

# UV-cured Printers Inks, Media & Substrates

What's Available in 2013

A circular logo with a silver border and wings extending from the sides. The text inside the circle reads "FESPA DIGITAL 2013" in blue and white.

**FESPA**  
**DIGITAL**  
**2013**

## Benefits of attending FESPA 2013

At FESPA you have an opportunity to get to know companies which do not exhibit at local or even regional expos. FESPA Digital is truly international. Although several companies said clearly they did not exhibit here in 2013 because London was too overpriced, there were enough other companies who did exhibit.

There are two free FLAAR Reports on FESPA and about six more which can be obtained by ordering them. In these additional TRENDS reports we mention the full pros and cons of the openly discussed downsides of Ex-Cel as a venue. But the present report primarily lists the benefits of attending FESPA, yet keeps in mind that many people decided to skip this expo because the expo location was too far from Heathrow (being next door to a tiny local airport did not help most attendees). Plus FESPA 2013 dates were too close to Serigrafia Print dates in Brazil and too close to APPPEXPO 2013 dates in Shanghai.

But the FESPA team clearly worked hard and thousands of booth personnel spent long hours preparing their booths and then providing services during the five long days.

The primary benefits of attending FESPA 2013 were being able to experience new technology, as well as getting to know the UK companies which rarely exhibit outside the UK.

You now have Part I of our free FLAAR Reports on FESPA. To receive Part II please **CLICK** on the button which takes you to a quick **Subscribe** page.

Once you **Subscribe**, you will receive Part II within 48 hours. Plus you will receive all other introductory FLAAR trade show reports all year long (no cost).

Starting with Sign Africa (next month), only if you have clicked for a **Subscription**, will we be able to send you the free FLAAR Reports.

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FESPA London, 2013.

## New Technology with the most potential

The new HP Scitex 3000 printer overcomes one of the serious downsides of earlier generation latex printers: the extreme curing temperatures.

The HP Latex 3000 is still new, and I would need to see it in a demo room and out in the real world (in a print shop) before I issue an actual evaluation.

But this new technology definitely deserves an award for innovation. Clearly a lot of ink chemists and engineers at the ink company, at HP Scitex, and partners worked diligently to produce this solution.

I hope the ink chemists can also improve the color gamut dramatically. The colors are closer to the UV-color gamut and a long way from the color gamut of, for example, Seiko ColorPainter. But still, the HP Latex 3000 is deserving of an award for innovation.

Since we at FLAAR have been the only industry resource to caution on excessive claims for the earlier generation, for us to clearly point out the advances of this new generation is more telling than a PR release that merely regurgitates other PR releases.

I would need to be convinced that all the claims made for this new generation are realistic (what I heard the speaker claim in front of the printer was a tad excessive with each claim: everything was “unlimited” or “everything was possible.” No printer can produce everything perfectly.

Still, this printer warrants attention, and the team(s) behind this at HP deserve recognition.



HP Scitex 3000 printer.



Four different brands with Memjet printhead technology by now.

## New printhead technology with significant potential

There are four brands of 42” wide format printers with Memjet printhead technology. In the separate TRENDS level on Memjet we discuss which was the best of all the Memjet variants exhibited at FESPA 2013.

PR releases by Silverbrook on these MEMS printheads over the last four years have varied from unrealistic claims to endless repetitions of positive features which lacked negative results from real-world experience in an actual printshop. PR releases on Memjet have varied from a tad overstated to a tad unrealistic (but Memjet PR is not as ridiculous as was the PR from Silverbrook). However the version of Memjet in one booth was very impressive, and the distributor was open and honest in his discussion of this technology. We cover this in Part II.

One crucial grain of truth conspicuously lacking in all the PR about MEMS printhead technology, is a list of the issues, the delays in launches, and the delay between claimed availability and merely having test units out for finding out what works and what is still not ready.

For example, the total absence from FESPA of the Memjet printer of one brand was rather telling.

I spoke with a distributor who distributed a Memjet label printer for over a year. His comments are more realistic than any PR release; are more important to learn about than any demo room show. We discuss all of this in the separate FLAAR Report on TRENDS of Memjet and MEMS printhead technology.

This separate TRENDS level report is a nice and short report, since the comments are rather to the point.

If you are a distributor wanting to distribute Memjet printers, you really need to obtain this report.

If you are a manufacturer considering whether to invest in Memjet, this FLAAR Report should be one of many resources you should read. No pie charts, no bar charts, no endless statistics: just a straightforward reality check.

## Noticeable TRENDS: Flatbed Table Roller-Applicators

Perhaps six years ago I began to notice ROLLSROLLER. They had a presence at the most pertinent international expos. I was curious.

Then at VISCOM Germany a few years ago I noticed two competing products. All of a sudden there was more than one brand. But the other brands did not exhibit much outside their home territory. Since ROLLSROLLER was consistent: they exhibited at US expos and international expos, I felt this would be an interesting product for a FLAAR Reports evaluation. But there was no budget so we focused on studying other trends (inks, media, SUV technology, the evolving latex technology), etc.

Then at FESPA 2013, wow, now there were SIX brands, ROLLSROLLER plus five competitors.

- Bobis MultiApplicator
- BUBBLE-FREE Applicator
- LamiDesk Flatbed-Laminator
- ModulMounter Flatbed Laminator
- RollOver Flatbed Applicator

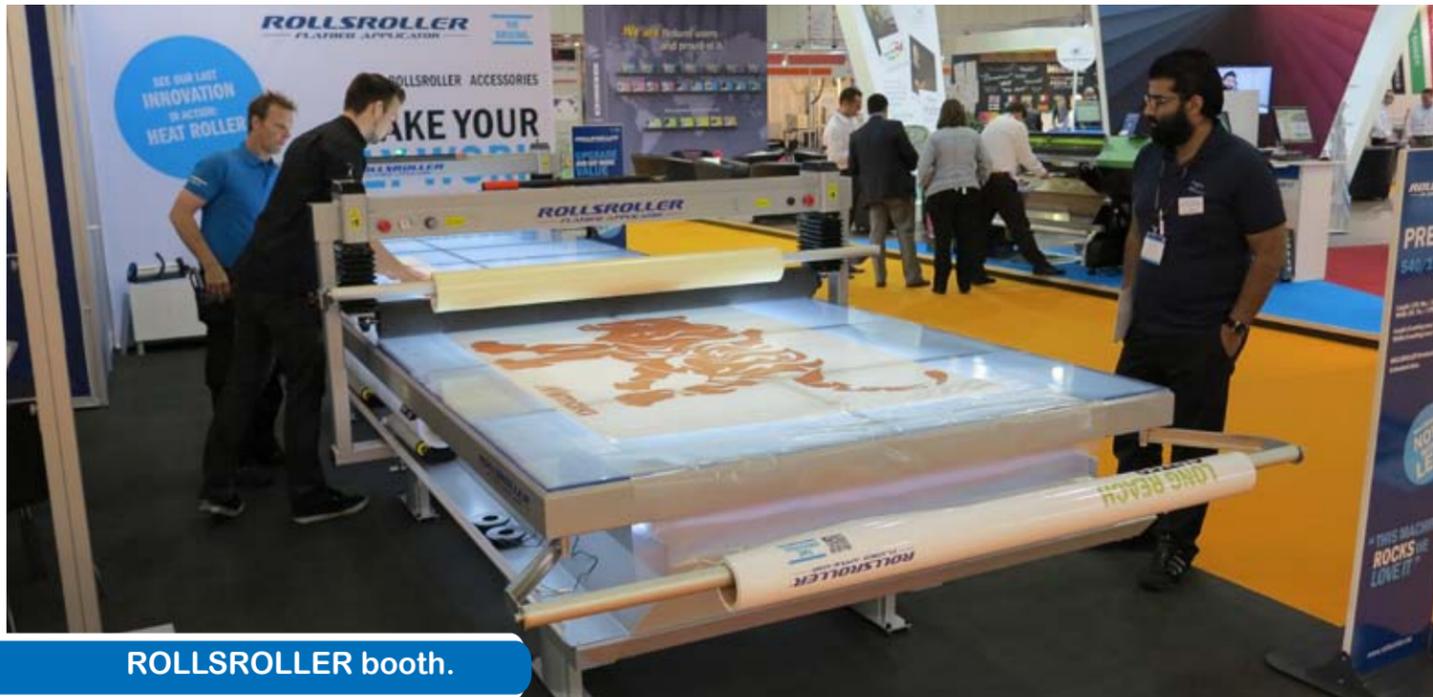
So now there is plenty of options for selecting one brand to do an evaluation (which consists of

visiting the factory and then print shops who are using that brand).

During the coming months we will consider which brand to focus on. In the meantime, in the Subscription Level report on FESPA 2013, we show all six brands. In our separate FLAAR Report on APPPEXPO 2013 Shanghai we reveal the new Chinese clones (which will offer competition for market share with the European brands).

Since I was a Research Professor of Digital Technology at two universities during the growth period of FLAAR evaluations, it would be interesting to study the origin of this concept (flatbed applicator) and to explain the difference between a roll-to-roll laminator and a flatbed applicator. Clearly someone had a good vision of what would help print shop work flow. And this individual had initiative to produce a useful product.

There are thousands of print shops around the world who do lamination with traditional roll-fed laminators. Now they have to chose from FIVE brands from EU and two new brands from Asia. So a FLAAR Report evaluation would be helpful.



ROLLSROLLER booth.

## Drytac no longer offers UV-cured coaters

Since Drytac no longer offers UV-cured coating machines there is a lack of knowledge in which brands replace the Drytac. There are now many more brands of UV-cured coaters. So it is a challenge for print shops and distributors to decide which brand is reliable. Recently we have been asked by Jim Tatum, Advanced Finishing Technologies, to evaluate his improved version of the former Drytac coater (what was available via Drytac is now available through AFT but enhanced with new features).

BURKLE is the high-end brand, but would need to compare price and performance to the former Drytac brand (Drytac itself did not manufacture these; they were rebranded).

## Not many traditional laminators at FESPA 2013

We show photos of the few brands of traditional laminators in the FREE Subscription edition of our FESPA 2013 Part II report (there are two different free reports on FESPA: one which you can download; and another which needs you to click acceptance of a (Free) Subscription via mailout

[Free Subscribe Button](#)



More laminators photos of the few brands observed at FESPA 2013 on the Part II report.



DigiFab booth at Fespa 2013.

## Textile printing

There were more textile printers at FESPA than expected. The week before FESPA two of us from FLAAR spent four days at ShanghaiTEX, which had more brands and models of textile printers than ITMA Asia (2012) and ITMA Barcelona (2011) put together.

In Free Subscription Level we introduce the new Agfa Ardeco 3312 direct-to-fabric disperse dye sublimation printer (which replaced the Agfa AquaJet).

In the present initial FLAAR Report on FESPA we discuss the printers which we know from experience (the MTEX printers are new and we have not yet been to their factory).



## DigiFab textile printing: the complete workflow

Three companies at FESPA London had their shipping containers damaged or destroyed by sloppy or careless handling or unfortunate accidents.

- One container was allegedly dropped into the sea or river.
- One container had the printer pretty well smashed inside.
- A container for DigiFab had their textile printer mashed to the point that they could not display it in the booth.

And yes, of course, this can happen anywhere in the world, but in fact allegedly this happened associated with this event at ExCel.

Plus there were more exhibitors complaining about excessive and unrealistic additional costs. In the last fifteen years only at unionized expo centers in USA have I heard even a fraction of the number of exhibitors complaining. When you couple this with non-existent attendance the final day, and low attendance portions of two other days, there were

definitely exhibitors who were upset.

But in fairness, I did hear several exhibitors say that they sold an acceptable quantity of their products. But in general the consistent comment everywhere was the high cost of everything in London, and the lack of attendance on at least two days that could have paid for all these high costs.

DigiFab is gradually expanding worldwide. I have visited the DigiFab offices in the garment district of Los Angeles many years ago. What most struck me about DigiFab, already over 10 years ago, was the color pop to their solutions. Partially it is their RIP software, and obviously the ink and printer workflow.

DigiFab is the only textile printer company which in effect has their own RIP (Evolution RIP). Yes, ErgoSoft has experience in textiles also well over a decade in depth, but what I note about DigiFab is that they know all aspects of fabrics, inks, machines, and the whole workflow.



DigiFab textile samples.



## ATPColor

With ATPColor we have been to their world headquarters recently (where all the engineering is undertaken) and the factory for the sticky belt portion (all outside Milano, a good place for knowledge of printing on fabrics in Italy). Plus we have been to a substantial printing company in Germany who bought an ATPColor grand-format textile printer and then liked it enough to buy a second one. No German company would buy a second printer if they did not like the first one.



ATPColor booth.

This was one of the most beautiful images at the show.

### Textile Inks

Of the dozen textile ink manufacturers at FESPA, the one we have the most experience with is Hongsam. Not only have we been to their factory, to their R&D labs, but a few weeks before FESPA we inspected the demo rooms of Hongsam outside Shanghai (the factory is in another city; the business center is outside Shanghai).



Hongsam booth.



Plus, most importantly, we were taken to visit two substantial printing companies: one using reactive dye ink of Hongsam on a sticky belt printer; the other using dye sublimation ink of Hongsam.

This is how we select which, out of dozens of inks, to present: factory visit and site-visit case-study out in the real world (since we need to present dozens of topics in this initial report).

As soon as we are taken to additional ink factories we will expand our coverage.

It helps to have an innovative display. Textile printer products tend to have initiative for handsome displays, as we see here at Everlight Chemical. We do not have experience with this company but look forward to learning more about them.

## Printer categories:

### Solvent

- Eco-solvent
- Mild- or –low Solvent
- New category (with benefits of both eco-and mild solvent: the new Seiko ColorPainter M-64s)



### UV

- UV-LED
- UV-mercury arc cured
- SUV (Solvent UV)

### Textile printers

- Direct to fabric (disperse dye ink)
- Dye sublimation (via transfer paper)
- Reactive dye (usually with a sticky-belt printer)
- Acid dye (usually with a sticky-belt printer)
- Pigmented (usually with a sticky-belt printer on cotton)

### Latex ink printers

- True latex ink printers
- Inks claiming to be latex but which we do not accept

Latex ink is a growing technology initiated by HP at Drupa 2008 and significantly improved every two or three years. There are now three brands of true latex ink printers (so two valid competitors to HP).



HP DesignJet Z Water-Based

## Water-based Printers

Mutoh DrafStation has become a popular entry-level model around the world, including to print on transfer paper for dye-sublimation on textiles.

There were also a few water based printers from Canon and HP on exhibit. Epson is attempting to pretend they are a textile printer company but there are already too many other printer manufacturers in this space, and half of them have more experience than Epson. But in general water-based printers are scarce at signage expos (most ink chemists do not consider latex ink as really water-based; it is a partially solvent-based ink which also has a lot of water in it).

This is the description most ink chemists (other than from HP) uses when they talk about it. HP latex is a good innovation, just that it should be more appropriately defined. But the new generation (HP Latex 3000) is definitely an improvement in the lower curing temperature aspect.



Canon is also a popular company in the water-based printing segment.

## Eco-Solvent Printers

We show photos of most of the eco-solvent printers at FESPA in Part II of our general coverage of FESPA 2013.

**Roland** has focused on offering well-engineered eco-solvent printers. I was recently in a printing company in China which had a several year old Roland and a brand new Epson SureColor solvent printer. The print shop manager said she definitely preferred the Roland, saying it was more reliable (even after many years of constant use).

When I was in Greece several times I had the opportunity to experience Roland printers through the hospitality of Vasilis Psaridis, President/CEO of Atlas Digital. His team also offers printers in nearby countries. Since I enjoy getting to know the countries in Eastern Europe, it would be nice to learn about printer trade shows in these countries.



Mimaki, Mutoh and Roland are some of the several companies offering Eco-solvent printers.



## Mild Solvent (and new Eco-Solvent) Printers from Seiko II

I use the designation Mild Solvent and Lite or Light Solvent interchangeably. Now there is a new category (SX inks from Seiko II), so it's a challenge to find a remaining word: Gentle, Nimble, and Easy Solvent come to mind, but especially Bright Solvent. This is the new ink for the new Seiko ColorPainter machine. The day before FESPA opened it was possible to have an informative meeting with the team of Seiko II, since one FESPA started there were hundreds of other booths we had to visit and take notes on.

Seiko has intelligently focused on the needs of printshops for whom eco-solvent is not really bright or strong enough (adhesion, longevity, etc). We will be issuing a separate report on the new Seiko printer but in advance I can definitely say that it is impressive how many new features this printer has.

Also it is clear that Seiko really communicates with end-users; it is precisely the end-users who provided tips for what they would like to see in a next-generation printer.

If you buy a cheap printer you get a low-bid components and half of what is in the printer is identical or copied from the same features in dozens or even scores of other similar low-bid machines.

With Seiko everything is designed specifically by their team. And these printers are not made in a low-bid warehouse factory. It was very clear that these printers are Japanese inside out, which is a high compliment. I have lived in Japan for six months and rather obviously I am familiar with Japanese inkjet chemistry and technology.



Seiko booth.

## Chinese Brands

Who can count all the Chinese brands of eco-solvent printers? Experienced international distributors such as Aaron Francis (X6 Digital) is one good example. He attends every major printer expo in China.

The best way to start to learn the Chinese brands is to have them all neatly compared, as we at FLAAR provide. On this page we show samples of FLAAR Reports which you can ask receive; just ask FrontDesk "at" FLAAR.org to be invoiced.

Since there were five of us from FLAAR Reports at the recent Shanghai printer and signage expo, we can provide:

- All the printers shown at Sign China \$1,500.00
- All the eco-solvent printers exhibited at APPPEXPO 2013 (this week in July in Shanghai). \$324.00.

Best to order all three FLAAR Reports together, list price \$1,824.00. Full color, with tabulated basic specifications of the major brands.

To fly to China, stay in a hotel, all the meals, airport transfer and total travel expenses to attend one single expo is probably around \$3200 per person (for just one single expo). So for most distributors and print shops it is more practical to order the FLAAR Reports.



## UV-Cured printers

- Desktop
- Medium size
- Dedicated flatbeds
- Dedicated flatbeds with roll-to-roll option
- Roll-to-roll
- Combo conveyor belt flatbed + Roll to roll
- Industrial UV-cured printers

You can opt for LED-curing or Mercury arc curing in most levels, but the top level industrial printers tend to be mercury arc only. Efi VUTEk is the first to introduce LED curing into serious production printers, but roll-to-roll and combo transport belt structures.

### Example of several structures:

Introductory size conveyor belt flatbed  
Roll-to-roll  
Production printers

The booth of efi VUTEk was so filled with clients and distributors that it was not realistic to get good photographs of the printers. Comparable at Durst. These two booths were both very popular

### Industrial Flatbed: Dedicated Flatbed

HP Scitex and Inca are the main brands for dedicated flatbeds with semi-automatic feeding.



efi VUTEk HS100 Pro with LED-UV curing lamps.

## Durst

In past years it was possible to visit the Lienz factory four times and the Brixen, Italy factory five times. Thus it was possible to write about the printers of these past years. But since I have not been to either factory recently, we have no way to write about the current models.

Nonetheless, it was educational to attend the Durst press conference at FESPA and then to attend the Durst evening event: a really pleasant tour of London and the design museum.

During the entire time at FESPA many companies asked us to attend their press conferences but I prefer to be out in the aisles and booths. In the aisles we meet print shop owners and distributors from around the world who come up to introduce themselves and thank us for our style of reports (in other words, deliberately not orchestrated press releases).

The only press conferences we decided to attend were those of efi VUTEK, OWN-X (RTI) and Durst. All three were worth attending.



Durst booth.

## More UV-cured printers in Part II (the other full-color PDF)

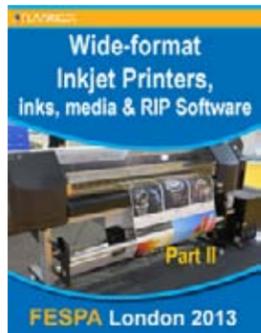
UV-cured printers were the most common kind of printer at the entire expo, so we feature additional brands in "Part II of our introduction."

The booth where the most information was readily available was in Fujifilm (for Inca printers) and at efi VUTEK. The new HP 10000 was roped off with a pseudo-Rambo style security guard, so we skipped this totally. It was much more informative to speak with the Fujifilm and Inca people: fully open, fully available accessible, and people readily available to discuss the printers (without unrealistic claims of perfect color and "unlimited media and applications" as too obviously and too often clouded the HP Latex 3000 presentations).

It was much more informative to speak with the Fujifilm and Inca people: fully open, fully available, and people readily available to discuss the printers (without rhetoric as somewhat clouded the HP Latex 3000 presentations).

So we mention the Inca industrial printer in Part II (which is free once you Subscribe (no cost)).

For an inventory of every single solitary UV-cured printer at FESPA, this is in our TRENDS level report. You can ask to be invoiced by writing FrontDesk "at" FLAAR.org if you wish to benefit from the information at this level.



FESPA 2013, London.

## Inkjet ink

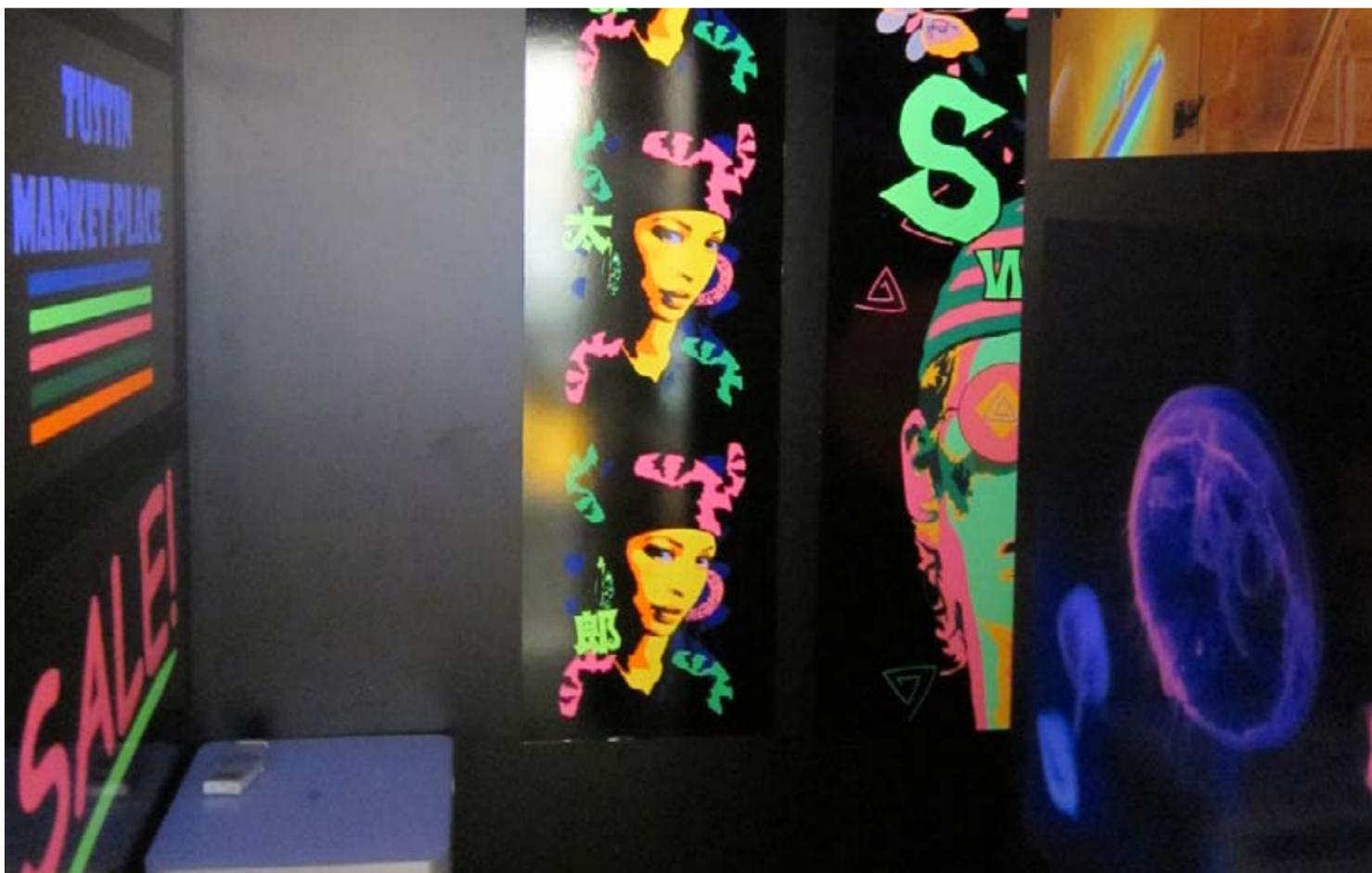
### Neon ink

We have shown photos of neon style ink from Seiko II in several FLAAR Reports over the recent two years. This is definitely an eye-catching ink.

### After-market Third-party ink for wide-format printers

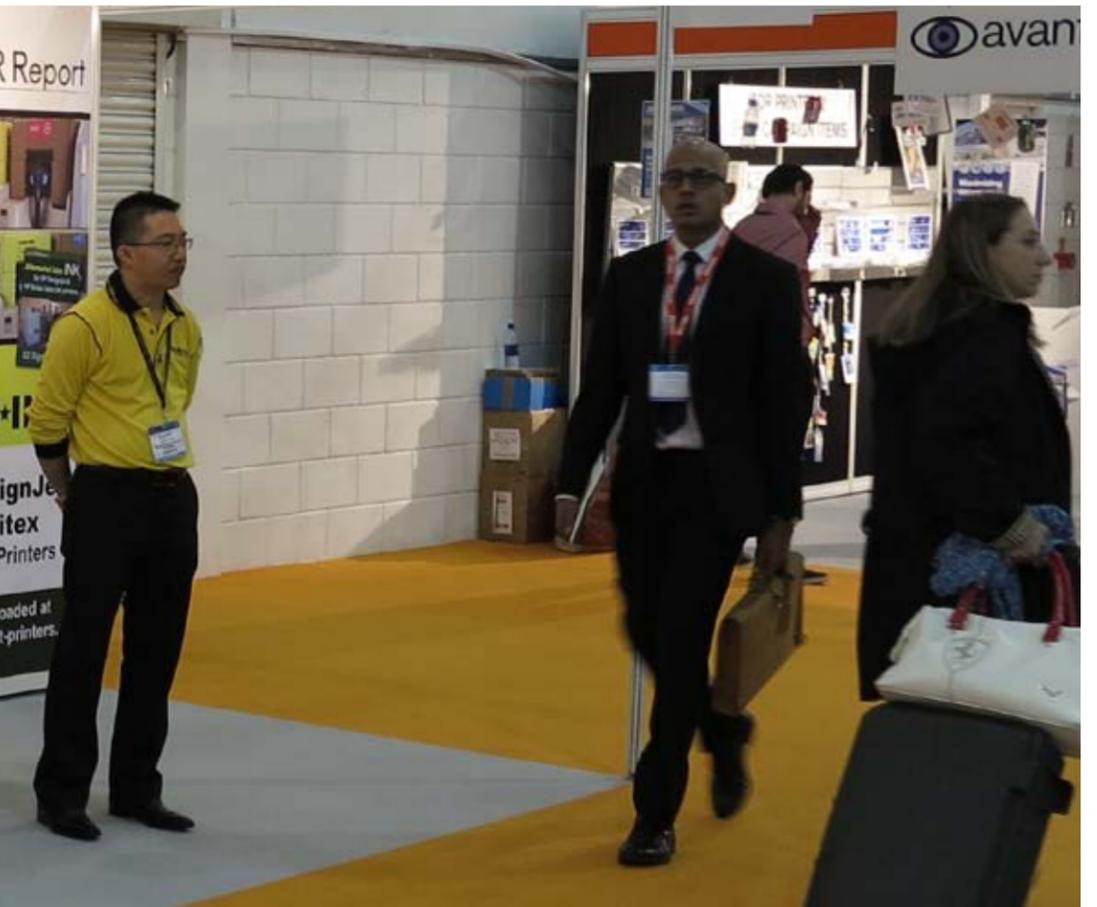
Lots of respected brands at FESPA 2013. The ones we know best are those whose factories we have visited. We can better evaluate an ink when we have been to their world headquarters, to their R&D labs, met their key people. The next step is to visit end-users: print shops using these inks out in the real world.

Ink manufacturers ask FLAAR what is the next ink that they should offer their clients.



Seiko II neon style ink.

So for inks for HP 8000s, 9000s, 10000s, inks for Roland and other products of Sam Ink, we have experience. Latex ink is more complicated chemistry and we look forward to doing additional studies



SAM Ink booth.

We have visited the ink factories of Inkwin (twice) and the factory of Hongsam. Plus we have visited the world headquarters of each of these companies (each headquarters is in Shanghai; each factory is in a different city).

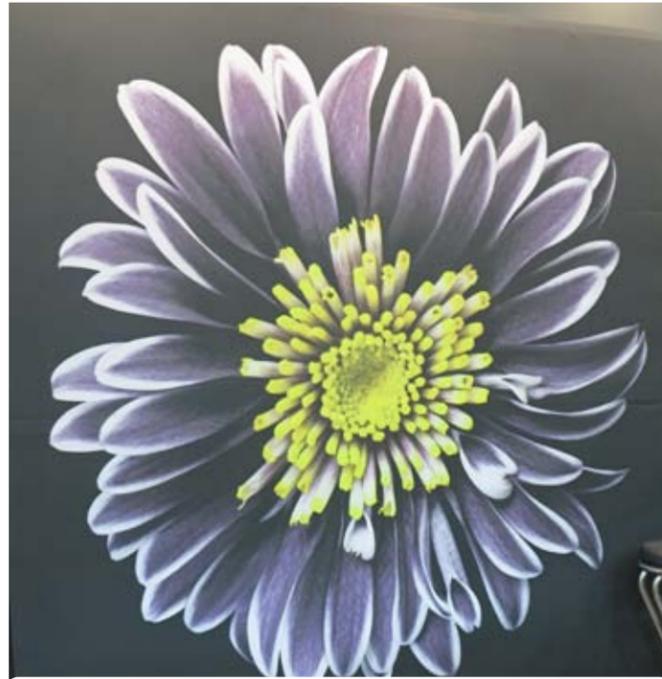


Hongsam booth.

## Ingredients for ink for wide-format printers

Printer manufacturers ask us to suggest which ink chemistry they should move into. Ink manufacturers ask FLAAR what is the next ink that they should offer their clients.

So it was helpful to see the booth of Diamond at FESPA Digital 2013. Their management was hospitable and so we brought several prospective clients to their booth.



Diamond booth decoration.

## Media for grand-format printers

Ingredients for coating and other chemicals for wide-format media are crucial to the world of signage. A company such as Lubrizol has abundant experience in coatings (and inkjet inks).

Since both Diamond and Lubrizol have offices in the UK, one benefit of having the FESPA venue in London was to have these companies exhibiting.



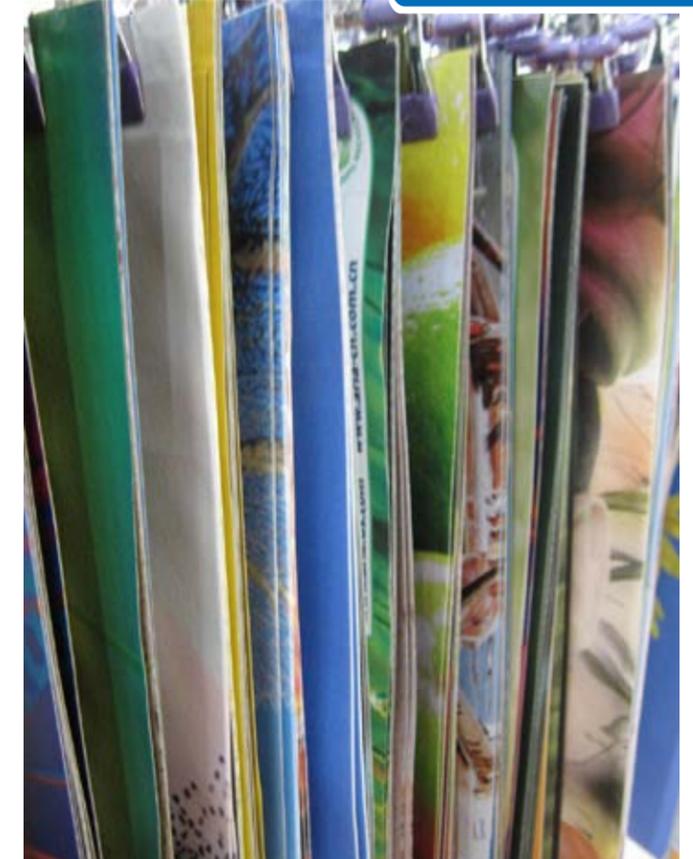
Weifang HENGCAI Digital.

## Media and Substrates for wide-format inkjet printing

There were dozens, scores of media and substrate manufacturers and distributors. Actually there were OVER A HUNDRED! So we have a completely separate FLAAR Report which lists and tabulates each and every substrate booth at the expo. Several of these we show here, such as Weifang HENGCAI Digital Photo Materials Co., Ltd., and ARIA (from Yeong Jeou).



ARIA booth.



## PE, a technical textile with benefits to replace PVC

PE should never tear; the test is simple: take a sharp knife, cut into the PE (make a slit several inches or centimeters long). They stick both hands into the slit and try to tear the weave apart.

Reliable PE will not tear; low-bid or otherwise inadequate PE will tear.

ARIA technical textile PE does not tear; a leading brand made in North America tore easily.

Now you see why we enjoy evaluating PE made in a factory with years, actually over a decade of experience. If you wish more information, contact Craig Adams, [aria@yjusa.com](mailto:aria@yjusa.com)



Here is PE as a technical textile. Matan is a leader in using advanced technology substrates.

This banner was printed on Aria PE material with Fujifilm UVISTAR Pro-8 printer.

## Wide-format printers

These nice printers produce awesome color gamut and brightness; we cover Seiko II in the Free Subscription Level edition.

## Eco, Lite, Mild, Solvent printers

### Seiko ColorPainter

These nice printers produce awesome color gamut and brightness; we cover Seiko II in the Free Subscription Level edition.

### Embroidery is still a valid application

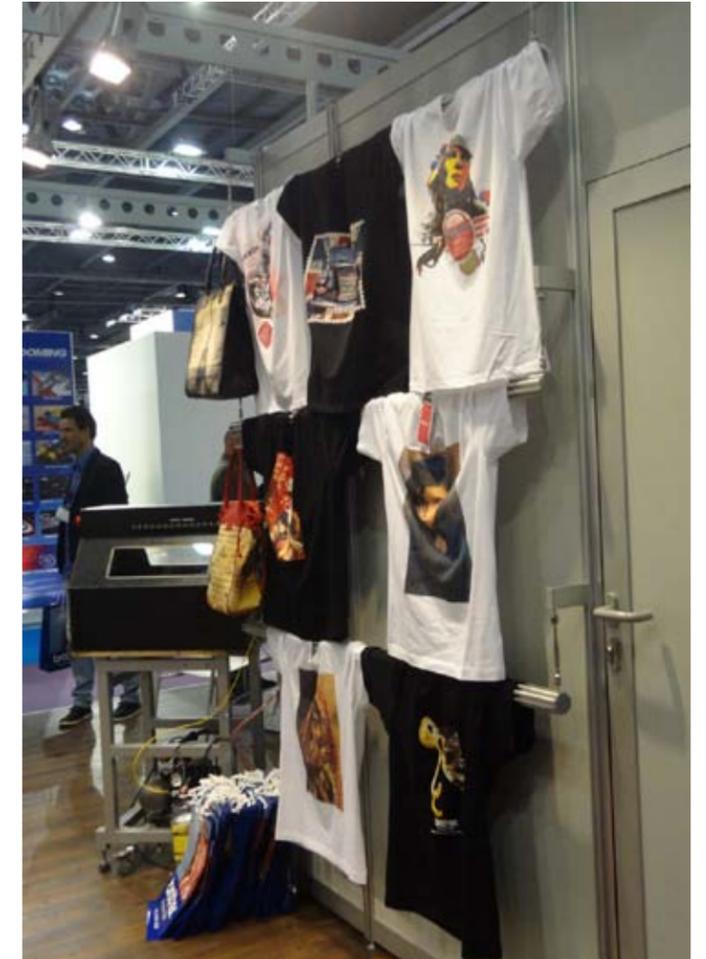
### Lots more was at FESPA that just printers.

### Lots of screen printing (on T-Shirts especially)

### Lots of T-shirt printing, especially screen printing

### Lots of T-shirt printing with pigmented ink

### Any T-shirt printing with disperse dye sublimation?



Brother booth.

## Overhead Banner Awards

### Most dramatic color for an overhead banner    Most effective overhead booth banner

Since FLAAR is an institute with experience in graphic design, one of the many things which we evaluate is booth design at printer expos. One of the most noticeable features of many booths is the overhead corporate logo banner.

These banners are either placed on the front of the booth wall, or hung over the center of the booth.

The d-gen overhead banner was far and beyond the most colorful at the expo.

MTEX POD had the most effective overhead booth banner. It was more than just well designed, it got the message out.

We discuss why this banner was more effective than over 50 other banners in a separate FLAAR Report. We do not have an evaluation on the MTEX printers (because we have not been to the factory), but we can certainly evaluate their overhead logo banners.

FLAAR is a research institute with a focus on graphic design (and digital photography and many other aspects of communication). So it is a natural progression to analyze booth design.



d-gen and MTEX had the most outstanding overhead booth banners at the expo this year.

## European Sign Expo, co-located at FESPA 2013

We found more digital signage at Sign Middle East (SGI in Dubai), and more digital signage at APPPEXPO in Shanghai (July 10th onward). Although it was nice to have at least some traditional signage at FESPA but if you want to see dynamic digital signage come to beautiful Dubai, where hotel costs are about half that of London and taxi fare is about 30% of London. Plus, Metro lines in Dubai are clean, not crowded, easy to navigate and most are above ground so you can see the monumental modern architecture of Dubai while you are whisked through the city.

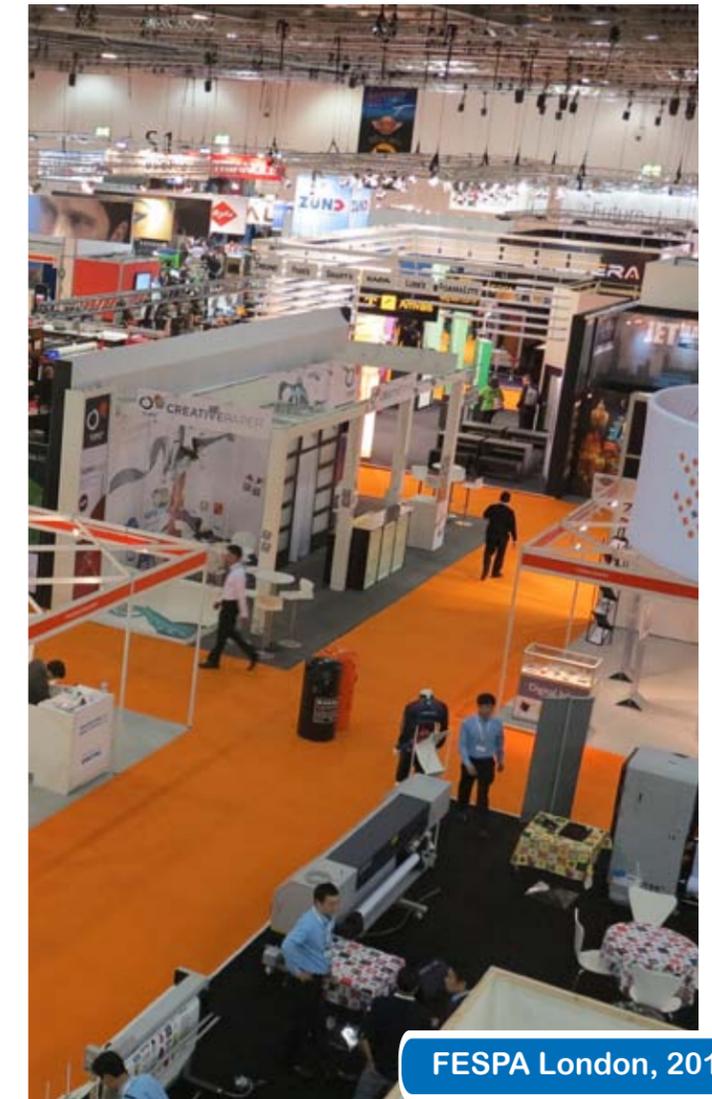
The small size of the “European Sign Expo” area here in London, the even smaller size of each booth, and almost total lack of electronic signage was memorable. Something is better than nothing but even ISA expo in North America has more signage orientation.

I admire the hard work of trying to get at least token coverage of traditional signage, but this was more like an application area than an actual exposition.

Sorry, but if you have been to Sign China in Guangzhou year after year and especially if you have been to the International Ad & Sign Expo (APPPEXPO) in Shanghai. There you see FIVE halls of inkjet printers, media and inks, TWO halls just of flatbed cutters, and minimum of FOUR entire halls of traditional signage plus dynamic digital signage.

Plus cab fare in London is about 400% higher than Shanghai; food costs in London are about 100% to 300% more. Plus the evening light display along the Bund area of the river through Shanghai beats any nighttime display (though Bangkok river display and Singapore bay cityscape are definitely impressive).

But FESPA as an event still beats all the VISCOM Sign shows put together (since VISCOM Madrid collapsed four years ago and my favorite VISCOM Milano dropped embarrassingly three years in a row. VISCOM Paris is essential for the French market and very hospitable (plus they actually have more UK and EU trade magazine booths that were totally absent at FESPA in London!).



FESPA London, 2013.

## All trade magazine booths

Below we mention at least all the trade magazine booths that we could find. I estimate there were several that we missed, especially if they were on a cross aisle.

Trade magazines provide services and information which we at FLAAR do not provide. Thus we support trade magazines and encourage print shops, distributors, and manufacturers to subscribe to these magazines. For example, most trade magazines have lists of recent launches. Since these PR releases are repeated all around the world there is no need for FLAAR to repeat them too.

So we do not utilize nor publish PR releases. When possible, we prefer to learn about a product in-person, so we can understand the real actual advantages and occasional issues or missing features.

We subscribe to several trade magazines, read them when possible, and find that they serve a helpful service to the wide-format industry. At least half-page showing samples of FLAAR articles.

Indeed FLAAR writes articles for ME Printer (Dubai), Practical Publishing (South Africa), Publish (Russia), SIP (Germany), and occasionally for Sign & Digital Graphics Magazine, one of the top three trade magazines in the USA. In past years we have written for trade magazines in Turkey and Australia.



Digital textile magazine.

### Dijital teknik

One of the two leading magazines in Turkey. The other one was not visible at FESPA. The edition of Dijital teknik shown at FESPA was in English.

I had to smile when I saw the eco-messages in any booth on textile printing, which at the same time had an emphasis on cotton. Cotton is one of the most toxic-associated commercial plants in the world (insecticides and an endless number of other awful chemicals).

I raise cotton in my ethnobotanical garden in Guatemala, Central America, one of the homelands of cotton thousands of years before it became popular in Egypt. I use no insecticide, no other chemical either, so I have a tad of experience with cotton.

I have also done archaeological research in Peru, another area of origin for cotton. I worked in Peru two

### Digital textile

This is a good magazine for inkjet printing on textiles. However one of the main inks featured in advertising had a surprising lack of color pop at FESPA (was actually a very weak color on all samples). Aside from this observation, the editor of this magazine (John Scrimshaw) and staff are well known professionals in their field and Dr Provost knows textile printing inside out.

seasons: once for Harvard University; another season for Yale University. Lots of beautiful decorated cotton here, from over a thousand years ago.

Plus I study the indigenous Maya use of colorants from local plants as coloring for cotton textiles in Guatemala. These are hand-dyed, not wide-format inkjet printed. We have an entire project on colorants for textiles, on our [www.maya-ethnobotany.org](http://www.maya-ethnobotany.org), though most of our data is still being processed for publication next year.

These are some of the reasons we are interested in inkjet printing on textiles, because we have a background already in fabrics and clothing (and interior decoration through our architectural background).

## FespaDaily, courtesy of PrintWeek

Their map and exhibitor list every day were very helpful. Since I can read both Deutsch and English the selected languages were convenient. I estimate that Deutsch was also useful for people from elsewhere in Europe, Turkey, and other countries as well.

Each issue was written in association with WT1N, Digital Textile, which was a good idea. However featuring the AquaJet printer on page 24, Issue for June 25 was surprising, since that printer was dropped several months ago and already replaced by a totally different brand with a completely different name already before FESPA opened. This new launch was not mentioned until several days later. We had a FLAAR web page on the new printer already on the 26th.

In general the articles would be more helpful to distributors and print shop owners if they fairly list issues, missing features, weaknesses (such as poor color gamut), lack of penetration of the ink into the fiber and thus poor "hand" (potential with latex ink on fabrics).

Plus more comparisons would have helped: HP Scitex 10000 is indeed an impressive system, but so is the Inca Q40, efi VUTEk HS100 Pro, and Durst Rho 1012 industrial models. However if each article is a Press Release turned into an article, then traditionally there are no mentions of good competing models.

But on the positive side, the article on printheads did mention the various brands one by one.

The illustrations (full page size, one page per issue) in several of these PrintWeek issues for FespaDaily were outstanding.



Fespa Daily.

**Druck&Medien**  
This is mainly offset printing, with some inkjet reporting.



Global Signs magazine.

## Global SIGNS

The Global SIGNS team is at almost every major international expo. Their style and content is consistent in almost all issues. The first third or half is a Company Profile section. This presents Korean manufacturers one after the other. The rest of the magazine covers traditional signage.

## Printmonthly

On the front cover the word "print" was nicely in raised gold effects. The contents cover offset as well as inkjet. The two articles, one on roll-to-roll and another on flatbeds were good, but there was no warning to print shops that hybrid printers are iffy for most thick rigid materials.

A hybrid flatbed uses pinch rollers over grit rollers and we have over 12 years experience evaluating this pseudo flatbed structure. Mimaki finally dropped their model and 90% of the Chinese manufacturers also dropped their attempts to move thick or rigid materials with pinch rollers.

However, yes, of course, the roll-up tables do allow you to handle some kinds of thick material. But in fairness to print shop owners, it is helpful to alert them that hybrid printers are not able to print the last 10 to 15 centimeters of a panel (since once out from under the pinch rollers there is no way to move the panel any further). This is why Durst, efi VUTEk and Dilli appropriately use combo style conveyor belts and everyone else uses a dedicated flatbed (often with roll-to-roll in front or over-the-top).

This is the kind of information that print shop owners, managers, and printer operators really appreciate. Having been a professor of digital printing for many years, we used factual information for our students, based on actually understanding the printers out in the real world.

## SignLink

SignLink has the same editor as printmonthly. Some articles are identical, repeated in each magazine. SignLink has wide-format and traditional signage as well.

## SignUPDate

Mostly on wide-format inkjet but also includes traditional signage. For the local audience in the UK I can estimate this magazine would be popular.



SignLink booth at FESPA 2013.

## ESMA SPECIALIST printing worldwide

I found three issues of SPECIALIST printing worldwide

- 2012, Issue 4
- 2013, Issue 2
- 2013 Chinese edition

Much of the content is on screen printing but there are discussions of wide-format inkjet as well.

Four different articles on LED curing were helpful, but did any of them mention that one top brand had to retrofit their million-dollar development project flatbed with a jerry-rigged add-on “fluorescent lamp?” In other words, what is missing is cautionary notes on what does NOT work adequately. The “fluorescent lamp” shape is the kind used to treat wastewater. This expensive flatbed printer needed this to be retrofitted onto the front because the LED system engineered into this high-end printer did not work adequately.

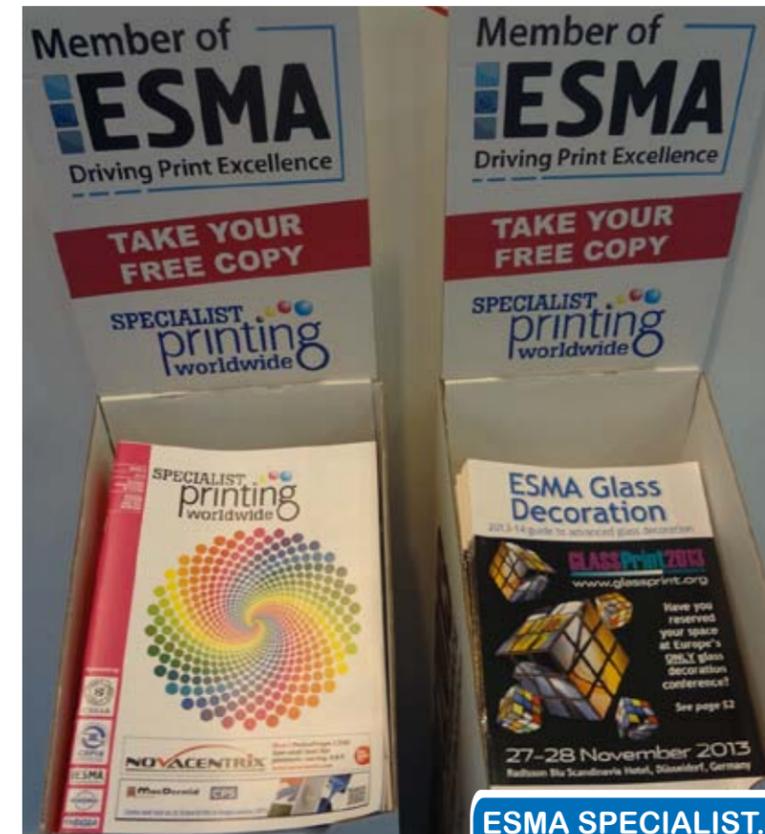
Lüscher was another best example of LED curing which did not work (efi VUTEk is a good example of how the LED curing of today is significantly better than what was available to Lüscher).

Lüscher AG Maschinenbau effectively went bankrupt, in part because the pre-mature curing system of their UV-cured printer did not function adequately. However other parts of this unusually complicated printer also had issues. The point is, why did no PR release point out the issues with the Lüscher UV printer!

Fortunately today, in 2013, LED curing power is better than these two flops, so in high-end printers such as efi VUTEk the LED curing is significantly better than earlier systems used by other brands.

Presently 18 watt power is tops for a LED curing unit; that or 20 watt is today’s limit. To handle really fast production printing, especially at 5-meter widths, more powerful technology will be useful. Airplanes decades ago used propellers; all the airplanes that brought us to FESPA today are speedy jets. So let’s hope that the LED curing unit manufacturers can break out of the 18 or 20 watt ceiling.

In the ESMA magazine what I most enjoyed were the tropical jungle flora and fauna decorations for drinking glasses on pages S12 and S13. Since FLAAR and the Hellmuth family come from an architectural background we are interested in glass (and ceramic decoration). Indeed many of the attendees at FESPA arrived at a “Hellmuth designed airport” (HOK did Heathrow Terminal 5 plus the departure airports of many others who flew here to London. Due to our interest in architecture we attend Glasstec every two years.



ESMA SPECIALIST.

## Image REPORTS

This entire magazine is dedicated to wide-format inkjet printing.

### X-media

Offset, digital, and inkjet. And a bit of screen printing.

SIP magazine is where you need to go if you want wide-format inkjet printer information in the German language. SIP (which was present at FESPA but without a booth) is one of the few trade magazines in the world which allows plus and minus reviews. I find SIP (WNP Verlag) and its editor in chief Uwe Heinisch as one of the best printer trade magazines because they do not fall for the often utter exaggeration of PR releases and "Success Stories."

## WIDTHWISE

WIDTHWISE is an annual report which I had not noticed before. It had helpful information. This report is a product of Image REPORTS.



## Why so few other expo organizer booths at FESPA?

I also noticed that no not many trade shows elsewhere in the world had a booth at FESPA: I saw only IEC, Sign Middle East (SGI, Dubai). Surely there were others, but if they were in a cross aisle they would have been invisible if you walked down the main horizontal aisles. Cross-aisle layout causes most any small booth in a cross aisle to lose most traffic.



SGI Dubai booth at FESPA 2013.



Pablo Martinez from FLAAR Reports.

## Upcoming signage and printing expos

Having just attended the huge Ceramics China in Guangzhou, Glass China in Beijing, and the unexpectedly full-range-of-textile-printers expo (ShanghaiTex) the days before FESPA, we have an abundance of documentation and awareness of what's new. Nonetheless we look forward to APPPEXPO 2013 in Shanghai in 2013.

Pablo Martinez from FLAAR Reports will attend Sign Africa 2013 but to do evaluations of a specific brand of wide-format printers. A printer distributor is hosting his visit to inspect their new brand. We congratulate both Sign Africa and FESPA for the new "FESPA Africa" event for 2014. It was nice that FESPA joined an already fully established market leader.

FESPA Mexico is a venue we at FLAAR are interested in since this is so close to our main office in Latin America, but whether we fly there or not has not yet been decided. It takes two of us to cover a trade show (four of us were at FESPA in London and five of us will be at APPPEXPO).

SGIA for North America is an excellent example of a total make-over. They have really worked hard to evolve and change. The result is that the attendance last year was potentially larger than FESPA.

VISCOM we have enjoyed in past years but are not yet fully convinced they are worth attending by an international analyst any more. VISCOM Madrid definitely too small; VISCOM Paris is nice and the organizers are cordial (the Press Room staff is especially helpful there). VISCOM Germany is acceptable (though Düsseldorf still overcharges everyone and Frankfurt is not very exciting).

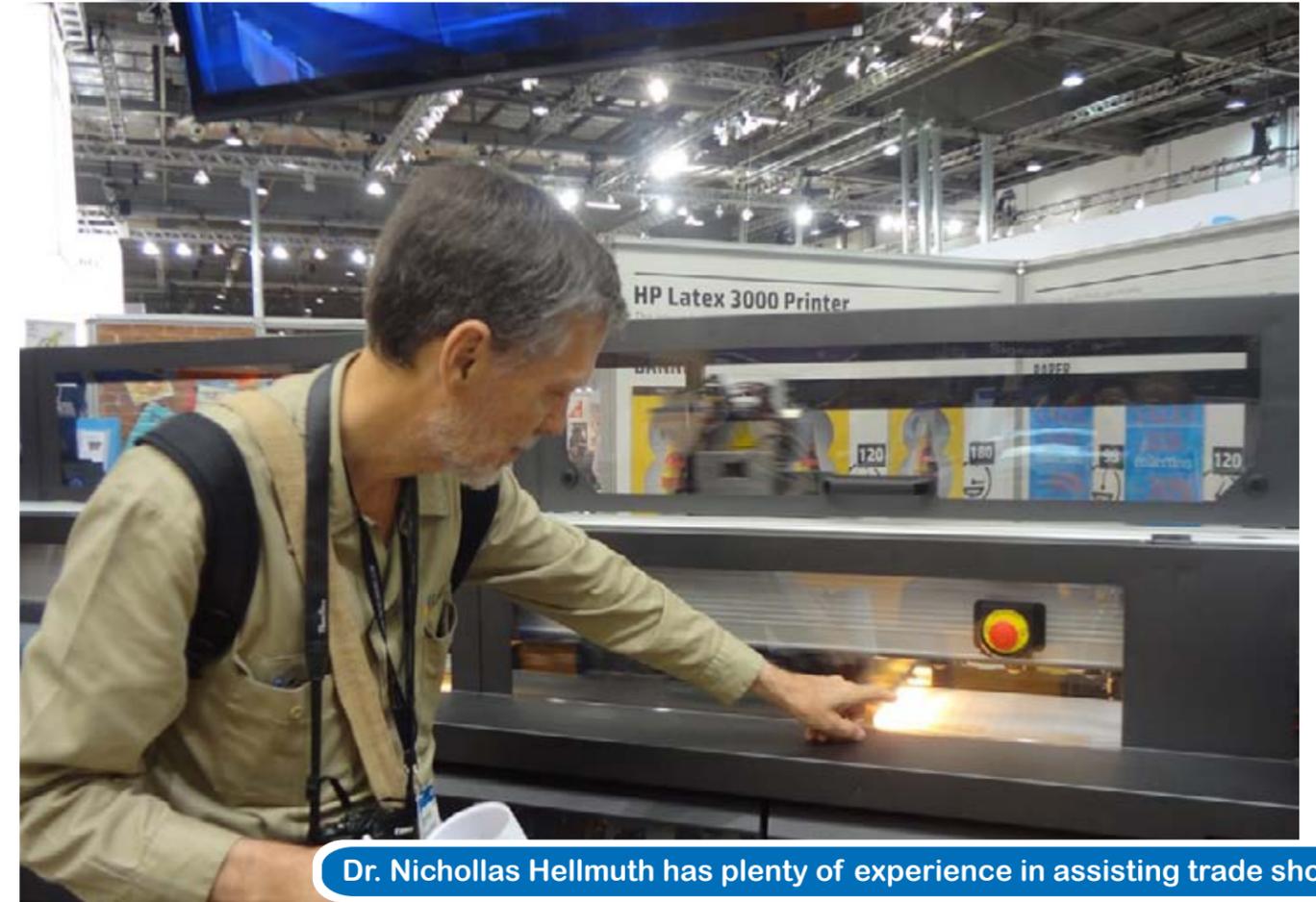
VISCOM Milano lost so many exhibitors in 2012 that we skipped it. Previously we enjoyed visiting VISCOM Milano year after year after year. But the organizers failed to wake up to reality and instead of creating one vibrant hall they kept the second hall by filling it with diagonal avenues, making even cross aisles multiple widths, and opened up restaurants in the middle of everything to hide the lack of exhibiting booths. This is what happens when expo organizers are in total denial. The event was ruined and that in turn blemished the brand (keeping it as “two halls” was their most obvious delusion).

This happened in 2010 and was worse in 2011. Friends in Italy said 2012 would be worse so we skipped it.

VISCOM Germany we enjoyed in several past years but Düsseldorf is over-priced, though public transportation is much better than London (S-Bahn and U-Bahn systems in Germany, and the metro system for VISCOM Milano) are significantly easier to understand than overly separate systems in London or Paris.



FLAAR Staff at STS Inks booth, FESPA 2013.



Dr. Nichollas Hellmuth has plenty of experience in assisting trade shows.

I hope VISCOM can somehow recuperate but they will need to totally rethink and take a deep breath reality check. FLAAR is consultant for Sign Middle East, for Sign Africa in past years, for Sign Istanbul, two years for ISA and this year we were consultants for APPPEXPO in Shanghai, plus we were in the opening ceremony committee for D-PES two years in a row and for Beijing Sign Show 2012 (the year four of us lived in Beijing for six weeks).

So we have a tad of experience in assisting trade shows. Our primary advantage is that we are not a PR agency, we are not a traditional trade magazine. We support and write for trade magazines around the world but ourselves prefer to be more research oriented, especially in recognizing and documenting trends.

And our primary goal is educationally based (a result of being an Instructor at Karl-Franzens Universitaet in Graz, a visiting research professor about six years at BGSU in USA and a visiting research professor for about six years at UFM in Guatemala. Plus Dr Hellmuth has lectured at Yale, UCLA, University of California Berkeley, Princeton, at universities in Canada, Slovenia, Croatia, Serbia, in museums in Mexico, Guatemala, Tokyo Japan, as well as at events in Korea, Dubai, Johannesburg. Plus Dr Hellmuth has lectured at Cambridge University in the UK).

I would like to attend expos in Canada, Latin America (more than Brazil), Korea (we have never been to KOSIGN), Viet Nam, Malaysia, Philippines, Indonesia, Scandinavia, Eastern Europe, Jordan and elsewhere in the Middle East (though SGI in Dubai is the regional leader by far). Nonetheless, I enjoy visiting local and regional expos around the world.

## Reality check: FESPA 2014

It is not fair to the industry to only claim smashing success. We fully support FESPA and provide abundant publicity for FESPA. But to be fair it is essential to mention the reality. One booth manager said that a booth at ExCel in London, plus London-priced hotels and meals cost about 100% more in London than at FESPA Barcelona.

So the first thing to say about FESPA 2014 is that prices hopefully will not be as outrageous as in London. Plus most German cities have a better organized transport system, especially from the airport to the expo center. At Drupa the transportation from the airport to expo center is free! At most VISCOM transportation is perhaps \$5 to \$8. In London the cost from Heathrow to ExCel was ridiculously high.

So if you skipped FESPA London, we encourage you to attend FESPA 2014 in beautiful Munich.

Another nice aspect of FESPA 2014 is that it is not so obviously near the expo dates for APPPEXPO. Many people who attend APPPEXPO in Shanghai skipped Serigrafia in Brazil because it was identical days. And probably some distributors and print shop owners skipped FESPA 2013 because the FESPA dates were too close to APPPEXPO.

It is counter-productive to stage your expo immediately before another expo which is already very popular. In other words, the dates for FESPA 2014 are much better and more courteous for the overall industry schedule.



FESPA 2013, general view.

## Positive aspects of FESPA in general plus Positive aspects of FESPA London

FESPA is an international organization with abundant experience. Although most booth managers were unhappy with London, I always try to recognize positive aspects. For example, since the venue was London one advantage is that companies whose offices are in the UK would be more likely to have a booth. So Lubrizol and also Diamond had booths at FESPA London.

Thus I was surprised that Xaar did not have a booth, since their world headquarters are in Cambridge UK. But the main market of Xaar these days is not with UV-cured, but with ceramic in-line printers. At ceramics expos, in Europe and Asia, there are booths of Xaar and Spectra. At many printer expos you also see a textile printer booth of Konica Minolta printheads.

Although many booth managers mentioned that attendance was lower than expected (especially the first day, and really noticeable the last day) other booths had good results.



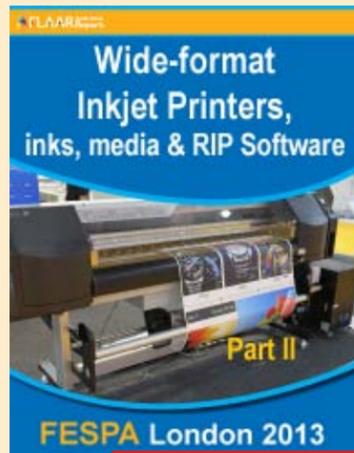
ExCel London Expo Centre.

## Why two separate first-level (free) FLAAR Reports on FESPA?

To be sure that a PDF can transit to an e-mail address it helps if the PDF is under 5 MB. Whereas you can yourself download PDFs larger than that, as an attachment we have found that under 5 MB is best. So to show more of FESPA 2013 we have two separate free reports (plus 5 "complete lists" and four to five TRENDS).

If you want the TRENDS and complete lists, you can ask to be invoiced and we will send these top level FLAAR Reports to you.

But the second Free FLAAR report is at no cost; just click on the Free Subscribe Button.



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## Contents of "Part II"

Tips for Print shop Owners, Managers and printer operators (which booths cheated by showing "print samples" which their ink did not really print (because their ink is unable to print these precise colors).

Questions to ask about latex ink: Mimaki vs HP

Questions to ask about Memjet (MEMS printhead technology)

Previews on inks

Previews on textile printers

Full coverage of Solvent printers including the new Seiko ColorPainter

Eco-Solvent Printers Made in China

UV-coaters

Traditional Laminators

Every RIP Software company which we found find.

MIS Software brands.

All the Color Management solutions that we noticed.

Helpful questions asked by attendees?

Further discussion of the very clear opinion that London was not a popular destination for a major international expo.

## Additional FLAAR Reports

These can be bought separately (any individual title), or several, or as a Subscription. Simply write FrontDesk "at" FLAAR.org and ask to be invoiced. If you wish more than two titles, the price drops modestly for each additional title that you request.

### How to design a bad booth (at an expo)

### So that your competitor's booth attracts more customers than yours

#### Part I: Overhead Banner Evaluation

Full Color Presentations of 57 Overhead Booth Banner Designs with commentary of which are great, which are only average and which are a huge waste of space and money.

\$320

#### Part II: Innovative Designs To improve the attractiveness of your booth at the next expo

Photographs and discussion of all the best booth designs and mention of the worst booth idea at the expo.

\$120 (if you buy both Part I and Part II (total list price \$430, we will discount to \$400 plus you can speak directly with Dr Hellmuth by Skype or telephone to discuss your next booth concept).



**TRENDS in Latex ink (Inks & Printers)**

Plus  
what happened with Sepiax Resin ink?

**Discussion of pros and cons of London ExCel as a venue**

(why some distributors, manufacturers & print shop owners did not like this location).

**Memjet single-pass TRENDS**

TRENDS, All the Memjet MEMS printers  
Why was one Major 42" Memjet Printer Brand totally absent?

**Every brand, every model of UV-cured printer**

**Plus TRENDS in LED Curing  
TRENDS in who will be rebranding whom?**

(more important: which brands of UV printer were totally absent)  
Important tidbit: which brands of UV printer have closed down and ceased production

**Every brand of textile printer  
What the new Agfa Ardeco Printer Means**

- Which UV Manufacturers Totally Lack Textile Printers
- Which UV Manufacturers tried textile printers but failed
- What structure (what media feed technology) for each brand and model



**Every Brand of Textile Ink**

**All five kinds of Textile Ink at FESPA 2013**

**TRENDS in thick rigid material:  
All honeycomb sandwich board brands**

**Aluminum Composite Material Brands  
All ACP, ACM substrates**

Which brands were present?  
Which major brands were absent?

**All the over 120 media brands  
at FESPA 2013**

**Every brand of UV-cured Ink**

Compared with Brands at other Expos  
All flatbed cutter brands

Every brand of ink other than UV or textile  
Compared with Brands present or absent at other Expos

List of all the UK and EU distributors that we noticed

*\*Just ask FrontDesk "at" FLAAR.org to be invoiced.*



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