

The changing structure of the lead/acid battery industry in Europe

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Abstract

In September 1989, with its first edition, *Batteries International*, in conjunction with the Lead Development Association, published a map of European battery factories. This has recently been revised to include Eastern Europe and the countries that border the Mediterranean Sea. During the three years since publication of the original map, major economic and political changes have occurred in Europe. As well as the advent of the European single market, there has been the liberalization of the Eastern European countries and the CIS. With the help of information gathered during revision of the map, the impact of these changes on the structure of the European lead/acid battery industry is examined.

When the first issue of *Batteries International* appeared in the second half of 1989, it contained a map of European battery factories. This was published jointly with the Lead Development Association (LDA). The map listed 138 battery factories in 21 countries. A new map, again produced jointly with the LDA, has recently been published with the July edition of *Batteries International*. The area has been expanded to cover all the former Comecon countries and countries bordering on the Mediterranean Sea. This lists 236 battery plants in 35 countries. To accompany this map, a full directory with further information on each plant, such as address, business contacts, telephone and fax numbers and information on the types of batteries made, has recently been published. The information for this Directory was gathered from several sources, such as suppliers and battery consultants, and the end result was submitted to the various factories for comment. Our thanks are due to those who helped in this exercise and to those battery companies, who commented on, or supplied, additional information for their entries.

The three-year period that has elapsed between publication of these two maps has seen some very significant changes in the area in question. Within the EEC, the single market has become a fact of life and the political upheavals in Eastern Europe have given rise to new market-driven economies instead of the old doctrine of central control. How has all this affected the lead/acid battery industry?

With the disparity in the number of countries covered by the two maps, direct comparison is not easy. Table 1 shows, however, the comparative numbers of factories in the countries originally listed in the first map. At first sight, the numbers imply a dramatic expansion in the number of companies that manufacture batteries. Nevertheless, closer examination would suggest that the increase has largely arisen as a result of better information being received on the various countries — the major example is Italy. It was easy to be sceptical about this huge list of battery factories with which

TABLE 1

Number of battery factories identified in 1989 and 1992

Country	1989	1992
Austria	5	4
Belgium	2	3
Cyprus	1	3
Finland	3	2
France	15	17
Germany	23	19
Greece	5	8
Hungary	3	3
Ireland	1	0
Italy	14	49
Netherlands	3	3
Norway	3	1
Poland	5	9
Portugal	4	4
Spain	7	8
Sweden	2	2
Switzerland	8	6
Turkey	4	12
United Kingdom	25	26
Yugoslavia (former)	5	11
Total	138	190

we were presented, but comfort was taken when reading an article in *Batteries International* on Nuova Scaini [1]. In this article, Mr Signor Villa, the General Manager, observed that: 'Scaini face competition from a hundred battery manufacturers and assemblers. More than half of these actively cast their own grids using equipment discarded by the larger companies. This proliferation of small manufacturers is an 'Italian disease'.

There have been closures of factories in the period — examples include Action Batteries and Park Batteries in the UK, Ankar Sönnak and VARTA Batterie in Norway, Neste in Finland and Triumph in Austria. New names include Britannia Batteries, Oakdale Batteries and Global Batteries in the UK, and the FIAMM-GS joint venture in Italy at the Siapra plant.

The most significant changes that have taken place in the European lead/acid battery industry in the period have arisen through the various mergers and acquisitions that have occurred. These have resulted in the emergence of CEAC, VARTA, Tudor Spain and Hawker Batteries as the dominant groupings in the industry. The market shares of the various European battery companies for 1988 are given in Table 2. Table 3 lists the major mergers and acquisitions that have taken place since that time. It will be noted that significant regrouping has taken place. If there had been no change in relative market shares in the intervening period, a revised list of the leading European companies would appear as in Table 4. In fact, in a recent article in *Batteries International*, Mr Leclercq of CEAC [2] claims that his company has 27% of the European market and that the top four groups now have a 75% share of the estimated

TABLE 2

Market share (%) of leading European battery companies in 1988*

VARTA, Germany	18
CEAC, France	8
Chloride, UK	8
Tudor, Spain	7
Hawker, UK	6
Magnetti Marelli, Italy	6
FIAMM, Italy	5
Neste, Finland	5
Bosch/Femsa, Germany	4
Hoppecke, Germany	4
Sonnenschein, Germany	4
Hagen, Germany	3
DETA, Germany	3
CFEC, France	3
Lucas Yuasa, UK	2
AC Delco, France	2
Jungfer, Austria	1.5
Tudor, Belgium	1.4
	90

*Source GCI Inc. with additions by CEAC.

TABLE 3

Battery company mergers/acquisitions between 1989 and 1992

1989	CEAG acquire Pb Industrial Batteries Chloride sell Exide (Europe) to Gemala, and CMP to CEAC
1990	Tudor (Spain) acquire 50% of Neste, with option to purchase further 30% Magnetti Marelli acquire 75% of CFEC CEAC acquire Tudor, Belgium Magnetti Marelli/CEAC link-up announced
1991	VARTA/Bosch announce merger of automotive battery interests Hawker Batteries acquire Chloride Standby Power CEAC acquire Sonnenschein Hawker Batteries acquired by BTR Tudor (Spain) acquire remainder of Neste
1992	Hoppecke buy site/plant of Zwickauer Batterie Oerlikon and Electrona merge VARTA seek permission to buy BAE (Taubenheim) VARTA purchased Akucel (former Czechoslovakia)

US \$3.35 billion European market. Thus, they are collectively achieving sales of some US \$2.5 billion with 49 plants, which means that if the old free-market Europe is considered, some 100 or so factories are chasing the remaining sales of US \$850 million. The lists of plants operated by these four groups is listed in Tables 5-8.

It is interesting to speculate whether the above regrouping would have happened anyway or whether it was prompted by the impending arrival of the single market.

TABLE 4

Leading European battery companies in 1992

	Approximative market share (%)
CEAC, France	26
VARTA, Germany	22
Tudor, Spain	15
BTR/Hawker, UK	8
FIAMM, Italy	5
Hoppecke, Germany	4
DETA, Germany	3
Lucas-Yuasa, UK	2
AC Delco, France	2
Jungfer, Austria	1.5
Exide (Gemala), UK	1.5
	90

TABLE 5

Battery plants operated by CEAC

Accumulateurs Tudor SA, Grez Doiceau, Belgium
Sonnenschein Akkumulatorenfabrik GmbH, Berlin, Germany
Sonnenschein Akkumulatorenfabrik GmbH, Büdingen, Germany
Sonnenschein Akkumulatorenfabrik GmbH, Weiden, Germany
CEAC, Auxerre, France
CEAC, Lille, France
CEAC, Nanterre, France
CEAC, Nimes, France
CEAC, Vierzon, France
Compagnie Française d'Electrochimie, Outarville, France
Compagnia Generale Accumulatori SpA, Casalnuovo di Napoli, Italy
Fabrica Accumulatori York, Fumane di Valpolicella, Italy
SAEM SpA, Monza (MI), Italy
Sinac, Romano di Lombardia, Italy
CMP Ltd., Bolton, Lancs, UK

What is certain is that the EEC Commission has not been a disinterested observer of the changes taking place; it has had a good look at both the CEAC/Marelli and the VARTA/Bosch mergers. In the first instance, Magnetti Marelli have been required to reduce their holding in CFEC from 75.4 to 10% within three years and to withdraw their directors. In the second instance, VARTA and the two leading companies in the CEAG group, DETA and Mareg, were instructed to sever their links via common directors and manufacturing licences. This is because CEAG is owned by one side of the Quandt family, whilst VARTA is owned by the other. In addition, it seemed that 'the merger could only be approved after Italy's Fiat car group, through Magnetti Marelli, expanded its influence on the German market by acquiring Sonnenschein, offering the prospect of continued fair competition in the market place'. It is obvious,

TABLE 6

Battery plants operated by VARTA Batterie AG

OFA Akkumulatoren GmbH, Vienna, Austria
 VARTA Batterie AG, Hagen, Germany
 VB Autobatterie GmbH, Berlin, Germany
 VB Autobatterie GmbH, Hannover, Germany
 VB Autobatterie GmbH, Hildesheim, Germany
 Akkumulatorenfabrik Berga GmbH, Rastatt, Germany
 VB Autobaterias SA, Burgos, Spain
 VB Autobaterias SA, Guardamar del Segura, Alicante, Spain
 VB Autobatterie SA, Le Grand Quevilly, France
 VARTA Batterie Industriali SpA, Villanova Sull Arda (PC), Italy
 VB Autobatteri AB, Hultsfred, Sweden
 VARTA Batteri AB, Hultsfred, Sweden
 Akkuteollisuus Oy, Espoo, Finland

TABLE 7

Battery plants operated by S.E. del Accumulador Tudor

Elbak Batteriewerke GmbH, Graz, Austria
 Hagen Batterie AG, Berlin, Germany
 Hagen Batterie AG, Kassel, Germany
 Hagen Batterie AG, Soest, Germany
 Tudor, Azuqueca, Spain
 Tudor, Hernani, Spain
 Tudor, Malpica, Spain
 Tudor, Manzanares, Spain
 Tudor, Zaragoza, Spain
 TS Batteries, Fougères, France
 Tudor Hellenic, Amarausio, Greece
 Tudor Sonnak A/S, Horten, Norway
 Soc. Portuguesa do Accumulador Tudor SA, Lisbon, Portugal
 Aktiebolaget Tudor, Nol, Sweden
 Pakkasaku Oy, Vantaa, Finland

TABLE 8

Battery plants operated by BTR/Hawker

Semelec SA, Zamudio (Vizcaya), Spain
 Oldham France, Arras, France
 Hawker Energy Ltd., Newport, Gwent, UK
 Oldham Crompton Batteries Ltd., Manchester, UK
 Tungstone Batteries Ltd., Market Harborough, UK
 Chloride Industrial Batteries Ltd., Manchester, UK

therefore, that the Commission is not prepared to look at mergers wholly in the context of a total European market, but will still take note of what may be considered an 'unhealthy' share of a national market.

The recent political changes in Eastern Europe are having a major impact on the battery industry in the former Comecon countries. The ending of central control from Moscow and the introduction of free-market economies, while providing freedom of action for the companies concerned, is also making for difficult times as their economies adjust to the changes that are occurring. Despite this situation, growth of these economies is anticipated to exceed that in Western Europe in the years ahead as conditions improve. This should lead to an increase in demand for cars and, hence, for batteries. In most of the countries concerned, the formerly state-owned companies have been heading towards privatization and many are seeking links with Western companies either to improve their technology or to obtain investment with which to modernize their factories. Through their traditionally good links with the former Eastern countries, it is perhaps not surprising that it is the German companies who seem to be taking the lead in cementing these relationships, some examples are Hoppecke's investment in Zwickauer Batterie and VARTA's reported purchase of Akucel in the former Czechoslovakia [3].

Where does all this leave the supplier? The large groupings that exist in Europe make for potentially powerful purchasing units — particularly for items of high volume usage such as lead and separator materials. Loss of even a share of business on this sort of scale can be very damaging. As far as equipment suppliers are concerned, much will depend on how the various companies allow individual units to follow their own technical paths. Here, there are some interesting differences, such as CEAC's glass-mat starved electrolyte and Sonnenschein's gell approach to maintenance-free batteries within the same group. In Eastern Europe, the ending of central control has made fundamental differences to the supplier. According to Don Brown of Chloride Technical and Trading [4], centrally-planned economies with all trade channelled through Foreign Trade Organizations, offered the key advantage to suppliers of guaranteed payment. It was often impossible, however, to meet with the end user and thus a disproportionate amount of time went into convincing the Trade Organization of the commercial aspects of a project, rather than discussing technical innovation with individual factories. The liberalization of travel has improved the level of contact in both directions which may make the selling job easier, but the risks of doing business are higher — although Brown points out no higher than doing business in many other parts of the world.

So what does the future hold? Dr Hoeglund of Tudor disputes EUROBAT's estimate of a capacity of 60 million units for automotive batteries in Europe, he claims it to be nearer to 100 million if allowance is made for potential shift working [5]. Market projections for the 'enlarged' Europe are estimated to top barely 70 million units by 1996, as shown in Fig. 1 [6]. It must also be understood that the companies in the liberalized countries will be seeking their share of this market. Companies are wishing to improve their profitability by increasing productivity but the market is growing slower than the growth from productivity. Relatively little capacity has been closed in recent years and the leading producers are unlikely to surrender market share when shutting down less efficient plants, but will rely on productivity improvements elsewhere to fill the gap. Thus, it seems the problem of overcapacity will increase. The desire to reduce the cost of stocks by just-in-time delivery will mean that major groupings will need to look closely at the geographical balance of their operations, particularly for the automotive original-equipment market. The principal battleground may well become the replacement market. Can changes in manufacturing technology such as continuous processing, enveloping, etc., coupled with the reduction in the number of sizes required, produce a better and cheaper battery and in a cleaner

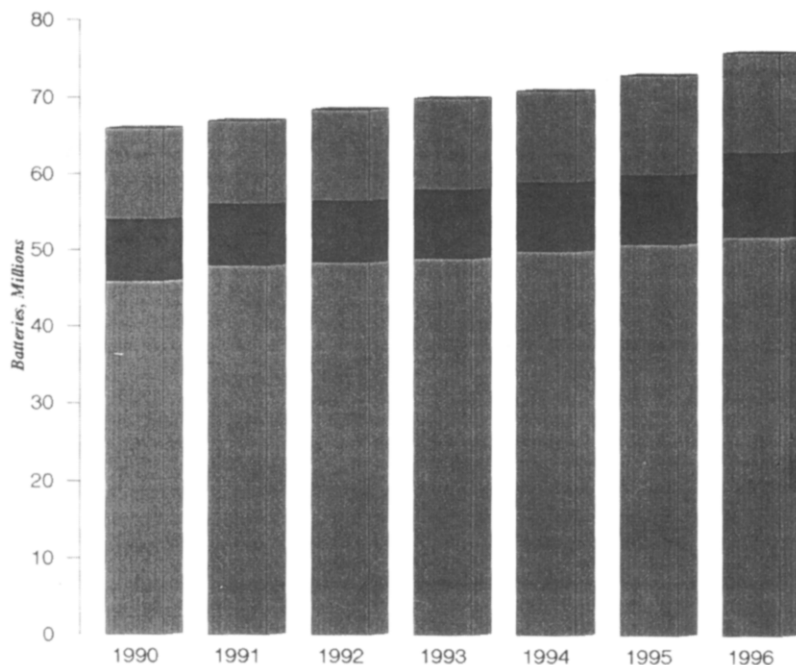


Fig. 1. Projections of automotive battery market in Europe. Lower part of bar: Western Europe, 1992-1996 +2% growth/year; middle part of bar: Central Europe, 1993-1996 +6% growth/year, and upper part of bar: CIS, 1993-1996 +3% growth/year.

environment? In this way, the many smaller producers for the replacement market may be put under pressure from the major groups.

What is clear is that the industry has undergone significant changes in the past few years. Will the current difficult economic climate act as a further catalyst for change? For change, it seems, must occur if reasonable profitability is to be attained in the industry. The next edition of the *Batteries International/LDA* map, in about three years time, should make an interesting study!

References

- 1 *Batteries Int.*, 9 (Oct.) (1991) 20-25.
- 2 *Batteries Int.*, 11 (Apr.) (1992) 24.
- 3 *Batteries Int.*, 12 (July) (1992) 8.
- 4 *Batteries Int.*, 9 (Oct.) (1991) 28-29.
- 5 *Batteries Int.*, 12 (July) (1992) 16-18.
- 6 J. Leclercq, *J. Power Sources*, 42 (1993) in press.