



## Dear shareholders,

## Large interest in new production process Joint project with Atotech alerts industry



The first quarter of 2001 has been characterized by strong turbulences at the financial markets which, naturally, did not completely by-pass LPKF. For my colleagues at the board of directors and myself this meant that we had to convince analysts and fund managers in nume-

rous meetings of our company's solidity. I think our arguments were received well. Contrary to many other public companies in the New Market we almost always have fulfilled our forecasts. Additionally, we have a considerable growth potential that is based on numerous innovative products.

Despite the expected and planned unspectacular results for the first quarter 2001 the board of directors will do all they can to realize our plans for the current year. We expect the necessary growth of turnover and revenue in the second half of 2001. The basis for this calculation is a series of innovative products of our company which will already be introduced to the market until mid of 2001.

As I resigned from the chair of the board of directors on 17th May 2001, I would like to wish my successor, Bernd Hackmann, good luck and success for his task. He can be sure of my support through my activities on the supervisory board also in the future. I would like to ask all shareholders to place your confidence with Bernd Hackmann, his colleagues on the board of directors and with LPKF in the future and I hope for a long-term cooperation.

Yours sincerely,

Bernd Hildebrandt

Ever smaller, less weight and more versatile. Hardly any other trend controls the electronics market as much as the demand for ever more powerful handheld products. In cooperation with the TotalFinaElf-subsubsidiary Atotech Deutschland GmbH, Berlin, LPKF Laser & Electronics has now created an innovative production process which allows circuit board manufacturers to meet this challenge.

The objective of the cooperation agreement signed in December 1999 was to develop a production process for the mass production of circuit boards, which combines the conventional chemical etching technology with the LPKF MicroLine Laser technology. The process makes it possible to realize circuits with extremely high density needed for the production of high-performance handheld electronics like UMTS-mobiles by generating ultra fine conductive tracks. Atotech as a leading producer of circuit board manufacturing systems was responsible for providing the necessary equipment and LPKF for providing the laser technology. In the meantime the first prototype has been installed. The next step will be the sampling of end users.

Advantage: A complete and thus cost-intensive conversion is not necessary, the customers can still use their own equipment in combination with the new laser technology. "This enormously increases the willingness to invest", says LPKF-project manager Michael Agater, who expects the first customer installation already for this year. Technically speaking, a "direct laser structuring" (LDC) process is used for the first time to immediately directly structure a circuit layout into the so-called "etch



resist". This layer has been applied to the board prior to the process and is an important tool for the chemical etching process. It enables the generation of an exact circuit layout on defined areas.

What is so special about the LDC-process: With this process much smaller structures (down to 25 µm) can be generated in the resist than using conventional methods. Additionally, the LDC process is highly economical compared to competitors' systems due to the complete process chain. The large interest in the process and the numerous requests for information from many circuit board manufacturers show that the industry has long been waiting for such a process to be offered. LPKF considers such reactions as an excellent proof that LDC can develop into a key technology in the coming technological revolution in the electronics market.



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# Increases in Rapid Prototyping

**LPKF distinguishes itself as worldwide supplier of complete systems for developers**



**These results speak for themselves: After more than 25 years on the market LPKF still produces a turnover growth of more than 20 per cent per year with its products for rapid prototyping.**

An important contribution came from the US market with a turnover growth of 36 per cent. This success is mainly based on the customer-oriented development activities of the company. LPKF was able to demonstrate this quality once again with the latest new and further developments in

rapid prototyping. Last year the ProtoLaser was the first device ever on the market that combines two well-tried technologies, circuit board plotter and laser technology, in an excellent way. The ProtoLaser can generate conductive tracks right down to 40 µm. This is LPKF's offensive response to the demand for constant miniaturization of electronic components. LPKF also constantly improves established standard tools and thus proves to be one of the most important suppliers of complete systems for electronics developers. The current models of the galvanic through-hole contacting equipment Contac II and MiniContac II managed to interest new customers e. g. by enabling new applications like high-frequency technology. The current circuit board plotter M-series also offers new possibilities e. g. by the add-on option to process front panels of device casings.

With such innovations LPKF enables developers to meet one of the most important market requirements: To produce complete prototypes fast and as close to serial production as possible.

## LPKF France presents outstanding result

**New structures stimulate business in the neighboring country**

**It has only been one and a half years since LPKF generated an efficient organizational structure for the expanding French market with the founding of LPKF France SARL.**



general manager Michel Douezy who had been working for LPKF in France before. The success of LPKF France could encourage the company to extend these structures to other European regions which also have a big market potential. "This might be implemented in all countries" says Hackmann, "with big markets which are not sufficiently catered for or which do not yet have a similarly effective marketing structure."

With the improved marketing possibilities which had already proven a success in the Benelux and the USA the company wanted to eliminate the intermediate trade and thus create a longer trade margin. This was also aiming at a higher customer confidence and a more efficient product marketing. Now we can proudly state: All these forecasts have come true. With a turnover of approx. 1 million DM in the past year LPKF France presents a record result. "In 2000 more LPKF products were sold than in any other year", said Bernd Hackmann, member of the board of directors. This outstanding result has been made possible by the strategic position of the subsidiary in the Paris region but is also based on the vast experience of



## Particulars

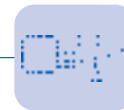
**Thomas Nether**, graduate engineer for biomedical technology, is responsible for concepts and end-user sampling (application) in the R&D laser department already since mid 2000. He works with all MicroLine systems as well as for 3D-MID plants.



**Marc Hüske**, graduate engineer for electrical engineering, joined the team of the laser technology R&D department already at the end of last year. As project manager he is responsible for R&D in the field of laser structuring.



**Dr. Xuhui He**, graduate physicist and expert in laser material processing, is responsible for service and support in the StencilLaser department since the beginning of this year.



## Exhibition presentation

LPKF will be present at the world's leading photonics fair.

**LASER 2001**  
World of Photonics

From 18<sup>th</sup> till 22<sup>nd</sup> June 2001 the company will take part in the LASER with a 45 m<sup>2</sup> booth. This event taking place in Munich (every other year) is the only fair world wide that combines all market leaders on a world wide scale under one roof and offers a maximum of internationality both on the exhibitors' and the visitors' side. Among others the ProtoLaser system, a new StencilLaser version and many different documentations will be presented.

Other important exhibition dates in the current quarter:

**06.-08.06.2001**  
JPCA in Tokyo, Japan

**19.-21.06.2001**  
DAC in Las Vegas, USA

**26.-29.06.2001**  
Nepcon Malaysia in Kuala Lumpur, Malaysia

# Success through cooperation and division of labor



## Interview with Tomaz Zepic, General Manager of LPKF d.o.o. in Slovenia

Since its founding in 1994 LPKF d.o.o has been operating in very close contact to its parent company in Garbsen. What are the advantages of this close cooperation?



The most important advantage is the mutual impulse for innovations which then can be realized in cooperation. One result of this policy is the latest LPKF success story, the fast development of the laser drilling system MicroLine Drill. The technical basis was already given with the existing laser source. LPKF in Garbsen had the idea to use this laser for the drilling of

multilayer circuits. As the tests that LPKF Garbsen asked us to do yielded satisfying results, the further development was done in close cooperation of both companies.

### Have customer requests been taken into account for the development?

Customer wishes were the main driving force right from the start. The project was actually triggered in the sales department in Garbsen. Customers had repeatedly requested a tool that combines laser drilling technology with micro structuring. This request was communicated to us. It also demonstrates that a close cooperation between the companies can be very rewarding. The subsequent development of the MicroLine Drill was again done in close cooperation with the prospective end users.

Wherever possible, LPKF tries to use in-house developments instead of buying system components elsewhere. Does this procedure always pay?

It does. Positive customer responses prove it. You can only be sure that the components are optimally tuned to each other when you receive all components from the same supplier. Subcontractors usually work for more than one customer and very seldom are in the position to optimize their products for one specific application. However, we count on perfect coordination based on in-house developments. This, of course, is only possible through the mixture of close cooperation and division of labor that we have been successfully practicing in the LPKF group for years.

## Dear Shareholders

The world wide economic decline left its mark also at LPKF, as the first quarter 2001 had a weak start. Compared to last years figures, turnover of 5,500 K€ was slightly reduced. The group result is 645 K€. Compared to last year, the orders received increased by 13 per cent, and the backlog of orders is currently 2,761 K€.

The Board of Directors is expecting a good result for the end of 2001, in spite of the slow start. Similar to 2000 there will be a making up of grounds, based especially on the high sales potential of the MicroLine Drill technology.

At present, the further business development is characterised by follow-up orders of the new MicroLine Drill, ProtoLaser and ScanCheck. On the occasion of an analysts' meeting held at our cooperation partner Atotech GmbH, Vice President Reinhard Schneider signalled an encouraging potential of 40 MicroLine Laser systems to be sold until the end of 2003. LPKF Laser & Electronics AG sees this as a confirmation of the product strategy that is pursued.

## Consolidated group

In addition to the Group's parent company, LPKF Laser & Electronics AG, the following subsidiaries have been included in the consolidated statements:

Name	Domicile	Holding %	Acquired
ELASER Gesellschaft für Elektronik, Laser und Automation GmbH	Suhl / Thuringia	100.0	1989
LPKF d.o.o.	Kranj / Slovenia	75.0	1995
LPKF Franklin Industries N.V.	Mechelen / Belgium	100.0	1999
LPKF Laser & Electronics Inc.	Wilsonville / USA	60.0	1999
A-Laser Inc.	Beaverton / USA	100.0	1999
LPKF Motion & Control GmbH	Suhl / Thuringia	50.9	1999
LPKF Properties LLC	Wilsonville / USA	60.0	1999
LPKF France S.A.R.L.	Lisses / France	94.0	1999
LPKF Laser Components GmbH	Garbsen / Lower Saxony	80.0	1999
LPKF (Tianjin) Co. Ltd.	Tianjin / China	100.0	2000

Other Group companies which are not controlled by LPKF Laser & Electronics AG and have therefore not been fully consolidated are:

Name	Domicile	Holding %	Acquired
Laserquipment AG	Erlangen / Bavaria	19.99	2000
PhotonicNet GmbH	Hannover / Lower Saxony	9.09	2000

## Segment reporting (in T\$€)

a) Product groups	01.01.- 31.03.2001	01.01.- 31.03.2000
Laser systems	1,683	2,420
Rapid Prototyping	3,002	2,895
Stencils	663	408
Others	152	23
	<u>5,500</u>	<u>5,746</u>

b) Regions	01.01.- 31.03.2001	01.01.- 31.03.2000
Germany	1,501	1,927
Rest of Europe	1,085	557
North America	1,621	2,253
Asia	924	847
Others	369	162
	<u>5,500</u>	<u>5,746</u>

## Workforce

The workforce in each division was as follows as of March 31<sup>st</sup>, 2001

	31.03.2001	31.12.2000
Production	55	53
Distribution	38	34
Research & Development	34	34
Technology, Administration	65	65
	<u>192</u>	<u>186</u>

## Earnings per share

The undiluted earnings per share for the first three months of the 2001 financial year with a consolidated result of K€ 645 and 10.500.000 issued shares is € 0.06 (€ 0.07). The diluted earnings per share is € 0.06 (€ 0.06)

## Consolidated balance sheet (in T€)

Assets	31.03.2001	31.12.2000	Liabilities and shareholders' equity	31.03.2001	31.12.2000
<b>Fixed assets</b>			<b>Shareholders' Equity</b>		
Intangible assets	3,455	3,679	Subscribed capital	10,500	10,500
Tangible assets	8,944	8,885	Capital surplus	3,622	3,623
Financial Assets	23	35	Retained earnings	6,983	3,799
<b>Total fixed assets</b>	<b>12,422</b>	<b>12,599</b>	Consolidated results	645	3,183
<b>Current assets</b>			Foreign currency translation adjustment	451	270
Inventories	9,885	7,538	Minority interests	1,479	1,305
Trade accounts receivable and other assets	7,970	7,933	<b>23,680</b>	<b>22,680</b>	
Marketable securities	227	61	<b>Provisions and accrued liabilities</b>		
Liquid assets	2,476	3,757	Provisions for pensions	195	191
<b>Total current assets</b>	<b>20,558</b>	<b>19,289</b>	Accrued taxes	1,327	1,389
Deferred charges and prepaid expenses	202	119	Other provisions and accrued liabilities	519	927
Deferred tax assets	466	421	<b>2,041</b>	<b>2,507</b>	
<b>Total assets</b>	<b>33,648</b>	<b>32,428</b>	<b>Liabilities</b>		
			Bonds	249	248
			Liabilities due to banks	3,776	3,183
			Advance payments received on account of orders	74	18
			Trade accounts payable	1,166	1,298
			Payables to companies in which participations are held	0	3
			Payables associated companies	0	11
			Other liabilities	1,129	900
			<b>6,394</b>	<b>5,661</b>	
			Deferred income	82	65
			Deferred grants	524	530
			Deferred tax liabilities	927	985
			<b>Total Liabilities</b>	<b>33,648</b>	<b>32,428</b>

## Consolidated cash flow statements (in T€)

	01.01 - 31.03.2001	01.01 - 31.3.2000
<b>Operating activities</b>		
Net profit for the year	805	743
Depreciation of fixed assets	600	462
Other expenses/income not relating to payments	-64	-61
Changes in inventories, accounts receivable	-2,677	-2,982
Changes in provisions and accrued liabilities	-466	-409
Changes in other liabilities	287	-263
Cash flow from operating activities	<b>-1,515</b>	<b>-2,510</b>
<b>Investment activities</b>		
Fixed asset investment	-471	-1,116
Payments received on the disposal of fixed assets	22	0
Cash flow from investment activities	<b>-449</b>	<b>-1,116</b>
<b>Financial activities</b>		
Minority Interests	0	58
Investment in affiliated Companies	0	-1
Change in long-term bank borrowings	-149	1,810
Cash flow from financial activities	<b>-149</b>	<b>1,867</b>
<b>Changes in cash and cash equivalents</b>		
Exchange rate related changes in financial resources	90	62
Changes in cash and cash equivalents	-2,113	-1,759
Cash and cash equivalents as at 01.01.2001	3,757	6,198
Cash and cash equivalents as at 31.03.2001	<b>1,734</b>	<b>4,501</b>
<b>Composition of cash and cash equivalents</b>		
Liquid assets	2,476	4,702
Liabilities on current bank accounts	-742	-201
Cash and cash equivalents	<b>1,734</b>	<b>4,501</b>

## Consolidated statement of income (in T€)

	01.01.- 31.03.2001	01.01.- 31.03.2000
Sales	5,500	5,746
Increase in finished goods and work in progress	2,235	69
Own work capitalised	6	0
Other operating income	237	153
	<b>7,978</b>	<b>5,968</b>
Cost of materials	2,614	1,295
Personnel expenses	1,952	1,604
Depreciation and amortisation of intangible assets, plant and equipment	600	462
Other operating expenses	1,461	1,301
	<b>1,351</b>	<b>1,306</b>
Financial result	-13	-41
Profit/Loss from ordinary operations	1,338	1,265
Taxes on income	533	522
Consolidated net income	805	743
Minority interests	160	45
<b>Consolidated result</b>	<b>645</b>	<b>698</b>

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