Example 2 Atkinson Ltd.: REQUIREMENT (A): Analysis

Existing accounting procedures:

2014 Report:

- Total production $OH = \in 340,000$.
- Total MH:

| | Product A | Product B | Product C | Product D | Total |
|-------------|-----------|-----------|-----------|-----------|-----------|
| Units | 8,000 | 9,000 | 2,500 | 3,000 | |
| MH per unit | 1.75 MH | 1.5 MH | 2 MH | 2.5 MH | |
| Total MH | 14,000 MH | 13,500 MH | 5,000 MH | 7,500 MH | 40,000 MH |

• OAR = €340,000 / 40,000 MH = €8.50 per MH.

2014 Report (continued):

| | Product A | Product B | Product C | Product D |
|----------------------|--------------|--------------|-------------|-------------|
| Sales | 8,000 * €15 | 9,000 * €18 | 2,500 * €60 | 3,000 * €50 |
| | = €120,000 | = €162,000 | = €150,000 | = €150,000 |
| Direct materials | 8,000 * €3 = | 9,000 * €4 = | 2,500 * €12 | 3,000 * €10 |
| | €24,000 | €36,000 | = €30,000 | = €30,000 |
| ОН | 14,000 MH * | 13,500 MH* | 5,000 MH * | 7,500 MH * |
| | €8.50 = | €8.50 = | €8.50 = | €8.50 = |
| | €119,000 | €114,750 | €42,500 | €63,750 |
| Profit (loss) | (€23,000) | €11,250 | €77,500 | €56,250 |
| Profit as % of sales | (19.2%) | 6.9% | 51.7% | 37.5% |

2015 Report:

- Total production OH = €340,000 LESS O/H eliminated by discontinuation of Product A.
- To estimate OH eliminated: Determine cost driver rates:
 - Pool 1: € 80K / 40,000 MH = €2 per MH.
 - Pool 2: \in 60K / (20 + 20 + 30 + 30 = 100 batches) = \in 600 per batch.
 - Pool 3: €200K / (10 + 10 + 45 + 35 = 100 movements) = €2K per movement.
- Hence: Estimate of OH cost savings from eliminating Product A
 = (14,000 * €2) + (20 * €600) + (10 * €2,000) = €60,000.
- Note: In practice, the saving in OH might be even less than this, if some OH costs are "sticky".

2015 Report (continued):

- Hence: Revised OH allocation rate:
 - Total OH = €340K €60K = €280K.
 - Total MH (Products B, C & D) = 13,500 + 5,000 + 7,500 = 26,000 MH
 - OAR = €280,000 / 26,000 MH = €10.77 per MH (*rounded*).

2015 Report (further continued):

| | Product B | Product C | Product D |
|---------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| Sales (same as 2014) | €162,000 | €150,000 | €150,000 |
| Direct materials (same as 2014) | €36,000 | €30,000 | €30,000 |
| ОН | 13,500 MH* €10.77 = €145,385 | 5,000 MH * €10.77 = €53,846 | 7,500 MH * €10.77 = €80,769 |
| Profit (loss) | (€19,385) | €66,154 | €39,231 |
| Profit as % of sales | (12.0%) | 44.1% | 26.2% |

Comparison of 2014 and 2015:

1. **Product B** has turned from a profit-maker in 2014 to a loss-maker in 2015.

2. Products C and D showed lower profits in 2015 than in 2014.

An activity-based costing analysis is required in order to show the underlying reasons why these changes occurred \rightarrow Part (b).

Example 2 Atkinson Ltd.: REQUIREMENT (B): ABC Analysis

- Cost driver rates in Requirement (a) above .
- ABC product profitability analysis:

| | Product A | Product B | Product C | Product D |
|---------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Sales (as before) | €120,000 | €162,000 | €150,000 | €150,000 |
| Direct materials (<i>as before</i>) | €24,000 | €36,000 | €30,000 | €30,000 |
| OH: Pool 1 | 14,000 MH * €2 = €28,000 | 13,500 MH* €2 = €27,000 | 5,000 MH * €2 = €10,000 | 7,500 MH * €2 = €15,000 |
| OH: Pool 2 | 20 batches * €600 = €12,000 | 20 batches * €600 = €12,000 | 30 batches * €600 = €18,000 | 30 batches * €600 = €18,000 |
| OH: Pool 3 | 10 movements * €2K = €20K | 10 movements * €2K = €20K | 45 movements * €2K = €90K | 35 movements * €2K = €70K |
| Profit (loss) | €36,000 | €67,000 | €2,000 | €17,000 |
| Profit as % of sales | 30% | 41.4% | 1.3% | 11.3% |

Interpretation of the ABC report:

- Products A & B were the two best-performing products in 2014.
- The absence of an ABC system led to Product A being "driven out" in 2014 and this might have happened to Product B in 2015 if the logic of the figures in part (a) had been blindly followed in managing the product portfolio.

A decision to discontinue a product is a strategic one, which should only be made on the basis of a strategic cost analysis using ABC.