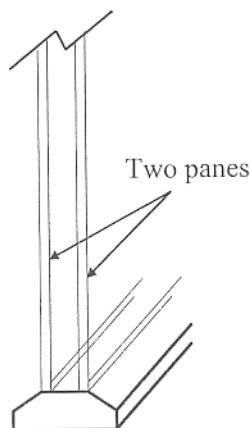


## The Scandinavian MGU Industry

In the early 1970s the competition in the Scandinavian MGU (multi glass unit = MGU = erityslasi) market was hard. The market grew remarkably. New companies entered the market.

### MGU technology



Single glazing does not give satisfactory insulation against cold and sound in windows. Double or triple glazing is therefore used in many places. Prefabricated insulating units are preferred to two or three individual panes of glass in a window. Multi glass units (MGU, see Figure 1), were developed in the 1930s by the U.S and German window glass manufacturers<sup>1</sup>. The prefabricated units consist of two or more panes of glass with cleaned dehydrated air between them. Each unit is hermetically sealed around the edges. In the 1960s MGUs used window glass as raw material.

Figure 1. MGU-product

### Background for the Scandinavia MGU Market

#### The Scandinavia Window Glass Market in the 1960s

After the II World War the reconstruction and economic growth created demand for window glass. In the early 1960s there were seven independent window glass manufacturers in Scandinavia: Emmaboda and Gränges (whose main business was in mining and steel manufacturing) in Sweden, Korsör in Denmark, Drammen in Norway and Lahti, Riihimäki and Valke in Finland. These companies had adopted window glass manufacturing processes in the 1920s and 1930s. Emmaboda had cooperated with St. Gobain, a French manufacturer, since the mid-1940s. St. Gobain owned 30% of Emmaboda's shares. Emmaboda increased its capacity in 1968 (to 30,000 tons/year). In 1969 Scanglas, a joint venture between Gränges and Korsör, started window glass production (capacity 50000 tons/year) in Denmark. In 1965 Drammen entered co-operation with St. Gobain, which partly financed the investment in new window glass machinery. St Gobain received 30 % of the share capital. In 1969 Lahti started production at a new plant (capacity 30,000 tons/year).

In Denmark flat glass was marketed via powerful wholesalers. In the Sweden there were both powerful wholesalers and processed glass end-users. In Finland sales in the domestic market were handled via five central wholesalers, none of which concentrated in the window glass sales. Direct sales were rare

This case was written by Professor Olavi Uusitalo of Tampere University of Technology as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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<sup>1</sup> In the 1950s the flat glass industry was basically divided in two sub-industries: 1) the window glass industry providing cheap and low quality window glass for construction and 2) the plate glass industry providing expensive and high quality plate glass for the auto industry. In 1959 Pilkington introduced less expensive float glass to replace plate glass.