

EuPIA Annual Report 2022

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.



Martin Kanert
Executive Manager
EuPIA



Market Statistics 2021

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 27 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, 2021.

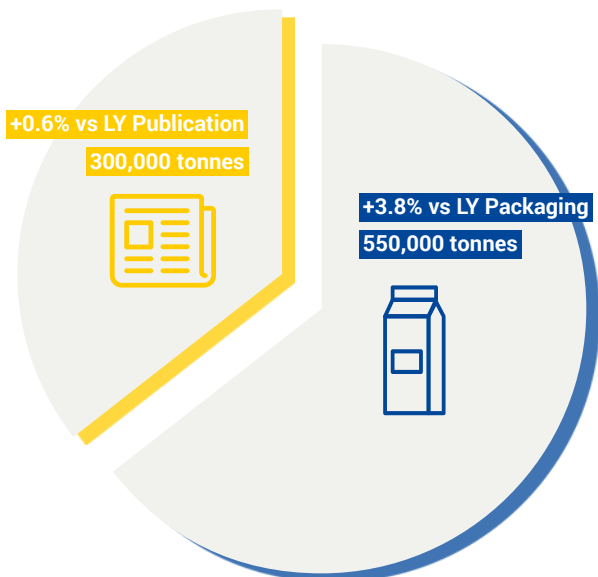
It is estimated that the sample group accounts for about 90% of total industry sales in Europe.

Key sectors shown

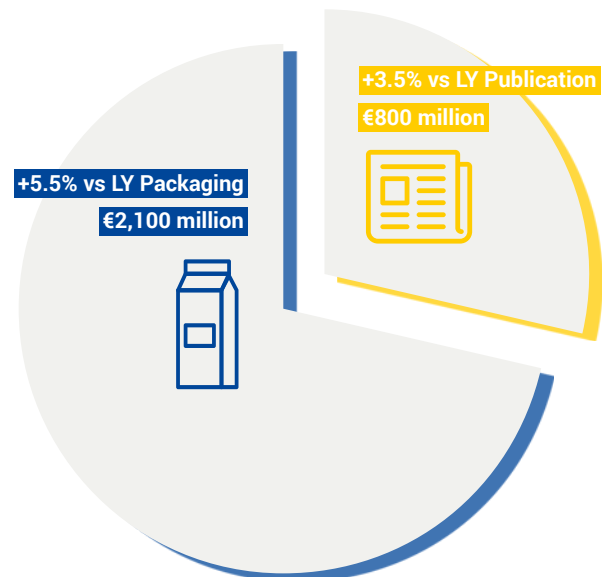
Publication Inks comprise web offset inks (coldset and heatset), sheetfed offset inks, publication gravure inks and related overprint varnishes. Examples of publications are newspapers, magazines, books, and commercial prints such as brochures and flyers.

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).

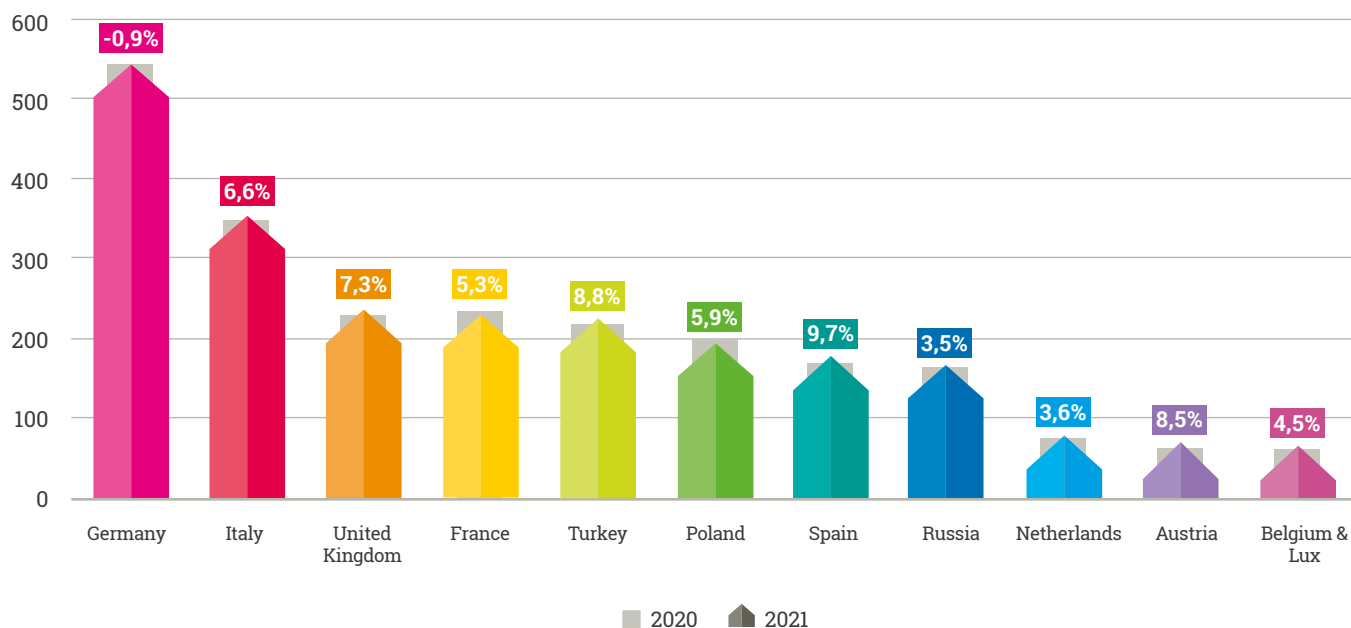
Sales volume for 2021



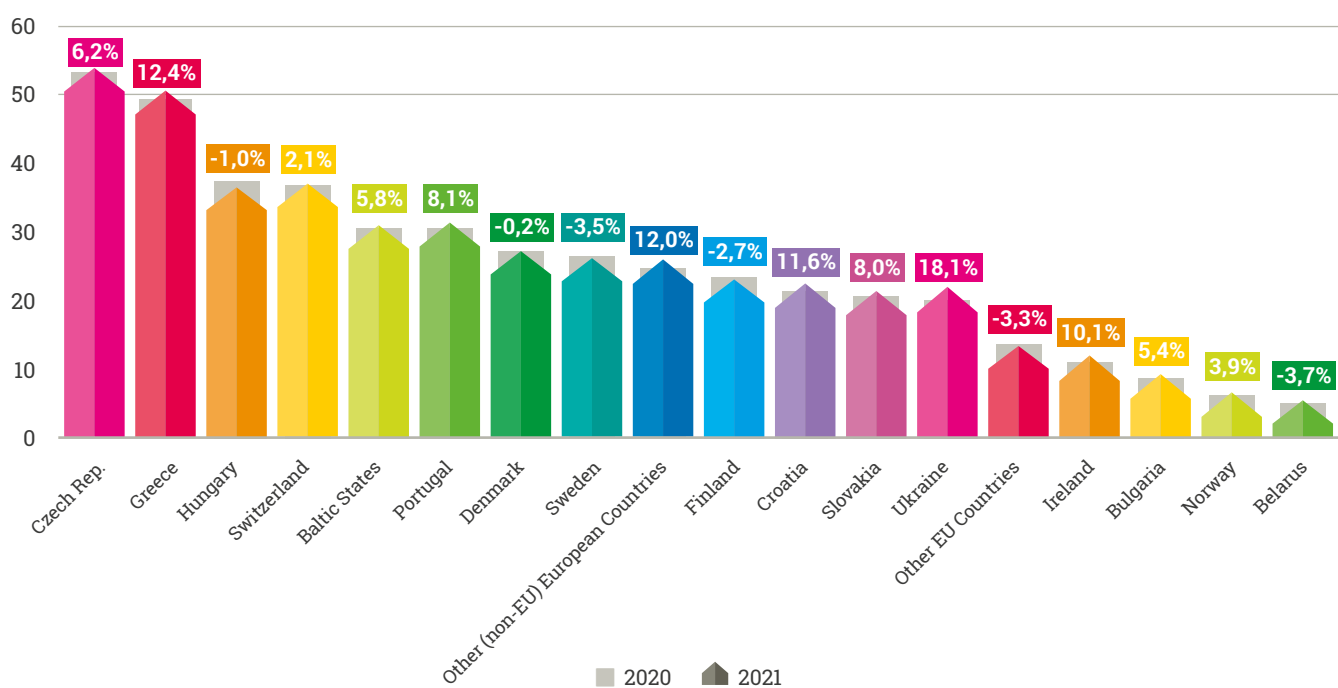
Sales value for 2021



Sales Value by country 2020 to 2021 in €m



Sales Value by country 2020 to 2021 in €m



EuPIA Annual Conference

Due to the persisting uncertainty resulting from the Corona pandemic regarding meeting and travel conditions, the EuPIA Annual Conference was again conducted virtually, as in the previous year. However, this did not detract from the attractiveness of the conference: the number of participants was even higher than in previous years.

The EuPIA Exclusion Policy for Printing Inks and Related Products

For the last 25 years, the EuPIA Exclusion Policy for Printing Inks and Related Products (and its predecessor, the EuPIA Exclusion List) has had a tremendous value for the printing ink industry, the printers/convertors, brand owners, retailers and consumers as it ensures the safety of inks used across Europe. In short, the policy is about excluding hazardous chemical substances which have a serious adverse effect on human health from the manufacture of and use in printing inks, protecting workers along the whole supply chain as well as customers. The EuPIA Exclusion Policy is THE product stewardship initiative of the ink industry in Europe and as such, is well respected across the market.

The introduction of the 4th edition of the Policy in March 2021, along with the positive commitment from members through being listed on the EuPIA webpage, has been welcomed by the European printing ink sector and their customer base. The Policy is now available in four languages – English, French, German and Italian. A further refinement of the Policy was introduced during 2022, with the publication of a new Annex to the Explanatory Note, defining the term ‘Related Products’ which effectively clarifies the scope of the Policy (which products supplied by EuPIA members should be complying with the Policy).

A couple of procedures within the Policy have also been put to the test recently, as a result of the harmonized reclassification of several key substances used in printing inks through the 18th Adaptation to Technical Progress (ATP), the basis for reclassifying chemical substances under the Classification, Labelling and Packaging (CLP) regulation EC No. 1272/2008. The Exclusion Policy Advisory Panel (EPAP) has also started up its activities and is already being called upon to recommend possible courses of action relating to a long-standing Exclusion Policy issue linked to use in digital inks.

Printing Inks and Varnishes for Food Contact Materials

Printed food contact materials (FCMs) remained one of the key topics of EuPIA also in 2022. With specific legal rules for printed food contact materials still lacking at the EU level, EuPIA continued to adapt and improve its comprehensive set of guidelines, which all aim to detail out the general requirements of the Framework Regulation (EC) No 1935/2004 with regard to printed food contact materials and support the converters and distributors of food contact materials in their compliance work. These guidelines set standards in many areas, such as migration testing, risk assessment or transparency in the supply chain and are the visible proof of the printing ink industry’s high level of commitment when it comes to food safety, which is almost unparalleled in the value chain.

The set of guidelines are publicly available on the EuPIA website:



Notwithstanding all these efforts to further enhance the safety of printed food contact materials through industry initiatives, EuPIA together with the entire food packaging chain in Europe has continued to advocate a harmonised European regulation for printed food contact materials. Together with the supply chain (see below) high level letters were sent to the European Commission and the topic was addressed in recent meetings with ranking Commission officials. Furthermore, with the help of EuPIA’s network of national associations, members of the European Parliament were approached and asked for support. Indeed, many parliamentarians realize that it is critical to timely adopt a harmonised European regulation for printed food contact materials.

EU Commission started evaluating the legal framework

Although a specific regulation for printed food contact materials is, despite all efforts, still not in sight on the EU level, the European Commission is not inactive: The process of the evaluation of the Framework Regulation has gained momentum. The core of the Framework is over 40 years old, yet it has never been systematically evaluated and hence does not take “new” developments such as REACH into account; therefore, a thorough evaluation makes sense. The Commission’s processes foresee a so-called inception impact assessment, including a public consultation on the policy options, followed by the actual impact assessment, in which the policy options are assessed in detail. Afterwards the results will be published, and the new legislation will be drafted.

In December 2020, the public consultation on the inception impact assessment, in which the Commission identified eight “fundamental issues” with the current legal framework, had started roughly half a year later than originally announced. The Commission proposed to shift the focus onto the final article and to prioritize the assessment and management of substances via a tiered approach. EuPIA carefully evaluated the policy options and provided detailed feedback, which was also coordinated with the whole value chain.

During 2021 the Commission worked on a so-called staff working document which was finally published in summer 2022. The Commission concludes that the Framework Regulation is, “in general, internally coherent”, with the main exception of the provision “which has allowed EU Member States to introduce or maintain national measures in the absence of specific EU rules.” Especially with regard to the so-called German Ink Ordinance this is well aligned with EuPIA’s demand for more harmonization. Moreover, the document contains several other points to which EuPIA can tie in with its positions, such as the deficiencies of closed positive lists of substances. Although the document did not contain many new information, it corroborated the assumption that the Commission is aiming for a fundamental change of the legal framework. It seems to become clear that the new framework could contain much more details than the current one, which in turn also offers the opportunity that the modern concepts of risk assessment, as currently practiced by EuPIA members, could become part of the new framework. The plans of the Commission, however, also contain several risks: The Commission intends to also incorporate hazard-based approaches as envisaged in the EU’s Chemical Strategy for Sustainability, which could result in a paradigm shift in the EU’s regulatory approach for food contact materials, away from the current purely risk-based approach.

End of 2022 the public consultation on the revision started as part of the actual impact assessment in the form of a rather intricate question-

naire. EuPIA was one of the first associations to position itself and was hence able to offer its ideas for alignment with the entire FCM value chain at an early stage. In addition to the consultation, stakeholder interviews have started and EuPIA already had the opportunity to share its views before the Christmas break.

The original timetable of the Commission as set out in the Farm-to-Fork Strategy of the Green Deal foresaw that the final legislation should be presented end of 2022; however, the Commission is significantly lagging behind its schedule and hence even an adoption in 2023 will be challenging.

The Packaging Ink Joint Industry Task Force - Activities of the entire Value Chain

Already in 2018, the Packaging Ink Joint Industry Task Force (PIJITF), in which all associations of the value chain for packaging inks come together, has proposed a blueprint for a harmonized legislation for printed food contact materials (pFCM). Since then, the PIJITF has proven to be a very active platform for the exchange between the different associations representing the value chain and to provide a voice for their common interests. Consequently, the PIJITF has also in 2022 been advocating the timely development of harmonized EU legislation for printed FCM and promoted the concepts detailed out in its blueprint. The relevant Commissioners were approached, stressing the urgent need of an increased harmonization due to the imminent threat to the common market, which will arise after the transition period of the so-called German Ink Ordinance has ended. Based on the information provided in the Staff Working Document, the PIJITF updated its position and submitted it to the Commission, as a contribution to the public consultation.

The PIJITF also dealt with another and new paradigm proposed under the Commission's Chemical Strategy for Sustainability, the so-called "One Substance, One Assessment" concept. This concept has the potential to offer opportunities for downstream users in terms of re-use of data generated under REACH for the assessment of substances for FCMs. A PIJITF delegation, including EuPIA, met several times with the Commission and ECHA to explain the unique needs of the FCM value chain.

Finally, the PIJITF adopted its Guidance on Information Flow and Transparency in the Printed Food Packaging Supply Chain, which details out the information that needs to flow downstream as well as upstream. With this guideline the PIJITF defines the best practice of what constitutes adequate information for the compliance work at each stage of the supply chain. This topic will be of high importance in the revision of the EU legal framework and hence it is important to provide the Commission with a working example of a functioning system. With its Statement of Composition, the printing ink industry is already today setting an example of how adequate information can be transferred.

Germany: The so-called Printing Ink Ordinance

Due to the lack of specific rules for printed food contact materials on the EU level, Germany has been planning a national piece of legislation since 2010. In 2016, when the EU Commission had announced to work on harmonized rules for printed food contact materials, it seemed as if the plans for the so-called German Ink Ordinance (GIO) had become obsolete. However, due to the changed timeline at the European level, which was a consequence of the prioritized revision of the framework,

the German Federal Ministry of Food and Agriculture (BMEL) took up the initiative in 2020, arguing that the Commission has failed to keep its promise to provide a European regulation. Despite severe criticism of the German national association, VdL, and the whole German packaging value chain, the ordinance entered into force in December 2021, however becomes applicable only after a transitional period.

The final version contains some small but nevertheless important changes in the wording of the legal text. The incompleteness of the positive list, however, is still a big issue, which was also acknowledged by the legislator and a corresponding transition period of four years has been set till the end of 2025. This period must now be used by the raw material suppliers to complete the list. Consequently, there is currently also no basis for requesting confirmation of compliance with the requirements of the Printing Ink Ordinance. Printing inks for food contact materials, which are manufactured or distributed in accordance with the guidelines of EuPIA, comply with all relevant European legislation on food contact materials. This also applies for Germany until the transitional period has expired and is applicable regardless of whether the ink components are listed in the still incomplete positive list of the German regulation or not. To address concerns and questions of converters and brand owners, VdL organized webinars in English and German, which were attended by over 660 participants in total.

Together with selected raw material suppliers, VdL is currently heavily engaged in a "regulatory sandbox" project organized by the BMEL in conjunction with the German BfR (Federal Institute for Risk Assessment) in which concepts of cost and data sharing – which are missing in the legal text – are discussed. The aim is to lower the barrier for raw material suppliers to submit dossiers to have more substances listed.

EuPIA and the entire food packaging chain still strongly believe that only a European regulation can satisfy the functioning of the European internal market and ensure a uniform level of consumer protection. In principle, the German Federal Government also recognises the priority of a European regulation. Thus, an extension of the transitional period is envisaged should the EU Commission present a corresponding specific regulation for printed food contact materials within this period. A fundamentally revised framework could provide the basis for discussions with the German government for a prolongation of the transitional period. With the Commission currently lagging behind its schedule, the odds are of course increasing that the industry will have to live with the GIO and hence projects, such as the regulatory sand box are of key importance. However, currently an adoption of the new legal framework during the transition period is still possible and hence, EuPIA together with the PIJITF will continue its efforts to urge the Commission to follow its timetable and to adopt the new framework as soon as possible. A double transition, first to the GIO and then to new EU provisions must be avoided.

Switzerland announced major revision

The Swiss Consumer Goods Ordinance sets out provisions specific to food contact material inks. Substances which only may be used in the manufacture of printing inks in scope of the Ordinance are listed in the positive list in Annex 10. The so-called part A lists evaluated substances, while part B contains substances, which have not been fully evaluated, but which may be used under certain conditions and if they do not migrate with a detection limit of 10 ppb. Already some time ago the



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Swiss authorities announced that they are planning to completely remove Part B in the future. Since the end of 2022 the details are known: It is planned that non-listed substances may be used, as long as they do not show CMR-properties and do not migrate with a detection limit of 10 ppb. Moreover, the Swiss authorities are proposing a mandatory declaration of compliance for food contact material inks. Although EuPIA is not against such a provision, several details of the draft declaration of compliance need to be improved: The plans currently foresee that also substances, which are used, but do not migrate should be disclosed. On the other hand, known Non-Intentionally Added substances (NIAS), such as impurities do not need to be reported. This marks a significant deviation from the current practice of the EuPIA Statement of Composition, which is problematic from the viewpoint of consumer safety, as well as the protection of confidential business information. Hence, EuPIA in close collaboration with the Swiss national association VSLF are preparing a detailed contribution to the corresponding public consultation. Furthermore, experts from the VSLF are already in contact with the Swiss authorities.

EuPIA's Energy Curing Working Group

This group of EuPIA members, who are involved with the supply of UV and EB curing inks and varnishes, continue to have active discussions on a number of key topics impacting these technologies. This included working with the Photoinitiators Platform (PIP) to fund a study on identifying and quantifying photolysis products from a key photoinitiator, supporting industry assertions regarding the very low potential for migration of such substances. In addition, in response to market demand, work is now underway to revise EuPIA's Photoinitiator (PI) Suitability List, looking to extend the number of photoinitiators listed to include those commercial PIs that are known not to be of concern for food contact applications from existing migration test results and other studies.

Printing Inks and the European Green Deal

The Chemical Strategy for Sustainability (CSS) is an important element of the policy area "Zero Pollution" under the European Green Deal. The last two years saw intense discussions around the CSS from which some new concepts emerged that are likely to shape the regulatory landscape for chemicals in a relevant way. Particularly relevant will be the so-called Generic Risk Approach (GRA) and Essential Uses concepts (ESU). GRA is a misleading term used by the European Commission to de facto introduce more or less automatic hazard-based bans for the most hazardous substances used in consumer and professional products. Although the principle of prohibiting CMR substances from consumer products is already present in the current REACH regulation, the Commission plans to expand this approach to a number of other hazard classes, e.g. Endocrine Disruptors and PBT (hazard classes for which the criteria are still being developed!). Printing inks are industrial mixtures, so one could think that the GRA would not apply; however, it is important to closely follow the developments because printing inks almost always end up in articles handled by consumers, and the Commission is ambitious to also expand the GRA to substances in consumer articles. If the GRA were to be implemented for consumer products and articles, then this would likely result in pressure from the market to phase out certain substances.

ESU is another concept interlinked with the GRA: the Commission plans to ban the "most hazardous substances" unless there are no alternatives and they are necessary for uses deemed essential for the functioning of society. So, along the GRA, substances could end up becoming restricted due to evaluations about the essentiality of their use. The debate around this concept is still open, since the Commission doesn't appear to have an unanimous view on how to define the criteria for the determination of essentiality, let alone on the regulatory instrument

where to place it. The ESU is also concerning because the discussion around essentiality is complex and extremely prone to subjectivity (e.g. some NGO consider any use related to aesthetic and luxury by default non-essential), and also it is all but clear who in the end should decide if a use is essential or not. The Commission is aiming to hand over this burden to the Member States, which is concerning because there is the risk of divergent interpretations.

Interestingly (and somewhat concerningly) the ideas of GRA and ESU are being picked up in discussions of other legislation reviews, which are not directly dependent on chemicals legislation. For instance, the revision of the Food Contact Materials legislation appears to take the direction to incorporate GRA to a certain extent (see above), and a first draft of the Regulation for the revision of the PPWR included a negative list, which is a form of hazard based ban (see below).

The shift to a hazard-based approach, coupled with increased scrutiny about the essentiality of uses (and sometimes products!), is becoming a fix issue in the discussions feeding the regulatory development of various pieces of legislation.

Printing Inks and Circular Economy

Task Force Paper Recycling

All aspects regarding the circularity of graphic paper and fiber-based packaging and inks are in the remit of EuPIA's Task Force Paper Recycling. It organizes the exchange with all relevant stakeholders, for instance via the European Paper Recycling Council (EPRC), which is an industry initiative that monitors the progress towards meeting the paper recycling targets. EuPIA is a supporter of the EPRC and is actively involved in many of its activities. In 2021 the recycling rate for paper was 71.4 %, which demonstrates that paper is already a very well-functioning circular economy. The task force also monitors the work of the 4evergreen alliance, where EuPIA is a member of the Industry Association Advisory Board.

The Task Force is also involved in activities related to the different **eco-label schemes**, namely the EU Ecolabel, the German Blue Angel, the Nordic Swan and the Austrian Ecolabel.

Also in 2022, **mineral oils** in publication inks and packaging were an issue on the agenda of several member states. Already in 2009, EuPIA had stressed that although news inks, as any other publication inks, are safe for their intended purpose, they are not designed to come into contact with food, whether direct or indirect. However, if a packaging is produced using recycled paper or board made from printed paper, inevitably printing ink components will be present in the recycled material, and may come into direct contact with the packed food. Under these circumstances, it is the responsibility of those placing recycled paper and board on the market for food packaging purposes to assess any risks associated with this use. Where necessary they should take appropriate measures to ensure that any transfer of substances from the packaging to the foodstuff occurs below acceptable levels, compliant with the requirements of the legal framework.

The draft **German Mineral Oil Ordinance** in principle followed this approach, since it foresaw that food contact materials made from recycled paper and board may only be produced and placed on the market, when a functional barrier ensures that transfer of certain mineral oil components is below a defined threshold. However, quite unexpectedly the Mineral Oil Ordinance failed to achieve a majority in the German Federal Chamber in December 2022, and was therefore not adopted. It is yet unclear, if and how the German government will be able to continue with its plans to regulate mineral oil migration to foodstuff.

On the **EU level** regulatory measures are expected, too. However, also here the Commission is behind its schedule and an opinion of European Food Safety Authority originally announced for December 2022 has been postponed to beginning of 2023.

In 2022, many activities regarding mineral oils were seen in **France**. Already in 2020 the French Circular Economy Law announced that the use of mineral oils shall be prohibited on packaging from 2022 and on prints for the general public from 2025. The details became only known, when a subsequent decree was notified to the EU Commission within the so-called TRIS procedure in 2022. The draft basically foresaw a ban of mineral oils for all ink technologies and products with limit values that are technically not achievable. Also, the draft provided an extremely broad and unworkable definition of mineral oils. Hence, a massive impact on the publication business was expected. However, also packaging inks, which are typically formulated without mineral oils would be affected, due to the extremely low thresholds. EuPIA supported the French national association, AFEI, in its intense activities in France on this issue. Together with AFEI and the network of national associations, EuPIA orchestrated a concerted action across Europe to incentivize the Member States to provide comments during the TRIS procedure, as the French ban would have significant impacts on the EU internal market. Indeed, comments submitted by the Commission and several Member States prompted further discussions in France between industry and the relevant authorities. However, although the national discussions continued, the decree was published in May 2022. The final version of the decree contains significant improvements, but still an immensely high impact is expected, especially on the publication business and many details are still unclear.



A summary of the provisions and the open questions can be found in a EuPIA information note



To solve these issues, AFEI is working in close alliance with the French printer's association and discussions between the French authorities and industry are ongoing.

Task Force Plastics Recycling

The year 2022 marked a cornerstone for the plastic recycling TF as the Commission published its proposal for PPWR (Packaging and Packaging Waste Regulation). One of the main features of this publication was the proposal to convert the PPW Directive into a Regulation. Challenges connected with the sustainability of packaging are nothing new to the printing ink industry and some of the key factors, outlined in the impact assessment report, included the increasing amounts of packaging waste, barriers to packaging circularity, and low use of recycled content in plastic packaging. Furthermore, fragmented national rules reduce the effectiveness of the PPWR policy and endanger the effective establishment of a circular economy. However, the Commission put forward some rules that could endanger the current efforts of the packaging industry, one of them being the inclusion of a negative list. This list contained substances or packaging characteristics that stress eliminating from the packaging value chain. This raised an alarm with various industrial stakeholders as this can impede businesses and efforts towards achieving packaging circularity.

One of the successes that the EuPIA Plastics TF was able to achieve, alongside other industrial stakeholders, was the removal of this list by providing inputs to the Commission inter-service consultation and stressing the need for the following elements:

- a stable and harmonized legal framework that ensures certainty and investment security.
- a level playing field that fosters and encourages achieving sustainability in the packaging industry.
- realizable targets that can be achieved without jeopardizing the existing efforts that the industry is taking toward the availability of quality secondary raw materials.

Another important topic that is in scope of the EuPIA Plastics Recycling TF is the Extended Producer Responsibility (EPR), which is also a hallmark feature under the new PPWR proposal. The EPR scheme basically emphasizes a "polluter pays principle" which is taken over by Member States which can penalize or place stringent requirements to achieve recycling/reuse targets placed under the PPWR. The EPR regulation also introduces a concept called "ecomodulation" which charges the economic operators a fee that is based on the packaging characteristics, and not just a volumetric tonnage placed on the market. This means printing inks that are part of the packaging characteristics can be impacted which might draw unnecessary attention if it hinders the recycles quality of the packaging.

Further, in the light of the EU Circular Economy Action Plan (CEAP), there are stringent measures that focus on improving the overall quality of plastic recycling and curbing wastage. The Task Force covers all the aspects of inks regarding the circularity of plastic-based packaging. One important focus of this group includes monitoring activities around CEFLEX

(A Circular Economy for Flexible Packaging) that bring a wide range of industry stakeholders to represent the full flexible packaging value chain.

Initiatives related to ink behaviour in mechanical recycling and smart testing methodology for ink recyclability are being overseen where EuPIA members are represented under the sub-group 9 of CEFLEX. Similarly, the Task Force co-ordinates the activities around the programme RecyClass, which focuses on the recyclability of plastic packaging and products through the development of recycling methodology and testing methods.

The Task Force constantly monitors the scope of inks in the definitions and interpretation of different national and EU legislation and policies related to plastics. In 2021 the TF published a Q&A on Printing inks and Plastics Recycling, which is available on the EuPIA webpage. Furthermore, a EuPIA Guidance Document on the Single Use Plastics Directive was published.

Environmental Footprint of Printing Inks (EFPI)

Discussions around measuring the environmental performance of many kinds of products have gained momentum in recent years, particularly, after the advent of the European Commission's initiative for a single market for green products and the Environmental Footprint methods. In the past, EuPIA published the virtual ink reference that represents printing inks for all print processes actually in use. This could be used by different stakeholders further downstream as ink input into their life cycle assessment (LCA) for printed matter.

As LCA is a dynamic tool, it requires constant updates so that the methods, data availability and technology representativeness remain valid also if time and progress will change situation and values. In line with this, EuPIA commissioned a working group called EFPI, that actively investigates LCA requirements for printing inks so that the customer base and stakeholders can take account of the impacts arising from inks within their LCA calculation.

To this end, EFPI is involved in activities such as identifying and updating the list of commonly used raw materials in the ink industry and developing Life Cycle Inventory (LCI) for the same, evaluation of different printing technologies under the scope of the LCA framework, monitoring PEF-related activities and their relevance for the printing ink industry, and preparing guidance documents in order to aid the ink industry and its customers to carry out updated and scientifically sound LCA studies.

EuPIA's Occupational Safety and Risk Assessment (OSRA) Working Group

The OSRA WG continues to provide a platform for EuPIA members to share knowledge, expertise and experiences relating to occupational safety and accidents in a confidential manner. The OSRA Safety Alerts provide specific details of incidents where lessons can be learned, ranging from fire-risk situations due to e.g. electrostatic discharge, through to possible accidents due to the incorrect operation of Fork-Lift Trucks. Additionally the group continues to work on updating existing guidance and to introduce new guidance for operations management to refer to, sharing best practice approaches, highlighting dangerous situations and specifying how these can be avoided through correct procedures.



EuPIA - Printing inks groups

Situation as of February 2023

