

# Surfactants & Detergents Technical

## Primary Influencing Factors and Major Trends in the European Detergent and Cleanser Market

H-D. Winkhaus

Henkel KGaA, Henkelstrasse 67, PO Box 1100, D-4000 Düsseldorf, 1, West Germany

Europe is characterized by great variety. In addition to two political systems, there are three economic communities, and in the 17 countries in western Europe alone the 400 million inhabitants speak 20 different languages. It is, therefore, not surprising that there are extremely varied cultures in Europe.

Describing the European detergent market is made more difficult by the large number of national influencing factors. The most important determining factor, consumer attitudes, is an example. Despite many common elements, there are clear differences both in the immediate washing habits and in the value structure influencing these habits, e.g., with regard to the environment. The influence of public opinion, of public authorities and of commerce is closely related to changes in consumer behavior.

### DETERGENT AND CLEANSER MARKET IN EUROPE

The following socio-demographic developments are of significance for the development of the detergent market:

- The population of Europe is growing very slowly. Between 1984 and 1995, it will increase by only about 1.8% to 411 million inhabitants.
- The percentage of older persons in the overall population will increase from 14 to 15%.
- The number of households is increasing proportionately at a much higher rate than the population and will reach a total of 167 million.

These developments mean that "typical" consumers will have increasingly higher average ages and will live in increasingly smaller households. These trends will have to be considered by the detergent industry in its supply and assortment policies.

In 1985, the detergent market in Europe had a total value of 14.6 billion deutsche marks (DM). The largest part of this market was the detergent sector with over 60% (in absolute figures, 3,140,000 metric tons), followed by the dishwashing liquid and household cleaner markets. The various partial markets are listed in Table 1.

Europe represents only 10% of the world's population, but the European detergent market has a 27% share of the world detergent market. While in the years 1980-85 the average growth rate in terms of value was 7.5%, a markedly lower growth rate of about 4% is forecast for the coming years (Fig. 1). If the figure is adjusted for inflation, it becomes clear that in terms of quantity the detergent market in Europe is recording only very low growth rates (1-2%), and in some countries and/or market segments shrinkage of the market has already begun.

In addition to demographic development, the increased consciousness of environmental problems and the associated reduced use of detergents and cleansers is

Abbreviations used in figure legends: A, Austria; B, Belgium; CH, Switzerland; D, Germany; DK, Denmark; E, Spain; F, France; GB, Great Britain; GR, Greece; I, Italy; NL, The Netherlands; Lux, Luxembourg; P, Poland; S, Sweden; SF, Finland; T, Turkey.

TABLE 1

European Detergent Market

Product	Market share (%)
Laundry detergents	
All-purpose detergents	84
Special-purpose detergents	14
Bleach <sup>a</sup>	2
Finishing agents	
Softeners	93
Starches	7
Dishwashing agents	
Hand-wash liquids	77
Agents for dishwashers	23
Household cleansers	
All-purpose cleansers (including bleach)	70
Scouring agents	30

<sup>a</sup>Bleach, significant only in Spain, Italy and France, can be used for washing (white bleach) and cleaning (yellow bleach).

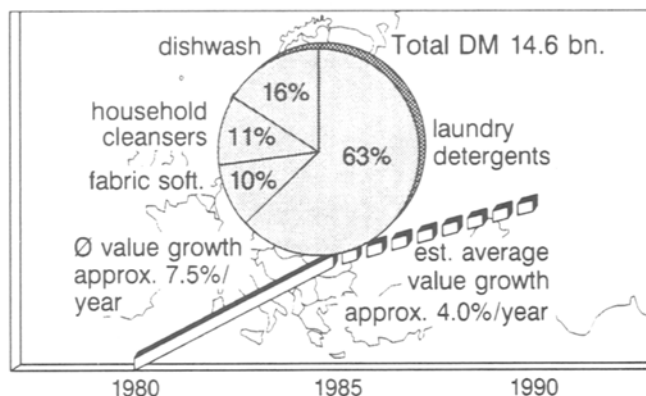


FIG. 1. Detergent and cleanser market in Europe, 1985.

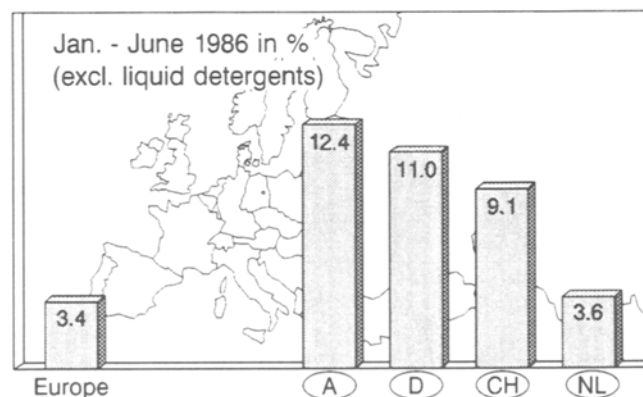


FIG. 2. Share of phosphate-free detergents in total laundry detergents.

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a primary cause for this development.

In the future, therefore, expenditure for detergents and cleansers will account for barely more than 0.5% of total per capita expenditures, or DM43/capita/yr. This equates to 20.6 kg/capita/yr. This applies to all European countries, as the quantitative per capita consumption of these products in the various countries is relatively evenly developed.

Some developments in the most important market segment—that of all-purpose laundry detergents—deserve special mention. I shall distinguish among three categories: powder vs liquid products, nonconcentrated (normal) powder vs concentrate and products containing phosphates vs phosphate-free products.

The high level of washing performance of the European powder products is responsible for the relative insignificance (compared with the United States) of liquid all-purpose laundry detergents in Europe (4% of total market, with 9.5% for France and 5.5% for Britain.) Consumers notice the differences in washing performance of the liquid detergents since, for example, it has not been possible to incorporate stable bleaching components into the liquid products. The lack of a suitable compartment for liquid detergents in many washing machines is a further disadvantage. A larger share of the market can, thus, be expected only with improved formulas and redesigned washing machines.

With a markedly greater density, the washing powder concentrates offer consumers advantages in handling and convenience and offer manufacturers savings in packaging costs and storage area requirements. With the exception of the Netherlands at 32%, the role of the concentrates in Europe is very small, at 3.4%, a fact for which consumer behavioral patterns, learned over a long period and slow to change, are responsible.

Phosphate-free powder products (the largely phosphate-free liquid products are not considered here) at 0.6% still played a small part overall in 1985. However, this situation has changed notably in 1986 in favor of phosphate-free products (Fig. 2). Many suppliers have responded to increased consumer environmental consciousness introducing phosphate-free products. Additional laws banning phosphates have also been passed (i.e., Switzerland).

Five of the 17 nations of Western Europe (France, Germany, Italy, the United Kingdom and Spain) make up almost 80% of the detergent market but have a disproportionately low share (67%) of the population (Fig. 3). In other countries, especially Turkey, the share of the consumption of these products is disproportionately lower than the share of the population.

The European detergent market is largely determined by four major brand-name manufacturers. Procter & Gamble holds the lead over Lever followed by Henkel

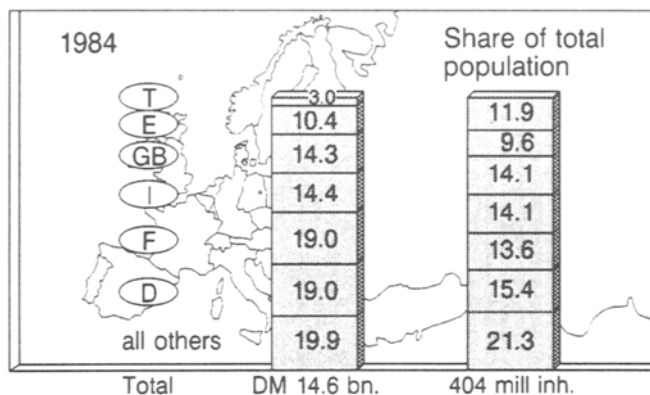


FIG. 3. Detergent and cleanser market in Europe (by countries, in %).

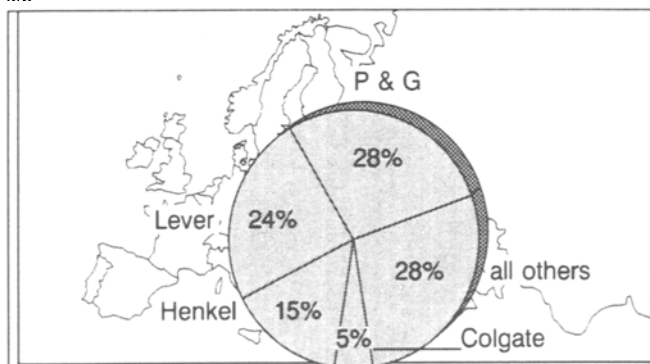


FIG. 4. Detergent and cleanser market in Europe by companies, 1985.

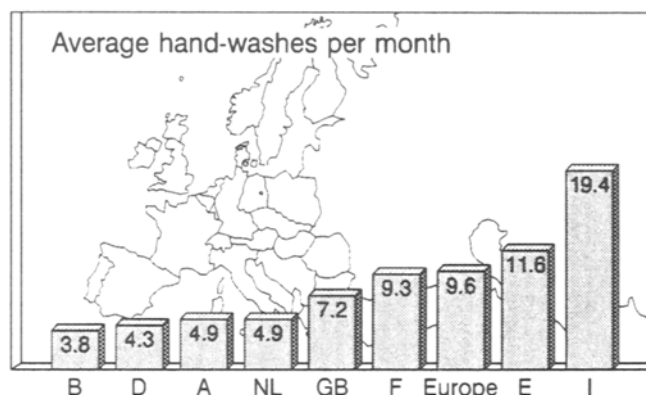


FIG. 5. Hand-washing habits in Europe, 1985.

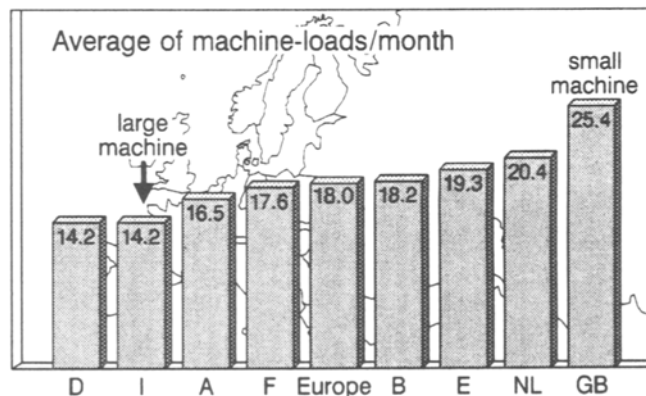


FIG. 6. Machine-washing habits in Europe, 1985.

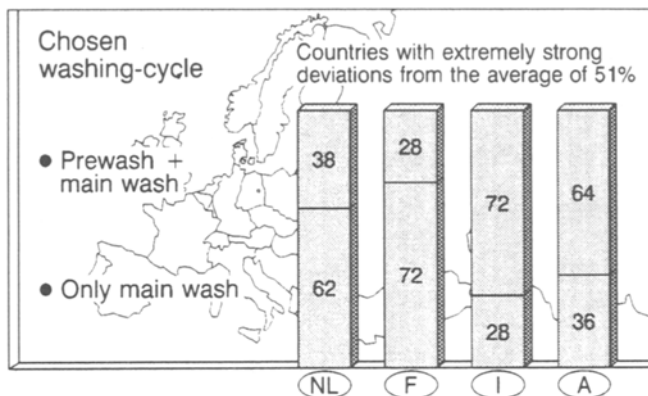


FIG. 7. Wash-cycle habits in Europe, 1985.

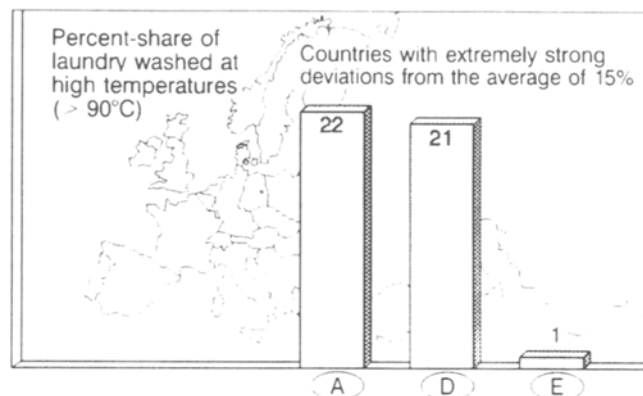


FIG. 8. Wash-temperature habits in Europe, 1985.

and Colgate. The remainder of the market is divided among smaller producers with only regional significance (Fig. 4).

#### PRIMARY INFLUENCES ON THE EUROPEAN DETERGENT AND CLEANSER MARKET

The most important factor influencing the development of the detergent and cleanser markets is the consumer. Orientation to consumer desires and needs is an indispensable prerequisite for a successful sales policy on the part of detergent manufacturers.

*Washing habits.* Using the example of washing habits in Europe, which have a direct bearing on the most important market segment (detergents), there are specific national differences and commonalities.

Washing by hand has greater significance only in Italy and Spain (Fig. 5). The washing machine (Fig. 6) dominates, with 18 machine loads per month. In the various countries the frequency of machine washing (corresponding to the relatively equal per capita consumption figures) is relatively evenly developed (taking into account different types of machines).

In spite of these common aspects, a detailed analysis of washing habits showed some specific national differences:

- The choice of washing cycle alone indicates that different attitudes and washing techniques dominate from one country to another (Fig. 7).

- In France and the Netherlands the majority of consumers select only the main washing cycle. In Italy and Austria the pre-wash and main washing cycles are mostly used.
- Washing temperatures selected (Fig. 8) also show the extent to which long-term habits can determine washing behavior. In Spain, for example, even washing that can be boiled is practically never washed at the temperature at which it could be washed, 90 C, while in Germany and Austria, a washing temperature is selected that is more appropriate to fabric type.
- The dosage of detergent depends on all of the preceding factors. This is done primarily by experience (here again with the exception of Spain and Italy), and to a lesser extent according to the degree to which the wash is soiled and/or the manufacturer's instructions on the package. There are no dramatic differences in the amount used in the different countries (Fig. 9), but the development in the various countries is different. Partly because of increased environmental awareness, dosages are declining in Germany and Austria, while in Belgium and Spain, for example, slight rises in the amounts used are noted.

*Washing machines, dishwashers and tumbler dryers.* In addition to economical and sociological influences, climatic factors and attitudinal differences play decisive roles in specific national equipment uses in

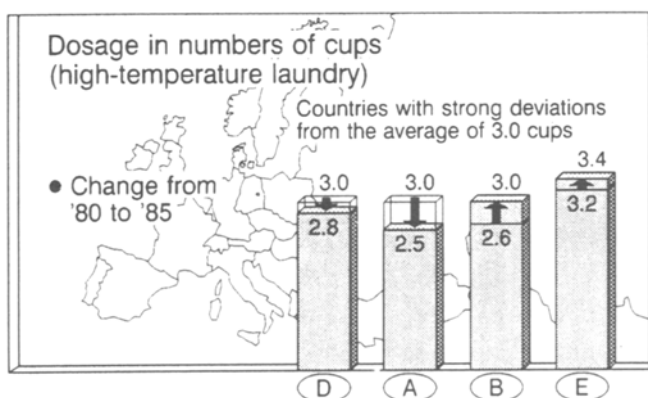


FIG. 9. Detergent usage habits in Europe, 1985.

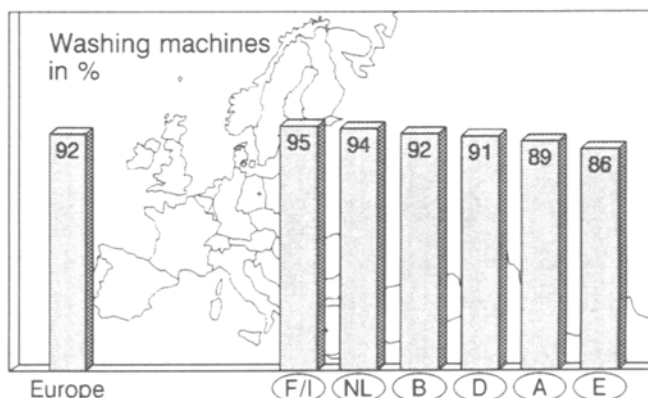


FIG. 10. Household equipment—washing machines (1985).

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households, especially with dishwashers and tumbler dryers.

While at 92% Europe-wide (Fig. 10), washing machines have attained a relatively high saturation level in almost all countries. At an average of 21%, dishwashers are much less widespread (Fig. 11). The countries of southern Europe and the Netherlands show very low incidence of dishwashers. An even greater potential exists for tumbler dryers, which are present in only 10% of households. The southern European countries also have notably lower levels of this equipment (Fig. 12).

*Consumer attitudes.* Reasons for different washing habits are also found in the divergent value systems and differing consumer attitudes.

The example of the role of women in society illustrates how different the predominant value systems are in various European countries (Fig. 13). As extreme examples, Spain and France will be compared. While almost half of French women are employed half- or full-time, Spanish women still primarily fill the "classic" role of housewife (86%).

When asked to what extent their moral attitudes concur with those of their parents, the English (75%) most readily accept their parents' moral attitudes, while the Germans diverge most notably from the European average of 57%.

It is not surprising that attitudes toward advertising vary widely throughout Europe. Overall attitude toward advertising is positive; it is most popular in the Netherlands and least so in Austria. In Italy advertising is judged as very polarizing (Fig. 14).

The greatest changes in consumer attitudes have taken place in attitudes toward the environment. In countries with a stagnating and/or declining detergent market, an increased environmental awareness is the primary cause. The status of environmental consciousness is reflected by the fact that in all European countries, with the exception of Ireland, protection of the environment enjoys a markedly higher preference than continued economic growth.

There is only a small group of consumers (Fig. 15) left (ca. 7%) which is fully indifferent to problems of the environment. Many more claim to be interested in environmental problems but admit to taking no further steps of their own ("passive interest"); ca. 30% of consumers take every opportunity to inform themselves about environmental problems. The gap between concern and action toward environmental protection becomes apparent when one looks at the size of the "active" segment, ca. 20%. In recent years the numbers of both passively and actively interested consumers have grown and continue to grow, especially in central Europe.

In summary, there is really no typical European consumer, nor will there be one in the near future. This is due to historical and sociocultural influences on both attitudes and behavioral patterns. Differing climatic conditions as well as different machine structures also play a part in regionally differing developments in the washing habits.

## LEGISLATION/RAW MATERIALS

*Influence of legislation.* Legislation influences public

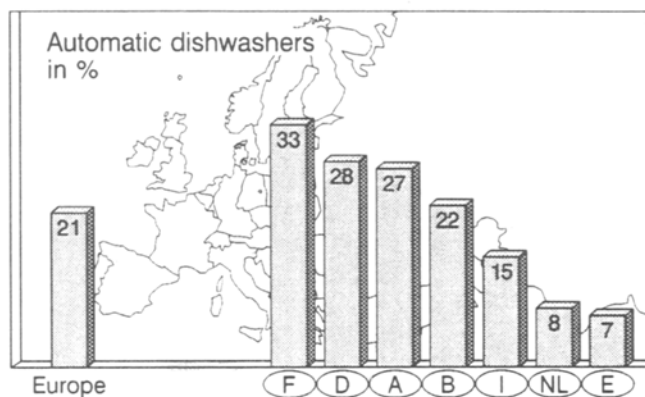


FIG. 11. Household equipment—automatic dishwashers (1985).

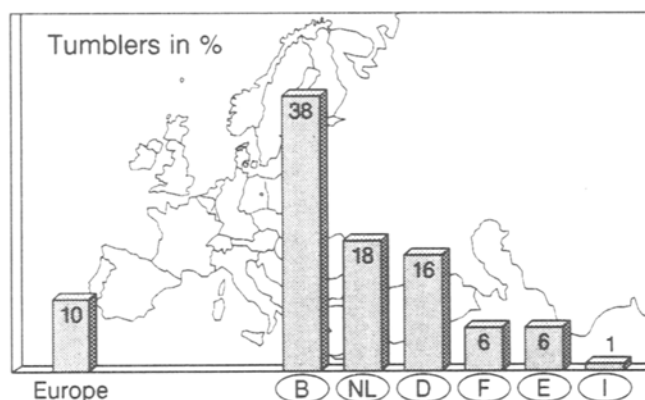


FIG. 12. Household equipment—tumbler dryers (1985).

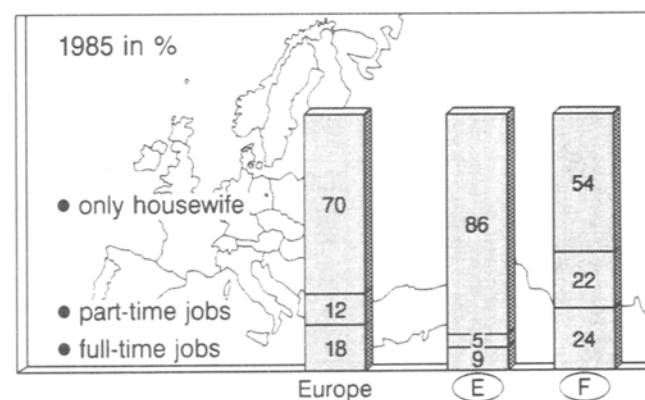


FIG. 13. Housewives and jobs.

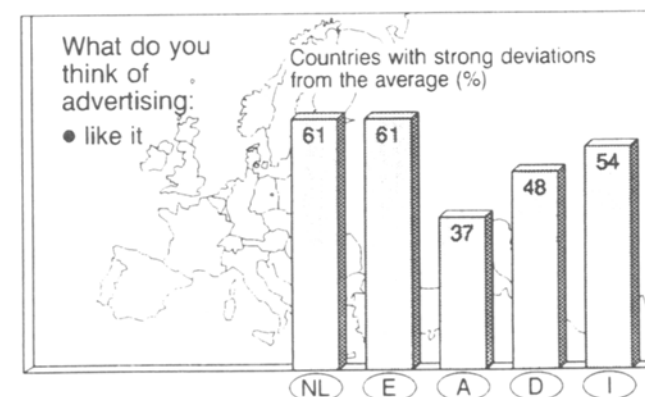


FIG. 14. Attitude—opinions of advertising.

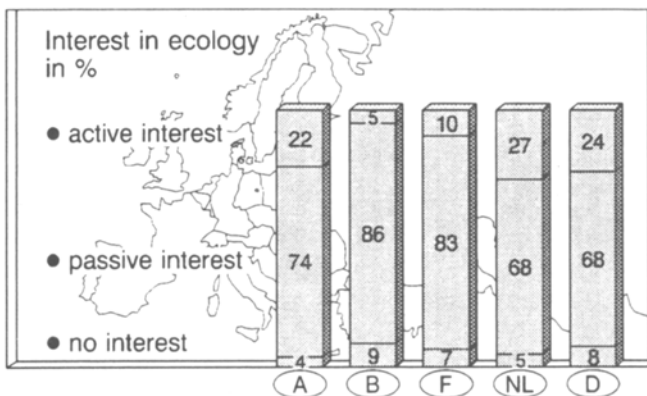


FIG. 15. Attitudes on ecology in selected European countries.

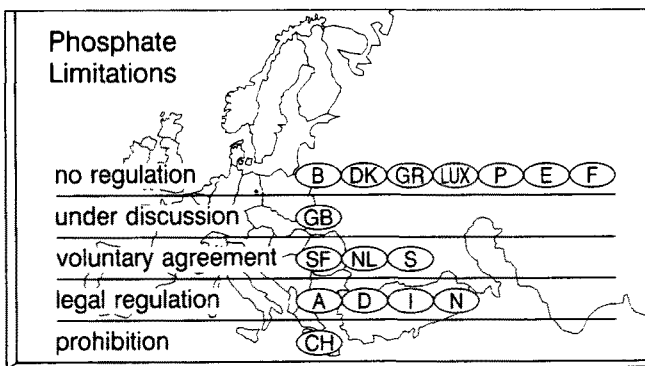


FIG. 16. Detergent legislation—phosphate limitations.

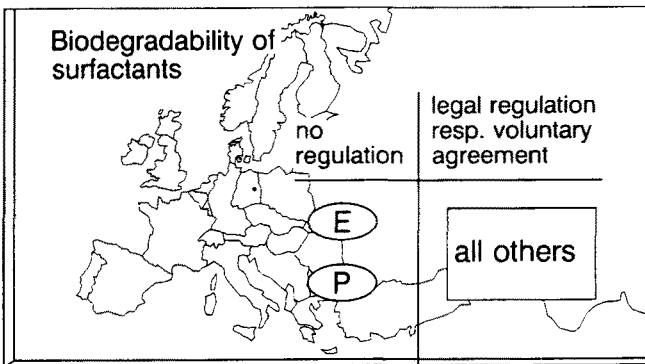


FIG. 17. Detergent legislation—biodegradability of surfactants.

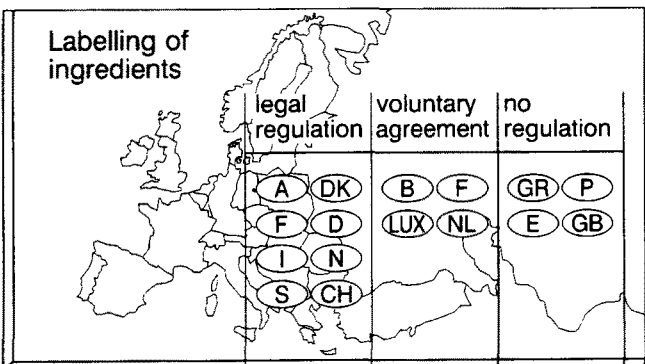


FIG. 18. Detergent legislation—labelling of ingredients.

opinion and consumer attitudes as well as the use of raw materials by industry. For many years the detergent industry has invested large sums of money to improve both product performance and compatibility with the environment. There have been many notable successes and voluntary agreements.

The following basic areas of detergent legislation can be distinguished:

- regulations on the biodegradability of surfactants
- requirements for stating dosage instructions based on water hardness
- regulations on stating components
- decrees setting maximum levels of, or prohibiting, phosphates
- requirements for stating the basic formula

European detergent legislation, in contrast to many other efforts at harmonization, is characterized by diversity. Regulations on the use of phosphates are a good example. Figure 16 shows the diversity in phosphate legislation in various countries. In Switzerland a ban on phosphate use has been in effect since July 1, 1986. In other countries there are decrees stipulating maximum levels of phosphates. Additional countries may issue similar regulations in the future.

Widely differing legal provisions also exist with regard to the biodegradability of surfactants (Fig. 17), component-labeling packages (Fig. 18), the requirement to state the basic formula (Fig. 19) and the dosage instructions based on water hardness (Fig. 20).

The existence or non-existence of legal provisions

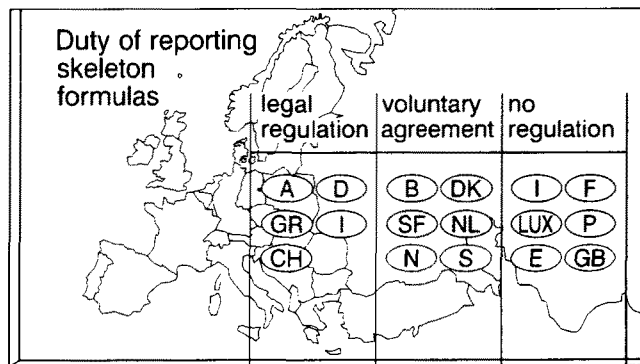


FIG. 19. Detergent legislation—duty of reporting skeleton formulas.

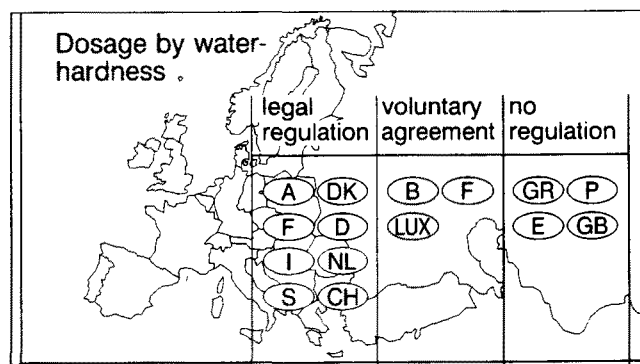


FIG. 20. Detergent legislation—dosage by water hardness.

reflects not only the objective environmental problems but also diverse public opinion.

*Effects on the use of raw materials by manufacturers.* The example of phosphate legislation illustrates the direct influence of legislation on formulation in the detergent industry. The use of phosphate has, therefore, dropped markedly in recent years, and it is expected that this trend will continue. At the same time, the significance of zeolites as ecologically safe phosphate substitutes should continue to grow (Fig. 21).

For surfactants one can expect further growth, especially given the increasing importance of liquid detergents. Perborates will remain indispensable components of detergent formulations as enzymes.

In summary, divergent legal stipulations prohibit a uniform formulation for the detergent industry throughout Europe. Legal restrictions on the manufacturers' product policy have also increased.

## TRADE

A final significant influencing factor on the European detergent and cleanser market is trade. Its importance as a sales medium between industry and consumer has increased greatly in recent years. One indicator of increased power accumulation is the degree of concentration of trade, which in the last 10 years has risen markedly throughout Europe. Figure 22 shows results of a survey of the share of sales of the 10 largest trading organizations in selected European countries.

Manufacturers are facing more and more powerful trade partners who, thus, can exercise ever greater influence on the manufacturers' marketing.

The growing influence of trade, however, is not only the result of concentration; it is also caused by a series of other factors:

- a growing amount of information and the increasing use of EDP at the POS
- increased profit orientation and a concomitant growing tendency toward tightening-up of the assortment
- intensified trade marketing, evidenced, for example, by the introduction of private brands.

All of these developments have placed restrictions on the manufacturers' scope of action. It is to be expected that in European countries where the degree of

saturation has not yet reached such high levels (e.g. Spain, Portugal and Norway), the process of concentration will continue.

## PROGNOSIS

In predicting the future development of the European detergent industry, the following influencing factors are assumed:

*Market.* Detergent markets in Europe will achieve only slight growth in terms of value. Further shrinkage will occur in some countries and/or market segments. The detergent industry will have to plan future production capacity even more carefully.

European markets will continue to grow closer together, despite current differences.

- Increased mobility will make delimitation of national markets more and more difficult.
- New developments in European media, such as satellite television, will make possible intensified international communication.
- For the European detergent industry, this will mean an increasingly international orientation for product and communication policies.

*Raw materials/production.* The demand for environmentally safe raw materials will grow. Alterations in raw materials used (e.g., phosphate substitute) will continue.

The trend toward harmonization and standardization will grow, leading to increased economies of scale.

*Legislation.* Statutory restrictions on detergent manufacturers' product policy will continue to increase, meaning greater attention will have to be paid to interests of the detergent industry in the legislative process.

*Washing machine industry.* New developments in the washing machine industry may mean a limitation of the detergent manufacturers' sales potential. Thus, detergent savings are being particularly emphasized in new machines. The detergent industry must insure savings in detergent are not made at the expense of washing performance.

*Consumers.* Consumers will become increasingly sensitive to problems of the environment; thus, public and legislative demands for environmentally compatible products will become more forceful.

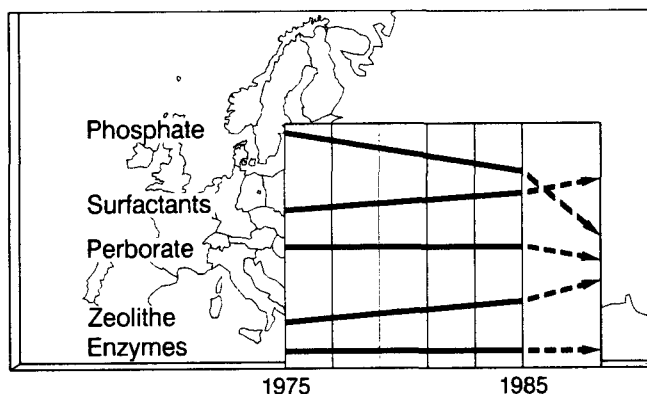


FIG. 21. Usage of detergent ingredients.

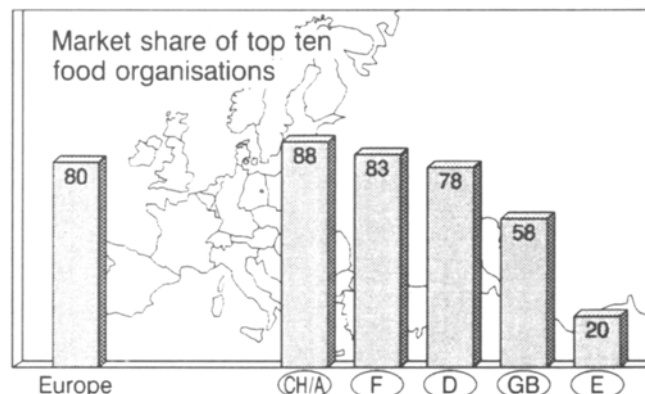


FIG. 22. Concentration of trade in Europe.

Changes in the consumer value systems will affect consumer attitudes and behavior. The detergent industry should document for use these changes in developing manufacturers' product, communication and supply policies.

Despite tendencies toward uniformity, a "typical" European consumer will not soon emerge because of the very slow pace of change in behavioral patterns and attitudes shaped by very different historical and sociocultural forces.