	♂	Contractors	Contract manufacturer's resources		
	♂ ♀	Chemists			
	♂	Chemical engineer			
	♂	HSE + environmental			
3 years			1 year		
\$750k			\$60k		
< 100 tonnes pa			300 tonnes pa		

- Time to market was 2 years early
- Total cost saving was 92 %
- New process guaranteed protection of the client's market share