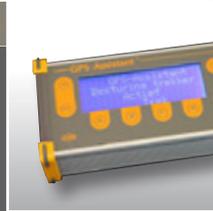




WAY of life



Edition
28
nov 2009





1568

Does tbp have an affinity with numbers? Obviously; who doesn't?...

We don't always take it for granted, but we do know that many people and cultures have an affinity with numbers. The most familiar one is 13. As in Friday the thirteenth, which generally has coincided with an opening and/or an open day at tbp. Many airline companies have not included row number 13 in their cabins, simply because travelers rather avoid the "unlucky number" 13 out of credulity. That is why the Italians have not included the number 17 at Alitalia in their rows of seats.

Some people even have all sorts of obsessional neuroses that generally involve numbers. For instance, counting tiles in the bathroom or cobblestones, the number of steps to the next chestnut tree, counting (red) cars, etc. Are you interested in this phenomenon? Then we

can recommend renting the film "As good as it gets" from 1997, starring Jack Nicholson and Helen Hunt. This film won two out of seven Academy Awards. It was shortlisted and shows - often in a humorous way - a beautiful picture of a man with this obsessive-compulsive disorder. Autism can also put numbers in an undeniable place in someone's life. A perfect example, is the film "Rain Man" from 1988 with Dustin Hofman and Tom Cruise, in which Raymond can count the tooth-picks that fall on the floor in the blink of an eye.

Moreover, the number 11 seems to be the fool's number and 7 is the lucky number. Many people as well have a personal obsession with their own numbers. And I don't mean auditors or (ex-) bank employees. No, people who want to get married on a certain date or who know for sure that the World will end on that date. The combination of the numbers 9-11 for instance has derived its own character and aftertaste. Currently, tbp electronics has an affinity with the number 1568: we (almost) all know from our schooldays that in 1568 the Battle of Heiligerlee in the province of Groningen occurred, the first

conquest of the rebels of the Eighty Years' War as would appear later on with the gathered army of William of Orange. In 1568 - just as nowadays - ships were being hijacked (privateered), but then it happened with William of Orange's consent, which was withdrawn after the conquest of Den Briel on 1st April 1572. The Iconoclastic outbreak also happened in 1568. The list continue; when using Google, the result is about 15.700 hits for the number 1568.

All this happened 441 years ago. So what has tbp to do with it today? I'll explain: about a month ago on Sunday October 4th, 2009 at 2.00 pm already 1568 visitors had been counted on the tbp electronics Open Company Day in Geel. Later that day an even finer number was reached: the final count resulted in 1654. Congratulations to our 400 colleagues over there.

By the way, have you ever heard of the Delft thunderclap? Google 1654, and you'll become quite knowledgeable regarding the use of numbers.

Ton

colophon

postal address

tbp electronics bv
postbus 8
3247 ZG Dirksland
T +31 (0)187 602744
F +31 (0)187 603497
E info@tbp.nl
I www.tbp.eu

visiting addresses

Vlaktbodem 10 • 3247 CP Dirksland (NL)
Bell Telephonelaan 3 • B-2440 Geel (B)

editing

Dana Wolters (info@tbp.nl)

copywriting & photography

redactie in techniek (Editing in techniques),
Frans Witkamp

design

Peter Walschots & Grafisch Bedrijf Hontelé

printer

Grafisch Bedrijf Hontelé

Way of Life is an edition by tbp electronics. This newsletter is distributed to tbp's relations. Reproduction, duplication or copying of articles is allowed only after consent of the editors. Way of Life is printed on non-chlorine bleached paper and it is environmental-friendly wrapped.

talking about fairs

from Electronics & Automation to HET Instrument

Did you enjoy the Electronics & Automation fair? We certainly did, as well as, apparently many others. According to its organizer the FHI, the fair (plus conference) attracted close to 4,500 visitors more than its preceding edition despite all negative signals. And that is something amazing in times in which many of us feel the effects of the financial crisis. Possibly, the bait of the wireless sensor temperature meter drew extra people? Anyway, tbp doesn't have any reason to complain. Our happy hour, which seemed to work like a magnet, was also very well attended, ending far after closing hours of the fair. Existing contacts have been consolidated and prospects have been introduced.

Next year, the EMS-branch will present itself at the largest trade fair in The Netherlands. Organizer FHI will spare no expense with "HET Instrument 2010", the umbrella for partial fairs for industrial Electronics, industrial automation and laboratory technology. For the first time in years this manifestation will take place in the RAI in Amsterdam, its motto will be "The sound of technology". Please, enter the data in your agenda: September 28th – October 1st, 2010. Obviously, you will hear more about it in due time.



Impression of E&A 2009



Announcement of Het Instrument 2010

contents

- | | | | |
|---|----------------------------|----|-----------------------------|
| 2 | column | 10 | interview with MCF |
| 3 | talking about fairs | 12 | new reflow oven |
| 4 | tois | 12 | the x-factor(y) |
| 5 | quotations via website | 13 | art in Dirksland |
| 6 | unlimited on the market | 14 | Prize Entrepreneurship 2009 |
| 6 | Open Business Day | 15 | European Quality Leader |
| 7 | extension of the machinery | 16 | customer satisfaction poll |
| 8 | tbp the technological way | | |

Beyond our borders there will be various interesting fairs held. For your convenience we have made a selection:

Productronica 2009. Munich, Germany. 1-13 nov '09
The 18th world famous fair on electronics manufacturing
(www.productronica.de);

De Mesago organiseert diverse evenementen (zie www.mesago.de):

SPS/IPC/DRIVES 2009. Nuremberg, Germany 24-26 nov '09

Electric automation - systems & components.

International trade fair and conference;

Product Life live 2010. Stuttgart-Fellbach, Germany 2-3 mar '10

Application conference for PDM and PLM;

SPS Industrial automation fair Guangzhou 2010. 8-11 mar '10

Guangzhou, China. www.siaf-china.com;

EMV 2010 Düsseldorf, Germany. International trade fair 9-11 mar '10

and conference for electromagnetic tolerance;

Smart Systems Integration 2010. Como, Italy 23-24 mar '10

European conference & fair on integration and small systems - MEMS, MOEMS, ICs and electronic components;

Reed Exhibitions organises events on various locations (zie www.reedexpo.com):

Internecon Japan. Tokyo, Japan 20-22 jan '10

Electronics manufacturing and SMT (www.nepcon.jp/english);

Photonics (formerly Laser & Optics). Tokyo, Japan 20-22 jan '10

(www.photonicsjapan.jp/laser/en);

SMT/PCB & Packaging Nepcon Korea. Seoul, South-Korea 31 mar-2 apr '10

(www.smtpcb.org);

Nepcon China. Shanghai, China 20-22 apr '10

Electronics manufacturing (www.nepconchina.com);

The following fairs/conferences take place as well:

Interop New York New York, USA (www.interop.com/newyork) 16-20 nov '09

the leading business technology event.;

International Consumer Electronics Show (CES) 2010 7-10 jan '10

Las Vegas, Nevada, USA (www.cesweb.org);

PTA Progressive Technologies in Automation 9-11 feb '10

Krasnoyarsk, Russia (www.pta-expo.ru/en/);

Embedded world 2010 Nuremberg, Germany 2-4 mar '10

Fair and conference (www.embedded-world.de);

Electronic display conference Nuremberg, Germany 3-4 mar '10

(www.elektroniknet.de/home/termine/foren/electronic-displays-conference-2010);

Electronica & Productronica China 2010 16-18 mar '10

Shanghai New International Expo Centre SNIEC (www.e-p-china.com)

9th international fair of components and production technology;

Automaticon Warsaw, Poland (www.automaticon.pl/english) 23-26 mar '10

Fair for automation, control, measurement and robotics;

Interop Las Vegas Las Vegas, USA (www.interop.com/lasvegas) 25-30 apr '10

Mandalay Bay Convention Centre.

tois: the key to good entrepreneurship

To make a product that meets the client's expectations may be the main objective, but that alone does not guarantee the success of the Company which produces it. However well those machines are exercising their tasks, it is people that are making the difference in obtaining full Customer Satisfaction. Especially in complex and fast evolving organisations, one sees that there is an increasingly strong demand regarding the knowledge that is present with the employees on the shop floor, instead of the managers keeping all decisions in their own hands. Jos Corstjens, director Industrialisation & co-engineering, has created in cooperation with Nancy Grieten, manager improvement projects, a development trajectory within tbp in order to let employees think along in the company processes. With a positive result!

how tois came into being

The management in Geel acknowledged this gap and organized a so-called I&Q-week: Ideas and Quality. This mission was to get one proposition for quality improvement from each employee in the organization within one week. The high hopes were completely lived up to and reactions were massive. It is true, it took a year to implement all the good ideas, but with it the foundation had been laid for the continuation titled "tois": tbp's operations improvement system. The employees appeared to appreciate that their ideas on business processes were sought after. In tois, parts of the business process come to light that are dealt with within a study group. Both, managers, operators and those responsible for the processes study meticulously the entire process in a three-day session and deduce from it where improvements can take place. At the end of that three-day session a presentation to the management takes place.

Jos remembers the start of tois quite well: "When it happened for the first time, it caused an unexpected reaction of colleagues from other departments. After the presentation to the management a

loud applause sounded through the shop floor. No one had ever heard that. You can find the champions everywhere in your own house. Everybody gets the chance to participate in the 'winning team'". The sessions are simple in their setup. The first day the team is confronted with a distinct objective, subsequently they map their own activities. It is difficult to hold back and not start immediately to improve! Jos makes the following comparison: "The best way to see a parade is by standing on a balcony instead of being in the crowd below. Keeping distance helps to get an overview." During day 2 and 3 the initial process improvements are developed further and fine-tuned.

result

In the mean time various improvement sessions have taken place that have yielded substantial positive results. In the first place it is crucial to have objectives that can be measured. The pilot project involved the business process at the integration of the end inspection and scanning. Nancy: "During the session's first day the processes were written down as they came along. In it so-called bolsters were named: acts that are in fact unne-

With short notes (on 'Post-it Notes') changes in business processes can be made visible quickly.



cessary and do not have any added value for the client. We were able to adapt and streamline the processes with 'Post-it Notes' on a large board." The result was that the employees were able to do their jobs more easily, that the quality of the products increased and that unnecessary activities were banned.

Another project involved the reduction of processing time of incoming materials: earlier we did it in 3 days, now in 4 hours; an impressive result of sitting together around a table and jointly searching for the best approach.



Web page for the invitation of quotation

website now for quotations as well

As you may have noticed, our website is gradually changing. The appearance is not very different, but its contents are now even more in accordance to the requests and suggestions of our clients.

A new feature is the quotations module. If you want a quotation for a certain product, you can now submit your request via the secured part of our website. After your login, you see automatically the subsequent trajectory in which you can state all detailed information. All requests for quotations that reach us in any other way, will be processed via this site.

You will notice the advantages of this streamlining in the time that is needed to make a quotation. Whereas in the past it sometimes took weeks, the time needed can be reduced now to give or take four days. Thanks to automation many prices are available earlier and completed with our purchasers' knowledge and experience concentrating on the specials, the overall picture appears much sooner. This new way of quotation processing is a result from tools such as described in the article on the left. By skillfully mapping all facets that play a part in the setting up of quotations, we were able to make the translation into a web application. In 2009, various try-outs are being held, in January 2010 we think we can have everything operational. So go to: www.tbp.eu and log in via your account in the upcoming year. To apply for a new account for our facility in Dirksland please send an e-mail with your data to: info@tbp.nl. For an account for the quotations request regarding our facility in Geel please send an e-mail with your data to: info@tbp.eu.





left: Jürgen Westenkirchner
right: Stef Verbraeken

Major Marketing and Sales Expansion

Tbp has reinforced its sales team considerably by appointing two business development managers who will concentrate on the foreign market. Jürgen Westenkirchner and Stef Verbraeken are accepting the challenge to win new clients in Germany and France, respectively for tbp electronics' services. Jürgen is based in Zirndorf in the south of Germany, Stef at our location Geel.

This team expansion is completely in line with tbp's strategy to supply high added value to its clients. The high-tech market has an increasing demand for a reputable EMS-supplier (Electronics Manufacturing Services) "in close reach". Effective communication appears to become increasingly more important, e.g. because of the wish of many companies to quickly enter the market with end-products. The need for a supplier who is able to give

support 24/7, is increasing. Clearly, tbp electronics is able to meet these expectations. Approximately a year ago our sales team was expanded to include Bas Dorren. Soon it became clear that the German market offers many more opportunities than one person can handle. Next to him, Jürgen will be the contact person for our clients in the south part of Germany in particular. In this region there are a lot of high-tech companies.

Jürgen has won his spurs in our industry. He has more than 10 years of experience in designing hardware and print lay-out and since 2003 he was in charge of the sales department of Jumatech, a supplier of special high-power PCBs. Stef will be the contact for our French-speaking clients. He will be moving mainly in the Walloon provinces in Belgium and in France. Due to the fact that the roots of our factory in Geel are found in the French part of Alcatel-Lucent, there are many relations with this country. Here, as well, the industry no longer seems to accept the disadvantages of suppliers that are far away: the search is for producers closer to home. Stef is known in the telecom branch as the former marketing & sales manager at A&C Systems, the distributor in the Benelux of mobile communication and navigation equipment. He was one of the pioneers behind A&C Systems' international expansion.

Are you active "beyond the borders"?
Now, you know who to contact!

tbp crowd-pleaser during Open Business Day

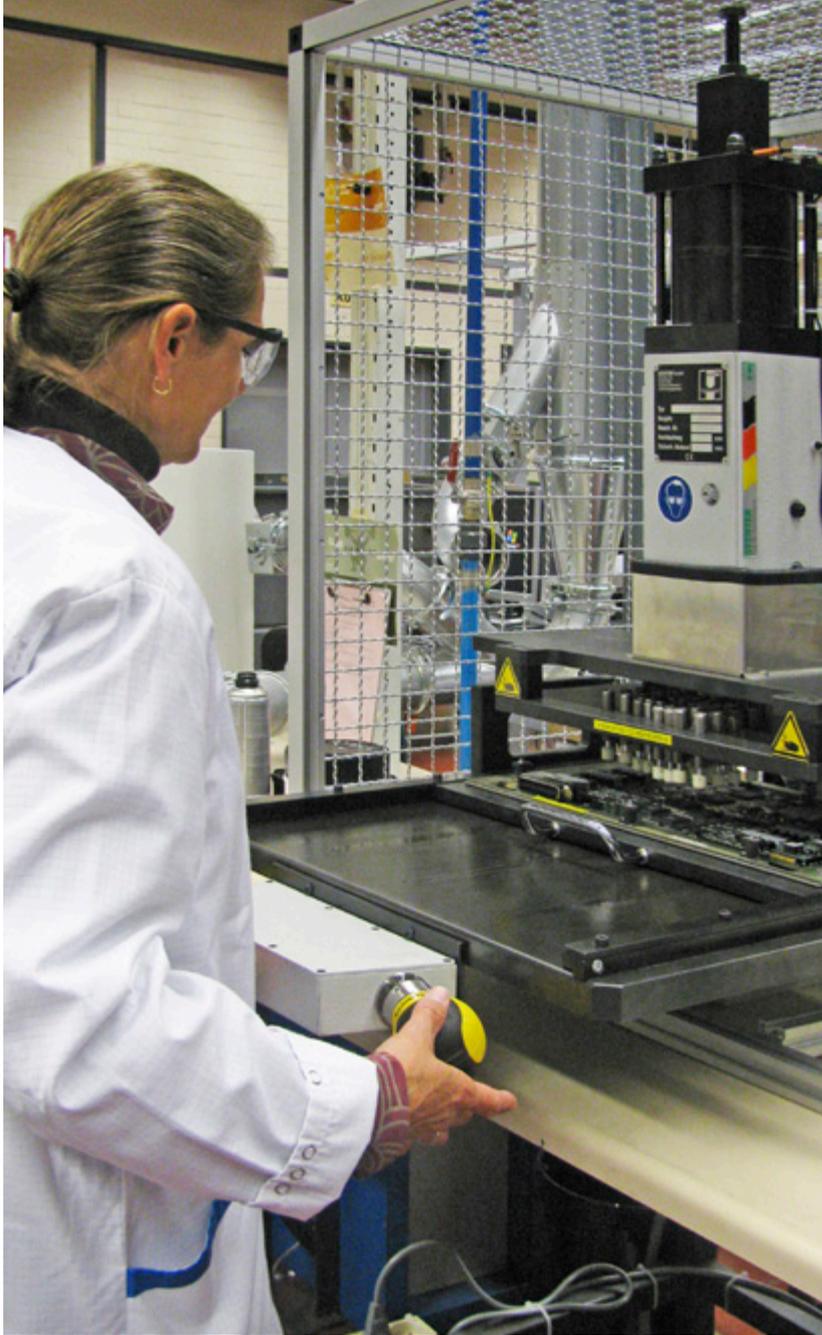
The Open Business Day 2009 in Flanders, in which some 500 companies took part, has been a great success for tbp. Over

1,600 visitors found their way to Belgian Geel on October 4th. The company was well prepared: the reception room had

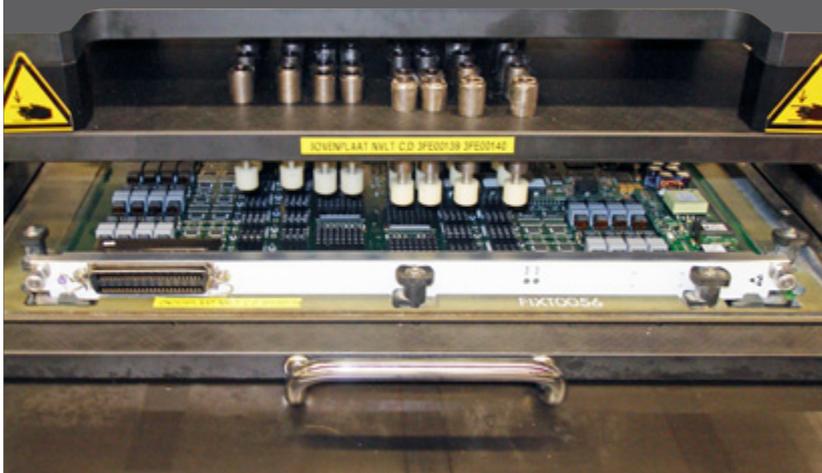
been changed into a demonstration room with products "from our own R & D". Many of the visitors came especially to see the production hall. They wanted to take a closer look at: SMT-lines that can place up to 60,000 components per hour, at operators that place components manually, at automatic soldering lines, at executing inspections and testing. In conclusion, at the end of the visit, there was a drink for everyone and a tbp gadget as a souvenir of a nice and undoubtedly interesting event.

If you would like to know more about the backgrounds of this day, feel free to visit the website www.openbedrijvendag.be.





New machinery mounts heat sinks on printing board



This summer, the production process in our establishment in Geel has been further perfected by the deployment of a machine for the mounting of heat sinks on components. The quality of the products has been further improved through this form of product automation.

Heat sinks are aimed at conveying the heat, that is released by some components on a printing board, to the environment. Heat sinks generally are made of aluminium and are applied in integrated circuits (ICs). The mounting of these parts happens during the production process immediately after soldering the PCBs. In case of the manual method the operator glues the heat sinks one at a time on the ICs. The gluing together is a very accurate job, in which the operator uses special heat-conducting glue. This glue is applied in a cross-shape on the well-cleaned component surface. By applying the heat sink while turning, an even distribution of glue results and therefore an optimum connection. Curing happens at normal room temperature. To optimize this way of mounting further, tbp uses a machine that glues together all heat sinks in one time. During the process no glue is used, but special pressure sensitive tape, PSA-tape (Pressure Sensitive Adhesive). Indeed, the operator is still mounting the various heat sinks manually on the place intended, but he has the machine exerting the right pressure making the tape transform itself into a glue-connector. The big advantage is the uniformity of all glue-connections. The tape is applied to the heat sinks in advance. In the machine there is a tailor-made "fixture", a sort of template on which the printing board sits and a likewise tailor-made "top-plate" that has flexible "presses". These presses enable a force determined beforehand to be exerted on each heat sink. During the pressing cycle which takes about 30 seconds, the fusing takes place. It is obvious that because of the tailor-made fixture and top-plate, this method is less efficient for small production numbers. The manual method is still valid for prototyping and smaller series.

Dirksland presents...

It was a useful and above all pleasant reception during the supplier & customer days that were organized by tbp electronics in October. That was the almost unanimous opinion that our guests gave on a mini-poll. Clients and suppliers received a program with presentations on the company and the developments in our industry. It was the third time that tbp organized such an event: the first was two years ago in Dirksland. Last year our guests gathered in Belgian Geel.



recession

COO Anton Hermus got the ball rolling. He observed how the prominent figures and large institutions express their opinion on the current recession. By way of illustration he focussed on the economic coverage in the press on one day namely 09-09-09. In summary, there are few reasons for optimism. A real growth lacks in the foreseeable future. However, Anton sees a positive effect on the development of know-how. The decrease of jobs stimulates young people to do a follow-up study. That yields better qualified employees. Know-how is the means by which we should safeguard our future market position. The challenge for tbp is to reduce costs wherever possible, obviously without sacrificing quality. Furthermore, our own organization will be adapted in line to the decrease in our clients' turnovers. Despite all gloomy reports, a small recovery becomes visible with the current clients and this combined with some new clients, makes for an optimistic prognosis.



Sound financial condition, not dependent on banks

Wiljo van Okkenburg, manager finance in Dirksland, was open about tbp's indicators. For our financial experts: with a solvability of over 40% and fluid assets of over 1.5% tbp may be a financially sound company. When the business results of 2007 and 2008 are compared it shows that the overall profit growth is almost nil, however there have been large investments in the machinery. Despite this, the solvability and liquid assets have remained on the same level. In order to reduce costs, various organisational measures have been taken such as: a pro-active sales management, a stringent stock control, redistribution of jobs and an increase in labour productivity. These measures will keep the company financially sound and will prevent (costly) bank loans.



quality determines success

Edith Hagens, coordinator quality department, opened her presentation by making Jos Corstjens (Director of Industrialisation & Co-engineering, SHEQ at our Geel establishment) again the centre of attention with his "European Quality Leader Award 2009". Subsequently, she pointed out briefly the client satisfaction study that was held both in Geel and in Dirksland. The results provided stimuli for immediate improvements. The pursuit of zero defects in the products demands an even tighter control at the arrival and handling of the components and printing boards. Communication between tbp electronics and its clients appears to be a crucial factor.



logistically speaking

Hanneke van Wageningen, purchasing manager, elaborates on the course set to get the supply of components regulated according to agreements made. Supply of end products on the right time is made or broken by the availability of all components on time. Suppliers need to keep the as. Here communication is important as well. Informing of unexpected stagnations is a must! In those cases there is room to look for a solution such as the involvement of a second source supplier.





The stand-up comedy team MiER, the binding agent between the presentations, did the closing with a hilarious performance. Responding to the information that they heard during the presentations, complemented with requests and reactions from the audience, they performed sketches that would suit well in a soap opera. Supported by musical sounds in all sorts of possible styles both stand-up comedians brought business issues in strongly varying emotions out in the open. A smart piece of craftsmanship!



perfect product

An end product needs to meet the requirements of the client. This is only natural and we can meet this if during and after the production process it is tested whether the product meets all criteria. Kris Meeus, test & inspection engineering and co-engineering, makes clear how tbp is approaching the testing process. Paying attention to the sometimes high costs of testing – think of the complicated measurement setup – we are working hard on the setup of a functional testing method. In it the client's specific part (the connection between product and instruments) is kept as simple as possible, so that the costs per project are kept low. The definition of this "integrated testing centre" has been finished and the designing process is in full swing. The prototype is expected to be available at the end of this year.

short quotation trajectory

The quotation trajectory has been automated recently (see page 5). Bart Cox, manager business development, explains what its objectives are and what it means to our clients. The biggest advantage is the time gained. In four days time a clear proposition must be ready, departing from the cooperation of the suppliers and estimations where possible. He ended his presentation with an impressive film in which tbp's led-panels can be seen working. You can find it at www.youtube.nl when searching on "Bayer Hochhaus".

boundary scan

As a guest speaker Rob Staals of JTAG Technologies got the opportunity to talk about boundary scan. This technique is increasingly applied at structural testing of PCBs. An alternative testing method has been developed because of the application of e.g. BGAs (Ball Grid Arrays) causing the connections of components to become inaccessible for measurements. The solution: the boundary scan. This means that the semiconductor industry implemented this technique in many integrated circuits. Even though not every connection is virtually accessible, the end product can not only be tested completely, but it can also be programmed. Tbp has established itself as an expert in the field of boundary scan and was recently awarded with the certificate "Authorized Application Provider".

future

Mr. Jan Vanfleteren and Mr. Johan De Baets of Ghent University/IMEC showed what we can expect in the field of electronics in the future. So far only realized in the laboratory, they showed that chips may be built in layers. Chips are mounted on the PCB covered in synthetic fibre. By removing the synthetic fibre and by depositing copper in the holes created, layers may be connected mutually. An other development is the flexible support of complete electronics. A product that we could use for instance for implementation in the human body enabling certain characteristics to be measured.



“let the plow draw the line”



“We were facing a technical problem when we wanted to link our navigation equipment to the controls of a plow of a tractor. There was no turnkey product available to address this need, therefore we had to go search for one. We approached tbp electronics with the request to make this missing link. Not much later they had a test model. We connected it and: it worked!” This happened to Hans van der Hoek, manager of Mechanisatie Centrum Flakkee (Mechanisation Centre Goeree) (MCF)/Mechanisatiebedrijf Gebr. van der Hoek, when he and his team were developing a new product for the agricultural market.

MCF brings tractors and machines – including the agricultural business – on the market for over 60 years. In addition to the sale of products of other parties such as tractors, this company is continuously perfecting pieces of equipment for the agricultural world. In the past few years navigation equipment such as GPS has found its application for the working of farmlands. Just like satnav can be found in a lot of cars nowadays, the modern farmer is working with the same sort of equipment on board of his tractor. This means that he can work his farmland much more efficiently and that the chance of errors is minimized.

accurate

The demands that are required for accuracy in fixing agricultural applications are much greater than those for normal car navigation systems. A tractor (with agricultural equipment) that has to work on the land, traverses a certain route that has been determined in advance depending on the dimensions and shape of both the field and the equipment. Deviations of this route have to be as little as possible. The deviation is not allowed to be more than one centimeter. That is about 100 times better than GPS-information for car navigation. In order to enhance the accuracy of the GPS, a nationwide covering system of radio beacons is used. The position of these beacons has been determined quite accurately. By combining the GPS-signal from the receiver - in the agricultural sector often the equipment of Trimble is used – with those of the radio beacons the position is known to within half a centimeter.

The signal may be used to control the steering mechanism of a tractor, which can now traverse exactly according to the planned route. "Unfortunately, it does not work that way in real life. There is an additional problem", explains Van der Hoek. "When driving over a field, the tractor automatically follows the furrow trajectory of the old plow. Due to soil conditions, the amount of moisture in the local soil results in movements in the existing furrows. You see that the initial straight line turns in to an undulating one. The front-wheels do not let themselves deviate easily from a furrow. Small course corrections therefore are almost impossible." This means that for instance a plow mounted on the tractor does not follow the intended straight line, but will make undesired oblique movements. Van der Hoek: "Requests came from farmers asking for a solution to this problem. Oblique corrections on plows within a certain tire width are already possible. This is done by a hydraulic facility on the plow. Via an

electric control signal a correction of about 10 centimeters to the right or to the left is possible, depending on the type of equipment. This is adequate to make the ideal straight line. The task of finding out how to transform the signal from the GPS-receiver into a control signal, was aiming a bit too high for us. In our quest for a company that would be able to solve our problem, we ended up at tbp electronics in Dirksland, which is by the way not that far from our company in Stad aan't Haringvliet. We explained what we wanted and the challenge was accepted. Technicians developed an interface, completely according to our desires. This year in April the prototype was available. It functioned immediately when we started our tests. That is quite an achievement." In the box that was developed with a certain amount of electronics, the farmer can also enter the type of equipment that is hooked on to his tractor. A plow with five sections simply requires a different adjustment than for a potato-planting machine.

Quickly fit for production

The development of this interface was no easy task. After the setup of the electronic specifications (which data signals are available, what are the adjustment variables and the like) the development of the total concept followed, including the package. The requirements of the controls on a tractor are higher than those in an office environment. While developing the electronics, things like economic choice of components, reliability, manipulability and complexity of the (embedded) software were also taken into account. The prototype was immediately turned into a product the first series of which are delivered. Van der Hoek: "tbp did not only meet our requirements to realise a fitting solution, but it was realised within the time frame agreed and within the budget that was agreed upon. It rarely happens that way." The result appears to catch on with MCF's clients. Now many farmers are successfully adapting this high-tech farm equipment throughout the country when tilling their lands. The advantages are easy to guess: the land is tilled optimally and actions such as the disposal of weeds are happening by machine without the crops being harmed.



new reflow oven increases production capacity

our factory

A new reflow oven in Geel is equipped entirely for the processing of print boards that are soldered lead-free. This investment appeared to be necessary since the demand for lead-free soldering connections are rising due to rules and regulations.

In a so-called reflow oven a hot flow of nitrogen causes the soldering paste between the components and the PCB to melt, so that after cooling a good electric and mechanic connection is established. A process that is applied both in the conventional leaded and in the lead-free soldering methods. Nitrogen is used to prevent corrosion of the molten tin alloy. Should this be exposed to air at a high temperature, then this would be at the expense of the quality of the connection. The PCB remains in the oven for a few minutes, long enough time to let the soldering paste melt, and short enough to prevent damage to the components. At the lead-free process we are dealing with higher temperatures than in conventional leaded soldering connections. This is about 220°C in leaded soldering, but for lead-free soldering you need to add about 20°C.

This both requires heavier demands on the oven and on the components used on the PCB as well. A fact that the electronics designer should heed well in his choice of components. Often a redesign is needed, in which existing schemes are tested for their suitability of their components for lead-free soldering. In a number of cases other components are necessary. Please do not forget to think about your own productions. As of July 1st, 2010 the exemption arrangement for leaded soldering will expire! Be careful that you are not faced with undesirable surprises and call the specialists at tbp electronics if necessary. They are able to assist you in redesigning your designs.

Obviously, the economic crisis did not stay away from tbp. If clients are having difficulties and sell less, then orders for tbp will lag behind the prognoses as well. The management team in Dirksland has been searching for opportunities to face up to this situation as much as possible. How do we remain successful despite everything and how do we play along with the changing demands of our clients? In order to list all the issues, a team was created, the so-called leadership team of about 15 people, which brainstormed about what had to be done. Rather quickly it became clear, that in the field of communication both internally and externally there was much to be improved. Actually, it is a familiar theme, but in practice good communication often leaves much to be desired. That good communication leads to good results, is not something that is always recognized. By the way, it is one of the characteristics of good leadership.

Delivering less, but faster and on-time

The demand for products may be temporarily diminishing, however the pace at which products have to be available is accelerating. The diversity in products increases as well, due to the growing demand for tailor-made products. As our clients need to deliver faster than before, problems are arising with suppliers. The semi-conductor industry in particular has long delivery periods and they often are producing according to forecasts in time spans of 6 months up to a whole year. Because of this dependence the semi-conductor industry is forced to drastically reduce these periods. By keeping extra reserve stock and clever purchasing, tbp is anticipating. In by far the most cases, the required productions can be realised at shorter notice.

The demands we ask of our suppliers are becoming increasingly heavy: less is being sold in total, however we have to deliver faster.



The new reflow oven at tbp in Geel.

x-factor

cooperation

Another striking phenomenon which leads to a decrease in costs is cooperation. Almost everyone knows that by cooperation good results can be reached more efficiently than by adding up individual actions. It is applicable both to within the organization and in relation to the client. In the case of a good cooperation between the client and tbp both will benefit from it.

procedures

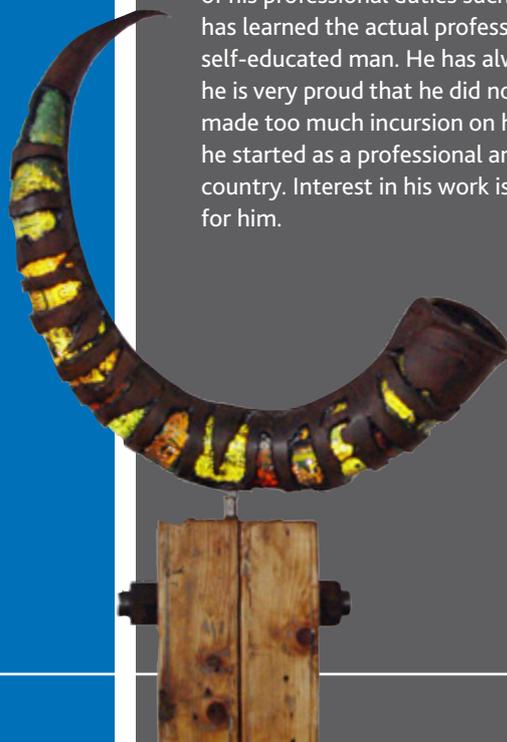
The observance of procedures - think of ISO 9000 - has got to do with business efficiency. Even proven procedures may become outdated and it may be necessary to readjust current systems and processes or to create new ones. If there is a lack of know-how, then this can be acquired via a refreshment course. Discipline and cooperation are related directly. The leadership team has made this a priority and the first results are already visible. Tbp is confidently watching the future.

Art in Dirksland

Peter Schudde makes old new

Peter Schudde (36 years of age) from the province of Groningen has an exhibition in Dirksland since last July with art using the title "recycling consumption-electronics". Discarded goods are getting a second life, but in a quite different setting than it was initially meant for. He finds this material everywhere: in the countryside, at mountains of refuge and factory premises. He fuses his findings together into a work of art on its own, giving it a new meaning with the motto: from archetype to industrial evolution. Peter was not a very enthusiastic pupil during his teenage years in grammar school. He contemplated enrolling into the academy of arts however, the "scholarly practices" did not appeal to him. He shaped his profession by following various courses at Kunstenaars&CO (Artists, Culture and Entrepreneurship. A Dutch non-profit organisation which stimulates and supports artists in raising their levels of professionalism and developing new areas of work.). He went there specifically to prepare himself on issues that have to do with the execution of his professional duties such as administration, acquisition and the like. He has learned the actual profession "in practice" and considers himself to be a self-educated man. He has always shaped his artistic feeling, as he says, and he is very proud that he did not go to the Academy of Arts. That would have made too much incursion on his authenticity and integrity, so he thinks. In 2001 he started as a professional and ever since he exhibits throughout the entire country. Interest in his work is rather increasing, he says, and 2009 is a top year for him.

You can get to know his work by visiting his website: www.peterschudde.nl. One can also view a little video film on YouTube (trailer Motum).





PRIJS ONDER NEMEN

**VO
KA** Kamer van
Koophandel
Kempen
2009

The tbp Geel management team, from left to right:

Anton Hermus, Erik Melis, Philippe Schotte, Frank Reekmans, Jos Corstjens, Bart Cox and Dirk Van der Borcht.

tbp Geel wins Prize Entrepreneurship 2009

The Chamber of Commerce of the Belgian Kempen has proclaimed tbp electronics the winner of the Prize Entrepreneurship 2009. This prestigious prize is the reward for the way in which the company has realized its growth strategy, has improved its business processes continuously and has motivated its employees. Next to the earlier awarded title "Business Excellence Manager 2008" and the "European Quality Leadership Award 2009" for Jos Corstjens, now the whole company has been made the centre of attention. Thanks to all the employees of course, because without them the company simply wouldn't even exist. The zest inspired tbp Geel, then Alcatel-Lucent, to work on improving its objectives which impressed the assessment commission. Objectives are the foundation of the current business culture. They can be summarized in three words: customer, colleague and cash.

customer

The customer (client) is at the centre of things, which means that all efforts are aimed at the delivery of a product that has been produced as efficiently and faultlessly as possible against costs that are in accordance with the market. You can reach efficiency by scrutinizing continuously all business processes and to examine how these can be improved. That is one of the main characteristics of tois, tbp's operations improvement system. The entire staff in each and every layer is involved, so that in the tois-projects the employees are actively contributing to process improvements. The motto is "improvement with the greatest ease".

colleague

Tois inspires and motivates tbp's employees. The objective is not to work harder, but to work smarter. The personal development plan increases the level of know-how and meets the individual desire to develop oneself. Production employees are being educated "polyvalently", which means that they can be employed at various workplaces. This prevents

monotony or one-sided working from a physical point of view. tbp has arranged its organisation that way so that it is possible to have a great number of employees working part-time. The creation of part-time jobs meets the desires of many people (about one third of our staff works part-time) who have a better work-life balance.

cash

Although it clearly appeared that the electronics production would shift to Asian countries, the contrary appears to become increasingly stronger. Due to a good cost control and the continuous improvement of all business processes, tbp is able to compete. Add to it the advantage of the shorter distance between client and tbp – thus shorter lines of communication – and our future looks bright. tbp is allowed to mention the logo "Prize Entrepreneurship 2009" in all of its sources of communication.



European Quality Leader Award 2009 for Jos Corstjens

The European Organization for Quality (EOQ) has proclaimed Jos Corstjens, Director Industrialisation & Co-engineering, SHEQ at our establishment in Geel, winner of the "European Quality Leader Award 2009". Jos received this award during the 53rd EOQ-conference from Mr. Viktor Seitschek, the president of EOQ. About 400 quality specialists from about 40 countries witnessed this during the annual conference this time in Croatian Cavtat near Dubrovnik.



The European Quality Leader Award is a recognition and acknowledgement for individuals who share their time, energy and know-how with the objective to propagate their vision on behalf of the European society. "We have proclaimed Jos Corstjens for the prize this year, because he has a unique experience in quality and entrepreneurship within small and medium-sized companies and because he is able to introduce quality systems that use creative and innovative methods. This is completely in line with the vision of EOQ that the human element makes the difference in all quality actions." said Viktor Seitschek the president of EOQ and juror for the 7th jury European Quality Leader Award 2009. During the festive

gathering after the prize-award ceremony, Jos Corstjens explained his views on quality and business processes: "Ever since I have been working at tbp electronics my objective has always been to introduce simple and efficient business processes and quality procedures. Moreover, within the organization, we have created support for it by letting the employees participate actively in improvement of our processes and procedures.

The result is a strong quality based commitment of our employees. The latter is tbp's greatest gain. This prize is a big acknowledgement for the success of our way of work, not only for myself, but for all employees at tbp." Ton Plooy, CEO of tbp electronics, obviously is very glad with

this prize. "Jos' vision and passion are the most important advantages in the setup of a client-oriented and quality driven organisation. Jos has proven that he is not alone in generating creative ideas, but even more important is that he is able to transform these ideas into practice by executing the required transformation process on each level in the organization very successfully. Our high quality level is an important reason why clients choose tbp." At the end of last year Jos already received the title "Business Excellence Manager 2008 of Flanders", by the Flemish Centre for Quality (VCK). This was also mentioned in the previous "way of life".



From left to right:

1. Dr. Eric Janssens, Director General, EOQ,

2. Jos Corstjens,

Director Industrialisation & Co-engineering, SHEQ,

3. Viktor Seitschek, President, EOQ.

learning from our clients



Every self-respecting entrepreneur eagerly wants to know what his clients think about his company. Although private conversations supply a rough impression, a poll often gives better and unbiased results. Obviously, tbp electronics wants to know how its clients see the business and therefore a client poll was held this year again. Two years ago, on the eve of the gaining of independence of our Geel branch, a similar poll was taken there. The current questionnaire in the Belgian branch has been completed in the mean time. The response to the poll that was held, was beyond expectation and moreover, recognizable and useful; tbp is very grateful to the participants for their time and frankness. Obviously, the Dirksland management is very interested as well in the findings of its clients. In September, some of them received the request to extend their cooperation to the completion of an inquiry-form.

we made progress

After all responses had been processed in Geel, the survey-team compared immediately the results of two years ago. Have we made progress? Generally speaking: yes we did. In the field of quality, ordering, timely delivery and customer service in particular we made progress. But there is still some room for improvement. A better communication on the progression of the orders and planning of the deliveries would be desirable. This as such is a point of interest for the future.

actions for improvement in Geel

In various fields steps have been taken with the objective to improve customer satisfaction. Some examples of these steps are: • a better streamlining of the quotation-process. This process has started in the meantime: all quotations are being entered and processed via tbp's website. This procedure is

now in place for both branches; • communication: extra attention is being given to pro-active communication. Direct contact will take place for instance in the case of the confirmation of an order, late deliveries, contract agreements and specification agreements, and in the case of deviant circumstances in the tbp-process; • delivery: clients expect a complete delivery at the agreed time. This means that the processes will be setup in a way that the agreements will be followed; • Product Quality: a yet better quality control must prevent that products leave the company which are not 100% right. The level of defects should come close to zero defects;

how will we continue?

The poll results are giving an impulse to tbp to operate on an even higher level. The first impression of all departments within the Dirksland branche has been positive. Where critical nuts have been cracked the objectives involved are adjusted and dealt with by improvement propositions. In two years time we will hold a new poll at both branches. Then we will see whether our efforts have caused positive results. The results will undoubtedly give us more insight about how we can improve our quality further. This it what ultimately counts.