

EuPIA

Annual Report 2016



Printing inks: the lowest volume in more than a decade represents a decrease of -0.6% compared to the figures in 2014. The sales value decreased by -1.6%.



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EuPIA, the European Printing Ink Association, working under the umbrella of CEPE, represents and protects the common interest of the European printing ink business and promotes the image of the industry to the public. EuPIA provides a forum for discussion and decision-making regarding issues of specific interest to the printing ink industry. EuPIA members also participate in CEPE working groups dealing with issues of general interest to the wider CEPE membership.

MARKET STATISTICS 2015

EuPIA publishes market statistics on an annual basis. The data can be accessed via the EuPIA website at eupia.org, section publications - statistics.

The aggregated figures displayed in the charts below summarize

- » Sales value per country total
- » Sales volume and value per category for Europe total

The figures comprise domestic ink data collected for 30 countries or country groupings in Western and Eastern Europe and represent the activity of 28 EuPIA members participating in the statistics.

It is estimated that this represents about 90% of the total European market.

The global ink categories for which the aggregated figures are displayed are defined as follows:

- » Liquid inks water borne – this includes flexo and gravure water borne inks, technological varnishes, extenders, primers, and overprint varnishes
- » Liquid inks solvent borne – this includes flexo and gravure solvent borne inks, publication gravure inks, technological varnishes,

- extenders, primers, and overprint varnishes
- » Oil based inks - includes coldset and heatset offset as well as conventional sheetfed offset inks
- » All other inks – all other inks except screen ink sales which are not included in these statistics

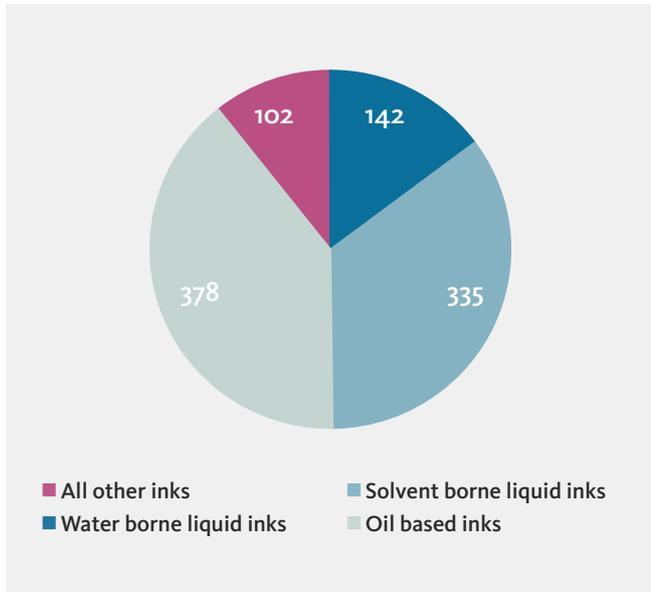


Figure 01: Sales volume for 2015 (000s tons)

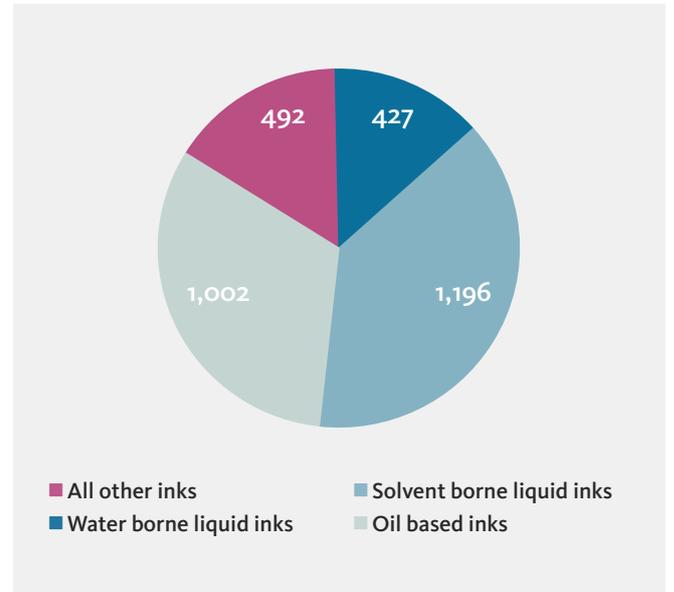


Figure 02: Sales value for 2015 (€m)

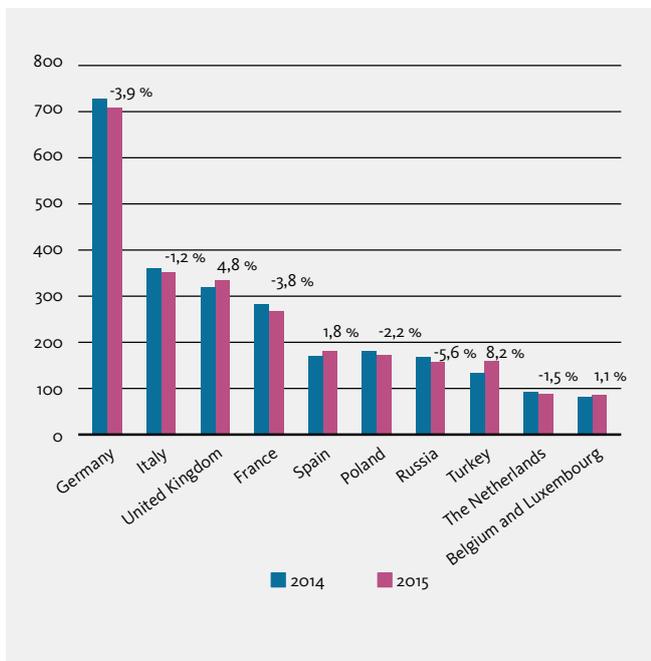


Figure 03: Sales Value by country 2014 to 2015 in €m

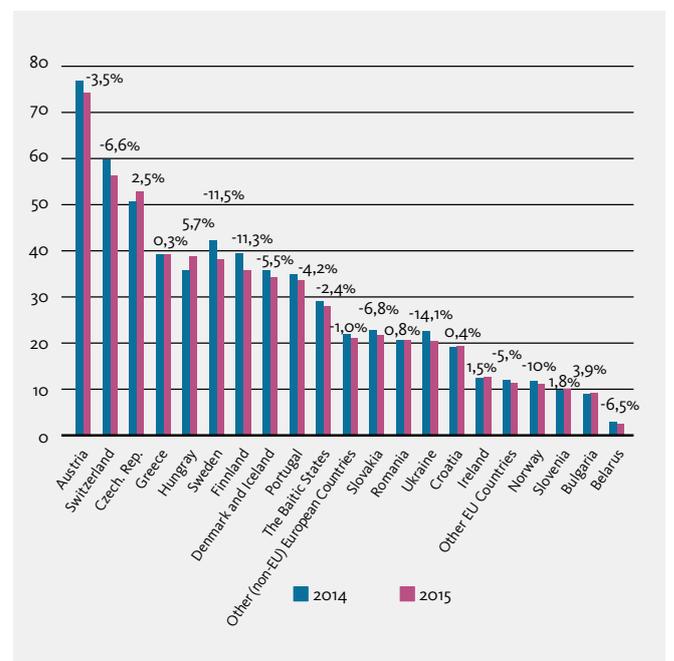


Figure 04: Sales Value by country 2014 to 2015 in €m

13th EuPIA Annual Conference. Challenging times ahead

Volume and sales have been significantly decreasing during the last years. The situation in the printing inks industry can be best described with one word: challenging. However, a difficult environment bears the potential for opportunities. By Damir Gagro.

"We need growth desperately", said the outgoing Chairman of EuPIA, Felipe Mellado, in his opening speech at this year's EuPIA Annual Conference, which was held from 21 to 22 April, 2016 in Wroclaw, Poland. All of the more than 80 conference attendees agreed to his statement.

Consumer goods are a very relevant market for the printing inks industry. "Unfortunately forecasts for consumer goods are not favourable", said Mellado. The prognosis are expecting a very flat development. In all major countries, both emerging and saturated, zero growth is expected. The EuPIA statistics on the printing inks market underlined the challenging situation for the industry.

The market for printing inks is continuously shrinking. The total market size is estimated at some 1.05 million tonnes in Europe. Based on data from EuPIA members, the volumes in Europe fell to 957,000 tonnes in 2015. The lowest volume in more than a decade represents a decrease of -0.6% compared to the figures in 2014. The sales value decreased by -1.6% to 3.12 USD billion. Sales have fallen to the level of 2005.

PUBLICATION INKS KEEP ON STRUGGLING WHILE PACKAGING INKS KEEP ON GROWING

Especially publication inks are continuing the downward trend. Currently they represent just over 50% (down from 66% in 2005) and of the volume and some 40% of the value. The volumes fell by -4.2% and the value by hurting 7.7%. The outlook for this segment is all but favourable. It is expected that the market size of publication inks will drastically shrink in the years to come, at a fast pace. "Only a few industries have suffered such a transformation with fundamental changes", said Mellado.

Packaging inks represent just under 50% of market volume (up from 34% in 2005) and 60% of market value in 2015. Compared to 2014 figures, packaging inks recorded +3.3% in volumes and +3% in value in 2015.

SEIZING OPPORTUNITIES

The printing inks industry is facing difficult times. But, the picture is not as negative as it may look at first sight. While looking at a broader scope of the world economy, Dr Javier Diaz-Giménez, IESE Business School, raised hope during his presentation. Even though the world economy has been "too slow for too long", he clearly

showed that the global economy is only slightly below the long term average. The economy is weaker than during the last decade, but stronger than the decade before the last. "This is far away from a crisis", Diaz-Giménez summarised. While saying that for instance China will not implode or crash, he admitted that Europe is continuing to be a shrinking market.

How to seize opportunities in a tough environment was presented by Lars Kleinschmidt of the print and media group Eversfrank. According to him, print will sustain. "We have to accept that print plays a new role. Even if it becomes a smaller part, it will certainly have its place in a world of mass communication. We are experiencing an overload in electronic information. Only paper can convey information without an adblocker", he said.

An interesting insight into the raw material supply situation was presented by Dr Norbert Flüggen of Altana. In the past months raw material costs have increased despite low oil prices. Flüggen explained how little low oil prices affect the costs of specialty chemicals used for formulating printing inks. According to him, a price drop of 50% will therefore never be transferred along the value chain at this rate.

NEW IMPULSES ON INNOVATION AND SUSTAINABILITY

The second day kicked off with a presentation on "Digital Business Transformation" by Philipp Deperieux of Etventure. In his opinion it is necessary to force digitalisation at corporations and small & medium-sized enterprises, as the business of the future lies in the digital word. He emphasized that implementing digital processes and business models has to be decided at CEO level in order to bring success.

In terms of success Dr Thomas Allgauer of Dow Chemical addressed the topic innovation in his presentation. He clearly depicted key success factors for innovation. Having worked in many teams in different geographies, showed that Europe has to improve its pace as the emerging economies are catching up.

Dr Dirk Voeste, BASF, gave a good overview on sustainability. He showed how the industry tackled this subject in the past, where it stands today and where it will go in future.

(was published in ECJ 05/2016)



Announcement of the 14th EuPIA Annual Conference in 2017

The next Annual Conference will be held on 30th / 31st March 2017 in Marbella (Spain).

PRINTING INKS AND VARNISHES APPLIED ON FOOD CONTACT MATERIALS

EuPIA published a completely revised GMP for FCM inks

In March 2016, EuPIA published a completely revised version of its Good Manufacturing Practice (GMP) for printing inks, varnishes and coatings designed to be printed onto Food Contact Materials (FCM inks). It has been prepared to assist in controlling food safety hazards in the design and manufacture of FCM inks, and formulated for use on either the non-food contact or the food contact surfaces of food packaging and articles intended to come into contact with food.

Products developed and manufactured in compliance with the EuPIA GMP are supporting manufacturers of food contact materials in supplying products compliant to the applicable legislation in Europe for materials and articles intended to come into contact with food, such as the Framework Regulation (EC) No 1935/2004, and GMP Regulation (EC) No 2023/2006.

The GMP includes requirements on product composition, quality and hygiene management.

It can be used by internal and external parties to assess the EuPIA member company organization's ability to meet customer and regulatory requirements applicable to FCM inks, and the organization's own requirements.

EuPIA members are in the process of introducing the GMP from 1st March 2016.

EU Commission and European Parliament activities regarding food contact materials for which no harmonised rules exist ("non-plastic food contact materials")

Food Contact Materials must be manufactured such that they do not transfer their constituents to foodstuffs in quantities which could endanger human health, cause an unacceptable change in the composition of the food or inadvertently affect foodstuffs in terms of odour and taste. These general requirements are laid down in the European Framework Regulation (EC) No 1935/2004 on materials and

articles intended to come into contact with food.

At present, on European level specific legal provisions exist for plastics, regenerated cellulose film, ceramics, active and intelligent materials and recycled plastics.

In the absence of specific EU measures, Member States may maintain or adopt their own national provisions on food contact materials, which are likely to differ from one Member State to the other. Such differences introduce inconsistencies in the approach to regulating food contact materials and have the potential of hindering the free movement of those materials in the internal market.

Therefore, in 2012, the European Commission had started an initiative to check the necessity and options to regulate non-plastic food contact materials, and summarized its views in a so-called "roadmap". Subsequently, the Commission consulted Member States and industry for their opinions. EuPIA and many other trade associations took part in the consultation process and identified "printing inks" and "paper & board" as materials for which EU provisions should be established with priority.

In the latter part of 2014, the European Commission's Joint Research Centre (JRC) has started to carry out a study aimed at providing a comprehensive overview of the current situation concerning non-plastic food contact materials. This so-called "baseline" study will map the industry supply chain and collect existing legal provisions on Member State level as well as industry self-regulations for these materials. EuPIA contributed to this study. The study was expected to be completed by the beginning of 2016, and should allow the European Commission to identify priorities for future regulations of food contact materials. Until the end of the reporting period, no study results were made public.

At the request of the European Parliament Committee on Environment, Public Health and Food Safety (ENVI), the Parliamentary Research Service (EPRS) conducted a study to assess the implementation of the EU food contact materials' legislation. EuPIA had provided input into this study as well.

The study was published in May 2016 and is available from the website of the European Parliament at

<http://bit.ly/2cfujjR>

The last paragraph of the abstract states: *“However, as reported by the majority of stakeholders participating in this survey, the lack of specific measures at EU level for some food contact materials/articles negatively impacts the functioning of the internal market for the relevant material/article and its food safety. Stakeholders - across businesses, consumers, environmental and health NGOs, researchers, as well as Member States’ competent authorities - are in favour of specific measures at EU level for the FCMs that are not yet harmonised at EU level.”*

The report further points out that priority for harmonization at EU level should be given to Paper&Board, Printing inks, Varnishes and Coatings.

The study results are considered in a motion for a European Parliament Resolution which has been voted in the ENVI Committee in July 2016, and now awaits reading in the European Parliament.

German Consumer Goods Ordinance: draft amendment specifying requirements for printing inks/varnishes applied on food contact materials

Despite the aforementioned activities at EU level which support the setting of harmonized rules for certain food contact materials including printing inks, Germany continues to pursue a national approach: On 5th July 2016, Germany notified to the European Commission the draft of the 21st ordinance amending the German Consumer Goods Ordinance (21. Verordnung zur Änderung der Bedarfsgegenständeverordnung), pursuant to Directive (EU) 2015/1535; this amendment is called “Printing Ink Ordinance” (“Druckfarbenverordnung”). The standstill period expires on 6th October 2016.

EuPIA and the entire European food packaging supply chain as represented by the Packaging Ink Joint Industry Task Force (PIJITF) regret this step as they are clearly in favour of EU harmonized rules for printed food contact materials, in order to avoid massive distortions of the internal market, as can be expected if the principle of mutual recognition is not respected in full. Irrespective of this fundamental question for which clarification is requested from the German Government, from the perspective of the printing ink industry the main concern lies with the future usability of raw materials for the manufacture of FCM inks. The core element of the draft ordinance is a list of substances which may only be used in the manufacture of printing inks for food contact materials. This list is still incomplete with key raw materials missing. If these materials are not included in the positive list from the point in time when the provisions of the ordinance become applicable, then this would have severe consequences for established printing technologies which would at least be severely restricted if they do not completely disappear.

EuPIA and its member companies continue to assist their raw material suppliers to compile and submit to the relevant authorities toxicological dossiers for substances which either are not yet included on the draft positive list or for which more favourable migration limits should be set.

Swiss Consumer Goods Ordinance: provisions for food packaging inks

Since 2010, the Swiss Consumer Goods Ordinance contains provisions specific to printing inks which are designed to be printed on the non-food contact surface of food packaging. The core element of the regulation is a list of “permitted substances”, which only may be used in the manufacture of food packaging inks marketed in Switzerland. This



list, which has been established with the support of EuPIA, is regularly revised. For some of the listed substances the Swiss authorities requested clarification of their toxicological status. For the majority of these substances consensus could be reached in joint meetings between the Swiss authorities, EuPIA and the relevant associations of the raw material supply industry.

Non-Intentionally added substances (NIAS)

Printing inks and coatings for food contact materials may contain substances that are not used intentionally. These substances may be impurities in the raw materials used or reaction intermediates formed during the production process of ink raw materials, or decomposition or reaction products formed during the ink manufacturing, the printing and the packaging/filling or storage. Such substances are commonly referred to as Non-Intentionally Added Substances (NIAS).

There is an increased focus of legislators, control authorities and customers on the appropriate risk management of NIAS. To this end, EuPIA has established a NIAS Risk Management Task Force which will produce an ink specific guideline for EuPIA members detailing how NIAS should be risk-assessed.

Until this guideline is available, the EuPIA Position Statement on Non-Intentionally Added Substances (NIAS) provides some relevant information: http://www.eupia.org/uploads/tx_edm/2016-02-24_EuPIA_Position_Statement_on_NIAS.pdf

EUPIA TECHNICAL COMMITTEE

Technical issues and non-food applications of printing inks fall under the remit of the EuPIA Technical Committee (ETC) and its subsidiary working groups, Operational Safety & Risk Assessment (OSRA), Labeling & Safety Data Sheets (LSDS) and the Task Force “Recycled Paper & Board as Food Packaging”.

Safe workplaces and products

September 2015 saw the publication of the first edition of the **EuPIA Exclusion Policy for Printing Inks and Related Products**. This policy, which replaced EuPIA’s familiar and long-established Exclusion List, represents an evolution which preserves the clarity of a hazard-based policy whilst mitigating negative impacts on business continuity or customers’ processes in the face of increasing substance re-classifications under REACH and CLP. The Policy incorporates elements of risk assessment, taking use and exposure of substances into account, and allows specific (temporary) exemptions to be granted where substi-



tution is not feasible in the short term and where safety in use can be adequately demonstrated. Use of the exemption procedure entails mandatory reporting to the EuPIA secretariat, which helps to monitor proper application of the Policy among members.

The second edition of the Exclusion Policy was published in March 2016, including the first such exemption to be identified (for formaldehyde in encapsulated scent varnishes). The ongoing review and maintenance of the Policy is a standing agenda item for ETC. The Policy will be maintained until it is no longer necessary, when risks from the most hazardous substances have been managed by REACH regulatory processes (2020 or beyond); in the meantime however it remains an important pro-active safety commitment by EuPIA members towards their employees and customers.

A safe workplace is also the primary goal of the **OSRA working group**. In March 2016 it published a major new guideline for members on laboratory safety, comprising chapters on safe formulating, chemical storage, equipment operation/maintenance and training & risk assessment. Further chapters may be added to this guideline as considered necessary.

OSRA also published an information note for members on preventing falls from tank containers – especially important at a time when increased security checks are being carried out on transport units. OSRA also continues to publish its popular Safety Flashes and Safety Alerts in the members' Workplace, although their number has happily fallen as fewer incidents are reported. To continue in its goal of sharing learning, OSRA is therefore developing new short formats for best practice guidance.

One non-food application for printing inks in which safety is important is **packaging for cosmetic products**. EuPIA has participated in a cross-sector task force to develop guidance for information in the supply chain; this guidance, undergoing a trial period during 2016, is

based on the approach that information on food contact suitability can also be used in safety assessment for cosmetic products (where there is sufficient chemical similarity). In July 2016 ETC published an updated recommendation to members on supply of food packaging inks for cosmetic packaging, referencing the supply chain guidelines and also including a guidance list of 'disclosable substances' used in food packaging inks, but which are banned/restricted in cosmetic products (Annexes II/III of Regulation 1223/2009) and so cosmetic safety assessors need to be informed about their presence. Following the recommendation enables members to make use of EuPIA tools available in the food contact materials area, such as the Statement of Composition.

In March 2016 ETC published a revision of its guidance on 'treated articles' containing biocides. The new version reflects updated CEPE guidance, but retains examples and situations specific to printing inks and related materials.

ETC and its subsidiary groups also continue to monitor numerous 'substances of interest' to the printing inks sector, and support the advocacy activities of CEPE with relevant input as required. Substances in focus in the past year include the acrylate monomer HDDA, formaldehyde and the essential white pigment titanium dioxide. See separate article for more details.

Focus on ink-specific issues

The EuPIA LSIDS group has established a new working procedure in 2016, which will focus on ink-specific labelling and safety data sheet issues identified by the members. Issues with more general applicability will be fed into the main CEPE TC-LSIDS, with one joint meeting of the two groups each year.

The role of printing inks in environmental footprint and sustainability

Instead of generating eco-footprints for individual inks, which could lead to inappropriate comparison between different ink technologies, ETC decided to establish a 'virtual ink' representative of the global market. This was used in a Life Cycle study applying the CEPE tool and methodology (see also Sustainability article). A communication leaflet has been developed to enable inkmakers to provide sufficient information downstream, to support converters in making their own Life Cycle Analyses and assessing the contribution of the ink to the overall environmental footprint.

Printing Inks and Circular Economy

For long, EuPIA members enable the recycling of printed paper products through the supply of suitable printing inks that are readily de-inkable. In this sense they have always contributed their share to a circular economy approach. EuPIA continues to participate in the European Recovered Paper Council (ERPC), a cross industry platform of European federations committed to support paper recycling. EuPIA monitors discussions on the Circular Economy in Europe, triggered by the Commission Communication "Closing the loop - An EU action plan for the Circular Economy", published in December 2015. As the recycling targets for paper based products may affect the technologies for the recycling of paper, the scope of the EuPIA Task Force "Mineral Oils in Publication Inks" has been expanded to now also include general aspects of paper recycling vis-à-vis requirements which may result from the new circular economy policy. ◀