Brothers Rob and Hugh Grant founded the Aquafresh mineral water company in 1986 where they remain as chairman and CEO, respectively. The brothers, both geology graduates from Glasgow University, spent several years working for oil companies in the North East of Scotland and, following Rob's successful completion of an MBA, decided to ride the wave of mineral water popularity and go into business together. The company has since flourished into a significant national brand in the Euro/Scottish bottled water market. It boasts a 4.2 percent market share in the \$40 million Scottish bottled water market; however, its forays beyond Hadrian's Wall¹ to England have met with mixed success.

The company's products (mainly sparkling and still mineral water and fruit-flavored and functional waters) come in a wide range of sizes and options; from 8.5 fl oz Handy Bottles through standard 25 fl oz bottles and 34 fl oz to 5 gallon office cooler options. The source is located at Kirkconnel, just north of the local microbrewery, where the Devil's Bit Braes

form a large natural filter of unspoiled countryside. Aquafresh mineral water is sourced at a depth of 300 feet and the source is covered in Devonian sandstone, affording the highest degree of filtration and protection.

Aquafresh was one of the first Scottish bottled waters to qualify for the European Union's "Natural Mineral Water" status in 1987. The brand has since gone from strength to strength. In 2007 its 60 employees generated a turnover of \$17 million and a net profit of \$4.3 million. In 2008, unaudited figures suggest this will have risen to a turnover of \$20.5 million and a net profit of \$5.3 million. They have traditionally been at the premium end of the price scale. However, the increasing demand, greater economies of scale, and the current economic climate, have meant that prices have fallen, although margins, and thus quality of profit, has held up well.

Mineral Water in Scotland

Bottled water as a recognized alternative to alcohol when socializing is not yet a common phenomenon in Scotland, or the rest of the UK, although the concept is long established in the rest of Europe. For example, the

¹ The historical border between Scotland and England.

French have a long tradition of bottled water consumption, as much for historical as cultural reasons, and have developed a fine palate for water, choosing different brands for different occasions. Scotland is, however, at an early stage of development in these terms, despite a fine gastronomic heritage often obscured by the "deep-fried confectionary" tag!

Sales of sparkling water currently outweigh still. Consumption is about 2 gallons per person as opposed to around 4 gallons per person in the UK, 31 gallons per person in France, and 20 and 8 gallons in Germany and the United States, respectively.

The village of Ecclefechan, where Aquafresh is located, lies in the valley of Mein Water, a tributary of the River Annan, and is situated some 8 miles northwest of the English border. The A74(M) motorway runs immediately north of the village and Junction 19 of this motorway is 3 miles to the northwest, affording the company excellent transportation links. Ecclefechan is not a well-known area of Scotland and international appreciation has not yet been achieved despite having a number of notable historical claims to fame; Thomas Carlyle, the essayist, satirist, and historian, was born and is buried in Ecclefechan, as was Archibald Arnott, Napoleon's doctor on St Helena; Robert Burns, Scotland's internationally acclaimed bard, composed a song titled "The Lass O' Ecclefechan." The promotion of Scotland as a source of bottled water has some logic, given the green, undeveloped, and rural image often associated with it.

EU considerations

Under EU law, a liquid described as "mineral water" must emanate from a pure earth source. It may contain designated "healthy constituents" and designated trace elements up to predetermined levels. It must be bottled at the source and must not undergo any form of treatment, with the exception of the removal of iron and sulfur to avoid discoloration and unpleasant smells.

The only addition acceptable is that of carbon dioxide to produce the sparkling variety. A developing interest in healthy lifestyles and the continuing restriction on drinking and driving have both benefited the bottled water market over recent years. Concern over the quality of municipally provided tap water has also had an impact.

Still water is the dominant segment in the mineral water market, offering an alternative to tap water for everyday consumption. Sparkling water demand is more focused on the restaurant/occasion market, and the digestive benefits associated with sparkling water often mean that a price premium can be demanded. Flavored

water, while small in absolute terms as a segment, is dynamic—as are the so-called "functional waters" described below.

Drivers of the industry

Increasing health consciousness is by far the main factor underpinning growth, impacting the whole soft drink market and the demand for bottled water in particular. The promotion by the government and NGOs of more healthy lifestyles and dietary habits, as well as specific dietary offerings such as Lighter Life, actively encourage the drinking of at least 67 fl oz of water per day in addition to tea, coffee, and other fluids. A recent television campaign by the Volvic brand in the UK (owned by France's Danone Group) aimed at the 14 to 25 age segment, exhorting people to "take the Volvic challenge" and drink 40 fl oz a day for two weeks and "feel the benefits," is a good example (see www.volvic14day challenge.com/home.htm).

Between 2001 and 2007 off-trade volume sales of bottled water grew at a compound annual growth rate (CAGR) of 9 percent, as compared with 6 percent CAGR in soft drinks as a whole. Still bottled water accounts for 79 percent of the sector by off-trade volume and continues to grow strongly (10 percent CAGR by off-trade volume, 2001–2007).

Sparkling flavored bottled water is often viewed as a step away from fizzy drinks, and bottled water overtook carbonates as the largest soft drinks sector by off-trade volume in 2006. Flavored bottled waters do, however, suffer from an image problem on a number of levels and producers are moving toward the sugar-free, "better for you" messaged products such as Volvic Touch of Fruit in the UK and the host of generic "own label" offerings by the large supermarkets.

Functional water has been one of the most dynamic categories in bottled water over the 2001–2007 period (off-trade volume CAGR of 23 percent spurred by the obvious trend toward healthy living and subsequent demand for water with added benefits).

Functional water benefits from bottled water's healthy rehydration message and can provide those consumers bored with plain water, and those keen to avoid sugary soft drinks, with an interesting, low-calorie, yet good-tasting alternative. Although functional water accounts for less than 2 percent of overall bottled water sales by off-trade volume, it is a dynamic area that affords manufacturers the opportunity to innovate and create unique products.

In China, for example, Nestlé launched Nestlé Energy-E with added vitamin B and minerals in mid-2006.

The new product claims to help consumers transform unwanted fat, protein, and carbohydrates into more energy. Positioned as an energy-releasing drink, it targets workers aged 20 to 35 and is supported by a television show called "Nestlé Energy-E Challenge 24 Hours."

The challenges facing the company

The production facility is located at the source from which water is drawn. Substrates and vitamin/flavor additives for flavored and functional products are all natural and sourced from within 50 miles where possible, delivered to the factory, and then stored in refrigerated cool rooms prior to squeezing. A local laboratory checks each batch of product, mineral water and others, to ensure compliance to EU quality standards. The product is then bottled and automatic palletization is completed before storage in a large custom-built facility prior to final delivery in a range of distribution vehicles.

Vehicles are company owned in the case of direct delivery of water cooler products to corporate customers as well as to a central distribution depot that distributes to large outlets; sub-contracted distributers are used in all other cases. All of the company's products are packaged in polyethylene teraphthalate (PET) containers that are lightweight, durable plastic with excellent recyclability and fully comply with all relevant EU legislation.

Rob, the chairman, feels that with the rise in awareness of Scotland, "the Brand" on the international stage, and the growing popularity of bottled waters, the company needs to expand and push for increased penetration in both the Scottish and Northern English markets.

He was instrumental in bidding for and securing grants from the EU under Objective 1 and Objective 3 of the EU Structural Funds Programme, allowing the company to build a state-of-the-art bottling plant. However, plans to significantly expand their storage capacity were halted after the phasing out of Objective 1 funding in Scotland in 2005.

Rob's vision is to increase utilization of the existing storage capacity and throughput of product by expanding both their own fleet of vans and their distribution network. This would require further investment and careful inventory management. Because the water inside the bottles is effectively free of bacteria, the permitted shelf life of bottled water is far longer than for most other foodstuffs—up to two years.

However, Professor William Shotyk of Heidelberg University in Germany has found that the antimony content of bottled water roughly doubles every three months (see *Journal of Environmental Monitoring*, 2006;

8: 288–92). These findings, along with other worrying developments, have also prompted Rob to suggest following the lead of a UK company, Belu Water (www.belu.org), and invest in bottles made entirely from corn starch, with no leaching other than harmless lactic acid.

Rob has one other key area of interest: namely, the own label market. So far the company has resisted a foray into this area due to the large increase in warehouse capacity they envisage. However, Rob sees this as the way forward for volume-lead business.

Hugh's research has led him to believe that the increasing number and spread of distribution outlets has meant an ever-increasing market exposure, and mineral water has become commoditized in some markets. As a result, the market has tended to support high levels of private-level penetration. He is keen for the company to seek markets further abroad. The rise of interest in supply chain management has meant that managers need to consider various possibilities of aligning strategies of different firms together. He is a believer in taking advantage from utilizing outside resources without owning them. He is not convinced of the need to invest in new capacity and packaging technology, preferring to network a solution if possible. As he recently told Rob, "The efficient use of resources needs to make best use of existing infrastructure." He has also become a convert to the idea of whole life costing (WLC) in combination with computational optimization techniques; taking into account all the costs (private and social) that accrue to initiation, provision, operation, maintenance, servicing, and decommissioning over the useful life of any infrastructure.

He is most impressed by the efforts of large players in the market such as Danone and Nestlé, whose home and office delivery in large formats, distributed centrally and mostly via Internet ordering, account for approximately one-quarter of sales globally, with the remainder being distributed via supermarkets and other outlet systems using the customers' fleet of vehicles. In some situations, the companies are asked to contribute to the cost of shipping, but this is more than offset, as he understands, by the volume of orders and the increase in publicity due to the companies' requirement to place their advertising and logos on the delivery vehicles. He also realizes that these two players are giants in the global market.

Both Rob and Hugh are convinced of the potential and vibrancy of their company. They just need to formulate a coherent strategy for the future.

Details of the key product lines and demand profiles are given in Table 4-14.

QUESTIONS

- 1) IDENTIFY THE TWO POSSIBLE STRATEGIES AND SELECT THE BEST ONE, JUSTIFY.
- 2) CONSIDER TRANSPORT SOLUTIONS AS WELL AS INCOTERM CHOICE TO MAKE THE SELECTED STRATEGY EFFICIENT