

FORUM

Forum 42 | 03/14 | For customers, partners and friends of Arnold AG

Ideas ahead of the curve



Managing documents instead of misfiling
EZB: Stylishly to the Snack Bar
SLV: The World of Welding



Editorial



Dear readers,

Tradition and values are the foundations for the day-to-day actions for our company. We always strive to preserve our craftsmanship knowledge, but at the same time to use modern, established cutting edge technology for our customers. We consider ourselves as a partner who offers creative solutions and not just "produced parts".

This is the 90th year that we have been putting all this into practice!

To maintain this tradition, to communicate values and to keep our focus on people in all our activities will be our motto even for the years to come. For the past five years, the path we have been following is 'Arnold 100'. We have already traversed one-third of the path towards completion of 100 years' existence of our company. It was often stony and difficult, we had sweat on our brow and a smile on our face, whenever we achieved the next higher step.

Successes, but also setbacks, spurred us on to accept a new competitive challenge every day. It is and remains our claim that we understand the desires of our customers better than the competition does. We do not rest on our laurels and experience, but they rather push us forward every day.

It is in this spirit that we present to you the Forum 42 and will be happy to be able to provide you with some information and self-help.

Best regards, Uwe Arnold

Contents

Outlook: Managing documents instead of misfiling	03-04
Globalization: New Office in Qatar	05
Public areas: Curved exhibition walls in XXL format	06-07
Design Components: EZB: Stylishly to the Snack Bar	08-09
Tenets and Research: SLV: World of Welding	10-11
Contribution: Targeted promotion of the young and the needy	11
People at Arnold: Master and Business Economist	12

For the new Leitz Park in Weizlar, Arnold AG had provided four circular curved display boards, the largest of them was 12 meters long and 2.6 meters tall. They show the history of the company Leitz and changing photo exhibitions.
Image: Leica/Leitz-Park GmbH

Imprint

Publisher:
Arnold AG, 61381 Friedrichsdorf
www.arnold.de

Editors for this edition:
Isabell Issing (Editor in Chief), Uwe Arnold,
Dieter Stemmer, Ingo Stemmer and Christoph
Ebert, Michael Pyper, Kai Unger
redaktion@arnold.de

Graphics, layout and typesetting:
augenfällig, 65203 Wiesbaden
www.augenfaellig.de
info@augenfaellig.de

Text (unless this is specifically attributed to a specific author):
Redaktionsbüro Pyper, 61273 Wehrheim
m.pyper@redaktionsbuero-pyper.de

Printing:
Druckerei Beckmann
98587 Steinbach-Hallenberg
druckerei-beckmann@t-online.de

Copyright: Arnold AG, all rights reserved. Comments represent the opinion of the author. Reproduction of this publication, or parts thereof, is permitted only with the authorisation of Arnold AG. Printed on environmentally friendly paper.

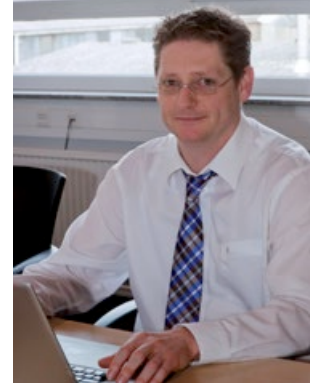
Download at www.arnold.de



Scanning the QR code will take you directly to the home-page download area.

Managing documents instead of misfiling

They have been talking about it for years: The paperless office. But people will not change so quickly, they want something they can hold in their hands. Document management system (DMS), also called Enterprise Content Management (ECM), are, however, more than just digital storage. They drastically reduce the work, spare resources and fulfil statutory requirements.



The FORUM Editorial Board in conversation with Daniel Fritzsche, Expert for Data Management and Managing Director of Varcess GmbH
Image: M. Pyper

It is of course just a piece of paper, many would say, but handling this piece of paper involves major costs. Every trip to the documents cabinet, every search for a letter or a bill costs time - and money. They cannot all be thrown away, either. Retention periods are to be maintained fastidiously, otherwise you face anger from the Finance Ministry and other authorities. The periods can be up to ten years. Other factors such as obligation for proof as part of the product liability make the paper mountain swell still further.

So, bundle them off to the cellar? Even a small medium-sized company starts needing a few hundred square meters of space, that can be costly, depending on the location. The business software provider Infor has calculated that the cost per each record stored comes to between 50 cents and 3 euros. Per folder there are about 50 to 150 such storage cycles.

Paper documents can always be arranged in just one order pattern, all others need voucher copies. To keep these updated is prone to errors and expensive. Another aspect: Even small companies are active today on the path to globalization. Paper is, however, bound to locations. And it can only be protected against unauthorized accesses by means of closed and monitored spaces.

Auditors require quick access

There are of course no specifications how documents should be preserved, but at least for the Finance Ministry they must be quickly accessible. Daniel Fritzsche, Managing Director of Varcess GmbH, a consultancy agency for data management: "Earlier, business auditors used to need a 20 days' period, to audit a medium sized company. Today, the auditor complete their job in two to three days and demand documents with the press of a button on the computer."

Irrespective of whether the auditors are allowed direct or indirect access to data, both these methods need the expensive support of the user, who has to made hardware and software available. Fritzsche: "The better option is to allocate data carriers: The auditor is handed over a CD on which the data can be viewed through an auditing software". The data carrier generates a "self-supporting ar-

chive", which only compiles the relevant data in a separate database and also provides the suitable reading software. This technique is also said to be advantageous to external service providers who do not have Internet access but need certain documents.

Digitization of paper documents by itself will not be of much more help. File systems are like paper storage, but one-dimensional and tend to sprawl, as anyone can confirm on a glance at his own file explorer.

So it is not surprising that the market for document management and electronic archiving systems is booming. This is even stronger than the overall IT market itself, as the ITK provider ama GmbH, Waghäusel, deducts in a study.

Main reason: The users had to optimize and increase permanent efficiency and productivity of their business processes in "cost competition". In spite of the boom, the proportion of the entrepreneurs who use such system is "still relatively small", acknowledges Daniel Fritzsche. Besides, most of them use it as purely an archiving solution, those "using a workflow utilization are even fewer". He has established a correlation between the frequency of utilization and size of the company. "The larger a company, the smaller is a DMS in use". Conquering the increasing data flow and an efficient handling of documents using DMS-/ECM solutions is considered

a preferred instrument for performance increase. Fritzsche: "Basically, however, a company size of 50 or more employees just cannot do without DMS, if you just think about the statutory provisions, that the e-mail traffic must be archived."

Please turn over >>



Document management Improved business processes

Besides the cross-enterprise synchronous working and distinctly shorter processing and throughput times, what is important to the enterprise would be to "base decisions on current information". Document management, e-mail and workflow support are the central main functions of modern DMS-/ECM solutions. Mobile access options via the Web, Smartphones or Tablet PCs are becoming more and more important.

Arnold-IT-expert Thomas Eitelmann also confirms another result of the ama study, according to which integration capability plays a central role in the investment decision: "We have decided in favour of d3, because this provider cooperates with our ERP provider Infor and all the necessary interfaces are already available". Other important criteria for selection are user-friendliness, a practicable management of access rights, compliance with statutory provisions and Compliance requirements. But conformance with standards and the industry experience of the DMS providers also play a role.

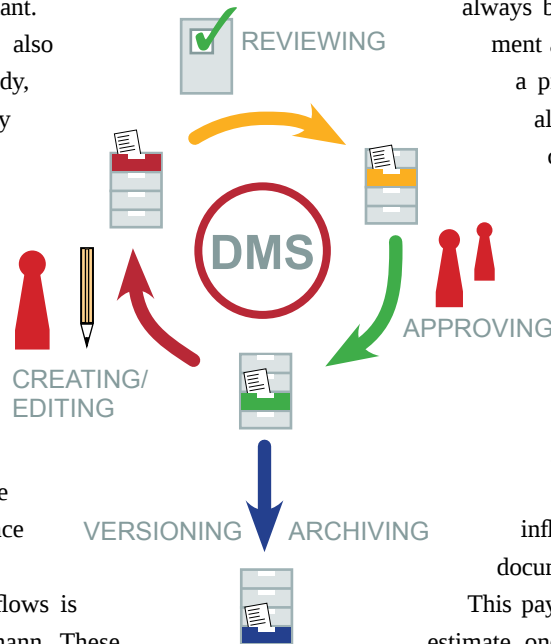
The possibilities of the digital workflows is also very important for Thomas Eitelmann. These have been put to use for in-depth invoicing for the first time. Invoices in paper form now include a Bar code, which makes it uniquely identifiable, they are scanned, everything else runs digitally. "Whereas an incoming goods invoice in paper form took three to four days to reach our company, that has reduced to just one day". It does not, however, all work without anyone doing

anything, warns Eitelmann: "There are of course pre-configured workflows, but ultimately every company has to adopt these to its own requirements". But you do save a lot of time."

In a DMS, all the information available to authorized persons is always up-to-date. The access options are simultaneously and precisely regulated by user groups. It can always be verified who accessed which document and when. All documents are stored in a program-independent format. This will also not let it happen that a document can no longer open in an older file format, because the associated program no longer exists. At Infor they have figured out what it saves. The storage time accordingly reduces by at least 20 to 30 percent, the material costs for the no longer needed paper, file folders, separator sheets etc by about 50 percent.

But the quickness has the biggest influence: The search time for a certain document is reduced by 80 to 90 percent.

This pays for itself quickly. By a comparative estimate, one can count on a Return-on-Investment (RoI) in 9 to 18 months. Daniel Fritzsche thinks - from his experience - that in some cases even distinctly shorter amortization periods are possible, because "the effects of process optimization through workflow in the said figures has have not yet been taken into consideration". And, after the initial weeks of practical experience with DMS, Thomas Eitelmann does not contradict him.



DMS in short

A document management system (DMS) is a software for managing electronic storage. It allows you to save, search, display and edit electronic documents of all types. Structured data like addresses cannot be managed. The focus of a DMS is on the management of the changing documents, for example the various versions of a report, from the first draft to the approved final version. In the centre of the electronic archive (EA) stands the management of unchangeable documents e.g. scanned contracts. Most DMSs offer simple functions for archiving such as "freezing" documents. Complex archive requirements need specialized software for the electronic archiving. In this case, we are mostly talking about Archive Information

Systems (AIS), which can also meet high demands such as life-long retention period and display guarantees. But, DMS can also be used as electronic register to manage documents in paper form, so that you can search for documents and determine their retention type. Besides, document management systems and electronic archive are closely linked to the Records Management (RM) concept, to manage documents subject to retention obligation and worthy of retention. Besides Administration of retention periods, it also offers functions for controlling and logging the access and usage of documents.

(Sources: DMS Dokumentenmanagement & Elektronische Archivierung (BPX-Verlag), Fässler (2008), Infor)

New Office in Qatar

In the Gulf region, music continues to play, if there are new constructions, infrastructural measures or art. Whoever wants to play along, must be present on the spot. Arnold AG has accepted an order for the engineering of a large format artwork as a step towards opening its own office in Doha, the capital of Qatar.

For three years, Arnold AG has been busy in Qatar, as a competitor for metal erection location of several planned stations. The home advantage of several already established companies was however too high, as the Chairman of the Board Uwe Arnold concedes: "We have fairly quickly realized that it is not possible to gain a foothold in these projects against the local and Asian competition." If it were not for the art, where Arnold AG was the first to seize the chance. Contacts were established with artists from the Arab world and "we were able to complete our first projects".

It is not only for psychological reasons that one needs to be present on the spot; this is also the legal requirement. Firms wishing to sell in the Emirates must either collaborate with a local company or have themselves officially registered. Requirement: A business address. "By end of 2013, we decided to rent an office in a

Globex Business Centre. So our project manager and our employees in Doha also have a fixed harbour."

Though it is not a very big office, it has two fully equipped workplaces and there is enough place to store the many sample pieces needed. It is centrally located in Doha and has the currently common infrastructure of a fully equipped office with telephone and fax. But, above all: "We have a complete IT infrastructure and thus access to our computers in Friedrichsdorf, so our project managers and designers can be at home". Arnold AG shares this infrastructure with about 50 other firms that reside there. This offers all advantages, because the central office is occupied round the clock and parking spaces are always available in the shopping centre embedded in the complex.

At present, the office mainly uses the local Arnold employee Salam Bohlmann. She resides in the neighbouring Dubai, but

is regularly in Doha two or three days per week. As a Jordanian by birth married to a German, she knows the local customs as well as the German mentality perfectly.

Arnold AG is currently working on the technical planning of the "Paper Plane" project, a work of art of really gigantic dimensions. Two sculptures shaped like paper planes, but with a length of 55 meters and a width of 20 meters, almost as big as a veritable medium sized air plane. Other projects are in the pipeline. Uwe Arnold "We would like to make a big name for us in Qatar through good performance. This would spread well in the astoundingly well-networked region of the Middle East. Through consistent and systematic processing of niches, we believe, we will be entrusted with other medium projects in the future."

Centre of an aspiring region

Doha is the capital of the Emirate of Qatar. It is situated on a bay on the Gulf of Persia and has a population of half a million. The growth is enormous; in the meanwhile Doha is growing with the city of Ar-Rayyam, at a distance of nine kilometres. Doha has its own international airport. Important parts of the oil and fishing industries are also located there. The "Education City" is a centre for research and education. The Monarchy-ruled State of Qatar is located on a peninsula and shares its southern border with Saudi Arabia. Before the coast in the north west lies the Kingdom of Bahrain. From the south to the north, the land is about 180 kilometres, from west to east it is 80 kilometres. The area includes some islands as well.

Source: Wikipedia

Curved Exhibition Walls in the XXL format

Leitz is a renowned company with a rich history. Oscar Barnack, the Development Manager of Leitz about a 100 years ago, founded small format photography with his test camera for film material. Now the company returns to its origins at Wetzlar. In the Leitz-Park, visitors can read about the changing photo exhibitions and the history of the company on gigantic curved boards made of aluminium.

Image: Leica/Leitz-Park GmbH

The Leica Camera AG has recently acquired its new registered office of the company. The shape of the building reminds you of a telescope - really an eye-catcher. All the industrial sectors are represented there now, from production to management to customer service. 600 employees have new workplaces in this approximately 27000 square metres area. Around the sumptuous park-like area in front of the Leica building, there are more optics companies: Viaoptic GmbH and Weller Feinwerktechnik GmbH.

"Leica keeps a highly modern production and administration building that more than meets all requirements of environmental friendliness standards", says Alfred Schopf, Chairman of the Board of Leica Camera AG, during the topping-out ceremony about a year ago. The building, planned in conformance with the latest environment and energy standards, is said to be an important milestone in the history of the company, which should benefit customers, visitors and employees equally well.

And it is going to be much more than just a company building. The objective was to create a "unique world of experience, which provides the visitors and photo-enthusiasts from all over the world with valuable insights into the past, present and future

of photography". For example, visitors are allowed to see some production areas; a Leica Museum, a Leica gallery as well as a store, a photo studio and a restaurant round off the offer.

Clear and reduced shapes

The design of the extremely lavish external facilities over 11000 square metres has been entrusted to Wewer Landschaftsarchitektur (Landscape architects), Frankfurt am Main. The office is developing ideas and concepts for spaces and places in the urban context and implements them to the finish. "Our design approach is expressed in the corporate landscape design, which means that we derive the free spaces design from the special features and philosophy of the location and make them subtly visible", explains Anja Wewer.

She wants to emphasize the representative objectives of the Leitz Park through the interaction of architecture and outdoor installations: "The design concept of the outdoor installations is based on a clear and reduced language of shapes that is integrated through a loose and free arrangement". Visitors, employees and residents of the city should be able identify themselves with this location. Photography exhibitions on curved boards, water games and seating facilities invite the visitor to spend some time there.

Wewer's basic design idea: "All important components of Leica-Optics are based on the basic shape of the circle. How dynamic moving objects are intarsia of small and large circles distributed over the place. The content linking to Leica Camera in the particular and to the Leitz Park in the overall sense is created through the change in scale between small and large circles, which finds its expression through spatial definition and alternating plantation, or water."

Just the sheer size alone was a challenge. The largest of the four boards was therefore divided, but these are still over six meters long.
Image: Arnold



Image: Leica/Leitz-Park GmbH



"The arrangement concept of the the free areas is based on a clear and reduced form language that is integrated through a looser and free arrangement."

*Anja Wewer, Owner of Wewer Landscape Architecture
Image: Arnold*

But what is most important to Anja Wewer was an "extremely high degree of perfection to implement out idea of the exhibition site as monumental objects". The result is "outstanding", Wewer is all praise for it, particularly of the important factor, the surface finish. But Jutta Dörries, of Dörries Galabau GmbH in Einbeck, is also happy with it; she was entrusted with the execution of the outdoor facilities: "The cooperation has really worked well".

Plate size real challenge

"The largest of the four walls is about 12.5 meters long and 2.6 meters tall", explains Arnold Project Manager Carsten Hoffmann. The exhibition walls were to be planned, designed, produced, painted in two tones and mounted. Sheets with information printed on them are going to be pasted on them. Hoffmann says: "The

walls consist of two eight millimetre thick aluminium plates that are rounded at the edges and fit on a tubular construction, like a sandwich" The special challenge is however the sheer size of the plates, which of course need to be transported through and across the halls and finally to Wetzlar.

"We have therefore decided to manufacture the largest wall in two parts". For the practically seamless joint, a special design especially developed for this purpose has been used: "We have inserted a vertical camshaft in lateral eyes, which when twisted pulls the two plates tightly together", explains designer Michael Grimm. The painting of the big six meters parts required a specially erected paint booth, in which the boards were painted in a manner similar to painting an aircraft. They were finally brought to Wetzlar, about 40 kilometres away, on flat bed trucks and mounted in just one day.



Image: Leica/Leitz-Park GmbH

EZB: Stylishly to the Snack Bar

This area is fraught with history: Not only is the building under monument protection; since 1928 this was the site of the belly of Frankfurt am Main, so to say, the Wholesale Market (Großmarkthalle), designed by Martin Elsaesser. Now the building serves, among other things, as Cafeteria for the European Central Bank. There must be something special about it. What it is, discloses Arnold Project Manager Axel Keuneke in the FORUM interview.

Mr. Keuneke, Arnold is not exactly known as a kitchen supplier. Even then, is this order a typical one?

It is certainly not typical, but there are not many projects in which stainless steel furniture is needed to such a great extent and in such complex forms. This is normally done by kitchen engineers, special agencies for kitchen devices and kitchen fittings. But they are usually always rectangular. This was a very demanding, beautiful geometry, which the architect considered particularly important. The basic design came by the way from the same architects who have designed the entire EZB Reconstruction, Coop-Himmelb(l)au from Austria.

The Cafeteria of EZB in the former wholesale market hall is supposed to reflect the special history of this locale. How was this implemented?

In the centre are three islands that will accommodate the Fast-Food, Healthy-Food and Slow-Food areas. The food will be prepared directly in these islands that are of a suitably large size. All the three islands are made in ground stainless steel and have a very complex shape with their several rounded forms. Our job was to plan, manufacture and mount the stands and hoods for the food output points and some wall panels.

What were the challenges, because kitchens are usually built by kitchen specialists?

The geometries are fairly tricky, some corners are really very demanding. The diameter of these stands was as large as ten meters. 60 stand elements were needed, each of which was one meter wide. "But the most demanding were those some 85 hoods, some of which have gigantic dimensions and are rounded." We first gave it intensive thought how best to make it. Ultimately, the entire thing should have a perfect fit and must be very stable, because the hoods are suspended not directly from the ceiling, but from suspending brackets, about one and a half meters below them. The surface segments were specified by the designers, we however somewhat adjusted a few things on consultations to avoid problems in handling, transport and assembly.

Could you mention a few more specifications?

We have processed some 80 large format panels of 1.5 by 3 meters and 30 boards in medium format, of 1.25 by 2.50 meters. They are made from of 1.4301 stainless steel, they are 2 millimetre thick and ground in 240 grain. While grinding, we have deviated a little from the standard due to the size of some components. Since many parts are larger than the sheet size of 1.5 meters, we needed a cross section

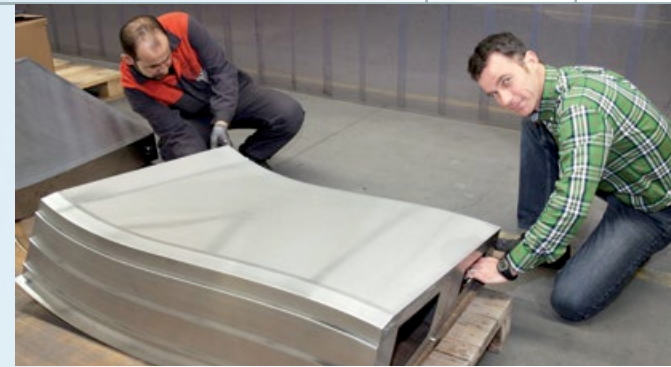
polish for these areas. We have therefore got the entire plate material cut lengthwise or transverse from a specialist, so that the visual impression of the surface cut is the same when assembled. Though that was somewhat more expensive, we were sure that they would subsequently fit properly.

How does it look underneath the chic sheet panel?

We analysed the original architectural drawing for the furniture and fittings and finally made a few changes. We first discussed with our design specialists in two completely different directions. One was that we work with wood construction, as the architects had first envisioned it. As an alternative, we however followed a metal construction, which finally turned out to be more advantageous. It is not only a little cheaper, but the matching was naturally also much easier, because we could finish all of it In-House. Even overall, this solution had several advantages with which our clients were satisfied.

How did you manufacture the complex round hoods?

For the exact development geometry, we requested support from a partner. We reproduced the geometry in our laser cutting facility and laser cut them out of the sheet panels. The most demanding in terms of craftsmanship was the rounding



"They were right tricky, those some 85 hoods, some of which have gigantic dimensions and are rounded."
Project Manager Axel Keuneke (r), here at the survey of a stand element
Image: M. Pyper

and welding of the sheets. More than anything else, the rounding was very difficult at some places because we had to watch out for the elastic forces. The major factors were the roller pitches and the cutting speeds. There was of course an approximate pre-dimensioning, but the rounding itself had to be carried out by our people by instinct. The rounded sheets were then fixed on the sub-structure and bonded. In some places, we have used additional reinforcement constructions with cross-bars to increase the ground stability. At assembly the elements were then bolted together.

Talking of the assembly, how did it go?

There, too, we thought of a special concept. The hoods were pre-assembled in sub-segments on the floor on site and mounted under the roof using large lifting platforms, piece by piece. Thanks to good planning, everything has fitted well and the remaining hoods and stands will be mounted in the coming weeks.

The new ECB

This year, the European Central Bank (ECB) will occupy its new office on the area of the former Wholesale Market Hall in Frankfurt am Main. The main building was designed by the Viennese architecture firm Coop-Himmelb(l)au, which should create a landmark, consciously different from the high-rise skyline of Frankfurt. The ECB reconstruction comprises three main elements: The Wholesale Market Hall with new building structures in the internal space, the dual office tower (Hochhaus) with tower-height atrium and what is called the Entry building that establishes a visual connection between the towers and the Wholesale Market Hall. The Wholesale Market Hall today under monuments protection was erected between 1926 and 1928 according to plans by the Frankfurt City Construction Director Martin Elsaesser. Until 2004

they used to sell fruit and vegetables here. The hall is an integral part of the design for the ECB Reconstruction. It holds the most public functions of the ECB. The hall is connected through the main entrance, in which the lobby and exhibition areas, a visitor centre, a staff restaurant, a cafeteria and conference rooms are housed. The new utilisation is conceived as "House within the house".

Technical data:

Hall area	approx. 12 500 m ²
Hall height	approx. 23 m
Hall length	220 m
Hall width	50 m
Height of the frontage building	32,50 m
Ground area of the frontage building	approx. 975 m ²

(Source: ECB):

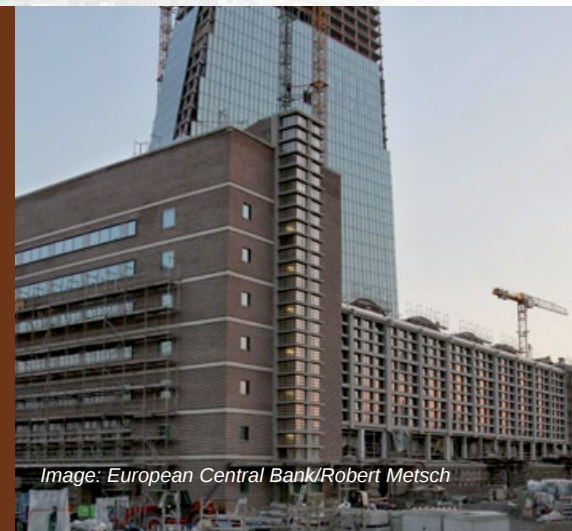


Image: European Central Bank/Robert Metsch

SLV: The World of Welding

Research and training are the central missions of SLV Halle GmbH. SLV stands for Welding Technology Training and Testing Institute, whose roots go back to the 1930's. The entire palette of welding technology is covered: from training and continued development of the welding and testing staff through development of suitable technologies, trials in material sciences and the development of special systems, right up to achieving manufacturer qualifications.

Research in the field of welding is the focus of the SLV Halle. The efforts are mainly centred around practical experience. Marketing Manager Axel Börnert describes it as follows: "The topics of the research projects are derived from the requirements of the industry, which are defined in close contact with a number of industrial concerns. Questions are generated from the requirements and the resultant statements of problems, which ultimately answered in the course of technological investigations, technical developments and the resultant solutions."

SLV collaborates with GSI mbH, Gesellschaft für Schweißtechnik International (Association for Welding Technology International).. Though both are independent enterprises, they complement each other perfectly in their areas of services provided. One of the areas of focus is the support to small and medium enterprises (KMU). Börnert: "This is where collaboration in ZIM projects comes in." The "Central Innovation Program for Small and Medium Sized Businesses" by the Federal Ministry of Commerce promotes development objectives of producing companies through financing of development activities to be provided through a research partner. The Research and Development Division under Dr. Eng. Bernd Kranz, has over 20 employees, mostly engineers, technicians and welding experts. Typical subjects are:

- Technology and Methods Development in Welding and Cutting
- Prototypes-, Small series and zero series production
- Production optimization
- Neutral investment consultancy
- Theoretical and practical training in welding processes and special method techniques, which are not covered by general training
- Company training
- Special machine tool building, consultation for design of welding facilities
- Design and configuration of welded constructions



Consulting central mission

As multifaceted as welding technology and its application fields is the consulting for providing services. If you consider for example the manufacturer qualifications for the statutorily regulated area like steel construction, rail vehicle building or welding of concrete reinforcement steel, "our engineering staff will propose and attend to the necessary measures after a survey at the customer's, so that the company achieves manufacturer qualifications." This includes the necessary method tests that are completely executed in the SLV Hall. The necessary certification is offered by DVS Zert GmbH of the Deutschen Verbands für Schweißen und verwandte Verfahren e.V. (German Association for Welding and Allied Processes).

If you think about technological consulting, the SLV experts first gather the customer requirements on site and accordingly search in their lab for solutions. Börnert: "The new technologies are also supplemented by the design and production of the necessary technical equipment in our factory." Customers are also supported in integrating new technologies in their manufacture.

Moreover, SLV experts monitor production and assemblies involving welding, for example if certain regulations require this. Technical training in the area of welding or testing, existing knowledge is determined to offer advanced training building on this basis. If something goes wrong, SLV Halle makes suitable investigations and prepares a report. Companies can of course obtain advice even round the clock about the ever increasing variety of materials.

Keyword Materials: They will be increasingly important, as Axel Börnert emphasizes. Higher strengths and better thermal strengths and thermal stability "make particularly high demands on the technologies in welding engineering, which can only be met by proper research and development." . For example high strength steels in crane manufacture or new materials in power station building, to increase efficiency. "We are collaborating on new welding technologies in the course of our research and development.,, Besides, we offer training and advanced training for welding and testing for the processing staff for working with these materials."

Professional welding constructions are also becoming more and more important. "We are now already using appropriate material characteristics in the dimensioning and determination; but this also covers rigid design and determination of internal stresses and simulation." A distinguishing feature, as Börnert stresses, why welding designers are also trained in Halle.

But, in Halle, they are looking beyond the bounds of welding technology: Bonding is increasingly becoming a serious joining technology, which can offer advantages over welding in certain situations. The Technology Centre TC Kleben GmbH, a subsidiary of SLV Halle in Übach-Palenberg, is dedicated to Bonding. . Besides the training for bonding technology personnel, the central services provided also include technological consulting and component testing.



With meetings, congresses, courses and seminars, SLV and GSI improve welding know-how of their clients. Image: SLV

Contribution: Young and Needy Targeted promotion

Shortly before Christmas, it was that time again: Facilities for youth research at both the Arnold locations received support for their work. But even otherwise the company was busy throughout the year. "We think it is a matter of course that as a company we should fulfil our corporate obligations towards the society", says Chairman Uwe Arnold. This is what the corporate mission statement specifies too, in which the social responsibility of the company is firmly established.

In Friedrichsdorf, the Music School and, for the first time the Miriam House, a home for needy people by the Nieder-Ramstädter Diakonie Foundation, received a grant. In the Thuringian Steinbach-Hallenberg, the seat of the branch office, the grant went to the Jungschmiede Working Group of the Metal Working Museum and the Evangelical Kindergarten as well as to the Day-Care Centres in Steinbach-Hallenberg and in the city district Herges. The recipients were selected, as in the previous years, by the two Mayors Horst Burghardt (Friedrichsdorf) and Christian Endter (Steinbach-Hallenberg).

Arnold AG however always keeps its doors open for exigencies, not just in Christmas. Last year, help went to the Hardtwald Primary School in Seulberg, which badly needed money for software licenses, to provide modern equipment for the 27 student PCs in the school. And the Cultural Foundation from Friedrichsdorf was actively supported in the building of a recently dedicated Rusk culture of Eckhard Gehrman, the artist from Friedrichsdorf, whose name is associated with the great Zwieback tradition of the city.

As a member of a special interest group of the industrial company from Friedrichsdorf, it was a participant in a social charitable donation granted to the 'Friedrichsdorfer Nothilfe' (Emergency Relief of Friedrichsdorf).



Friedrichsdorf



Steinbach-Hallenberg

Master and Business Economist



Meisterbrief

Florian Walther looks back upon three exacting years. The young painter did his Master's and Business Economics studies in parallel. And he completed both with the Very Good grade! Now he is also in charge of training the new blood at the Thuringian branch office of Arnold.

"**A**rtist and master lacquerer in the area of automotive painting" is now the official designation of Florian Walther, which he acquired a few days ago, and a Business Economist. After this training at Arnold AG in Thuringia, the ambitious young man attended the Master's Course on Friday afternoons and Saturdays for three years, in addition to his regular work. A year ago, he added Monday and Wednesday evenings too, to attend the Business Economy studies in parallel. "That did not leave much free time; in whatever time was left, I also had to study" reminisces Walther.

Not many people take on so much: "In my Master's course, there were ten of us from Thuringia, but in the Business Economics, I was the only lacquerer." But I would again do it while working, "because I collect practical experience during the entire period and could apply what I learned."

But then why saddle yourself with Business Economics? Walther explains: "It is the highest commercial training in the

Chamber of Crafts and it easily attracted me to get further training and to see for myself how the other processes in a company run." Of course, business economics subjects played a role in the Master's training, but "not in so much depth". IN Business Economics, it comes down to the important things, for example with costs / Service invoicing, Finances, investment calculation, marketing or Tax Laws.

But now Florian Walther wants to first snuffle through and put the learning into practical use. At Arnold AG they are happy to hear this: "I remain a lacquerer will continue to do so, because I now also have taken over the training of apprentices." Besides painting, what attracts him is developing new colour shades "That is also an exciting thing." His colleagues in the Master class were amazed to see what effects could be achieved with such glazing techniques. But he has also learned a lot of new things, such as gilding or restoration work. "We were a super class, I must really say, we had a lot of fun."



Florian Walther's performance has been amazing: Besides his work as lacquerer at Arnold, he not only completed his Master's, but even his Business Economics in parallel.

Image: M. Pyper