

## Looking back in order to move forward: recap, regroup, recover

### Afera's 54<sup>th</sup> Annual Conference in Berlin

In his closing statement of the Annual General Assembly, incoming President Mr Rambusch asked all present to “not run together in the current crisis, but rather to move optimistically forward as a whole.” This was telling of the messages from many of the presentations heard at Afera's 54<sup>th</sup> Annual Conference, during which several of the presentations took lessons from the past to do some forecasting, but also to suggest ways in which the members of Afera could 'increase their size of the pie'.

Afera's 54<sup>th</sup> Annual Conference took place at the Westin Grand Hotel in Berlin from 5–8 October 2011. Centrally located, not far from some historic monuments and symbols of the past, the conference itself was rated highly by the participants. The networking opportunities as well as social programmes offered during the Conference were appreciated by many despite some inclement weather following the visit to Potsdam. The three day conference saw a full programme of lectures and presentations, the bi-annual meeting of the Committees and fruitful contacts made between participants.

The conference, hosted by the Western Europe Region of Afera's membership – represented by Mr Rambusch of the Steering Committee, and incoming President of Afera, was attended by 117 delegates and 17 partners from 13 European countries as well as Turkey, South Korea and the USA.

#### A red thread?

Interestingly enough, from the presentation on the Automobile Industry ('Crisis? What crisis?' by Klaus Bräunig – CEO of the German Automotive Industry) to the sharing of an adventurer's struggles against the elements of the desert ('Beyond Limits' by Bruno Baumann), a common theme was evident. A theme reiterated in the presentations of Marc Vos of the Itinera Institute, an independent think tank, entitled '2011: A World in Transition'; Lauren Mathys of Bluecrest Consulting in her presentation about Blue Ocean Strategies; and Professor James Woudhuysen's entertaining, yet challenging thoughts in 'Thinking about the Future: The next Trend in Design'. While preparing for what lies ahead, uncertain as it may be, the past has many lessons to teach us – to avoid repeating past responses and consider opportunities not yet completely evident, or within our 'comfort zones'.

Even the more technically oriented presentations of Mark Macaré, Public Affairs Manager for FINAT on 'Changes and Chances: REACH and recycling'; that of Rene Smit of Eastman Chemical B.V., 'Tackifiers towards 2020 – what will make it stick?', and Hans Joachim Fox, of Vinnolit 'PVC – the ultimate choice', picked up on this theme.

The conclusions, in summary, of all the presentations were in essence: make a realistic prognosis of what one wants to achieve; recognise how and why one has reached the position they find themselves in; identify what you want to achieve; know what is happening around you, and beyond; be prepared to leave your 'comfort zone' and look for new ways of working together and

sharing strengths. Valid lessons for the industry and for the collective membership of Afera.

### Feedback from the participants

Once again, the evaluations of the Afera Annual Conference were very positive. From the location to the quality and content of the presentations, attendees were satisfied that their expectations were met and that it was a fruitful event. No event however remains without points for improvement. The request 'for more sunshine and warmer temperatures' can at least be assured at the next Annual Conference which will take place in Madrid – much more appealing climate in October than Berlin. Though, that said, the few days in Berlin during which the conference took place on the scale of things was not bad, and even though some got caught in an unexpected shower following the trip to Postdam, the bright autumn days did brighten the mood a bit and participants and partners attending were able to enjoy the social activities planned. This included a delicious dinner and spectacular performance in the intriguing setting of the 'Wasserwerke' – where dinner was enjoyed in a former waterworks plant and all were enthralled by an aerial contortionist high above them.

Points for improvement feedback to the organisers included more market and industry related presentations, the presentation of panel discussions to encourage more interaction and ways of facilitating networking between new members and attendees, as well as identifying which branch of the industry people came from.

## The Presentations

### **'Crisis, what crisis' by RA Klaus Bräunig – CEO of the German Automotive Industry (VDA) – (D)**

Mr Bräunig took the title of his presentation from a Supertramp album to illustrate that 'we may have been here before', in a period of crisis. And, whereas at the time of the album's release it referred to the oil crisis of the 70's today there were several taking place, one after the other, with the more recent one being that of the financial world which, in his view, had become too independent and needed to become a servant to the real world.

Nonetheless, in Mr Bräunig's opinion, and with regards to the German automotive industry, he felt the worst was behind them, and even with the current situation, was confident that the industry was on track to meet a 5% growth in global sales on the record growth of 2010. In his opinion, the debate in the automotive industry had some parallels which were relevant to Afera and the adhesive industry. Which is how he structured his presentation, along the following agenda items: Increased risk awareness of the global economy; slower growth yet record volumes; better than expected growth within the German market; fact that the German Automotive industry was setting new records and the future challenges which lay ahead.

### Global Economy

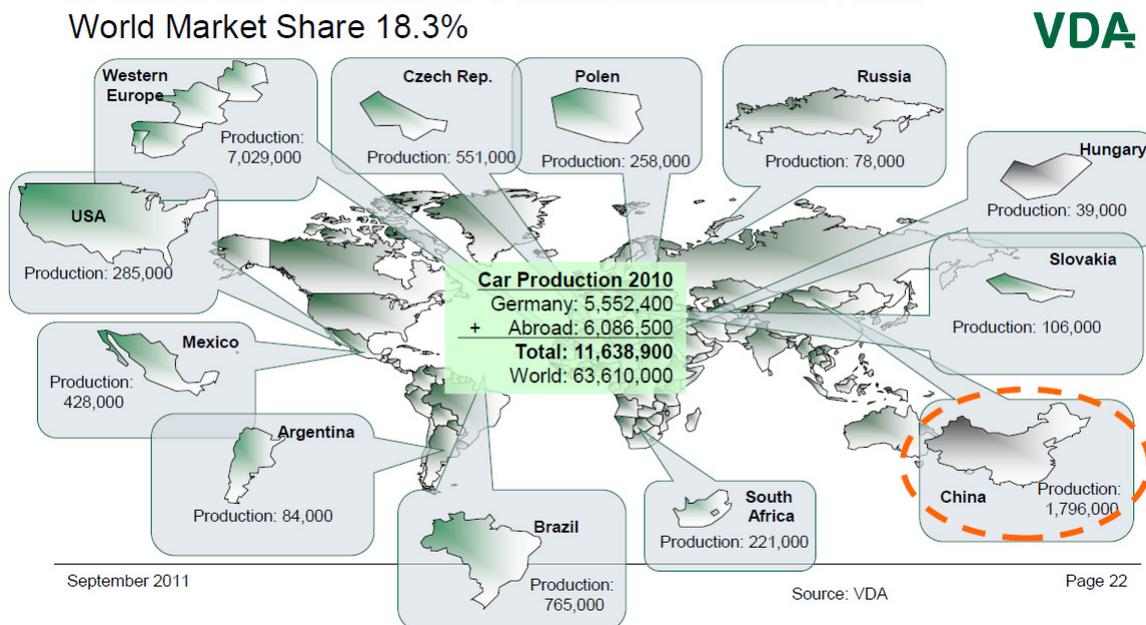
Despite the risk and doom indications of the global economy, Mr Bräunig saw no reason to deviate

from the optimistic forecast the German automotive industry had made for itself. In large part he finds assurance in the fact that in response to the crisis of 2008/2009 the industry took a realistic approach, and steps, to recover from it, and has been keeping close track of and adjusting to changes taking place in trends, patterns of consumption etc. Due to this realistic analysis, the industry was prepared and positioned to meet the growth indicators it set for itself, and views the challenges as gateways to new opportunities. Even the stabilization in certain areas of their production was anticipated as well – a mark of the realistic forecasting undertaken.

### Shifting patterns

While the changes taking place in some markets cannot be ignored, new avenues in other markets are being capitalised upon. The drop in passenger car demands in Western Europe is somewhat balanced by an almost booming market in Russia; the move away from Mini, Small and Compact vehicles is in part filled by increased demands for Middle, Upper Middle, SUV and Sportscars, a dynamic growth in the premium sector is being experienced. Exports are increasing, expansion is taking place everywhere. According to Mr Bräunig  $\frac{3}{4}$  of the cars produced in Germany are exported and there has been an increase in the number of German cars being produced outside of Germany – the automotive industry is accepting a new role not simply as exporter, but as producer in other markets. Furthermore, investing in R&D to meet the challenges of the future (see below), is resulting in the industry taking a lead in new opportunities – new markets. €1 out of €3 is spent on R&D in Germany by Automotive Industry.

### IV Global Car Production of German Manufacturers 2010: World Market Share 18.3%



### Anticipated Exit Strategies

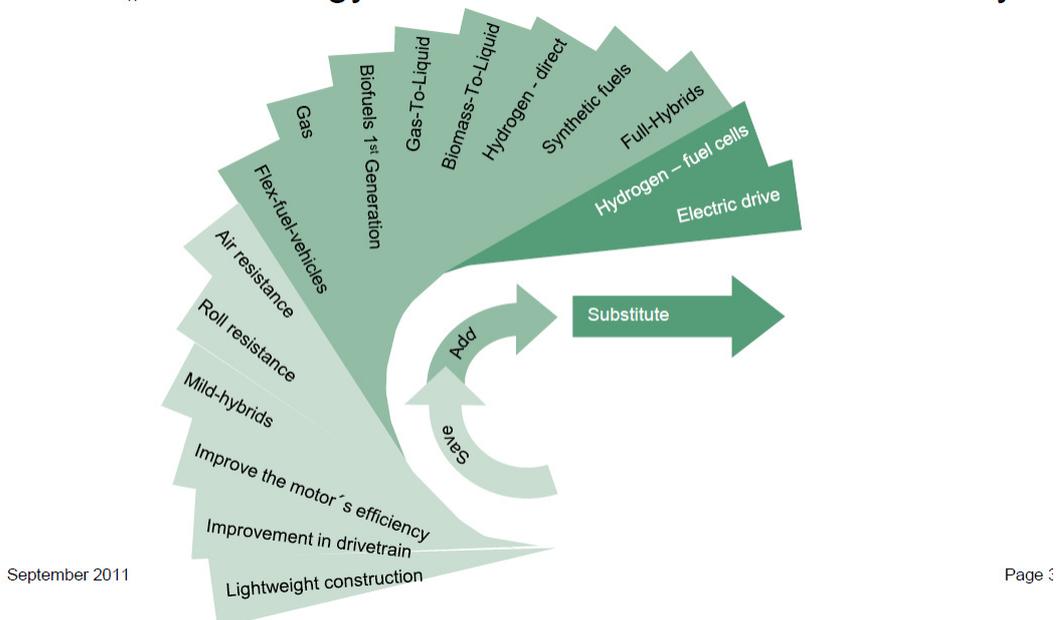
As a result of a series of challenges, changes on the horizon Mr Bräunig highlighted some of the possible options for the automotive industry to ensure growth. Among the challenges listed were: rising energy demand worldwide, end of 'cheap' oil, paralleled by the displacement of petroleum as a preferred source of energy; increased availability of diverse energy sources; climate change, global warming – and the subsequent consequences of this such as demanding CO2 regulations, requirements; the 'urbanisation' trend towards megacities, megaregions and a mobility trend

towards electrification.

EC emission regulations, 'the burden of Brussels' have been accepted and ultimately resulted in pushing the industry to setting standards, developing the required technology, and today being a leader in the production of passenger cars with reduced CO2 emissions. The demands of alternative fuel sources or for new mobility solutions is pushing the industry to develop this further – as evidenced by many things not the least of which was the opening of the Hall of E-Mobility at the IAA (International Automobile Exhibition) in Hannover earlier this year.

The 'fan' strategy being adopted by the industry was reflective of their approach towards the possible 'exit' strategies – exit from potential stagnation and towards new markets, as well as demands from the market. Several were being embarked upon in a parallel fashion – in order to ensure preparedness for what lies ahead.

## V The „Fan Strategy“ of the German Automotive Industry



In conclusion, Mr Bräunig commented that the challenges of the automotive industry and the manner in which these are being approached provide links and opportunities with Afera members, the adhesive industry. He welcome their contribution to the path ahead, and hoped what he sketched sustained his optimism as well as encouraged preparedness.

## 'A world in transition' by Marc Vos – Itinera Institute, Independent Think Tank (B)

Marc Vos started by saying he was by no means a forecaster, but was in the business of telling a global tale. It was not his intention to talk about the 'crisis', 13000 books had already been published since it started, to do that. What he intended to show, by going back in history, was that the responses of the past have in actual fact been exacerbated by the ongoing nature of crises, brought to the surface, and in fact as a result we find ourselves in unknown territory one might say. The solutions of the past are no longer viable options for resolving the current situation.

We are at the moment experiencing the worst global financial crisis since 1928, and one which has

its roots, in his opinion, in 2007. Since then governments have been central to the responses taken. The first step by government, was to 'save the day' by pumping money into a rescue plan (US leadership in this case). This was followed by nationalisation of industrial players in order to avoid recession. The nationalisation of GM, an American post war icon, had it taken place any time before would have caused outrage, yet was a pattern being copied the world over. Subsequently, Keynesian economics returned, and governments played an active role to prevent another 'depression', to ensuring that the mistakes of the past were not allowed to happen, again. Once established that depression was avoided, the rule of the game was to prevent a recession which, in order to do so required growth, a quick start to the economy. And, what was the 'growth' potential? The green economy. In Marc's words "... who can resist spending money on saving the planet?" The race was already on for 'breakthrough' technologies and those who spent, invested, were part of it. Great expenses have been made, finances spread, but regrettably not delivered significant prizes at the finish line, and have in their way contributed to another exacerbation of the problem. Governments themselves are now in and part of the crisis, their own debt levels being more than financial markets can tolerate.

Parallel to all of the above, and again, being exacerbated by the crises are issues such as rising unemployment (40% in Spain, 25% in Ireland) and the battle against long term unemployment in the US which will eventually result in people becoming unemployable. Democracy has also been in crisis for some time now. And, a political crisis such as exemplified by what is happening in the EU, where a common currency was established, but no mechanisms to manage it. There is uncertainty. What now? The end of the Euro? No-one knows. Since its inception the EU has managed to grind its way through each challenge. The two political commitments which underpin it, the Maastricht Treaty and the Lisbon treaty have been violated by everyone, without challenge. Germany, which had a leadership role is moving slowly away from this position. The EU is being challenged, on the streets dissatisfaction is mounting. Whatever solution is found to the current crisis, one thing is certain, funds are required: be it EU debt restructuring and an EU 'Marshall plan' for the weaker countries or kick the later out to fend for themselves. Whatever road taken, it will cost.

Fukuyama was wrong

In 1989 Frances Fukuyama wrote an essay entitled the 'End of History' in which he stated that: "(w)hat we may be witnessing is not just the end of the Cold War, or the passing of a particular period of post-war history, but the end of history as such: that is, the end point of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government." Marc Vos made clear that this conclusion, which reached world-wide fame, today, was as far from the truth as possible. There was no 'final form of human government' in fact the globalization trends of the time have too, exacerbated the extent and nature of the crisis. Prior to 2007 there may have been some consensus and a 'leader' – but this has been eroded by the crises. There is no consensus, and the leadership role of the US at the time, has been eroded.

Instead of global free trade deals, we are seeing a rapid rise in regional trade deals, arrangements. Instead of making a bigger and more accessible pie for all (win win formula), we are carving it up into smaller pieces, looking after own interests. The search for solutions is now taking place within small, selective clubs, group formations, within which many agendas are at play – and not always transparent or obvious. We are moving from the G20, to the G8 and now the G2 and BRIC,

alignments are shifting, being created according to specific needs and opportunities.

Marc used the Chinese model of development to illustrate the extreme of this tendency – of looking after oneself first and foremost. The Chinese government is happy to provide funding for technological development, so long as it serves China and is left behind to be used by China, such as was the case with the light rail system Siemens developed for China. This technology is now being used by China to export light rail trains. Idem ditto with solar panels. Access to the minerals which it is restricting the export of? Those wanting them are invited to come to China to make use of them there. So much for globalisation being win win, or being a part of some sort of consensus.

And, the leadership role of Fukuyama's prediction? In Marc's words the days of 'pax americana' are over. The US is no longer able, or willing to play global cop. Reducing military spending is a lot less painful than cutting social spending. The crisis, according to the US Secretary of State, Hilary Clinton is a strategic loss for the US because it is resulting in them being less active geo-politically.

*“Und jetzt?”*

Marc concluded that “... we have been used to progress for so long that we immediately think it is someone else's fault.” It is clear that the immediate future for the West is not good, it may not 'be a recession' but it will he said, 'feel like a recession'. We CAN pay the bill he says, but political choices need to be made, ones which may involve us becoming a little poorer in order to move forward. We need to build on existing strengths and join forces. China can and will grow. Its middle class is huge, its own purchasing power is growing as is the will to speak out on human rights issues. However, China will never be able to catch up to the per capita advantage of the West and if forces are joined transatlantically, between the US and EU, the gap will grow.

New opportunities are being created by baby-boomers as they approach retirement. They have spending potential, they will live longer, still active. This is a new market. The Green economy is coming and it will change our economies much the way the railways did in former areas. Be aware of these changes and you can be prepared for new opportunities.



## 'Changes and Chances – REACH and Recycling' by Mark Macaré, Public Affairs Manager for FINAT (NL)

In the opening slide of his presentation Mark reflected the relief many felt about having seen the first notification registration deadlines under REACH and COP regulations having passed. The sprint was over, the finishing line had been crossed. Unfortunately that was when most realised it was not a sprint, rather a marathon ... new deadlines are now approaching and 2013 and 2018 do not seem so far away. To complicate matters, the goalposts regarding REACH are constantly shifting and guidelines continually being revised. It is time to be alert, keep on track, follow up through each one's supply chains and, be aware of new opportunities.

What was it all about?

REACH stands for the **R**egistration, **E**valuation, **A**uthorisation and **R**estriction of **C**hemical **S**ubstances. It is the EU regulation on the use of chemicals and it means that if a company imports and/or manufactures a chemical substance above 1 tonne/year, they must register under REACH. The 2010 deadline was for most hazardous substances and those above 1000 tonnes/year; the 2013 deadline relates to a production volume of between 100 and 1000 tonnes/year and by 2018 companies producing between 1 and 100 tonnes/year will also have to have registered. Failure to comply and receive approval for the substance in question simply means no sale. That simple.

Most tapes are catalogued as articles which are exempted from the regulatory procedures of REACH, however, there are exceptions, such as tapes produced to transfer ski wax. These leave an "unintended release of substances" and therefore the released chemicals must be registered, should their quantity exceed the minimum threshold of 1 tonne/year. The message to Afera members: adhesive formulators need to ensure their suppliers are REACH compliant, and, the suppliers dossier does need to include the use(s) of the substance by the buyers. One year **BEFORE** the registration deadline for a substance, a company needs to inform their suppliers how they use the substance to be registered, so that these uses can be included in the dossier.

A secondary impact of REACH for the adhesive industry comes in the form of the new eSDS (expanded safety data sheets). These may include risk management measures for the use of a substance, which are mandatory and need to be complied with within 12 months. . A third implication of REACH for the industry is reporting the SVHC content in articles to the ECHA (European Chemicals Agency). This should be done if the SVHC content is greater than 0.1 weight percent and more than 1 tonne/year. Customers also need to be informed when the weight percent is greater than 0.1.

#### Vigilance required

Mark warned that changes are under way. Some of these were 'known', others in development. Most importantly, the European Commission is undertaking an elaborate REACH review, studying the impact of REACH in areas such as innovation and competitiveness of the European industry. The impact of the study results on the REACH legislation is not yet known. At the REACH conference in October ECHA and the European Commission tried to allay fears within the industry by underlining the review would not automatically mean adjustment of the legislation. . His advice was that careful attention needed to be paid to these developments. As an example, some companies have noted that current dossiers do not work with newly released software tools, requiring amendments from users. In addition, after the moratorium on new guidance ahead of the first registration deadline, ECHA has been actively issuing new or revised guidance since the beginning of 2011. To ensure a company's compliance, active monitoring of changes is of importance. In light of the review and these changes, the CheMi platform, a platform for downstream users of chemicals of which Afera is a member, has been reactivated. The platform has since obtained representation on the Directors Contact Group and Sherpa Group. These have a direct link to the Commission –a good position to be in in order to keep an eye on developments.

To ensure that the industry is, and remains prepared Afera keeps track of changes, and plays a role where possible in influencing policy. But companies themselves need to check the compliance of their suppliers, notify their uses by May 31<sup>st</sup> 2012 and check their SVHC.

#### Proactive chances

Whereas REACH means having to be reactive, recycling provides industry members with an opportunity to be proactive and take advantage of existing as well as developing opportunities. Mark, as Manager of the FINAT Recycling Group took this opportunity to share with Afera a series of developments taking place in the world of recycling which could be of significant benefit and interest to the industry. He started off by saying that for release liner recycling, one of the biggest challenges was that of collection, as the waste was actually generated at the user level and therefore was dispersed and fragmented, presenting logistical problems.

In the past additional challenges to the recycling of release liners included a lack of recycling opportunities, absence of legislation and lack of awareness. However, today, new commercial solutions are available which provide not only logistical support but more interestingly also cost saving opportunities. The momentum for recycling is growing, across all industries, but what is needed in terms of release liners is volume – a critical mass. FINAT has started an initiative to try and promote and expand the awareness with a view to creating this critical mass, and asked that

Afera members be a part of it.

Information about FINAT's Recycling initiative can be found on their dedicated portal <http://finat.com/en/Sustainability/Recycling-Portal.aspx>, which is supported by flyers and additional communication strategies. Furthermore FINAT is also undertaking site visits, undertaking case studies and supporting pilot projects in order to generate the awareness as well as explore the opportunities. The message is: release liners can be recycled, opportunities already exist and in many cases, these are more cost effective than incineration or land-filling.

## What can you do?

- Spread the message
- Spread the initiative
- Start recycling



### **'Tackifiers towards 2020 – what will make it stick?' – by Rene Smit of Eastman Chemical B.V. (NL)**

Rene opened his presentation by referring to the uncertainty which may have been left behind as a result of Marc Vos's overview, confirming that within the industry there was indeed, uncertainty, but that in his words, "...as part of the value chain we need to work together to confront challenges, uncertainties, and prepare for the next challenge."

In his introduction he asked if the following sounded familiar: purchasing managers spending more time on managing raw material allocations than anything else; the products that are available seem to increase in price every other month or so; technical staff spending most of their time finding raw material alternatives because of supply outages; end markets are growing but given all the uncertainty, it is not clear when and in what to invest. If the answer was affirmative, he welcomed them to the world of the adhesive industry of the last few years!

He then proceeded to present the questions which may have been on many people's minds: When will things get back to normal? What is the role of tackifier resins in adhesives? What are the growth perspectives of adhesives? What will be the leading adhesive technologies of the future, and what will be their ingredients? What needs to be done now to prepare for the future?

In answer to the question: 'when will things get back to normal?', Rene pointed out, it depended on how one defines normal. Until the end of the last decade, the adhesive industry and its associated value chains have seen a significant amount of tactic and opportunistic behaviour. For a number of years, this has been enabled by excess supply capacity, low cost de-bottlenecking options and feedstock head-space for many adhesive ingredients. However, prolonged marginal profitability and structural changes in the raw material environment have resulted in protracted availability disruptions of many adhesive ingredients. If adhesive products are to grow in the future, it will need considerable investments in the entire supply chain to make this happen – the 'old' normal is unlikely to return.

### Growth perspective for adhesives

Adhesives are a 40 B US\$ segment of the global market for industrial and consumer fastening solutions. Compared to other fastening methods such as staples, screws or welds, the principal attractiveness of adhesives is its ability to quickly and efficiently bond, join or adhere to dissimilar substrates. Many industrial and consumer goods, ranging from cars to baby diapers, and from furniture to beer bottles rely on adhesives for their construction and packaging. As a result, adhesives overall tend to grow at a rate at or above the growth of the global economy. For the coming decade, strong growth will materialize in the developing economies due to the strong growth of the emerging middle class and their demand for such, or similar products. This growth however will require the adequate development of additional production and raw material capacity – predominantly in the developing regions themselves.

### Potential of resins

Hydrocarbon Resins (HCR) and Rosin Resins (RR) are low molecular weight, high Tg polymers which are made by the polymerization of Hydrocarbon or Terpene feed-stocks, or, by modification / esterification of rosin acids. The quality of HCR and RR can be improved by hydrogenation. Resins are used to modify a range of thermoplastic polymers. The combination of resin, polymer and oil or wax is the basis of solvent and hot-melt adhesives. Due to their diverse chemical nature, resins can be used with many different polymers. Depending on end use cost and performance requirements, customers can use several resin platform options to formulate an adhesive by selecting different polymers as starting point. Furthermore, depending on the pricing/availability of both polymers and resins, demand can migrate from one platform to another. Traditional resin price points are challenged by cost/supply upsets as the supply chain is changing from by-product to on purpose cost models

Resins can play a significant role in formulating PSA adhesives. The high Tg and low molecular weight of tackifier resins enable the successful formulation of high performance tapes, label and diaper adhesives. The increasing use of recycled, treated and low surface energy substrates, and a market trend toward adhesives with lower add on rates and lower application temperatures increase the need for the specific adhesion that tackifier resin offer.

### The resins

Hydrocarbon Resin raw materials are primarily by-products of ethylene production. Cracker operators create resins, though they only want to invest when there is a viable demand. Due to

the attractiveness of light feed-stocks, light cracking will continue to be preferred, Asia being the exception. As light cracking reduces the generation of resin/polymer formers, supply/demand of these will continue to impact pricing. Improved economics can enable by-product recovery at previously uneconomical sources. Nevertheless, both light and heavy cracking operations are growing worldwide and the potential for resin formers is significant.

In 2010, global production of rosin improved over 2009 with 100 kt but was still short of the all time record of 2007 (just over 1400 kt). CGR pricing retreated from >>3000\$/ton peak, but prices above 2000\$/ton and ongoing volatility are expected to remain. The industry expectations for 2012 - 2020, suggest that: TOR will remain stable or reflect a slight decline; in China it is predicted that GR will be maxing out at 700+ kton; Gum rosin from other countries could grow to approx. 400 kton', and pine tree species in Vietnam / Indonesia / Brazil yield of gum rosin will increase, though of a quality that is less suitable for adhesives. Currently, rosin production is mostly Chinese and is valued like gold - so the price of it is not expected to come down. Even in a country like China where labour costs are low, and labour investment in rosin production is high Rene does not see this as something likely to shift in the near future. He added that even the price of gum rosin was also in flux.

Between 2010 - 2020 expectations are that there is a 3.5% per annum growth potential in HCR's if the industry's value chain collectively ensures the right economics in C5 are available in house, under our cap. Today, there is no C5 producer of feedstock in Europe at the moment - so for everyone in need the costs are higher as they need to be sourced elsewhere. Rene stressed, that "...as an industry we need to shy away from by-product mentality and need to move towards on purpose business models where selectively need to be able to add value to raw materials in order to get where we want to be." Tape production represents less than 15% of the total resin use in Europe, but it is the major end use for C5 resins. The majority of tapes produced in Europe rely on this. To secure the necessary raw materials for growth towards 2020, the tape industry must be prepared to compete with other value chains and end uses for its ingredients. The other leading users of tackifier resins are mostly large corporations. While some of their products can contain a lot of resin, the overall amount of resin in the end products are (very) small.

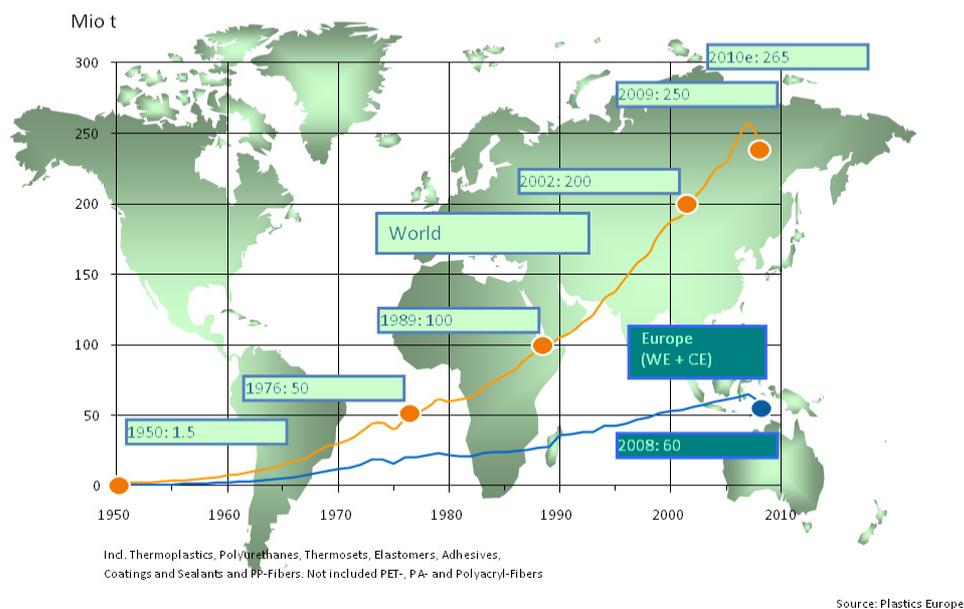
What will make it stick?

In the coming years, the global demand for tackifier resins in adhesive and other end uses is expected to continue to grow, stretching the available raw materials and production capacity. Expansions are possible, most of them are likely to happen in Asia due to feed-stocks options and strong regional growth. In most end uses, tackifiers are a very small percentage of the end product, and the value chain should be capable to support the economics needed to justify capacity expansions. In Europe, the tape industry can enhance their ability to secure their long term tackifier needs by increasingly focussing on value added resins and end uses to ensure their success towards 2020 and beyond. Structurally we are not yet prepared to meet this challenge and we need to try to engineer a healthy and prosperous way forward by being able to meet our own C5 needs.

**"PVC - the ultimate choice" by Hans Joachim Fox - Vinnolit (D)**

Hans started his presentation by confirming the importance of raw materials in the plastics sector, and took the participants through the production process of PVC – PolyVinylChloride. In real life he shared, this is a powder produced by combining chloride, caustic acid and rock salt, which is what is actually sold to their clients for further processing. PVC is an integral member of the plastics family and its growth in the last 60 years has been exponential. Within the plastic family, PVC occupies the third place accounting for 16% of all plastics, preceded by PP at 21% and LDPE at 19%.

### Global plastic consumption



There was a 'dip' in plastics consumption in the 2008–2009, but currently more than 30 million tonnes of plastic are consumed every year, and all indications show a robust potential for growth. Vinnolit is among the top PVC producers, though again in the chart which illustrated this, the dominant presence of the Asian companies (52%) in this regard was once more evident. Growth has been driven, and met by this part of the world.

### Applications of PVC

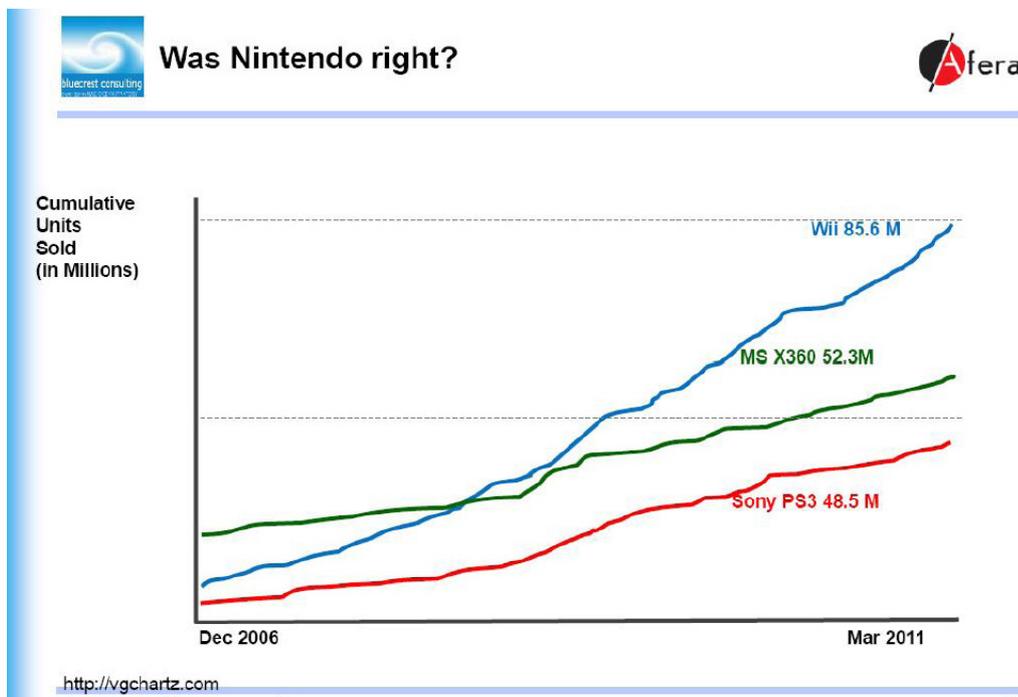
The added value of PVC is its versatility. It essentially gains performance depending on the additives added. It can be manipulated to be a rigid product, such as pipes and fittings, or window profiles, or as a flexible end product, such as coatings, floorings and films, among many others.

PVC is, according to Hans, “... the ultimate choice.” It is the third largest plastic consumed globally and growing further.” Furthermore, PVC helps in conserving energy; is one of the most versatile polymers available today; is part of everybody's daily life and is recyclable and excellent in cost versus performance.

There is growth potential in the overall market, however China, the Middle East and the CIS countries provide the largest margins for this growth, as their consumer power and needs continue to rise.

## 'Capturing Blue Oceans of Uncontested Market Space' by Lauren Mathys of Bluecrest Consulting (CH)

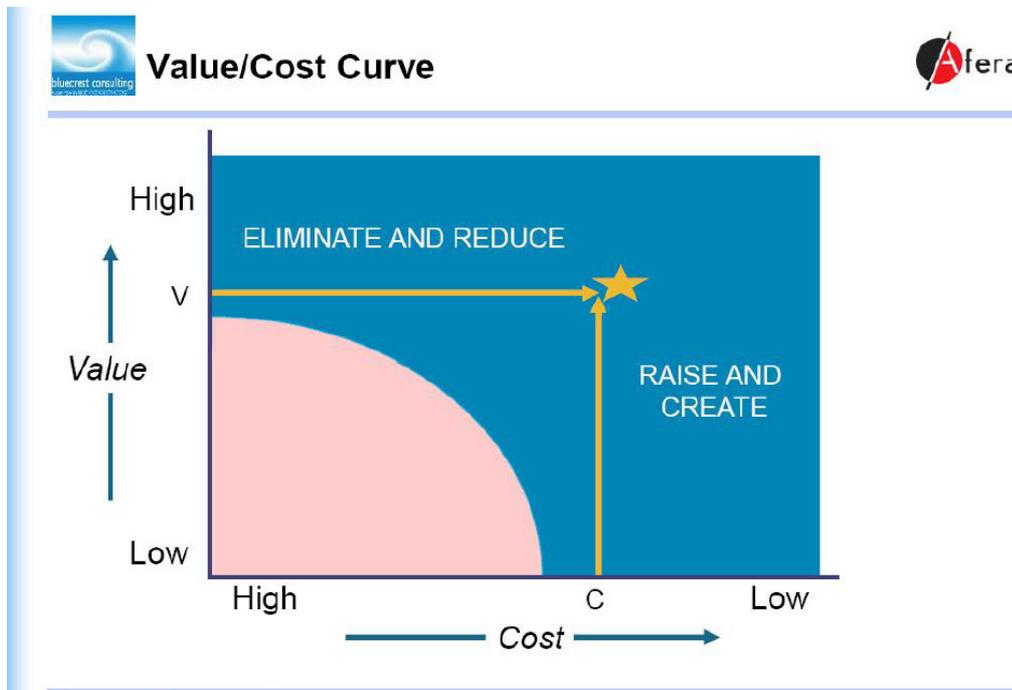
The most illustrative example Lauren used in her presentation for the concept of blue ocean thinking was that of the Wii in the gaming market. In order to meet their competition, PlayStation and Xbox, Nintendo opted for a strategy which was completely in line with Blue Ocean thinking. They redefined their value proposition by going into the market, asking questions of not only their end users (young males) – but in this case parents and girls – and took these answers to provide a different value proposition. So whereas all games were originally geared towards a passive activity, which one could play on ones own, was predominantly oriented to male youths and had 'realistic' images (including their own GameCube), Nintendo found out that parents were concerned about the fact that gaming was solitary and inactive, and girls were feeling left out. The Wii introduced a product which in more common language, would be considered out the box thinking, and designed a concept which involved activity, could be played by one or more, in which the visuals were not realistic, and developed games which were more appealing to girls. The graph below shows how this 'paid' off for them.



### Red versus Blue

Lauren's animated presentation was drawn not only from personal experience but also from a book of the same name authored by W Chan Kim and René Mauborgne. The red ocean, to the blue one Lauren spoke about, is filled with industries, products, services which currently exist. Competitors all know one another, use one another as a benchmark and provides a product offering which all looks a little the same. There is little differentiation within it from the customers viewpoint. In a blue ocean there is a world of products, services, businesses, industries which we do not yet know. Imagine some of the things we know today, but which 20 years ago were unthinkable, unknown. They too, were in their time, partially from the blue ocean. Lauren agreed that Blue Ocean thinking was somewhat counter intuitive behaviour, but she went on in her presentation to sustain that even if a small part of a company's portfolio had blue ocean thinking behind it profitable advantages were possible. Crucial to the successful implementation of blue

ocean thinking however is giving equal weight to value and innovation, “... value without innovation can be replicated, innovation without value makes it irrelevant.” Blue Ocean Strategy thinking defines innovation in terms of value to the customer. The Wii was an innovative product on the market which gave value to elements of the market which were not 'included' in earlier products, and did so at a cost which met the expectations of both the company and the customers. Today, the competition is copying Nintendo – by adopting its value curve.



Six Paths Framework

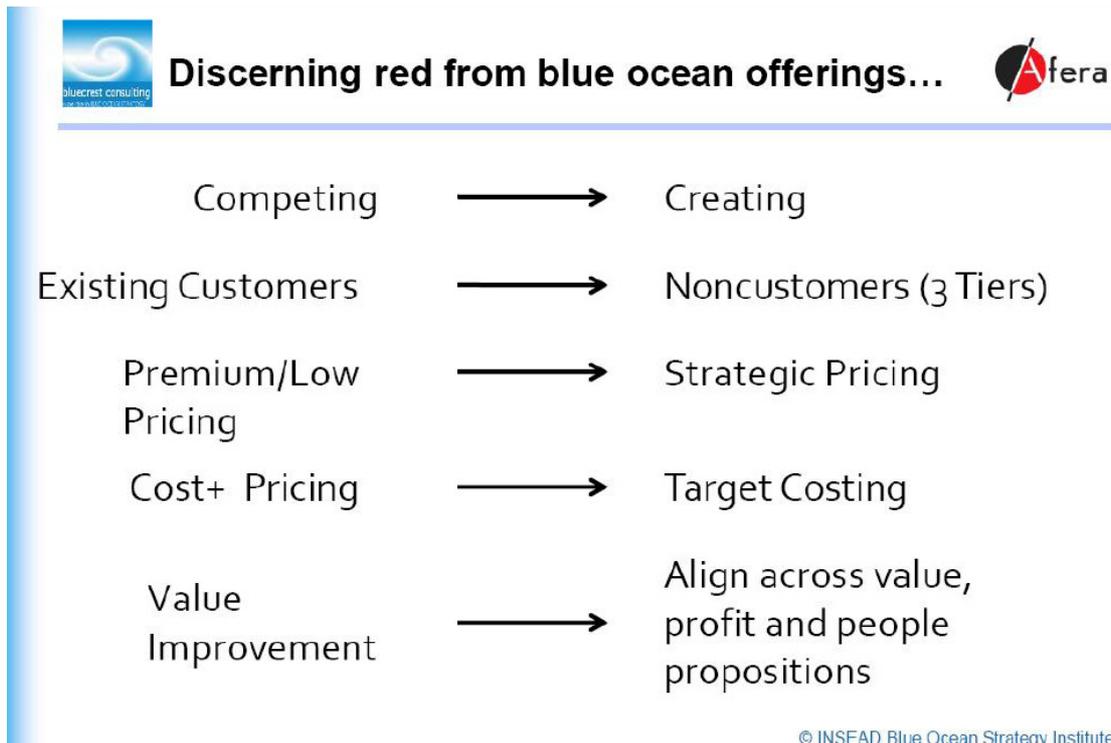
Lauren shared six hints for finding one's Blue Ocean Strategy, and reconstructing your offering. With the starting point being: if you all look like each other how can a customer find you, above the others? In order to 'find' your blue ocean Lauren suggested: look outside of your industry, to alternative industries, for inspiration, ideas. Find 'strategic groups' from which to learn – who do they cater for? How? Take a closer look across the chain of buyers, are there ways you can improve, provide a new form of delivering? Are there complementary products and services you can provide? Is the appeal of your product emotional or functional? Can it be tailored to be both? Here, Lauren used an example of a cement producer in Mexico which added an 'emotional appeal' to cement, by offering its product to gift lists of newly weds, since many young couples in Mexico were 'saving' to build a home – and well, you need cement to build a home. By adding an emotional appeal to their product, which was essentially a functional one, they increased their share of the market by drawing on a different segment, in a different manner. And, the final path of the framework, was to look at your offering across time and trends, and identify where you can provide a value offering. Can you add innovation to your product which meets emerging trends – such as being greener, producing less waste at the consumer level?

Once the canvas has been sketched by the above, the criteria for success rests on focus, divergence, and compelling tag-lines. By deciding what to *eliminate*, what to *raise* or *reduce* the industry standard on, and what can be *created* new within the industry a new value proposition can be identified by. A successful blue ocean strategy provides unprecedented value, at a strategic price, is driven by target cost and is willing to overcome hurdles. Once embarked upon it has to be

decisive to your business, irreversible and have a clear trajectory.

### Creating a sustainable strategy

Three propositions complement and reinforce each other in order to create a sustainable strategy. The *value proposition*, the utility buyers receive from an offering minus the price they pay for it. The *profit proposition*, the revenues an organization generates from an offering minus the cost to produce and deliver it, and the *people proposition*. How to motivate employees and partners to implement the value proposition.



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Lauren was more than aware that Blue Ocean thinking was counter-intuitive and would face some resistance within companies. Any change meets resistance, and this particular way of thinking will also result in different management requirements. In order to engage all levels to work towards new ways of thinking, the canvas created by the Six Paths Framework to illustrate (define) a new value proposition becomes in and of itself a tool which ultimately creates communication. For an effective people proposition Lauren shared the Three E principles: Engagement, Explanation and Expectation Clarity. Engagement involves individuals in the strategic decisions that affect them by asking for their input and allowing them to refute the merits of one another's ideas and assumptions. Communicates management's respect for individuals and their ideas. Explanation ensures everyone involved and affected understands why the final strategic decisions are made as they are and develops trust between employees and managers. And, expectation clarity provides a clear statement of the new rules of the game, and clarifies the standards by which employees will be judged as well as penalties for failure.

In closing Lauren left us with a quote from Joseph Schumpeter (1883-1950), an American-Austrian economist and political scientist who said "...entrepreneurial spirit comes from innovation and growth."

Link to site: [www.bluecrestconsulting.com](http://www.bluecrestconsulting.com)

## 'The next Trend in Design' by James Woudhuysen De Montfort University (UK)

No doubt the most entertaining presentation of the conference was that of James Woudhuysen, who engaged the audience to take them on a journey of discovery if you will. He has always been interested in the future, but is by no means a forecaster, and was by no means going to tell the audience what the next trend was. The next trend could only be 'seen' by encouraging innovation, which he highlighted during his presentation. At the core of his plea to all was to stay informed, look beyond the regular sources of information to find out what others are doing. Read the China Times he advised, from it trends could be cleaned and we would be even more aware of what future needs may well be. The Chinese are reading our papers, know what we are up to, do we know what they are up to? In terms of innovation. He maintains it is rather stupid of us to think that we, in the West, have answers for the East. In the interests of internationalism, but also innovation, we need to know about and work with the East.

### Big Potatoes Manifest

In James' opinion we have lost the need to think big, to be ambitious. It is regarded as irrelevant, yet is a motor to creating an environment of innovative thought and process. The main ethos for innovation is changing peoples behaviours, as is evidenced by the innovations which have accompanied peoples increasing demand for products which consider the environment, tackle climate change. Were it not for this change in behaviour products we see on the market today would not have had the stimulus to be thought of, innovated.

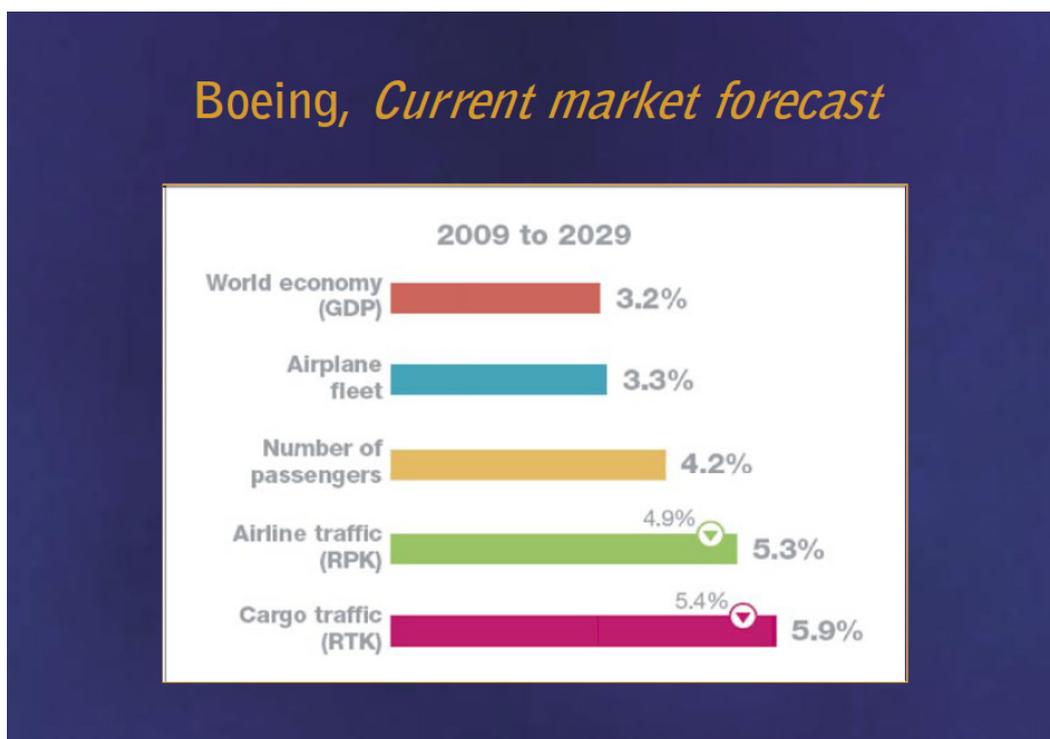
But, how does one forecast for the right trend, anticipate the future? For James we need to rehabilitate the way in which we think, how we think. We need the ambition, willingness and leadership to go beyond the limits in order to have more impact. James referred to the Big Potatoes Manifesto, The London Manifesto for Innovation, in which 14 principles provide a path towards rehabilitated thinking and thus lay the groundwork for innovation: (1) Think big; – the growing Asian market are not simply new consumers, they are possibly new innovators. (2) Think post-war legacy – what are the new wave of industries needed today. (3) Think principles not models –innovation cannot prosper without curiosity, serendipity, unpredictable outcomes, inspiring vision, and sheer hard work. But these things are principles, not models of innovation. (4) Put the research back into R&D – without aggressive research, there will be no major, new or surprising industries. (5) Be prepared to work *hard* – what Thomas Edison said of genius remains true today of innovation – it is one per cent inspiration and 99 per cent perspiration. (6) Expect failures before you book success. (7) Regard chance and surprise as allies – think of the number of innovations which took place because of chance. (8) Not surprisingly in this list of principles, take risks, confront them head on, like the railways did the mountains they had to go around or get through. (9) Assume leadership in innovation – innovation demands not further empathy, trust or Key Performance Indicators, but vision, commitment, brains and, yes, a little personal heroism too. (10) Everyone has a role in innovation – innovation is not just for private firms, large and small. In different ways, it is also for nations, public sector organisations, and for other, 'third sector' bodies. It encompasses changes in organisation, and can include changes in design. (11) Trust the people, not regulations – more regulations will not enhance innovation, people thinking free of regulations will. (12) Think, and *act* global – an innovation should aim to benefit the whole world,

not any particular purse or nation. (13) The spirit of innovation should 'know no limits' – there is no recipe for it, and it should not be circumscribed by trends. The current focus on the environment may be limiting the potential scope of innovation, but innovation should be open to anything and everything. There are no 'peaks' to innovation. (14) The conception of innovation outlined in the Big Potatoes Manifesto is humanistic – innovation should be by, with and for humanity – geared towards a higher human quality of life and societal progress.

### Spuds for design in the tape industry

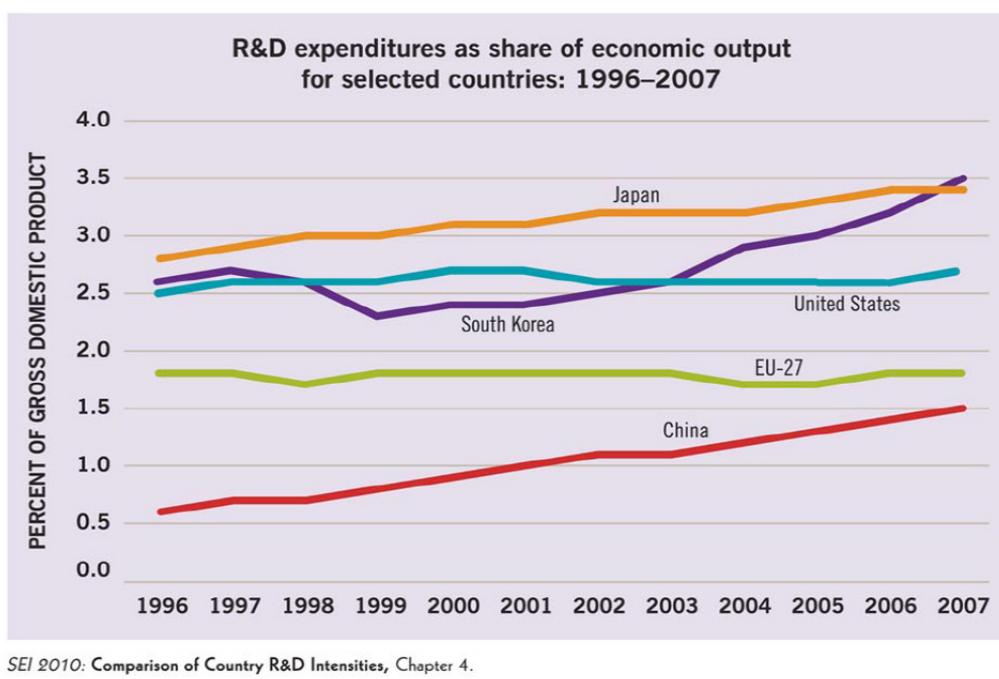
What does all this mean for the tape industry? Playing with another English word for potatoes, 'spuds', James highlighted a few of direct relevance to the Afera membership. The first point, which James could not stress enough during his presentation was that of being informed, improving skills, reading more, collecting data. In order to stimulate innovative thinking within the workplace he suggested encouraging employees to read about innovation, discuss innovators of the past. By bringing the discussion to the workplace a climate for curiosity is created and can be built upon. Look to the China Times, Times of India for ideas, inspiration, revelations. The West does not have all the answers for the East – but the East keeps track of what we are up to, need, and do respond with their own innovations. Look at the growth industries for ideas for new applications.

Designing for lower prices – working towards cost reduction and not only increased productivity will be the way of the future. Cutting the price of tape will be an important issue which in turn will improve productivity, volume and economies of scale. Search for applications in markets which will grow, such as the airline industry, infrastructural networks, high-speed networks, airfreight and rail infrastructure. Does the tape industry have designs, applications for them, which would benefit this growth? Think about the growing mobile phone industry. India alone has 30,000 new subscribers per month. Are there areas of application there that can be prepared for?



Investing in R&D is no guarantee for increased innovation/profit, however, not investing enough

means not being prepared for the future. James asked if there were tapes that detected things – for pharmaceutical packaging industry perhaps. Researching potential of tapes for the nano particles, chemical, electronic industries could put the industry at the forefront, but if it is being done it is still unknown, behind closed doors. There are electronic innovations on the market – for detecting nano-particles or ensuring medication is taken. Can the tape industry provide options? Science and technology need to be upheld, progress of the past seen as inspiration for new discoveries.



Finally, picking up on another recurring theme during the presentations this year, the ageing baby-boomer population was highlighted. They are quick learners he assured, a growing market which will be looking for alternatives to doing things their older age may prevent them from doing. A tape can join something much easier than a hammer – when you are older. But this public is not aware of the alternatives that exist from the adhesive industry and there are no doubt more possibilities which could be offered to them. They would be, in Lauren Mathys' words, part of the Blue Ocean, if they knew what the industry had for them.

In closing, James said than in order to be able to anticipate the next trend, companies needed to abandon limits, take risks, take a good informed look *all* around them, and importantly, work hard.

Perhaps include link to his website: <http://www.woudhuysen.com/> or that of Big Potatoes Manifesto <http://www.bigpotatoes.org>

## 'Beyond Limits' by Bruno Baumann

Bruno is a German Extreme Adventurer, considered one of the foremost experts on Tibet and the Himalayan region. During his presentation at the Afera Annual Conference, Bruno drew parallels from his experience in 'conquering' the desert of Tibet with that of conquering unknown terrain in

industry. It was a story of crossing personal limits, borders and being subjectively open to new challenges.

The desert as an example of crossing limits can teach us so much. Needless to say, the value and role of water was foremost, without the basic ingredient survival was not possible. From the silence of the desert from which one has to listen to oneself and the silent messages of the desert itself – the moving sands, the 'vegetation', Bruno drew the parallel to the market. Managers needed to listen to the messages being sent by the market – in all its facets. The desert also reminds us to accept the basic principle of life, that only change is constant. The person who stops moving in the desert, perishes. Those not open to learning new experiences will atrophy. And, finally, with a support network, challenges can be met.

### The journey

Bruno's first crossing of the Gobi desert, in **1994**, was accomplished with the support of a team and 30 camels. Calculations about the amount of water which would be needed, for how many people, and number of camels was relatively realistically put together. The camels were in fact needed to carry the water which all would require to accomplish the mission. Bruno did admit to some oversights in his calculations – such that not all the camels survived the journey, but it was overall a well planned, supported adventure. One, which Bruno was determined to repeat – on his own. Disregarding local knowledge and folklore about the availability of water along the way, Bruno set out in 1996 to repeat the journey on his own. It failed miserably after four days and Bruno vowed never to do it again. Nonetheless, when approached by a determined team of CEOs who wanted to undertake the adventure as part of an intense team building project, he agreed to lead them on their own journey. At the time, it never occurred to him that there was a relevance to what he did to the business world.

Along the way 6 left the 'team'. This was not in Bruno's opinion a reflection of failure, simply that the team composition was not for them. Taken all together there were too many conflicting characters, strengths and weaknesses to work effectively as a whole. Bruno witnessed the value of a balance in effective team cooperation when there was a balance between innovation and leadership. Too many controllers meant there was resistance to innovation, balanced with creativity it resulted in a continuum in which vision led to action. Working together was crucial – but knowing one self was ultimately the key to effectively working with others – knowing who had right competencies for the challenge ahead, including ones own, and assuming required leadership for change.

The success of this crossing eased the burden of Bruno's failure in 1996, and as time passed he regarded it less as a failure and more a step towards the ultimate goal. He realised it was simply too great a step to have gone from fully supported to completely alone. Innovation he commented, was in fact not possible without mistakes, because it is these that provide the capital for taking calculated risks. He spent the next few years preparing to meet his goal again, but this time he took his time and prepared better. He used the insight, knowledge and experience gathered from earlier visits; inquired more respectfully the local knowledge of the region; undertook shorter forays in preparation of the final route, 'miraculously' discovering water at a potential mid way point. The video clip taken on a camera located on his knapsack captured the moment he saw a sign from the desert which indicated water, and dug deeper to be rewarded by the discovery of a

well. This discovery was to be the final bit of required information before he did the trip in one go. In **October 2003**, Bruno made history by being the first man who crossed the sandy heart of the Gobi desert solo on foot. His success rested firmly on having given balanced consideration to rational thought with intuitive motivation and the capital he had acquired along the way. Better preparation and improved quality of the equipment were also significant contributors to his success.

#### The lessons

Experience is all that counts when moving forward. From his experiences, from the desert, Bruno learnt that if you are not willing to give and take you cannot expect to achieve anything. If vision and motivation are lacking direction is not clear. When there is disharmony between time and expectation disaster, failure, may be around the corner.

Link: <http://www.bruno-baumann.de/en/my-experiences/experiences-and-biography/biography/?PHPSESSID=0de8e3807b3cb791443c51d195ccdbbc>