



QUO VADIS DIGITAL PRINTING?




**A review on current developments and trends in digital printing –
technologies, markets and products**

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History of DP

- **Black & white office laser printers in 1985**
 - **Desktop publishing revolution by Adobe 1985-1990**
 - **High quality color laser printers: early 1990s**
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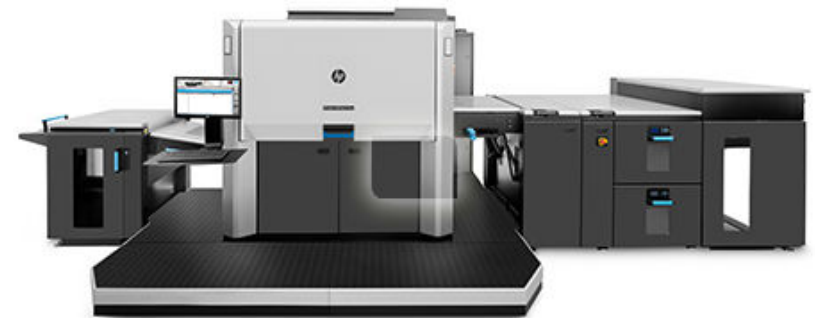
Since the launch of the first digital printing press, the market has continued to grow steadily and in 2010 the digital print markets were valued at \$85.2bn, the equivalent of more than 225 billion A4 prints.

*One of forecasts is predicting that digital printing will have some **18% of all print by 2016.***

Presence in DP

- Any commercial job
*paper, canvas, posters, folders,
books, specialty products,
synthetics, metalized media etc.*
- Print quality and color
*using electroink, reaching up to
97% of PANTONE colors, using up
to 7 ink stations*

- Very high productivity
*big format up to 75x53 cm, machines
capable of producing over 2000000 color
sheets per month. Monochrome duplex
printing @ 4600 sheet/hour*



Advantages of DP

Green printing

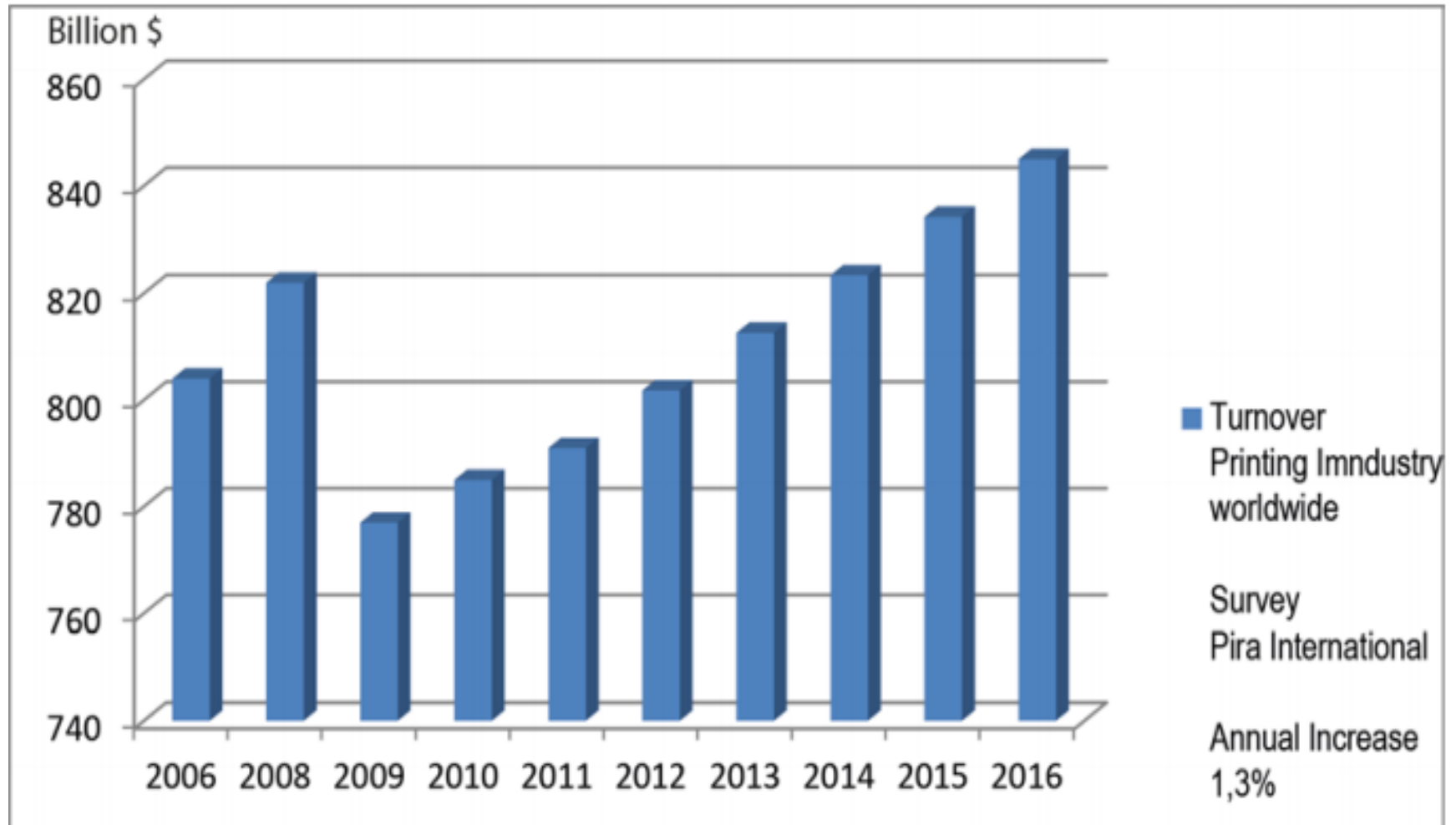
Speed

Cost effective

Variable data

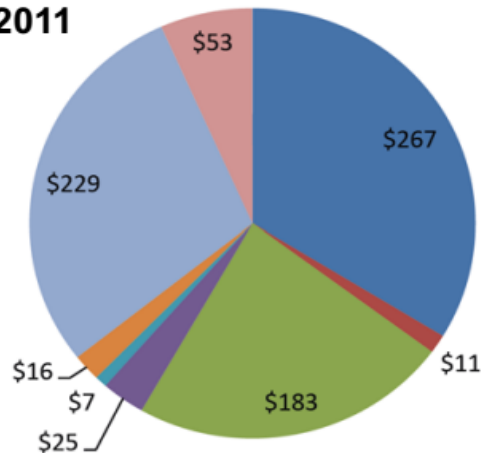


Printing industry turnover



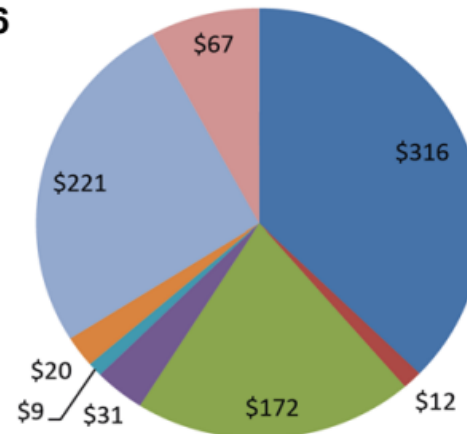
Worldwide turnover will increase but not in Western Europe

2011



- Asia
- Australia
- Western Europe
- East Europe
- Africa
- Middle East
- North America
- Latin America

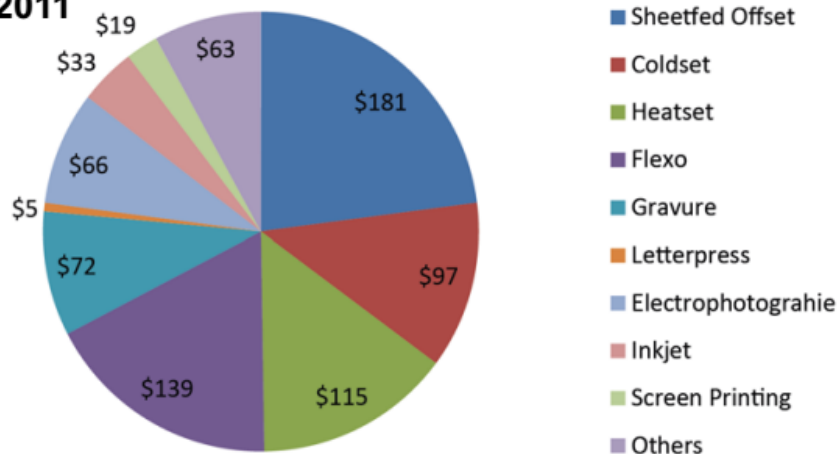
2016



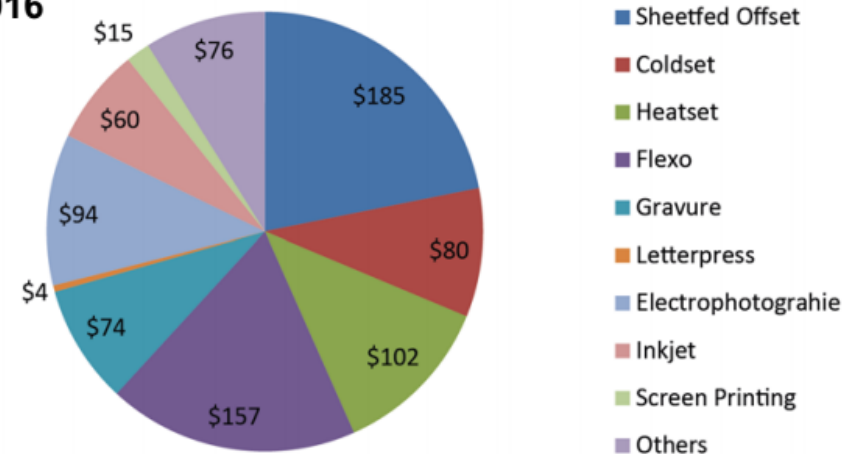
- Asia
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Market share and value among the various printing processes

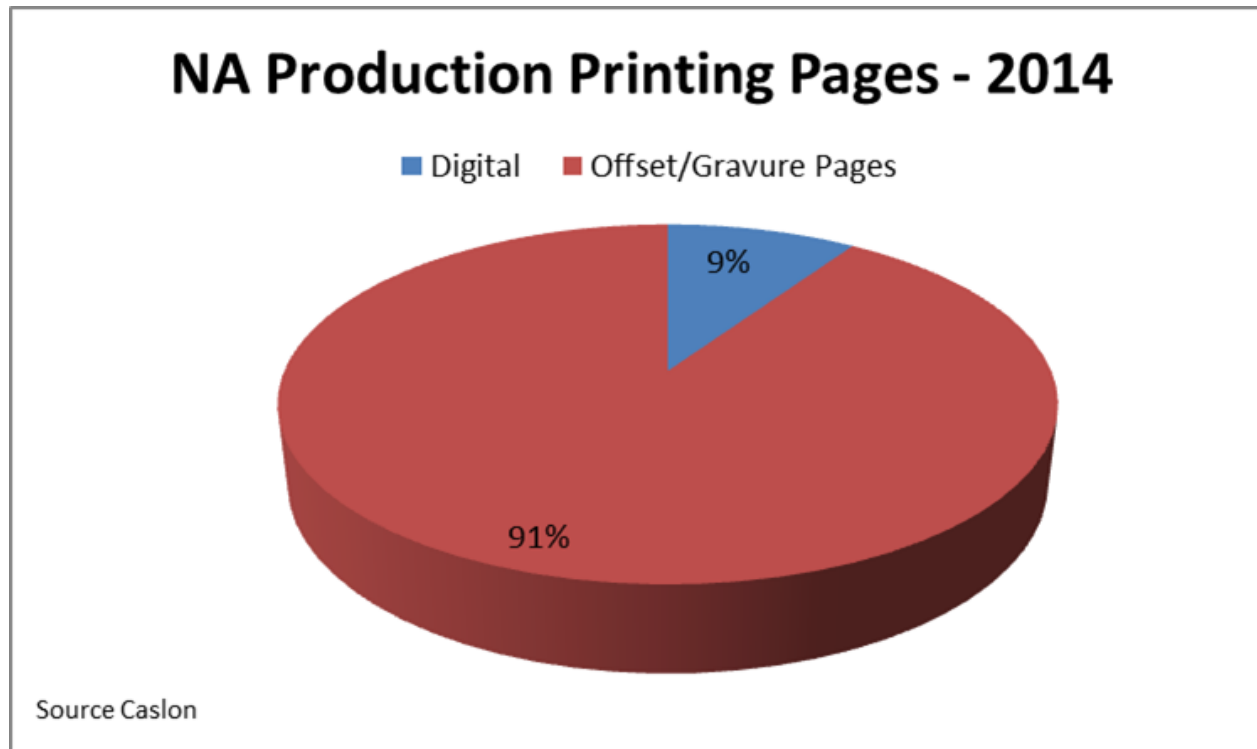
2011



2016



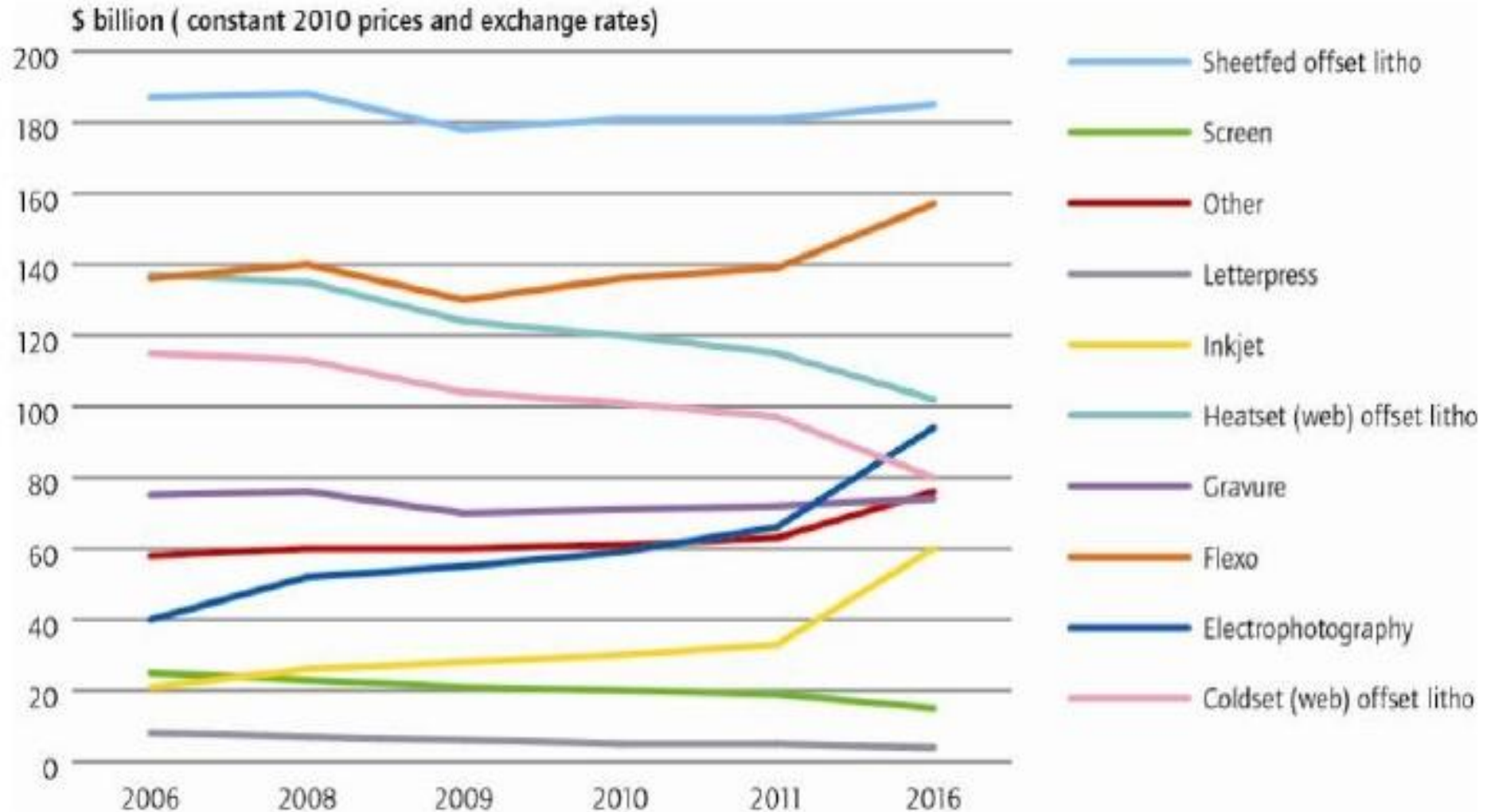
North America digital vs offset production



North America Production Printing Pages: Digital printing makes up just 9% of the total page volume and digital color printing is 2.5% to 3%.

So, there is a lot of space for digital to keep growing!

Print Processes



Source: Pira International

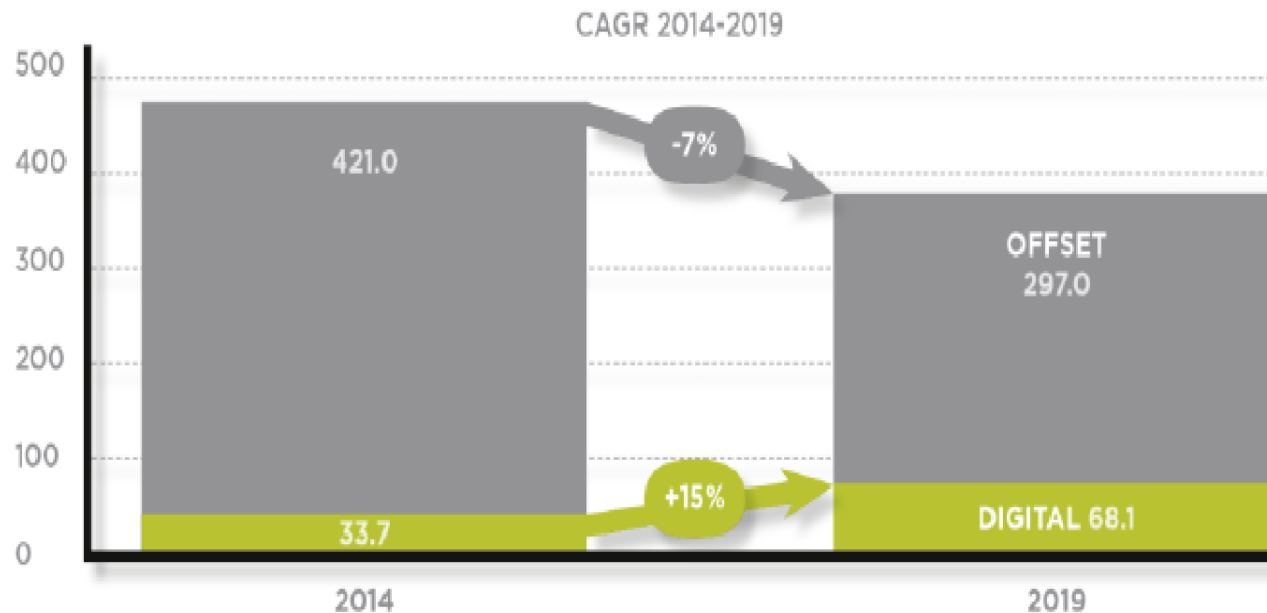
Digital book printing advantages

TIME	COST	VALUE	ECO
Digital increases flexibility and minimises turn-around times	Digital accelerates cash-flows	Digital adds value	Digital printing minimises the carbon footprint
<ul style="list-style-type: none"> • Just in time production • Late stage changes or customisation • Shorter lead times • Faster campaign execution • Web to print • Synchronisation of online & print content 	<ul style="list-style-type: none"> • Cost-effective short and medium runs • On demand production • Reduced waste & obsolescence • Inventory reduction/elimination • Workflow & process automation 	<ul style="list-style-type: none"> • Versioning (Demographic, geographic, Channels) • Personalisation (Unique designs and/or content, customer interaction, eg QR-codes) • Mass customisation • Effective production of the test runs • Brand protection (security features, e.g. coding/marketing) 	<ul style="list-style-type: none"> • Less waste and obsolescence • No need for printing plates and chemicals • De-inkable Océ pigment inks • Less transportation cost & emission by de-centralised printing at place of demand

Predictions on digital printing market share of books in Western Europe

BILLION A4 BOOK PAGES

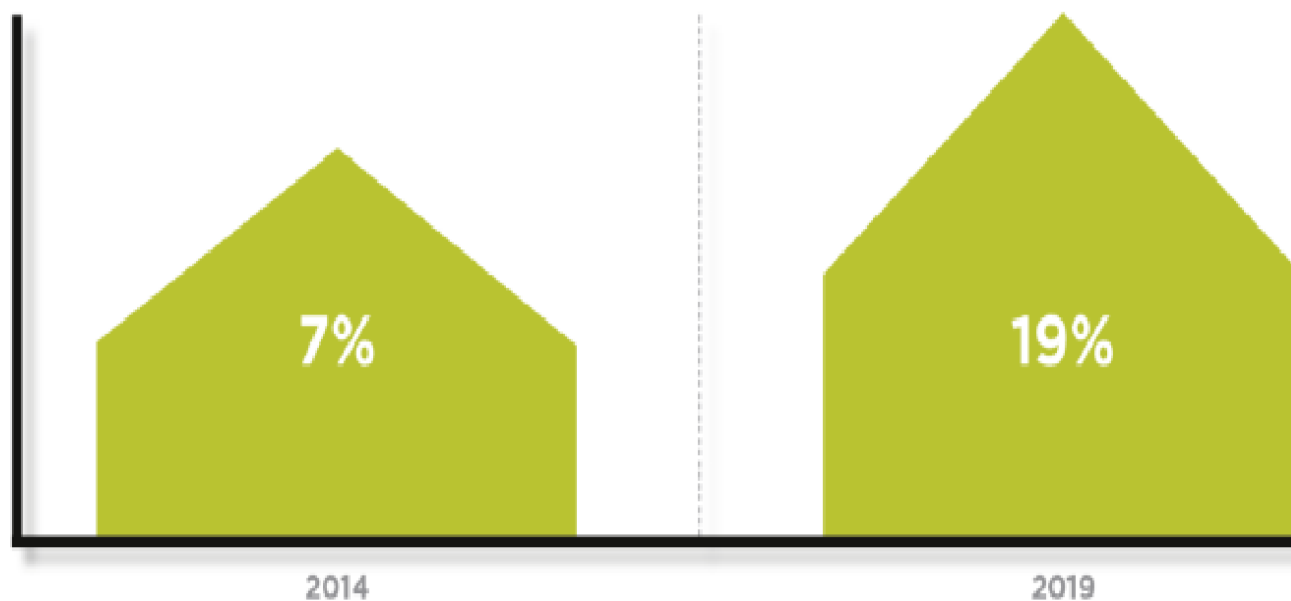
Western Europe total book pages billion



Digital printing of books is predicted to increase its ratio compared with offset book printing

Predictions on digital printing market share of books in Western Europe

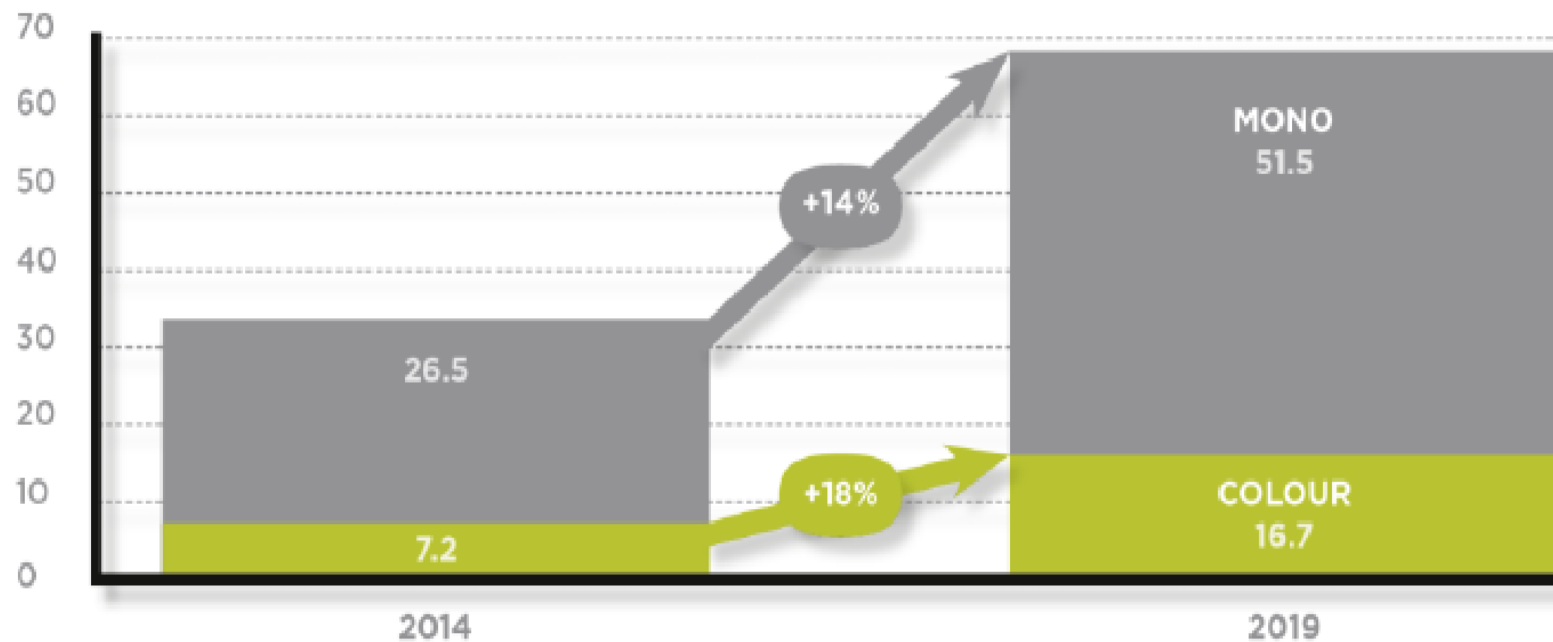
DIGITALLY PRINTED BOOK VOLUME IN % OF TOTAL BOOK VOLUME



Predictions on digital printing market share for books in Western Europe

DIGITAL MONOCHROME AND COLOR VOLUME

Western Europe total digital book pages billion

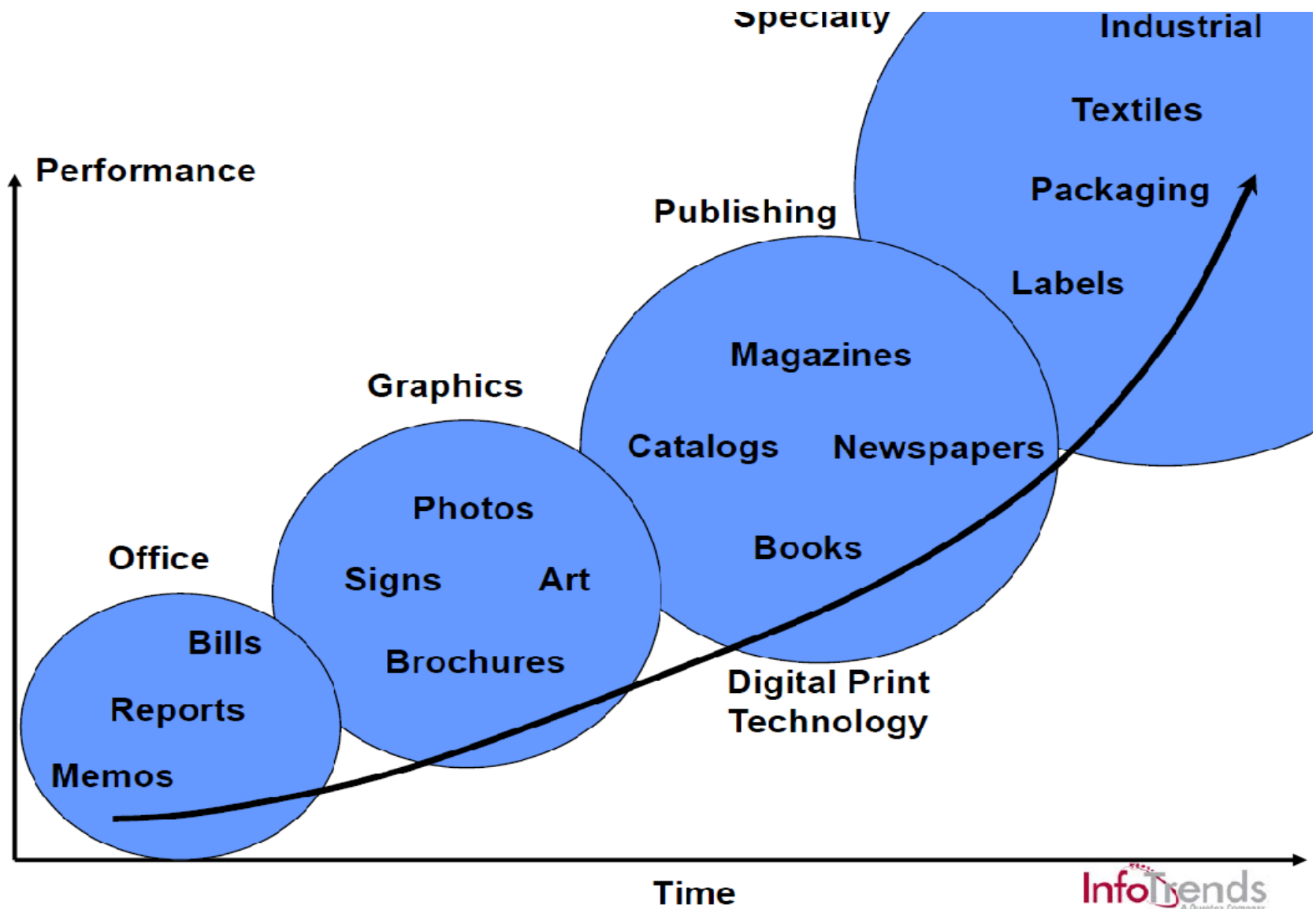


Latest trends in DP

- **Sheet-fed Digital Printing** (low cost, expanded variety)
- **3D Printing** (not just a trend)
- **Jetted Materials & Substrates**
(foil, ceramic, textile, wood, metal, glass)
- **Inkjet** (not just labels, color &
wide format but newspapers, catalogs etc)
- **Customization** (personalized data,
on demand book production etc)



Digital moving into more markets



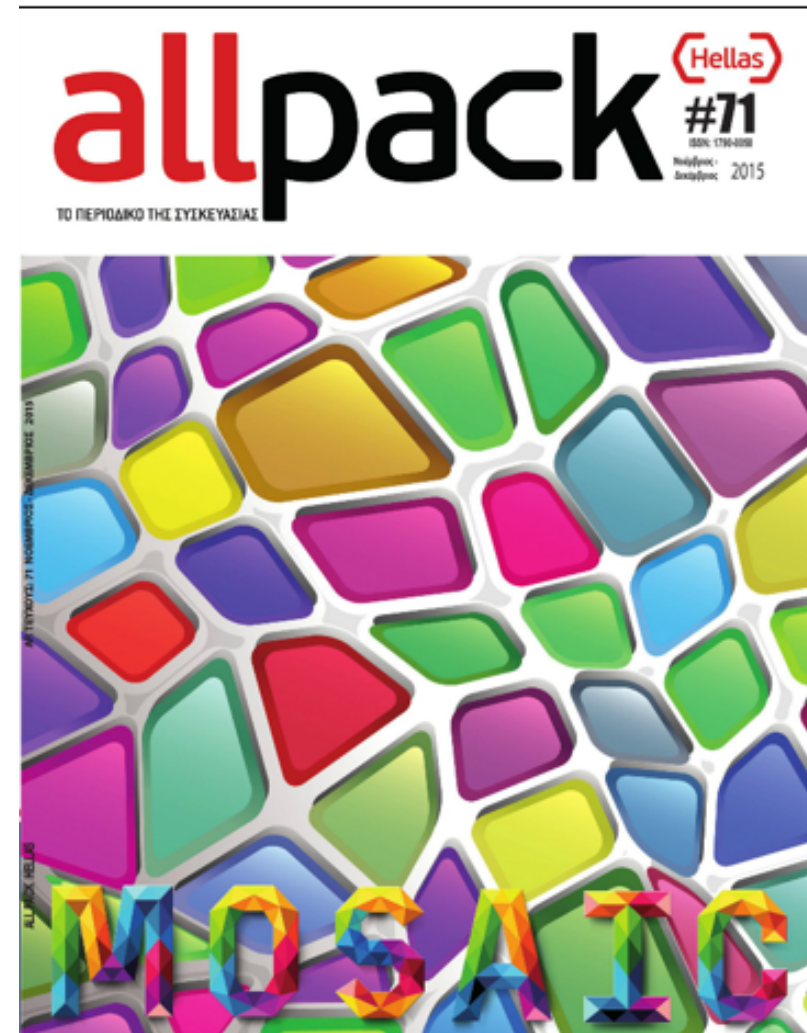
Conclusions

Digital Printing is penetrating traditional printing markets and products

Digital Printing gains market shares towards the traditional printing processes

Digital Printing is a part of the digitalization process in print media production

Digital Printing is here to stay!





Thank you very much for your attention!

Anastasios Politis

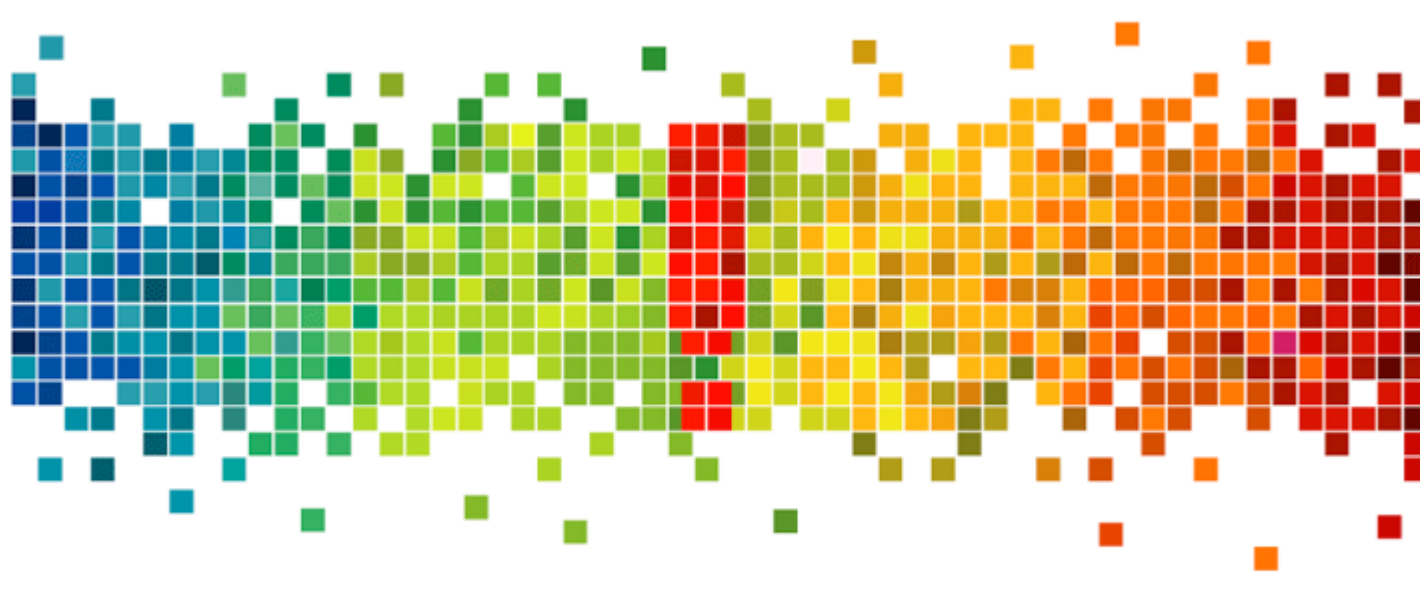
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48th Conference
of the International Circle



QUESTIONS?

