The contribution of segmentation to business planning: a case study of the rise, fall and recovery of ICI Fertilizers

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Summary

In this case study, we look at the important contribution made by segmentation to a business plan that proved to be a critical turning point for a UK manufacturing company, which had enjoyed enormous success and prosperity but, within a very short time, found itself fighting for survival.

To ensure the part played by segmentation is seen in context, the case study starts well before the segmentation project was even commissioned.

Background

ICI Fertilizers (ICIF), formerly part of ICI Agricultural Division, was, until the end of 1997, an operating company in ICI plc. ICIF's business is best described as ‘commercial crop nutrients’, its main product lines supplementing the principal soil nutrients used up by today's intensive agricultural practices.

The elements most likely to be depleted in the soil are nitrogen (N), phosphate (P) and potash (K), collectively known as NPK. While, of course, there are other nutrients which occasionally become deficient in certain soils or for special crops, production of fertilisers containing just one element or various combinations of nitrogen, phosphate and potash has been the main function of the fertiliser industry.

'Chemical fertilisers' have an advantage over 'organic manures' because they are much more concentrated and thereby more efficient. In addition, they can be 'tailor-made' to suit specific soil conditions.

At ICIF, the manufacturing processes for nitrogen, phosphate and potash are as follows:

- *Phosphate fertilisers:* phosphate rock is imported, mainly from Senegal, where it is mined on a large scale. In this raw state it is insoluble in water, even if finely ground. By treating it with sulphuric acid, it finishes up as superphosphate, which is soluble and can be produced in granular form.

- *Potash:* originally potash was imported, but now most of it is mined at Boulby near Whitby in North Yorkshire. This material is ready to use and can be incorporated into compound fertilisers without any further treatment.
- *Nitrogen:* although 80 per cent of the air around us is nitrogen, most crops cannot take advantage of it until it has been converted into nitrate either by bacteria or a chemical process.

  The chemical process involves combining nitrogen and hydrogen under high pressure and temperature in the presence of a catalyst. This produces ammonia, a gas, which, under pressure, becomes a liquid.

  The source of hydrogen, a key raw material, can be from any fossil fuel such as suitably treated coal, naphtha or from natural gas. Ammonia is the first stage in the production of nitrogen fertiliser. In the second production process ammonia is reacted with nitric acid to produce ammonium nitrate.

  Finally, ammonium nitrate is solidified into prills (small pellets), containing 34.5 per cent nitrogen, in which form it is sold as a straight nitrogen fertiliser. It may also be granulated along with phosphate and potash to produce the required compound ratio.

Therefore, taking the production of NPK as a whole, phosphate and potash present little in the way of manufacturing problems, any technology involved being low level. On the other hand, the nitrogen production, needing as it does the ammonia plant, represents high levels of investment and technical competence.

It should be pointed out that, during the manufacture of ammonia, there are several useful by-products which are subsequently sold. They include nitrous oxide (anaesthetics) and carbon dioxide (in liquefied form used in soft drinks, beer and as a heat exchange medium for nuclear reactors, in solid form used in refrigerated transport and food processing). In addition, a number of other products are also sold which, although not by-products, are closely associated with the technology of ammonia production. Among these are methanol (plastics and synthetic resins) nitrate of soda (glass, explosives and flares) nitric acid, sulphuric acid, urea (resins, adhesives, plastics and as a fertiliser in its own right) pentaerythritol (resins for paints, varnishes and printing inks) and sodium nitrite (dyestuffs, heat treatment, pharmaceutical products, anti-corrosion, meat preservation).

However, the production of these products cannot be described as the company's main mission. They are only mentioned here for completeness.

1917 to 1987

In 1917, the government bought a site in Billingham on the north bank of the River Tees for a factory to make synthetic ammonia, 'Synthonia', as a first stage for producing the chemicals for munitions. After the war, in 1919, Brunner Mond and Company took over the site to make fertiliser from ammonia using the same process as originally intended in the government plan.

It wasn't until 1923 that the first ammonia plant started production, and by the following year the first 'straight' nitrogen fertiliser (that is, containing no phosphate or potash), sulphate of ammonia, was manufactured.

In 1928, another straight nitrogen fertiliser, 'Nitrochalk', was produced especially for grassland.

By 1930, the first concentrated complete fertiliser (CCF) was produced. This was the first compound of nitrogen, phosphate and potash. During the next three decades, the company experienced steady growth and accumulated considerable expertise; indeed, it led the way in the process, design and control of ammonia plants. In addition, its knowledge about catalysts and their manufacture became extensive.

The interruption of the war years, 1940 to 1945, saw the company's expertise being applied to producing aviation spirit from coal. In order to reduce the risks of bomb damage threatening output, the company was directed to disperse production. As a result, relatively small factories were set up at Heysham, Dowlais, Prudhoe and Mossend. These additional facilities were converted to fertiliser production after the war, but have now all closed.

This enforced foray into new technology was a determining factor in ICI developing its post-war interests in plastics, petrochemicals and agrochemicals (plant protection). All of

these fields of work were eventually harnessed into substantial operating divisions within the group.

Until the 1960s, the hydrogen essential to the production process was obtained by 'gasifying' local coal from the Durham coalfield. However, there was a vociferous and increasing concern about environmental pollution which arose from using coal. This, coupled with the run-down of the Durham mines, was instrumental in causing the company to switch its hydrocarbon fuel source from coal to naphtha. The company developed a commanding lead in the new technology associated with using naphtha and licensed the process all around the world. Finally, the company converted to its present source of hydrogen, North Sea gas. This took place in the early 1970s and, although not recognised at the time, this step was to prove to be one of the most significant steps in the company's history (for reasons that became clear later).

The 1960s was an expansionist period for the company. The goal was to be really big in ammonia, both in the UK and export markets.

Three very large ammonia plants of revolutionary design were bought from the USA, and new fertiliser production capacity was also built at Billingham. In addition the company built a manufacturing unit at Severnside (Bristol), which contained two ammonia plants and ancillary fertiliser equipment. Offshoots were also being sponsored in India, Malaysia, Australia, South Africa and Canada, all eventually becoming autonomous operations.

Yet, even with this increased level of activity, the 1960s decade was not a particularly profitable one, mainly because of over-capacity in the industry and the relatively poor profitability of UK farming. The UK agricultural and international fertiliser markets were depressed for much of the period. In addition, the company had a protracted and expensive struggle to make the new ammonia plants work. In 1969 to 1971, profits were close to zero.

A profound upturn in company fortunes followed the 1973 oil crisis, which had such a disastrous effect on most of the rest of manufacturing industry. As the price of oil soared, so did the production costs of ICI's competitors who used this as the source of hydrogen in their production processes.

In comparison, the virtually fixed-price gas contract negotiated earlier by ICI began to yield rich dividends, and effectively gave the company a tremendous cost advantage for this essential processing ingredient throughout the 1970s and into the 1980s. Not surprisingly, safeguarding the gas contract from political attack became a cornerstone of policy.

This advantage in manufacturing costs was exploited in the market place and the company became increasingly dominant. By 1980 it had 80-90 per cent of ammonia production in the UK (there was competition from only one other ammonia plant) and was certainly the largest producer in Europe, outside what was then referred to as the Eastern bloc. From this position of strength, the company pursued a policy of holding prices high and maximising profits, rather than seeking increased market share, and dictating how much, and when, its distributors and farmer customers could take product.

Even so, in nitrogen fertiliser terms, the company had the lion's share of the UK market: some 60 per cent, compared with the 25 per cent share of Fisons, the nearest competitor.

All of this contributed towards the fertiliser business becoming the veritable jewel in the crown of ICI. In 1981, ICIF contributed over a third of group profits and its future looked very bright.

Such was the level of confidence within the company that it dictated to the industry on prices and increasingly geared its output to what constituted the most economic production runs at the plants. The company's perspective had become very inward looking, and its over-confidence began to generate complacency. A discerning eye might have spotted some warning signals, nothing too obvious at first, but nevertheless worthy of attention. The danger was not from within the company, *but from outside in the marketplace.*

The fertiliser market

To describe the UK fertiliser market over the years to 1980 is tantamount to chronicling the fortunes of two companies, ICIF and Fisons.

Fisons was a long-established company and highly respected in the trade. The company was reputed to have a marketing ear 'close to the ground' and, as a result, carried a wider range of fertilisers than ICIF. A significant difference in their history, however, compared with ICIF, was that in the early 1960s a corporate decision was made not to be involved in basic ammonia production. Instead, Fisons chose to buy ammonia from other suppliers. This decision was coincident with ICIF's expansionist phase and it was seen to be mutually acceptable for ICIF to build and commission an ammonia plant dedicated to supplying the Fisons main site at Immingham, near Grimsby on Humberside.

From this time onwards, the two companies' destinies were somewhat inter-linked. Whenever ICIF chose to increase prices, Fisons invariably followed. It was a strategy that suited the two fertiliser giants, and their growing dominance had the effect of removing some twenty or so small fertiliser manufacturers from the competitive arena. The smaller companies just did not have the advantage of the economies of scale of production and distribution afforded to the market leaders.

Thus by 1980, as mentioned above, ICIF had some 60 per cent share of the UK market and Fisons 25 per cent, the remainder being met by a number of small manufacturers, or by imports.

Imports

Just as it suited ICIF to have the number two competitor in the home market partially dependent upon it for basic raw materials and operating very much in ICIF’s shadow, so it suited the company to keep imports to a minimum: not an easy task.

However, their major competitors on mainland Europe were just as concerned to protect their own home markets. Thus, the European market operated under an uneasy truce, and major producers did not see it as in their interest to disturb the status quo. The risk of massive retaliation for violating the unspoken code of conduct was too high a price to pay. There was some economic logic in this, since fertilisers are low cost, bulky products and therefore expensive to transport.

Changes in the marketplace

Traditionally, fertiliser had been supplied in 50 kg bags, and for a long time these suited the needs of the marketplace. However, as farms became more mechanised and less dependent on muscle power, a demand for fertiliser bags to be palletised started to emerge.

At first, only minor suppliers responded to this need. There was reluctance on the part of the major producers to switch to this form of packaging because of the additional costs which would be incurred at their plants. Not surprisingly, therefore, ICIF turned its back on this particular concept, and Fisons followed suit.

Another innovation in packaging was the introduction of 'shrink-wrapping' of pallets. Again, while this seemed to strike a chord in the marketplace, the two giants still resisted making any response to this development until forced to do so because of the lead given by small manufacturers.

Clearly, farmers were now becoming interested in semi-bulk packaging.

It was Fisons and some other small producers who eventually took the initiative by introducing a half-tonne 'Top Lift' bag, a tough but floppy plastic bag with a sturdy loop for lifting at the top. It was ideal for many farmers, who could use any tractor with a front end loading arm to position it over the hopper of the spreading vehicle. The unloading could be accomplished by pulling a draw cord and allowing its contents to fall into the hopper. So popular was this packaging that Fisons soon brought out a larger one-tonne Top Lift bag to add to its range.

ICIF had to respond to the threat that Fisons and other smaller companies now posed. Its hitherto seemingly unassailable market share was now under threat. At first sight another form of top lift bag might have sufficed to restore the differential between the two companies, but there were snags.

The rather shapeless and bulky Top Lift bags could not be stacked more than two high. Above this height, the bags became very unstable. This was no worry for a farmer who would not be holding very much stock, but for ICIF (with its throughput of some two million tonnes per annum of fertiliser) the overall effect would be to reduce the warehouse storage capacity several fold. The prospect of investing in new storage, and

its subsequent impact on production costs, turned the company against the Top Lift bag, yet it somehow had to respond to the new and increasing demand in the market for bulk deliveries.

When it came, in 1984, ICIF's response was in keeping with its production engineering traditions. It was called the 'Dumpy' bag, and it held 750 kg. More sophisticated than the Top Lift bag, the Dumpy was basically a squat cylindrical bag sitting in a wooden cradle, not unlike a simplified form of the pallet idea that had been rejected earlier. The cradle and bag shape ensured that the Dumpy met its main design criteria: it could be stacked high enough to make good use of the existing storage facilities at ICIF and it lent itself to transportation by lorry. The cradle was also designed to accommodate the arms of a fork lift truck and was cheap enough to be considered disposable.

However, using a fork lift truck in a warehouse is a different proposition from using one on a farm, and the advantages of the Dumpy could only be exploited to the full by farmers with good pallet handling facilities. Unfortunately, such farmers were in the minority.

For these reasons, the Dumpy never completely matched the competitive advantage of the Top Lift bag, and ICIF failed to keep pace with the growth in this semi-bulk delivery market. Although initial sales were promising, repeat business fell short of expectation and eventually the company was forced to introduce an additional range of top lift products in 1986.

Despite Fisons' success with Top Lift, it had been progressively weakened by its lack of ammonia capacity and its poor production assets had been debilitated by the need to supply cash to Fisons' growing pharmaceutical business. By 1980, it was clear that the end was in sight, but for monopoly reasons ICI's hands were tied. In 1982, Fisons' fertiliser interest was bought for some £40 million by Norsk Hydro, a Norwegian state-owned company which had grown rich from North Sea oil, reputedly earning a surplus of approximately £400 million per year, and £80 million was earmarked for updating and improving the former Fisons' production facilities.

It was soon evident that Norsk Hydro was buying its position in the European fertiliser market. In addition to its investment in the UK, Norsk acquired the premier fertiliser producer in Sweden (Supra) and the second largest in Germany (Brunsbuttle), France (Cofaz) and Holland (NSM).

In contrast, ICIF appeared to have no European strategy. Indeed, it could even have pre-empted the purchase of NSM, since as a 25 per cent shareholder it had first refusal. It chose, instead, to turn its back on continental involvement.

Meanwhile, UKF (which had bought the Shell Fertilisers' complex at Ince, Cheshire, in 1975) became increasingly competitive in the market place. By a combined strategy of increasing capacity and enterprising marketing, they quietly acquired something like a 20 per cent market share in straight nitrogen fertilisers and about 15 per cent in compounds, while ICIF's attentions were directed towards Norsk. In addition to Norsk Hydro and UKF buying into the UK market, Kemira Oy, the Finnish state fertiliser company, acquired a 4 per cent market share by purchasing in 1982 a small company, L & K Fertilisers; they embarked upon an expansionist strategy aiming to give them national coverage and a stated 10 per cent market share objective.

As if this were not enough, substantial imports reappeared on the UK fertiliser scene. Since most of these imports originated from the Eastern bloc, the pricing was not subject to conventional economic rationale and, in effect, the material was being dumped at prices with which ICIF could not compete.

Not all the pressure came purely from competitors, however. The problems surrounding surplus production of many agricultural products in the European Union resulted in lower prices and a decline in farm incomes. The hitherto buoyant European fertiliser market went into decline. There was again considerable overcapacity of fertiliser production in Europe

The delicate, gentlemanly restraints regarding exporting to a competitor's country were now severely tested by a new economic reality and were found to be wanting.

From ICIF's viewpoint, this was something of a disaster, because their earlier strategy of dominating the market and keeping prices high made the UK an extremely attractive market for continental producers with surplus capacity, and indeed for manufacturers from even further afield.

To put this new development into perspective, between 1982 and 1987 ICIF lost something like 15 per cent of their market share in straight nitrogen fertilisers as follows:

- Norsk Hydro: 1 per cent;
- UKF: 3 per cent;
- imports: 11 per cent.

All of the above factors, uncomfortable as they were, might have been weathered because ICIF had such a tremendous advantage over its competitors due to the 'cost plus' gas contract that had been negotiated in the early 1970s; however, in 1983, this contract was renegotiated in advance of the old contract reaching completion.

New gas contract

The basis of the initial contract was for ICIF to be provided with gas on a 'cost plus' formula. A key determinant in the contract price was the fact that the gas could be extracted relatively easily from the accessible Lincolnshire gas field, which was just off-shore.

As this reservoir of natural energy became depleted, a new source had to be found. This proved to be the Ninian field, well out in the North Sea, with all the attendant costs. Gas at 1970s prices was now out of the question.

Despite hard renegotiations, ICIF ended up paying a series of annual stepped increases for gas over a five-year period. Each increase was equivalent to adding £20 million to the company's raw materials costs, though this was far better than having to pay the increase in one horrendous jump.

At the very time that ICIF's main advantage was being eroded in this way, the vagaries of world economics led to a fall in oil prices, which in turn benefited competitors who used that source of hydrogen for their ammonia plants. Although such a benefit might be a transitory phenomenon only, lasting perhaps one or two years, it can be quite significant in terms of providing a launch pad for winning a few points' market share. Inevitably, a proportion of customers will remain loyal to their new supplier and so the transition can have repercussions in the longer term.

Indeed, so critical is the hydrocarbon 'raw material' to fertiliser production that, unlike the UK, many governments subsidise the energy prices that their domestic manufacturers

pay. Again, this is an important factor when taking into account a company's competitive position, since the majority of ICIF's competitors are state companies.

The impact of local blenders

The rich, flat landscape of East Anglia lent itself to mechanised farming. Field sizes could be optimised without any interfering topographical features, and farmers were quick to seize the economic advantages that larger field sizes and mechanisation gave them. In turn, the demand for fertilisers increased dramatically in this area as crop yields improved.

As in any market with a record of growth, it does not take long before the entrepreneur, with ears tuned in to the customers' wavelength, discovers unmet needs and new opportunities in the marketplace. So it was with fertilisers.

The relatively low technology for producing phosphate and potash fertilisers meant that someone with very little capital could set up a small 'manufacturing' plant. The raw materials, phosphates and potash, could be imported by the shipload to the East Anglian ports. All that remained for the manufacturer to do was to blend these raw materials in proportions sought by the market place and 'bag' them up. The equipment required for doing this was not sophisticated, being rather like a cement mixer, and even second-hand production facilities were easy to obtain. The unskilled, often casual, labour necessary for this work and all the ancillary jobs could be readily found. Thus, start up costs were negligible.

Not surprisingly, a number of 'blenders' (as they are called) set up small businesses in old barns, converted hangars and similar readily available buildings. Typically, the blenders only distributed on a local basis, probably within a fifty-mile radius of the plant. To exceed this distance would cause the small company considerable logistical problems.

However, the blender's modest scale of operation, with its low fixed costs, meant that they could make a tonne of compound for some £30 less than ICIF.

The impact of blenders was easy to see. Nationally, ICIF's share of the compound fertiliser market was about 22 per cent. In East Anglia it was only 8-10 per cent and in

Essex it was even less, at around 5 per cent. In these two localities, it was estimated that blenders had something like 50 per cent of the market.

While blenders were only involved in phosphate and potash fertilisers, ICIF were not over-concerned. The company did not see this as a real threat; it was just a locally irritating, but explainable phenomenon.

However, the activities of the small local suppliers did have the effect of stimulating the already very price-conscious farmers of the region to be on the look out for ever better bargains.

The more enterprising blenders were also quick to latch on to the over-capacity for nitrogen fertilisers in Europe. They found it an easy process to import straight nitrogen from mainland Europe, primarily through Antwerp. Without having to invest in new equipment, these blenders now had the capacity to offer nitrogen, phosphate and potash compound fertilisers as well as straight nitrogen. Thus, collectively, blenders had become significant competitors to ICIF, albeit on a confined, local basis.

The lower prices offered by blenders, combined with the weakening international market, put so much pressure on ICIF's pricing structure that eventually, in mid-1986, it was found to be impossible for the company to stick to its previous policy of umbrella pricing. Prices were lowered to a level necessary to compete with imports. This step, combined with the higher gas contract, had the effect of transforming the company into a loss-maker once more.

Seasonal demand and discounts

The use of fertilisers is highly seasonal. Thus the need to equate monthly sales with monthly output from fertiliser plants has made it necessary for manufacturers to offer seasonal prices to encourage an even off-take of production.

However, with the international market becoming increasingly volatile, during the 1980s the out-of-season purchaser was frequently penalised, rather than rewarded, for planning ahead. This being the case, farmers began to delay making commitments on future purchases and instead bought at the time of usage in order to take advantage of the best 'bargains' available at that moment.

As would be expected, this shift in the purchasing pattern caused something of a logistics problem at the production end. ‘A nightmare’ was how one company spokesman described this particular development.

ICIF’s marketing organisation

Historically, sales and marketing were seen as two separate functions and this was embodied in the original organisation structure, which had the respective heads of the two groups reporting directly to the board.

Increasingly, this separation was proving to be unhelpful and was often a weakness when the company needed to respond to new circumstances. For example, responsibility for pricing policy tended to fluctuate between marketing, sales (effectively the regional sales managers) and the board.

The board would insist on the need to have sales at a 'cost-plus' recovery or not at all. Yet, whenever stocks accumulated at the plants, they had to be moved. The regional sales managers duly obliged by taking large orders at low prices.

Within this 'stop-go' situation, the marketing department was somewhere in the middle. The market was confused, and sometimes felt betrayed.

In late 1985, the organisation structure was changed with the objective of getting a much better integration of the sales and marketing functions within the fertiliser business: they now reported to one general manager. In addition, the new structure addressed itself to the problem of establishing better co-ordination with the autonomous distribution channels.

Distribution channels

Sales to the ultimate consumer, the farmer, are made via a wholesale route using agricultural merchants as distributors. In all, there were approximately 400 distributors in the mid-1980s.

These distributors range from large private companies, operating nationally, down to individual traders. In between are a number of small and medium sized companies (some of which are co-operatives) whose sales are essentially regional in nature.

To maintain a service to its wholesalers, ICIF had seventy local depots throughout the UK. The company's sales force (of approximately 100 technical representatives at that time) was responsible for maintaining contact with distributors and influencing them to stock ICIF products. They also provided a technical service to farmers and encouraged them to use the local ICIF distributor.

However, large individual farmers and many local groups of farmers were seeking to bypass the traditional wholesale system and deal direct with the manufacturers.

An added complication came from the Pareto 80/20 rule when distributors were measured against throughput. In fact, one distributor accounted for nearly 20 per cent of ICIF's sales. So, increasingly, the bargaining position of major distributors was becoming more powerful, with the net effect being a downward pressure on wholesale prices.

In an attempt to counter 'distributor power', as well as retaining as much of the available margin in-house as possible, the company had two separate retail sales organisations, selling direct to farmers under their own brand names. Both were secured through previous acquisitions, with 'Britag' selling solid fertilisers and 'Chafer' selling liquids. Some 100 sales representatives were employed in this part of the organisation.

However, the only way the direct sales operations can take business away from major distributors, and keep them in their place, is to be more competitive on pricing. This also had the effect of pushing down prices or reducing sales of ICIF's leading branded products.

Missed opportunities

In addition to ICIF being slow to recognise opportunities for palletising and semi-bulk delivery systems, opportunities were missed in special compound fertilisers. The company, mainly for reasons of its technology and the relative advantage this gave over its competitors, had always been mainly concerned with nitrogen fertilisers. Phosphate

and potash compounds were something like poor relations, and treated as accessories to improve the range of use (and thus production throughput) of the nitrogen fertilisers.

Perhaps the company was right to adopt this philosophy. Certainly, the straight nitrogen market showed the more spectacular growth pattern, growing by roughly 7 per cent per annum until 1983 to 1984, as shown in Figure 1.

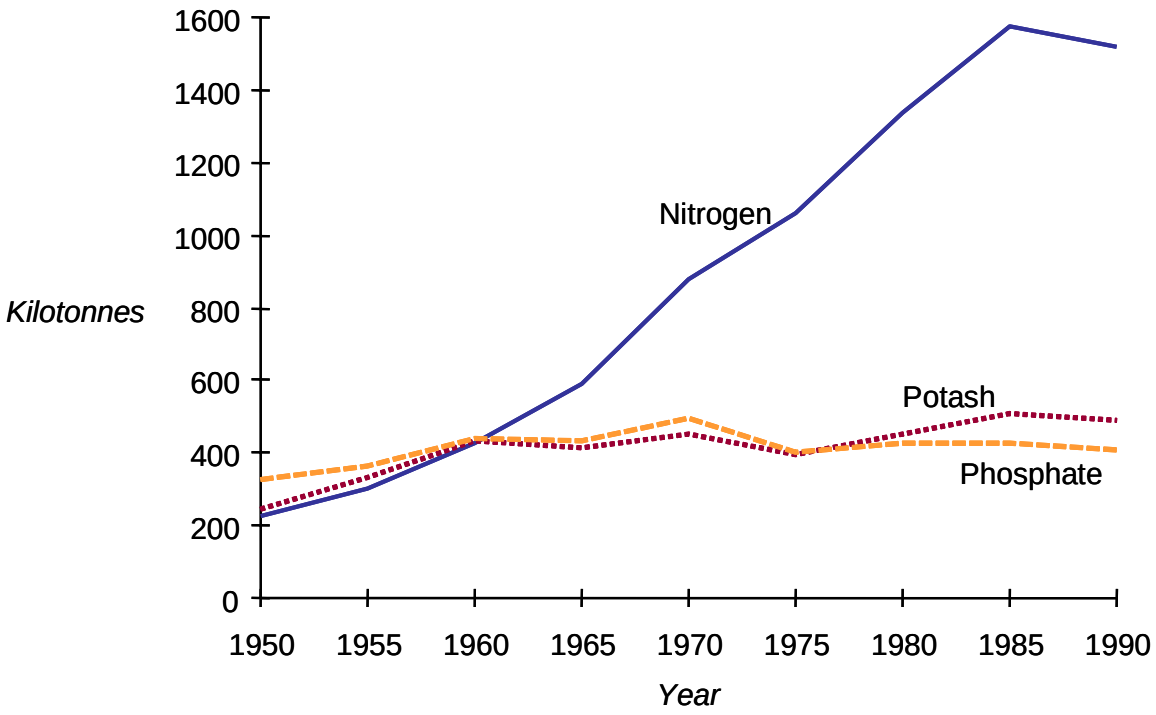

Figure 1 Annual use of NPK fertilisers in the UK

Source: The Fertiliser Manufacturers Association. UK Consumption of Inorganic Fertilisers (1952 to 1992).

However, while the market for compounds overall was growing at perhaps a modest 0-2 per cent per annum, within this sector the demand for some individual compounds was growing quite rapidly. For example, a compound of 25 per cent nitrogen, 5 per cent phosphate and 5 per cent potash, used extensively on grassland, became very popular.

Both UKF and Norsk Hydro/Fisons spotted this opportunity, while ICIF didn't. By 1987 the total market for this compound was estimated at 350 000 tonnes and the relative sales of the three companies tell their own story: UKF 120 000 tonnes; Norsk Hydro 100 000 tonnes; ICIF 25 000 tonnes.

Another growth sector was for zero nitrogen fertilisers which are used with autumn sown winter wheat. Typically, the formula for these will be 0-5 per cent nitrogen, 24 per cent phosphate and 24 per cent potash. These are low margin products to ICIF, but not to the blenders referred to earlier. ICIF's position in this market fluctuated, although towards the end of this period it decided to become more competitive in this sector, believing that lost sales in compounds also resulted in lost sales in straight nitrogen fertilisers.

Summary

ICIF had a long and largely distinguished history, in which it had been in the forefront of technological and production engineering developments. It was this impetus and striving for excellence which carried it to a leading position in the fertiliser industry.

The somewhat fortuitous gas contract initially negotiated only served to embellish the company's prospects and standing in the marketplace.

In recent years, it had to cope with pressures coming from a number of different directions:

1 changes in the market place in terms of customer needs;
2 more flexible, customer orientated competitors;
3 a new, giant, pan-European competitor with investment capital;
4 a local challenge from small entrepreneurial 'blenders';
5 adjustment to a zero-growth market;
6 an increase in imports;
7 a large price increase in its key raw material, gas, which did not affect competitors in the same way.

All of these factors had their effect on the company's profits:

1981: £120 million;

1985: £72 million (£55 million of which was made in the first six months);

1986: Break-even.

Notwithstanding this, the company was still the market leader in terms of share and had considerable assets in terms of facilities, expertise and staff. Coupled with this was a determination to fight back and recover much of the lost ground.

1987 to 1989

ICIF fought back on a number of fronts: in its manufacturing technology and capacity, through its organisational structure, and in its sales and marketing strategies. This enabled the company to retain its market leadership in the UK fertiliser market, though its share in straight nitrogen fertilisers, its primary product, had fallen from a high of 50 per cent down to 30 per cent. Norsk Hydro was the number two supplier and Kemira Oy was in third position (assisted by its acquisition of UKF), having retained their combined straight nitrogen market share at 32 per cent. Blenders were collectively still an effective competitor. No major producer had the flexibility and closeness to customers that characterised these small 'producers'. However, blenders also exhibited other characteristics of small firms, in that many started up only to end in failure. Even so, as one failed another started up elsewhere. The picture was, therefore, fragmented and transitory but, overall, the aggregate effect of blenders - while not increasing - still made an impact on the company's sales, particularly in East Anglia.

In the European fertiliser market, Norsk Hydro retained its market leadership, with Kemira Oy effectively number two. ICIF remained some way down the European 'league table'.

Manufacturing facilities

Production capacity at ICIF was trimmed to get it more in line with demand, which had declined quite significantly since the mid-1980s. As a result, plants were closed at Barton and Beverley, calcium ammonium nitrate production at Billingham was closed and the compound production facility at Severnside was closed in the summer of 1989. In addition, old ammonia-producing equipment at Severnside was replaced by a new, more energy efficient ammonia plant commissioned in early 1989. Nitrate production at Leith also ceased, but the nitric acid and compound plants continued to function there.

At the same time, however, Norsk Hydro had built a new ammonium nitrate facility at Immingham. The commissioning of the new plant was celebrated by the launch of a new branded fertiliser called 'ExtraN'. With its 34.5 per cent nitrogen concentration, ExtraN became a direct competitor for ICIF's 'Nitram', a product which had remained virtually unchanged for over twenty-five years. The only perceptible difference between the products was the prill size. To be strictly accurate, ExtraN is made as granules. ExtraN's larger size was claimed to be more acceptable to users and was marketed as having 'extra spread width'. ICIF claimed that the larger granule was technically inferior and was not so conducive to even distribution. Despite this technical counter-attack, farmers claimed to prefer the larger size.

A particular success at the close of this period was the turnaround in the company's profits slide. After approximately two years in the 'red', the company returned to the 'black' in 1989, achieved essentially by reducing costs, improving efficiency and increasing market prices, rather than by increasing sales volume.

This turnaround was no small achievement, taking into account the volatile industry conditions in which the company had to perform.

The gas contract

The once highly favourable gas contract became history. Gas became purchased at commercial rates through negotiated, short-term contracts. Even so, the volatility of relative gas prices in the UK and mainland Europe could still be significant. For example, a £0.01p per therm difference could make an impact on the bottom line by as much as £3.5 million, and during 1989 the company was at a significant disadvantage compared with the Dutch tariff.

Imports

In this second period of the company's history, fertiliser prices tended to be higher in the UK than in much of mainland Europe. This meant that, although fertiliser is bulky and costly to transport over great distances, sales margins achievable in the UK made it a viable proposition for some foreign producers to export. As a result, imports had been

gradually increasing and now accounted for well over one-third of the UK straight nitrogen market. It is interesting to note that most imports were in the form of urea, a technically inferior nitrogen fertiliser according to ICIF, but one which was becoming increasingly popular with the final users. Of more particular concern to ICIF was the more recent arrival in the UK of quality ammonium nitrate.

The marketing initiative

One of the board directors took an interest in marketing and attended a public course at one of the UK's leading business schools, Cranfield University School of Management. The most immediate result of this was the adoption of a company-specific education and training programme run by the Marketing faculty at Cranfield for all the key staff of ICIF and its subsidiaries. This was quickly followed by the commissioning of some preliminary market research amongst both the distributors (agricultural merchants) and final users (farmers), and the recruitment of someone totally new to the chemical business, but with a strong background in marketing. This appointment precipitated a complete re-assessment of the UK market, starting at its very roots, the final user. In 1988 ICIF began to relearn its business.

Despite initial pressure from senior management to move straight to a product strategy, distribution strategy and advertising strategy for the company, it was soon agreed that to arrive at any effective marketing strategies a structure for the market first needed to be developed and accepted. Target customer groups would then need to be identified and accepted, along with an assessment of the resources required to become successful in the target groups. A 'segmentation' project got underway.

Segmentation

In the past, the traditional way the company segmented the market was by splitting it between the products used (Nitram or compounds), further split (at times) between arable and grass. In some cases, the company's view of segmentation further broke the market down by the crop being grown in the arable sector or by the type of stock being kept in the livestock sector.

By the autumn of 1988, an initial structure for the final users of fertilisers had been put together solely from taking account of *their* approach and attitudes towards the purchase of fertilisers along with *their* farming style. This initial structure was tested in the market and a final picture arrived at in early 1989. No account was taken of how the company viewed the market.

The key stages of the process gone through to reach this segmentation were as follows:

1 Group discussions with farmer groups from around the country, across farming practice and with different manufacturing loyalties, were conducted by an independent consultant with the sponsoring company (ICIF) kept confidential.
2 The important issues were identified and a questionnaire developed, then tested with farmers to ensure it would cover the areas required. The questionnaire was then amended and the final questionnaire completed using face-to-face interviews. Again, these were conducted by an independent group of field researchers, with the sponsoring company's name not revealed.
3 Data were analysed and an initial view of segmentation made based on farmer attitudes to fertilisers and their farming style. Four segments were identified, but some farmers fell into 'grey' areas and weren't satisfactorily categorised in the four-segment structure. The two major features accounting for this uncertainty were price and brand.
4 The first segmentation structure was tested in the market with farmers and the grey areas explored by repeating the whole process again, but this time with a more detailed look at price sensitivity and the components of brand. To enable this more detailed discussion to take place, members of each group were recruited from the same initial segment.
5 Final analysis was undertaken, which led to a seven-segment structure being made. Then, for each segment, a typology (attitudes, motivations and needs), SWOT analysis, critical success factors and offer (product, price, promotion, place) was drawn up *without* any reference to ICIF's offers available in the market.
6 A preliminary marketing plan for ICIF was drawn up matching ICIF's capabilities with the needs of each segment.

❖ *Segmentation summary*

A summary of the segments appears in Figure 2 and in Table 1.

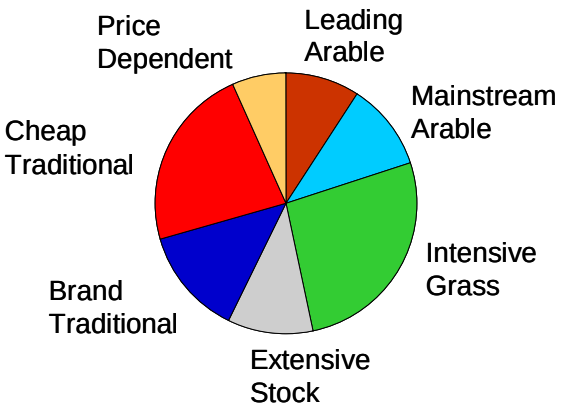

Figure 2 Segments in the UK market for fertilisers

Table 1 A summary of the segments in the UK market for fertilisers

Farmer segment	*Profile*	*Trend*
Leading Arable	Profit driven. Innovative. Produces for a market (as opposed to impressing the neighbouring farmers). Has the latest equipment. Prefers complicated approaches (because what is being done is not simple!). Sources product from anywhere. Can handle a range of qualities.	Growing in number and affected by the first environmental legislation. This had yet to reflect in demand.
Mainstream Arable	Prefers branded products. Adopts proven approaches. Requires quality. Becoming increasingly confident in their merchant's recommendations. Attracted to practical approaches.	Declining in number and buying straight nitrogen products increasingly on recommendation from merchants. Environment becoming an issue.
Intensive Grass	Focus is on intensive dairy farming. Looks for quality practical approaches. Local technical support. Merchant oriented. Requires product development. Will spend money to impress his neighbours (show off).	Static/slightly declining in numbers. Tending to see straight nitrogen as a commodity, therefore increasingly price sensitive. Milk quota restrictions and the impact of 'mad cow' disease (BSE - bovine spongiform encephalopathy) on sales becoming concerns.
Extensive Stock	Quality practical approaches. Local technical support. Local proof required on new ideas. Paced product development. Right merchant the key to a sale.	Stable segment, but could be affected by tightening of subsidies. Could also be affected by BSE.
Brand Traditional (Mixed farm)	Established approaches preferred (the good old ways). Doesn't want any changes to the current offers. Established brands give security. Prefers simple approaches. Local availability of product required.	Slowly declining in number.
Cheap Traditional (Mixed farm)	Looks for low cost approaches. Established approaches preferred. Dislikes manufacturers' branded products. Simple approaches. Quality not important. Chooses the cheapest.	Growing at the expense of Brand Traditional.
Price Dependent (Arable and Grass)	Price. Price. Price. Price.	Growing. The only option left, particularly for frustrated Leading Arable and Intensive Grass farmers. Also some Mainstream Arable.

❖ *Segments in a portfolio summary*

When the requirements of each segment were matched up to the capabilities of ICIF, and the attractiveness of each segment to ICIF was determined, a segment portfolio matrix was arrived at as shown in Figure 3.

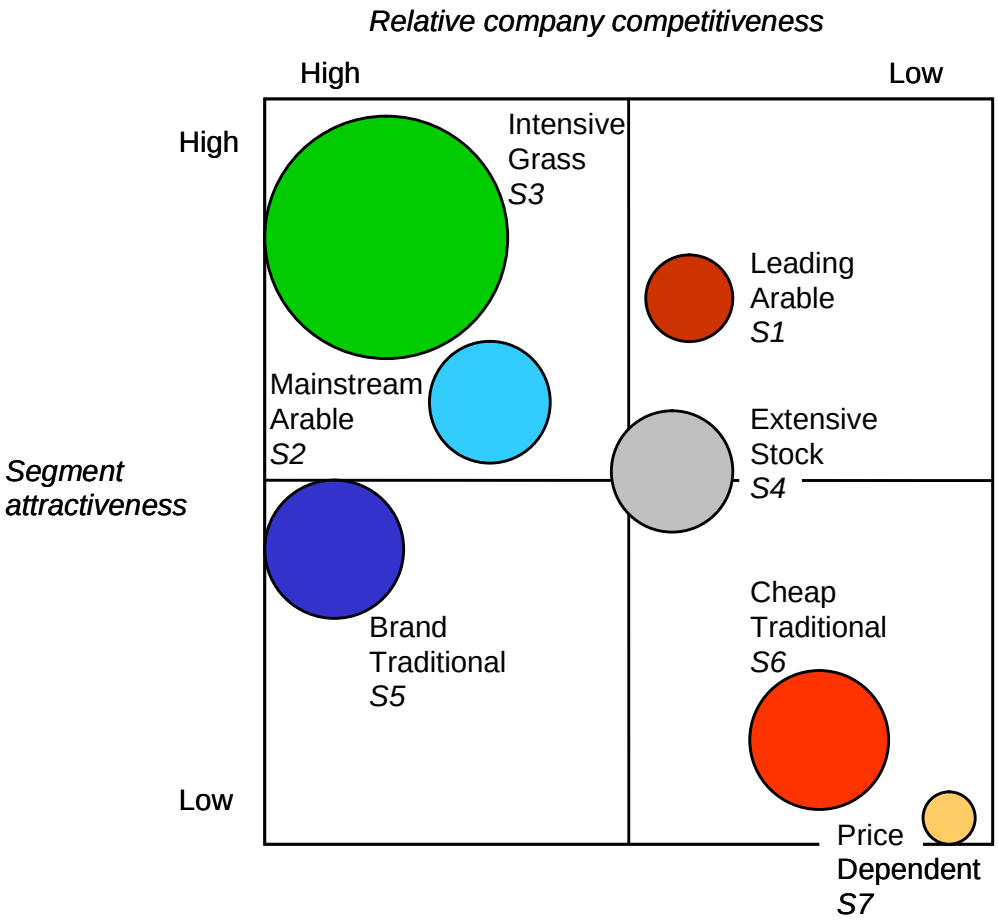

Figure 3 ICIF's segment portfolio matrix

Note: 'S1', 'S2' and so on represent 'Segment 1', Segment 2' and so on as listed in Chapter 8 of McDonald, M. and Dunbar, I. (2004). Market Segmentation: how to do it, how to profit from it. Oxford: Butterworth-Heinemann.

For segments in which the company believed it was strong, the opposite had proved to be the case. One segment was also waiting for specific offers to be made to it and was ripe for development.

Marketing strategy: the first changes

❖ *New products*

With the exception of ExtraN, mentioned earlier, the only heavily promoted new products to come on to the fertiliser market during this period were from ICIF.

In the autumn of 1988, its first new heavily promoted fertiliser products since 1975 were launched. These were designed for a newly-identified market segment, the ‘Intensive Grass’ farmer. This segment had, of course existed for some time: only its recognition by ICIF can be said to be new, especially in a marketing sense. These new products were given brand names, 'Turn Out' and 'First Cut'. As well as providing the obvious benefits, these products were, in addition, characterised by their efficient use of ammonium nitrate. Thus, these fertilisers were more environmentally 'friendly' because they reduced the risk of polluting rivers and other water supplies.

The most interesting fact about these new products was that this was the first time products had been given names reflecting their usage (after market research) rather than reflecting their chemical analysis. The specific design and subsequent targeting on a clearly defined market segment made both of these products immediate successes with, at that time, no obvious rivals. Sales of these products in the launch season were in excess of £8 million.

As might be expected, the company's expertise in new product launches was somewhat 'rusty' after such a long period. Nevertheless, Turn Out and First Cut rapidly became established and produced considerable 'on-the-job' learning for all those who were involved in the project.

This was quickly followed by the launch of a new arable range of compounds (strictly speaking, an old range repackaged) which, for the first time, were presented as a flexible range under the brand name 'Crop Start'. These fertilisers were just phosphate and potash fertilisers for use in the autumn; the deliberate omission of nitrogen again has an environmental story and recognises that nitrogen is usually readily available in the soil in autumn from natural processes.

However, the linkage which had been assumed to exist between the purchase of Nitram and compounds had proved to be unfounded in a number of segments.

❖ *Packaging*

The market continued to show a preference for semi-bulk packaging and so the trend for larger pack sizes continued.

Although the original Dumpy bag had its faults, it did prove to be popular with those users who had bottom loading equipment.

Its successor, ‘Dumpy 2’, also a 750 kg container, had the facility of top or bottom lifting; that is, using the front end loading arm of a tractor or fork lift truck. It was, therefore, extremely versatile and competed favourably with competitor alternatives. Its 'squatter' profile also improved its storage ability on the farm (which had been a problem with the original Dumpy bag).

The 50 kg bags remained a popular size and were palletised and 'shrink-wrapped'. A recent innovation in this field was the use of coloured shrink film on which was printed the product's name. It is interesting to note that the market in general still prefers 50 kg bags.

❖ *Advertising*

Advertising had been very much a 'committee' affair, with the committee being made up of ICIF representatives from sales and marketing. Visuals and copy were approved by the committee, with no reference to the consumer. Each product also had its own campaign, often changed each year, and there was no overall ICIF campaign for its products.

In 1988, a proposed advertising campaign for the company's mainline product, Nitram, was tested opposite the consumer along with some alternative advertisements. The proposed campaign failed badly, as it was seen as too clever and complicated, but by including alternative advertisements in the research, a more effective campaign was developed and used. No internal committee played any part in advertising for this campaign (and subsequent ones). This consumer-based approach was carried through to the advertising for the two new products (Turn Out and First Cut), and resulted in recall levels above 60 per cent during their first three months. Advertising for these products also had a similar look to the Nitram advertisements, thus forming the basis of an ICIF campaign.

❖ *Distribution*

An activity which also occupied much of this period was that of rationalising the distributor network.

From something in the order of 400, a sharper and altogether more professional network of just sixty-eight approved distributors was set up. Those chosen were selected with improved customer service in mind, so that the eternal 'trade-off' of service levels versus distribution costs could be better balanced. Britag remained as one of the distributors, as did SAI in Scotland.

It was expected that the number of distributor would continue to reduce, by about five to ten per year, over the next few years. Such changes in the distribution network necessitated a rethink about the role of the sales organisation.

❖ *New sales organisation*

Heading the field sales organisation was a national sales manager to whom reported seven business managers (six in England and Wales, one in Scotland).

Each business manager had a number of account managers reporting to him, along with technical representatives and distributor support representatives.

Each business manager also controlled a distributor training manager, who played a training and development role for the approved distributors.

The whole ethos of the new sales organisation was to generate sales by working with and through the chosen distributors and could be described as follows.

Business manager	Responsible for the business performance in a defined geographical area.
Account manager	Responsible for the business performance of specified distributors, being the distributor's first-line contact with ICIF.
Technical representatives	Provide the distribution sale representatives with the agronomic story behind the products and services ICIF provides. They also acted as technical trainers for the distributors in their area and went to farms with or on behalf of the distributor to sort out technical queries or to provide

technical advice in support of a sale. A danger, however, was that ICIF's traditional agronomic expertise and approaches could well lead to overkill and few sales.

A summary of the sales organisation appears in Figure 4.

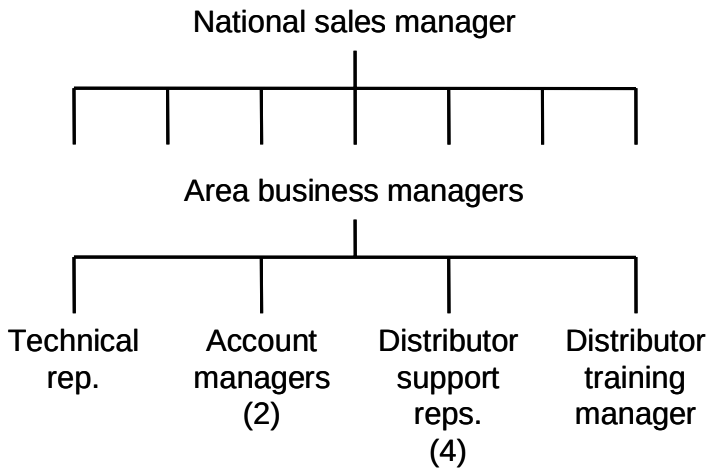

Figure 4 The sales organisation

This new sales organisation was achieved with an overall reduction of about twenty-five staff from the sales force.

❖ *Organisational structure*

In order to simplify the organisational structure, clarify jobs and responsibilities, and provide less 'top-down' management, on 1 December 1988 a new structure for the commercial section was introduced, as shown in Figure 5.

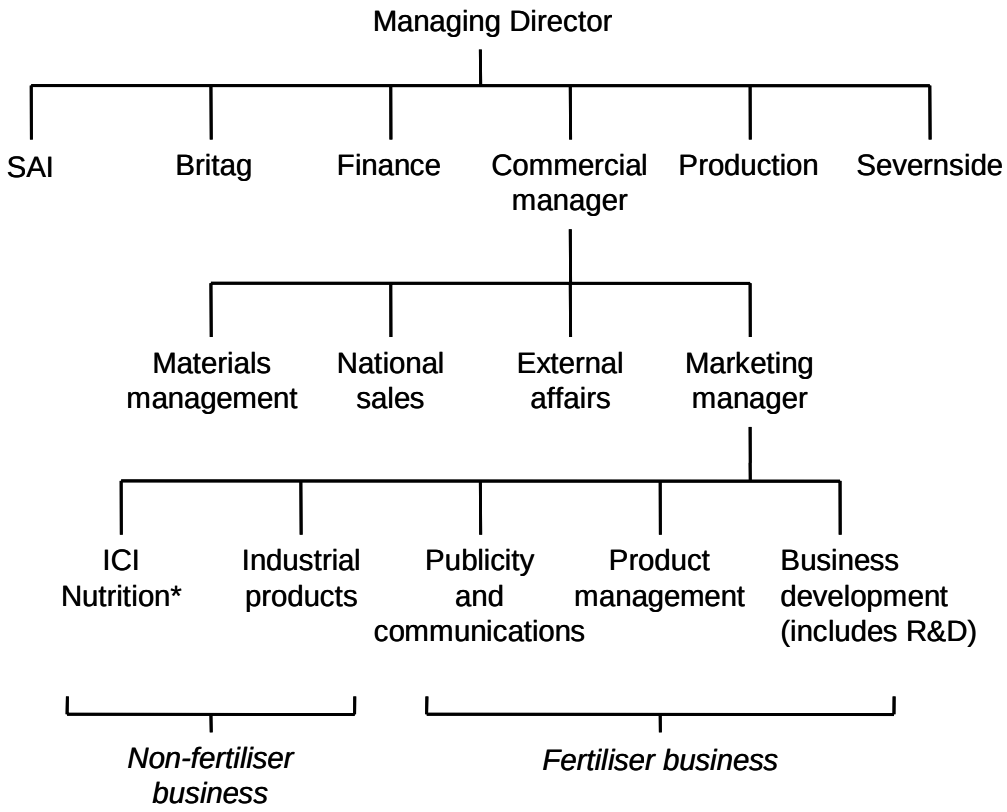

Figure 5 Structure of the commercial organisation

* *Note:* The ICI Nutrition group were concerned with animal nutrition.

This new structure reduced confusion and improved communications within the group. There were, however, no specific responsibilities by segment, but the most appropriate way of tackling this omission with the resources available was a hot topic between the business development and product management groups.

❖ *Business teams*

Even before the organisational changes, it had been recognised that there were benefits to be derived form setting up cross-functional teams charged with running distinctive product ranges as independent businesses, including the more effective exploitation of the products.

As a result, four business teams were set up to focus on ammonium nitrate, spring compounds, autumn compounds and calcium ammonium nitrate.

The leaders of each of these teams met with selected board members on a regular basis as the Fertiliser Business Team, which made recommendations about policy and operational issues to the full board.

These business teams went some way towards improving cross-functional communication and tapping a broader range of the company's brain-power. Useful though this was, it might be concluded that the business teams were doing no more than might be expected from an integrated marketing function.

It is also interesting to note that the focus was on product, as opposed to market.

Concerns on the horizon in 1989

❖ *'1992: an opportunity or a threat?'*

The European fertiliser market had always been susceptible to structural changes as individual governments changed their agricultural policies. The removal of trade barriers at the end of 1992 should, in theory, have made little difference to the 1989 situation because there were, in effect, already no barriers.

❖ *European legislation*

Perhaps more worrying than the 'new order' of 1993 was the way that European Union legislation was already having an increasing influence in the member countries. There was a relentless inevitability that Euro-laws would gradually take over and set new and comprehensive standards, designed mainly to protect water supplies from nitrate contamination.

Although fertiliser manufacturers argued that nitrate levels in soils had risen mainly through natural processes (for example, because more grassland had been converted to arable use, particularly during the last war), and from the burning and ploughing in of stubble, they were not winning the day. As a result, legislation was expected in several areas, such as:

- restrictions on the use of fertilisers within specified distances of rivers and boreholes, in order to prevent contamination of water supplies;

- restrictions on the number of cattle that can be kept per acre (this can have implications about how land might be converted to other uses in the future);
- further tightening of milk quotas introduced earlier in the decade, which had led to rationalisation of production and, for the survivors, a very profitable dairy sector; the next move, in addition to the possible tightening of milk quotas, could be grain quotas.

On the whole, the UK had more relaxed standards than those being proposed in Europe, but the public interest in 'green' issues was seen as being a contributing factor which ensured the UK would fall into line with the new legislation.

Some farmers were already anticipating some of these changes and this, along with financial pressures in the arable sector, had resulted in a recent decline of the fertiliser market.

❖ *Phosphate and potash fertilisers*

These were still very much also-rans when compared with nitrates and often only used when soil correction was required. Their relatively low usage in the UK had not put them under the 'microscope' of the environmental lobby in the same way as nitrates. This could be a factor which provided some commercial possibilities. However, phosphate and potash fertilisers do carry in-built environmental problems (for example, recent studies had shown a build up of phosphates in Dutch soil).

1990

Fully attuned to the market place, the ICIF board now required a full strategic business plan, based on utilising the company's current resources, to cover the period mid-1990 to mid-1993. This plan was quickly to prove a watershed in the affairs of the company, in a most unexpected way. What follows are some of the marketing issues which, in addition to the segmentation work, further contributed to the shape and nature of that plan.

Background analysis

❖ *Forecast of demand and supply*

In Europe it was forecast that the demand for calcium ammonium nitrates and straight ammonium nitrates would fall by about 20 per cent by 1992. This would be due to the combined influence of legislation, more efficient use of the product and its substitution by urea solutions (both forecast to grow).

Even though manufacturing capacity had been reduced, there was still a considerable excess. In addition, the relatively high fertiliser prices in Europe were attracting imports, mainly from the Eastern bloc (approximately 4 per cent of the market).

With respect to the UK, domestic nitrogen fertiliser capacity was below demand, but imports more than bridged the gap, making it difficult for manufacturers to maximise their output. Nitrogen fertiliser demand was forecast to fall by about 7 per cent by 1993.

❖ *Competitors' activity*

Kemira Oy seemed to have a strategy similar to ICIF, in that they were differentiating their products by quality and brand, having successfully adopted the higher-quality image of UKF. They also launched new products to compete directly with Turn Out and First Cut, but a delayed response had given ICIF the competitive advantage they had sought.

Norsk Hydro concentrated on improving the quality and branding of their straight nitrogen fertiliser. In compounds, they appeared to be rationalising their range and cutting out uneconomic production units or processes. Thus, they could still maintain their overall volume, but at lower cost.

Both Kemira Oy and Norsk Hydro priced below ICIF in order to support their strategies of maximising volume sales and hence filling their production capacities. In addition, both had established distributor networks which operated in a similar way to ICIF's. Blenders continued to concentrate on the arable market with

phosphate/potash fertilisers, or phosphate/potash with a low level of nitrogen included, along with 'commodity' compounds.

❖ *ICIF's products*

The ICIF products which sold in the greatest volume were all in the later stages of their life cycles, either in the saturation or decline phase. Turn Out and First Cut (ICIF's two new brands) were at the beginning of the growth phase. A summary of the company's product portfolio appears in Figure 6.

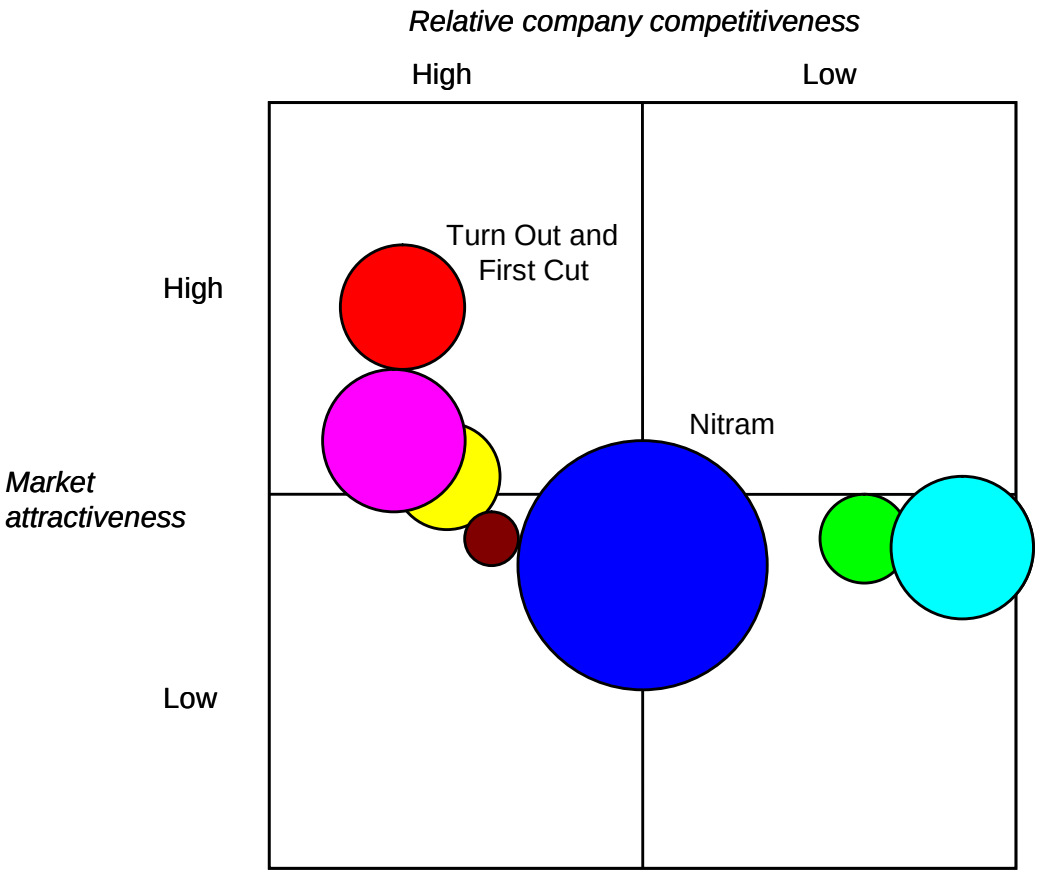

Figure 6 The fertiliser product portfolio of ICIF

Although not all of the products appear in the portfolio matrix, they all tended to fall within the same general area.

❖ *ICIF's strategy by market segment since 1989*

Leading Arable	No new products or services had been developed for this segment.
Mainstream Arable	The sales force had been withdrawn from calling on farmers. Contact was only through distributors, which would weaken loyalty in this segment to the ICIF brand.
Intensive Grass	The withdrawal of the sales force was expected to have the same impact as with Mainstream Arable. In the past no new products or services had been targeted at this segment. It was a growth area for Turn Out and First Cut.
Extensive Stock	ICIF had a good image in this segment, but withdrawal of the sales force and the move to distributors might weaken it. There were no new products or services. There was a small but increasing use of Turn Out by sheep farmers.
Brand Traditional (Mixed farm)	Withdrawal of farm visits by the sales force was weakening this segment's loyalty to the ICIF brand.
Cheap Traditional (Mixed farm)	Although sales were continuing to this segment, no special activity was targeted at it.
Price Dependent (Arable and Grass)	Sales also continued into this segment, but, again, no special activity was targeted at it.

❖ *Distribution*

The current practice was for product to be available within twenty-four hours, and at 'farm gate' pricing. To achieve this, ICIF effectively took on the costs of distribution and storage. The latter was required because of uneven usage patterns and the need for constant production levels. This approach cost just under £28 million in the last operating year. No other major competitor had such an approach.

Marketing strategy

The overall mission for the company was to continue to generate a positive cash balance from its trading. Furthermore, it needed to establish a basis for ensuring that there would be sustained profitability in future years.

In line with this thinking, the mission of the fertiliser business in ICIF was stated as:

> *'To maximise the profit contribution to the group by selling our own manufactured high nitrogen fertilisers.'*

The strategy for achieving this involved a number of activities:

1 focusing only on those UK segments where cost leadership was possible;
2 developing a product range for those segments which not only met the farmers' needs, but also made good use of the existing production facilities and for which ICIF was a credible supplier;
3 minimising the costs of distribution by effective development of trade channels;
4 maintaining high plant utilisation by exporting to the rest of Europe those products which returned acceptable margins;
5 eliminating the reselling of purchased products unless they were essential to providing a full product range to the targeted segments.

In short, this strategy was aimed at focusing on key segments in the home territory, developing strengths in new ones in order to retain overall sales volumes, and putting pressure on Norsk Hydro and Kemira Oy in Europe in an attempt to force some of the reduction in the UK market on to them.

However, at the heart of this strategy was the need for plant capacity to have a high utilisation. Unless this was achieved, it would be impossible for the company to achieve cost leadership as is clear in Figure 7.

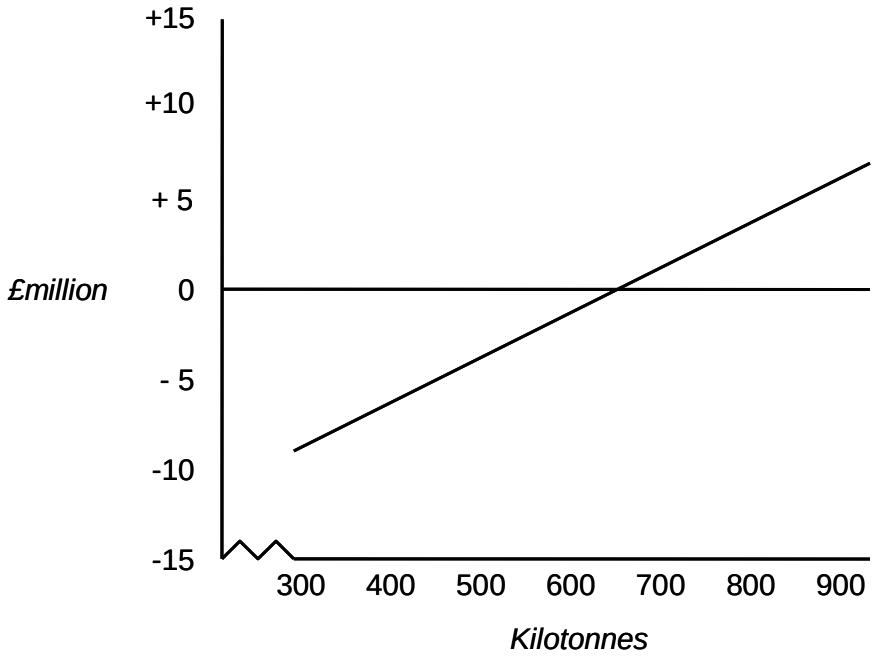

Figure 7 Relationship between plant utilisation and net margins

The break-even point was around 650 000 tonnes of production. The higher the volume above this level, the more advantageous the net margin became, and the better the company's scope for manoeuvre.

❖ *Product strategy*

Straight nitrogen fertilisers

The objective was to maintain a 45 per cent share of the demand for solids available to Norsk Hydro, Kemira Oy and ICIF.

A larger Nitram prill needed to be developed to compete with Norsk Hydro's granulated ExtraN. The current 'prilled' version was not perceived as having the same quality. However, converting to a granulation plant would cost in the order of £10 million. An alternative, and less costly, development was pursued which would perceptibly increase the size of the prill, although not increase it to quite the size of the ExtraN granule.

Calcium ammonium nitrate sales could be maintained using the Nitrochalk brand. Bulk calcium ammonium nitrate sales to blenders were to be increased. This business produced good

margins and gained ICIF a foothold in the blenders. However, only blenders supplying to the arable sector were to be considered, otherwise this strategy would be tantamount to the company shooting itself in the foot by undermining its own target segments.

Autumn compounds — The objective was to exit from this product range. For ICIF, these were unprofitable and did not pull through other product sales. Local blenders were better placed to meet the demand for these products.

Spring compounds — The objective was to concentrate production capacity into compounds requiring high levels of nitrogen, as these produced the highest gross margins. The portfolio of compounds also needed to be such as to minimise production and distribution costs.

The manufacture of products for Scotland was to be based at Leith, whereas those for England and Wales would come from Billingham. This would rationalise aspects of production and improve the distribution logistics.

Research and product development was to focus on the Intensive Grass segment. Three new products were to be launched in the autumn of 1991, including a development based on Nitram, plus a development of Turn Out.

❖ *Pricing strategy*

The overall positioning of ICIF as a leading, quality manufacturer with value-for-money products meant that price levels could never be reduced to a level which made them appear cheap.

Even so, newly introduced products had to be aggressively priced in order to gain penetration and win market share quickly.

Those products at the mature end of the life cycle needed to be priced relative to competition, in order to maintain market share and production volume.

Where strong branding could be developed, prices were inclined to be less sensitive to competing formulae.

The pricing strategy for Europe needed to be geared to volume objectives. Here there were advantages, since ICIF was a relatively small player and there was little branding on the continent.

❖ *Packaging strategy*

It was intended to drop the Dumpy and explore how to introduce intermediate bulk packaging more in line with market requirements.

❖ *Promotion strategy*

The overall strategy was to re-open the dialogue with farmers via direct marketing, while also building up close ties with selected distributors.

It would also be necessary to train the farmer-contact personnel of distributors, especially in the segments where the relationship with the farmer was critical.

ICIF's own company farms were to be kept, because market research had confirmed that they played an important role in the image of the company, particularly in the practical testing of new products.

❖ *Service strategy*

Services were only of value to ICIF if:

1 they differentiated the product;
2 they brought the 'product package' up to a level of competing products;
3 they attracted extra margins for the product;
4 they pulled through a greater sales volume of product;
5 their costs could be recovered in product sales or from fees.

Of the main services on offer from ICIF, the soil nitrogen testing service certainly led to sales of Nitram and for this reason would be continued, free of charge, though it needed to be simplified and more suited to its users.

Additional margins generated by the soil-sampling service, a service expected from major suppliers of fertilisers, were tenuous. This service would therefore have to be self-financing.

Despite the focus on the Intensive Grass segment, the two specific services for this segment were dropped. They did not meet the required criteria.

The remaining ICIF services would be designed to help distributors differentiate themselves from their competitors. This was to be done by providing preferential terms, such as a lower fee or fast response.

❖ *Environmental strategy*

An industry-wide strategy was essential, because the environmental issues were affecting all businesses adversely in terms of:

1 the market size, which was reducing;
2 the products which could be sold and the way in which they were sold;
3 the image of the agricultural sector.

Notwithstanding this, ICIF still had to have environmentally responsible products and practices. Therefore, technical information needed to be provided with products so that they would be used correctly.

It was possible to turn environmentalism into an opportunity by insisting that nitrogen fertilisers should only be used after nitrogen testing of soil. Exporters of fertilisers to the UK would not be able to respond to such a requirement easily.

❖ *R&D strategy*

The key R&D activities were to centre on new high nitrogen products for grass, which could be economic and produce grass in greater quantity, or to a higher and more consistent quality, without damaging the environment.

Improvement in existing products would also be required, as would technical 'updating' of the remaining services on offer.

❖ *Distribution*

It was intended to consolidate around the present distribution pattern, recognising that the channels used would vary according to geographic area.

❖ *Segment strategy*

This is summarised in Table 2.

Table 2 ICIF's segment strategy, 1990 to 1993

Segment	*Objective*	*Products*	*Price*	*Promotion*	*Place*	*Product development*
Leading Arable	Bottom out declining share to 7%	Mainly Nitram	Prevailing market price for quality ammonium nitrate product	Sales to work with selected distributors	Through selected distributors. Direct to buying groups	None for solid fertilisers. Some specialist liquids
Mainstream Arable	Hold share to 33% for Nitram	1 Nitram 2 Spring compounds	Nitram price to shadow Norsk Hydro and Kemira Oy. Compounds priced for volume sales	Retain brand awareness. Promote 'N-Sure'	Through limited number of specified distributors	As above
Intensive Grass	Retain 30% share. Increase sales of compounds	1 Nitram 2 Turn Out 3 First Cut 4 Kaynitro	Nitram at market price. Compounds at highest price for volume sales	Full support. Develop 'umbrella' brand. Use ICI farms and soil sampling	Selected key distributors dealt with by account managers	Develop a specific straight nitrogen product. Enhance First Cut and Turn Out
Extensive Stock	Increase share of Nitram to 30%, and spring compounds to 30%	1 Nitram 2 Spring compounds 3 Launch version of Turn Out	Nitram and spring compounds to be priced in line with volume objectives	Full promotional support	As above	Grazing and cutting compounds including sulphur
Brand Traditional (Mixed farm)	Maintain share - Nitram 40%, spring compounds 30%	1 Nitram 2 Spring compounds	As above	No specifically targeted activity	As above	None specifically
Cheap Traditional (Mixed farm)	Hold share - Nitram 12%, spring compounds 20%	1 Nitram 2 Spring compounds	Nitram near market price to achieve volumes. Spring compounds at top end of range	As above	As above	None specifically
Price Dependent	Residual sales only					

Threats

❖ *Possible competitor response*

It was likely that Norsk Hydro and Kemira Oy would respond to ICIF's UK strategy by putting pressure on prices. The extent of this pressure would depend on two issues:

1 how much ICIF's European strategy convinced Norsk Hydro and Kemira Oy that ICIF would be a threat to their overall business; and
2 how successful ICIF was in reducing its cost base, by filling its ammonium nitrate capacity with non-UK destined product.

Since it was in nobody's interest to get involved in a price war in a declining market, some sabre-rattling might be expected as an initial response from the major competitors. However, the more likely result would have been that UK straight nitrogen prices declined slightly or, at best, remained static.

In Europe, it was considered unlikely that home producers would drop their prices in response to ICIF's exports, since they would be selling at market price. However, they might strive to maintain their capacity volumes by exporting to the UK in retaliation. Even so, ICIF would be in a stronger position to resist imports in its key market segments. Also, a 'pre-emptive' push for sales on the continent should be successful in the short term, and could provide ICIF with a bridgehead on which to build.

The ICIF focus on the profitable grassland segment would not go unnoticed and would be likely to attract 'me-too' products from Norsk Hydro and from the blenders, in addition to the response already seen from Kemira Oy. However, ICIF had a lead in this segment and there was still growth potential, especially if ICIF could continue to develop new products ahead of the field.

❖ *Other possible threats*

Three main threats were identified:

1 The UK market might decline faster than predicted because of any of the following:

(a) higher levels of imports than forecast;
(b) legislation restricting the use of nitrogen;
(c) other legislation with a 'knock-on' effect reducing the use of nitrogen (for example, limits on the number of cattle per acre of land).

If this were to happen, it might become necessary to adopt a fall-back strategy (see below).

2 BSE leading to a slaughter programme to remove all possible links with the virus; this would have the effect of reducing demand for fertiliser while stocks were being rebuilt.

3 Unseasonal weather conditions (which seemed to be becoming more frequent) could intervene to affect fertiliser use.

Other than the possible competitor response reaching damaging levels, none of these threats deterred ICIF from following their proposed strategy.

Alternative strategy

If Norsk Hydro and Kemira Oy continued to price their way into the UK straight nitrogen market, ICIF would have to switch from a strategy of holding market share and expanding in key segments to one of maximising its cash flow potential.

In effect, this would mean scaling down to a one-plant operation and achieving the massive cost reductions that would come from a smaller and much simpler business. Such a step would also lead to a dramatic reduction in what the company could offer, or indeed tackle. For example, it could mean pulling out of Europe and/or several market

segments, or it could mean dropping Nitram sales for other compounds. Product development could be curtailed, and the distributor network would shrink.

ICIF could buy in fertilisers to make up some lost sales, but the logistics of doing this and the margins involved would need to be calculated carefully to ensure that this would be a profitable route.

In fact, it would not be possible to be specific about the one-plant option, except to say that its acceptance could produce a high return on investment in the short term, but in the long term ICIF would probably be too small a player to survive in an industry dominated by larger and literally more resourceful competitors.

A tempting Finnish

The glimpses that have been provided about the issues and the thinking that went into the strategic marketing plan for mid-1990 to mid-1993 demonstrate that the company's response to its situation was not taken lightly. Considerable effort went into this plan, as well as into the other areas covered by the business plan, which, in effect, was a plan to rescue the company's ailing fortunes and to build a foundation for continued success in the future.

For reasons of confidentiality, volume sales and profit margins have been omitted from this case study. Nevertheless, an interested reader will have understood the rationale and thrust behind this marketing plan.

The segmentation project of 1988 to 1989 provided ICIF with a fresh insight into its market and enabled the company to arrive at an extremely realistic view of its prospects. When the resulting plan was put before the board of ICIF in May 1990, it was accepted as reflecting the best possible use of the resources the company had. All that remained was for the plan to gain the approval of the main board of ICI plc.

The strategic vision of the main board was of a company with a portfolio of businesses each of which was, or had the potential of becoming, a global force in its field (this is still the case today). For ICIF, decisions made at earlier stages in its development meant that the fertiliser business would find it extremely difficult to achieve this objective.

A key consideration in implementing the strategic vision was the requirement of the main board to deliver increasing shareholder value, both in terms of capital worth and in distributed profits. If a business could not deliver the strategic vision it would therefore remain of interest to the main board if it could deliver a specific level of return over the period of the corporate plan.

The new plan for ICIF dramatically improved the returns of the business, but it could not achieve the prescribed level. This shortfall was partially linked to the requirement that the business had to base its plan on utilising *all* its current asset base. Nevertheless, the new plan presented a business that was both profitable and delivering a positive cash flow. But something else was afoot. Recent successes in the market had attracted attention.

Unbeknown to the segmentation team at ICIF, the Finnish company Kemira Oy had been in touch with the main board of ICI plc and submitted an attractive bid for the fertiliser business.

At the main board meeting, held in July 1990, it was decided that ICIF's plan, although optimising assets and delivering greatly increased returns, did not stack up to the bid now lying on the table. As a consequence of this, it was agreed to sell the business to Kemira Oy. A public statement to this effect was issued by the company.

All that remained was to verify that such a business transaction did not fall foul of the legislation surrounding monopolies and mergers. Thus, the issue was tabled for a meeting of the Monopolies and Mergers Commission (MMC) in September 1990. The decision at this meeting was that the MMC would have to submit their deliberations on the sale in a written report to the Minister of Trade and Industry by the end of 1990.

In the event, ICI faced something of a setback when, in early 1991, the Minister for Trade and Industry refused to approve the £75 million sale of its fertiliser business to Kemira Oy. Had the sale gone ahead, it would have increased the Finnish state-owned group's share of the UK fertiliser market from something like 18 per cent to approximately 50 per cent. This factor, coupled with the Minister's avowed policy of preventing British companies from being controlled by foreign nationalised industries, no doubt weighed heavily in favour of this decision.

However, since the only other possible buyer would be Norsk Hydro (51 per cent owned by the Norwegian Government), ICI's options in terms of pursuing the selling strategy were severely limited.

Postscript

After the rejection of the Kemira Oy bid, the board of ICIF proposed an alternative plan to the ICI main board which slimmed down the business even further than had been proposed in the marketing plan for the period mid-1990 to mid-1993, but at the same time increased the returns from the company. The requirement to utilise all of the current asset base was now no longer a condition.

This resulted in a very different ICIF re-emerging in the UK market: an ICIF focused on a very limited product range which included Turn Out and First Cut, and, not long afterwards, the Nitram successor for the Intensive Grass segment ‘Graze More’, along with some other solid stable mates, including Nitram. As a result, profitability not only returned, but was also maintained and in 1996, the last year separate results were announced for the company, an operating profit of £60 million on a turnover of £220 million was reported. Although profit levels were much lower than those seen in the company's heyday, they were certainly at a level commensurate with its lower turnover. They were also generating outside interest in the company once again, but this time from a most unexpected quarter.

On 20 November 1997 ICI announced the sale of its fertiliser business to Terra Industries of Sioux City, Iowa, USA, subject to clearance by the regulatory authorities. By the end of 1997 the sale had been completed and ICI received an initial payment of £200 million with a further £50 million available if certain targets were met. ICI had achieved a pre-tax exceptional gain before provisions of at least £140 million on the sale of its fertiliser business compared to around £25-30 million which would have come from the sale to Kemira Oy. ICI’s veritable jewel in the crown of the early 1980s had certainly found its sparkle once again.

The legacy of ICIF, however, will remain long after its sale as the re-emergence of a successful ICIF in the early 1990s attracted a great deal of interest from other businesses within ICI plc. The clear benefits to be derived from a detailed understanding

of a market, particularly the segments to be found within it, became a key business issue.

Senior management across ICI began to ask, ‘If a business involved in fertilisers can do this, why can’t we?’

They could, and they did!