

# EuPIA Annual Report 2019

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 2018

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

The following statistics show a summary of printing ink sales from EuPIA's more detailed Quarterly Market Sales Statistics. The findings are based on the consolidated results of data supplied by 28 EuPIA member companies, who have all submitted data on a standard basis to our independent trustee who compiles the data for EuPIA. The results show sales volume in tonnes and value in €m for the latest year, 2018.

It is estimated that the sample group accounts for about 90% of total industry sales in Europe.

### Key sectors shown

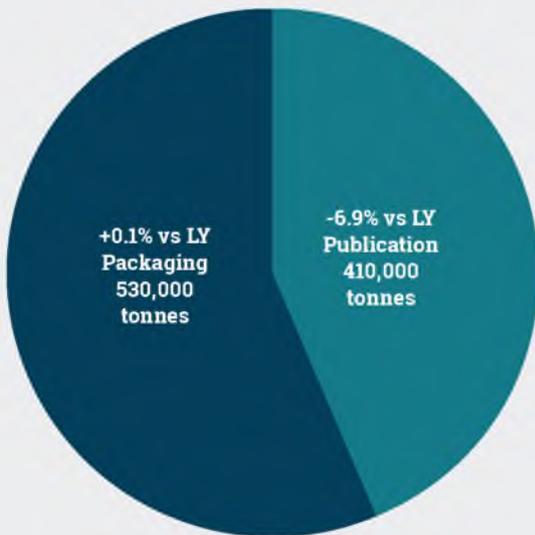
Publication Inks comprise web offset inks (coldset and heatset), sheetfed offset inks, publication gravure inks and related overprint varnishes. Examples of publications are newspapers, magazines, books, and commercial prints such as brochures and flyers.

Packaging Inks comprise flexographic inks, specialty gravure inks, energy curing inks and related varnishes. Examples of packaging are flexible film packaging, rigid plastics, folding cartons and corrugated boxes (see figures below).



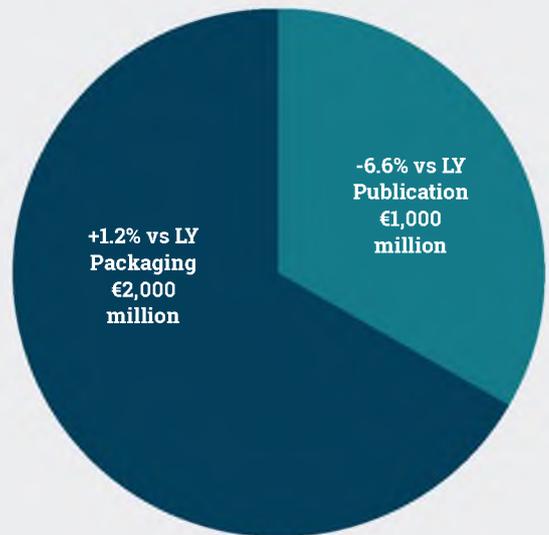
Martin Kanert  
Executive Manager  
EuPIA

### Sales volume for 2018 in 1000 tonnes



■ Packaging  
■ Publication

### Sales value for 2018 in EUR millions



■ Packaging  
■ Publication

### Sales Value by country 2017 to 2018 in EUR millions



### Sales Value by country 2017 to 2018 in EUR millions



# Negative growth, but appetite for sustainability

EuPIA's 16th Annual Conference took place on 11-12 April 2019 in London. Negative growth in the largest markets, slower development in the East and growth only outside of the EU highlight the challenging times facing the European ink industry. Regarding sustainability, the ink supply chain thinks 2018 could have seen a better performance. These issues plus industry trends and innovation have been key discussion points during EuPIA's Annual Conference 2019.

By Sebastian Kraußlach, Public Affairs Manager, CEPE



**T**he latest regulatory measures such as the Single-Use Plastics Directive target the reduction of waste, especially plastic waste, as primary objective. Equally, the ink consuming packaging industry recognises sustainability as the best way forward. The innovative solutions offered by the supply chain are two-fold: improved product design and more recycling. What does this mean for the ink industry?

## LEADING CHANGE THROUGH STRONG PRODUCT DESIGN

Product design has been identified as a primary path to reach higher recycling rates, since not all items are equally recyclable. The UK's sixth largest food retailer Co-op therefore suggests to narrow the range of polymers used (matching them with what the current waste management systems can cope with), to simplify the packaging construction by reducing the number of layers and the removal of metal components. In addition, a reduction in the use of colour is helpful – as the sorting process becomes easier with transparent packaging.

Austrian plastics producer Borealis has established a dedicated code of conduct to have their rigid packaging designed ready for recycling. By making the appropriate material choices and design decisions, each product is produced to allow them to be collected, sorted and recycled. This entails more combinations of virgin polymers with re-cycled plastics and an increased use of mono-materials.

Nestlé Research established golden rules for the packaging of the future. With regards to plastic and coated paper there should be no use of oxo-degradable plastics, less use of carbon-based materials, and a phase-out of certain plastics (PVDC, PVC, PS). Instead, the use of transparent or lightly tinted materials should be encouraged and those residual products favoured that can easily be removed.

## THE QUALITY OF RECYCLED PLASTICS

The improvement of the quality of recycled plastics is of particular interest to the ink industry, as inks have an impact on the overall characteristics of recycled plastics. Hence, the supply chain hints at the need for innovation to further enhance the de-inking properties, a focus on polymers used in inks and new technologies such as solvent-based or chemical recycling.

Design thinking and improved waste management are expected to meaningfully tackle today's environmental challenges. In order to make it a success, a collaborative approach with consumers and the supply chain is needed, especially to achieve the proper economies of scale. An excellent example is the charity and not-for-profit organisation Recoup. By providing research, technical guidance and training, Recoup promotes and increases the levels of plastic recycling among plastic manufacturers, retailers and waste management companies in the UK.

## WHAT'S NEXT?

The way forward seems clear: companies take steps towards full recyclability. UK retailer Co-op already introduced a compostable carrier bag and pledges to have all its packaging recyclable by 2023. Two years later, Nestlé seeks to have achieved a rate of 100% recyclable or reusable packaging and Borealis aims at having quadrupled its recycling volume by then. These are just some of the actions already in development.

Ink manufacturers are prepared to rise to the challenges ahead. This includes giving due consideration to the interaction between the print and the substrate during the recycling process. Ink manufacturers have an important role to play and should therefore develop and promote sustainability strategies that align with their brand owners, converters and the broader supply chain. *(was published in ECJ 06 2019)*

## Launch of a new website

EuPIA has relaunched its website to add more value for its visitors. Providing a clearer overview of the association and its activities, the new website now has a fresh and modern look and offers a more intuitive navigation structure. The user-friendly interface also includes improved search functionality, simplifying access to the information most relevant to the search criteria of individual website visitors. The design of the new website supports EuPIA's mission to further increase the awareness of the printing ink industry with all stakeholders and positively shape the image of an innovative, responsible and attractive industry. It is intended to strengthen the association's position as the lead voice of the printing ink industry and add additional value to its members. What's more, not only will it act as an "always on" channel to provide members and visitors with relevant information about printing inks and related products, but it will help to raise the profile of the fascinating world of printing inks.

The structure of the website is now divided into four main topic categories. The new "About us" section combines all information about the association - from its mission and vision to material about membership, including a list of members and the contact details of national associations. In the same section can be found EuPIA's reputable statistics reflecting the latest domestic ink data from the European Union. In the "Our commitment" section, visitors will find information and documents about EuPIA's Exclusion Policy for Printing Inks and Related Products. Under "Key topics" are summaries of the most important topics, including

food contact materials, sustainability, chemical regulations, safe handling and usage. Within the same section, visitors can find comprehensive information and documentation about raw material selection, migration testing, risk assessment or regulations like REACH, CLP or BPR. Lastly, press releases, annual reports and event announcements are gathered in the "News & Events" section.

The new website is accessible online at [www.eupia.org](http://www.eupia.org).



## Printing Inks and Varnishes for Food Contact Materials

It is occasionally claimed that printing inks used to print food contact materials, and in particular food packaging, are not regulated by law and therefore printed food packaging is regarded as "unsafe". That is not true!

Like all other food contact materials, printed food contact materials as well as the printing inks used to produce them are subject to the requirements of the European Framework Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food. Article 3 of this Regulation lays down general requirements for the protection of consumers. For a few materials, the requirements are specified in specific legal provisions, either at EU level, such as for plastics, or at national level, e.g. for paper and board. For printing inks, such specific provisions do not exist in the European Union.

There are repeated calls for all food contact materials to be subject to European harmonised regulations that would be immediately applicable as such across the European Union in order, on the one hand, to create a uniformly high standard of consumer protection throughout the European Union and, at the same time, to prevent a patchwork of different national regulations that would hinder the free movement of goods in the internal market.

About three years ago, the European Parliament called on the Commission to adopt specific Union legislation for all food contact materials. A study by the Joint Research Centre, in which all existing regulations in the EU were researched and summarised, also suggests that there is an urgent need for harmonisation of the rules.

At the end of 2016, the Commission had announced, also in reaction to the notification by Germany of a national regulatory initiative, that it intended to issue harmonised regulations for printed food contact materials, but had currently postponed work on these regulations in order to first subject the framework regulation itself to revision.

Does this mean that there are no more specific rules for printing inks than the general safety requirements? No, because EuPIA has filled the gap and over the past 10 years has created a set of rules with which its member companies and their customers can work and manufacture printed food packaging in accordance with the requirements of the framework regulation.

### Controlled manufacture according to GMP standards

The EuPIA Good Manufacturing Practice for Printing Inks to be applied on food contact materials (FCM inks) should be mentioned first. The GMP includes requirements on product composition, quality and hygiene management. It is designed such that internal and external parties can assess the EuPIA member company organisation's ability to meet customer and regulatory requirements applicable to FCM inks, and the organisation's own requirements.

The raw materials for the manufacture of FCM inks must be specifically selected. First and foremost, they must comply with the requirements of the EuPIA Exclusion Policy for Printing Inks and Related Products, applicable to any type of printing ink. They should then preferably be officially evaluated by a recognised body for their use in food contact materials. If such evaluation is not available, then the printing ink manufacturer can risk assess the raw material himself according to strict criteria. For this purpose, EuPIA provides its own guideline (EuPIA Guidance for Risk Assessment of Non Intentionally Added Substances (NIAS) and Non Listed Substan-

### NEXT Event



The next Annual Conference will be held on

**26th/27th March 2020**  
in Budapest (Hungary).

ces (NLS) in printing inks for food contact materials), and trains its members in the proper application of the tools provided in the guideline.

For UV inks, EuPIA provides a Suitability List of Photoinitiators and Photosynergists for Food Contact Materials, which identifies photoinitiators and photosynergists considered suitable for use in UV printing inks and varnishes for the non-contact surface of food contact materials. This list has recently been completely revised. In addition, EuPIA members agreed on a procedure for the inclusion of new photoinitiators or photosynergists on to the Suitability List.

In order to determine that FCM inks are fit for purpose, ink manufacturers carry out indicative migration tests on model substrates. For the time being, official test methods are available for plastic substrates only. For other materials, the EuPIA Analytical Experts Working Group (AEWG) developed the EuPIA Guidance on Migration Test Methods for the Evaluation of Substances in Printing Inks and Varnishes for Food Contact Materials, which is being expanded for consideration of inks and varnishes intended to come into direct contact with food (DFC inks). Often, for migration testing, the conditions set out in the Plastics Regulation (EU) No 10/2011 are applied directly to all kinds of printed food contact materials. However, these conditions are often not suitable, as they may physically or chemically change the printed substrate. The AEWG is currently working on a study, which aims to demonstrate that some of the

proposed conditions are significantly overestimating the migration into real foodstuff at the end of shelf life and to provide better suited testing conditions specifically for printed food contact materials.

#### Exchange of information along the food packaging chain is vital to ensure compliant food packaging

Due to the complexity of the process, all members of the packaging chain must exchange relevant information – under appropriate confidentiality agreements if necessary – in order to ensure that products can be formulated to be fit for purpose, and thus be compliant with legal requirements (see figure below).

To this end EuPIA members are prepared to provide their customers with relevant information compiled in a so-called “Statement of Composition” (SoC). Essentially, the SoC will list those substances with a potential to migrate along with applicable migration limits and the amount of that substance in the print. The converter needs this information to assess whether the printed product complies with the legal requirements.

A EuPIA Customer Guidance Note for Using Ink Statements of Composition when Considering Compliance of Printed Food Contact Materials is intended to help packaging converters and end users assess the compliance of printed packaging using the information provided by the ink supplier.

Moreover, information relating to usage and application constraints is provided in Technical Data Sheets or other recommendation

leaflets. To assist its members, EuPIA makes available a *Technical Data Sheet Checklist*.

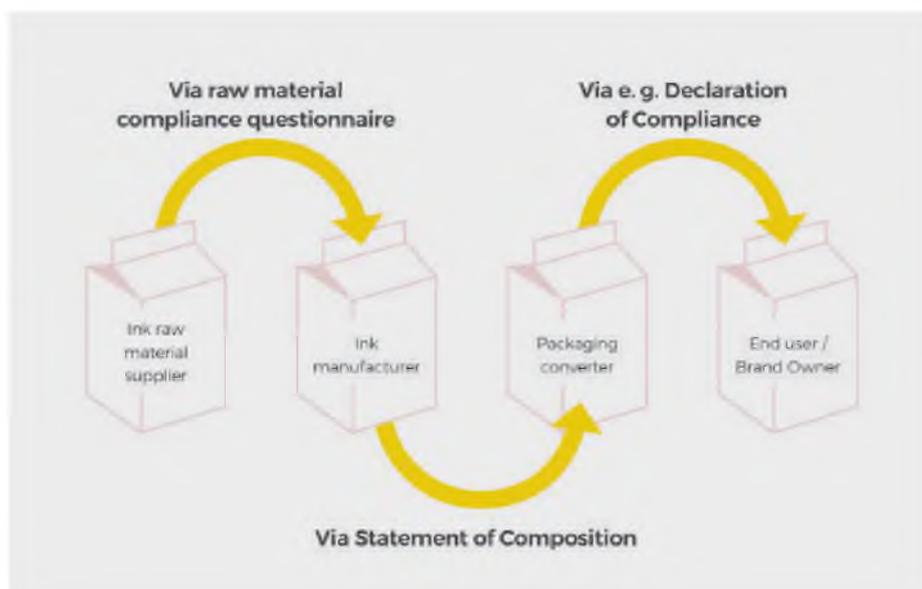
In order to enable the ink manufacturers to provide adequate information to the packaging converters, relevant information from the raw material suppliers is needed. Raw material suppliers are therefore requested to provide such information by filling in so-called Raw Material Compliance Questionnaires. EuPIA issued an Explanatory Note for Suppliers of Ink Raw Materials Regarding Regulatory Compliance of Printed Food Packaging to assist suppliers of ink raw materials in understanding the need for, and the mechanism for regulatory disclosure to facilitate the communication of relevant information down the supply chain.

With the concepts presented, the printing ink industry is already making its contribution to the manufacture of compliant, safe printed food contact materials. Nevertheless, the printing ink industry is in favour of practicable legislation for printed food contact materials, but only at European level. Together with all partners in the European value chain, as organized in the Packaging Ink Joint Industry Task Force (PIJITF), a regulatory concept has been drawn up which incorporates the elements described above and which has met with a fundamentally positive response from the responsible bodies of the European Commission.

### Printing Inks and Circular Economy

The Circular Economy package is one of the most ambitious programmes of the EU Commission. It aims to stimulate the transition from a linear to a circular economy. This transformation will also affect the printing ink industry.

For this reason, EuPIA established two Task Forces, one for paper recycling, and recently one for plastics recycling. The EuPIA Paper Recycling Task Force is monitoring and assessing the legislative developments in the framework of the circular economy package and its impact on the printing ink sector. 2018 has seen many important developments such the communication on the interface between chemicals, products and waste legislation. Furthermore, the task force is providing the liaison to the European Paper Recycling Council (EPRC), is monitoring the activities on mineral oil-free inks and coordinating national activities. Currently, in France and Germany pro-





jects on mineral oil-free coldset inks are being conducted. In 2018, the Task Force also provided an update for all EuPIA position papers on recycled paper and board. Furthermore, it was and still is actively involved in the revision process of the EU Ecolabel on printed matter, which is currently ongoing.

The Plastics Recycling Task Force is focused on the current issues surrounding the recycling of plastics, how these might impact the European printing ink sector and EuPIA members' businesses, and how the ink industry may contribute to possible solutions to the 'plastics challenge'.

The Task Force has recently reached out to key stakeholder organisations and their forums working on this topic, to liaise and strengthen the network of contacts. The intention is to improve the communication and sharing of information on legislation, brand owner and retailer initiatives, and specific sectorial positions. EuPIA members are keen to support and propose solutions to some of the challenges that the plastics industry is facing, especially relating to the recycling of post-consumer waste (i.e. printed plastic packaging from the food and non-food sectors) and the recycling of post-industrial waste (e.g. emptied ink containers).

### Technical and operational issues

Issues other than the above are managed in the EuPIA Technical Committee (ETC) and its subsidiary working groups Labelling and Safety Data Sheet (LSDS) and Operational Safety and Risk Assessment (OSRA).

#### Hazardous substances and product stewardship

*The EuPIA Exclusion Policy for Printing Inks and Related Products* has been a key focus this year, largely due to an increase in re-classification of substances used in energy-curing inks following REACH registration exacerbated by a global shortage of alternatives. In summer 2018 EuPIA published a *Customer Information Note: Raw Materials for UV inks under the Eu-*

*PIA Exclusion Policy*, to explain why materials subject to the Exclusion Policy might temporarily remain in the supply chain, as well as a new public document *Questions and Answers on the EuPIA Exclusion Policy for Printing Inks and Related Materials*.

Increased use of the exemption procedures provided in the Exclusion Policy has highlighted some areas where EuPIA could further reinforce its advice and support to members. ETC agreed to enhance its internal *Explanatory Note to the EuPIA Exclusion Policy* by inclusion of guidance on the key elements of risk assessment – a pre-requisite to obtain a temporary exemption. Recently EuPIA has established a new task force to review the terms of the Exclusion Policy and to identify where additional clarifications and recommendations would make its application easier and more consistent for member companies. In addition EuPIA will focus on improving communication about the value and benefits of the Exclusion Policy.

ETC monitors the technical and regulatory status of various 'substances of interest' to the printing ink industry. These include biocides (see article elsewhere in this annual report) and nanomaterials; regarding the latter, in November 2018 EuPIA published a statement about a literature study by the European Union Observatory for Nanomaterials (EUON) on the *"uses and risks of nanomaterials as pigments in the European Union"*. This study mentions such materials in the production and use of printing inks, however EuPIA concludes that there is no significant exposure of workers or consumers and therefore no risk.

Since 2014 EuPIA has participated in an industry task force developing guidance on safety assessment for cosmetic packaging, making use of information on FCM compliance to provide adequate information to safety assessors for cosmetic products. A final

draft guideline was tested in a large-scale trial of Cosmetics Europe member companies, the final outcomes of which were reported in May 2019. At the time of writing the guideline was in the process of formal endorsement by the board of Cosmetics Europe, before promoting it to relevant EU institutions. Ongoing maintenance will be required to track developments in the FCM legislation which underlies this approach, including its list of 'disclosable substances'.

Other product stewardship issues handled by the ETC or its LSDS group include, *inter alia*, safety of (printed) toys and exposure scenarios for safe use of printing inks. In 2018 EuPIA published an information note *Printing Inks as Industrial Mixtures*, clarifying the intended use of EuPIA members' products – useful particularly in the context of harmonised submissions to Poison Centres, the development and impacts of which are closely monitored by the LSDS group. ETC also maintains its cooperation with the graphic industry association Intergraf, to address jointly issues such as environmental impact of printing.

#### Promoting and measuring safety in operations

OSRA's mission is to support members and customers in operating at the highest levels of safety. The group continues to publish its popular Safety Alerts and Safety Flashes, with seven generated in the first half of 2019. Recurrent themes, such as fires and incidents with fork lift truck, are prioritised for guidance documents; in recent months the group has published new or updated guidelines on storage racking and electrostatic safety in the handling of flammable liquids, and at time of writing is concluding an update of its guidelines on safe handling of nitrocellulose raw materials and inks. The group also provides its expertise in operational safety and training in support of CEPE activities on substances, such as titanium dioxide (dust OELs) and diisocyanates (training materials for planned restriction). Safety performance indicators were again collected from EuPIA members for 2018, now making three consecutive years' data. OSRA is producing a summary of these data as a reference for members to benchmark their own performance against their peers. OSRA is now also reaching out to operational groups in the national associations to maximise engagement and alignment on safety matters. 🌐