> The Internet isn't something you hold in your hand… so is there a future for printing?
> – Rokus van Iperen, CEO, Océ

Dear Reader,

We have a bumper issue for you this month, as we won't be publishing again until September. Much of this issue is devoted to digital printing and some important developments coming from very different quarters: Xerox & ACS, Canon division Océ & Manroland, Kodak, and Fespa.

Each of these inhabits a very different part of the digital printing ecosystem and each has taken a very different approach to embracing the Internet which binds all aspects of commercial life. The Internet is the workflow foundation the market relies on for print creation, production, delivery and ultimate consumption. It supports all of these activities, plus provides the commercial environment necessary to drive print back to the top of media buyers' agendas.

Whether that happens or not depends entirely on the market: how it perceives print, how much print costs, the return print yields, and of course on the survival of the technology providers. Keeping the conversation going is the first step.

Have a great summer!

Laurel, Nessan, Paul and Todd

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News Focus

Durst has a new textile printer, the Kappa 180. This boasts a printing speed of more than 600 sqm/hour and resolution of 1056 x 600 dpi. It uses Durst's proprietary Quadro printhead technology with a specially hardened, fray-resistant nozzle plate with a drop size of 7-21 picolitres. It prints eight colours – CMYK plus orange, red, blue and grey. It uses water-based inks with the ink delivery system having an osmosis filtering system that eliminates tiny gas bubbles in the inks.

Heidelberg's latest figures show incoming orders and sales for the last financial year from April 1 2010 to March 31, 2011 were up on the previous year, with sales of €2.629 billion, up by 14 per cent. After two years in the red, the operating result improved significantly, moving back into the black. However, the company still recorded an annual loss of €-129m, better than the previous year's loss of €229m.

Canon and **Océ** have combined their printing operations in Japan and Switzerland, following the completion on 9 March 2010 of the public offer of Canon Inc. for Océ outstanding common shares. As a result Canon has acquired 100 per cent of the share capital in Océ-Japan Corporation for ¥1,100m, approximately €9.6m. Meanwhile Océ NV has sold 100% of its Swiss operation, which accounts for 3-4% of overall Océ revenues, to Canon Europa NV for €15.9m.

Manroland has returned to normal working hours at its Offenbach plant after three years of reduced hours, thanks to an increased level of orders, particularly in the sheetfed sector.

Global Graphics and **Corel** have announced an agreement to develop and market products that leverage Global Graphics' PDF and Page Description Language technology. Global Graphics is a leading developer of OEM software used in printing and electronic document solutions.

Kodak has raised the prices on all flexographic plates by up to seven percent in all regions, though current contracts will be honoured. Kodak blames the increase on increasing costs of manufacturing.

BasysPrint, a division of Punch Graphix, has announced a new series of 4-page and 8-page UV platesetters, which should ship in November. As well as imaging the plates for offset printing, these can also coat plates for spot varnish printing and can be used for photoengraving magnesium or copper plates up to 10mm thick for hot-foil stamping and embossing. The 850 series features dual plate loading so that two plates can be processed at once.

HP has introduced a new upgrade package for its XP2300 wide format UV printer that gives it new billboard print modes for printing directly on inexpensive banner materials. This gives a choice between glossy or matte finishes using one ink and reduces the time spent switching inks between print jobs.

Heidelberg has announced an IPA-free Package, which includes coordinated machine components, consultancy services, and Saphira consumables as well as special dampening rollers with modified surface materials and structures and an extended range of features in the new CombiStar Pro. There are special Saphira dampening solution additives and comprehensive consulting services.

Kodak has made some improvements to its VL series of high-speed commercial inkjet printers. These include

▶

achieving a more consistent dot-size variation, which optimises flat-field print density and reduces jagged line occurrences. Kodak has also managed to increase the life expectancy of the printheads through ink degassing and temperature control innovations.

Fujifilm Dimatix has shown off a new printer, the DMP-5005, aimed at materials deposition applications rather than graphic arts. This is a large format, non-contact system capable of jetting a wide range of fluid types using the Fujifilm Dimatix 16-jet, 1 or 10 picoliter user-fillable cartridges for product and process development. It takes up to five sequentially operating 128-jet, 1 or 10 picoliter printheads with up to five different functional fluids. It has a printable area of 500 x 500mm.

EFI has launched Fiery Consulting Services, essentially a series of interactive one-on-one sessions with Fiery experts on nine topics that teach customers how to better use Fiery features, workflows and tools. It's available in the US from $750.

German MIS developer **Hiflex** has been showing off its next generation system - release 2012 - also called the drupa-release. This has been completely rewritten and can be installed and configured as a cloud computing solution, which Hiflex claims as a first for an MIS.

Print estimation system **Logic Print** has been updated to work with both the metric and imperial systems. This new 2011 version allows for recalculation of work after changing the number of colours, formats, pagination and so on. It can also calculate work at different machines and report the cost in each.

Extensis has released version 3 of its Universal Type Server for managing fonts. This gains support for Adobe's InCopy and Photoshop Auto Activation Plug-ins and better control over font licensing.

Enfocus has upgraded its Switch automated workflow program to version 10. It includes a new Workload Visualizer that continually tracks whether network loads, file volumes and other critical performance parameters remain within workable limits. It can also handle multiple processes simultaneously and there's a proxy server to ensure that clients can always deliver to a publisher's server, even if it is being maintained or updated. It also supports Secure File Transfer Protocol (SFTP).

Callas has issued a free update for users of its pdfToolbox 5 with more automatic checking and fixing of problems in PDFs. This includes greater flexibility in checking for page sizes and bleed issues. Checking individual edges of a document, for example, allows different treatment of inside and outside borders, even or odd pages.

Callas has also released new desktop and server versions of pdfaPilot to coincide with the introduction of ISO PDF/A-2, which brings support for PDF collections and for layer views. Existing users can upgrade for free to pdfaPilot 2.4, which includes support for all editions of PDF/A-2 including the Advanced variant, which imposes structure and content requirements to allow screen readers and other accessibility tools to function correctly.

Enfocus has added e-reader support to both the desktop and server versions of PitStop Pro 10 for use with devices such as the iPad. Printers and publishers can use the standard Preflight Profiles and Action Lists to choose parameters such as the file resolution, and to optimise the PDF accordingly for faster and better e-reader viewing.

Quark has updated its off-the-shelf publishing solution, Pubs-XML Accelerator for the intelligence community. This is a plug-in for Quark XML Author and allows any Microsoft Word user to encode XML content for classification, declassification, handling, and dissemination and readies the content for delivery to XML, HTML, PDF, and Microsoft Word formats. The new version supports Pubs-XML v5, the XML data encoding specification for intelligence publications.

RISI, an analyst group covering the global forest products industry, has warned that 25 uncoated woodfree paper machines in Europe are at high risk of closure, with the loss of some 1.5 million tonnes of capacity by 2015. RISI puts this down to declining Western European demand and the addition of new capacity in Eastern Europe, Asia and Latin America. This is based on a study of 65 paper machines and 29 producers of xerographic, printing and converting papers in Europe.

News Analysis

Stroma proves viability of digitally-printed newspapers

Recently we visited Stroma, based in West London, United Kingdom, which has been printing digital newspapers for over ten years now. The company started with a monochrome toner device, but has just switched to colour inkjet with the purchase of an Océ JetStream 1000.

Last week Belgian-based Newspaper Abroad signed an agreement to have 45 titles printed at Stroma for distribution within the UK. Stroma already prints between 50 and 60 titles a day from a database of around 1400 international newspapers.

Printing newspapers digitally is not a cheap option, as Mark White, manager of foreign sales for the Mirror Group, pointed out. But it does allow publishers the chance to get their newspapers to a worldwide audience in a more timely fashion than relying on catching the last flight out. White estimates that 12 to 15 percent of the Daily Mirror's internationally distributed papers are printed digitally, a figure that is bound to grow.

But there's more to it than simple logistics as the short run ability of digital also allows Stroma to target particular markets. For example, Stroma prints wraps advertising local branches of Pizza Express, which are distributed with some newspapers. It also prints The Australian and Sydney Morning Herald for Qantas and can add the airline's logo to those papers. Better still, the papers can be printed and delivered to the airline so quickly that passengers can actually read the next day's paper while flying home.

Steve Brown, managing director of Stroma says that although the concept of digitally printing newspapers is not new, what's really driving the market is full colour inkjet because the colour helps sell the advertising. Publishers have the option to decide on the paper they want to use, and the amount of ink coverage they want to lay down – and to choose between better image quality or lower costs.

Steve Brown, managing director of Stroma.

However, newspapers alone won't cover the cost of the operation and Stroma has had to branch out into printing short run books and corporate brochures to make ends meet. Besides the inkjet machine, the company still runs its ten year old monochrome DemandStream, which gives it a lot of flexibility in the work it can handle.

Picture This

We came across this billboard on the side of a busy road advertising a well-known women's fashion retailer. Note how the skin tone changes completely on the model's legs, which is rather jarring and completely undermines the whole poster. It's a useful practical demonstration as to why good colour management matters.

We all know that these billboards are made up of numerous smaller sheets tiled together and our eyes instinctively cope with small issues in registration where some of these tiles fail to line up exactly, just as subtle changes in colour around the dress have very minimal impact. But the sudden sharp change in colour on the skin tones around the knees is completely unnatural and even though it makes up only a very small part of the overall advertisement, it totally shatters the illusion.

Heroes & Zeros

Hero

A group of shareholders, including Amalgamated Bank and some pension funds, who have filed suit against the board of News Corporation. They allege that "a failure of corporate governance is behind the phone-hacking scandal" and that Rupert Murdoch's media company didn't pay enough attention when the hacking scandal first emerged some six years ago. Are they wrong?

Zero

Rebekah Brooks, chief executive of News International, for not paying attention in 2003 when she was editor of the News of the World, or lately when the scandal broke. Behaviour that at the very least is incompetent and at the worst, quite possibly criminal.

A Review

New display calibrators from X-Rite

OK, so there are some new monitor calibrators on the market, we can hear you say to yourself, but do we really need more? And we must admit we were thinking along those lines ourselves, when we first heard about the X-Rite i1 Display Pro and the similar, but simplified, Colormunki Display. But after testing those new measuring devices we were much more enthusiastic. There is a lot of good thinking that has gone into the design, and the technology also takes into account that different monitor types have different types of backlit light sources.

First of all it's a very compact design, and includes a stand to calibrate projectors — the stand is actually the diffuser hood of the instrument! Both the i1 Display and Colormunki Display share the same design, but the i1 Display Pro is said to be about five times faster (our estimate is that the i1 Display is at least twice as fast as the Colormunki Display). The finish of the i1 Display is also nicer, brushed aluminium, while the Colormunki Display is all plastic. Besides the speed differences, the i1 Display Pro also comes with the more feature rich i1

Profiler software, while the Colormunki Display has its own simplified software. We'll explain the differences in more detail below.

Fastest and fullest: i1 Display Pro

The i1 Display Pro is a colorimeter that can take into account whether your monitor uses fluorescent (CCFL) light tubes or LED backlights, for more accurate measurements, and so better profiles. There is also a diffuser to enable

The new colorimeter i1 Display Pro from X-Rite can calibrate both monitors and projectors.

measurements of ambient light. This diffuser also cleverly acts as a stand when calibrating a projector, but even better is to mount the i1 Display on a tripod – there's a socket for that in the base of the instrument.

While talking about clever design, even the counterweight has been re-engineered. While most of the older monitor calibrators have had somewhat clumsy counterweights that either fell off at a crucial point of the calibration, or were difficult to adjust, the counterweight on the i1 Display and Colormunki Display has a push button to simply release the counterweight from the cable for easy adjustments of the positioning. Sometimes small details like this make all the difference!

One of the features X-Rite highlight for both of the instruments is the capacity to take into account the flare on the surface of the monitor. While it's true that many monitors stand in an environment where the ambient light differs (close to a window for example), and few monitors are equipped with a protective hood, we are not

convinced that adjusting for changing ambient light and flare is worth the trouble.

Far better is to secure a stable and fairly low ambient light, and mount a protective hood onto the monitor. At least this is the preferred and optimum action for high-end and professional image retouching and proofing. There is a warning for changes in the ambient light but when we switched it on it was triggered so often during the day that we fear that users will switch it off anyway after a while. But the option is there, for anyone who finds it useful.

The i1 Display Pro is a fast device – a calibration takes about two minutes, including the fully automatic iterative process (but only fully automatic if you switch off the measurements of ambient light and flare). When calibration is finished you have a 'before and after'
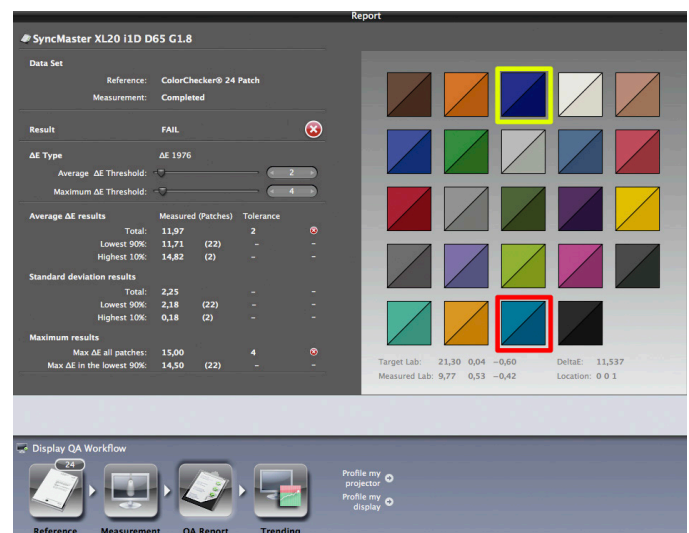
The i1 Display Pro comes with the software i1 Profiler, which can validate the monitor through the Quality Analysis function. You can, for example, set this to follow the recommendations in ISO 12646, and judge if a monitor is suitable for contractual softproofing (this one is not – it has aged poorly).

comparison, and here we note that X-Rite has licensed the use of the excellent test image suite 'Roman 16' from bvdm, the German Printing Federation, (while the Colormunki Display only has a limited set of images for comparison).

We also appreciate the support of two active monitors, and even more the validation process, called Display QA Workflow. Here you can check that your monitor, and the

calibration, achieve a good enough accuracy for high-end colour corrections and retouching. But here you are left a bit on your own, because the default settings on the threshold for reasonable colour difference is way too generous, meaning that the tolerance needs to be quite tight in order to rule out inferior monitors or failed calibrations.

We suggest that you follow ISO 12646 for this, where the average Delta E deviation should preferably not be more than two, and any single patch read shouldn't have a deviation higher than Delta E 4 (the standard allows for an average of five and a maximum of 10, but this is a bit too generous for demanding softproofing). This validation procedure is left out of the Colormunki Display software.

The QA function also allows you to follow up the performance of the monitor, so over time you can estimate when the monitor is too old for professional and highly accurate use.

Since both the i1 Display Pro and Colormunki Display can calibrate projectors, we used this function to calibrate the TV connected to the Home Cinema System (yes we know this is a bit geeky).

do, and that it's slower (a calibration takes roughly five minutes instead of the two needed for the i1 Display Pro). But you can calibrate a projector, and you can measure ambient light and take flare into account during the calibration. So we think it's a well-priced and fully functional monitor calibrator for designers and photographers that know that they are not responsible for high-end colour evaluation such as critical photo retouching or contractual soft proofing.

Or to put it another way – if you can't be bothered to control the ambient light, and don't want to mount a hood on your monitor, then the Colormunki Display is probably the right device for you. But if you want to evaluate if the monitor really qualifies for high-end soft proofing according to ISO standards, the obvious choice has to be the i1 Display Pro. The price difference isn't that much actually – approximately €200 for the i1 Display Pro and around €140 for the Colormunki Display.

The Colormunki Display shares all the design features of the i1 Display Pro, but is much slower, and has simplified software without the validation function.

Colormunki Display – the "poor man's choice"

So, what's left to say about the cheaper and simpler Colormunki? We have mentioned above what it doesn't

Green Shoots

The US *Department of Transportation* and *Environmental Protection Agency* have announced new fuel-efficiency labels for cars. The printed labels tell you the estimated annual fuel costs and how much greenhouse gas a car emits. Originally these labels were supposed to have a graded scale for comparison purposes, which may yet come to pass. All cars from 2013 will carry this label.

Heidelberg has awarded its second ECO Printing Award. This award covers several categories such as sustainable print shop management and sustainability innovations. The award for the former went to US printers The John Roberts Company. Vega press in Australia won the innovation category and both companies were honoured at a special ceremony in Heidelberg, to which representatives of both probably flew. Their prizes are vouchers for Heidelberg's Print Media Academy.

Development of *ISO's 16759* is proceeding apace. ISO 16759 Graphic technology – Quantification and communication for calculating the carbon footprint of print media products is the first of a set of standards to cover the environmental impact of print. It answers a growing need to address sustainability and the protection of the environment within the graphic arts industry. ISO 16759, is written for prepress, printers, print service providers, content publishers and other media companies and is on track for publication in 2012.

The Indiana Soybean Alliance's (ISA) *Indiana New Ventures and Enterprises in Soy Technology (INVEST)* program is funding development and launch of SoyPrint. This soy-based printer toner cartridge was developed by PRC Technologies and is making its way to market with funding from the INVEST programme. It is suitable for use with home or office desktop laser printers and uses toner powder derived from soybeans.

Ricoh has shown off a billboard powered 100 per cent by wind and solar power. It uses 96 solar panels and five individual wind turbines, and only illuminates when sufficient power is collected. It is the first of its kind in Europe, though Ricoh launched a solar-powered billboard in Times Square New York, last year. It's located on the M4 motorway, which runs from London to Heathrow airport.

Say What?

We couldn't resist dishing out the Say What award for badly written press releases to Kodak's PR agency, DuoMedia, for a message snappily entitled 'Kodak Introduces Technology Enhancements for Versamark VL-Series Printing Systems'.

We were expecting a list of said enhancements for the VL printers somewhere near the top of this epistle but instead had to yawn our way through several paragraphs extolling the virtues of these devices. Long after losing interest we did find some mention of the improvements to the printers, which you can find in this month's news section.

Surely even the most junior copywriter knows it's best to get to the point of the story in the first paragraph. If you must include a whole load of generalised marketing waffle to fluff out the release then at least put it at the end so that we can ignore it at our leisure.

(We almost wrote that this sort of thing is learned on day one of a journalism course, but in our experience the first day was devoted to law for journalists — no doubt anyone who has been reading the English newspapers over the last few weeks will see the funny side of that!)

Thunder in the Clouds

Imagination is what business vision is all about, but for very large companies like Xerox it can be difficult to articulate. At a recent Xerox analysts meeting it was clear that imagination doesn't have to get mired in corporate nonsense.

Last time we listened to Xerox expound on its vision of the future we came away anxious that printing and publishing did not seem to fit well within the company's post-ACS structure. We came away from this latest session much more confident that Xerox's direction will support the graphics industry as it continues with its painful reinvention. Some of what was discussed was under NDA, so we will save the latest news about the XPIS and its first installation until next issue.

Like its primary competitors HP and Océ, Xerox faces a changing world in which print is being subsumed into a much more complex digital media landscape. These days developing superior printing technologies is not enough. Printers have embraced digital workflows and are steadily extending those workflows to the web, and even to customers' desktops so data management is fundamental to their competitiveness. Suppliers therefore need joined up strategies that bridge all channels and manage data from conception to point of use. And all this will migrate to the computing cloud, a concept that printing and publishing companies as yet struggle to embrace. Cloud-based services and their associated business models will be the next major challenge companies must face.

First Service

Ursula Burns, CEO, outlined the company's forward plans and financial model. In 2009 Xerox was technology led with revenues of $15.2 billion, 25% of which came from services. In 2011, of Xerox's $23 billion revenues, 50% comes from services. Burns sees a business market opportunity up from $132 billion in 2009 to over $500 billion in 2011. In 2009 30% came from mono prints and this year it's 17%, a continuing decline, primarily

because of colour. No longer is Xerox about documents, but rather about services. It's the world leader for instance in providing transportation services to governments and processes 60% of US child support payments. Now Xerox is all about helping companies to focus on their core business and to be more efficient, as Burns explains: "Simplification and standardisation in their workplaces".

That is easier said than done. How to manage messages and content effectively is the big question facing all individuals and all businesses. The relationship with Cisco announced earlier this year is fundamental to Xerox's cloud strategy. Burns said that "the work we are doing with Cisco started way before we knew what we would do with them … the cloud is important and we are already

Xerox CEO Ursula Burns telling it like it is.

engaged in the cloud". Xerox is hosting cloud solutions, not building its own infrastructure preferring instead to work with Cisco to look after customers' interests. The company is working towards a hybrid model offering services within and beyond the cloud, for instance to mobile customers.

Xerox is adding its core strengths of brand recognition, global and effective presence, innovation, and operational effectiveness to the ACS operational model. ACS is highly profitable through keeping track of resources and managing them for profitability. Burns says that "BPO (Business Process Outsourcing) is the biggest expansion opportunity for us and for the market" because

"everybody wants services and we should be able to sell something to those 6.3 billion people around the world beyond the US". If the development of BPO and IT global expansion proceeds as planned, Xerox will need faster advances in production technologies especially colour.

To this end, Xerox's priorities are to maintain investment in research and development, accelerate services, and improve its own cost effectiveness to grow revenues and shareholder returns. Burns declared a commitment to grow high value pages, but although there is an intention to tackle the professional publishing industry it isn't at the top of the list. This ought to change particularly because of the disaggregation of conventional newspaper editorial models, especially for cross media content delivery. The

Xerox's priorities are to maintain investment in research and development, accelerate services, and improve its own cost effectiveness to grow revenues and shareholder returns.

fragmentation and crumpling of traditional business models creates a huge opportunity for cloud-based services and intelligent content management. The cloud could be a means of newspapers and magazines coming closer to their customers, and managing that relationship to deliver value added managed content across channels, including social networks and digital print. Xerox is indeed working on an advertising and content value chain proposition, but no details are available yet.

Following its partnership deal with Cisco Xerox is working to make IT management simpler, combining network intelligence and print. So print's still very much part of the picture. Wim Appelo, Xerox's president of its global business and service group said: "We will continue to innovate in marking technology". But there is a difference. Xerox's growth for the future is about managed print services and cloud IT outsourcing, using a well supported network of channel partners to make IT applications and output more accessible and efficient.

Channel expansion is primarily for office and some light production technologies, but could include production machines such as the iGen. The model includes mobile printing services that allow print from any device such as a mobile phone or tablet, at any location. Workflow applications, software and business process management add value to services, so Xerox sees future growth coming from end to end process improvement and management.

A Changing World

Xerox sees changes in the way its technology customers spend their collective $90 billion annual market budget, as device usage and customer priorities evolve. A4 is displacing A3 output at the desktop and with production machines positioned for on-demand Xerox wants to exploit its footprint to provide cloud driven output services. As Appelo pointed out: "Printing is only part of the equation". So Xerox is about finding better ways for its customers, from the Fortune 500 to SMBs, to work.

All parts of the communications business see mobile and electronic technologies taking low value pages from traditional media. We are however seeing growth in high value pages, particularly colour and variable data ones, but also for important short or long run documents. These can now be printed on demand at declining prices per page and a content explosion will drive greater page volumes in static and mobile environments. Web-to-print is the future of the graphics industry and digital communications and data management technologies are its foundation. This is why Xerox is "extending the value proposition beyond the printed page" and expanding software services into SMB.

The boundary between Xerox's enterprise and production technology is becoming more porous. According to Rick Dasten, Enterprise Business Group & Corporate Vice President: "Technology becomes successful when you wrap it round in a nice warm blankie". Xerox wants to be that blankie, bringing together IT systems for business and document management and delivered to customers via Xerox's growing partner channel. It has good coverage except in developing countries where the company is working with distributors of graphic arts consumables and equipment or resellers. Maximising distribution in

Xerox's new DocuColor 8080 printer is essentially an updated 8002.

this way gets Xerox in front of more customers, including SMBs and large enterprises. Dasten is working with channel partners to bring Xerox' 18 different A4 and A3 platforms and associated software to customers by leveraging the cloud.

Xerox's transformational strategy reflects changing digital business processes and the need to integrate them for better business experiences. Managed print and managed networks are Xerox's means of doing this, as Dasten notes: "We want to be everywhere … we want to be the Cisco of workflow".

Engines for Growth

The clouds are still forming and the relationship with Cisco still fresh, so devices are still the source of most Xerox revenues from tabletop and hallway printers to production presses. Eric Armour, president of the Graphic Communication Business Group, says "we're the clear market leader in high-end production" based on the breadth of Xerox's product line, research and development investment, sales, number of colour pages and sector reach.

Armour adds that "the retail value of print is growing at nine percent per year" and that colour pages are growing at 27 percent annually to be worth €1.2 billion by 2012. The recently announced iGen4 EXP 26ins engine and new

matte ink "has customers raving about the quality of the print". The number of colour pages produced on Xerox machines is up by 15 percent and there are around 750 production colour machines installed, over 41 of which cost more than $300,000. According to Caslon, a research company, over 1.2 billion colour pages will be digitally printed annually by 2021, primarily coming from collateral and direct mail at the cost of offset.

The new Docucolor 8080, now the only Xerox engine to bear the Docucolor name, is "a refreshed version of the 8002". This digital press will debut at Graph Expo and sits below the Xerox 800 press, which is bigger, quicker and more expensive (€249,000), and has a fifth station. The €185,000 8080 prints 80 2400 dpi A4 pages per minute, on stocks from 60 to 300 gsm, using a matte toner which is not the same as the Matte Dry Ink recently introduced for the iGen4 EXP. The 8080 is supplied with various applications designed to maximise productivity such as variable information, business card or calendar printing. The press has iGen's Automated Colour Quality Suite, with an inline spectrophotometer for colour control and Spot Colour Calibration and Advanced Profiling. There are three print server options: Freeflow, Fiery or Creo and various finishing options.

There are also some new developments for the Colorpress 1000 and the Xerox Printing Inkjet System, but these cannot be divulged yet.

Custom Thinking

Xerox, through its channel partners, is engaging more intimately with customers in order to walk the talk. They want to support the analogue to digital conversion, help customers understand and leverage the implications of web driven content development and production, and finishing. According to Burns, by helping achieve productivity through automation Xerox positions itself as the "true value added partner to our customers" on their digital journey because "what's important to the commercial printer should be important to us". If they get the conversations right, it will lead to a deeper understanding of the broader base of customers and their businesses. But there is a risk that the strategy will add expensive management layers between the company and its customers. Maintaining intimacy without excess cost will be a tricky balance to strike.

The Channel

It will all depend on the basis of channel partnerships, who will bear the cost of keeping folk sharp, straight and focused, and the extent to which customers will accept local relationships, rather than a straight line to Xerox. Durwaid Zaghouani is responsible for Xerox's indirect channel development and is focused on SMBs. Small and medium sized businesses represent 75 percent of the market for machines and 50 percent for services but it's impossible to reach them without an effective channel. He is "expanding SMB [customers] by expanding the channel" to achieve growth for Xerox through growing the channel and partnerships.

Imagination is driving technology developments and creating new routes to market. Xerox is using social media, internet apps and suchlike disruptive marketing tools to express its imagination and vision. The company wants to create a community with a collective and dynamic concept of information management. Xerox is also practising what it preaches. For instance, Xerox is the title sponsor for the Rochester Jazz Festival, providing both funding and the technical support for the festival's various concerts. The businessofyourbrain.com website has a short video and a desktop application to tell you what is distracting you from properly focusing on your business.

The app analyses how you use Microsoft Outlook to do this and is part of Xerox's Ready for Business campaign.

Last September when Xerox announced this Ready for Business campaign and bared its corporate soul, we were somewhat alarmed at the apparent lack of cohesion in its strategy. This time, we are pleased to report, the strategy is definitely cohesive and it's one in which digital printing plays a powerful role.

– Laurel Brunner

Creative Suite 5.5 – more than a numbers game

Earlier this summer Adobe started shipping CS 5.5, and we have had a look at the Design Premium Package to decide what the reasons might be to recommend (or not) users to make the upgrade.

At first we took the stance that this might not be such a crucial update after all, but after digging deeper we think that it actually might be worth the effort. Especially if you still haven't updated to Acrobat X (already reviewed in Spindrift no 8-9 of February this year) – the alignment between InDesign CS 5.5 and Acrobat X is perhaps the most important feature for professionals within print publishing.

Let's begin with what was said NOT to be updated in CS 5.5, Photoshop and Illustrator. While there doesn't seem to be any significant new features in either Photoshop or Illustrator, at least the numbering has been changed. Photoshop is now versioned 12.1 (or Photoshop CS 5.1 depending on where you look), and Adobe seem to have taken one step further towards pure 64-bit handling in the CS 5.5 version.

You are warned that some older plug-ins are missing from the new version, and that even if re-installed they won't work. The old feature to be able to print with no colour management active (useful if you want to print out a test chart for measurements) is gone, and instead you are instructed to use a special new software called 'Adobe Color Printer Utility' if you want to make sure the test chart is being output without any changes by the Adobe Color Engine.

For Illustrator we couldn't find any indication of new (or lost) features, but the numbering is changed from Illustrator 15 to be 15.1 (or Illustrator CS 5.1 if you look at the application name). One thing though that might affect Illustrator is that some of the previous Adobe fonts will be updated with newer versions when installing CS

5.5, so in rare cases it's possible that old documents will change in regard to possible new line breaks, even though the application as such hasn't been changed. So keep an eye on which fonts are updated, and check the text flow when opening older documents!

So what is really new in CS 5.5? Well, it's clear that much of the new features are within, on the one hand InDesign, and on the other hand Dreamweaver. Or if you like – the focus in CS 5.5 is on enhanced cross media production. This touches not only on document formatting and file
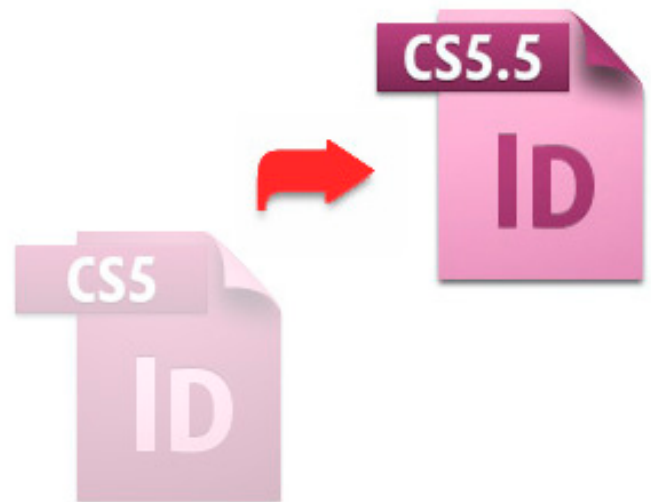

The big star in the CS 5.5 family is InDesign, and most of the enhancements Adobe has made seem to be towards a better environment for crossmedia production.

export as such, but perhaps even more on enabling more efficient teamwork, on tasks like editorial collaboration and network-based proofing.

Having said this, we were a bit disturbed to read that Adobe market "interactive, online documents to reduce ones carbon footprint", forgetting that reading information online on a computer generates more CO_2 after about 20 minutes compared to reading printed matter. It would be good if Adobe didn't jump on the bandwagon of those who claim that electronic publishing is more sustainable than print, without having put any real thought or research to it. But nonetheless, cross media is the way of the future (including print), so CS 5.5 clearly serves such an environment.

Adobe has expanded the options when formatting a document in InDesign for export to ebook readers,
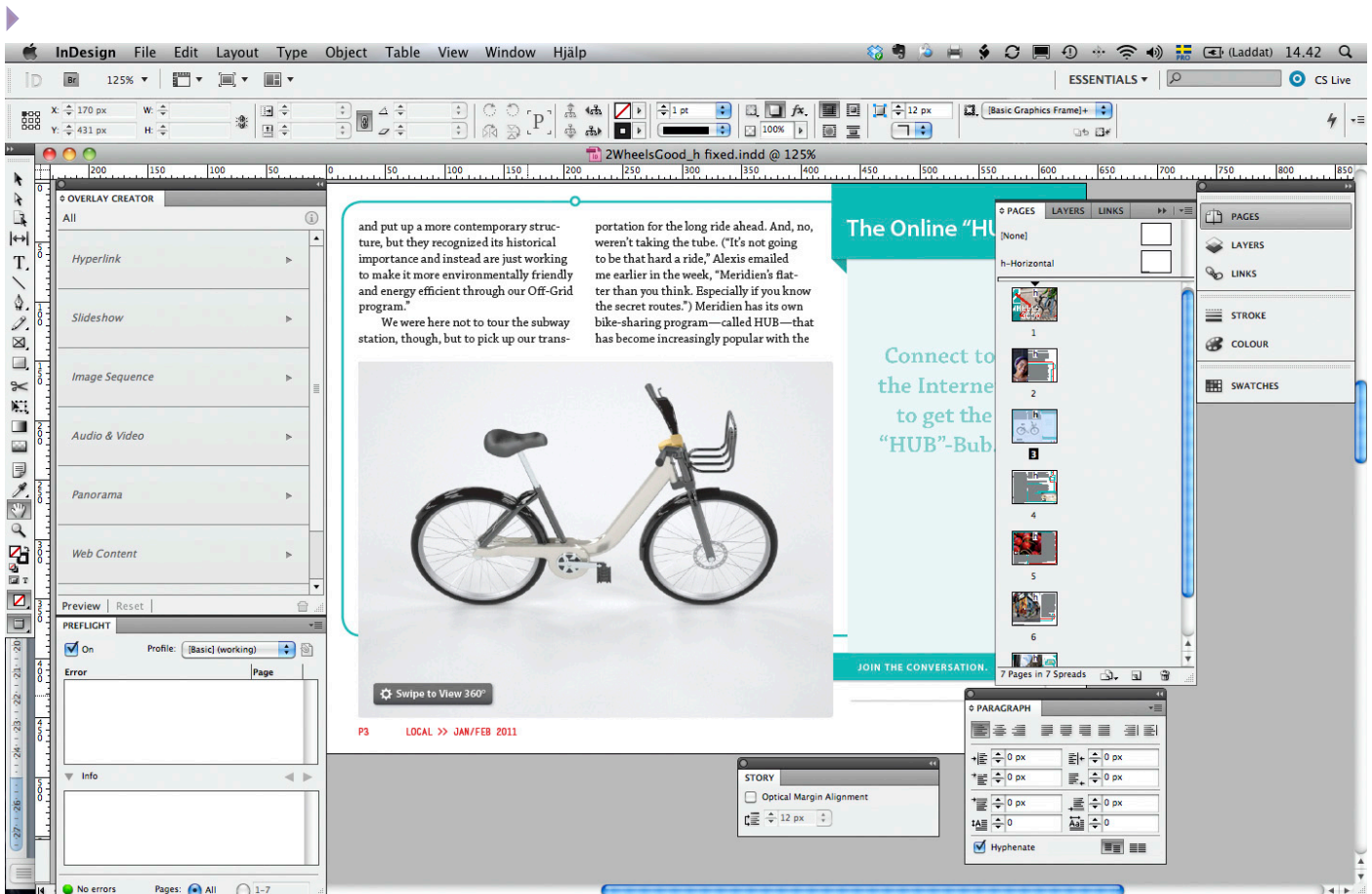
At first glance not much seems to have changed from version CS 5 of InDesign, to version CS 5.5. But when you start preparing a document to be published across several output devices, like smartphones and ebook-readers, the new features come in handy. Like the new 'Overlay Creator' tool, shown in the upper left part of this screen dump.

accepting the fact that not all interpret CSS (Cascading Style Sheets) very well. In InDesign CS 5.5 it's now easier to map styles to either the EPUB format, HTML or PDF within the Paragraph Styles and Character Styles panels.

Another area that is important to take into account when formatting pages for a multi-device environment is that image resolution needs to be flexible. Most smartphones and tablet devices can be rotated, so the image size needs to scale smoothly to different possible output resolutions. The new function Custom Rasterization takes care of this, and you can set the relation of image to page width. There are also options for alignment and spacing. Default values for resolution are now 150ppi for ebooks, and 300ppi for print – previously the only option for HTML was 72ppi.

When preflighting documents, InDesign CS 5.5 now has more options related to e-publishing, and this can of course be configured to your liking and needs. But getting deeper into publishing onto different tablet devices needs

a review of the Adobe Folio Producer Tools, part of the Adobe Digital Publishing Suite. This is a hosted service, and we need to come back and review that at another time.

For now we've concentrated on Creative Suite 5.5, where InDesign CS 5.5 is a crucial link to the Digital Publishing Suite. There are more nitty gritty details to explore in InDesign CS 5.5 for a designer wanting to push the limits of automated, net-based and database-based publishing, like for example the new feature to pull 'Live' captions from the metadata inside image files. Since media databases are a natural and vital component of both web-to-print and cross-media production, the possibility of linking this metadata to the published layout makes a big difference from having to continue to update content manually.

We concluded in the review of Acrobat X that one of the strong features was the enhanced possibilities of teamwork and network-based editing and proofing. This
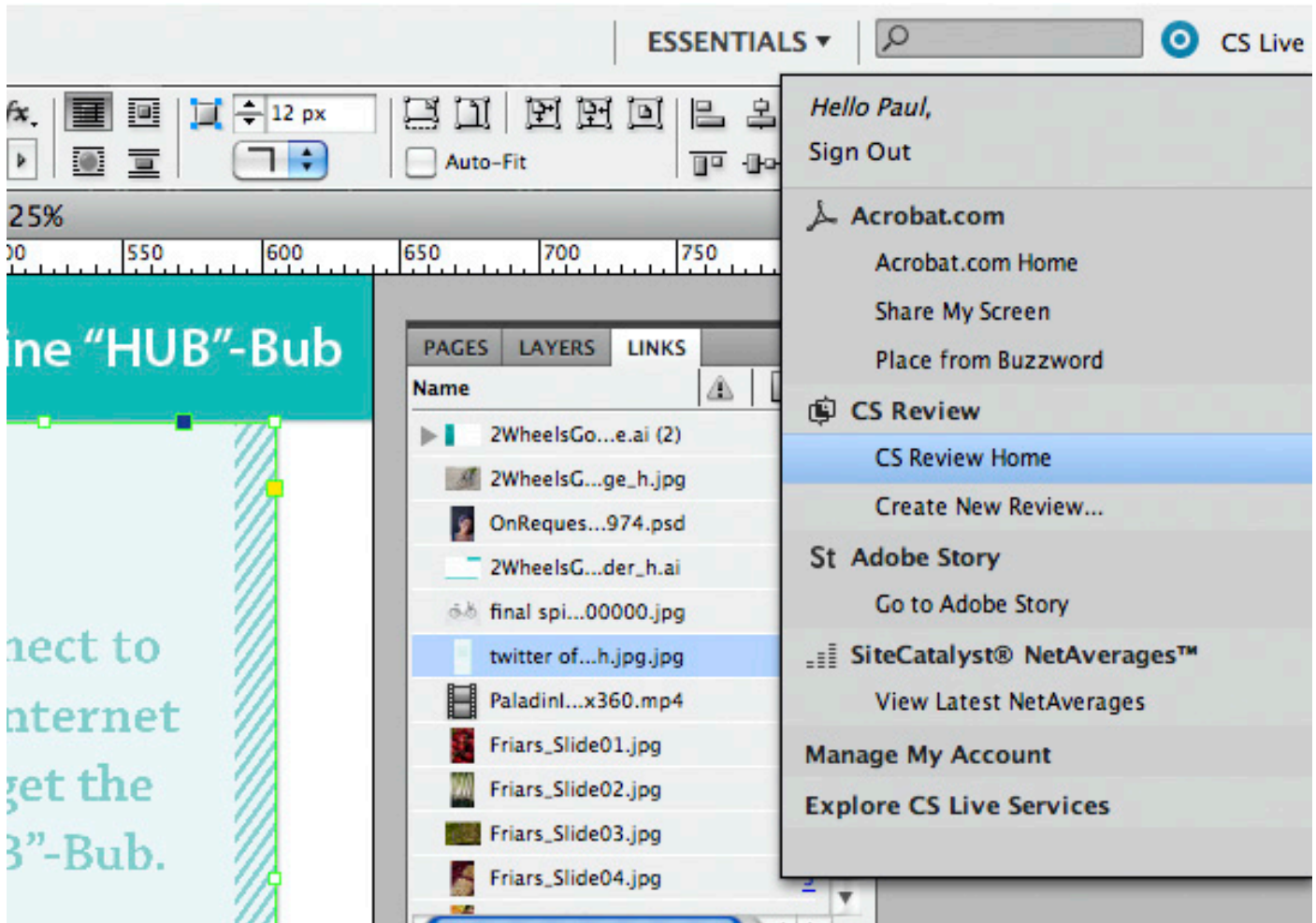
Already present in CS5, Adobe has taken the CS Live services several steps further with CS 5.5. Most of the application in the CS 5.5 Suite have a quick button to CS Live, where the user has access to a range of online tools.

is also true for CS 5.5, with the connection to Adobe CS Live. As for now the base services are free, and you can subscribe to CS Live at the same time you register your copy of CS 5.5. But after April 2012, we understand that Adobe may change the subscription policies.

The base service, for example, lets you start an online review session with up to three participants, and is also interconnected with the Acrobat.com services. It is all a bit confusing at first, and if you change your language or region preferences, you are redirected to the regional web site of Adobe, and lose contact with the CS Live functions that you intended to use.

When starting an online review session, a Lite version of Adobe Connect, the elearning and online conference tool from Adobe, starts up. The participants can share documents and speak over IP, and even have a video conference as long as they have a video and microphone

connected to the computer (and reasonably fast internet connection). Most of the components in CS 5.5 have quick buttons to CS Live, so once you have learned to navigate between the different features in CS Live, this should be a good alternative for online collaborative kind of work.

Part of CS Live/Acrobat.com is Adobe SendNow, from where you can send large files through email, where a normal mail service provider would most likely strip out the large attached file, or simply refuse to pass on the email. What actually happens is that Adobe hosts the actual file, and an email goes out to the receiver, who then fetches the large file. On top of the free service from Adobe you can sign up for the Premium option, which includes delivery receipts and up to 2GB size files (the free service only allows for up to 100MB files).

Among all the new features in InDesign we appreciate most the synchronisation with Acrobat X when it
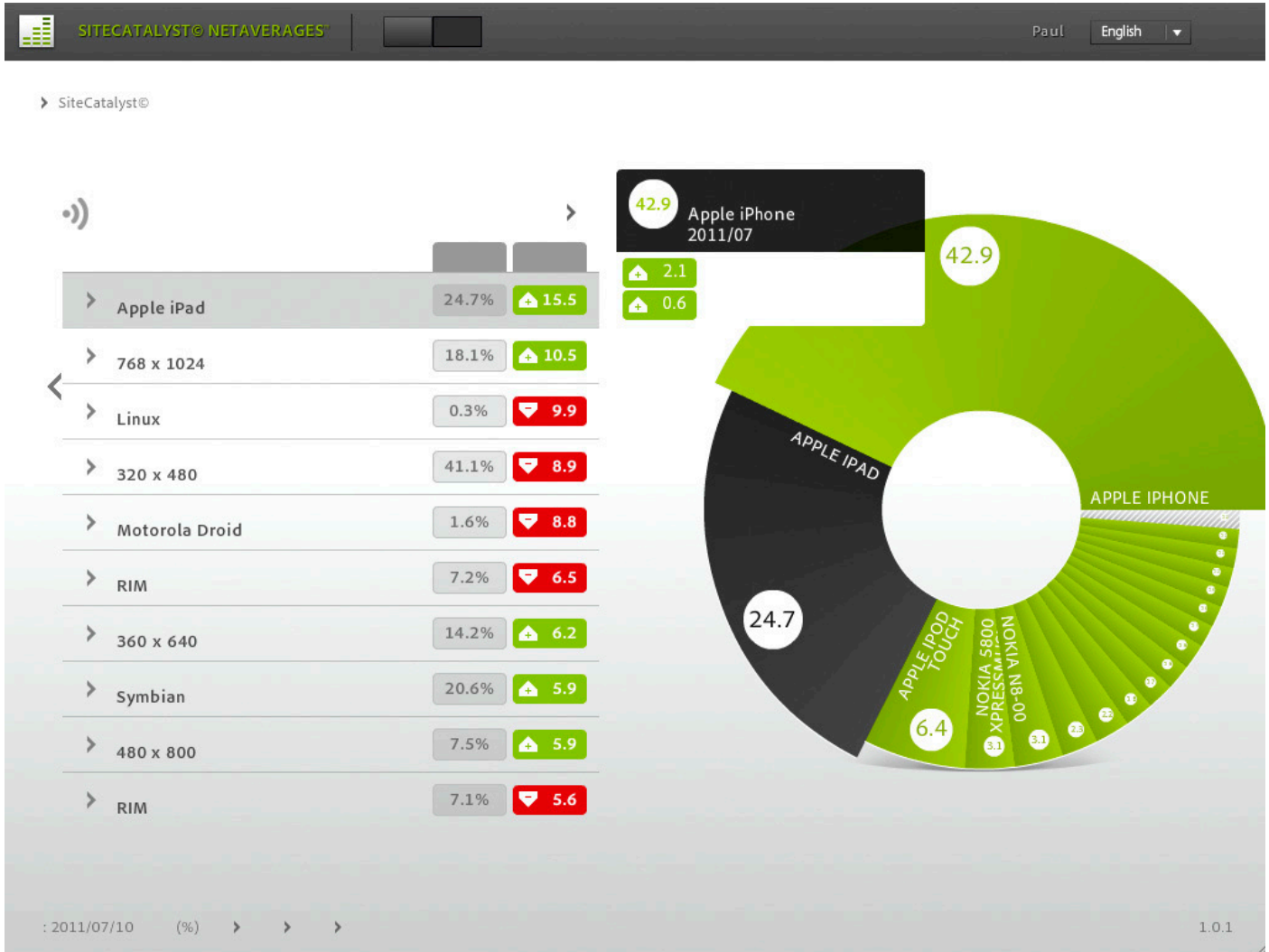
While trying out Sitecatalyst briefly it appears that Apple's iPhone seems to be the most used smartphone for web browsing, with the Apple iPad as a good second. If we interpret this chart correctly Apple has about 65% of this market, when it comes to actual usage.

comes to professional output of print-ready PDFs. The PDF/X file formats are more and more widely accepted as the preferred delivery of ISO-compliant electronic documents for print production, and InDesign now (like Acrobat X) supports the 2010 version of PDF/X-4. Printers certified according to ISO 12647-2 are well aware of PDF/X-4, since industry organisations like FOGRA and the German Printers federation, bvdm, recommend PDF/X-4 for a flexible RGB-based workflow, in contrast to a classic CMYK workflow, where PDF/X-1a is preferred.

Another benefit when using PDF/X-4 is that the features of PDF such as transparency and layers can be maintained, while using a CMYK workflow and PDF/X-1a forces you into the older type of PostScript-based workflow. Since more and more printers have now upgraded their RIP

systems to be compliant to the Adobe PDF Print Engine PDF/X-4 is preferred by both printers and designers. It may seem like a small thing, but it's very good that Acrobat X and InDesign CS 5.5 now can use the exact same output settings when creating PDFs.

Before leaving InDesign, we need to flag the new Adobe Creative Suite Printing Guide, available to download for free. It's updated to include all the new features in CS 5.5, and is a real treasure for designers and prepress operators that want to learn all the tips and tricks to do with modern day print production. Well done Adobe!

There are of course a whole range of other nifty new features in the whole CS 5.5 suite, not least in DreamWeaver CS 5.5, that we haven't been able to
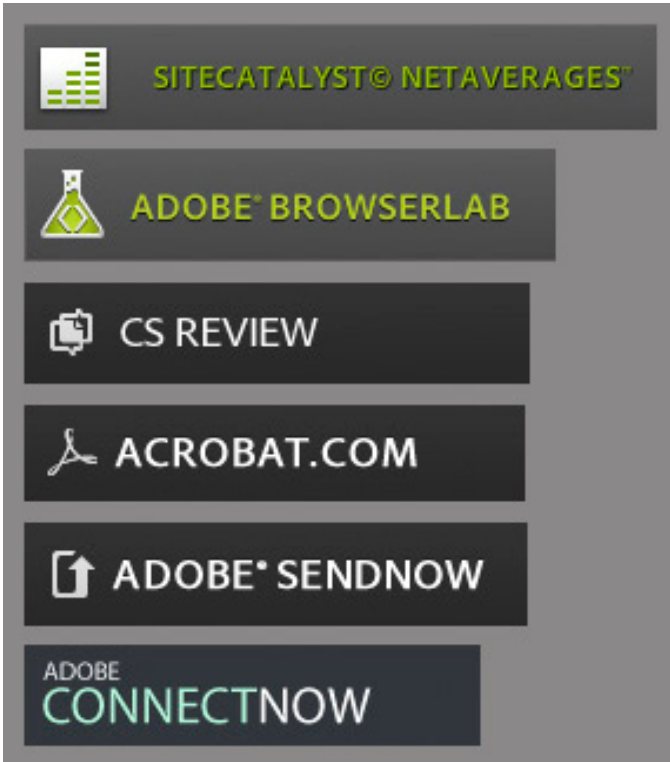
While a little confusing at first, the range of tools in the CS Live family is quite compelling. Many of the tools are about online collaboration and review, like CS Review and Adobe Connect Now. But Sitecatalyst and Adobe Browserlab should be useful for the web publisher as well.

present here, but we hope we have shown that an upgrade probably is well worth the money and time needed to install it and learn about all the new stuff. Crossmedia is a complex task, and one of the keys to success is to have the right tools when you start off. One thing is certain – Adobe is determined to continue to be one of the primary providers of professional tools for such tasks.

– Paul Lindström

From Open House to Talking Shop

Océ has replaced its biannual Open House extravaganza with the Océ Summit arguably a more effective, if smaller, event. Around 1700 people were expected to visit and inspect the Océ kit over four days, versus over 5000 who came to the last Open House to look at technology from Océ and its then 70 partners. The Summit was mainly about Océ and Canon, and about Océ's new relationship with Manroland. The companies see huge growth opportunities in the convergence of offset and digital. Océ also introduced some new engines.

According to Caslon, a market research company, in 2010 colour printing grew by 32% and monochrome printing

Manroland CEO, Gerd Finkbeiner.

declined by 6%. Caslon expect growth in graphic arts applications, both mono and colour, will generate 602 billion A4s by 2014, versus 501 billion in 2009. Océ with Canon's underpinning and their printing customer base want to capitalise this opportunity.

Océ has three key strategic business areas: production printing (direct mail, graphic arts, variable data print for books, newspapers, manuals and magazines); wide format printing for architectural and sign and display work; and business services including consultancy. The combination of Canon and Océ offers customers the industry's broadest product choice, from office, through to production and wide format.

It also creates one of the industry's largest innovation programmes: Canon has filed over 22,000 patents since 2000 (Xerox has 55,000 altogether). Océ is now the European centre for technology and innovation for Canon. Canon is handling office systems development in Tokyo and Océ the cut sheet and continuous feed research and development. They are both working on wide format and developing direct sales and consultancy.

Man to Man

The Manroland and Océ agreement is a strategic alliance that covers technologies and commercial cooperations. It allows the two companies to leverage their positions and expand business in Europe and Asia, from data management to post processing. Gerd Finkbeiner, Manroland's CEO, says the alliance gives both companies added value and that it's about making printed products more competitive.

Together the two companies want to develop business models to help customers to create profitable value added printing, with faster, more efficient and cheaper production, and faster turnarounds. Print production should be differentiated through specialty not technology, because the print method is increasingly irrelevant. This is a refreshing perspective from a heavy metal protagonist but as Finkbeiner says: "It's a question of the end result".

This is not Manroland's first foray into digital printing and there is some risk that customers might not trust their commitment, which is also what this four-day summit was all about. Manroland had worked with Xeikon on the Dicoweb, but for various reasons was unable to pursue a digital strategy. According to Finkbeiner, the alliance with Océ came about because "over a number of years both companies have met each other, talked to each other and learned about each other".

The journey from Augsberg to Poing takes about 45 minutes and the cultural fit between Océ and Manroland is evident. This is a sales and service cooperation for enhanced market coverage. Manroland expects the alliance to be fruitful with new Manroland and Océ customers being announced by year end. Finkbeiner reckons on €100 million of new business for Manroland within five years, with additional Manroland sales of around five to six machines per year, although Océ weren't quite so confident.

Sales will come primarily from digital printing companies in the book and catalogue sectors. Finkbeiner is looking to expand capacities and finishing sophistication of existing digital kit. He also wants to see greater substrate flexibility and quality, and to see the two partners overcome cultural limitations. This is an important point. Much as traditional press manufacturers need to take digital printing seriously, digital press manufacturers need to better appreciate how such things as ink and printhead relationships constrain a printing company's buying options.

Buddies with a Purpose

This affable familiarity combined with tangible expectations is driving the cooperation and may well help make it a success. The two companies have gotten to know one another over time and they appear to share a common view of changes in commercial and corporate printing, and of the market pressures forcing the printing industry to change. This understanding is the foundation of how the two will capitalise the change. Finkbeiner says this alliance is about making "our industry successful" with commitment, service and life cycle management for the printer investing in new kit. He added that "we will walk the talk and show how this cooperation will succeed going forward". By embracing reality with such confidence Océ and Manroland's management are doing the entire industry a huge favour!

Success though depends on the market. According to Sebastian Landesberger, vice president of Océ Production printing, the production print market was worth €500 billion in 2010 and will be worth €520 by 2014, so there is a great deal to play for. Most of the growth for Océ will be in Asia and two trends will drive it: direct mail and

transaction as they move from monochrome to colour output. Over 10,000 continuous feed printers are installed worldwide and Océ intends to convert these to colour, specifically for forms and transaction output.

Graphic arts trends to short runs, fast turnaround and personalisation, are all evident in traditional printing applications. For runs of 2000-5000 with combined hybrid workflows, the decision to go digital or offset depends on the content and application. This requires understanding print media production as well as document flow.
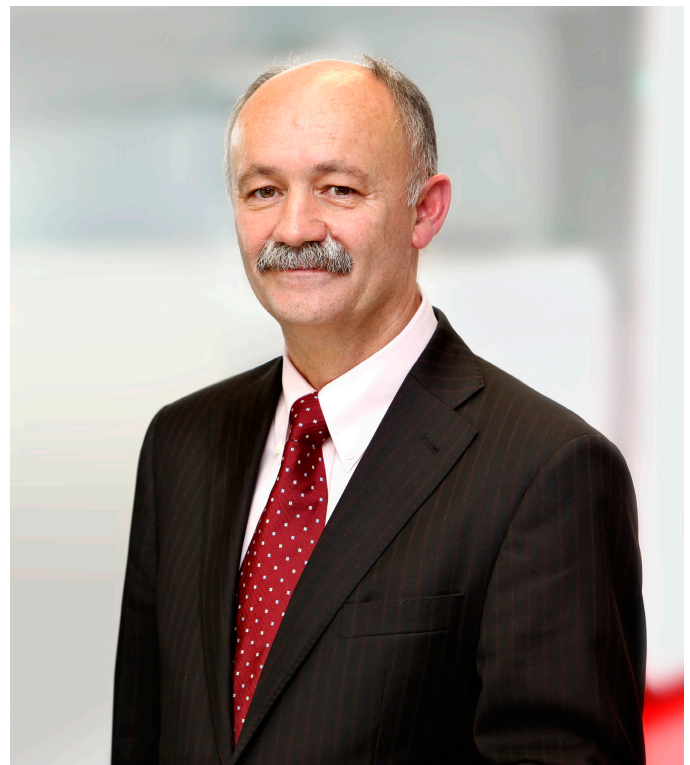
Sebastian Landesberger, Vice President of Océ Production Printing.

Landesberger said that Océ had recognised only about 35% of the conventional print industry reality, because it overlooked the fact that printing is a core business, rather than a support activity for another industry. It has its own lexicon, a profit driven perspective, its own pricing systems and entrenched customer relationships. Océ's appreciation of this reality is improving thanks to the Manroland cooperation. Landesberger says that Manroland will offer "the entire product portfolio of the industrial inkjet production systems". Océ in turn will offer complete digital printing systems and associated consulting and technical services directly to printing end customers.

Océ used the event to launch two new JetStreams, including this compact entry-level JetStream 1400.

Both companies recognise that the challenge facing print media buyers and printing companies is having the knowledge and management tools for making sound workflow and output decisions. Software such as MIS and production tracking/performance tools are a start, but workflows now include web to print and complex data flows. Success depends on knowledge and fulfilling the expectations of both digital and conventional print producers. And it will be very interesting to see how this plays out in the newspaper market, where both companies have an established presence.

New Kit

Océ claims around 30% of the continuous feed colour market, gained since entering the inkjet colour sector in 2008. Landesberger says the company "has been number one in black and white continuous feed for 15 years straight and number one in continuous feed colour for the last two years". The fleet includes mono toner, mono inkjet, and colour toner and inkjet machines and the

company intends to offer dye or pigment ink options for all engines.

Two additions to the Jetstream line of inkjet printers, built around Miyakoshi engines, were on show at the Summit. The new Jetstreams boast 30% more speed using 40kHz instead of 30kHz heads. The 1400 has full width duplex capability in a single cabinet and prints at 100 metres per minute (m/m) to produce 1350 A4s per minute. A customer in Slovakia is already using this engine to print direct mail and transactional work. Landesberger reckons the market for products that can be printed with inkjet "will grow from €20,500 million in 2010 to €31,500 million in 2014".

The Jetstream 3000 is a dual engine version printing 200m/m making it the new top of the range engine. Both models print at 600 dpi with a 2-bit multilevel option which is independent of engine speed. Both can print on newsprint and substrates up to 220 gsm using different

The Production Print Summit supercedes Océ's Openhouse event as a place to meet customers and talk about business.

ink droplet sizes to suit. The multilevel mode combined with Océ's multilevel screening technology can produce very high quality results.

The ColorStream 3500, the first of which is installed at Corus in France with a second one coming, is the first colour digital inkjet press fully developed and manufactured in Poing. This 75 metre per minute press prints 60,600 A4s per hour. It can be set up in L, H or U configurations for different simplex and duplex production and finishing paths, and configured for up to six printing colours or special inks including MICR. Substrates of from 60 to 160gsm are supported and the machine is rated for up to 12 million pages per month, or 24 million with a dual engine configuration. The printer functions as soon as it starts, with no ramp up or down and so no waste. Océ has delivered 18 units since launch last November and 20 more are on order with a worldwide distribution.

The alliance with Manroland gives Canon and Océ direct access to the worldwide customer base of the world's second largest press manufacturer. Océ's motivation to reach commercial and newspaper printers is obvious, as it is obvious that Ricoh wants to reach Heidelberg's customers. But successful conversations with printing companies, conventional or digital, depends on being able to speak one another's language. Manroland and Océ are already well along the path to understanding each others' worlds. We have every confidence that this alliance will bring tremendous benefits to the industry and, of course, to Canon.

– Laurel Brunner

Fespa Part 2

It has been over a month since Fespa Hamburg closed its doors. The show was by all reckonings a wonderful success, even Iceland's Grimsvötn volcano wanted to join in!

The Fespa organisers have a winning formula combining wacky events and activities for visitors, with a platform for new technology announcements. The blend works especially well because this show doesn't overwhelm, and it's possible to get around without mishap. Fespa's new CEO, Neil Felton is an exhibitions man through and through and we expect to see even more ideas to entice

Neil Felton, Managing Director of Fespa: "FESPA Digital 2011 has been one the most exciting and interesting shows I have had the pleasure to work on. The enthusiasm of everyone present was infectious, and the FESPA team I worked alongside, inspiring."

and engage show visitors from all sectors of print, not just the screen printing community but users of digital presses and printers for all print media applications.

Last month we covered new printing technology highlights, and this month we bring you the rest of what intrigued us at Fespa.

LED It Glow, LED It Glow, LED It Glow

We saw impressive demonstrations of LED curing from EFI, with its new Cool Cure technology, and especially from Atlantic Zeiser. LED curing is an energy and investment cost alternative to using mercury arc lamps to cure UV inks. LEDs are cheaper and last much longer, and they are not consumables. Integral to the curing system, they are designed for the life of the printer so don't need replacing.

LEDs require less power to cure a broader substrate range including lighter, thinner materials. Because their emissions are less aggressive than those of mercury arc lamps, they generate less heat and can cure thin and fragile media, although they can sometimes take a while to do it. Their narrow emissions ranges can also limit the curing uniformity on some surfaces. So it is important that they have enough power to interact with surfaces and inks, otherwise they may lack intensity.

EFI CoolCure provides LED curing of UV curable inks at the same speed as a mercury arc-based UV curing system. EFI claim no trade-off in speed or quality, and samples we saw looked lovely. Existing GS3200 users can upgrade to the CoolCure technology. CoolCure uses narrow but intense wavelengths to cure the inks, using photo initiators that respond to specific frequencies. The LEDs EFI uses do not emit IR light, so do not generate heat. Cool Cure yields the same colour gamut and image quality but a more matte finish. Although LED costs are falling they are still expensive hence the €150,000 cost premium for the CoolCure GS3250LX hybrid machine.

This sounds steep but CoolCure cures UV inks more quickly so boards can be loaded more frequently, with a gap of five instead of thirty seconds making the machine more productive. The GS3250LX can stop and start without artefacts because of CoolCure and print on lighter styrenes: from 0.2 to 0.1 cm. Therefore materials costs savings are possible through reduced waste because materials don't deform. Four beta sites are running in the US.

Atlantic Zeiser is a developer of narrow format technologies, offering single pass drop on demand technology. The company also owns Sofha, a PDF developer, and Triton, an ink manufacturer. Sofha will introduce a PDF/VT RIP for the wide format market at the end of this year.

PrintFactory's new Go offering brings workflow to large format but in a simplified format for those getting to grips with the concept, as this screenshot demonstrates.

Atlantic Zeiser's LED curing development has been done in partnership with Lumen Designs, although this is a nonexclusive deal. The new Excelerate FC-200 series uses air rather than water-cooled LEDs for curing UV inks printed with single pass narrow format machines. It works through a combination of air cooling and thermal management using optics. The developers claim to be able to get twice the light/energy density for curing the inks. A very compact light generator and lens focus energy onto the inks, for a curing response that is around 400nm, which is on the edge between visible and UV light. The high radiance of the light source is sufficient to compensate for variations in ink densities, including blacks. Compared to water cooled LEDs which have a radiance of 8 watts per cm², the Lumens technology radiates 9+Watts /cm². The FC-Series is designed to function on printers running at up to 60 metres per minute and Atlantic Zeiser is using this on its Omega and Smartcure Air printing systems. This technology is similar to EFI Cool Cure but Lumens Dynamics claims to have a higher radiance.

Flow Control

Workflow efficiency is increasingly the focus for many wide format printers. A few MIS companies have identified this as a potential growth area. Optimus, for instance, was at Fespa demonstrating its Optimus Dash technology. Template and category driven, Dash works pretty much like most MIS, but it can be specifically configured for wide format applications. Ordering and estimating are linked to lists of the tasks and materials required to process the order, generating purchase orders for what's missing and managing material inventories. Tasks are tracked throughout the workflow and interactive screens allow operators to confirm or update materials usage, to reflect errors or different usages. All of this aids inventory and cost management. Users can control materials usage estimates, to have a more accurate cost impact or because of consistent underestimating.

This system is written in MySQL so it is extremely flexible, allowing operators to add their own fields and code the brains behind the fields. Optimus is selling it to the wide format market on the basis of convenience and ease of use. It is sold on a per user license starting at €575, depending on the modules used and annual maintenance contracts. The company also offers consulting services.

There has been a marked rise in workflow technology sales this year. EFI has seen a 20 percent increase in Fiery sales in the first quarter compared to the same time last year. There are now 1.7 million Fierys and over 12,000 EFI MIS/ERP workflow systems installed. Fiery XF version 4.5 supports multiqueue functionality for driving two machines at once and offers more productivity. There are

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also some new features such as support for cutting and finishing, and tools for creating different cutting paths. Colour controls have been beefed up with a new colour verification option for tighter control over spot colours.

We also got a chance for a closer look at Four Pees PrintFactory Go at Fespa. This is the editor package from the company's PrintFactory workflow, optimised for wide format and making it an entry level version for job preparation and verification. It doesn't support variable data or have the automation features of the full version, but it's much less scary for workflow newbies.

There is also a version of PrintFactory for preflighting and workflow control with robust colour management. PrintFactory GMG Edition combines PrintFactory workflow with GMG ColorServer and SmartProfiler, so that sign and display printers can achieve better colour results and faster production. The software can drive over 600 printing and cutting devices!

The name EskoArtwork has been synonymous with workflow sophistication for many years, however of late the company has earned 25% of revenues from its finishing technology. EskoArtwork was recently sold to DHR, developers of the Danaher Business System, and which wants to see design and printing software, cutting software and hardware contribute equally to EskoArtwork's revenues. To that end EskoArtwork is extending partnerships, particularly to build workflow and file format standards, and to play a stronger role as integrator. For instance, a group of 25 Fespa members is trialing EskoArtwork's iCut Suite for 30 days. The i-Cut Suite integrated workflow system for sign and display work automates and optimises the workflow from design to PDF creation to preflighting to finishing on the Kongsberg. If they decide to buy, these members will get a 25% discount on the cost which is less than €10,000. EskoArtwork and Fespa will work in partnership for the next three years.

Web-to-print is thankfully no longer getting treated as a topic on its own. Everyone supports it, albeit some more thoroughly than others, as part of their workflow technology. Optimus for instance has a tie up with Red Tie and also offers its own technology, to which it is currently adding variable data support. EFI continues to lead the field in extended workflows and demonstrated bi-directional communications between its Digital Storefront and MIS systems using JDF/JMF.

Another impressive web-to-print system is the Colorgate W2P system for small businesses. It is very inexpensive and allows printers to create their own web-to-print presence and workflow without high costs in money or time. It has a superb user interface so buyers can see on screen what their job ought to look like. This is a fully integrated workflow with full preflight checking, verification and correction tools, output to a range of printing engines and invoicing.

RIPs

Caldera is leading the advance of RIP technologies for wide format, with support for both Adobe's APPE 2.0 and GhostScript, an open source PostScript and PDF interpreter. The latest iteration includes a tiling module and a calibration tool. Caldera's technology has impressive colour management utilities including support for embedded profiles, with incoming images tagged and their colour spaces preserved. Profiles can be linked and there is a simulation module for colour proofing.

Onyx offers a tiered range of RIPs to support one, two or four active output devices. The company has different workflow modules to go along with the three configurations and has optimised its 32-bit colour engine for wide-format inkjet technologies.

Media

Materials were of course to the fore with all manner of offerings from all manner of providers, large and small. For instance Fujifilm showcased its Euromedia collection of over 650 substrates that support a wide application range. The latest addition is a premium quality display medium called Solvent Rollflat.

Epson launched EMQP (Epson Media Qualification Programme) at Fespa, to offer users a range of tested media choices with pre-made ICC profiles ready to use for high colour accuracy, including spot colours. Epson also previewed the full bleed option to the GS6000, a

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modification of the printer to allow printing over the edges of the paper, useful in, for example, print on-demand of wall paper in small volumes. The GS6000 Eco solvent machine was originally designed for high end proofing, but users seem to be using it as a production machine because of its versatility.

Eckart, a manufacturer of metallic inks, is cooperating with Color-Logic among others to make it easier to colour manage the process of printing metallic inks, popular with screen printers. Color-Logic has developed what they call the Process Metallic Color System, coupled with plug-ins for Adobe CS to prepare the design to include the use of metallic ink. Screen printers will be pleased, but metallics are still a serious challenge in digital printing, with many difficulties besides the behaviour of the ink.

Fespa Digital has become an unmissable event. It offers balance between technology demonstrations and educational seminars. This show should be of interest to commercial as well as sign printers: EFI, Stork and Atlantic Zeiser all showed narrow format presses; HP showed its HP Indigo 7500 and Designjet Z6200 photo printer, and had a video of the Inkjet Web Press running. Fespa Digital is certainly about more than mere sign and display technologies. It exudes confidence and engages print buyers, end users and everyone directly or indirectly involved in print media supply chains. These are the communities of interest ultimately driving the printing and publishing industries.

– Laurel Brunner

Sustainable standard

It can be hard for individual printers to develop a measurable environmental policy but the forthcoming ISO 16759 should address this.

For a growing number of printers, sustainability and working to protect the environment are becoming more important. This is not just because many printing company owners believe in helping the industry to be more environmentally friendly, but also because their customers are putting them under increased pressure to do so. Print buyers want to know that their media investments can make some contribution to their own corporate sustainability message. This matters more and more to their employees, to their shareholders and of course to consumers.

The problem is that running your business in an environmentally friendly way is not as simple as it sounds. Nor is it easy to explain to customers how sustainability initiatives at your company translate into a positive message for your customers' stakeholders. Unlike other areas of the graphic arts, there are as yet no international standards to guide printers through the specifics of carbon impact reduction. Many printers are compliant with ISO 14001, but this is a management standard designed to help the business in general to reduce its environmental impact. ISO 14001 does not provide the means of measuring the carbon footprint of individual products and it is not specific to the printing industry.

What Printers Want

Printing company owners need help to adopt new ways of doing business and this is what international standards should provide. When it comes to sustainability, printers and their customers want a formal framework against which print media products can be measured and the results certified. Printers want to be able to confirm to their customers that the carbon footprint for the print they produce complies with an international standard. And print buyers want the assurance that a printer's calculations are transparent, clear and comparable across

Verdigris

sectors and geographies. They want fact-based assurance that print media are indeed sustainable.

So far, no such standard or universal tool for data collection has existed. Sustainability messaging and environmental impact improvements have come down to the initiatives of printing industry associations willing to invest in the development of their members' knowledge and in carbon calculators. Industry associations around the world are working hard to improve print's environmental impact. Their collective goal is to help printing companies reduce the carbon footprints of their businesses and of individual print media products.

But without an external target accessible to all printers, it is clearly impossible for print as a whole to position itself in universal terms of sustainability. Without an international standard, the printing industry has no means of capturing, reporting and tracking its constantly improving carbon footprint. This is why ISO 16759 for calculating the carbon footprint of print media is so important.

ISO 16759

This international standard is expected to be complete in 2012 and is written for prepress, printers, print service providers, content publishers and other media companies. ISO 16759 provides a framework for carbon calculators, so that tools can be created specific to a given industry sector or geographical region. As long as the tools follow the framework methodology outlined in ISO 16759, the printing industry will have the means to track its

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international progress in reducing the carbon footprints of different media products, such as newspapers, magazines or books.

ISO 16759 is relevant for all sectors of print and for all geographies, so print buyers worldwide will be able to use ISO 16759-compliant carbon calculators to compare the footprints of different production processes. They will be able to evaluate, for instance, the carbon footprint of a particular print media product printed direct to a digital press, to a digital direct imaging press or to a conventional press. ISO 16759 has the flexibility to reflect the diversity of print media, regardless of production method, workflow, run lengths, media types, inks, coatings and finishing options.

Working with ISO 16759

The standard has considerable flexibility in application. Users of ISO 16759 can define the basis on which they are calculating the carbon footprint of the print media product. The scope to write a specific definition of a print media product means that ISO 16759 can meet the needs of a constantly evolving industry, where product categories and types are changing as output and finishing technologies evolve. The print media product under study could be a 240-page perfect bound A4 book, a 16-page A3 newspaper section or a B2 sheet full of business cards.

Using an inventory of the various production processes used to produce a given piece of print, the user of an ISO 16759-compliant carbon calculator can then work out the carbon impact for each stage in the workflow. This includes substrates, inks and other consumables used, for instance printing plates, and bindery materials. It can also include transport, laminating and ambient environment factors such as lighting or heat. The goal is to calculate a carbon footprint value for each stage in the inventory. This also provides the basis for comparison of the carbon footprints of different media products.

ISO 16759 & ISO 14067

ISO 16759 is an implementation of ISO 14067, which provides a framework methodology for measuring the carbon footprint of products and services. The ISO 14067 standard was not written with any specific industrial

sector in mind, and printing is the first industry to develop its own implementation.

ISO 16759 is expected to help demonstrate the extensive progress that has been made in the printing and publishing industries over the last 20 years to reduce their environmental impacts. For the most part these efforts have been incidental to the larger effort to reduce cost, improve efficiency and enhance competitiveness, particularly in recent years when print has faced stiff competition from electronic media.

Sustainable Print

Digital production tools, extensive consolidation and efficiency gains in the paper industry, and substantially improved forestry management worldwide, combine to make the printed word the most sustainable media of all.
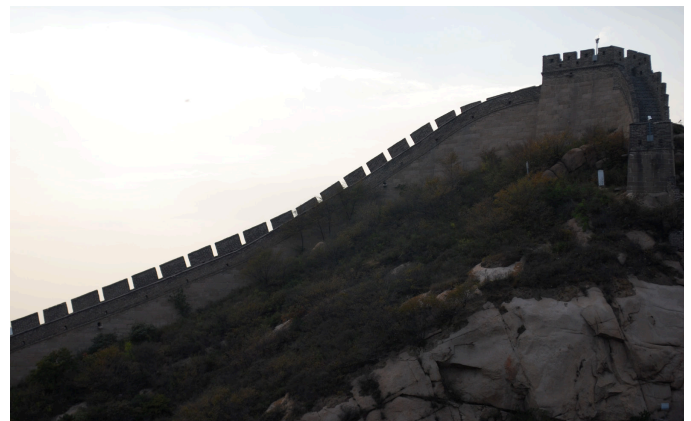
International standards are the walls guarding process consistency, transparency and repeatability, for industry progress is impossible to achieve without them.

Print is the only media that captures and stores carbon, that can be recycled multiple times, and for which end of life is essentially benign.

This all adds up to an extremely positive message for media professionals and producers and, of course, for their customers. And it is extremely good news for the future of print. ISO 16759 provides an international framework within which industry has the flexibility and scope to create sector-specific carbon calculators.

ISO 16579 in Action

It is hoped that ISO 16759 will encourage media buyers and consumers to think more carefully about how they

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invest in and use media. ISO 16759 provides the means of quantifying, communicating and reporting the carbon footprint of print media, so it is a means of facilitating the continuous monitoring of print's carbon footprint. This will lead to enhanced credibility of the printing industry's efforts to manage and reduce its carbon footprint and that of the raw materials used. The carbon footprint of various print media products can be benchmarked against similar products so that over time data will be available to assist media buyers in making media investment decisions. This data will also provide factual support for messages of print's sustainability.

Compliant tools provide print media buyers and consumers with a means of tracking the reduction in GHG emissions for different product types over time. This performance tracking will provide the printing industry with considerable data with which to defend itself against accusations of environmental hostility, particularly when compared with digital media. ISO 16759 can even be used to calculate the carbon footprint of non-print media, but that is another story.
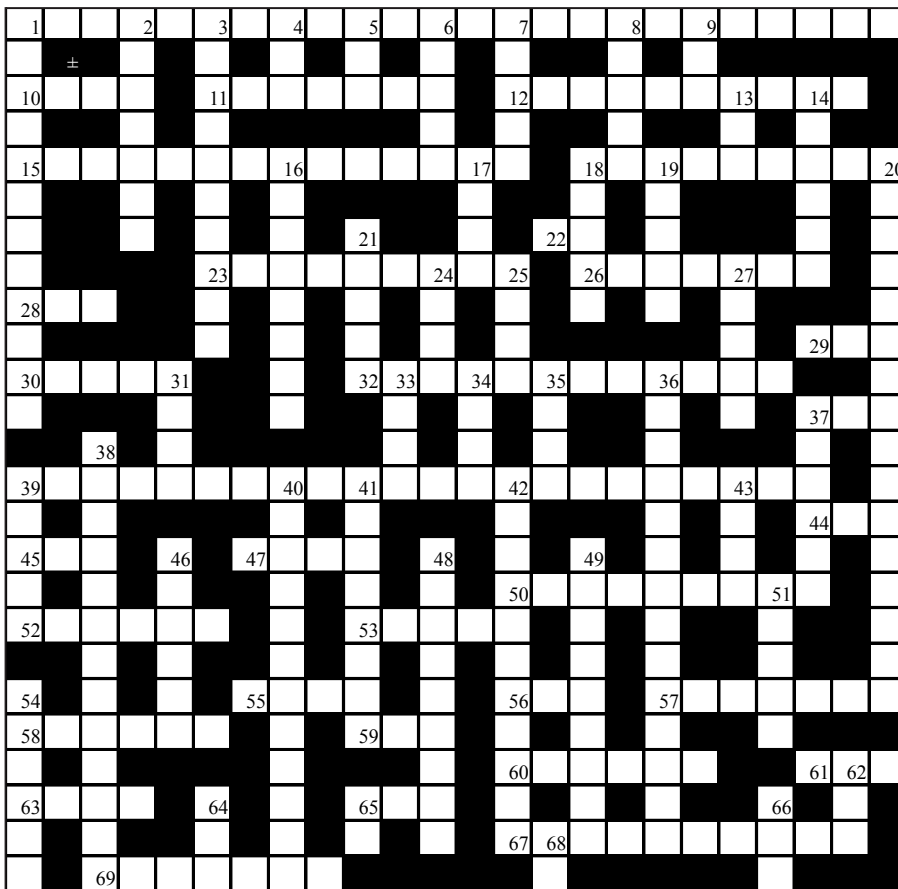
– Laurel Brunner

X-word Puzzle

Number 31

Since we won't be back with you until September, we've put together a bumper puzzle for this month. Some of it's tricky and some obvious, but we hope you'll appreciate it alongside your Piña Coladas and Cosmopolitans. Or maybe a pint of something mega yum is your preference. Either way, have fun!

26. Options? (7)

28. See here, you get the secrets. (3)

29. One more than one. (3)

30. Stand for artworks in progress? (5)

32. What no word processor should be without. (5, 7)

37. Wage. (3)

39. Digital equivalents of web presses? (10, 4, 8)

44. Emotional? (3)

45. Not well. (3)

47. A hereditary unit that determines characteristics. (4)

50. Thin or finely spun threads. (9)

52. Wood waste? Let it go not if necessary? (6)

53. Something special or to prepare a surface? (5)

55. Capital of Latvia. (4)

56. Spaceship? (3)

57. Copying, tracking down, following a trail? (7)

58. Create the scheme of pages on printing forme. (6)

59. Life Cycle Analysis (3)

60. Yearning for something lost. (6)

61. Stone from which metals such as aluminium are obtained. (3)

63. Cancelled. (4)

65. Digital Front End (3)

67. Do this before you go live. (4, 6)

69. Another word for displays, but not monitors or screens. (7)

Across

1. Vendors of digital and analogue presses mixed to control this fundamental prepress task. (6, 8, 10)

10. Automated Content Access Protocol (4)

11. Sort of screening, but a combination of positive and negative values. Birds don't like it, but accountants do. (7)

12. Rightly so, preflight checking isn't needed for these. (5, 5)

15. How do you overcome Useless User Syndrome? (5, 4, 5)

18. Take these with you when you're buying new kit. (4, 5)

22. One less than tri? (2)

23. Irreplaceable electronic element. (4, 5)

Down

1. A popular technology choice for printing T-shirts. (4, 8)

2. Turning rasters into dots is such good fun! (7)

3. Very energetic random access memory? (7, 3)

4. Opposite of in. (2)

5. Key Performance Indicators (3)

6. The source of all colour. (5)

7. Characteristic of some meshes and papers. Think warp and weft. (5)

▶

8. Get this in your signal and your imaging shouts errors. (5)

9. An internet image format. (3)

13. International Monetary Fund (3)

14. Mistakes. (6)

16. Publishers hate it when they have to do these for advertisers. (8)

17. Not North, South or West. (4)

18. Opposite of thin, runny or clever. (5)

19. A bit like a hissy fit but not quite so dramatic. (5)

20. Major trend that does away with couriers. (4, 4, 8)

21. These are true for all rolls of paper? (5)

24. This is one's part. (4)

25. The opposite of heaven. (4)

27. Plastered with stuff that is dried on, such as mud or ink. (5)

31. Last out, first in. (4)

33. PR rubbish, to get a lungful of smoke, or small clouds? (4)

34. Spyglass! (4)

35. Semiconductor (4)

36. Serendipitous rendezvous and to risk coming together. (6, 8)

37. Those who posture and pretend to be what they are not. (6)

38. Produces unvaryingly and definitely not digitally. (8, 5)

39. Calm down and relax. (5)

40. Putting one impression on top of an existing one. (4-8)

41. The opposite of colorimetric. (8)

42. Copy proof? (5, 6)

43. Not odd. (4)

46. The monetary basis for all negotiations. (6)

48. Warmed up before print? (9)

49. What kind of plates bend and wobble? (5, 4)

51. Do this to jobs and you won't lose them. (5)

54. Comprising only ones and zeros. (6)

62. Random Access Mailbox? Did you forget? (3)

64. Logical Analogue Network? No. (3)

65. Or Make? (2)

66. Hole in the wall. (3)

68. Bigger than an en. (2)

Number 30 – Answers

B	L	O	A	T	W	A	R	E	4	C	O	L	O	U	R	S
I		K		M		B		A		H		U		N		U
D		C	F			L		R		O		C		N		B
I	N	K	L	A	Y	E	R	T	H	I	C	K	N	E	S	S
R		I	A				H		C		I		C		I	
E	M	I	T	T	E	D				E		N		E		D
C			B				S				E		S		I	
T		S	E	P	A	R	A	T	I	O	N	S		S	R	A
I			D		E		I		P		S		A		R	
O			P		R		R		E			R	O	I		
N	O	N	R	E	C	U	R	R	I	N	G		Y		E	
A		I		N		E			A		L	2121	I	S		
L	E	A	N		S		D	O	N	G	L	E		P		
		T		A				D		S	P	O	T			
	T	H	E	R	M	A	L	P	L	A	T	E	S		I	
I		R		L		O			V		E	V	I	L		
D	Y	E	S	U	B	L	I	M	A	T	I	O	N		E	