imformation

# The Southern Branch – “Need to Paint your Wagon”

The Southern Branch of the IMF held a mini symposium entitled “Need to Paint Your Wagon” on Wednesday 5th October at Lloyd’s Register Global Technology Centre on the university campus in Southampton.

This was the very first venture for the IMF into painting technology and was met with a little apprehension by all committee members but the idea was to promote the IMF as a “Materials Finishing” institute rather than just metal finishing (e.g. Electroplating et al.).

The subjects chosen for the evening were:
Super Yacht Finishing • Aerospace Coatings
Cycle Painting (unfortunately cancelled) • Spray Painting Equipment

**Stuart Downie (Lloyds Register) presented Super Yacht Finishing**

These yachts range from 45 – 200 metres in length with prices up to $1 million per metre and, as most of these Super Yachts are made from steel, then painting is very important for corrosion protection.

These yachts tend to be “toys” for the wealthy and obviously paying such a high price for such a “toy” commands a high expectation for a superior paint finish.

Most paint colours are generally white/ dark blue and the paint application must fit criteria such as mirror finish, smooth profile, and the highest possible gloss. Most importantly it should last a long time.

Comparing this with commercial ships these generally have a lower gloss, colour decided by the owner of the ship, and reasonable corrosion protection.Finish quality is not that important.

Also painting a Super Yacht can be years compared to painting cars, which is relatively quick. In order to obtain the high quality it all comes down to the preparation which is broken down into: Filling and Fairing with epoxy materials, sanding, painting, sanding, painting for at least 5 - 6 coats and finally finishing with the “Ultimate Coat” which adds the superior gloss and also the expense.

The customer is looking for a finish that is highly reflective and totally free from blemishes, ripples and any surface defects and ultimately looks like a reflection from a highly polished mirror.

# imf news

## IMF Events

**March 2017**
22nd - 23rd March
Surface World

**June 2017**
2nd June
Education Enrolment Date

## Northern Branch Events

**March 2017**
4th March
Annual Dinner Dance
Thorpe Park Hotel & Spa

## Southern Branch Events

**May 2017**
23rd May
at FAST, Farnorough
Aerospace Theme

## Keep in Touch

Please make sure we have you contact details up to date. Any changes please contact David on 0121 622 7387 or email: david@materialfinishing.org

Our second speaker was Graham Armstrong from Indestructible Paints

Indestructible Paints have been involved in the aircraft and aerospace industry for over 50 years and Graham discussed the applications that use these types of paints.

The most important thing for an aircraft is weight and getting the minimum amount of paint to give the maximum amount of corrosion protection is important and challenging.

An aircraft is built once but overhauled many times and the types of paints used are important because an "A.O.G" (aircraft on ground) costs money and therefore need to last.

Paints used are divided into Anti Corrosive Primers that are used on external surfaces and are generally 2 pack epoxy polyurethane finishes and on a large aircraft such as the A380 airbus can used as much as 5000 litres.

Finishing coats are hard 2 coat polyurethane types which are designed to last up to 7 years, they are generally metallic/pearl finishes that must have a flexible resistance and capable of taking bold designs such as aircraft logos.

The flexible finish paints must have good gloss retention and are used on the wings of the aircraft and again are designed to last at least 7 years.

Erosion resistant paints are used on propellers and they must stand rain and particle erosion and also aero engines which are low temperature/high temperature, require paints that have high corrosion resistance and low erosion. Engineering coating paints are used for wheels and brakes.

Aircraft interiors are generally made from composite materials. These must be non burning, non smoking types of materials and usually these are finished similar to the Super Yacht but not to quite the same degree.

**Our final speaker was Steve Mannouch from Finishing Brands who supply paint equipment to the paint industry.**

Finishing Brands develop and design equipment for the paint industry and Steve explained the basis of atomization and fluid dynamics by showing videos of how actual spray patterns and air movement away from the gun nozzle affect the final finish on the painted component.

By using this knowledge together with droplet size the distribution of paint can be seen.

Steve then went on to talk about "airless atomization" using hydraulic principles with high viscosity materials, "electrostatic" painting together with centrifugal and electrostatic atomization.

The committee of the Southern Branch felt that the evening was a success and would like to thank Stuart Downie, Graham Armstrong and Steve Mannouch for their time in the preparation and giving of the papers and to our exhibitors:

- **Finishing Brands**
- **AGAS Electronic Materials**
- **Metalor**
- **Indestructible Paints**
- **Institute of Materials Finishing**

Further Information about the seminars can be found on the IMF website :-

www.materialsfinishing.org

**John Burgess**

Pexa is very proud to have achieved the award of "National Champion" in the European Business Awards sponsored by RSM, Europe's largest business competition. We are the only company in the finishing industry to make this stage of the competition and we need your support to get to the next level of "National Public Champion". If we are successful, this will bring positive attention to our business and our wider industry. If you would like to support us please go to https://goo.gl/F6yQb6 and take a look at our video story which supports our entry. Please vote for us there and your vote will count towards our chance of success. Thanks for taking the trouble to vote for Pexa, your support is very important to us. We would like a UK business to make an impact in this year's awards to help demonstrate our commitment to remaining a key participant in the European economy.

Please feel free to share this link via social media as we will benefit from the maximum exposure.

European Business Awards™

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# Secretary General's Column; February 2017

Its been a pretty hectic time since the AGM, as we all take on the responsibilities of our new roles, and try not to tread on each others toes!

We welcomed our new treasurer Nick Johnson to the Institute at the AGM, and it is pleasing to note that he is really getting to grips with our accounts, and even more pleasing to see that our finances are in a pretty healthy state!

Whilst Barry and I have been helping Nick get his feet under the table, we have also been working with the Education and Training Committee and the Organic Group as they look for new Chairmen as the previous encumbments have had to resign for either work or personal reasons.

Both committees contribute greatly to the knowledge and working of our august institute, and strong leadership is a neccessity to our continued success. It is pleasing therefore to report that the new chairpersons are in place and their first committee meetings are scheduled for the near future.

As part of the re-vamping of the Organic Group the Marketing & Membership team have agreed to take on the responsibilty for the organisation of conferences and seminars. Already in planning is the next in the successful series of IMFair conferences, which is being scheduled for 2018. This had been started by the previous Organic Group committee, but as we now want that Group to focus more on technical issues with paints and paint finishing, it makes much better sense for M&M to take this over.

The Education and Training committe will, I am sure, continue to look to increase our successful offer on both technical and practical training. It is pleasing to note that we have had another successful enrolment session for both Foundation and Technician courses, and also to record increased interest in the practical application courses on paint and powder application, with three courses scheduled for the next few weeks.

Your Board continues to monitor external influences that could affect our industry; it is still to early to predict the effects of Brexit, but the current political machinations don't help us to keep on top of everything thats happening! Our involvement with the industry "Cross Sector Group" on REACH helps us monitor both industry and the Government's view on these regulations as we move away from the European Union; the view coming through that group from all sectors of industry and retail is that once we split from the single market, to ensure continued straight forward trade with the EU will mean we will have to continue to work closely with, and probably adopt the REACH regulations into UK law.

We are watching closely the proposals for new chemicals to be recorded as Substances of Very High Concern, including titanium dioxide and bisphenol A, and their possible inclusion in Annex XIV. We are aware that several interested groups within Europe are lobbying to ensure a sensible outcome, and we will continue to monitor events.

2017 promises to be another challenging, but vibrant year; one I'm really looking forward to!

Graham Armstrong

# Coventya completes first two add-on acquisitions since Silverfleet invested in May 2016

Coventya, headquartered in Villeneuve-la-Garenne near Paris, is a global, leading specialty chemicals group focused on surface treatment to the automotive, construction, luxury and consumer goods, data storage, and oil & gas industries, has made two add on acquisitions, both in Turkey

In the larger of the two deals Coventya has acquired an 80.6% interest in Borsa Istanbul listed Politeknik Metal Sanayi ve Ticaret A.S. ("Politeknik"), a leading manufacturer of aluminum surface treatment ("AST") chemicals and the corresponding application equipment with revenues of over €9 million. Coventya will also launch a mandatory tender offer ("MTO") for the remaining 19.4% of the company's shares in compliance with the principles and procedure of the Capital Markets Board of Turkey. Politeknik, which has a world class manufacturing facility in Tuzla, Istanbul, also has an affiliated company in the USA, based in Atlanta, and currently exports 20% of its chemical sales. Coventya plans to use its worldwide distribution network to help further penetrate the AST chemicals market in the USA and Europe. The lightweight properties of aluminum are driving growth in its usage in the automotive, construction and several other sectors. Further to its own product range, mainly established in the aerospace sector, Coventya sees the addition of the rich Politeknik portfolio as a perfect addition, including its vast number of processes with QUALICOAT or QUALANODE approvals.

The company's second transaction is the acquisition of Telbis. With revenues of c.€3 million, Telbis is Coventya's exclusive distributor of chemicals to the general metal finishing ("GMF") market in Turkey. Telbis, which will be renamed Coventya Kimya, will be able to draw on the resources of the group to gain market share in the region.

Thomas Costa, CEO, and Torsten Becker, CFO of Coventya commented: "We are delighted that these two acquisitions will both reinforce our expertise in aluminium surface treatment and further develop our international footprint in GMF by creating a direct presence in Turkey and further develop Coventya's range of technologies and its international presence."

# Surface World Live 2017 Everyone is going ....

After many years of being held in the Pavilion at the NEC in Birmingham it has been decided to move the show into Hall 7 which is a much more modern and brighter space. The show has also been expanded and is now bigger than ever … better than ever … and has over 110 exhibitors to date. You can visit the show on March 22nd and 23rd 2017. The doors open on each day at 9.00am.

With the growth of the show a new area has been introduced, the British Surface Treatment Suppliers Association (BSTSA) Visitors Lounge. Here you can meet many new companies attending Surface World Live for the first time and speak to representatives of the BSTSA and find out how they can help support your business.

There will be two Live Theatres at Surface World Live 2017 which will be holding various insightful seminars throughout both days exploring topics from the latest in surface engineering research, how to maintain quality and maximise sustainability, research & development tax relief on the day to day activities of Surface Engineers, through to health & safety issues to be considered within your company to help protect you and your employees, what you need to consider for your business relations post Brexit, how to avoid making costly mistakes with your latest online projects and how to maximise your use of social media, and much more ....

For the first time in many years you can meet representatives from all of the leading trade and professional associations that support the surface finishing industry.

Come to the show and visit the Knowledge Centre to make the most of their vast knowledge and gain valuable information on how they can benefit your business.

If you are considering placing an order or looking to update your plant, or maybe you just need advice to solve a finishing problem, you can save time and money by visiting Surface World Live 2017. There will be plenty of exclusive offers and discounts only available to visitors at the show.

Registration for Surface World Live 2017 is now open online so visit www.surfaceworld.com. Click on the Register to Attend Surface World Live 2017' link and complete your details to receive your FREE ENTRY bar code, this will be exchanged for your badge card upon arrival at the show. You can also see the latest exhibitor list and floor plan online by entering the Floor Plan & Exhibitor List link below.

With 110+ exhibitors, including 40 exhibiting for the first time, can you afford to miss Surface World Live 2017?
Everyone is going .... Are you?

Visit: www.surfaceworld.com
Register: www.onlineregistration.co.uk/shows/surfaceworld/17/regsurface.php?new=1
Exhibitor List: www.surfaceworld.com/surface-world-live/floor-plan-exhibitor-list

**For more information on Surface World Live 2017 please contact: Jane Soones**
**Email: janesoones@hillmedia.com**
**Telephone: 01442 826826**

# Coatings – an industrial update.

The IMF's Science Committee has recently reviewed the market impact of the coatings industry and believes that it impacts 50% of all manufacturing sales. Between 2012 and 2015 the total manufacturing sales in the UK grew by 5%, from £341bn to £358bn, but in updating the data used in an earlier SEAC SIG report, we found that the surface engineering sector's sales had grown by about 20%, from £11.2bn in 2012 to £13.5bn in 2015. It was also found that the sale of these products directly impacted products worth an estimated £173bn, compared with £140bn in 2012, an increase of almost 24%.

By 2015 surface coatings accounted for slightly less than 8% of the total manufacturing sales.

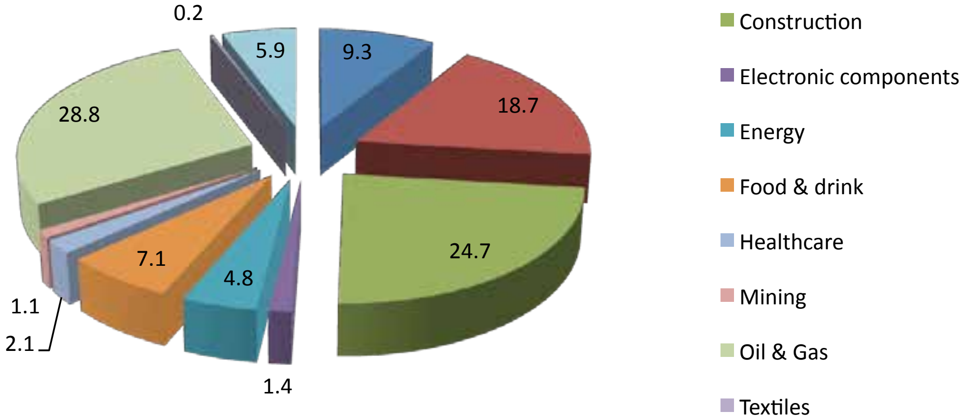


Figure 1: The percentage share of surface coatings, by industrial sector

The surface engineering market embraces virtually all manufacturing sectors, but is dominated by the very diverse sectors of oil and gas, construction and automotive (Figure 1).

The oil and gas industries require virtually every type of available coating, many of which must provide high levels of both chemical and abrasion resistance, whilst others must provide specialist features, such as intumescent and heat resistant properties. Conversely, the construction industry's demands on surface coatings are more focussed on using wet paints, plastics and powder coatings.

Similarly, both the automotive and aerospace industries use high volumes of paints and powder coatings, as well as electroplating, anodising and thermal spraying for component protection and corrosion.

The effects of corrosion are all embracing and surface engineers are extremely active in the field of corrosion protection. It is estimated that corrosion costs the USA 6.2% of GDP, with the majority being caused by utilities (34.7%) and transport (21.5%).

No comparable data are available for the UK and Europe, but we believe the figures to be similar to those in the USA. In 2000 it was estimated that up to 35% of all costs incurred through corrosion could be avoided, although the savings were very variable and sector specific.

However, through using recently developed corrosion control technologies, by 2016 this was down to 20-25%; this opportunity could save the UK's economy between £27-35bn. Despite the advances made in corrosion protection, in 2010 the US Department of Defense estimated that corrosion cost the department 3.5% of their annual budget. Of this, only 9% of the costs were within the military infrastructure and facilities, with the remaining 91% being incurred by the weapons systems and equipment corrosion.

**Trevor Crichton**



# welcome
## new members

### Graduate Member

**Eugenia Tranca**
Twickenham Plating

### Associate Member

**Mark Short**
Confederate Chemicals Ltd

### Affiliate Member

**Mark Short**
Confederate Chemicals Ltd

**Alanna Draper-Webster**
NMB Minebea

**Andrew McCourt**
R A Chilton

**Anna Nowosad-Naklicka**
Interplex PMP

**Bartosz Stopczyk**
Silchrome Plating

**Brian Cobbold**
Cobbold & Co Ltd

**Carl Davies**
R A Chilton

# welcome
## new members

### Affiliate Member

**Charlotte Wicketts**
Frost Electroplating

**Craig Fairley**
Safran

**Dale O'Brien**
NMB Minebea

**Daniel High**
Interplex PMP

**David Mather**
Interplex PMP

**Debbie Redpath**
Interplex PMP

**Ganesh Rajalingam**
Lufthansa Technik

**Gareth Driscoll**
Zodiac Seats UK Ltd

**Heather Blaine**
Interplex PMP

**Ivan Santos**
Stainless Plating

**Jake Tannahill**
Frost Electroplating





# welcome
## new members

### Affiliate Member

**James Bennett**
Safran

**James Lyone**
Tewkesbury Diamond Chrome

**Jaroslaw Wyrobek**
Interplex PMP

**Kevin Drury**
Exotec Precision

**Kirill Djatsenko**
West Middlesex Surface

**Lukasz Jankiewicz**
Lufthansa Technik

**Mark Fowler**
Stainless Plating

**Nicholas Nyamayedenga**
Silchrome Plating

**Paul Bailey**
Silchrome Plating

**Rebecca Hughes**
Royal Mint

# welcome
## new members

### Affiliate Member

**Robert Cable**
Exotec Precision

**Ronald Storer**
Frost Electroplating

**Samual Wright**
UTC Aerospace

**Shashi Kaushai**
Lufthansa Technik

**William Storer**
Frost Electroplating



**Next Enrolment date for Training Courses is**

**2nd June 2017**

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