# THE ISO CEL LER

THE ISOCELL MAGAZINE 02|2016 ISSUE

25 YEARS OF ISOCELL

AN ANNIVERSARY
INTERVIEW WITH
ANTON SPITALER
GREEN GOLD

WHY IT'S MORE
ECONOMIC TO THINK
ABOUT TOMORROW
TODAY

WHY
ARCHITECTURAL
STRENGTH
IS FOUND
IN THE CENTRE

THE NEW FRENCH REVOLUTION





"THE MARKET WAITED FOR US" ISOCELL is celebrating its 25th anniversary. The ISOCELLER asked founder and managing director Anton Spitaler for an interview about the

STRONG PARTNER

Prefabricated house manufacturer Kampa thinks about tomorrow today. Because

FIRESIDE CHAT

A conversation with Dr Buxbaum, physics at Carinthia University of Applied Sciences.

**RESEARCH & DEVELOPMENT** 

The right way of using cellulose is something that needs to be taught. We take a look inside the ISOCELL Academy.

STRONG PARTNER

Gumpp & Maier GmbH wants to play an active role in shaping the world of wood construction. An interview with managing director Alexander Gumpp.

RESEARCH & DEVELOPMENT

ISOCELL's technology experts explain current areas of interest in the wood

ISOCELL INSIDE

The first part of our series on ISOCELL's sites takes us to France where a new

**GUEST REPORT** 

Architecture company Ronacher focuses on the architectural strength of

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THE ISOCELLER EDITORIAL



# **WE'VE REACHED 25. BUT THIS IS ONLY** THE BEGINNING.

We received so much positive feedback about our first issue of The ISOCELLER, it will come as no surprise to hear that we've been in a bit of a celebratory mood over the past few weeks and months.

With the publication of the second issue of The ISOCELLER, though, there's even more reason to celebrate: it's 25 years since ISOCELL was born. A quarter of a century has passed and during this time, our vision of a sustainable, ecological insulant, blow-in technology and innovative airtight sealing systems has reached many people who think the same way we do.

We know that our success is not to be taken for granted, so in this issue's big anniversary interview, our founder and managing director Anton Spitaler explains the small beginnings of our big idea. He also explains why our clients were always the deciding

We have clients in many countries, as well as many production centres outside Austria. The first part of our series on ISOCELL's sites outside Austria focuses on France. It's a story about a country that once again stands on the edge of revolution.

Just as revolutionary are many of our strong partners such as KAMPA GmbH, Ronacher architects and wood construction experts Gumpp & Maier.

Last but by no means least, we have a wide-ranging discussion with eminent building physics lecturer and researcher Christoph Buxbaum and an interview with our in-house Research and Development experts on what innovations to expect within the sector. All of this is topped off by an article offering some very interesting insights into the world of an Austrian superfood.

Just as much a part of the ISOCELL world are Lederhosen, which in this issue get a very special story of their own. Inside this issue there are many more interesting articles to read - this we promise you!

We hope you enjoy this issue of the ISOCELLER.

Here's to our next anniversary!

Gabriele Leibetseder



25 YEARS

"We were - and still are - part of a boom started not by the industry but by people who wanted to build things in a more sustainable, ecological way."

Even in the 90s, ISOCELL's Omega underlays and Airstop adhesive tapes were extremely popular. They're still top sellers today











The company is growing. Its skilled staff are there every step of the way



# **25 YEARS OF ISOCELL**

Anton, looking back on the last 25 years of the company's history, we see unbelievable progress. Was this growth actually a part of your vision or did it just happen?

I'd put it like this: you have to be in the right place at the right time and be able to recognise needs. People also laughed at Elon Musk when he had the first Lotus electric car made. Who would have thought that Tesla would turn out to be so successful? We were an insulant wholesaler and by importing cork and coconut, offered the only alternative insulants on the market. However, we didn't like the fact that we had to import the cork from Portugal, for instance. We then had the idea of working with recycling materials and quite quickly thought of making cellulose from recovered paper. Our clients are the real pioneers, though: they too were looking for the insulant of the future.

During your start-up phase, did you look for partners and others willing to join your cause or clients first?

We naturally had associates who helped us to promote our idea. I'm a team player and one of my strengths is being able to bring people together and gather the right talents. This is what helped the good ship ISOCELI to set sail. But of course we looked for clients everywhere we could and had a lot of discussions with them. We frequently met people who had been waiting for a sustainable insulant. We were - and still are - part of a boom started not by the industry but by people who wanted to build things in a more sustainable, ecological way.

# What did your clientèle look like in the beginning?

They were people who had made the conscious decision to stop using mineral wool. People have known for a long time what paper can do. To this day people still stuff damp shoes with old newspapers to soak up the moisture. There were old houses where newspaper was stuck to the walls to make them windproof. So there's always been an awareness of paper.

Was there a lot of backlash from the established industry?

No, people just dismissed us.

We were underestimated and

there was no real resistance. The material, however, was pleasant and extremely appealing. A lot of other alternative insulants, such as sheep's wool, straw, hemp and cotton, also came onto the market at this time. It was only cellulose that experienced an explosion in popularity, however. We didn't have a strategy to force this explosion. We simply went out there and tried to bring our product to the consumer. In the beginning we did this primarily in southern Germany: we had a site in Neumarkt, so this area was in our immediate vicinity. When we became larger, we tried to find people who wanted to spread our values and vision. We then got some distribution partners and were therefore able to grow even more. Our motivation was always just to do, without making any big plans

Are you still able to work in this way now that the company has reached the size that it has?

Not entirely. We've had a strategic plan for three years. Of course, growth is always challenging. Nevertheless, we try to retain our informal character and to focus on people. Our staff are crucial here: team play and the human factor play a very prominent role. For a long time too we found our people ourselves or by recommendation. Because word of our great working climate has spread, today it's also the case that a lot of people

want to work with and for us. None of this should be taken as a given, though. It doesn't happen by chance. We're very eager to learn and got external experts on board very early on to explain to us what steps we should and must take to grow. We have a tradition of asking for external input. Rather than being satisfied with what we're doing, we constantly scrutinise ourselves. At ISOCELL, it's also important that the system is stronger than each individual member of staff. Nor do we ever terminate work contracts ourselves. Such decisions come from our team and are announced by us.

Company founder Anton Spitaler has headed ISOCELL for 25 years since its foundation.



25 YEARS ISOCELL

In previous years, did you make a conscious attempt to enter the market in certain regions?

For a long time we didn't really have the structure for specifying the percentage sales increase we would like to see in certain regions. It may sound a bit old-fashioned but in the field we have people a bit like state

prime ministers who govern their particular area and bring us ideas on how we should develop. Every region has its own needs and this is why this system has proven to be a success.

As well as selling products in many different countries, ISOCELL also has production facilities in Austria, Belgium, France and Sweden (see the info bar). What are the next steps for ISOCELL in terms of expansion?

Our preference is to support markets that we've already entered but that we perhaps haven't been able to devote as

"We have so many ideas in the drawer that we want to put into action over the next 25 years."

much attention to as we'd like. But for us, standing still would also mean falling behind. So we'll definitely continue to grow, if only because the renovation and wood construction sectors will grow. There's a lot of potential, particularly in multi-storey wood construction.

Thinking back to the start of the company and if you were to give a tip to another young company, what would it be?

I'd definitely advise them not to put a business plan above everything else. We started as a garage-based business and actually assembled our machines there. We held training sessions in hotel meeting rooms and we grew slowly as and when we needed to. We renovated a residential building to house the company headquarters and because we didn't have the funds, our first warehouse was outsourced to a construction company. Every month we calculated how much space we used and how many hours the fork-lift operator

worked for us. We only opened our first warehouse on our tenyear anniversary. Our credo was always to invest what we earned, and today we're proud to say that this path was worth it.

This year, ISOCELL is celebrating 25 years. What would you like to see over the next 25?

We will continue along our

current path. We have so many ideas up our sleeves that we want to put into action over the next 25 years, always in close cooperation with our clients. It's them we have to thank for the position we are in today and we want to continue to offer them the very best service and expertise.

# THIS IS WHERE ISOCELL CELLULOSE IS MADE









2011

Given the relevance of

markets in southern

France and Spain to

the company, ISOCELL

soon decided to com-

mence operations close

proved to be the perfect

to Montpellier. Servian

**FRANCE** 

location.



2013

1996

## HARTBERG, AUSTRIA

Two small cellulose companies - one, Wolfgang Lackner, in the east and the other, ISOCELL, in the west - joined forces to achieve more together. Strategically the branch in Hartberg, the gateway to Eastern Europe, was more than a positive step.

# BÜLLINGEN, BELGIUM

2008

As plants ought to be built where the markets are and ISOCELL had bought the company Dobry Ekovilla, the second ISOCELL production facility was opened in Belgium. The facility enjoys high output levels to this day.

# SAINT-MARTIN-DES-CHAMPS, FRANCE

2010

Brittany and the plant in Belgium are approximately the same distance away from Paris. ISOCELL's first plant in France was brought on line in 2010 to provide better geographic coverage, and hence more ecological, sustainable coverage, of the French market.

# SERVIAN, TIBRO, SWEDEN

A major client wanted to change to a new producer in the region. Without hesitation, ISOCELL opened a production facility in Sweden in 2013, keeping the client and gaining many new ones in the process.

#### EXHIBITIONS AND TRADE SHOWS OVER THE DECADES



It's often the clothing that gets noticed first in old photos - and of course our company logo does too.



The old ISOCELL visual identity was also used on the very first vehicles to join our modestly-sized vehicle pool.



Slowly the superstructure of this visual identity grew to include our trade show stands



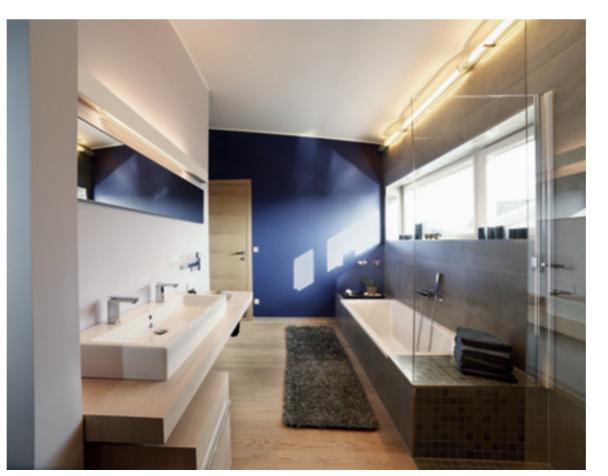
To be able to convince the world of our sustainable vision, we had to choose just the right slogan too.



# WHY IT'S MORE ECONOMIC TO THINK ABOUT TOMORROW TODAY

Houses capable of generating their own energy will soon be standard. But Kampa, the prefabricated house manufacturer, is thinking even further ahead. Managing director Josef Haas explains why.

Editing: THE ISOCELLER



When someone has doubts about the durability of pre-fabricated buildings, Josef Haas tells them a story about his own family. Josef Haas's family home was constructed using wood in 1785. It's still standing to this day.

Josef's family has been connected to the timber industry for generations: he helped to fell trees, even as a child. And wood is still a part of his life today, for

Josef is now the owner of the prefabricated house manufacturer Kampa and completely devoted to this natural, renewable raw material. For him, the reasons for this devotion are crystal clear: "Wood gives us endless options," he says. And he's happy to express it in more specific terms too: "After we've built stone buildings, we're constantly amazed and frustrated by the costs of heating and running them. Surely it's no longer

acceptable to keep building them now?" Highly insulated building even existed before the First and Second World Wars but during the 60s and 70s, this all changed. "Thin walls and oil heating were modern. Since oil was very cheap, nobody was worried. But great environmental crimes have been committed." Josef, who was born in Upper Bavaria in 1971, thinks about the future. He then says: "If we don't learn to engage actively with the environment, we won't be able to tackle climate change."

Josef's thinking at Kampa is even more innovative. "A sensible word "sustainability": It's often more economic to think about tomorrow today than it is to ask what to do tomorrow."

Kampa is committed to making houses that generate more energy than they obtain from outside and are also able to store this energy. This philosophy has been well received by clients. "With every environmental catastrophe, storm and spell of bad weather,

The European Union knows this too. In 2009 the European Parliament had already decided

> Recently Josef also demonstrated how wood can be used to build more than one-family homes and that the future of wood construction is multistorey using the company's own headquarters as an example. The building known as "K8" is Germany's first eight-storey wood construction. With a load-bearing construction made entirely from solid timber. "The basement is made from conventional concrete. After that, we needed just six months to create 3052 m<sup>2</sup> of floor space from the basement ceiling to the entrance," explains

people are persuaded to think

more about the palpable effects

of climate change." Business is

booming. In 2015 alone Kampa sold 528 one-family homes throughout Europe.

A total of 1350 m<sup>3</sup> was built using wood from German forests. "It may sound like a lot

that by December 2020, all new buildings must be almost energyneutral and energy demand must be met by renewable sources located in or close to the building. Very soon, the zero energy house will be the standard.

is considered to be a key aspect of the building's sustainability, which is also reflected in K8's positive eco balance. Thanks to Josef's thinking at Kampa is photovoltaics, heat pumps and its even more innovative. "A sensible Passive House-standard quality, idea lies behind the oft-quoted the building is also a symbol word "sustainability": It's often of what can be achieved with more economic to think about sustainable, innovative wood tomorrow today than it is to ask construction. what to do tomorrow." Kampa is committed to making houses that generate more energy than they obtain from outside and are also able to store this energy. This philosophy has been well received by clients. "With storm and spell of bad weather,

With KAMPA's prefabricated houses, there's no need to compromise on a modern lifestyle.

but in German forests, the wood

is regrown in less than twelve

minutes," explains Haas. With

990 tonnes of absorbed CO<sub>2</sub>, this

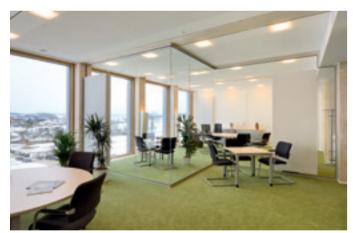


#### REPORT KAMPA



COMPANY HEADQUARTERS Kampa GmbH, Geißbergstraße 17, D-73432 Aalen-Waldhausen, Germany, www.kampa.de

## K8, KAMPA'S MODERN HEADQUARTERS



K8 not only looks great from the outside: its interior furnishings also deliver.

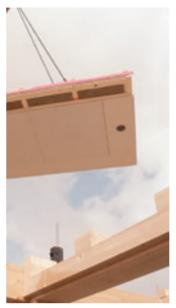
Kampa GmbH, which is headquartered close to Aalen in the German state of Baden-Württemberg, employs 500 office and field staff and has two production facilities in Freiwalde (Brandenburg) and Bad Saulgau (Baden-Württemberg).



Josef Haas was born in Wasserburg am Inn, Upper Bavaria, in 1971. He began his career at Haas Fertigbau GmbH where he quickly became head of the Haas House section. From 1997 to 2001, he was assistant to the managing director of Haas Group, before becoming technical director at Wolf System GmbH Europa in 2007. After two years as chief technical officer at Kampa AG, he became managing partner of Kampa GmbH, one of the world's most famous prefabricated house brands, in summer 2009.

The building also features a showroom where clients can find out more about KAMPA's materials.

## CONSTRUCTION



In July 2014 construction works headquarters.



A building with eight floors supportbegan on K8, KAMPA's new company ed by a solid wood glulam structure. the sky at Waldhausen in Aalen.



The building towers 30 metres into



KAMPA invested seven million euros into the building, which has a floor space of 3500 m<sup>2</sup>.

#### **TECHNOLOGY**



The most modern sustainable technology wasn't forgotten either. Heat pumps were installed, as was



a photovoltaic system for providing the building with energy.



A modern ice storage tank was also built in.



After just a few months of building, K8 had its official opening in spring 2015.



Building physics expert Christoph Buxbaum has been a lecturer and researcher at Carinthia University of Applied Sciences for twelve years.

Christoph, why did you decide to dedicate your life to building physics?

Building physics is currently one of the areas posing us with the greatest number of challenges, not least because of new construction methods and the need for more energy-efficient structures. As a result, building physicists are becoming increasingly valuable and important. In practice, structural-physical damage is the main kind of damage we have to deal with when it comes to buildings, so our research has a direct influence on the market. When we carry out applied research, our goal is for these initiatives to make a rapid impact of some form or other on the market.

Research is also conducted in the Building Science – Research & Test Unit in Villach. An outdoor test facility has been set up for R&D projects not far from Carinthia University of Applied Sciences where you teach. How did this project come about?

Populations in Western industrialised nations spend over 90 per cent of their lives indoors. Construction workers supply future users with buildings -"products" - and the quality of these products is a key indicator of quality of life. The real performance of our buildings is determined by the design of the building shell, the long-term behaviour of which is dictated by the effect of the surrounding environment and the functional properties of the materials used to build them. Carinthia University of Applied Sciences' research into building science takes account of this fact and as of 2010, the university has been increasing applied research, development and innovation activities in this field through structural development. The construction, which was carried out in parallel, and the launch of the outdoor test facility in Villach has enabled research to take place in three key areas: the efficiency and durability of the building shell, the influence of the building shell on the quality of the interior and the interactions between the two, and construction product and materials analysis that takes into consideration environmental influences. At the test facility different construction elements and building constructions, such as facades, steep-pitched roofs and flat roofs and window installations, can be constructed in full size and analysed under the relevant climatic influences

through experiments.



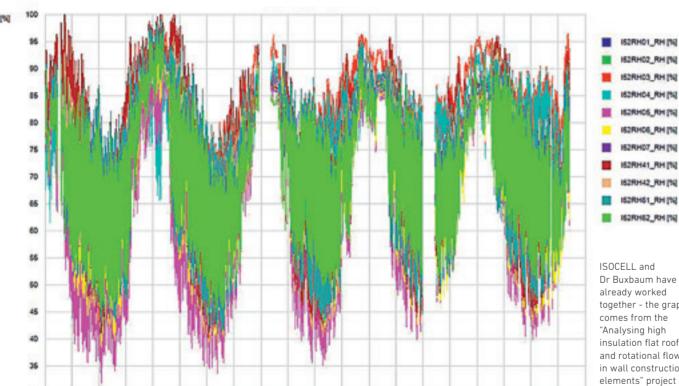
"Our research has a direct influence on the market."

#### **FIRESIDE CHAT** DR BUXBAUM





The Building Science-Research & Test Unit is the only research centre of its kind in Austria.



Dr Buxbaum have already worked together - the graph comes from the "Analysing high insulation flat roofs and rotational flow in wall construction elements" project relative humidity of the outlying sensors in the insulation

All of the gathered measuring data is stored in an online database and can also be evaluated by the client in graph format. This exchange of information is especially important for clients involved in R&D projects spanning several years.

State State

## What are you able to offer companies interested in the project?

Instead of delivering just one final report at the very end of the project, we provide the client with information throughout the course of the project. That's what makes us different. The construction elements provided by the client for testing are generally fitted with a number of sensors and are analysed at the outdoor test facility under natural weather conditions. All of the measuring data collected on the construction elements is stored in an online database and made available to the client. The client can then access these results at any time and is also able view the data in graph format. Because the elements are usually analysed during a project spanning several years, the dynamic nature of this information exchange really helps our clients to make further developments.

In the past we worked on a project called "Analysing high insulation flat roofs and rotational flow in wall construction elements" with ISOCELL. Could you talk about this project and give us a bit of an insight into your work in the field laboratory?

During this project, we constructed 26 different flat-roof superstructures at our outdoor test facility and gathered measurements on them over several years. The purpose of this was to analyse the hygrothermal behaviour, i.e. the moisture content and thermal properties, of the different structures and reach conclusions about the durability and ageing resistance of each different flat-roof structure. Each test superstructure was executed with different insulants, sealing sheets, vapour barriers and differ-

ent superimposed loads, such as a green roof or a pebble roof. At the test facility, the different elements for testing were arranged in parallel so that measurements

could be taken on the structures under the same climatic conditions over several years. By doing this, we were able to determine the advantages and disadvantages of each superstructure and generate base information for further

As a researcher and expert on building physics, what is your view on cellulose insulation?

Cellulose has many positive

developments.

characteristics, which also have a positive effect on building physics. One of the biggest advantages, of course, is that this insulant is made from a recycled product. Blown insulation is also very important because it makes more sense at higher insulation densities. Blown cellulose insulation is easier to work and compared to conventional slab insulants, which have to be installed in several layers, mistakes are less likely. Our research has also shown us that in addition to being a good insulator, cellulose also offers protection against damp. The insulant optimises the hygrothermal behaviour of

teristics, which also have a positive effect on building physics. One of the biggest advantages, of course, is that this insulant comes from a recycled product."

> the construction element and can also reduce the risk of animal or insect infestations.

"Cellulose has many positive charac-

There's already been a lot of hype around wood construction. What do you think the future looks like for this kind of construction?

Wood construction has several advantages. It's an ecological, sustainable method of construction that conserves resources for one. For another it's a dry and, most importantly, quick way of building. It's true that wood construction requires more planning effort than concrete and masonry construction does but because so much of the structure is prefabricated, the result is better workmanship and a shorter construction time.

# **INFO**

Prof. Dr. Christoph Buxbaum studied architecture in Innsbruck and has been a lecturer at Carinthia University of Applied Sciences for twelve years. He holds a Baumeister (master builder) qualification, as well as a Holzbaumeister (master builder in wood construction) qualification, and has run his own office specialising in building damage investigation for ten years.

The Carinthia University of Applied Sciences field laboratory is an industry partner for building materials and building components testing. Its services include lab analysis, measurement technology and inspection technology.

www.baulabor.at



#### BLOW-IN TECHNOLOGY TRAINING & DEVELOPMENT

We don't have to go far. The company's current headquarters are just a stone's throw from the residential building where the company took its first steps into the world of heat insulation and airtight sealants. And from the company's very first warehouse, which stands directly opposite it. The warehouse was officially opened on the company's tenyear anniversary but now has a very special purpose.

After climbing a few wooden stairs, you open a door and enter the world of Rupert Frauenschuh. Rupert been working at ISOCELL since 1998. After starting his career in wholesale, he joined the

THE TRAINER



Rupert Frauenschuh Technical advisor and applications engineer at ISOCELL

ambitious company to install cellulose insulation on building sites. Although he still works in this capacity, today he has other responsibilities too. Frauenschuh is technical advisor and applications engineer at ISOCELL, and as such shares his expertise on cellulose insulation with more than 600 people each year. He has a few guests today too. A normal training session lasts two days - one day for practical work and one day for theory. Today is day one so practical work is on the agenda. Previously the training started with theory, but there proved to be value in turning the schedule around. The theory therefore becomes a form of consolidation. Unusual, you might think, but it has to be admitted that the concept has been successful. And somehow, that's very typically ISOCELL.

The guests have gathered around the trainer. The smell of cellulose fills the air and the blowing machine is waiting in the wings. Holding the blowing hose in his hand, Frauenschuh asks the gathered crowd a question in broad Austrian dialect. The guests from Germany don't quite understand everything that he's said. He tries again, this time in standard German: "Do you blow in cellulose or can you blow in wood fibre as well?" "You can blow in both," comes the response.

Frauenschuh gives the attendees a live demonstration on how to blow insulation into walls and roofs, what techniques should be used and what products the company can offer for the job. He also explains that you "don't need five hands" when you work with ISOCELL.

"The main training period runs from January to May because nothing is built during this time," he explains after training has finished. Sometimes the training groups are work outings. And does he always work with newcomers to ISOCELL? "No, for some people it's their second training course and for others, it's their first. This exchange is entirely intentional - and it's positive too."

# <u>INFO</u>

ISOCELL organises training sessions at its own training facility in Neumarkt am Wallersee and also runs sessions on airtightness and how to install cellulose insulation. Expert meetings enable participants to exchange experiences and are instrumental in the development of new technologies. Practical seminars are also held on an on-going basis for ISOCELL installers.

Rupert Frauenschuh is technical advisor and applications engineer at ISOCELL, and as such shares his expertise on cellulose insulation and blowing machines with more than 600 people each year.



The practical element of the ISOCELL Academy is led in small groups in ISOCELL's historic warehouse, which is right next to the company's modern headquarters.







#### BLOW-IN TECHNOLOGY TRAINING & DEVELOPMENT













The trainer gives a live demonstration of how to blow cellulose insulation into a dummy building, what techniques should be used and what products ISOCELL can offer for the job.





His many years of experience mean that as a trainer, Frauenschuh has a wealth of tips to help even the most experienced cellulose installers.

The room used for cellulose practical training



# SCHEDULE

Wednesday 1 February until Thursday 2 February Monday 6 February until Tuesday 7 February Wednesday 8 February until Thursday 9 February Monday 13 February until Tuesday 14 February Monday 20 February until Tuesday 21 February Wednesday 22 February until Thursday 23 February Wednesday 1 March until Thursday 2 March Wednesday 8 March until Thursday 9 March Monday 13 March until Tuesday 14 March

(registration ends one week before start date)

#### CONTACTS

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Individual training dates can also be agreed for groups of 10 or more.

Please send queries to acadamy@isocell.at



# STRONG PARTNER GUMPP & MAIER

Alexander, the roots of your company are in carpentry and wagon building. How important is tradition to you?

It's important as long as it doesn't degenerate into an end in itself. An awareness of the past is essential if you want to shape the future in a responsible way. As parameters, responsibility and innovative working practices go hand in hand - we believe that very strongly.

#### Why?

There are many challenges facing society today. Climate change is one of the biggest, however the political situation in an imbalanced world is also challenging for us. Because of the recent increase in the number of refugees arriving in the country, Germany is also experiencing housing shortages, particularly social housing. I see it as our duty to respond to this situation in a sensible, sustainable way.

You attracted attention in the recent past by building the very first wooden refugee shelters. Why is wood the right solution for social housing?

With this project, we found partners who wanted to work without all the red tape and who believed in our principles. We made a clear decision to only build housing that would last rather than projects that would be around for just eight or ten years. We don't compromise on quality either. Since we have more money at the moment than we do resources, we also dismissed the idea of building resource-heavy shipping

container developments. Last year, for instance, we built accommodation for refugees in Königsbrunn. Eight buildings with 24 apartment units for a total of 120 people - all built in wood and with a lifespan of up to 80 years. It makes no sense to place container apartments on a green meadow. It would have made even less sense to rent old buildings at expensive prices.

# **INFO**

Gumpp & Maier GmbH's roots go back to 1930 when Josef Maier's grandfather founded a carpentry and wagon building business and 1931 with the founding of Leonhard Gumpp's carpentry business. The company offers wood-based building solutions for private and corporate clients and makes an active, considered contribution to the development of the industry.











"Three things are important to us: building ecologically, conserving resources and developing a reasonable life cycle."



Gumpp & Maier GmbH is synonymous with modern wooden architecture

Gumpp & Maier GmbH Hauptstraße 65 86637 Binswangen Tel. +44 (0) 8272 99 85-0 Fax +44 (0) 8272 99 85-25 info@gumpp-maier.de www.gumpp-maier.de

# Were mistakes made in the building of social housing in the past?

Thinking about the metropolitan areas of Augsburg or Munich, not enough housing has been built for vulnerable social groups over the past 15 to 20 years. The challenge of coping with a greater number of refugee arrivals in the previous year has now led to an increase in building. And wood is a more sensible solution for this building because sustaina-

bility and rapid building are not mutually exclusive. The complex in Königsbrunn was built in about three and a half months.

Can you tell us a bit more about the other construction methods you use aside from wood?

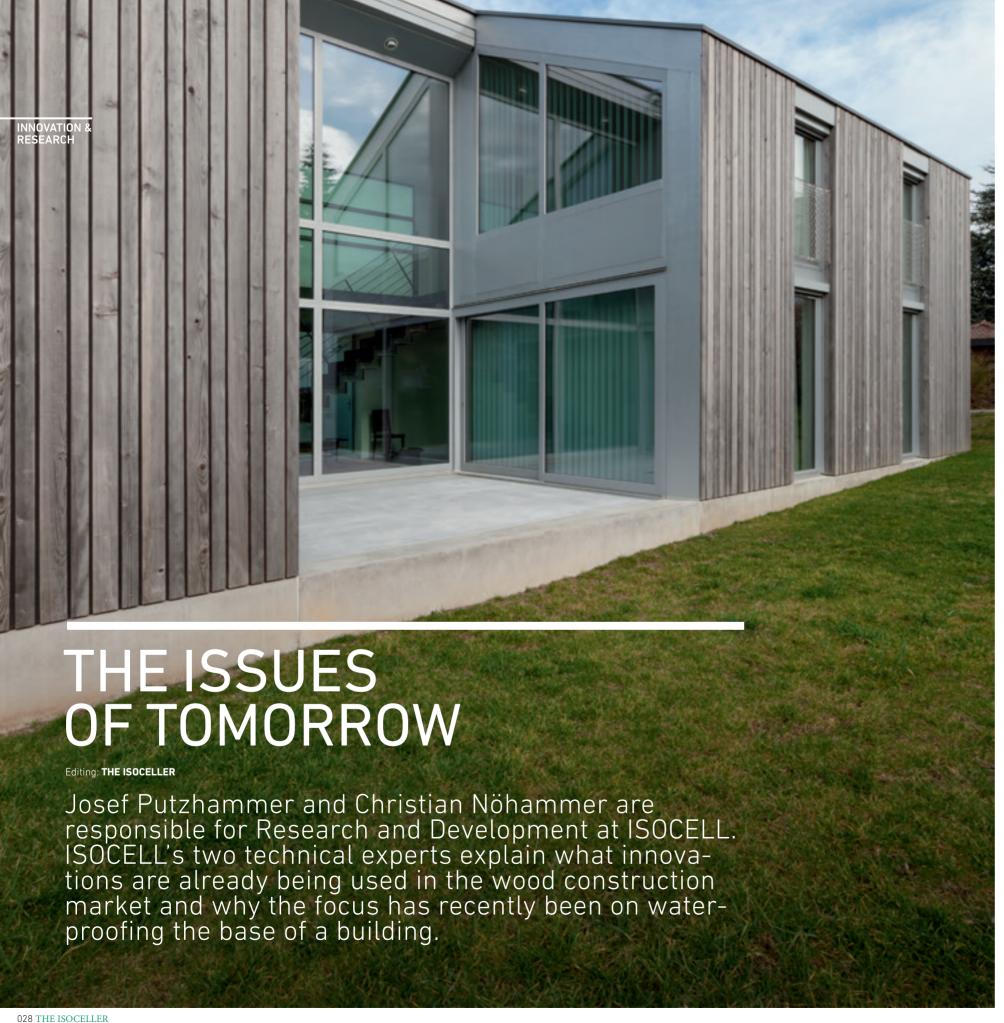
Three things are important to us: building ecologically, conserving resources and developing a reasonable life cycle. Our industry is one step away from the Passive House becoming standard. In any case for us, an energy efficiency rating of 55 is normally the minimum for a family home. We'd already started to build ecological, energyefficient, low-energy houses in the 90s. Our standard insulant for these houses is cellulose. We're noticing that cellulose has now hit its stride and is accepted. The time when you had to make the argument for using recovered paper as an insulant has passed. Multi-storey house building is the only area still with catching up to do. I hope, however, that changes to building regulations will mean that we'll be able to rely on cellulose more in this area

How did you come to use cellulose?

From the principle of wanting to construct buildings that last for 80 years or longer and doing so responsibly. With this philosophy, petrochemistry and mineral wool are out of the question so the decision to use cellulose was made almost automatically.

You've been in the industry for a long time. What do you think the future of wood construction looks like?

We want to bring wood construction to the city. We've already completed a number of such projects. In Germany you were, for a long time, only allowed to build three storeys from wood but today the limit is 22 metres and in Austria, it's even higher. Wood construction will migrate from the countryside and the suburbs into the city itself. Since the one-family home market is relatively saturated, other markets for the future include renovation and adding storeys to existing buildings.



Recently there's been a kind of revolution in roof sheeting technology. Why?

Christian Nöhammer: The products on the market differ greatly in terms of quality. We've converted the films intended for carrying high loads from microporous functional membranes to monolithic functional membranes. This new technology makes it possible to manufacture particularly durable membranes.

Josef Putzhammer: Protecting the building from rain is an essential element of construction. If no roofing felt is used, damage to the building and costly repairs can result. Failing to use it would therefore be false economy. High-quality products that have been tried and tested in the field should always be used. In recent years, an increased awareness of this has also been noticeable in the market. ISOCELL welcomes this and has the technology to create exceptionally high-quality products for different applica-

# What other innovations are being worked on?

Putzhammer: A very exciting research project is currently under way in Germany, and ISCOCELL is a part of this project. The aim of the project is to assess the fire resistance of wooden panels with biogenous insulants through carrying out calculations. Until now concrete and masonry construction has had the advantage, because there is no need to check each of the

individual components. Fire resistance can therefore be calculated using simple formulae.

Nöhammer: It costs a lot to check the structure of a particular component. And in wood construction there are so many different products and possible combinations, meaning that many different superstructures can be built.

So the point of projects such as this is to prove that wood construction is in no way inferior to the competition in terms of fire safety?

Nöhammer: Precisely. The project will show that the fire safety of wood construction and concrete and masonry construction is on a par. Fire safety is a big challenge for multi-storey wood constructions. Several projects have already shown, however, that it is possible to build firesafe constructions of this type successfully.





Josef Putzhammer (top) and Christian Nöhammer (bottom)

INNOVATION & RESEARCH

Everything was so much easier before. The desire for accessibility is posing new challenges for construction.



## TECHNICAL DETAILS - PHOTOS OF WATERPROOFING PROCESS



Omega Liquid offers protection against splash water



Omega Pobit waterproofs the base of the building



Liquid base waterproofing membranes are capable making even the most complex transitions watertight



Work carried out according to building standards

## BASE WATERPROOFING PRODUCTS



EPDM SEALING STRIPS Elastomeric sealing strip:

Elastomeric sealing strips have an EDPM rubber base and a textured surface ensuring optimal adhesion on both sides.

A new solution for waterproofing the base of a building has just been launched: it's a sealing compound that complements adhesive tapes and EPDM sealing strips. Why is the base of a house such a big topic?

Putzhammer: Waterproofing the base really will be a big topic in the future. A lot of damage is caused at the base joint due to splash water or rain. A big challenge for customers and carpenters is offering barrier-free building base solutions. There are a lot of rules that need to be followed and naturally the user also wants there to be a seamless transition from the living area to the garden or terrace.



OMEGA LIQUID SEALING COMPOUND

This liquid water-based compound for exterior use is particularly suitable for protecting base areas against pressureless subsiding water. It bonds with many surfaces including wood, concrete, aerated concrete, metal, polyester, wallboard or expanded foam panels (EPS, XPS, DUR)

Nöhammer: As a result, wooden construction elements are pushed further and further into the splash water area close to external ground level. They have to be protected accordingly. Recently ISOCELL was involved in drawing up a wood research directive in Austria that specifies practical guidelines for working in this area. We also offer a number of product solutions especially for this purpose.



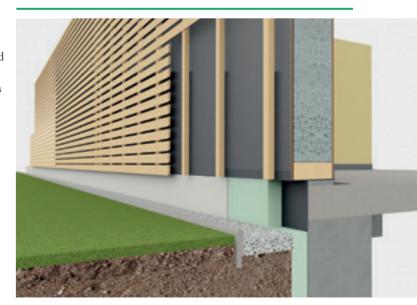
OMEGA POBIT

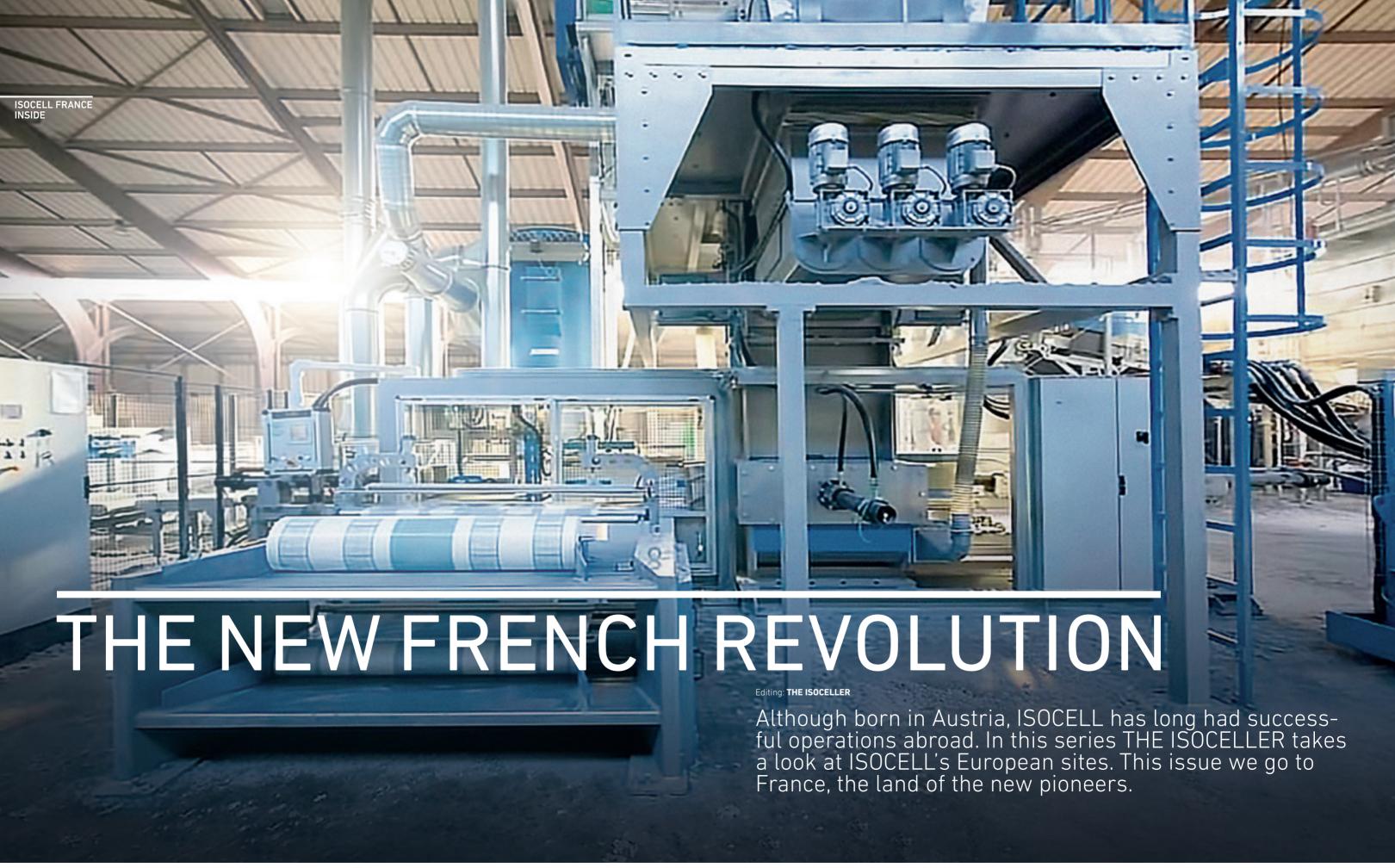
A ready-to-use single-component, water-based elastomeric bitumen sealant. OMEGA PoBit is particularly suitable for creating seamless seals in critical spots in window and door areas, as a second drainage level below window sills, at penetration points and for sealing the exterior of the base.



AIRSTOP BITUMEN RUBBER TAPE

Adhesive tape made from bitumen rubber and permanently elastic with a self-adhesive backing. Particularly suitable for sealing transitions from inferior purlins to concrete walls and concrete substrates and sealing plywoods, OSB, fibreboards and softboards in and around roof junctions.





# ISOCELL FRANCE

"When a house is built, the first thing that's looked at is the actual cost of building it. In many places, the potential long-term savings offered by more sustainable construction methods have not yet been realised."



Gabriele Leibetseder (left) with her colleagues from ISOCELL France: Matthieu Jourdes, Monika Corre, Cathy Grünweiser and Frederic Bleuse





Sandra Michaelsen (left), Logistics Sandrine Guichebaron (right), Sales Department

There are many areas of life where France has taken on a pioneering role. Freedom, equality and fraternity were key themes of the French Revolution. With them, La Grande Nation instilled a fundamental understanding of democracy in Europe that remains to this day. But there are also some areas of life where France is still lagging behind.

for example. Frederic Bleuse and Monika Corre, who head up ISOCELL's site in Brest, northwest France, know this all too well. "People here are aware of the environment but in a different way to people in Austria or Germany," explains Bleuse. "There's just a different mentality here." The situation west of the Alps is somewhat similar to how it was north and south of the mountains some years ago. "When a house is built, the first thing that's looked at is the actual cost of building it. In many places, the potential long-term savings offered by more sustainable construction methods have not yet been realised," explains Monika Corre. Equally, heat insulation and airtight sealing are less widespread. "The result of this is that we have great market potential." For ISOCELL, France is therefore a place where much of the pioneering work already done in Germany and Austria can continue.

Sustainable house building,

Corre comes from Austria and has been living in Brittany for 20 years. She and Bleuse have headed up ISOCELL France, which is based in Guipavas in Brittany and was founded seven years ago, since 2012. ISOCELL already produces cellulose insulation for "La Grande Nation" in two plants.

France has not dealt kindly with recycling for a long time But times are changing. "A new awareness is developing," explain Bleuse and Corre. And ISOCELL is also doing its bit by producing insulant from recovered paper. In Servian close to Montpellier, a city in the south of France, recovered paper is obtained from a newspaper publisher. In the Saint-Martindes-Champs plant in Brittany, ISOCELL uses a social project to actively promote conservation. Over 600 regional associations provide the recovered paper needed to make cellulose insulation and are reimbursed for it. Sports associations, parents'

For ISOCELL, France is a place where much of the pioneering work already done in Germany and Austria can continue.



Many existing buildings are still waiting for thermal renovation

associations and other insti-

tutions all help gather paper

together for a more sustainable future. A delivery must weigh a

minimum of 300 kilogrammes

and the recovered paper is picked

up from them directly. "The sys-

tem works and has been received

very positively by the people and

the region," explains Corre, who

also remarks on the additional

ecological benefits that come

with obtaining raw materials

regionally.

different countries, different ways of building...

vays of ...blow-in technology is the same everywhere, however





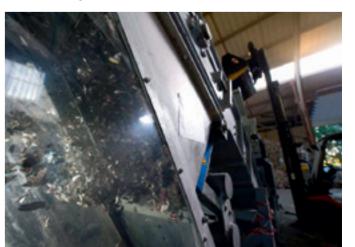
France may still be a sleeping giant of sustainability but the government of this country, whose capital recently hosted a successful global climate change summit, has set ambitious environmental targets. ISOCELL's Austrian expertise on heat insulation and airtight sealing will therefore be welcome. But that's not all: "For many people in France," explains Corre, "Austria is the epitome of modern construction." These pioneers

from Austria have already arrived in the shape of ISOCELL.

The time has come for the next French Revolution, and this time, it will be in sustainable house building.

ISOCELL FRANCE 170 Rue Jean Monnet F-29490 GUIPAVAS Tel: +33 (0) 298 42 11 00 www.isocell-france.com

ISOCELL's production facilities in Brittany receive their recovered paper from over 600 regional associations.





The "Weber Energy Plus House" – a showpiece project by ISOCELL and Ronacher, during which a 160-year old farmhouse was renovated to Passive House standard.

ago. I'd also like to add that the dialogue between wooden and concrete and masonry construction has been of great interest to me from the outset. The house doesn't always have to be made entirely from wood: even my first house had a steel concrete core. People love concepts with a traditional ground floor made from masonry and with wood from the first floor.

# Do you also rely on cellulose in your buildings?

In recent years, we've leaned significantly towards cellulose instead of other insulants.

There's a very simple reason for this: Cellulose is an ecological insulant and is therefore in keeping

with our philosophy – it's proven to be particularly effective from a building physics perspective.

# You've already been building with wood for a long time: does the future belong to wood construction?

Yes, I believe it does, although in our experience it's difficult to find a solution to the fire safety issue with higher classes of building, particularly if the wood is visible. We've never allowed ourselves to become discouraged, however, and also build hotels and public buildings made largely from wood. In my talks, I like explaining the variety of arguments for using wood as a construction material.

You also advocate a very special style of architecture known as the "architecture of the centre", which you've written a book about. What is this exactly?

oven om a Die Mitte und das Gar

# BOOK TIP

The Centre and the Whole: Thoughts on Construction

Verlag Anton Pustet Salzburg

## 272 pages

available on Amazon, by emailing office@ architekten-ronacher.at or by placing an order at any bookshop

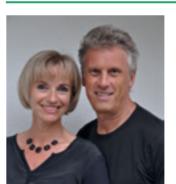
# STRENGTH LIES IN THE CENTRE

Editing: THE ISOCELLER

Ronacher architects plan large public buildings and hotels in Austria. Herwig Ronacher tells The ISOCELLER why he likes a symbiosis of wood construction and concrete and masonry construction best and why he likes to plan a building around a central point.

Herwig, you plan and design hotels, thermal springs, public buildings and bridges and have contracts all over Austria. As an architect, why do you focus so much on wood as a material and energyconscious construction?

Ecological construction is the most normal thing in the world. I designed my first house in 1982 and even then it was made from wood. So I'd already built wooden houses, even when it wasn't a modern idea, and in 1988 I wrote a dissertation on combining wood construction and concrete and masonry construction. Wood construction was still an architectural vision 30 years



Architects Andrea and Herwig Ronacher Architects office in Hermagor for over 25 years 15 members of staff approx. 450 projects completed approx. 80 tourism sector projects wood construction, building biology, solar architecture, Passive House houses



#### **HERWIG RONACHER** ARCHITECTURE OF THE CENTRE

## INTERIOR VIEWS









30 centimetres of cellulose insulation was successfully blown into the inside of the old stone walls without vapour-proof barriers. The Weber House is in Khünburg, Hermagor, Carinthia. Long-term measurements have shown that no condensation water has arisen to date





The key theme of the book is the significance of the centre in life and in architecture. The centre stands for balance and the holistic. There are five important areas: aesthetics, technology, function, ecology and economics (note: see info box). It's about balance and through that, linking together the traditional and the modern. But it's also about building bridges. When I build in the countryside, I will model a building on the traditional builds of the area rather than artificially creating something new. In architecture the ground plan of a house also focuses on the centre first. Regardless of whether we're working on residential building ,hotel or public building, we mostly design concepts for projects where we build around a strong centre. This is often in contrast to the very harsh, linear

Masonry at the bottom and wood at the top an Andrea and Herwig Ronacher trademark

concepts found in modern architecture. In our opinion people feel more at ease in houses with a

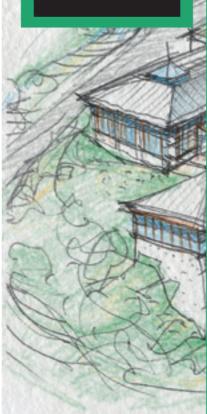
How did the "architecture of the centre" concept come

I'd already become fascinated with this idea as a student. In architecture, there's a principle known as the "onion skin principle". According to this principle, you build the warmest room in the middle. The feel-good factor is higher in the centre. The "architecture of the centre" arose out of this principle and much reflection. An archetypal example of this philosophy in action is the federal forest building in Purkersdorf. Here a circular auditorium with light flooding in from the top was placed in the centre. All of the offices in the building lead out from there. We also planned the primary school in Hermagor according to this concept. It's also a valuable design principle for detached houses, though.

# **HERWIG** RONACHER **ON THE FIVE ELEMENTS OF SUCCESSFUL** CONSTRUCTION

"A building becomes a liveable of construction are considered holistically. Aesthetics, funcand ecology: these five aspects and are weighted differently according to the project. The are, the better the result.





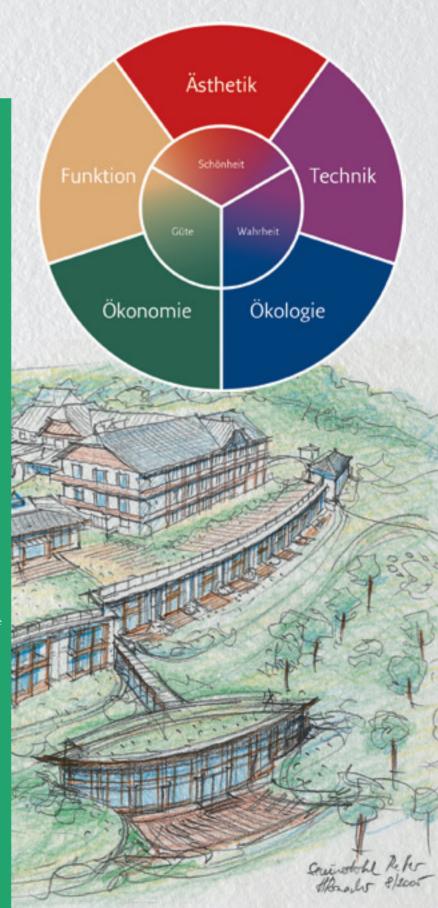
Aesthetics means designing structures that use sensory perception to have a positive influence on thoughts and feelings. The more successfully this requirement is

Function means creating shapes and rooms that are organisation of the provided space allocation plan, the arrangement of the rooms, and functional processes.

Technology means creating a structure from different construction elements and materials that fulfils all stability, weather resistance and climatic suitability and ensures optimal installation of utilities and disposal sysprotection is also important.

Economics means making the most of the funds available The architect and the client according to what is achieved with limited funds.

Ecology means creating structures that place as little strain on the environment as possible, e.g. by means of low energy consumption materials. The choice of loca-



THE ISOCELLER 039 038 THE ISOCELLER





# LEDERHOSEN



Georg Klampfer and Christian Eibl came up with the idea of "Lederhosen Thursday".

"It's great fun to walk through the city and have people smile at yoù - just because you're wearing Ĺederhosen.'

film and TV and it's all too easy to think of this idyllic alpine country in clichés. The classic film "The Sound of Music" is responsible for one of these clichés: that all Austrians live in alpine meadows and wear traditional costume. In real life, however, Lederhosen and Dirndls are just item of folk dress worn for festivals. Or could it be that there's more to them than that?

Experience Austria through

Outside of the annual Oktoberfest and Kirtag festivals this clothing, which has been popular in the Alps since the end of the 18th century, is experiencing a real revival. In a world full of ever more discerning consumers keen to harken back to traditional values, these tough, durable leather trousers are anything but old-fashioned. Today these erstwhile dungarees, which were prized for their practicality, are more fashionable and popular

Georg Klampfer and Christian Eibl from Salzburg are well aware of this. More than two years ago, the two schoolfriends were sitting having a beer together, smoothing out a plan for how to bring traditional costume back into everyday life. Together they came up with "Lederhosen Thursday" and since then, every Thursday, they've pulled their Lederhosen out of the wardrobe. Through a couple of newspaper articles and follows and shares on social media, the idea has already found many supporters. "It's great fun to walk through the city and have people smile at you - just because you're wearing Lederhosen," says Christian. And Georg has even bigger plans: "Wouldn't it be great if everyone in Salzburg could see that it's Lederhosen Thursday?" In Salzburg their Lederhosen Thursday supporters and campaigners number in the hundreds, if not the thousands - and many of them, naturally, work in industries such as tourism and catering. The two sales and marketing professionals aren't just active in Salzburg: the initiative has also been introduced in Vienna and Bavaria.

But the revival is not just restricted to Lederhosen: traditional costume in general is making its way back into society. For years, Lena Hoschek has been a celebrated Styrian fashion designer and is largely known for her fashions based on traditional costume. "Dirndl Dusl Thursday" was recently held in Vienna - this was a series of events held by the family-owned, Salzburg-based company Hanna Trachten for fans of traditional

Lederhosen and traditional costume is becoming socially acceptable again. And who knows perhaps the time will come when the Lederhosen-clad Austrian is no longer a cliché and business meetings with attendees in Lederhosen will be the norm rather than the exception. Christian and Georg travel a lot for work: no matter where they are, they pack their Lederhosen in their luggage and are only too happy to show them off. Needless to say, ISOCELL's managing director Anton Spitaler does exactly the same! The march of the Lederhosen has already begun.

www.lederhosendonnerstag.at www.hanna-trachten.at







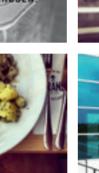




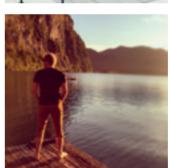


FROM SHORTS TO LEDERHOSEN



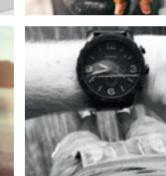






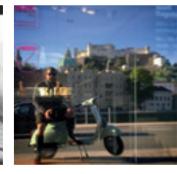












than the Lederhosen

Lederhosen are still as

narrow today but the

length varies.

familiar to us today.

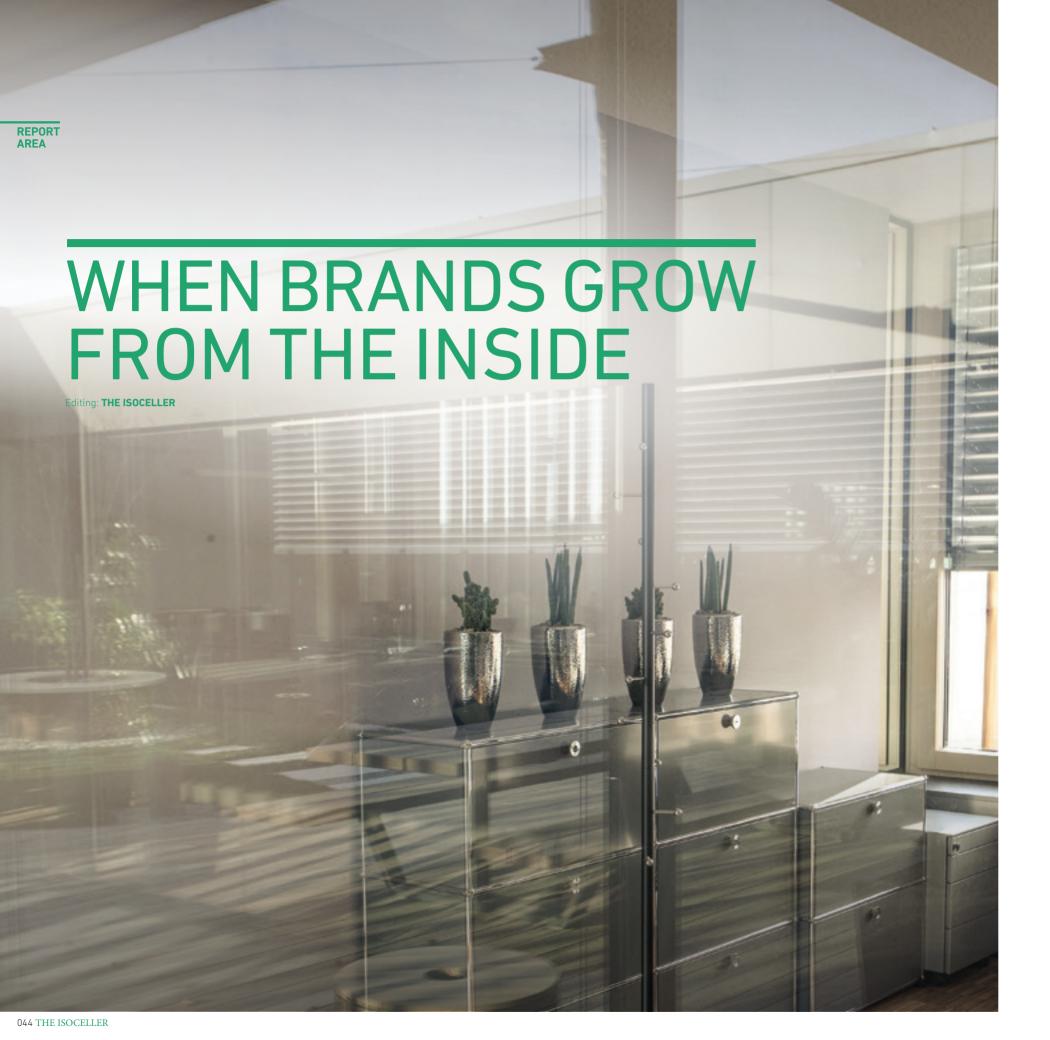






Not all Lederhosen are

the same. There are clear differences between the Lederhosen worn in each region. A pair of Salzburg Lederhosen can be identified by the white embroidery and the stitching that runs up the leg and across the seat of the shorts in an arc. Styrian Lederhosen feature green embroidery and have legs reaching to just above the knee. Lederhosen with striking light-green embroidery are most likely from the Bavarian region.



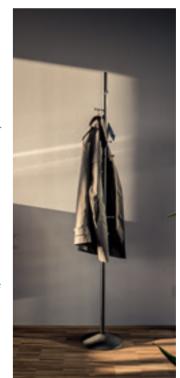
Eduard Peter Mayr helps companies to present themselves and strengthen their brand presence. Using all the right colours, light and materials and without the mysticism. Get ready for a journey into the world of Area.

There are things that are only perceived by people subconsciously. And yet these things are of fundamental importance, even in the workplace. In a place where you usually spend around 40 hours a week, furniture and work equipment is not enough. There's more to it than that.

Furnishings, for instance, are especially important. And this is where Eduard Peter Mayr and Area come in. His company, which is based in Salzburg and Linz. doesn't restrict its work to furniture. It does so much more than that. Mayr and his team help their clients to present themselves and their brand from the inside out in order to become stronger. Area makes brand and company philosophies visible and develops work environments. This helps increase happiness amongst staff and managers - and also creates a positive working environment. It may all sound very theoretical - perhaps even philosophical - but where does this actually lead? And why do ISOCELL staff feel so much more comfortable in our new headquarters than they did in the old one, something that is also thanks to Mayr's work?

First things first. People usually choose Area because somebody has told them that Mayr and his team do a good job. Once Area is invited to do the job, the company presents its initial designs and subjective ideas to the client. This is absolutely in line with the motto to "get ideas from outside to combat company blindness to failings". During this phase, the ordering party is also interviewed in detail about these external ideas. "This interview is a kind

of survey of demand," explains Mayr who started out in retail in 1989 and founded Area in 1993. He continues: "It's extremely important to get input from the company itself so that decision makers are able to understand and find out what our work can do and what it requires. The entire process is like a joint development phase."







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Tel. +44 (0) 662 88 00 68 www.area.at

"It's extremely important to get input from the company itself so that decision makers are able to understand and find out what our work can do and what it requires. The entire process is like a joint development phase."

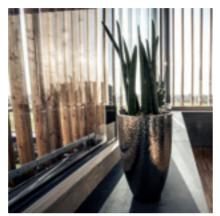
Mayr also knows something else: "Today everybody talks about good working light and good ventilation. That's important but I was always more focused on other, more specific things such as materials, lighting or colour schemes."

Colour plays a particularly significant role in Mayr's work. In the case of ISOCELL, it took a whole day to choose three different shades of paint for the office level. "Sun and shade, daylight or artificial light, south-facing or north-facing: all of these factors have an incredibly large impact." But what colours are used for what mood or atmosphere? "Strong colours are good for orientating people and subtle colours have a positive effect on staff. When using these colours, however, you have to make sure you don't overwhelm anyone with feelings and emotions. Working together in the same place all day can be challenging enough."

With the right colours and other details that range from furniture to changeable picture frames, Mayr and his team create brand worlds that bring companies to life from their own offices outwards. There's nothing mystical about this: it's just a matter of professionalism. Corporate identity and design shouldn't begin and end with a logo on the office door, after all. With clients spanning BMW, Jaguar and Fiat, as well as banks and museums, Area's services are in demand from companies in a wide-range of industries.

And Mayr and his team are getting involved in the design process earlier and earlier. "We're often a part of the project by the architectural design phase. At the same time, we continue to be involved in many projects for adapting or renovating existing structures." And how far can this involvement go? "It can go quite far. Once we were supposed to renovate a conference room," he explains, "but as a result of our work, the building had to be extended." When brands grow from the inside, there are no limits.







Eduard Peter Mayr, managing director and founder of AREA Handelsges. mbH and AREA C.I. Design GmbH







FOOD SPECIAL ISOCELL PUMPKIN SEED OIL MENU

# GREEN GOLD

Who needs quinoa, chia seeds and goji berries? Pumpkin seed oil is a regional superfood native to Central Europe. Here's a short history of a healthy, tasty oil that's more than just a simple salad dressing.

Editing: THE ISOCELLER

Autumn means it's harvest time. This is particularly true for pumpkins. There are over 800 varieties of pumpkin, and almost all of them are edible. But only the Styrian oil pumpkin has the seeds needed to obtain "green gold". "Green gold" is the name

of the valuable pumpkin seed oil that Styria is particularly famous for. It's also produced in Burgenland, Lower Austria, Hungary, Slovenia and Russia, however. But how exactly is it made?

In Austria the process starts with removing the seeds from the pumpkin. During this process, up to ten kilogrammes of heavy Styrian oil pumpkins are usually cut in half right there in the field in order to remove the seeds. Whilst the majority of pumpkin products use the flesh instead of the seeds, the process of making pumpkin seed oil goes the other way around. The seeds are taken for processing and the rest of the pumpkin is thrown back onto the field and ploughed for the following year.

The process for making this valuable super oil then begins. The seeds are washed and dried. They're then mixed together with salt and water because the salt helps to separate the fat and protein from the seed. This mass is then heated until the water

evaporates and the oil can finally be extracted. Around 30 to 35 pumpkins are needed to make one litre of oil.

Pumpkin seed oil is a speciality. Although its thick, viscous consistency makes it perfect for salads, it can be used for a lot of other things too. Whether salty or sweet, all varieties of pumpkin seed oil can be used for cooking. In egg-based dishes, curd cheese spreads, vanilla ice cream, pumpkin soup (see recipe), risotto or as a pesto, pumpkin seed oil is a delight for the tastebuds.

It's also extremely healthy. The entire immune system, as well as the bladder, prostate and urinary tract, all benefit from eating pumpkin seed oil.







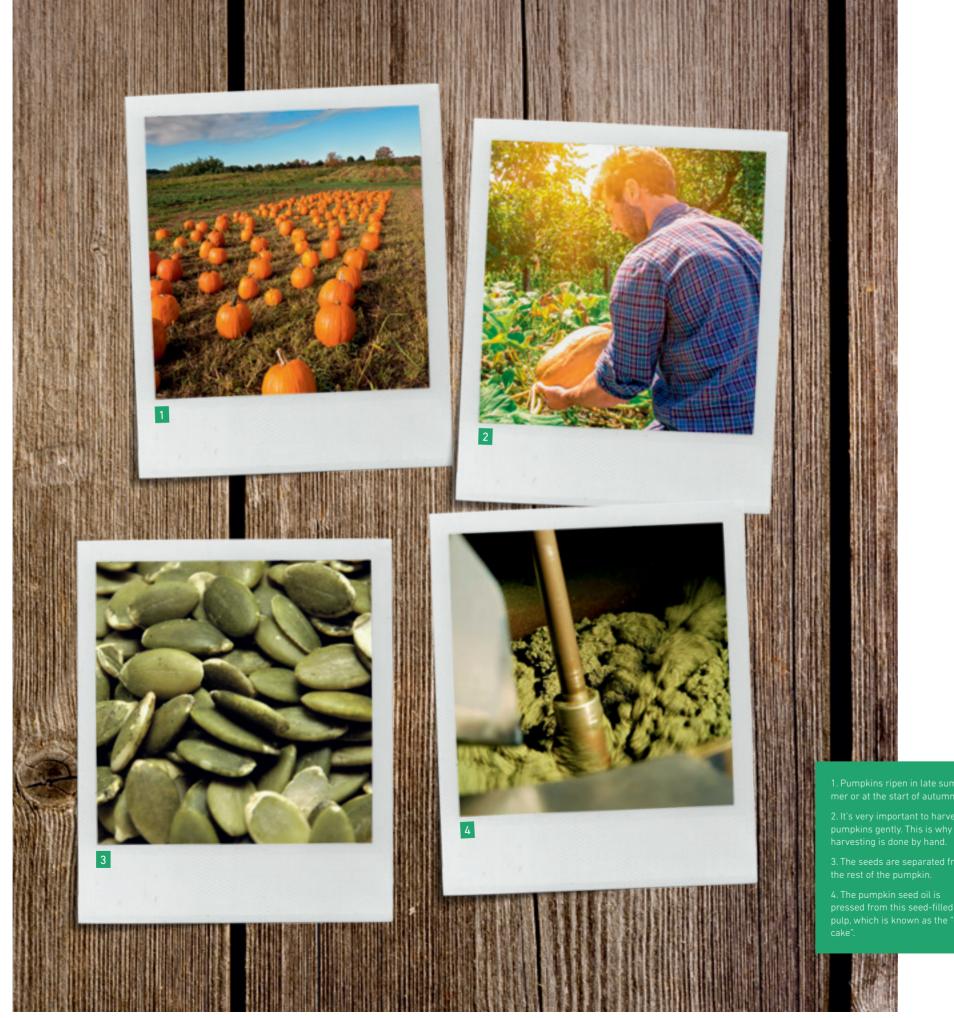
#### FOOD SPECIAL ISOCELL PUMPKIN SEED OIL MENU

The Technical University of Graz discovered that the old natural remedy contains the highest amount of antioxidants of all cooking oils. And here are a few more healthy facts: pumpkin seed oil contains up to 80 per cent unsaturated fatty acids, which have a positive effect on unhealthy cholesterol. The green gold also contains the vitamins A, B1, B2 and C, to name but a

Pumpkin seed oil is a real regional super food capable of taking on quinoa, as well as modern food industry's chia seeds and goji berries. There's just one thing to remember, though: pumpkin seed oil shouldn't be stored somewhere too warm or dark - and once opened, it should be put in the fridge as it goes off easily. And while we're on the subject... botanically speaking pumpkins are actually berries, which makes them the biggest berries in the world.



Pumpkins are also a popular decoration at Halloween.





#### **RECIPE AND INSTRUCTIONS**

#### Serves 4

Time: 45 minutes

1 kg pumpkin

(e.g. Hokkaido)

2 tbsp (40 g) butter/margarine

2 tbsp (40 g) flour 2 (about 400 ml)

> glasses of vegetable stock

1/8 l

white wine

Salt Pepper

2 tbsp

pumpkin seeds 4 tsp pumpkin seed oil

- 1. Quarter the pumpkin. Remove the seeds and skin and cut into small pieces. Peel and dice the onions.
- 2. Heat the butter or margarine in a large pot. Sauté the onions until transparent. Briefly sauté the pumpkin with the onions. Scatter with flour and brown. Stir in the stock (or 800 ml water and 3 tsp vegetable stock). Add the wine and season with salt and pepper. Bring to the boil and then cover and simmer on a low heat for around 25 to 30 minutes.
- 3. Dry fry the seeds and remove from the pan. Purée the pumpkin into the soup until smooth and season to taste with paprika or tomato purée (to give it a darker colour). Serve topped with pumpkin seeds and a drizzle of pumpkin seed oil. Bon appetit!