



*Association
des Fabricants
Européens
de Rubans
Auto-Adhésifs*

Editorial

Sustainability: What Tape Companies Need to Know Now

Reporting

Activities of Afera's Committees

Afera's Actions Create Value for Members & the Tape Industry

Global Tape Forum Holds Successful Taipei Meeting

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News from the Industry

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PRESIDENT'S PAGE

During times when business news continuously depicts Europe in an historic crisis, our annual meeting has shown that our industry has every reason to be positive about its future.

In selecting the theme "Sustainability: Hype or Your Chance Now?", we consciously chose a future-oriented topic. The lectures on sustainability issues have shown that sustainability not only benefits the environment but creates market opportunities, and if the concept is applied wisely in corporate management, it can foster long-term commercial success.

In retrospect, our Annual Conference from 2nd-5th October in Madrid was a great success, not only because of the large attendance and the high-quality presentations, but for the numerous interesting discussions which took place around the Conference. As Afera's recent Survey has shown, Members consistently value high-quality events and networking as the two greatest benefits of Afera Membership.

Beyond Europe, conferences and get-togethers such as the Global Tape Forum and Global Test Methods Committee Meetings, most recently held in Taiwan, offer the tape industry, our Association and our Members the opportunity to grow their networks both in the technical and marketing communities.

Let us hope for our industry that our generally positive outlook for the tape industry will not be clouded by further external shocks such as the looming escalation of the crisis in the Middle East. For the sake of the region's people, let us wish for a diplomatic solution so they can enjoy a peaceful New Year.

I wish you and your family a Merry Christmas, Happy Holidays and a peaceful New Year. Furthermore, I wish your companies a successful 2013.

Peter Rambusch
President of Afera



Afera 6th Technical Seminar
15 - 17 April 2013
Brussels Marriott Hotel



Afera Annual Conference
2 - 5 October 2013
Taormina, Sicily

Afera News: IMPROVED DISTRIBUTION

Afera's Marketing Committee, in order to modernise and optimise Afera's communications tools, has decided to limit *Afera News'* hardcopy publication to once a year, while transmitting industry news and association information in digital form to Members on a weekly basis.

This cost-cutting measure will take effect in 2013, with the first hardcopy *Afera Review*, a year-end sum up of tape issues, projects and events, set for distribution in early January 2014. Members will soon receive information on new advertising opportunities in Afera's digital newsletter in 2013 and *Afera Review 2014*.

SUSTAINABILITY: WHAT TAPE COMPANIES NEED TO KNOW NOW

AFERA'S 55th ANNUAL CONFERENCE IN MADRID

Hosted by the Western Europe region of Afera's Membership, represented by Steering Committee Member Laurent Derolez, this year's Conference took place in Spain's glorious capital, bringing together the self-adhesive tape industry's creative minds and decision-makers for the annual industry congress.

Combined with the customary Conference Programme of two days of lectures and activities were the biyearly meetings of the Technical, Marketing and Steering Committees (see "Activities of the Committees" for details on their current discussions and projects on pages 16-18).

Choosing a theme

For the first time, Afera's Conference Programme Committee formed the Working Programme around the most popular theme affecting the tape industry today: Sustainability. This event served as a test project to determine if various points of view presented on a particular topic would generate a body of knowledge and discussion to be taken back for use in tape businesses. For this reason, Afera engaged a speaker such as the preeminent scientist and politician Ernst Ulrich von Weizsäcker to offer its Members the last word on eco-friendliness and business strategy.

OVERVIEW

Hosted at the Hotel Hesperia Madrid from 2nd-5th October, 2012's Conference had a strong showing of attendees: 106 delegates and 18 partners from 12 European countries plus the U.S., Canada and Turkey.

The Annual Conference's four-day Working Programme focussed on the collaboration of Afera's Members and its three Committees and included ten lectures covering the latest trends in the tape industry. Together with an inspiring Social Programme, five-star accommodation and the backdrop of Madrid, the 55th Annual Conference was once again deemed a success.

FEEDBACK: VENUE/CUISINE & 'HIGH TECH & ECO-FRIENDLY' ARE #1

Participant input into the organisation and content of the Madrid Conference was very positive across the board. 'Hotel facilities and service' and 'quality and selection of food' were the items which received the highest scores in the participant survey conducted at the conclusion of the Conference. This suggests that Afera's annual event is one which delegates infinitely enjoy, removed from their everyday



working environments and provided with the perfect environment for networking with their industry peers.

Most popular presentation: Future state of world industry and resources because of today's environmental crises

Although all of the presentations received consistently favourable marks this year, the highest-rated paper was one which focussed on resource efficiency called "High Tech and Eco-Friendly: What Does That Mean?" by Dr. Ernst Ulrich von Weizsäcker, world-renowned authority on the environment and co-chair of the International Panel on Sustainable Resource Use (founded by UNEP) and co-president of the Club of Rome (D).

This was closely followed by "Biodegradable Films: How Sustainable Does Our Industry Want to Be?" by Ruud Wigman, market manager of labels, EMEA, Innovia Films (D), and "Corporate Social Responsibility and Sustainable Development to Drive Innovation" by Eric Pass, director of corporate strategy and new business/board member, Nitto Europe N.V. (B).

LOCATION & ACTIVITIES

The setting of the Conference, the Hotel Hesperia Madrid, provided modern, up-scale meeting and conference rooms, great networking areas in the business foyer, Manzana lobby bar and restaurant, very comfortable room accommodation and great service. Its location in the Salamanca district, close to Madrid's commercial and business centre, on the Paseo de la Castellana Avenue, within easy walking distance of the best shopping streets and many cultural attractions of Madrid, made it easy to get in some extra networking and enjoy a well-rounded city trip.

Following Wednesday evening's traditional welcome cocktails, Thursday's partner tour programme included a walking tour of the Royal Palace and Austrias Quarter. In the afternoon, both delegates and partners were taken on a private tour of the Thyssen-Bornemisza Museum and enjoyed cocktails in the Plaza Mayor. Friday's partner programme offered a visit to UNESCO world heritage site Toledo. Both Thursday and Friday's programmes included tapas, cocktails and delicious, atmospheric Spanish dining.

THURSDAY'S PROGRAMME

COATINGS: ACRYLIC MONOMERS FROM BIOMASS

After the opening of the 55th Annual Conference Working Programme by Afera President Peter Rambusch on the morning of 4 October, Houshang Kheradmand, European DCM technology awareness and innovation manager, and LCT/LCA - SD expert, at The Dow Chemical Company (F), delivered the first lecture, overviewing "Sustainable Design and the Socio-Economic and Ecological Aspects of Acrylic Monomers from Biomass (Coatings)."

The best way to be sustainable is to have strong R&D

The risks of investment, technology and the market make it easier to remain working with existing knowledge and products instead of switching to new ideas and materials. According to Dr. Kheradmand, R&D is the key driver for sustainability. The right budget and appropriate facilities create the products and services in current demand. Furthermore, the market is ready for the high-quality product. This is *the* opportunity for the tape producer. If you don't have the competitive advantage, however, don't do it.

Historically, the chemical industries have demonstrated continuous improvement and innovation, including the capability of generating high-quality products with valuable properties for society. The coatings industries have traditionally included 'green chemistry' criteria in many of its designs, processes and products.

Dr. Kheradmand dedicated part of his presentation to identifying trends and opportunities for coatings industries (regulations, resources, economic crises, market and competition) and methodologies for integrating sustainable development criteria across the

product life cycle, from conception to recycling and the waste management phase. Key sustainability criteria such as economic, ecological and social status and medium-to-long-term expectations have been developed, and strong R&D organisation and innovation have been identified as the key drivers for sustainability management.

Generating feedstock from biomass

Resource limitations and demand increase due to population growth create the opportunities for other feedstock development such as monomers from biomass. But the holistic issues for these new raw materials are the competition with food, quality and performance compared to the existing products and applications. The academic scientists and chemical industries have developed the methods and technology for generating the feedstock from biomass (first, second and third generations) such as ethanol, biodiesel, ethylene, polymers and solvents.

There are no universal advantages or automatic benefits for different materials from different resources. They have their own advantages and disadvantages. Full lifecycle performance and impacts of materials must be considered to understand and to make the most informed decisions.

Sustainability is profitability

Dr. Kheradmand concluded that the growth of population, coupled with increasing consumption and limited resources, has created constraints for all industries that present challenging opportunities requiring invention and innovation. Today's economic, ecological and social megatrends have generated the need for an academic and industrial revolution in mindset.

The key business drivers of any successful company must encompass sustainable development criteria during technology and product design. Such criteria put the focus

on sustainable growth: sustainable competitive advantage leading to sustainable earning power. Sustainability as a concept becomes a founding principle for continuous improvement, leading to either evolutionary or revolutionary innovations.

Using innovative materials when they are new encourages further technology development that can provide significant improvements in performance over time. Doing more with less (increasing product durability) is one of the best approaches for sustainable resources and impacts management.

Dr. Kheradmand can be reached via hkheradmand@dow.com.

CAN SUSTAINABLE BANKING BE A SOLUTION TOWARDS AN UPSWING OF THE ECONOMY IN EUROPE?

Next, Begoña Beneytez, environmental director at Banco Santander (E), delivered a presentation on integrating sustainability into Banco Santander's business model. As mentioned in the previous lecture, sustainability strategies, when implemented in the workings of businesses, usually consist of focusing in on raising the quality of products and services through researching the customers' desires and expectations. Current trends dictate that social and environmental elements, which are affecting the current economy, must be taken into account by successful companies.

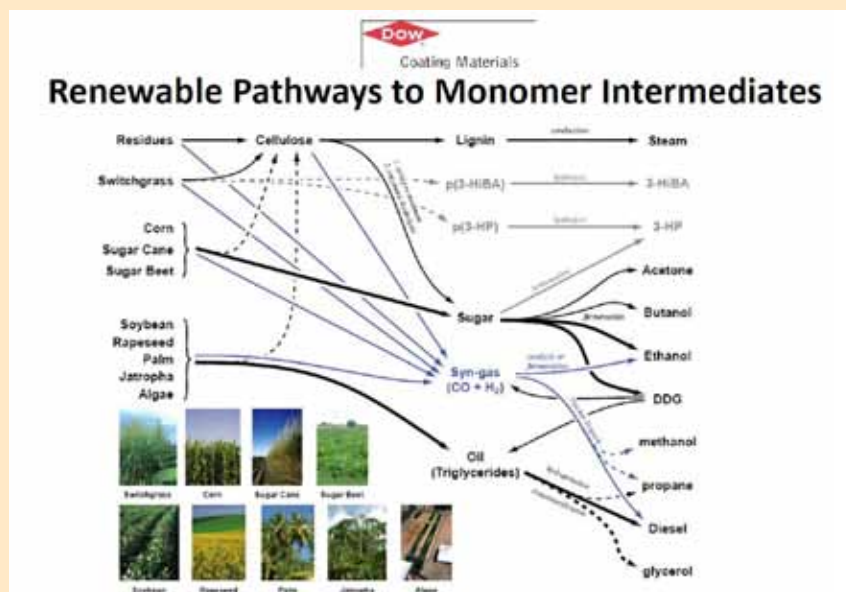
Supporting private and SME customers

Businesses need banks to assume more risk so that the private sector can make it through the current economic crisis. Along these lines, in Spain and the U.K., Banco Santander has helped to mitigate the impact of the current economic crisis on private customers and SMEs. In the case of the former, in Spain the Bank offers a three-year grace period on mortgage principal repayments for customers experiencing financial problems. This is an exceptional measure, created in response to the difficult times some of Santander's customers are experiencing.

The Bank has also carried out various initiatives supporting companies, such as the Santander Grants programme, helping to generate 5,000 university-student internships in SMEs in Spain, with an investment of €9 million. In the U.K., Santander is carrying out an important programme in support of SMEs in collaboration with the government, with the aim of creating employment and generating growth. The Bank is also currently transferring its experience of facilitating micro-credits in Brazil, Chile and El Salvador to other countries where it is present, such as Mexico.

Integrating sustainability into every aspect of business

For Banco Santander, 'sustainability' is the contribution of the performance of its busi-



ness activity to the economic progress of communities, taking into account its impact on society and the environment and fostering stable relations with stakeholders. Commitment to sustainability means integrating ethical, social and environmental standards criteria into its management, with the primary support of top-level management. A key element of a viable sustainability programme is solid corporate governance, which ensures sustainable management and a long-term vision.

Investing in higher education

Banco Santander has worked under a well-defined sustainability strategy, centred on three principal elements: investment in higher education; investment in the local communities and environments it affects; and long-term commitment to its stakeholders. Its main lines of action also include incorporating social and environmental issues into its own operations and financing activities.

In 2011, Banco Santander invested €170 million in corporate social responsibility projects, 15% more than in 2010. Santander is convinced of the decisive role played by higher education in ensuring social and economic progress. For this reason, the Bank has made its commitment to universities the main focus of its sustainability strategy.

Fighting climate change

In the area of environmental protection and conservation, Santander intends to play an active role in the fight against climate change. In recent years, the Bank has introduced strict controls on its consumption of inputs and on its emissions, implemented energy efficiency measures according to its Energy Efficiency Plan (2011-2013) and set up a climate change office. Furthermore, the Bank continues to make progress on the incorporation of social and environmental criteria into its financial operations, including in its risk training in credit operations.

Corporate sustainability committee

In order to integrate sustainability into its business model, Banco Santander has a sustainability committee chaired by the CEO and comprising representatives from different business and support areas, that foment and co-ordinates the various initiatives conducted in this sphere within the Group. Santander Brazil and Santander United Kingdom, both of which have excellent positioning in corporate social responsibility, also carry out important work in fostering and contributing decisively to disseminating best practices within the Group.

Questions or comments regarding Banco Santander's approach to sustainability issues can be directed to sostenibilidad@gruposantander.com.

STILL USING EXCEL OR EVEN A WHITE BOARD TO PLAN YOUR PROCESSES? QUINTIQ'S SUPPLY CHAIN PLANNING SOFTWARE INCREASES EFFICIENCY

After a midmorning break, the third lecture of the day was an interesting introduction into the possibilities of utilising supply chain planning (SCP) software solutions. Presenter Alfred den Besten, global marketing director of Quintiq (NL), argued that businesses today, 30-40% of which are still using Excel sheets to plan their processes, could take a step toward sustainability as a by-product of optimising their supply and total value chain processes through the use of algorithm software designed by Quintiq.

Save the Earth by reaping greater profits?

The current topic of achieving 'more with less' is an interesting one. Everyone would like to deliver more in their businesses by using the same or less energy and fewer raw materials and resources. But how is this really possible? If companies optimise their supply chains, production, logistics and workforce, efficiency increases and expenses decrease. Fewer unsustainable resources are required. It follows that business actions that generate income, rather than deplete it, can lead to sustainability.

Why with Quintiq?

A recognised SCP leader, Quintiq has a proven record across a wide range of industries. Extremely configurable around central planning basics, Quintiq's integrated supply chain solutions enable project management in the form of a standardised tool for system implementation. They also allow for visualisation of complex, multi-stage process routings; scenario modelling, balancing OTIF and 'best manufacturing sequence'; and reporting in the form of a comprehensive and configurable set of reports.

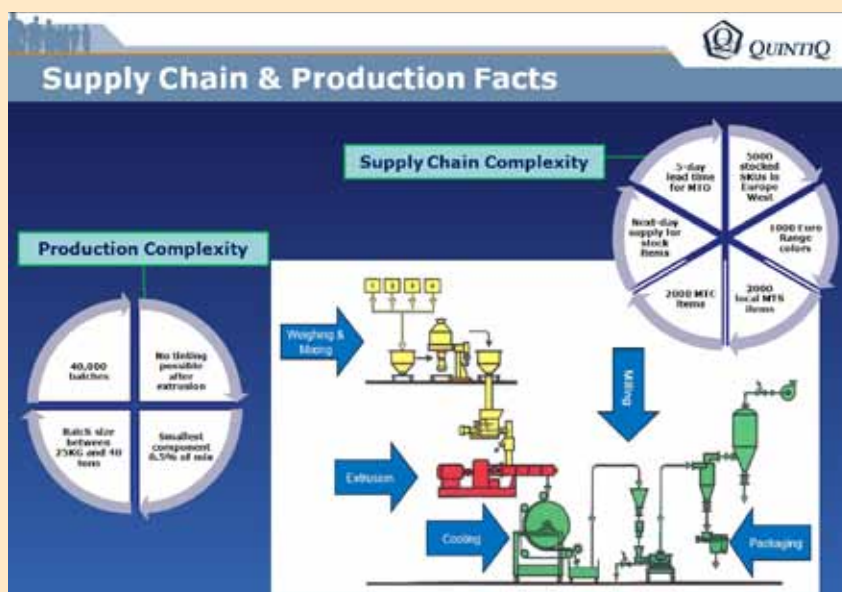
The SCP solution can be networked, e.g., the system can be accessed and updated from multiple plants; and it is very compatible, i.e., it can interface with SAP.

Quintiq has made the challenge of balancing people, planet and profit KPIs look convincingly surmountable. Companies, after determining their KPIs, apply Quintiq's integrated SCP software, achieving a balanced, flexible optimisation through time. Primarily, this leads to waste prevention through less energy and fewer raw materials utilised, a more efficient distribution network realised and lower mileage travelled. Delivery performance increases, inventory levels decrease and, not only are profits higher, but companies work within a more environmentally minded framework.

Business cases include a company in the metals industry which has realised the decrease of a hot-hour window to a 20-minute window between products, saving the company millions. Another company in the pig slaughtering industry has become both more efficient in its production lines and directly connected to the market rates of different types of meat. The company has thus achieved zero waste and price optimisation in its processes.

Optimisation never ends

Quintiq has developed algorithm software which assists companies in SCP all across the supply chain, effecting raw materials suppliers, designers, workforce, factories, distributors, transportation, delivery, retailers, consumers, etc. Through Quintiq's solutions and ever-changing KPIs, business circumstances, market conditions and other components, a truly sustainable company will never cease in optimising its supply chain and production. There is always a percentage to be won somewhere – not just in daily planning but over the long-term. Especially in the metals industry, winning 0.5% signifies a lot of money.



The importance of knowing your KPIs

Establishing KPIs – business principles and progress toward strategic goals – is extremely important in the strategic planning process. Optimisation comes out of knowing what a company's true KPIs are and maintaining their balance. This can also be linked to your annual or 5-year operating plan, in which total-value-chain-related decisions have a longer-term impact.

Surprisingly, many companies work with business rules and parameters, of which 80% are outdated, blindly-accepted and/or of unknown origin. Through analysis of business logics, paired with decision-support systems (which should never be automated), automatic optimisation is achieved.

For many business, supply chain formulation is very focussed on a short-term plan (a weekly or monthly view), as their planning is all about ordering and ordering changes, i.e., factoring in disruptions in availability. Decisions are made based on financial impact. A financial analyser linked to its supply chain lets a company view the financial impact of various decisions taken that effect the overall supply chain.

Reduction of working capital & improving service performance

AkzoNobel Powder Coatings have implemented Quintiq's integrated SCP solution to much success. Part of one of the three main divisions of AkzoNobel, AkzoNobel Powder Coatings produces a specialised product, just as many PSA tape companies do.

With 12 warehouses and about 8 separately functioning European plants, AkzoNobel wanted to have a fully integrated planning tool which would enable them to bring all the sites within a centralised planning environment, including all the KPIs and business rules and constraints they wanted to factor in. Because AkzoNobel delivers made-to-order products within short timeframes, the entire supply chain, from production down to the proper delivery trucks, had to be optimised.

With Quintiq's SCP integrated software solution, AkzoNobel reduced its costs by €6 million annually, achieving better capacity balancing and improved schedule stability. The company improved capacity utilisation and reduced temporary workers and overtime by 0.5% and SC FTEs by 6 during full productivity. FG inventory dropped by 5% through improved planning and intra-warehouse transfers. While service performance was improved by reducing out-of-stocks and MTO lead time (~1% increase in sales value thus far), most importantly, AkzoNobel reduced SLOB by 20%. They have better servicing and customer care now as another positive result.

Mr. Den Besten concluded by saying that the total picture of utilising SCP solutions means that companies not only end up doing more with less, but even more with more, as they are led down the road to sustainability.

Quintiq, a recognised SCP leader, was established 15 years ago and, due to its success, is growing 40% a year. Mr. Den Besten can be reached via alfred.den.besten@quintiq.com.

HIGH TECH & ECO-FRIENDLY: WHAT DOES THAT MEAN? RESOURCE EFFICIENCY. FAST-MOVING COUNTRIES, INDUSTRIES & COMPANIES WILL BE THE REAL GAME WINNERS

The highest-rated lecture of the Conference was delivered by Ernst Ulrich von Weizsäcker, co-chair of the International Panel on Sustainable Resource Use (founded by UNEP) and co-president of the Club of Rome.

According to the theories and evidence laid out in his co-authored book *Factor Five*, Dr. Weizsäcker explained how we can achieve greater 'factor five' or 80%+ improvements in resource and energy productivity and how to roll them out on a global scale to retool our economic system, massively boost wealth for billions of people around the world and help solve the climate change crises.

Present lifestyles, including our way of doing business, are unsustainable

Today we are witnessing climate disasters/ extreme weather, rising sea levels, decreasing populations and species which make up our biodiversity, and dwindling resources. If everyone aims at attaining the kind of wealth that is demonstrated in the U.S., our world population would require the resources of five Earths. Shockingly, only one country exists within the sustainability rectangle: Cuba.

According to the Kuznet Curve, our goal is "to overcome the dirty loo" to end up rich and carbon-free or rich with much less material turnover. It is a huge task. Within the problematic Mikado situation we find ourselves, however, no one country, region or company wants to be the one to make the first move. The reason for this is that until now, GDP has gone hand-in-hand with CO₂ intensity. The same holds for material flows per capita. What Dr. Weizsäcker suggests is aiming for 30% less CO₂ in energy, 65% less CO₂ in wealth and 5% less wealth. This would mean a 5-10-fold increase of renewables, but at the core, it would be a new technological revolution.

What can be done?

We should consider a political decision to raise energy prices artificially. Dr. Weizsäcker said this should be done in parallel with doc-

umented efficiency increases, so that average expenses for energy services remain stable. Some low 'lifeline prices' can be established to protect the poor. And for industrial branches that would otherwise collapse or emigrate, a revenue-neutral scheme can create the twin incentive of saving energy and holding jobs. Furthermore, if we want environmental destruction to beat environmental destruction by the Rebound Effect, we also must increase prices of sensitive resources and not merely those of energy.

Do not trust markets if you care about the environment

Market prices systematically tell us lies about long-term availability. Until 2000, energy and mineral resources grew ever less expensive. Since then, they have been rising, but for how long? *Time Magazine* recently featured "The Truth About Oil", in which it said that supplies are rising all the time. Two months ago, Citibank published a paper proudly showing how North America is becoming the new Middle East: It has become a net gas-exporting region.

With 300 million gas consumers, the U.S., Dr. Weizsäcker predicts, will enjoy falling gas and oil prices. Thus nothing will move in the right direction if all is left to the markets. Long-term price elasticity of fuel consumption is very high. As seen in their effect on Germany's significant percentage decrease, eco-taxes can reverse the trend in transport emissions, for example.

Japan blossomed during the 15 years of the highest energy prices

In Japan, where they hardly have any renewables, the government pursued a much more brutal strategy than *Factor Five* is suggesting: From 1975-1990, under fears of being totally dependent upon energy imports, the Japanese let energy prices skyrocket, resulting in mass industrial engagement in high-tech, energy-efficient new methods and products. The digital camera was one of the very profitable technologies which came out of this system.

Thirty years ago, the Swedish government introduced an NO₂ tax with revenue neutrality, in which all the tax proceeds were recycled into the steel industry. After ten years, they were NO₂-free. Leading chemicals company BASF have the so-called 'Verbund Strategy' of cascading materials and energy through the system, and that has been profitable too.

Developing countries can benefit from gradually increasing domestic-energy pricing, because they cannot afford wastefulness. But interventions should avoid being super-bureaucratic. Let prices steer the market direction, and let engineers work out the details. Ultimately, prices should make the transition profitable.

Who will win, and who will lose?

Dr. Weizsäcker advises creating an alliance of 'winners'. Within countries, industries focussed on high-tech, crafts, science, 'green' practises, railroads, maintenance, culture, high quality and urban renewal will win in Factor Five terms. 'Losers' will include long-distance lorries; aircraft, extractive and heavy industries; developers of urban sprawl; and wasteful consumers.

Geographically speaking, 'winners' will be Europe, East Asia, Oceania and much of Africa and Latin America. These, including developing countries poor in natural resources, amount to about 80% of the world population.

Geographical 'losers' will include the U.S., Canada, Australia and Russia. Also included are commodity-exporting developing countries and those who have never learned the efficient use of energy, such as those with urban sprawl.

The first-mover advantage

In a world of increasingly scarce resources, a 2011 McKinsey Report confirms, countries and companies pioneering efficiency and sufficiency will be the game winners. The lesson learned from the Swedish and Japanese examples is that pioneers need not wait for the slow ones. The focus of the alliance of winners should be on real climate policy, ecological price policies and developing 21st-century cities, technologies and habits.

Dr. Weizsäcker encourages the self-adhesive tape industry to think of business opportunities in the direction of *Factor Five*. He is absolutely certain that Afera Member Companies can achieve this and help other companies to do the same. Dr. Weizsäcker can be reached via ernst@weizsaecker.de.

FRIDAY'S PROGRAMME

LOOK AT TAPES AS ENABLERS OF SUSTAINABLE SOLUTIONS

The first item on Friday morning's agenda: Hermann Onusseit of ONUSSEIT Consulting (D), and FEICA representative to Afera, delivered a lecture entitled "Sustainability: Hype or Our Last Chance?" Is the 'green movement' all about marketing? Yes and no.

'Green-washing'

The sustainability trend is a major hype in our society today. Whereas the drivers of marketing statements used to be price and performance, today they are very often 'green'. Consumers associate anything that is natural, compostable, recyclable, non-toxic, consumes fewer resources and less energy and/or produces a smaller carbon footprint, with 'going green'. From products such as smart phones, cars, and computers, to online banking even, everyone seems to have jumped on the 'green marketing' bandwagon.

Sustainability in the adhesives industry



New generation of hot melts with lower application temperature:

- Lower usage temperature (130°C vs. 170°C)
- Less energy consumption of up to 70 %
- Less adhesive usage of up to 30 %: higher efficiency, less waste, less transportation, easier recycling
- Lower scrap rate: less waste
- Increased equipment lifetime: less resource usage
- Usages of thinner thermoplastic substrates

10/09/2012

Afera Annual Conference 2012

ONUSSEIT
Consulting

As other presenters had done, Mr. Onusseit detailed our current world environmental problems. In the early 1970s, we reached the world's capacity (ecological footprint) for use of its resources. Since then, these, along with biodiversity, have been depleting at alarming rates. With the standard of living throughout the world increasing, more products are constantly in demand, but we have to find a way to produce them and get them to market with a smaller footprint. As companies and as an industry, we have to do something to better this situation, and we still have time in which to do it.

You will find an increasing number of claims in exhibitions, at conferences and in advertisements of sustainable solutions, 'green products' and 'green systems' attached to products and services, but in the majority of cases, these claims are not factual. Questions about the sustainability of products and processes are increasingly important, yet products containing renewable substances or largely comprised of renewable raw materials, often referred to as 'green products', are being automatically classified as sustainable with minimal justification.

For example, using waterborne adhesion technology to produce laminated packaging films sounds environmentally friendly, but, in fact, it can be more pollutive than alternative technologies because of the high amount of CO₂ generated during the drying cycle, if an artificial drying process is used. This is actually a very unproductive 'green' idea.

We have the opportunity to enable systems which demonstrate more sustainable behaviour

As has been decided in the adhesives industry, we in the self-adhesive tape industry should consider tapes, which are often a very small part of the whole product, as enablers of more sustainable solutions. Tapes may not be

the key drivers of many finished products, but the tape industry can play a part in enabling a positive sustainable influence in the design, production and delivery processes.

In this industry, as in all other industries, we have to create figures, not feelings. We can only save the Earth if we know how we are going to do it, not simply by believing we can. Furthermore, we have to be better than we have been in the past. Many sustainable energy sources in the market today, such as wind turbines and solar panels, are manufactured using adhesive technology. We have to point ourselves in this direction.

Mr. Onusseit cited an example of an environmentally-productive technology: a new generation of hot melts with lower application temperatures and advantages including lower usage temperatures (130°C vs. 170°C), less energy consumption of up to 70%, less adhesive usage of up to 30% (higher efficiency, less waste, less transportation and easier recycling), lower scrap rate (less waste), increased equipment lifetime (less resource usage) and thinner thermoplastic substrates usage, e.g., for plastic labels, if these hot melts are used for labelling operations.

Tapes as enablers of more sustainable solutions

As most of you know, Afera is pointing itself in the direction of sustainable tape technologies, cuing in on the tides of solid trends in industry. You as parts of the tape value chain are levers for more sustainable solutions. As tape professionals know, there are substantial advantages to be found in tape applications, just as in adhesive applications, for more sustainable solutions.

Furthermore, it is not necessarily the tape itself, but the materials and practises in the entire supply chain, which can create better solutions for the future. This means analysing raw materials, the end-use application and perhaps end-of-life (i.e., can you recycle

it, or can you at least burn it and recycle the energy in it?).

Manufacturing practises today are still connected to price

Because of the current ratio of performance to price, materials with which adhesives and tapes are made are mostly synthetic. Of course, natural-based adhesives can be made if enough R&D is thrown behind the exercise. Current oil prices, although consistently increasing, have not increased enough to make pursuing producing natural materials financially attractive. For example, the cost of creating adhesives out of sugar over crude oil is perhaps one hundred times higher.

Currently, we supply ever-increasing demand with unsustainable solutions, and we produce too much waste, which is contributing to an increased incidence of natural disasters through climate change.

What will sustainability cost the tape industry?

Sustainable products and processes will lead to a minimisation of resource and energy use and a reduction of air and water pollution and solid waste products. Ultimately, these will all save you money by lowering direct costs of materials and energy, indirect costs (such as insurance premiums) and taxes.

We are facing major challenges globally. Resource consumption will accelerate dramatically over the coming decades. No one knows with any certainty what this will mean for our ecosystem. Innovative products and processes will be vital to all efforts to achieve sustainable consumption. There are many ideas in the market. We as professionals associated with the self-adhesive tape value chain need to increase our efficiency, perhaps not 'everything-with-nothing' style, but by being a little cleverer and a little less consumptive.

Adhesives and tapes play a major role in the development of more sustainable products and processes. Ultimately, we have to create more sustainable solutions, while advertising the obvious benefits of tapes, which include effective joining, flexibility, versatility and the qualities of being lightweight and insulative. If modern tapes are less dangerously formulated, they will be less dangerous to environment, worker and consumer. Mr. Onusseit appealed to Afera Members to create these.

Additionally, more environmentally friendly, sustainable tape application techniques will reduce the effort required in pursuing regulatory matters, such as analysing the quantity of adhesives needed, reducing their environmental impact and the amount of waste involved.

Mr. Onusseit can be reached via hermann.onusseit@henkel.com.

BIO FILMS: HOW SUSTAINABLE DOES OUR INDUSTRY WANT TO BE?

The following lecture covering sustainability and innovation in the packaging and labels industry was delivered by Ruud Wigman, market manager of Labels EMEA for Innovia Films (NL). Mr. Wigman's aim was to illustrate the drivers for sustainability from a brand-owner perspective and how bio-plastics can play a role as a renewable energy source for packaging, labels and tapes. Many believe that their businesses are innovative, but it could well be that innovations from outside the industry have a huge effect on your business position. Out-of-the-box thinking will be key to survival.

Changing consumer behaviour

The growing world population and imbalance in social well-being and resource use is generating turmoil. The effects of El Niño and La Niña, causing hurricanes, floods, draughts and fires, have impacted the world's food harvests and human safety. Major end-users are very much aware of climate change, its causes and its effects.

Major brand-owners are therefore analysing their product footprints, as well as the behaviour footprint of the consumers using their products. Substantial initiatives have been created to reduce and reuse materials on a production level, but consumer behaviour is more difficult to influence. What can packaging in a broad sense do to contribute to a behaviour change on the consumer level?

Bio-plastics

Bio-plastics can contribute to sustainable solutions in terms of using renewable resources over finite resources. Depending on applications, there are options using polymers that are 'bio-based, but not bio-degradable' (e.g., based on bio-ethanol), 'bio-based and bio-degradable' (e.g., PLA, starch-based materials, cellulose materials, etc.) or 'materials

from synthetic polymers and polyvinyl alcohol sources that are bio-degradable.' Bio-polymers are increasingly used, such as in the automotive, packaging, textiles, catering-ware and electronics industries.

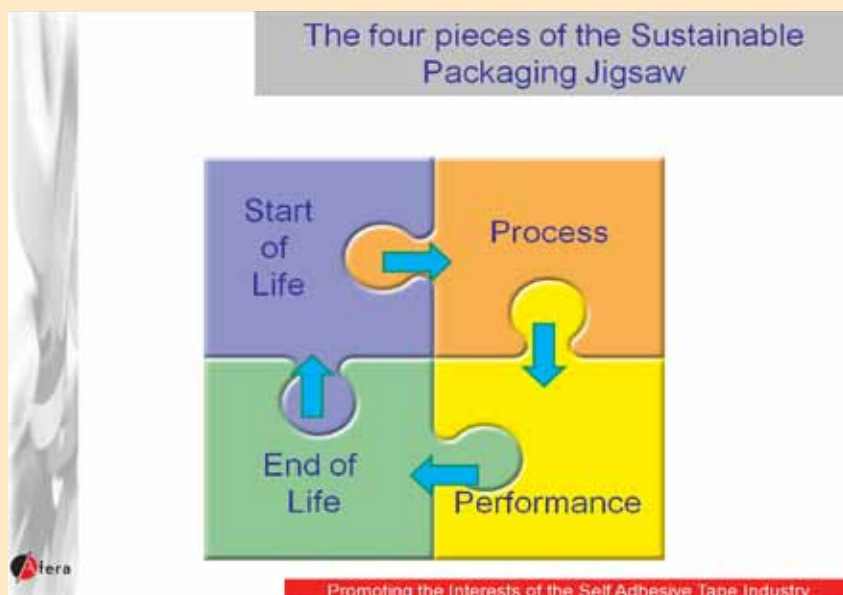
Using bio-polymers ticks many hot-topic/ buzzword boxes: They are a renewable resource, contribute to a 'low-carbon economy' and exhibit excellent functionality. In principle, 'the circle of life' is followed when using bio-polymers from the start to end-of-life of operations. At the 'start of life', materials can be sourced from certified sources and contain a high degree of renewable ingredients. In terms of performance, there has been a steep curve of improvements, varying from thermally stable products, barrier properties, clarity and process ability.

In a perfect world, the end-of-life options are usually based on reuse, recycle or biodegrade. The end-of-life stage, however, often produces waste that pollutes the environment to such an extent that there are enormous, floating islands of rubbish in the oceans, such as the so-called seventh continent.

The end-of-life stage for waste is complicated. It is not possible to separate packaging materials from food waste, for example, so recycling of flexible packaging materials is not possible. Only plastic bottles can be recycled or reused. The contaminated packaging material is burned or ends up as landfill. If packaging material were compostable, then food waste could be used as a source for organic recovery, creating bio-ethanol and reducing CO₂ emissions to boot. For every ton of organic waste that is recovered or processed, anaerobic digestion reduces 1.5 tons of CO₂ emissions and creates 100 litres of bio fuel.

Don't be the company that misses the boat

The use of bio-plastics is still in its infancy compared with that of conventional poly-



mers. It will take time to grow the efficiencies in production and to reduce costs, but this will happen. Not adopting these innovative materials can cause a sudden push-back in consumer acceptance as other producers unexpectedly take the lead.

As an illustration of how some innovations can affect our lives, the introduction of the iPhone a few years ago revolutionised the way people communicated. This new technology changed the landscape of mobile phone producers, forcing them to change their businesses or even disappear.

An interesting innovation is the conductive inks, which could have a significant effect on standard packaging materials. Print electronics can make packaging 'smart', and the next step is even within reach: Print electronics in combination with printed solar technology can make packaging a stand-alone interactive product. As a result, standard packaging materials could lose ground. The same principle may apply to the use of conventional polymers from finite sources: The world will have no other option but to switch to sustainable sources for tapes, packaging and labels, as some product industries are already experiencing.

Mr. Wigman can be reached via ruud.wigman@innoviafilms.com.

WHAT DOES SUSTAINABILITY MEAN FOR A PULP PRODUCER IN CANADA?

Following a midmorning break, Michael Bradley, director of sustainable enterprise at Canfor Pulp L.P. (CDN), delivered a presentation on his North American company's approach to and experience with sustainability issues.

In 1987, the UN World Commission on Environment and Development referred to sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." A simple definition with profound consequences, this intergenerational view of managing ecosystem services is widely quoted whenever discussions around sustainability take place.

A recent Dow Jones news release stated, "The concept of sustainability has long been attractive to investors because of its aim to increase long-term shareholder value. ... These sustainability companies... will outpace their competitors and be tomorrow's winners."

LCAs

In terms of sustainable enterprise at Canfor Pulp, various factors have shaped their 'sustainability thinking', such as the performance of life cycle assessments (LCAs), which they have found to be very helpful in

understanding what the holistic 'environmental shadow' of the company's products look like. On the other hand, Mr. Bradley said, the limitations of LCAs are that they are complex and don't handle land use, as well as social and temporal issues, well. Nonetheless, Canfor Pulp have now completed three LCAs and have collaborated with others on several others, learning something new with each one.

IE

Industrial Ecology (IE) is the study of material and energy flows through industrial systems. The name comes from the idea that we should use natural systems as an analogy in understanding how to design sustainable industrial solutions.

Influence of the ENGO community

Environmental, non-governmental organisations (ENGOs) should be taken into account, as they have been a force for positive change in the forest sector. The campaign/collaborate/solution model that we have seen recently has worked. It can be almost dialectic in nature. Where change is needed, ENGOs can be a powerful inside/outside force, and they are not confined by policy. When solutions are being worked on, there are very real incentives for all parties to remain engaged. Durable or sustainable solutions require broad-based support, and ENGOs are an essential component of this.

Influence of the customer

We monitor our dialogue with our customers and their customers. We have learned important lessons from many, and we have taught some lessons to a few. The process is ongoing: new customers, new lessons. The key question we have learned to ask: "Will my product be good for my customers and their customers, or not?" This question applies to all dimensions of the product – not just its technical properties, but safety, value, environmental properties.

What are the main sustainability challenges we need to focus on today?

One of the most important is overuse of the Earth's precious resources, such as deforestation of coastal temperate rainforests. 25% of what remains globally is found in British Columbia. Initiatives such as our Joint Solutions Project, started in 2001, put emphasis on solving environmental challenges among all relevant stakeholders.

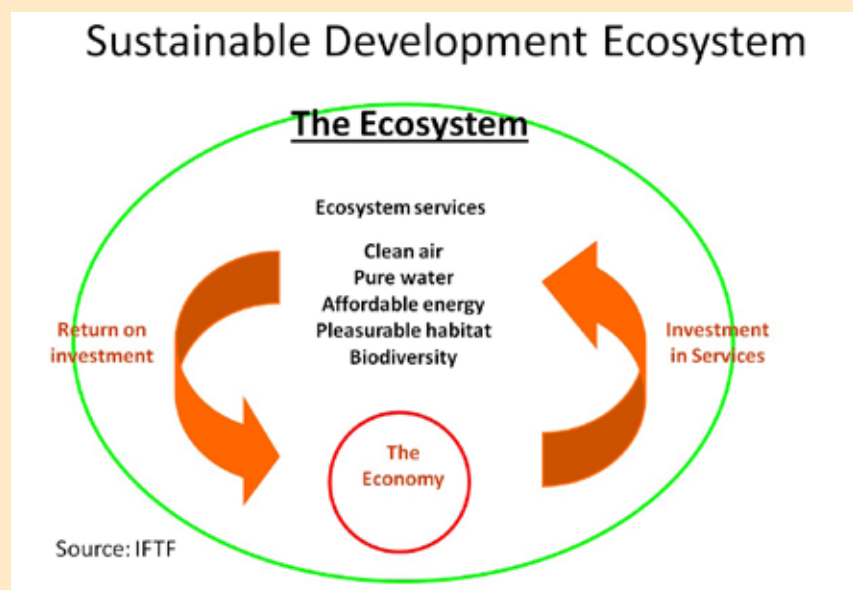
Growing interest in water footprints

Water use and availability is a growing concern surrounding many industries. A fundamental requirement of pulp and paper production, water is heavily used in that it is 'borrowed', 'reused' and 'returned' (at a rate of 98%). It is also key in forest regions, which are often the watersheds for communities, controlling run-off, flooding, purity, etc.

R&D departments, in Canfor Pulp's case the Innovation Centre - Design for Environment (DFE), works with customers to find ways to enhance their products and use our pulps more efficiently. Where practical, the statistical significance of trial predictions (lab or mill) is improved by using experimental design techniques. Recently, Canfor Pulp has been combining LCA data with traditional product development techniques.

Engaging in local environmental issues which stem from industry, such as the PG Low Odour Project and the Nechako White Sturgeon Recovery Initiative, is necessary and productive. Canfor Pulp is also engaged in environmental best practices, seeking and encouraging forest certification by third parties. Canfor Pulp issued its first 'sustainable product declaration' in 1997. Provided to all customers, these are life-cycle based, third-party audited and annually updated.

Mr. Bradley can be reached via michael.bradley@canforpulp.com.



SECONDARY FIBRES: A NEW FIBRE SOURCE FOR TAPES?

The next session of the Conference was a well-received presentation delivered by Holger Baumgartner, head of the German Zellcheming and director operations at Neenah Gessner GmbH (D), which has found ways to develop and produce environmentally friendlier paper products successfully. Mr. Baumgartner described how Neenah Gessner found a variety of fibre types and selected one source to feed its new 'green line'. The eco-balance of the recycled fibres have enabled GESSNER® Flexpack and GESSNER® Greenmask to deliver required 'green' advantages to appreciative customer groups.

A co-existence of both fresh and recycled fibres is the ideal combination

In speaking about selected recycled or recovered fibres, it might sound as if we don't want or need fresh, virgin pulp fibres anymore, explained Mr. Baumgartner. Far from that, we desperately depend on a constant fresh fibre feed so that we can keep up with our physical properties down the supply chain. A co-existence of both fresh and recycled fibres is the ideal combination. Close relationships in developmental partnerships allow us to understand scientifically what our fibres deliver and how we can treat and mix them in our processes, so we are able to fulfil customer demands.

As a company, there are a few main drivers for recycling leftover, or waste, products: mandatory regulations, monetary reasons (cost savings) and responsibilities expressed in our environmental strategy and philosophy. But now we have gone a step further in allocating a new fibre sources for our tape production supply. We screen certain industrial processes in which Northern Bleached Soft Kraft Pulp (NBSK) grades are in use. These processes reject leftover and waste volumes which were interesting for us.

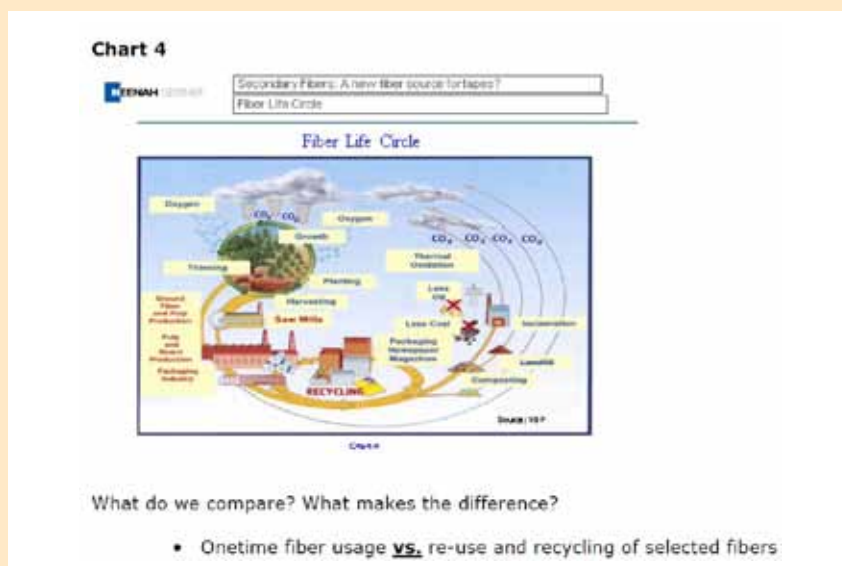
Recycling fibres in Germany

European recycling levels are among the highest in the world. It makes clear sense to require recycling as the population density in Central Europe is so high. Germany, for examples, has 85 million people (one-third that of the U.S. population) living in an area of the size of Texas, which is 3% of the total size of the U.S. This makes recycling in terms of collecting and separating easier and more cost effective.

With a total production of 25 million tons of paper and cardboard and a recycling level of 73%, of which 61% (approximately 15 million tons) are reused as fibre resources, there is a valuable constant delivery of certain selected, high-quality fibres available.

Why do we recycle?

The eco-balance of recycled fibre versus paper directly from wood:



- 2-6 times less water usage
- Total energy demand is 3-4 times lower
- Higher global natural forest and biodiversity protection
- Elimination of energy waste for new fibre transportation worldwide
- Re-usage of a functional fibre is more environmentally responsible
- Recycling is a moral obligation in all developed societies and countries.

In order to be able to purchase the same recycled fibre quality, we use the well-established European List of Standard Grades of Recovered Paper and Board, introduced by CEPI (the Confederation of the European Pulp and Paper Industry) in Brussels. In Category 03.04, Tear White Shavings, we were able to find our required raw material. In comparing virgin pulp with selected recycled fibres, laboratory results show no significant differences.

The raw paper of tapes

The fibre morphology directly relates to the final physical performance of our products. Length, width and surface of the fibre lead to more or less drainage, formation and run-ability on the paper machine. Furthermore, it results in important properties of our paper, such as elongation, tear strength (Elmendorf) and thickness (calliper). In comparing the electron microscopic pictures of both fibres, there are no significant deficiencies of the recycled fibre over the original fresh virgin pulp. There may be signs of a 'primary life', but none which would disqualify it for our purpose.

Two new Neenah Gessner tape products: GESSNER® Flexpack and GESSNER® Greenmask

100% recycled, Gessner® Flexpack packaging tape offers you a solution that allows you to promote the 'green' recycling idea fully within your markets and customers. Even though we use the fibres twice, all laboratory tests show a nearly identical product to one made from fresh fibres.

GESSNER® Greenmask consumer and industrial tape with 50% recycled fibre content is fully competitive. Slightly less thickness (calliper) and tensile force dry are compensated for by a higher tear index (Elmendorf). We offer a high-performing tape with a clear message to your customers who appreciate a more responsible, environmentally friendlier product.

In conclusion, there is an existing supply chain for selected recycled fibres. Fresh virgin pulp fibres mix perfectly with recycled fibres, although physical properties are slightly different for recycled grades. A policy of utilising selected recycled fibres provides a good fit for your environmental company philosophy and clear facts for environmentally cautious customers. Not only are you already using a fully sustainable product with paper, but you use it for multiple cycles, reducing your company's environmental impact.

Mr. Baumgartner can be reached via h.baumgartner@neenah.de.

AVERY DENNISON'S GREENPRINT PROGRAMME

Josh Dunn, sustainability director of materials businesses at Avery Dennison (USA), discussed his company's LCA-based tool Greenprint, which was designed to accelerate customer collaboration on sustainable products and solutions. It communicates a product's environmental impact across six categories to help you and your customers make more informed decisions.

"Forging a path forward"

Avery Dennison presented itself as "positioned to inspire more sustainable solutions." Its marketing communications describe the company as "powered by experience in materials science, process technology and inventory logistics" and "uniquely positioned to enhance the sustainability of products,

Here are examples of what we can measure with LCA



brands and their supply chains.” To the company, Mr. Dunn related, sustainable development means designing our products, processes and services with environmental and societal concerns in mind.

“Smart companies now treat sustainability as innovation’s new frontier”

Sustainability at Avery Dennison is about creating shared value for our customers, their value chains and the communities we serve. “To do so, we are embracing the collaboration that is inherent in sustainability,” says president and CEO Dean Scarborough. “Our company is one point in a value chain, and our impact extends from one end to another. We are working with upstream and downstream partners to understand our impact and develop materials and processes with them that can improve the footprint of the total value chain.”

Having begun its sustainability-themed activities in 2007, Avery Dennison launched its Greenprint programme in 2010 and released its first GRI-based (Global Reporting Initiative) sustainability report in 2011, marking the first full disclosure of our environmental performance, explained Mr. Dunn. The company is collaborating with suppliers and customers to lower impacts in terms of materials innovation, sustainable sourcing and LCA-based design.

ANNUAL CONFERENCE 2013 IN SICILY

Hosted by Afera’s Italy region of Membership, Afera’s 56th Annual Conference is set to take place from 2-5 October 2013 at the Atahotel Capotaormina in Taormina, Sicily.

Based on three pillars, Avery Dennison’s sustainability programme focuses on industry leadership in sustainable solutions, responsibly sourced materials and energy, energy-efficient facilities, zero waste to landfill, safe and fair labour practises and investment in our global communities. Waste management, which can be described using the inverted-pyramid allegory, is focussed first and foremost on reduction and recycling.

LCA thinking & Avery Dennison™ Greenprint

LCA can measure aspects of environmental impact of products at various stages throughout the value chain, including raw materials, AD facility, converter customer, end-use customer, retail store, consumer use and end-of-life. The Greenprint tool makes the impact of sustainability measures quantifiable.

Mr. Dunn can be reached via josh.dunn@averydennison.com.

CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT TO DRIVE INNOVATION

The last session of the Conference was a popular presentation delivered by Eric Pass, director of corporate strategy and new business and a board member at Nitto Europe N.V. (B), as well as Vice-Chairman of Afera’s Marketing Committee. Mr. Pass discussed how, with a new world order evolving, his company is moving away from the current linear business model “we take, we make and we waste” toward “reuse, remake and protect”.

A multi-product, multi-technology and multi-market company, Nitto Denko is looking to extend its global business activities into the emerging markets of the Middle East, Africa, Russia and Eastern Europe. The company’s logo embodies its philosophy: Rise to the challenge of recognising a point

of change and embrace it with a flexible attitude, making use of our personnel and technologies.

Mr. Pass commended the previous speaker, Mr. Dunn, on Avery Dennison™ Greenprint and suggested that the company licence out its impressive sustainability programme to all the companies falling within the tape industry value chain. This would create the industry standard for environmental best practises.

Reacting to the ‘game change’

Disruptions in our environment, society, economy, technologies, demographics and regional power are creating a new world order. In mapping out impact scenarios related to these disruptions, keeping in mind its high value placed on corporate social responsibility, Nitto Denko has developed a focus on sustainability concentrated in three areas: Non-fossil-based and/or recycled raw materials; more sustainable manufacturing processes; and functionalities such as easily-recyclable, energy-reducing and carbon-footprint minimising.

Nitto Denko’s approach toward sustainability is completely different. It is not simply about correcting what we are doing wrong but more about how we can avoid unsustainable practises already at the beginning of the design process of our products and also at the design phase of the products of our customers.

We also need to change the way consumers function, from “we buy, we use, we dump” to “we buy, we use, we return.” Consumers should be stimulated to turn in their old equipment for recycling. Unfortunately, currently less than 10% of old mobile phones, a huge source of raw materials and precious metals, are actually returned.

REACH 2012

In 2008, the company defined a vision called REACH 2012 in which it becomes a clean, ‘green’ and healthy company. In terms of clean: clean products, corporate governance and clean working space; ‘green’: reduction in energy use, ecological products, less waste and care for the environment; and healthy: healthy employees, healthy growth and healthy work/life balance. Nitto Denko’s target was to achieve 20% of its turnover through 12 Green Value products. Although the company did not reach its goal, due to the diversion of the economic crisis and other factors, it has taken important initial steps in this complicated area, and it is currently working on its next five-year plan towards 2017-2018.

PSA tape technologies can help to make the world a little more sustainable

Nitto Denko looks for materials and processes which make the lowest possible impact on the planet and that add product

functionalities to facilitate sustainable usage and end-of-life. In everything we do nowadays, we try to apply this 'cradle-to-cradle' approach. At our purchasing and sourcing departments, we try to apply these procurement principles. In Nitto Denko's production, we apply 'green manufacturing': reduction of CO₂ emissions, waste and energy consumption. We look for alternatives for road transportation and for optimising packaging. We are currently looking into adding 'green' features to our products, and we also think together with our customers on how to facilitate end-of-life.

'Green products'

Nitto Denko has developed a low-emission tape for 'green compartments' in cars. To complement the light-weight functionality of cars, we have also developed NVH (noise, vibration and harshness) materials. Thirdly, we have developed some prototypes of PSA tapes based upon bio-based materials.

Another sustainable development is a double-coated tape, which bonds products strongly during its lifetime and then lowers and finally disappears in adhesive strength at end-of-life so that the components of the product can be disassembled by recycling companies into cleaner waste streams: metals, plastics, glass, etc. Nitto Denko believes that this type of de-bonding technology, if built into eco-design articles and products, can facilitate recycling, thereby contributing to the sustainable functionalities of PSA tapes.

As a spinoff from our research on bio-based materials, we have set up a separate technology centre in Lausanne, Switzerland, where we will focus on new materials in the new emerging areas of life-sciences.

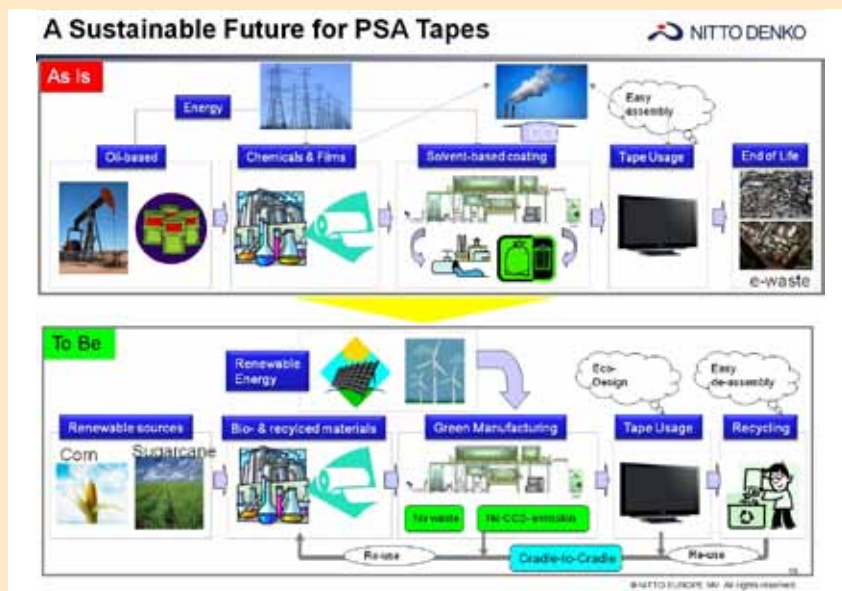
Sustainability is a positive business driver

Nitto Denko's approach to sustainability drives innovation, in terms of the development of functionalities of its products and the processes that we have internally and externally. Lastly, its approach to sustainability drives how its personnel work together internally and externally with customers and suppliers.

CONCLUSION: APPROACH SUSTAINABILITY GRADUALLY BUT STEADILY

Mr. Pass concluded with some remarks on the process of approaching sustainability of companies and the tape industry as a whole. If we think we can change what we've been doing incorrectly for 200 years within just a few years, this is naive.

We, as tape professionals and businesses and the industry, need to take steps one-by-one with the understanding of what is feasible



and not feasible within one or more business cycles. Eventually, we will reach a tipping point at which a lot of knowhow and technology will come together, when you can solve many problems which could not be figured out any earlier.

There are still countless questions which cannot be answered, but that doesn't stop me from looking for ways in which we can gradually improve our level of sustainability. The point is, if we look at sustainability using the same criteria we have done in the past, we will never make any progress, because we will always find reasons why we cannot move forward.

Mr. Pass can be reached via eric_pass@nittoeur.com.

See sustainability as a useful instrument

Mr. Rambusch added in closing that sustainability is not only a buzzword and an important environmental issue to be addressed by today's companies operating in the tape value chain, it is actually a productive instrument with which to shape our businesses in making better products and creating more profit.

SLIDE PRESENTATIONS & ADDITIONAL INFO.

The proceedings of the Conference lectures and a detailed event programme, as well as this article, can be found at www.atera.com.

SPONSORS

Afera's 55th Annual Conference once again provided a platform on which Members could conduct business-to-business marketing by sponsoring the event. Afera had the privilege of organising the event with the support of the following sponsors:

GOLD SPONSOR



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AFERA'S ACTIONS CREATE VALUE FOR MEMBERS & THE TAPE INDUSTRY

Afera is on the right track, say Members

Earlier this year, Afera conducted its Membership Recruitment Survey – the first of its kind performed in eight years – among its 112 current Members, approximately 15 former Members and a large number of potential Members in June 2012 via SurveyMonkey. Afera's aim was to update its industry information, to ensure that the Association's strategies are aligned with its Members' needs, and, importantly, to support the drive to recruit new Members.

Designed by Afera Secretary-General Astrid Lejeune, the brief and targeted Survey produced results great in quantity and quality. Respondents gave Afera consistently high marks (7-8 out of 10), indicating that the Association is on track. Responses from current Members were in line with ongoing MKC discussions on Membership value. Afera will maintain and improve our focus on Member benefits, including networking and events (which were rated as most highly valued), synergies with other organisations, information sharing and Member recruitment.

Going forward, the Association's Marketing Committee (MKC) will focus specifically on improving tape manufacturer attendance rates at events; optimising event programmes and presentations; planning events with national and regional counterparts, such as FINAT, FEICA, IVK and MKVS; collecting and sharing relevant market and production data; forming initiatives dealing with regulatory concerns, such as when REACH's Candidate List of SVHC enter into the 'authorisation phase'; improving Afera's newsletter, including adding more regularly issued digital issues; re-launching afera.com; forging contacts with European universities in order to encourage the incorporation of PSA tapes topics into their curricula; raising Membership recruitment levels; and developing a quality-label programme, such as that of the PSTC's Responsible Tape Manufacturer (RTM) Programme.

Afera's Social Media Marketing Initiative

Afera's MKC has been working on producing a social media marketing initiative which would 'grow the pie', i.e., extend the market for tapes, by appealing to hundreds of thousands of engineer and designer end-users who do not yet know about the use of tape as a fixing and joining method. Afera has been aware of the possibilities, opportunities – even necessity – of creating an online presence for quite some time.

After numerous strategy brainstorming sessions, Afera has engaged media guru Bert van Loon, senior consultant at Spindle & Loud, to work with the MKC and Steering Committee,

as well as counterparts at the PSTC, to draft a social media marketing initiative action plan with the primary goals of raising the profile of 'tape as a functional sheet' in industry, growing the market for tapes, continuing to add value to Afera Membership and embracing the range of interests of the entire tape value chain, including tape manufacturers (including SMEs), OEMs, raw materials suppliers, converters, etc.

Included in the Initiative will be the re-launch of afera.com, as well as all relevant communications tools for Afera. Afera's management are also exploring partnering with the PSTC, who are in the process of rolling out a multi-year marketing campaign, which included the creation of www.thinktape.org, where viewers can enjoy two short clips on the range of capabilities of tapes. Afera and its Members have been offered the free use of these compelling videos (if properly crediting the PSTC as their producer).



Afera's S-G is working with Afera's SC, MKC and Mr. Van Loon on meeting with the PSTC and its consultants and interviewing a number of willing Afera Members to gather adequate information and direction on drafting a strategic plan, including a concept, budget, execution and maintenance, for presentation at Afera's SC and Marketing Meetings on 6-7 February in Amsterdam. As always, the factors of cost and time will be monitored for the greatest of efficiency with regard to this project.

Sustainability: Afera's Technical Committee Working Group (S-WG)

With the theme 'tapes enable sustainable solutions', the S-WG has launched an initiative focussing on the environmental benefit of tape usage, including end-of-life. The S-WG, which includes Members Evert Smit (Arizona Chemical), Axel Heßland (IVK/FEICA), Bart Forier (Nitto Europe), Christophe Küsters (Afera TC Vice-Chairman, 3M Laboratories Europe), Melanie Lack (Henkel) and Christian Reiter (Ahlstrom Corporation), have started a research and assessment process, conducting analysis of market trends and customer requests. Regarding the latter, the S-WG are canvassing Afera's Membership for business and customer experiences with sustainability issues.

A draft proposal for an Afera Sustainability Strategy will be presented at the TC's next

Meeting on 6th February 2013. Following this, the S-WG will conduct a relevance check within the TC and the greater Association Membership. S-WG leader Mr. Smit of Arizona Chemical is planning to present a paper on this topic at Afera's 6th Technical Seminar in April 2013.

Afera Member companies are requested to submit (anonymous) lists of questions and data pertaining to Member Delegate Companies' products/materials/service requests for environmental footprints/LCA, green, bio-based and biodegradable information to Afera's Secretariat. The S-WG would also like to collect 'benefit stories' pertaining to the use and function of tape in products and our environment.

Test Methods: Afera's Technical Committee Working Group

The TM-WG will focus on three research items in the near future: SAFT test, Climate Change test, and whether there is a relationship between Tg and adhesion strength in application temperature and service temperature. The TM-WG are currently working on a proposal for a Climate Change TM for presentation at the TC's next Meeting. A survey on questions about Climate Change test producers have already performed for their customers has been circulated among the TC Members.

Afera Membership Regional Representation in the Steering Committee

A few years ago, the Iberian Peninsula Region of Afera Membership was incorporated into Western Europe, leaving the Steering Committee (SC) with one delegate covering each of 5 geographical regions of representation: Central Europe (Germany, Austria and Switzerland), Italy, Western Europe (France, Belgium, the Netherlands and the Iberian Peninsula), Northern Europe (the U.K., Ireland and Scandinavia) and Eastern Europe (the Baltics, Turkey and Israel).

Since then, Mike Ayres of Advance Tapes International, Ltd., has retired from his position as Northern European Representative, and the SC have not been successful in filling the vacancy. In light of their current situation, and wanting keep abreast of Afera's evolving interests, the SC are considering reconfiguring Afera's Member Regions according to both 4 and 3 representative areas.

As Mr. Rambusch announced at the General Assembly 2012 on 4th October, the SC intend to review over the next few quarters the Association's Statutes regarding SC composition and present them for amendment at the next GA in October 2013. Turkey and Russia will be embraced in the new Membership Regional lines.

New Sponsorship & Advertising Policy > lower event fees for Active Members

Afera's management have decided to allow sponsorship by non-Member parties at Afera's events, so long as their products and services are not in competition with those represented in Afera's Membership. They should also be relevant to the subject and target group of the event.

This policy has been developed in an effort to use funds raised through events sponsorship to subsidise events participation fees for Active Members. In this manner, Afera hopes to attract more tape manufacturers to its events. Likewise, the Association has also gone to great lengths of instituting cost-saving measures in order not to raise Afera Membership Fees, hoping to keep, as well as attract, tape-producing Members.

Afera continues to 'grow the pie'

The Association has achieved its objective of bringing European and Middle East and India tape players and markets closer together in the creation of Afera MEI, which is now an officially independent organisation under Indian law.

A Mutual Agreement between Afera Europe and Afera MEI and a No Objection Certificate allowing the MEI Subgroup to incorporate a company under the name and style of "Afera MEI" have been signed by officials of both organisations. The Mutual Agreement is filed at Afera Europe's Head Office.

Going forward, Afera MEI directors Ajit Kumar Gupta, Savio George, Anish Metrani, Arvind Rao, Dhires Gosalia and Manish Rhira will act on their own. They have not planned any events to date. If they need knowledge or support from Afera Europe's Secretariat, they will hire Ms. Lejeune at an hourly or project-based rate.

Afera's Study of Fixing & Joining Methods in Consumer Electronics

Afera's 2010 Study of the consumer electronics industry revealed that current general awareness of self-adhesive tape used as a joining method in consumer electronics was relatively low at 63%. Only 30% of those who are familiar with self-adhesive tape currently use tapes as joining methods. It was very clear that in order to grow the market for tape, the level of awareness of self-adhesive tape's capabilities needed to be raised.

The October 2012 issue of *Electronics Assembly Magazine* features an article entitled "The Future of Component Fixing and Bonding: Why Pressure Sensitive Adhesive Tapes Offer Advantages Over Traditional Fixing Methods", describing the transformation across many industries in how component parts are assembled. Not only is Afera's study cited, but Afera Members such as tape producer 3M and converter Parafix are mentioned as companies which develop "hundreds of types" of tapes

and deliver "PSA tapes to very accurate specifications," respectively.

Afera's free Selection Tool for Fixing & Joining Methods, which is also showcased in the article, is still available for download at www.afera.com. What is evident is that the Tool continues to create new business opportunities by offering great insight into new techniques for making things better, faster and more efficient.

Taking part in Fraunhofer IFAM's Acceleration-Ageing TM Project

The Fraunhofer Institute IFAM is running the 'Accelerated Ageing Test of Pressure Sensitive Adhesives, Tapes and Joints' Project (AiF Project, IGF, Nr. 17087) from 1st October 2012 through 30th September 2014. All current participants attended a kickoff meeting in mid-October at IFAM in Bremen.

The Project has received funding from the AiF (German Federation of Industrial Research Associations), which benefits German SMEs. Participation in the official Project is restricted to German companies. International companies may take part in the Project, however, by participating via individual subprojects with IFAM. This allows international participants to take part as guests in the official Project meetings, which are conducted in German. Through this set-up, international companies may each submit one material for analysis. The cost of participation over two years is €15,000. Participant benefits include analysis of their added adhesive, full access to the results and receipt of a short final report issued in English. Important: If you are interested in taking part in the Project, contact Afera's Secretariat immediately on +31 70 312 39 16 or mail@afera.com.

DEVELOPMENT OF AN IMPROVED ROLLING BALL TACK TEST METHOD

Based on the PSTC-6 Rolling Ball Test Method (TM), which is being used by almost all European Tape producers for internal quality control, Afera decided to improve this method to arrive at a version which could be globally harmonised.

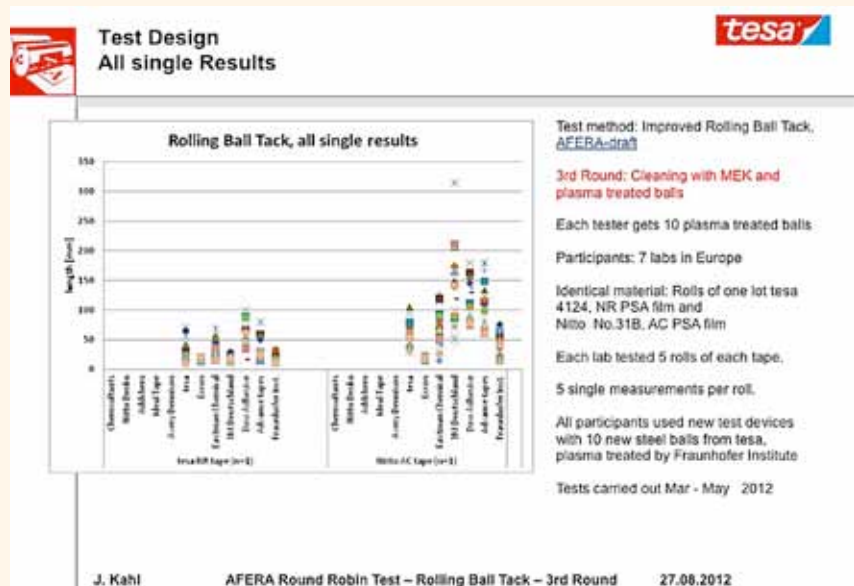
All known weak points were removed and replaced by what was believed would improve the reliability of the method. As a second step, five companies which agreed to participate in a Round Robin testing series received new equipment and steel balls, all from the same source.

The results of the first test were disappointing, and it was discovered that the key is the cleaning of the steel balls. For a second Round Robin series, a different solvent for cleaning was selected, MEK, which had showed promising

results in earlier tests. The test results this time were much better, but still the results among labs were not at an acceptable level.

For a third Round Robin testing series, new steel balls, which had been plasma treated and consequently cleaned with MEK, were used. Unfortunately, the statistical analysis, with this additional cleaning step of the steel balls, did not improve the test results among labs. The results within the labs were at an acceptable level however.

Finally, it was concluded that the Rolling Ball Tack TM will not be harmonised and is not recommended for use for tack comparison between different labs. In-house use appears not to be a problem. No further work will be done by Afera on this TM.



ACTIVITIES OF THE COMMITTEES

Afera Committee Meetings

When: 2nd October (TC), & 3rd October (MKC & SC) 2012

Where: Hotel Hesperia Madrid, Spain (E)

Purpose: As the lifelines of the Association, Afera's Committees meet at least twice yearly to discuss and develop their action plans for carrying out Afera's mission: To represent the interests of the self adhesive tape industry in the broadest sense.

At the start of each Meeting, Afera's policy for Member compliance with competition law is reviewed, and the Minutes of the respective former Meetings are reviewed and approved.

STEERING COMMITTEE UPDATE

SC Composition

• From	Candidates	Until
Eastern Europe	R. Klamka	9/2013
Central Europe	P. Rambusch	9/2013
Western Europe	L. Derolez	9/2013
Italy	F. Antonelli	9/2013
Northern Europe	Vacant	
Chair MKC	M. Punter	9/2014
Chair TC	C. Donker	9/2013

• Rotation Schedule

Presidency	Years	Vice Presidency
Central Europe	2011-2013 (P. Rambusch)	Western Europe
Western Europe	2013-2015 (L. Derolez)	Eastern Europe
Eastern Europe	2015-2017	Northern Europe
Northern Europe	2017-2019	Italy
Italy	2019-2021	Central Europe

- Carsten Meyer-Rackwitz, Chairman of the Marketing Committee (MKC), has recently taken up a new post within tesa as manager of its US regional headquarters in Charlotte, North Carolina. Both the SC and MKC unanimously expressed their thanks and appreciation to him for being a dynamic, consistent and effective leader within Afera for the last 2+ years and wished him well at tesa tape, inc.
- Michael A. Punter, Managing Director of Parafix Holdings, Ltd., has been nominated by the MKC and confirmed by the SC as Chairman of the MKC for a period of two years.
- The SC intend to review the Association's Statutes regarding SC composition and present them for amendment at the next GA in October 2013.
- See "General Assembly 2012" on page 21, as well as "Afera Creates Value for Members & the Tape Industry" on pages 14-15, for more details on the above items.

Focus on Afera's Strategies

Focus on 'Tapes' in Education

- Afera President Peter Rambusch is spearheading initiatives which put 'tapes' into educational tools, course curricula and events about bonding, adhesives and structural adhesion.
- Afera has been negotiating an initiative with the Fraunhofer Institute for Manufacturing Technology and Advanced Materials (Fraunhofer IFAM) in Bremen regarding inclusion of tapes in its educational programmes. The Association is working with some of its COI Members and its Committees on the development of its own in-depth education package.
- Unfortunately this project is on hold as Afera's contact at IFAM is on medical leave.

Synergies with Other Organisations

- Mr. Rambusch has suggested that Afera assign a delegate(s) to attend industry and related-industry events, such as those put on by DECHEMA, FINAT, FEICA and IVK, for the benefit of the Association, especially in relation to planning future projects, events speakers, etc.

Afera MEI Subgroup

- Afera MEI is now a legally independent organisation under Indian law. See "Afera Creates Value for Members & the Tape Industry" on pages 14-15 for more details.

Global Tape Forum & Global Test Methods Committee Meetings in Taipei, Taiwan

- The 3rd Global Tape Forum (GTF) and Global Test Methods Committee (GTMC) Meetings were hosted on 19th November by our Taiwanese counterpart association, TAAT, prior to their Technical Seminar on 20th-21st November 2012.
- See "Global Tape Forum Holds Successful Taipei Meeting" on page 19 for more details on the events and important results.

New Advertisement & Sponsorship Policy

- The SC have agreed to develop a set of guidelines on fundraising via commercial parties. See "Afera Creates Value for Members & the Tape Industry" on pages 14-15 for more details.

New Members 2012

- Associated Member: Schoeller Technocel GmbH (ASS), Germany

Finances

- A budget surplus of € 41,251 was presented. The 5th Tape College had made an unexpected profit of a few thousand euros due to sponsorship. The SC had also implemented cost-saving measures within Afera's 2012 budget. These two elements contributed to offsetting the less-than-expected Membership fees revenue because of lost Members and outstanding Fees invoices.
- Funds of € 15,000 and € 25,000 have been earmarked to subsidise participation fees for the Annual Conference 2013. At their next Meeting on 7th February 2013, the SC will discuss the possibility of sponsoring Active Member participation fees more heavily to encourage attendance. See "Afera Creates Value for Members & the Tape Industry" on pages 15-16 for more details on this and the next item.
- Because of Afera's effective financial stewardship resulting in its strong financial position, the SC agreed not to propose raising 2013 Membership fees.
- The SC have implemented a 3% fixed-cost savings across the board to keep the 2013 budget in line with that of 2012. 2013's projected budget surplus is € 751 and includes an expenditure on Afera's upcoming Social Media Initiative.

Next SC Meeting

- Thursday, 7th February 2013, 9.00-13.00, NH Hotel Amsterdam Centre, The Netherlands.

MARKETING COMMITTEE UPDATE

MKC Members, PSTC Guest

- The Meeting was chaired by Ms. Lejeune, because former MKC Chairman Meyer-Rackwitz had left Europe earlier in the year to become manager of tesa's US regional headquarters in Charlotte, North Carolina. Mr. Punter was nominated and later confirmed new

MKC Chairman through 2014. See details under “SC Composition” above and in “General Assembly 2012” on page 21 for more details.

- Special guest Patrick M. Farrey, PSTC Executive Director, was welcomed. He conveyed to the MKC that the PSTC would like to work more closely with Afera. The PSTC are struggling with the same challenges and issues as Afera.

Membership

- Afera currently numbers 50 Active Members, 44 Associated Members, 7 Affiliated Members, 2 Honorary Members and 9 Other Participants, totalling 112.

PSTC’s “Think Tape” Initiative

- PSTC have created two YouTube videos about tape which can be found at www.thinktape.org. The creation of the website and videos are part of an outward reach campaign to promote the use and application of tapes in North America to grow the industry. Afera Members may use these videos in consultation with clients, taking care to credit PSTC when doing so. The videos will be made available through Afera’s Secretariat and www.afera.com.

Afera Social Media Initiative

- Afera is exploring the launch of a social media campaign to reach a market of hundreds of thousands of engineer- and designer end-users who do not yet know about the use of tape as a fixing and joining method.
- See “Afera Creates Value for Members & the Tape Industry” on pages 14-15 for a more detailed report.

Membership Recruitment Survey

- Afera conducted a Member satisfaction survey among 110 current Members, ~15 former Members and a large number of potential Members in June 2012 via SurveyMonkey.
- See “Afera Creates Value for Members & the Tape Industry” on pages 14-15 for important details on the Survey’s outcome.

Annual Conferences 2012, 2013

- Hosted by Afera’s ‘Western Europe’ Region of Membership, the 2012 Annual Conference held from 2nd-5th October 2012 at the Hotel Hesperia Madrid, Spain, was a great success. Turn to pages 4-13 for a complete review of the event, which focussed on “Sustainability: Hype or Your Chance Now?”.
- Hosted by Afera’s ‘Italy’ Region of Membership, the 2013 Annual Conference will be held from 1st-4th October at the Atahotel Capotaormina, Taormina, Sicily. The MKC are working on improving the event’s Working Programme by continuing to offer more topics on current issues and trends in the tape business. The Social Programme is set to include visits to Catania, Ortigia Island, Syracuse and the Etna volcano.

Afera News

- Afera’s newsletter is slated for a few changes. See “Afera News: Improved Distribution” on page 21 for more details.

Website

- S-G Lejeune now uses Google Analytics to study Afera’s web statistics every 180 days:
 - The number of visitors (8,152) and page views (28,173) remains consistent
 - The average visit duration is 02:49 minutes
 - Key word searches most often included “afera”, “afera 5001” and “afera tape college”
 - After Europe, the continent with the most visits is North America
 - Germany is the country with the most visits, followed by the US.
 - The names of Afera Members come up often in searches.

Next MKC Meeting

- Wednesday, 6th February 2013, 13.00-17.00, NH Hotel Amsterdam Centre, The Netherlands.

TECHNICAL COMMITTEE UPDATE

TC Members, PSTC & FEICA Guests

- Technical Committee (TC) Chairman Chrétien Donker of Eastman Chemical Middelburg B.V. extended a special welcome to Kiran Malhotra, former PSTC TM Committee Chairman, ASTM representative, and Hermann Onusseit, Afera TC’s newly agreed-upon FEICA representative.
- Mr. Donker announced that he plans to retire from Eastman Chemical Middelburg B.V. as from 1st January 2014 and will be seeking a replacement for Afera TC Chairman.

ISO (International Organization for Standardization) & CEN (European Committee for Standardisation) Activities

- Afera will no longer pursue ISO certification of harmonised test methods. Instead, the Association has decided on a policy of developing internationally-recognised standards among the Members of the GTF/GTMC, labelling them ‘GTF-Harmonised TMs’. See “Global Tape Forum Holds Successful Taipei Meeting” on page 19 for more details.

Status of CEN TC

- Former TC Chairman Lutz Jacob is serving a 6-year period of office as Chairman of CEN TC 253, which has not met since 2001. Mr. Jacob and AFNOR have attempted to set up a meeting; however, this Committee does not have attendees due to lack of funding through national standardisation organisations, which no longer finance tape-related ‘mirror groups’.
- Mr. Jacob has proposed through AFNOR to merge TC 253 with CEN TC 193 (Adhesives). TC 193 has agreed to install a working group specifically on tapes (WG 7), which will be convened by Mr. Jacob. The official merger, initiated by AFNOR and certain to be approved, was put to a vote on the CEN online portal in September 2012. The TC 193 community has already voted positively, and Mr. Jacob awaits the results of the vote among TC 253 members, expected in December 2012.

‘Thickness’ & ‘Width & Length of Tape’ Harmonised TMs

- As decided at the GTF & GTMC Taiwan Meetings on 19th November, these and future TMs for industry standardisation will not be submitted for ISO certification but will be harmonised among the 6 current GTF Members, labelling them ‘GTF-Harmonised TMs’ and attaching a nomenclature along the lines of ‘GTF-Harmonised Test Method #_’.

Ball Tack TM

- Between 2010 and 2012, three sets of Round Robin Tests, facilitated by tesa and the Fraunhofer Institute IFAM, were performed on the Rolling Ball Tack TM by seven European and five American companies.
- Final conclusion: Rolling Ball Tack TM can be used as an in-house TM, but it cannot be standardised. Afera’s TC have ended discussions on the TM as it does not work. Mr. Jacob emphasised that this exercise was worthwhile in that it shed further light on what is possible and not possible in TM development.
- The results and statistical analysis of the Round Robin testing series of the Rolling Ball Tack TM will be released to the public via www.afera.com. This can be utilised by tape companies in discussions with customers. See “Development of an Improved Rolling Ball Tack Test Method” on page 15 for more details.

New TM Development

- The PSTC have developed a new SAFT TM over the last few years. Currently Afera TC’s TM WG is looking into a possible adoption of the TM by Afera, which to date has never had an agreed-upon description of a SAFT TM. It does, however, have a Static Shear TM (Afera TM 5102). The SAFT TM is just another version of Afera TM 5012 without heat treatment (heat chamber/programmable oven) and the results are calculated differently.

- Before adding the PSTC SAFT TM to the *Afera Test Methods Manual*, 6 Afera TC Member Companies (3M, BASF, Dow, Henkel, Lohmann and tesa) have volunteered to perform a series of Round Robin tests, so that Afera can obtain its own data. They will use the exact procedure of PSTC Final Draft #8 SAFT TM and supply the results to Afera before the next Meeting on 6th February 2013. Lohmann and tesa have supplied appropriate tapes to the participants. The varieties of European tapes will add to the strength of the results.

Co-operation with IVK/IFAM

- The Fraunhofer Institute IFAM is running the Accelerated Ageing Test of Pressure Sensitive Adhesives, Tapes and Joints Project (AiF Project, IGF, Nr. 17087) from 1st October 2012 through 30th September 2014. IFAM has created the possibility for non-German companies to participate.
- Important: If you are interested in taking part in the Project, contact Afera's Secretariat immediately on +31 70 312 39 16 or mail@afera.com.
- See "Afera Creates Value for Members & the Tape Industry" on pages 14-15.

Co-operation with FEICA

- FEICA, the Association of the European Adhesive and Sealant Industry and their national trade associations, and Afera enjoy mutual co-operation without financial contributions. Afera holds a free seat on FEICA's European Technical Board (ETB) through TC Member Hubertus von Voithenberg of ChemQuest Group, Inc. Conversely, Dr. Hermann Onusseit, on behalf of FEICA, now holds a free seat on Afera's TC.
- Within a partnership forged to create value for the memberships of both associations, Mr. von Voithenberg and Mr. Onusseit have created a joint technical programme covering 7 key topics: sustainability, standardisation, REACH, hazardous products, E.U. projects and nanomaterials. The Afera TC's specific preferences with regard to these topics were communicated at FEICA's 26th October ETB meeting. Afera and FEICA officials will meet in December 2012 or January 2013. Specific joint-action points will be drawn up, finalised and presented at the Afera TC's 6th February 2013 Meeting.

The Fraunhofer IFAM brochure "Adhesive Bonding – The Right Way! An Online Guide for the Correct Use of Adhesives"

- This was introduced at the FEICA-organised World Adhesive Conference on 18th-21st September in Paris.
- IFAM have created a free, web-based software tool, available in German and English, instructing producers on the general application of adhesives. This was made in order to prevent manufacturers from making mistakes in the process of adhesive bonding. The tool is useful both externally in consultation with customers about adhesives and adhesive bonding and internally in employee education and training.
- The tool can be accessed via a link on the IVK website, www.klebstoffe.com. As a benefit to its Members and the tape industry, Afera will create a link to the tool from its own website.

REACH

- Afera's TC continues to monitor the Candidate List. At the point that the EU decides to 'authorise' substances for use in manufacturing tapes, Afera will become actively involved on behalf of the Industry, possibly forming a WG on the REACH Candidate List of Substances of Very High Concern (SVHC) for Authorisation. At that time, Afera's TC will contact FEICA's ETB to determine if member companies' interests overlap and proceed from there.
- Afera Members are advised to subscribe to ECHA's free weekly *e-News* (press releases, news alerts and updates) and bi-monthly *Newsletter* via <http://echa.europa.eu/web/guest/subscribe>.

5th Tape College 2012

- Tape College 2012, held in Brussels, offered 12 high-quality lectures to 95 participants.
- The large number of participants and – for the first time – sponsors, allowed for a small profit.

6th Technical Seminar 2013

- Afera will hold its 6th Technical Seminar on 15th-17th April 2011 at the Brussels Marriott Hotel. The event will start on Monday at noon and finish after lunch on Wednesday, allowing for a more efficient work week for attendees and lower venue prices. Sponsors are being recruited.
- The format includes approximately 20 speakers delivering 25-minute presentations, followed by panel discussions after each of 4 sessions.
- The following have agreed to chair the four sessions: Christophe Küsters, Evert Smit, Volker Schmidt and Ralf Rönisch. Seminar Chair: Chrétien Donker.
- The TS Programme will be issued in December 2012. Visit afera.com for more details.

Afera TC Working Groups in Sustainability and Test Methods

- With the theme 'tapes enable sustainable solutions', the S-WG have launched an initiative focussing on the environmental impact of tape and is currently canvassing Afera's Membership for business and customer experiences with sustainability issues.
- The TM-WG are currently focusing on three items: SAFT test, Climate Change test, and whether there is a relationship between Tg and adhesion strength in application temperature and service temperature.
- For important details on the WGs, see "Afera Creates Value for Members & the Tape Industry" on pages 14-15.

Afera Test Methods Manual

- Afera will publish the Manual in 2013 upon completion of the Round Robin testing of the SAFT TM.

Next TC Meeting

- Wednesday, 6th February 2013, 9.00-12.30, NH Hotel Amsterdam Centre, The Netherlands.
- For a full report on the event, see "Editorial Afera Tape College 2012 in Brussels" on page 4.

TC Working Groups on Sustainability & TMs

- In order to improve synergy in the TC, at Afera's TC Meeting in Berlin on 5 October 2011, 2 Subgroups were installed: The Sustainability and New Test Methods Working Groups.
- The Sustainability WG is currently preparing a draft proposal focusing on tapes as enablers of sustainable solutions, bringing the positive net impact of tapes to light, to be issued to the public/market through Afera's MKC.
- The TMs WG is identifying new TM proposals, which will be the set topics for discussion in future TC Meetings and could be items for potential future research projects. Thus far these include a clear definition of the SAFT test, a climate-change test, and an application temperature and service temperature test.
- Read more detailed accounts of the WGs' progress in "Afera Listens to Its Members, Focuses on Tape Issues & Continues to Create Value for Its Membership & the Industry" on pages 5-6.

Next TC Meeting

- Tuesday, 2 October 2012, 13h-17h30 in the Saura Conference Room at the Hotel Hesperia Madrid, Spain (@Annual Conference).

NEW MEMBERS OF AFERA SINCE JUNE ISSUE

Active Member

Frimpeks – Mr. A. Sayer	Turkey
Ulmak Dooel Packaging Trading Ltd – Mr. K. Ulac	Republic of Macedonia

Associated Member

Schoeller Technocel GmbH – Mr. M. Weidlich	Germany
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GLOBAL TAPE FORUM HOLDS SUCCESSFUL TAIPEI MEETING

GLOBAL TEST METHODS COMMITTEE AGREE TO STANDARDISE USING 'GTF-HARMONISED TM' LABEL



The Global Tape Forum (GTF), the international body comprising regional organisations that addresses key issues of the self-adhesive tape industry requiring worldwide co-operation, met on 19th November 2012 in Taipei, Taiwan, agreeing, among other things, to harmonise tape-industry-created test methods (TMs) among GTF Members.

Held biennially, the only purely global self-adhesive tape event was hosted by the Taiwan Regional Association of Adhesive Tape Manufacturers (TAAT) at the Grand Hyatt Taipei Hotel and attended by 29 Member Association delegates and 4 observers from the 6 current GTF/GTMC Members:

- Afera, The European Association for the Self-Adhesive Tape Industry, www.afera.com
- Afera MEI, The Middle East & India Association for the Self-Adhesive Tape Industry, http://www.afera.com/templates/mercury.asp?page_id=1856
- PSTC, The Pressure Sensitive Tape Council (North America), www.pstc.org
- JATMA, The Japanese Adhesive Tapes Manufacturers Association, www.jatma.jp
- CATIA, The China Adhesives and Tape Industry Association, www.cnaia.org
- TAAT, The Taiwan Regional Association of Adhesive Tape Manufacturers, www.taiwantape.com.

The GTF includes the Global Test Methods Committee (GTMC), the technical body which routinely meets on the same day in the same location and includes a majority of the same delegates. Former Afera Steering Committee Member Mike Ayres chaired the third GTF Meeting, while former Afera Steering Committee Member and Technical Chairman Lutz Jacob headed the GTMC Meeting. Also in attendance of the events were Afera Secretary-General Astrid Lejeune and Afera Secretary Stephanie Feith, as well as Afera MEI President Ajit Kumar Gupta.

The Meetings were held prior to TAAT's Annual Technical Seminar, themed "New Applications and Marketing for Pressure Sensitive Adhesive Tapes," on 20-21 November at the Taipei International Convention Centre. Each counterpart organisation had been asked to contribute two speakers to the international event, which was attended by 240 tape industry professionals and Taiwan's Vice President, who took special time to meet with the international tape industry 'VIP' guest delegates.

Mr. Ayres opened the Taiwanese two-day technical event with a "Briefing on the GTF". Mr. Jacob spoke on the history of "Global Harmonisation of Test Methods for the Self-Adhesive Tape Industry." "New Product Launch in a Rapidly Changing Market Environment" was presented Mr. Yisong Huo, Avery Dennison, on behalf of Afera. Complete programme details of TAAT's Technical Seminar are still available at www.gtf-taipei2012.org.

The GTF and GTMC Meetings together made significant progress in establishing the role and practises of the 3½-year-old international self-adhesive tape forum.

All Members will report annually on total pressure sensitive tape production in their respective countries or regions. This data will be reported each November for the previous calendar year. It was established that GTF Members, who account for the majority of global tape production, produced approximately 36 billion square metres of tape in 2011, wherein Afera produced 7.5 bm², Afera MEI 0.4 bm², PSTC 10.1 bm², JATMA 1.5 bm², CATIA 14.8 bm² and TAAT 1 bm².

Additionally, the GTF website, www.gobal-tapeforum.com, is set for a re-launch in 2013. Member Associations will create links to this site from their own.

Of significant importance was the Member Associations' pledge to develop and harmonise self-adhesive tape TMs in close collaboration, under the GTF umbrella. Once finalised, the TMs will be referred to as 'GTF-Harmonised TMs', a quality label providing international credibility without eliciting the time and financial resources required of the ISO certification process.

The GTF can legitimately claim to represent the world's self-adhesive tape industry as its Member Associations cover most of the global tape activity. Going forward, the Forum will seek to extend its Membership to Korea and South America.

"Our primary goal is to enhance the worldwide PSA industry by providing a global forum for all Member Associations that enables them to bring greater value to their members. I think we are well on our way to achieving this," commented Mike Ayres of Afera and Advance Tapes International, Ltd., who was instrumental in the GTF's founding and has served as Chairman since the Forum's inception in 2009.

The idea of creating the GTF arose from discussions between Afera and the PSTC in 2006. The GTF held its Inaugural Meeting in Orlando, Florida, U.S.A., in May 2009, including 13 delegates from 4 regional/national tape associations, and its second Meeting in Stockholm, Sweden, in October 2010, including 23 delegates from 5 regional/national tape associations. The Meeting in Taiwan marks its third official event.

GTF leadership will pass from Afera to the PSTC, which will host the next Meeting as part of their annual meeting in Nashville, Tennessee, U.S.A., in May 2014.

ENVIRONMENTAL UPDATE

REACH

Last update of REACH-IT ahead of the 2013 deadline

The new release of REACH-IT on 30 November 2012 introduces the Co-Registrants page, which gives potential and existing registrants direct access to each other's contact details.

Date of the Eighth Stakeholders' Day Conference confirmed

ECHA hosts its Eighth Stakeholders' Day in Helsinki on 26 March 2013. The event presents the latest key messages from ECHA with a special focus on the 2013 registration deadline. As for previous events, ECHA offers the possibility for participants to meet face-to-face with ECHA experts to receive guidance and information about key issues. Participation to the conference is free of charge and registration starts in January 2013.

ECHA Lead Registrant workshop

The presentations of the Lead Registrant workshop held on the 10th and 11th of October are now available online at: http://echa.europa.eu/en/web/guest/view-article/-/journal_content/2b6c9ef3-b8c8-4ee1-a15d-bee72a3b47ea. For Afera-members working on Dossiers it is of note that ECHA confirmed that all IT-tools and guidance documents for the May 2013 registration deadline have been stabilized. In other words, dossiers made with the latest version of the tools and checked with the newest technical completeness check plug-in, will meet the requirements of the 2013 deadline.

Improved compliance check for registrations

ECHA checks all the registration dossiers for completeness upon submission. In the past, this was limited to see whether all the appropriate boxes had been ticked and if sufficient documents were attached in the right places. The actual content of the dossiers was not studied.

ECHA is introducing a new systematic targeting of compliance checks based on specified concerns. This will increase the chances for dossiers of insufficient compliance to be scrutinised and ensure higher compliance of REACH registrations.

Main points of interest are the endpoints that matter to human health and the environment. Emphasis will be given to substances that are Persistent, Bioaccumulative and Toxic (PBT); Carcinogenic, Mutagenic or Toxic to reproduction (CMR) and substances that have sensitising (S) properties.

Reminder: check REACH-IT inbox for news

Any Afera member that has registered substances under REACH, should regularly check its REACH-IT inbox for correspondence from



the European Chemicals Agency (ECHA), as ECHA has committed to check 5% of the received individual dossiers on compliance and might ask for adjustments or additional information. It is important to keep in mind that the responsibilities of companies do not end with submission of a dossier.

Reminder for members: check implementation of Risk Management Measures!

Earlier in 2012, only 15 percent of the downstream users had implemented the new Risk Management Measures in the updated safety data sheets. Legally, these measures have to be implemented within a year of receiving the updated safety data sheets. Afera members are advised to verify if this has been done within their own company.

FOOD SAFETY

EU preparing impact assessment for approaches of non-harmonised food contact materials

The European Commission is preparing an impact assessment (IA) to investigate and evaluate the possible approaches for the non-harmonised areas of food contact materials, such as paper and board.

French Senate adopts ban of BPA in food packaging

The French Senate has adopted a regulation that will ban the use of bisphenol A (BPA) in food and drink packaging starting 1 July 2015. The ban will come into force in 2013 for packaging intended for children under the age of three and establishes special labeling requirements for packages containing BPA, intended for pregnant women or children.

Other Member States have taken similar initiatives, with a ban in Belgium to start from January 1, 2013 and Sweden set to follow.

Revision of the industry guideline for Food Contact material

CEPI, the Confederation of European Paper Industries, and CITPA, the Confederation of Paper and Board Converters in Europe, have revised their Industry Guideline for the compliance of paper and board materials and articles for food contact.

The purpose of the Industry Guideline is, in the absence of a specific measure for paper and board, to enable manufacturers of paper and board materials and articles intended for food contact to demonstrate compliance with the Framework Regulation, (EC) No 1935/2004.

Industry Guideline for the compliance of paper and board materials and articles for food contact: <http://www.cepi.org/topics/foodcontact>

EFSA has published its scientific opinion on Mineral Oil Hydrocarbons in Food. Some potential concerns have been identified in relation to exposure to MOH through food. However, EFSA's experts stress there are several uncertainties regarding the chemical composition of MOH mixtures to which humans are exposed and also the wide range of sources of human exposure. Furthermore, on the basis of new information on the lack of toxicological relevance for humans of previous animal studies, the temporary Acceptable Daily Intakes (ADIs) of some 'saturated' MOH present in specific food products warrant revision. The EFSA report is available on their website: <http://www.efsa.europa.eu/en/efsajournal/pub/2704.htm>

RECYCLING/SUSTAINABILITY END-OF-WASTE CRITERIA FOR PAPER POSTPONED

The draft proposal for the revised end-of-waste criteria for recovered paper has not been adopted at the vote of the responsible EU technical committee in July this year, following concerns from the industry. The proposal has now been passed on to the European Council for resolution.

EC issues draft product environmental footprint guide

Mid 2012, The European Commission issued the draft Product environmental footprint guide; one of the results of the stakeholder consultation process started in 2011. The document gives harmonized guidance on how to calculate the environmental impact for different categories of products. The final report is expected by the end of 2012. The document can be found at: <http://ec.europa.eu/environment/eussd/pdf/footprint/PEF%20methodology%20final%20draft.pdf>

GENERAL ASSEMBLY 2012

Mike Punter takes over for Carsten Meyer-Rackwitz as Chairman of Afera's Marketing Committee

The annual General Assembly (GA) was the first item on the agenda of Day 3, 4th October, of the 55th Annual Conference in Madrid. Attended by a majority of Afera's Active Membership, this year's 40-minute GA was called to order by Afera President Peter Rambusch.

A first vote was taken, resulting in the approval of the GA 2011 Minutes recorded at the Annual Conference in Berlin. Mr. Rambusch then announced the appointment of Michael A. Punter, Managing Director of Parafix Holdings, Ltd., as Chairman of the Marketing Committee (MKC) for a period of two years. At their meeting the day before, the MKC Members had unanimously supported Mr. Punter's nomination, which was approved by Afera's Steering Committee (SC) at their own meeting later the same day.

"I am looking forward to heading an integral part of Afera's mission to serve and promote the interests of the European self-adhesive tape industry. Naturally, I am delighted to have the full support of the Marketing Committee," Mr. Punter commented upon his installation by the President. With 35 years' experience in the PSA market, Mr. Punter has been a contributing Member of the MKC for the last 5 years and will lead the Committee through 2014.

The position of head of marketing for Afera has been open since earlier this year, when former Chairman Carsten Meyer-Rackwitz of

tesa took up a new post within the company as manager of its US regional headquarters in Charlotte, North Carolina, U.S.A. Mr. Rambusch conveyed, on behalf of the SC, MKC and Afera's Membership, that they regretted Mr. Meyer-Rackwitz's transfer out of Europe as he had been such a valuable leader within the Association for the previous 2+ years, both as MKC Chairman and SC Member. Afera wished him well at tesa tape, inc.

The current and future activities of the Committees were then presented by the Chairmen in turn, as described in the "Activities of the Committees" on pages 16-18. Mr. Rambusch made a special appeal to all Members to lend their time and expertise to one of Afera's Committees if they could find the time and resources.

After a review of the financial balance sheet of 2011, the budget and latest estimate for 2012 and the budget for 2013, the GA voted to approve the budget for 2013, as well as to keep 2013 Membership fees the same, "due to Afera's effective strategic direction." Mr. Rambusch noted that in order to maintain proper Afera Membership regional representation, the SC intended to review the Association's Statutes regarding SC composition and present them for amendment at the next GA in October 2013.

The composition of the SC remained otherwise unchanged, with all Representatives intending to serve out their terms through September 2013. According to Afera's



current management rotation schedule, the SC 'Western Europe' Regional Representative will assume the Presidency for the term of 2013-2015.

Mr. Rambusch announced the dates and venues of the Association's 2013 events: Afera's 6th Technical Seminar, 15th-17th April 2013, at the Brussels Marriott Hotel, Belgium, and Afera's 56th Annual Conference, 1st-4th October 2013 at the Atahotel Capotaormina, Taormina, Sicily. With the plans, activities and projects the Association has in place, Mr. Rambusch concluded, Afera is improving every year.

Afera News:

IMPROVED DISTRIBUTION

Afera's Marketing Committee, in order to modernise and optimise Afera's communications tools, has decided to limit *Afera News*' hardcopy publication to once a year, while transmitting industry news and association information in digital form to Members on a weekly basis.

This cost-cutting measure will take effect in 2013, with the first hardcopy *Afera Review*, a year-end sum up of tape issues, projects and events, set for distribution in early January 2014. Members will soon receive information on new advertising opportunities in Afera's digital newsletter in 2013 and *Afera Review 2014*.

Afera 6th Technical Seminar

15 - 17 April 2013
Brussels Marriott Hotel



Afera Annual Conference

2 - 5 October 2013
Taormina, Sicily



NEWS OF THE INDUSTRY



AHLSTROM - FINLAND

Ahlstrom, a high performance materials company, today celebrates the inauguration of its new production facility in Longkou, Shandong Province, in eastern China. The plant is a joint venture together with Longkou Yulong Paper Co. Ltd, and it produces medical papers used for sterilization wraps and masking tape base papers for the



building industry in the Asian market. "This joint venture in Longkou supports Ahlstrom's growth strategy and strengthens our presence in Asia. Crepe paper used in the medical and building industries in Asia provides us interesting opportunities for growth in the area," says Jan Lång, Ahlstrom's President & CEO.

For the full press release please see: http://www.atera.com/templates/mercury.asp?page_id=1612

AVERY DENNISON PERFORMANCE TAPES - U.S.A.

Company News:

Avery Dennison Performance Tapes has expanded its line of automotive badge, emblem and logo bonding solutions with two new series of tapes for exterior applications. The complete portfolio addresses bonding needs for multiple paint systems throughout the automotive OEM, Tier I and convertor

supply chain. The new tapes complement the already widely used lines of PE foam and Flexible PE foam tapes.

The new additions are:
Acrylic Foam Bond (AFB™) tapes
LSE (Low Surface Energy) PE foam tapes

AFB Series

The new AFB series is constructed of visco-elastic acrylic foam, with a closed cell structure. Offers high adhesion combined with good shear and stress relaxation, and very good holding power. Absorbs shock, distributes stress evenly, resists high temperatures and delivers high bond strength on irregular or curved surfaces.

LSE PE Foam Series

The new LSE PE foam series is constructed of double coated polyethylene foam and features a very aggressive elastomer based adhesive. Offers excellent bond to many automotive paint systems, including hard to bond LSE clear coats (>28 dynes/cm), and delivers good bonding to rigid materials.

COLLANO ADHESIVES - SWITZERLAND

Company News:

Collano has added a second 5-layer blow-extrusion line to the one it commissioned in 2009. The second line was needed to meet growing demand for multi-layer film adhesives. Collano invited customers to its Schmiten/Switzerland production facility in late September for a live demonstration of the ultramodern line. Combining different adhesive layers and additional functional layers in a single film, multi-layer film adhesives not only bond reliably, but are also easier to handle, even where incompatible materials need to be joined.

New products, processes, development work:

Collano is researching different curing systems for radiation-curable adhesives for label and tape applications. It was found that

the combination of UV-LED and medium pressure mercury bulbs can enable improved curing in the depth of the adhesive layers for appropriate formulated UV acrylic adhesives. This yields in a marked improvement in cohesion while retaining the same high adhesion values, even at high coating weights. LED diodes enable curing in patterns and hence the realization of coatings with unique adhesive properties. Due to their long service life and low energy consumption the use of LED diodes can lead to substantial cost reductions. Wolfgang Aufmuth, technology manager, will gladly answer any queries you might have: wolfgang.aufmuth@collano.com

Eco-friendly adhesives for tapes

Adhesive tapes are highly specialized all-purpose tools – whether for home or high-tech applications. The adhesive must therefore meet highly diverse and demanding requirements and contributes crucially to the success of an adhesive tape. Collano has been developing solventless adhesives since the late 1980s

Are you looking for eco-friendly, water-based adhesive systems or perhaps 100% adhesive systems – e.g. UV-curable hotmelt PSAs – for tapes used in the construction sector, hook-and-loop fasteners, safety pouches, food packaging etc? Do you use substrates that have low surface energies? Or perhaps you are more interested in PSAs with adjustable cohesion and adhesion values for resealable or permanent, high-performance tapes? If so, please see: <http://www.collano.com/e/markt/klebebaender/index.php>

ICHEMCO S.R.L. - ITALY

Company News:

Year 2012 nears its end and shows an overall positive business result for Ichemco with a slight increase over last year. Moreover we remark the continuous increase of our export sales share as well as of our unsurpassed chemical specialties, including: Release Agents, Primers, Synergic Antioxidant systems, Tapes printing systems, Specialty Crosslinkers, UV curing hot melt adhesives,

re-pulpable acrylic adhesives and special water based PSAs.

In order to exploit new worldwide trends and market developments, Dr. Alessandro Aghina recently joined Ichemco as Business Development Manager.

New Developments:

- 1) **RELEASE K100H:** New PVODC release agent (100% T.S.) soluble in aliphatic solvents with a higher melting range (105-110°C)
- 2) **RELEASE K100ES:** Low noise version of RELEASE K100D
- 3) **RELEASE PP25 Eco Print:** New Eco-friendly release agent completely without aromatic solvents. Especially designed for printing PP tapes
- 4) **UVACRIL Series:** Ichemco is now able to provide a full range of UV curable acrylic PSA. The products can be easily adjusted to reach customer's needs in one step. All products are suitable for skin contact applications.

NEENAH GESSNER GMBH – GERMANY

Neenah Gessner GmbH developed a strong water repellent and waterproof masking tape backing for use in high performance automotive repair workshops.

Thanks to its waterproof character it is especially suitable for wet sanding applications. The hydrophobic nature allows also the use in applications within the construction industry.

With this new water-resistant carrier, GESSNER® has created the ideal basis for adhesive tapes which are used in almost any application where humidity and dampness prevail.

NOVAMELT GMBH – GERMANY

Company News:

Both production plants of Novamelt have seen a very high utilization rate throughout the year 2012, making this year one of its best in company's history. In particular in hotmelt adhesives for the specialty tapes used in the automotive and construction industry, Novamelt was able to increase its market share in Europe, North America and Asia.

MONDI COATINGS & CONSUMER PACKAGING GMBH – AUSTRIA

Mondi Release Liner is coming up with a new service concept for tape converters, which enables a secure supply of smaller orders. Nowadays, the challenges for converters are manifold as for instance the minimum order quantities or the lead times. With the new tape service concept, tape converters not only can rely on the delivery but also have greater flexibility, as the release liners are available from a minimum order quantity of 5.000 m³ For the full press release please see: http://www.atera.com/templates/mercury.asp?page_id=1612

NOVAMELT GMBH – GERMANY

Novamelt mourns the loss of Wolfgang Ziegler

On November 6th, our highly regarded manager, colleague, and friend Wolfgang Ziegler died at the age of 41 after a short but difficult battle with cancer.



Wolfgang Ziegler joined Novamelt GmbH in 1999 after finishing his university degree. He was responsible for managing production. Later, he assumed responsibility for managing the R&D department. In 2008 as Technical Director, he was responsible for all technical affairs in Germany and USA. Together with his team, he initiated innovative new adhesive developments that set new standards in the PSA tape and label markets both for today and into the future.

His outstanding technical grasp of the subject matter set him apart as a valued and respected resource not only inside of Novamelt, but also worldwide with countless customers and suppliers. Wolfgang Ziegler was for all of us a shining example not only of honesty and willingness to help, but as a human being.

CALENDAR OF EVENTS

JANUARY 2013

29 – 1 Upakovka/ Upak Italia, Moscow, Russia

FEBRUARY 2013

27 – 28 Packaging Innovations 2013, Birmingham, UK

MARCH 2013

6 – 8 IMPS 2013 – International Munich Paper Symposium, Germany

APRIL 2013

15 - 17 Afera 6th Technical Seminar, Brussels, Belgium
21 – 23 Adhesive & Sealant Convention, Atlanta (GA), USA

MAY 2013

13 – 17 PSTC Tape Summit 2013, New Orleans (LA), USA
19 – 21 ICE Europe, Munich, Germany
20 – 21 AWA Global Release Liner Industry Conference, Chicago, USA
29 – 30 Label Summit Indonesia 2013, Bali, Indonesia

JUNE 2013

12 – 15 FINAT/VskE Congress, Munich, Germany

SEPTEMBER 2013

12 – 13 FEICA European Adhesive & Sealant Conference & EXPO Izmir, Turkey
22 – 24 CATIA Annual Conference, Guangzhou, China
24 – 27 Labelexpo Europe 2013, Brussels, Belgium
25 – 27 CATIA Exhibition, Guangzhou, China

OCTOBER 2013

2 – 5 Afera Annual Conference, Taormina, Sicily

NOVEMBER 2013

4 – 5 AWA Pressure Sensitive Technology Workshop, Amsterdam, Netherlands

COLOPHON

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ADVERTISEMENTS NEXT ISSUE, JUNE 2013

Afera is offering advertising opportunities in the next 2013 issue of Afera News. The Newsletter is aimed to keep its members abreast of the latest developments within Afera and the greater tape industry.

Prices

Price per issue: 1.500 Euro for 1 full colour page and 750 Euro for ½ full colour page. The print run amounts to 1000 hard copies and incalculable Pdf-versions per issue.

If you are interested please contact the Secretariat for more detailed information.

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