> Well you know, Scitex was like a fine Irish linen mouchoir. EFI is more like a Kleenex.
>
> – Efi Arazi

Dear Reader,

By now most people who have been in the graphic arts industry for more than a few years will be aware that Efi Arazi, founder of Scitex and EFI, has died. He was 76 and he died on his birthday having suffered from Alzheimer's disease for many years.

What an amazing man. Where to start beyond what's already been said: he blagged his way into MIT as an "exceptional case" and developed the camera NASA used to broadcast Neil Armstrong's moonwalk. He was just about the most charismatic man in the graphic arts and beyond; he was married five times. But our favourite memory was when Efi gave us a private view of Scitex's new drupa kit in 1986. It was a range of special tables to house Scitex hardware, which was far from new at the time. Efi persuaded Jonathan Seybold that the new Scitex furniture was front page news. It took a lot of convincing to persuade poor Jonathan that he had been misled.

First memories of Efi are his multi-coloured scrawlings onto OHP film to describe Scitex's Response 300 colour repro system, back in 1982 at the first Seybold Seminar that was held in Santa Monica. Efi was alongside worthy colour scientists from Crosfield and Hell GmbH, both of whom had long (very long) and comprehensive slide presentations of what could well have been profoundly fascinating technology. After Efi's wild scribbles and multi-coloured inspiration there was only room for Scitex in peoples' imaginations.

Last memories are from the PostScript conference in Denmark sometime around 1992 when Efi explained the difference between the two phenomenal companies he had founded. A man of extremes and wonder, a man whose presence we shall long remember and absence long regret.

Laurel, Nessan, Paul and Todd

In This Issue

The Beast that is the European Union's new Eco-Label system

Laurel Brunner discusses the pros and cons of the European Union's new Eco-Label system and finds that this could have repercussions for the printing industry. There are potential benefits to embracing this system, and realistically not much option to ignore it now that the EU has formally adopted it.

see page 13

About More Than Money

Laurel Brunner has visited a Green event recently held in Vienna by paper manufacturer Mondi. This provided plenty of frank discussion on the state of the paper industry but with many practical examples of how to get the best out of industry regulation and promote paper as a sustainable resource.

see page 16

Cloud-based colour

Paul Lindström talks with the Dutch company Color Concepts, which has set up its own cloud-based colour management solution as an efficient way of dealing with the various ICC profiles that large format users must manage.

see page 20

Regular Features & Special Treats

News Focus

Lüscher AG, the Swiss manufacturer of CTP systems, has been overwhelmed by its ongoing debts and filed for bankruptcy. The management blame the general downturn in the graphics industry, combined with exchange rates that have made the Swiss franc appear expensive leading to a significant fall in incoming orders over the last nine months.

Goss has reorganised its business, making three main changes. This involves simplifying the organisational structure of the company, with more emphasis on regional parts, service and support centres. The various European operations will be brought together into a single entity. However, Goss' French subsidiary has already become the subject of insolvency proceedings. The third change is to continue to diversify the product portfolio. In this spirit it has already developed products for the packaging sector.

EFI's first quarter results show revenues of $171.4 million, up 7% compared to first quarter 2012 revenue of $160.1 million. First quarter 2013 non-GAAP net income was $15.8 million or $0.33 per diluted share, which included an unfavourable non-operational currency impact of $0.04 per diluted share, compared to non-GAAP net income of $14.2 million or $0.30 per diluted share for the same period in 2012. GAAP net income was $8.4 million

or $0.17 per diluted share, compared to $6.2 million or $0.13 per diluted share for the same period in 2012.

Xeikon has released its annual report for 2012, which shows sales for the digital press portfolio remaining constant at €130.2 million compared with the previous year. The net profit was €9m, 29 percent higher than the previous year. However, Xeikon admits to a difficult first half of the year, with sales picking up following drupa, mainly in the labels and packaging sectors. On the prepress side, sales for the BasysPrint products continue to fall, though Xeikon remains confident that its new ThermoFlexX line should improve this situation

Ilford Group AG, the parent company to Ilford Imaging, has bought Tecco, a German company with a flexible converting facility. It's a good fit that will bring extra customers to Ilford, which already has its own coating facility in Switzerland.

Durst has launched two new wide format printers, the Rho 1012 and 1030, both based on the successful Rho 1000 platform. The Rho 1012 boasts a 12-picolitre dot size, which is fairly small compared with other high production flatbeds. It has 1000 dpi resolution and runs at up to 490sqm/hr.

The Rho 1030 is faster, reaching speeds up to 1000 sqm/hr. It can be fully automated with autoloading and unloading tables and there are also roll-to-roll and roll-to-sheet options. Furthermore, existing Rho 1000 machines can be upgraded in the field to either of these specs.

EFI has shown off a system for capturing and analysing data on how signs are viewed. SmartSign Analytics, or SSA, consists of a webcam attached to a sign and connected to a computer or tablet running facial recognition software to capture data on whether or not people are viewing that sign, and how much time they spend viewing it. The system can also work out the gender and age range of each viewer. However, EFI has stressed that it does not store images of actual faces. The system is being beta tested for the next few months.

Xerox has formerly announced its latest dry toner press, the Color 8250, aimed mainly at transactional printers.

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It incorporates much of the technology of the flagship iGen4 series including an inline spectrophotometer, as well as an auto density control to detect and fix streaks. It can cope with a monthly cycle of 800,000 to four million impressions. There's a range of workflow options including the Freeflow print server, which supports most common data streams.

Xerox has also launched the iGen4 Diamond Edition, an updated version of its top of the range dry toner press. This promises easier, faster job set-ups, including automatic paper set-up. It includes "automated colour maintenance", and simplified book finishing courtesy of JDF technology. Current iGen4 presses can be updated to this spec.

HP has released its SmartStream Production Centre, essentially a production management system that is designed to address the challenges of efficiently receiving, producing and delivering high volumes of short-run print jobs. It integrates with web to print and MIS systems, as well as workflows and is mainly targeted at Indigo users, though will work with other vendors' digital presses.

HP also launched Indigo Print Care 2.0, which is a set of maintenance and diagnostic tools for the Indigo presses.

Esko has released a version of its Full HD Flexo for flexible packaging. "Esko flexo customers are asking for the combination of the benefits of HD Flexo together with a gravure-like ink laydown and a fully digitally controlled platemaking workflow." explains Jürgen Andresen, Esko Vice President, Flexo Business.

Agfa Graphics has developed a new version of its Fortuna security printing software, designed for printing such items as bank notes and ID cards. Fortuna 7 includes new security features such as new, more complex patterns as well as external verification tools.

Atlantic Zeiser has unveiled a new entry-level addition to its Digiline range of inkjet marking solutions. The Digiline Compact is aimed at packaging companies and carton manufacturers, as well as service providers in pharmaceuticals, cosmetics and security printing. It is a stand-alone system for late-stage short-run printing of serial numbers, codes and logos onto carton boxes, cardboard blanks and single sheets, such as sleeves and labels.

SSE Worldwide will launch the Eagle range of UV LED flatbed printers into the UK market at the Fespa show. There are two models: the Eagle 30 has a 300 x 1000mm printable area and is designed for fast turnaround work; the Eagle 60 boasts 600 x 1500mm and is meant for production environments. Both print CMYK+White as standard and will take media up to 25mm thick. They use Epson DX5 printheads, which offer a very small three-picolitre drop size. The printers come with a dedicated RIP, called WhiteRip, developed specifically for these machines. They have been developed by the Italian company, DPI DG Printing

Barbieri has introduced a process control instrument called DOC (Digital Output Control). Based on the SpectroPad, this checks the stability of the digital printing process and is tailored to the needs of large format, flatbed and industrial printing. It uses a customer's actual printer/media combination as a reference and compares this with the prints made to determine whether the printing process is stable or needs adjusting.

Mutoh has announced its fourth generation Universal Mild Solvent inks. These UMS inks replace Mutoh's MS and MS+ first and second generation mild solvent inks and are compatible with Mutoh's mild solvent printers including the ValueJet series. They offer up to three years outdoor UV resistance without lamination and cover 83 percent of the Pantone C colour chart. They can be dried at regular temperatures and don't require any ventilation.

Global Inkjet Solutions has opted to base its Uniti operating system on Global Graphics' Harlequin Host Renderer in order to be able to handle variable data in PDF files, regardless of whether or not the PDF/VT format has been used. GIS has also licensed Harlequin ColorPro for accurate colour reproduction. GIS supplies software drivers and electronics for industrial inkjet printheads in a variety of markets including labels, flooring and textiles.

Kodak has launched a global certification scheme for its Flexcel NX users. To achieve the certification and

earn the right to use the certification mark, companies must demonstrate that the plates they produce, or print with, are consistently made to a standard Kodak global specification.

Global Imaging Systems, which is owned by Xerox and based in the US, has acquired Zeno Office Solutions, based in Florida, which provides print and IT solutions for small and medium sized businesses. This is part of a wider Xerox strategy of acquiring channel resellers to strengthen its own routes to market.

A fire has damaged one of **Smurfit Kappa's** two UK recycled packaging mills. The fire, in the stockyard at the SSK site in Nechells, to the North East of Birmingham, required over 15 fire engines and around 100 firefighters to bring it under control. There were no reported injuries though around 10000 tons of recycled cardboard bales in the storage area caught fire.

In future Kodak will be split into two divisions. The Digital Printing and Enterprise part will include the inkjet technologies as well as Nexpress, flexo packaging and functional printing. Graphics, Entertainment and Commercial Film will cover everything else including the conventional graphic arts business such as CtP and workflow.

The company filed financial projections predicting sales of €1.9bn next year rising annually to €2.4bn by 2017 which appear rather bullish given the recent actual sales figures. Then again, Kodak does appear to have ironed out many of the wrinkles in its Prosper technology while SquareSpot is a proven performer.

News Analysis

Kodak has sold both its Personalised Imaging business, which includes such things as retail printing kiosks, and its Document Imaging business arm to the UK Kodak Pension Plan for €494m, reversing an earlier plan to sell the Document Imaging division to Brother Industries.

The significance of this is that it paves the way for Kodak to exit its chapter 11 status, which could come as early as July. KPP, which claims some €2.1bn, has been Kodak's largest creditor and was a major stumbling block for the company's efforts to exit the chapter 11 process.

Essentially Kodak has said that its future business will depend on its Prosper inkjet line and the SquareSpot imaging technology. It has also said that it will release new products in functional printing, which would include touch screens and fuel cells, in 2014.

A Review

Are you ready for Prinergy 6?

Kodak is about to launch a major upgrade of its Prinergy workflow system, and has started to demonstrate the new features of Prinergy 6 in a series of webinars in the run-up for the premiere in August.

While Prinergy 5 consists of a collection of modules and separate software, all with slightly different user interfaces, Prinergy 6 will have unified interface for all of the components, organised in three main categories; Manage, Plan and Track.

feature, while the third generation workflow automation became more "intelligent" when applying rules, making them event-driven.

Prinergy 6 will be "Intention-driven", which Kodak hopes will enable an increase in productivity of up to 10-20% compared to today's workflow systems. This should in turn lead to cost reductions of up to 30-60%. The way to achieve those improvements is through adding more relevant metadata into the electronic job bags, and using a workflow system capable of applying and using this metadata in an efficient way.

One way to plan jobs in a more efficient and intention-driven manner is by performing imposition automatically

The new Kodak Prinergy 6 has a completely reworked user interface with all functions organised in three sections. Here the second module, Plan, shows a list of input files and their organisation within the publication.

We at Digital Dots participated in the first webinar in which the first module, Manage, was demonstrated in more detail. Kodak argues that they have now reached the fourth generation of workflow system, where the first generation operated mainly in a linear way, albeit supported by the use of Hot Folders and rules. The second generation of automation added scripting as a

based on which resources are available. This is why the PREPS imposition module has been updated to version 7 in Prinergy 6. ColorFlow, the quality and colour management module has also been upgraded.

The first module in Prinergy 6, called Manage, has three sub menus. The first is Sets & Filters, which will speed

up searches among all of the new and old jobs in the workflow system. Depending on which role the operator has when logged into the system, previously created Sets and Filters can be to added to the list by simple drag-and-drop functionality.

The second sub menu is called Job Board and this offers a quick overview of the selected jobs. The view is split into three columns named Pages, Surfaces and Output. The user interface is designed like a kind of dashboard, with supporting visual elements showing the status of the different processes and progress bars for the different sub processes. This looks like a very useful overview, and a significant step forward in terms of usability.

The third sub menu in the Manage module is called Properties, and this is where you define how the available metadata is to be used to set up a job. In reality this is JDF data, made more user friendly through the user interface than would be the case if raw XML was shown. Typically Prinergy is used coupled with an MIS system, which would in turn support the use of JDF. With Properties you fine-tune the use of JDF data.

One operator here is the use of Attributes, which are relevant specifically for the job in question, or the customer in general. By combining different weightings of Properties and Attributes to available resources (printers, presses, paper formats and paper qualities) users can achieve an automated imposition of the job based on the 'intention' of the job.

Prinergy 6 uses an Oracle 11 database, which was first introduced with Prinergy 5.3. Existing Rule-based workflows in Prinergy 5, or even older versions, will still be supported. The user doesn't need to use the new Workspace interface immediately, but can continue to use the existing Workshops one in Prinergy 5 in parallel. Kodak has switched from Java to Microsoft Silverlight in Prinergy 6, and while you may use a web browser you can also run it as an application. Prinergy 6 is really a dedicated Windows application, but Kodak assures us that it also works fine running in a Virtual Machine on an Apple Macintosh under Mac OSX.

Green Shoots

Here are the blogs we have written for the Verdigris project over the last few weeks. Check out the site for new blogs, which are added on a weekly basis.

Slow & Steady Making Progress

Much has changed in the printing industry since we started the Verdigris project in 2008. Five years of economic mess and confusion have forced change on all of us. One of the apparent casualties of the rubbish commercial environment has been environmental impact reduction initiatives.

However, all is not bleak despite the printing industry's fiscal straightjacket. For instance, Dai Nippon Printing in Japan is participating in a project sponsored by the Japanese government for carbon offset products, based on its carbon footprint program. Dai Nippon Printing is a leading contributor to environmental impact reduction in Japan but this is the first time the company has cooperated directly with the government on a project to develop carbon offset products. Another interesting initiative in Australia is the government programme to provide A$800 million in energy efficiency grants. Printers can claim a 33% rebate on investments into energy efficient machinery, including presses. And the PIAA is surveying printers to learn more about the impact on them of the country's carbon tax.

Awareness of environmental impact reduction amongst governments is mostly high. But although print's role in sustainability is definitely better appreciated, this industry still has a very long way to go. The hopefully imminent publication of an ISO standard for calculating and communicating the carbon footprint of print media products, marks a milestone of sorts. That the working group responsible for its development is now looking at environmental impact standards for e-media is also significant. And the decision by Google, following industry pressure, to remove the environmental claims from its Paperless 2013 website, is massive.

Google's "Go Paperless in 2013" campaign claimed that using paper is bad for the environment. It unleashed a torrent of squeaking and squawking objections from across the global printing industry. Google's campaign, to promote electronic transactions on behalf of the Paperless 2013 cohort, continues. However the erroneous environmental claims are gone from its website. This is a happy result and hopefully the whole fiasco will have encouraged everyone involved to think more carefully about what environmental impact sensitivity is all about. It certainly isn't about encouraging the use of unsustainable resources.

It's great that this campaign is now more transparent however, it is only one example of how easily people outside the printing industry misunderstand the difference between paper-based communications and electronic content transactions. This is why we still have much to do: changing the mood is tricky even though sustainability is an economic as well as an environmental argument. Companies who have cut energy costs and waste are increasing in number because cutting energy bills by as much as 50%, improving resource use by 70% and reducing remakes by 10% produces numbers that snuggle down onto a company's bottom line very tidily. So maybe environmental reduction initiatives are not such casualties after all.

ISO 16759 Racing Into the Final Furlong

The news that ISO 16759 (calculating the carbon footprint of print media) is galloping towards its final furlong

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prior to publication has caused a flurry of interest. We have recently been contacted by a number of European companies interested to be certified for compliance to this standard.

Certification is at once a good and a bad thing because the value of a certificate lies with the issuing authority and the ease with which it is achieved. An accredited body's certification that is rigorous and difficult is far more credible that a certificate confirming competence in a particular vendor's offerings. When it comes to certifications to the ISO 16759 standard, there are several options that companies can consider.

The first is to demonstrate that your carbon calculator meets the requirements of the standard. This is likely to be one of the most common implementations of ISO 16759, and indeed is part of the purpose for which it has been

Certification is at once a good and a bad thing because the value of a certificate lies with the issuing authority and the ease with which it is achieved.

written. ISO 16759 is not a carbon calculator. Rather, it states requirements for a carbon calculator used to work out the carbon footprint of printed products. This way carbon calculators certified to meet the requirements of ISO 16759 can be used to build data sets created within a common framework. This will hopefully encourage print buyers to make their media investment decisions based on sound facts and for the printing industry to measure its impact reductions over time.

Printers and print buyers can also get certifications for their own implementations of ISO 16759. They can follow the directions in the standard to do their own carbon footprinting studies and calculations. Such certifications can apply to individual print media products or the process that a printer or print buyer has set up.

We have already seen considerable interest in ISO 16759 but want to urge people interested in certification to be very careful who they work with. There are plenty of companies selling certificates for compliance to one standard or another. However only a few of these organisations are fully endorsed by a recognised authority, such as a national standards body or a government endorsed certifications body. Caveat emptor!

A New Green Print Certification

We recently came across a new take on the idea of certified green products. As a rule of thumb we generally don't go for self-certification, but we make exceptions for ideas that help drive home the importance of environmental impact reduction. Idea Print, a printer in Russia, is providing its own Green Printer label. But instead of using it to promote Idea Print, the label is applied to the prints the company produces for its clients. Idea Print uses HP Indigo and Xerox digital variable data presses alongside a Screen Truepress direct imaging press for short run static work. Idea Print's customers can use its green logo on any material printed on recycled paper and that has been produced with "management responsibility". About 15% of Idea Print's work qualifies to bear the company's logo which was developed about three years ago. According to founder Sergey Popov, the idea for the logo came about "because we want to make things better".

Idea Print is one of a growing cohort of printers who want to make things better, not just for the environment but for their sector too. Such companies realise that reducing environmental impact is not just about cutting costs and being more efficient. Company owners like Popov are starting to realise that print media is part of a larger landscape and that encouraging customers with green initiatives is ultimately good for business.

Idea Print is linking its green efforts to social efforts at its factory in Moscow. The company is producing blank notepads from paper waste, which it calls Ecopad. Idea Print works with local charities to provide occasional employment for disabled and disadvantaged people to

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produce these Ecopads, a kind of social entrepreneurialism. The next step is to offer branded editions of the Ecopad to customers, another means of creating revenue from waste. Idea Print has also developed its own MIS which supports its Green Print logo and the company expects to achieve FSC certification later this year.

All over the world we hear of bright ideas and initiatives like the Idea Print Green Print label. They are part of a wider trend to improve the industry's environmental footprint, business performance and image. They are the route to improving awareness of print's sustainability amongst print buyers and consumers. It's a conversation that needs to happen more often because the conversation quickly leads to the conclusion that print is the only medium based on sustainable, renewable, carbon-capturing raw materials.

Photosynthesis & Bio Batteries

For most of us, the idea of using paper for energy is limited to throwing it on the fire and enjoying the warmth. However scientists at Sony Japan are working on a far more interesting development. They have come up with a battery powered by waste paper.

Sony's bio battery is based on the same principles used by insects and herbivores to turn cellulose into energy. Energy is stored in plant matter as a result of photosynthesis and subsequently used for the plant's growth. When insects and animals chew away at wood and grasses they begin the process of turning the plant tissue into energy, breaking down the raw material into glucose as a result of digestion.

Bugs and grazing animals digest the cellulose in plants and wood using enzymes that turn it into sugar which is the raw material for energy. Sony is using this basic principle in its bio battery. Via a complex process using cellulase, the enzyme that helps reduce cellulose to glucose, Sony's technique releases the energy stored as sugar in waste paper and cardboards so that it can be used to generate electricity.

The process involves mixing shredded paper and board with a mixture of cellulase enzymes and water. After a while the enzymes break down the paper and board, releasing glucose into the water. This water is then added to the Sony bio battery which can be used to power an electrical device. Sony has been working on its technique for turning cellulose into glucose for several years and has demonstrated a prototype bio battery. The batteries are about two cubic centimetres in size and four would be needed to power an MP3 player.

It is early days yet, but relative to its mass Sony reckons that paper is a potentially high density power source: a single A4 sheet can output the same amount of energy as six AA batteries. Sony is working on making its bio battery even better to the point where it hopes to "create highly efficient batteries that turn all kinds of waste paper around us into sources of electricity". The longer-term goal for Sony's bio battery R&D team is to further enhance performance and to ultimately develop batteries suitable for notebook computers and other mobile devices.

This is quite wonderful stuff and another reason to promote and celebrate print's sustainability.

For more green news, check out The Verdigris Project:

Verdigris

http://verdigrisproject.com

Farewell to Efi

Efi Arazi - 14th April 1937 to 14th April 2013

There are a few great names in the graphic arts industry but Efi Arazi was more than great. Brilliant, charming, sensitive, brutal, witty, impatient, a bit of a hypochondriac and with the lowest boredom threshold ever. Married five times, he was definitely a very sexy man too. And he brought all of this to bear in Scitex, a leader not just in technology but in management and business development.

For years Scitex was standard case study fare for Harvard Business School. The company was one of the first to offer employees shares in the business.

Efi set up Scitex in 1968, overseeing its growth as it became a global leader in digital graphics technologies, specifically for colour production and workflow management. The company reached incredible heights until standard systems based on DOS and off-the-shelf hardware started eroding the base of Scitex's business. Who would now pay $1.5 million for a colour production system?

Electronics for Imaging which Efi set up in 1989 was the logical alternative to Scitex, founded on the premise that every digital printing device could be turned into a colour press. Sort of. The introduction of the early Fiery RIPs marked the advent of mass market digital colour printing, changing expectations and creating a new twist on the traditional OEM business model. Companies worked in partnership to come up with solutions that were greater than the sum of their parts. This, Efi foresaw, would be the way of the future.

All this and so much more. The best testimony to the man's amazing vision and profound cleverness is in the industry he has left behind. Today most print is in colour and produced for a fraction of what it used to cost. And EFI is the closest thing the industry has to a leader - visible, active, supportive and successful in virtually all areas of the print media supply chain. Efi has left the graphic arts and the world a far richer place than he could ever have imagined. Or maybe he saw it all along.

Another Review

Sign and Digital 2013

In many respects Sign and Digital is a small UK show but it is often used to launch new wide format machines. This year's Sign and Digital show was surprisingly busy, given that there was an obvious risk that the upcoming Fespa London would overshadow it. But the halls were full and the exhibitors seemed happy with the turnout with several machines sold by the end of the first day.

Perhaps the most obvious theme was the growing interest in textile printing, both for soft signage and for clothing, with plenty of samples of clothing and soft furnishings, and many stands featuring soft signage.

Epson demonstrated two new dye sub printers, which are just about to start shipping. The F6000 is a 44ins wide

Perhaps the most obvious theme was the growing interest in textile printing, both for soft signage and for clothing, with plenty of samples of clothing and soft furnishings, and many stands featuring soft signage.

entry-level machine. The F7000 is a more heavy-duty beast with a 64ins print width. Both can print up to 1440dpi resolution and use Epson's water-based Ultrachrome DS inks.

Mimaki also has a new textile printer, the TS500, which has a maximum print width of 1890mm and a maximum throughput of 150sqm/hr. It's a large machine, clearly designed for production environments.

Mimaki also demonstrated a new flatbed printer, the JFX500, which is capable of 1200 x 1200 dpi resolution and up to 60sqm/hr. Hybrid, Mimaki's UK distributor, sold
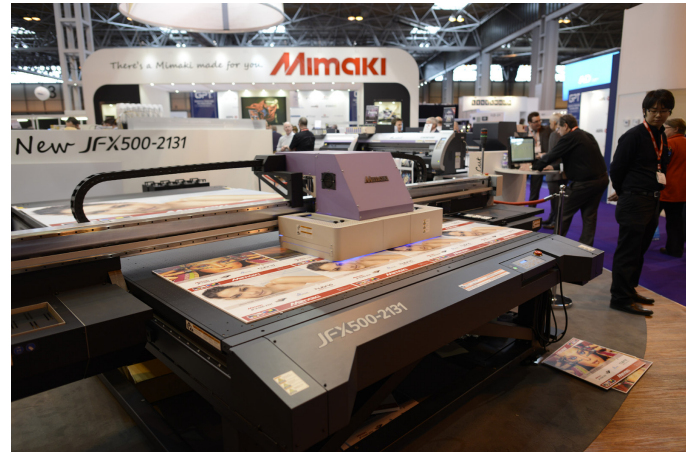
Despite this being a relatively small show there were several new machines launched, including this JFX500 UV flatbed from Mimaki.

one to Victory Signs on the first day of the show. Both the TS500 and JFX 500 use the same basic print engine, with Ricoh Gen5 printheads. The ink for both of these printers is supplied in a non-degassed form, with the printers degassing the ink once loaded. This makes the ink cheaper than previous models.

Mimaki also showed off the UJF-6042, an A2 UV LED flatbed designed for small format printing to objects such as pens, though at the show it was demonstrating packaging proofing.

There also seemed to be quite a number of solvent machines launched at this show, indicating that there is still a lot of life in this technology. Roland showed off its latest solvent printer, the Pro4 Soljet XF-640. This is a 64ins wide roll-to-roll eco-solvent printer. It uses the same chassis as the XR-640, but where that was a print and cut machine, this is a high-speed print only device. It can produce up to 120 sqm/hr in billboard mode, or 63sqm/hr in a high quality mode.

Mutoh bought its new ValueJet 2638, a 2.6m wide eco solvent roll-to-roll printer. This has up to 1440 dpi resolution and can produce 24 sqm/hr at 720 x 1080dpi.

GPT showed its 190s, a revamped 1.9m wide Mimaki textile printer, which has been adapted to use Mimaki's older SS21 full solvent inks. The machine has two sets of Epson printheads, making it faster than some of Mimaki's own solvent machines for a similar price. The adaption is

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backed by Mimaki, which will warranty the base part of the machine, with GPT servicing the additional integrated heater.

Interestingly, Xerox showed off a new Memjet printer, a prototype of which was previewed at last year's drupa. It will be launched in the Asia Pacific market this month, and Europe the month after. It uses Memjet's standard wide format array with five heads stitched together for a 42ins print width. As with all Memjet printers, it's very fast with up to 1600 dpi resolution and a maximum speed of 18mpm.

Overall, this gives a useful preview of the sort of things that we will see at the Fespa show to be held in London in June. Quite a few machines were launched here, and given that many vendors will have held back for Fespa, it seems likely that we'll see even more new kit, indicating just how vibrant a sector wide format currently is.

The Beast that is the European Union's Eco-Label

Introduced on the 16th August 2012, the European Union EcoLabel is a voluntary scheme designed so that consumers can identify products and services that have a reduced environmental impact. The EcoLabel is based on life cycle analysis and is increasingly appearing on products. Most visible are textiles, many of them from India produced for European distribution and sale, and floor coverings. Other goods sporting the EU EcoLabel include paints and varnishes and a host of copying papers, which is of interest to the graphic arts.

Fortunately for printers and print media buyers Intergraf, the international industry association of print associations, has been much involved in the development of the EU EcoLabel. Intergraf recognised early on that this label would see the light of day and has participated in its development in order to ensure that the interests of the print industry are reflected in its requirements. Given Intergraf's global reach, this is good news since the EU EcoLabel's requirements for print media reflects the interests of printers and print buyers worldwide, not just in Europe.

Slow & Steady

Discussions around the EcoLabel initiative started in 2003 however, the project has its origins in work dating back to 1992. The original project was designed to establish a voluntary labelling scheme for the European Community that was "intended to promote products with a reduced environmental impact during their entire life cycle and to provide consumers with accurate, non-deceptive and scientifically based information on the environmental impact of products".

It was clear during early implementations that determining the criteria on which to base the label was fundamental to its success, so it was time for a rethink in order to come

up with a scheme that would be acceptable to all parties. Intergraf, as one of several industry bodies and NGOs cooperating with the EU to develop criteria that are right for different product categories, has played a central role in these conversations.

The only categories in the graphic arts industry for which compliance criteria have been set is paper: newsprint, copy and graphic paper, tissue paper and printed papers. According to Laetitia Reynaud, policy advisor for Intergraf: "The industry in general pointed to the

> **It was clear during early implementations that determining the criteria on which to base the label was fundamental to its success, so it was time for a rethink ...**

complexity of printed products and the need to ensure that printing companies are able to produce their whole range of printed products". Given the massive range of print media products it was almost impossible to come up with a common scheme that everyone could accept. Reynaud explained: "Due to a lack of agreement between stakeholders, the adoption process was blocked in 2008". Fortunately EU bureaucrats are a dogged breed and the Commission relaunched discussions in 2011.

Those discussions were characterised by scepticism and doubt as to how the label would develop, particularly for the printing sector. The central concern was the basis on which a product would be evaluated, so Intergraf has played an active part in determining the base criteria. However, to say that the criteria are stringent is a bit of an understatement and as things stand, it is clear that only a few very large printing companies working with very large brands will choose to implement them.

Getting Labelled

So far only a few paper companies have been awarded the EU EcoLabel. But this doesn't mean the label is irrelevant: the European Commission's objective was to come up

with an extremely high environmental standard, even if only a limited number of companies could achieve it. It is worth remembering that EU environmental policy is designed to change behaviour in supply chains.

Intergraf was especially keen to make sure that the label would be relevant across printed product sectors. According to Reynaud: "The application for the EU Ecolabel is costly and is extremely burdensome, so it was key for Intergraf to ensure that the user manual explains how a single application can be valid for more than one printed product (**http://ec.europa.eu/environment/ ecolabel/documents/ usermanual_paper.pdf**). The Commission agreed that the approach proposed by Intergraf would appear in the user manual."

This is a big achievement and sets a sound precedent for Intergraf's future involvement in the development of European environmental initiatives. The user manual is an important supplement that will aid applicants in fulfilling the ten criteria set for each product group in order to achieve compliance. The criteria vary from group to group but for papers and printed papers they relate to emissions from the premises and equipment, substrates and recyclability. A printer who wants to get this label must work with a "competent body" (presumably some sort of certification company) and submit a complete profile of activities. This includes: declarations of emissions to water and air; energy use (excluding transport); forest management; waste management; test results proving the recyclability of products and information about the environmental impact of suppliers and fitness for use.

This all sounds pretty arduous but several large paper companies such as Stora Enso, Mondi, Lenzing Paper and UPM Kymmene are already certified for selected paper

How far would you trust claims from the Bean Trust?

products. Uptake will, of course, vary from one European member state to another according to local interest, tax incentives and so on. Reynaud says that "some member states already intend to give a reduced taxation for EU EcoLabelled products, which will have an impact on the demand. Most of our members intend to communicate on the label and leave it up to companies to decide whether they want to apply for certain of their products."

This is a wise course of action and one that should be actively promoted by all print industry associations. Some Intergraf members are already working towards compliance however, for the most part these are larger printing companies. Intergraf is working on a Question & Answers document for its members, which ideally will also be distributed by local industry associations. As Intergraf secretary general Beatrice Klose has said: "European printers are keen to demonstrate their efforts to secure excellent environmental performance. However, excellence should not mean inaccessibility."

The EU EcoLabel is a multi-criteria label designed specifically in the interests of consumers. Getting the label requires certification and periodic compliance checks by independent auditors. It overlaps with ISO 16759 (Communicating and calculating the carbon footprint of print media) to some extent but not by much. A fundamental principle of the ISO standard is not to provide an eco label for print media products, on the basis that labels need to be transparent and universally recognised to be meaningful. And ISO 16759 only deals with a single environment impact: carbon footprint.

With a rising number of papers now compliant with the EcoLabel we consider it to be increasingly relevant for the

▶

printing industry, because at some point the label will start impacting print media products, for instance when big brand print buyers require EU EcoLabel compliant substrates and printing. Although the EU EcoLabel is currently voluntary, regulation should not be ruled out for the future. Depending on one's perspective, the EU EcoLabel is something to be embraced or rejected. If the industry follows the latter course, it does so at its peril. We must at least be aware of its requirements and be engaged in its deployment.

– Laurel Brunner

About More Than Money

When the Falklands war broke out in 1982 the late Maggie Thatcher was gleeful because "it's exciting to have a real crisis on your hands", compared to the humdrum of running government day to day. Peter Orisich, CEO of Mondi Uncoated Fine Paper, speaking at the recent Mondi Green Event in Vienna, reckons the pulp and paper industries are in the same situation. However based on the presentations made at this conference, for the graphic arts industry as well as the paper business the crisis may be passing.

Compared to other paper conferences we have attended, the overall tone of this event was far from that of an industry under siege. There was much concern over the EU Timber Regulation and print's carbon footprint however, that these topics were being freely discussed in an open forum suggests a change away from defensiveness towards expansiveness and inclusivity.

Mondi supplies office and professional printing papers (web and sheet) under its own brand and as customer branded products. It is one of a cohort of paper companies to have shifted their business to a green agenda, far beyond the lip service of greenwash. As one of the world's leading manufacturers of paper and packaging, over the last few years it has made a commitment "to encourage a more eco-friendly existence … [because] green is a state of mind".

Walking the Walk

For instance, Mondi has been working with Climate Partner Austria to provide carbon neutrality certificates for Mondi's Green Range. The Green Range is an umbrella brand established in 2006 for an eco-efficient line of papers and packaging products. They are PEFC or FSC certified and either Totally Chlorine Free or made from 100% recycled fibre. Some 65% of the papers are EU EcoLabel certified and some are fully CO_2 neutral or have a CO_2 neutral option.

Working with Mondi, Climate Partner measured a 25% reduction in CO_2 emissions per unit of saleable production since 2004. Around 65% of Mondi's forests are PEFC or FSC certified and 58% of the company's energy comes from renewable sources. Mondi is 93% self-sufficient in energy and sells electricity and heat, most of which comes from renewable sources, to local communities. In 2012 through its carbon neutral programme Mondi

In response to a question from the floor asking if the EUTR could be avoided Charles Townsend had a simple answer: "No".

compensated 29,483 tonnes of CO_2, equivalent to the footprint of 34,006 EU citizens per month (each European averages a monthly CO_2 footprint of 867kg).

Central to proving "a green state of mind" to the market is product certification and the environmental credibility of paper's sustainability amongst consumers. This is what the EU Timber Regulation (EUTR), a hot topic in Vienna and now an unavoidable regulation, is intended to provide. Charles Townsend, a consultant with certification body SGS UK, outlined EUTR requirements for operators and traders. An operator is anyone placing wood products onto the European market for the first time and a trader

is anyone buying wood products already placed onto the market. Traders have to identify the operator or trader who has supplied the product and keep the information about their suppliers for five years. For operators, matters are a little trickier as they have to operate a due diligence system. This is a framework of specific procedures regularly maintained and evaluated that basically proves that a company is not placing illegally sourced timber

If you want to improve your knowledge of sustainable paper making go to **www.mondigroup.com/greenmnodules**. This online training project is developed with OroVerde a German NGO and for every participant in the training Mondi donates €1 for which a tree is planted. For everyone who successfully completes the quiz at the end of the training Mondi donates €10.

The Mondi Neusiedler mill in Austria uses a steam train to transport incoming pulp to the paper machines a few hundred yards away. The steam is good for about six hours use in the train and is captured as waste from the paper making process.

or subsidiary product on the market. The consensus in Vienna was that policing of the EUTR would likely fall to NGOs such as PEFC and FSC until national governments get their act together.

The rule's intention is to prevent illegal timber reaching the European market. It will place a considerable burden on exporters to Europe of wood and wood-based products. This is no bad thing, given the dreadful destruction of many tropical forests, for instance, in Indonesia. Implementing the EUTR for operators and traders will not be simple. It will be particularly onerous for paper makers using pulp from multiple sources. SGS has produced a white paper (sgs.com/EUTR) for anyone interested in further details.

Whether consumers will notice or value the benefits of the EUTR is questionable: consumer perception is notoriously hard to shape. It wants slick marketing, messages that are easy to grasp and constant reiteration. Paper companies such as Mondi are working on this, particularly in its promotion of the Green Range, as well as its investment into natural capital, a relatively new concept for the graphic arts.

Natural Capital

The concept of natural capital extends the notion of manufactured goods to goods and services related to the environment, including people (Mondi employs 25,700 in 30 countries mostly in central Europe, South Africa, Russia and emerging markets). Paper and printing are obviously ideal candidates since they are based on sustainable resources (including people). Forty-one financial institutions from around the world have signed the Natural Capital Declaration, "a global statement demonstrating the commitment of the financial sector to work towards integrating natural capital criteria into financial products and services".

For businesses this means a fundamental shift in values, away from straight profits to a more holistic approach to commerce that recognises the symbiotic relationship between commercial and social activities. According to Peter Gardiner, Mondi's natural resources manager, it "requires landscape level thinking" in order to develop ecosystem values. Such values should be consistent

with goals defined by the World Business Council for Sustainable Development (WBCSD) in its Vision 2050 report. This report outlines a new agenda for business to help build a world where nine billion people can live well and within the planet's resources. For Mondi and its customers in the graphic arts this means taking care of natural capital and proactively protecting forests and the environmental impact of media.

Gardiner says the new agenda is "about realising what your natural capital is and building it into a proper management system". This is all far removed from the day to day struggles of running a successful printing business and commercial concerns can often get lost in the thickets of ideals. And this event was of course about raising awareness of Mondi's Green Range, as well as sharing the company's progress towards WBCSD goals. But the green state of mind is reaching an ever wider range of participants in the print media supply chain, including NGOs such as the WWF.

The Woods Are Alive

NGOs are beginning to understand that commercial incentives are a powerful force when it comes to caring for forests as well as other resources such as water and indigenous communities. Helma Brandlmaier of the WWF presented the latest chapter in the WWF's Living Forests Report, which includes its target for Zero Net Deforestation and Degradation (ZNDD) by 2020. The Living Forests Report basically says that managing the world's forests will lead to less deforestation than leaving them alone would do. It says "if production forests are managed sustainably and wood products are used efficiently or to replace others with a heavier footprint, this should be good for the planet."

For Brandlmaier "transparency is a key component of promoting improvement". Mondi alone plants 31 million trees per year and has 25% of its leased or owned lands set aside. It also has 100% of its forests certified and various conservation activities in South Africa and Russia, where the majority of its forests are located. Mondi is one of eight forest owners working with the WWF and the governments of Brazil, China and Great Britain on the New Generation Plantations (NGP) project to promote sustainable forest management.

The planet's forest cover is now stable in the top producing countries and in places where deforestation is still rife, such as Indonesia, local companies and government are under sustained and profound pressure to change. Recycling programmes are increasing: the European paper recycling rate was 70.4% in 2011 according to the WBCSD. Most importantly, the Food and Agriculture Organisation of

Only a few delegates braved the elements at the Mondi Green Event, which took place at a vineyard just outside of Vienna.

the United Nations reckons that the world's forests and forest soils store more than twice the amount of carbon found free in the atmosphere. The WBCSD says that with reduced deforestation as well as forest expansion and growth, the world's forest carbon stocks are increasing by about 1Gt per year. This should all be a powerful incentive to encourage more forest and wetland preservation and development.

The NGP project uses the FSC and PEFC schemes which are well established and broadly endorsed in the printing industry. Some 26% of the world's forests are now

Sergey Popov is planning to start a new site for social entrepreneurship in a Moscow suburb to make blank notepads (EcoPads) from paper waste.

certified to one of these schemes, 10% of them to both however, neither can provide complete information for certifications, for instance, to the EUTR. Improvements can only come through a cooperation between governments, business and certifying bodies, commercial or otherwise.

What Next?

Compared to where the industry was several years ago there are plenty of reasons for greater optimism for its future, whichever side of the environmental fence one sits on. As Dr Werner Sobotka of European Media Group said the "printing industry is on the way to be a big contributor for a green environment". Austria has had its own eco label for many years and has over 100 printing companies certified to it. The label is being brought inline with the EU EcoLabel (see story on p13). Besides numerous labelling schemes there are a growing number of sustainable forest management programmes around the world and a wider

recognition that planted forests can be productive and support diverse flora and fauna.

So what does all this mean for printing companies and technology providers? For the latter it means that green awareness and green initiatives will soon be a necessary factor in a company's competitive positioning. Suppliers will need marketing messages that are based on more than green puffery. Programmes don't need to be ambitious, but a position on natural capital and each company's response to such things as the WBCSD's goals will start to become factors in technology investment decisions.

For printing companies the messaging is simpler because most printers are small to medium sized enterprises, able to articulate their environmental policies on the basis of sustainability, efficient resource use and the effectiveness of their products, most of which can be recycled. In Vienna Sergey Popov, owner of digital print company Idea Print in Moscow, said that green printing now accounted for 15% of his production. Idea Print's own Greenprinter label for prints on recycled papers, workshops on how to reuse waste paper and local environmental social programmes were paying off for the business. The future may not yet be looking bright but it's looking far less dark than it has done for a while.

– Laurel Brunner

Cloud-based colour

Our series of reviews of cloud-based colour management solutions continues with a presentation of the Dutch company Color Concepts.

Over the years Color Concepts has acted as an independent test laboratory for many of the large format printer and print media manufacturers in the world, and early on saw a need for a centralised database containing colour critical data. The solution, called ColorBase, is the result of several years of development and real life testing.

Marco Roos is the founder and Managing Director of Color Concepts, and started off by doing training and consulting on applied colour management. One of the more challenging tasks was to create optimised ICC profiles for new large format printers, for a wide range of substrates. Rumours soon spread that profiles created by this small Dutch company worked extremely well, and one by one the printer manufacturers started to turn to Color Concepts to get an objective third party evaluation of a certain combination of print technology, inks and substrates.

Roos explains: "The challenge when a user runs into troubles printing on a certain substrate is to figure out if it's the printer itself which is at the core of the problem, or the inks, or that substrate as such – or limitations in the RIP system". He continues: "As it happened, we were trusted to conduct tests on behalf of both manufacturers of substrates, and printing devices, to find out what really worked, and how." Pausing, Roos reflects: "I think we have tested, if not all, then almost all RIP systems on the market."

Color Concepts counts amongst its clients Avery, Epson, HP and Mimaki, and the company also manages the new certification program of substrates suitable for printers using HP Latex ink.

Roos says: "Some years ago, I think already in 2006, we ran into the quite well known situation of experiencing the ICC 'profile hell'. We simply couldn't manually manage the thousands of ICC profiles we had created by then, and track the metadata that should go with it. We needed a database for this, and of course this should be accessible via the Internet. The concept of today's ColorBase was born."

Having experienced this 'profile hell' ourselves, during our own testing at Digital Dots, we wondered if only having a suitable ICC profile in a database is enough to secure a quality and colour managed print production on a certain substrate, but Roos explains a bit more about the metadata that goes into the database.

"When we talk about a profile for a certain substrate, being used in a particular printing device, we mean all the info which is needed to both calibrate the printer and set
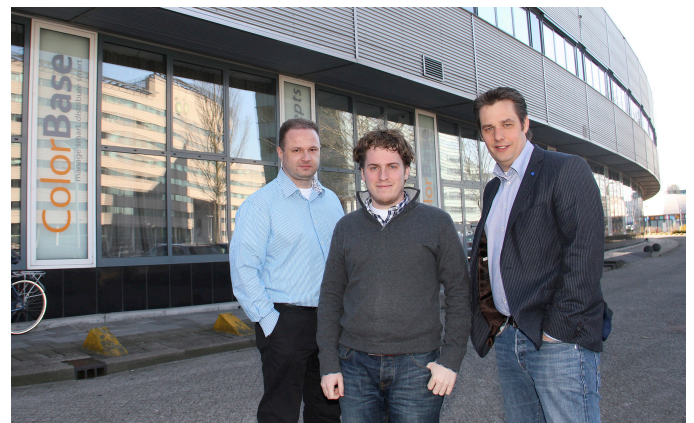
Color Concepts is an international colour management consultancy and software developer with headquarters in Rotterdam, The Netherlands. From left General Manager Bart de Vreede, Marien den Besten, System Architect for ColorBase and furthest to the right founder and Managing Director Marco Roos.

up the RIP exactly as needed. As of now we mainly do this with the Onyx RIP system, but if users or vendors want us to extend the support in ColorBase to more RIP systems that offer such a complete control of the setup, we can do this depending on demand."

One of the most challenging, but also most interesting, applications at the moment is to control the appearance of metallic inks. Color Concepts is just about to launch a Colour Guide for metallic inks, using the experience from substrate validation and certification in conjunction with using ColorBase.

One of the latest developments at Color Concepts is a printed ReferenceGuide to metallic inks, here shown by Marco Roos. The designer will not only see how the print will look on different substrates, but also have access to the complete set-up of the printer to achieve identical results.

Printing metallic ink isn't new, but the uptake has been slow because of the difficulties in getting a predictable result on different substrates, on different printers," explains Roos. "With our ReferenceGuide for metallic inks the designer knows exactly how the end result will look, and what substrate and inks to use, and how to setup the printer!"

The print samples we were shown convinced us that this will probably be a very welcome tool, and we wish Marco Roos and colleagues good luck with the introduction of this service to the market. We have a feeling that we will hear more about Color Concept in the future – until now they have been a bit of a hidden gem, known only by a few,

but helping many directly or indirectly. Color Concepts already offers training in applied colour management in large format printing, and this will be continued and expanded.
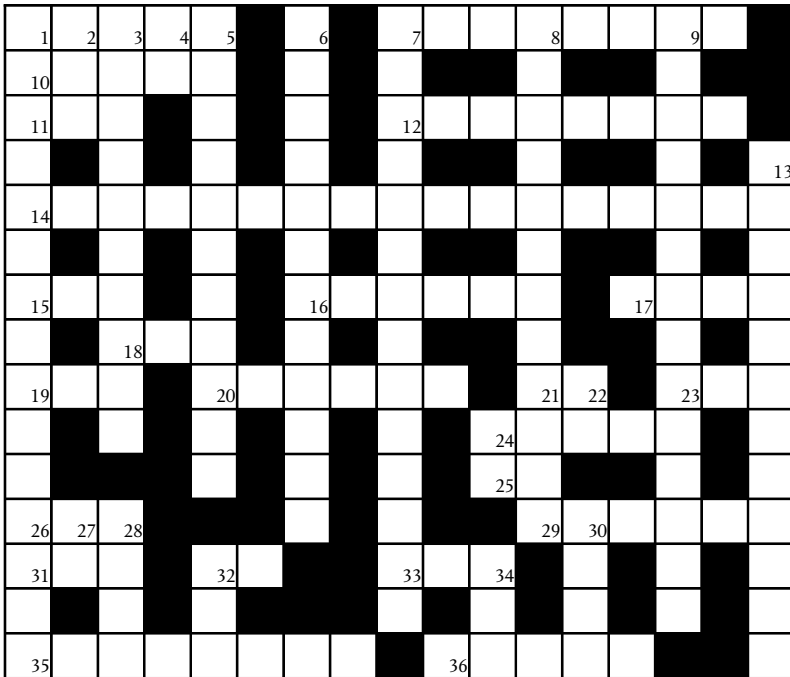
– Paul Lindström

X-word Puzzle

Number 42*

Across

1. Brief publicity for a book's content. (5)

7. Study of fluid flows, such as inks. (8)

10. Competitor. (5)

11. One absolutely aids potential, and adds purpose. (3)

12. Bases of judgements or evaluations. (8)

14. The science and process for removing ink from a substrate. (8, 9)

15. Don't let life fall into one: resist unexciting times. (3)

16. Magical recipes, she orders according to their letters? (6)

17. Stamp it on for shine! (4)

18. Information Management Institute or Intrepid Maniacs for Inkjet? (3)

19. Decimal? (3)

20. A characteristic of unstructured data. (2, 4)

21. Definitive infinitive article. (2)

23. Not cool. (3)

24. Walk down it though it sounds like you'd walk on it. (5)

25. Perform with a little fuss? (2)

26. Small child or amount. (3)

29. What is toner? (3, 3)

31. Facebook's was a disaster and Groupon's a disappointment. (3)

32. Regarding. (2)

33. A long time for European rotogravure. (3)

35. Epson and others got there first, but Landa's betting the farm on them. (4, 4)

36. Such drama for pleasure she fiddles. (5)

Down

1. This is what high-end colour management is all about. (5, 10)

2. Upper and lower, don't give any and be polite. (3)

3. The latest cure for what ails sign and display makers. (2, 8)

4. Royal Academy (2)

5. Colour managers obsess darkly and indicatively about these. (5, 6)

6. Process for purifying water. (12)

7. Paper makers are pushing for the environment. (8, 6)

8. Process and business will benefit from this. (12)

9. Something that brings extra advantage. Grains ground in dedicated plant. (5, 2, 3, 4)

13. They make tidy holes in banners. (6, 6)

22. Operating System. (2)

24. Shortly, the Common Era. (2)

27. Not accounts receivable. (2)

28. Opposite of up. (4)

30. How do you spell OK? (4)

32. Alternative to carpal tunnel syndrome. (3)

34. Everything. (3)

*Answers in the next issue