Printing Industry in the European Union
Avrupa Birliği'nde Basım Endüstrisi

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Abstract

The printing industry has existed in Europe for many years. The printing industry primarily cooperates with many sectors, such as paper, recycling, energy, and forest products. The printing industry also creates employment for European Union citizens. According to the data of the European Commission, it is seen that approximately 800,000 workers are employed in the printing sector within the borders of the European Union, and approximately 120,000 enterprises operate in this sector. However, printing companies generate an annual turnover of approximately €88 billion from printing on paper, plastic, or textile. Therefore, the printing industry significantly contributes to the Union's economy. However, the global change and transformation process, which has emerged in recent years due to reasons such as the spread of digital technology, increasing costs, the global competitive environment, and the occurrence of the Covid-19 pandemic, undoubtedly also affect the printing industry. This study will discuss the historical development process of the printing industry in the European Union, the problems faced by the industry today, and the opportunities in the printing industry.

Keywords: European Union Printing Industry, European Union, European Studies, European Union Economy, Printing

Öz

Basım endüstrisi, Avrupa'da uzun yıllardan bu yana varlığını sürdürmektedir. Basım sektörü başta; kâğıt, geri dönüşüm, enerji ve orman ürünleri olmak üzere pek çok sektörle de iş birliği halindedir. Basım endüstrisi aynı zamanda Avrupa Birliği vatandaşlarına da istihdam kaynağı yaratmaktadır. Avrupa Komisyonunun verilerine göre basım sektöründe Avrupa Birliği sınırları içinde yaklaşık 800.000 işçinin istihdam etmekte ve yaklaşık 120.000 işletmenin bu sektörde faaliyet göstermekte olduğu görülmektedir. Bununla birlikte basım işletmeleri; kâğıt, plastik ya da tekstil üzerine baskıdan yıllık yaklaşık olarak 88 milyar Avro ciro elde etmektedir. Dolayısıyla basım endüstrisi, Birliğin ekonomisinde önemli bir katkı payına sahiptir. Ancak son yıllarda dijital teknolojinin yaygınlaşması, artan maliyetler, küresel rekabet ortamı ve Covid-19 pandemisinin meydana gelmesi gibi nedenlerden dolayı küresel çapta ortaya çıkan değişim ve dönüşüm süreci hiç şüphesiz ki basım endüstrisini de etkilemektedir. Bu çalışmada, Avrupa Birliği'nde basım endüstrisinin tarihsel gelişim süreci ve endüstrinin günümüzde karşılaşmış olduğu sorunlar ve basım endüstrisindeki fırsatlar ele alınacaktır.

Anahtar Kelimeler: Avrupa Birliği Basım Endüstrisi, Avrupa Birliği, Avrupa Çalışmaları, Avrupa Birliği Ekonomisi, Basım

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Introduction

The printing industry, taking its roots from printing activities, is a growing sector combined with the rapidly developing industry today. Many of the businesses that were small workshops in the past have now been transformed into large-scale industrial manufactories. The printing industry is among the leading sectors to take advantage of new technologies and partnerships and develop its products for consumers. The printing industry market consists of printing services provided by organisations that print products such as newspapers, books, labels, business cards, stationery, business forms and other materials.

Throughout the European Union, there has been a printing industry for a long time. Although the industry grew in the European Union between 1993 and 1997, it experienced a slowdown between 1991 and 1993, which was attributed to the recession at the time. Women hold a significant portion of the workforce, particularly in the printing industry. In the European Union, women made up 36.1% of the printing workforce in 1999. The employment rates for women do not vary uniformly throughout European Union member states. For instance, this rate is 42.9% in Finland and 29.9% in Italy (European Commission, 2001, pp.10-56). According to the data of Eurostat, the statistical office of the European Union, the printing sector in the European Union created employment for 1.9 million people and generated an added value of more than €92 million in 2002. Among the member countries of the European Union, the countries with the highest contribution to value added were the United Kingdom with a share of 26.3%, Germany with a share of 20.6% and France with a share of 12%. In particular, the countries with the highest employment in the printing sector are Germany, the United Kingdom, and France, respectively. The countries with the highest number of enterprises in the printing sector are the United Kingdom with 29,840 enterprises, France with 29,679 enterprises and Italy with 27,503 enterprises (Johansson, 2006). Currently, the paper and forestry industries work closely with the printing industry. The printing industry contributes a substantial amount of value to the economy of the European Union. A sizable number of people have access to employment opportunities thanks to the sector. There are currently about 120,000 printing companies in the European Union (European Commission, Printing Industry). In the European Union, less than 10 people are employed by the vast majority of small printing industry companies. Although almost 90% of printing companies are smaller companies, they make up 5.5% of the manufacturing sector in the European Union (Intergraf, 31 March 2020, Industrial Policy). The printing industry is currently facing certain difficulties as a result of the growing demand for digital communication brought on by technological advancements and the fact that digital communication is preferred because it is less expensive and faster to communicate.

1. Issues Affecting the European Union's Printing Industry

As in many other industries today, the growth of digital technologies has brought about a lot of developments in the printing sector. The first alteration brought about by digitalization is in people's habits. For instance, whereas printed newspapers were formerly popular, digital versions are now more popular. As a result, it is possible that printed publications like newspapers and magazines would eventually become obsolete.

Global competitiveness is one of the biggest issues the printing sector in the European Union is currently facing. The European Union countries are under pressure from particularly low expenses in Asian countries. As a result of rising labor, raw material, and energy costs on the European continent, the printing industry's profit also has a tendency to decline (European Commission, Printing Industry). Global competition has resulted in a decline in printing operations outside of Europe. The European Union must make an effort to ensure that printed goods are subject to the same safety, environmental, and health considerations as the printing industry. First and foremost, the Europen Union Timber Regulation should be expanded to include printed products. Measures against the illegal logging of imported printed goods will be done in this way (Intergraf, 31 March 2020, Industrial Policy).

Especially since the beginning of the 2000s, printing enterprises in developing countries such as China have been developing strategies to play a leading role in the printing market by combining more services and establishing closer relationships with customers. Therefore, it is necessary to redesign the printing industry and restructure it to cope with the new competition. The restructuring of the printing sector in order to have an efficient and fair functioning requires harmonisation on issues such as tax and legislation (Ernst & Young, 2007, pp.1-4).

The printing sector is adversely affected by the fact that the enterprises operating in the printing sector within the borders of the European Union are small and family-owned, have a weak financial infrastructure, are reluctant to invest in innovation, have weak negotiating power and are weak against large international suppliers. The industrial sector in Europe is particularly in competition with the industrial sectors of the eastern countries. It is therefore necessary to improve the strategic vision of SMEs. It is necessary to develop a Europe-wide network integrating all value chains with technology. Adopt a customer-oriented approach and create added value and customised solutions such as design, communication, and dispatch (Ernst & Young, 2007, pp.1-4).

The concern that the printing industry would suffer as a result of the United Kingdom's exit from the European Union through the Brexit process is another issue the sector is dealing with. In reality, the United Kingdom is one of the top 5 countries in the world ranking in 2018 in terms of economic participation and printed goods manufacturers, according to the UK Printing Facts & Statistics 2019 study (British Print Industy Federation, 2019, p.3). According to the study, the United States of America ranks 1st in the ranking and China ranks 2nd. Germany, which comes in at number four on the list of countries that make up the European Union, has the highest ranking of any of them. The top 12 countries include France and Italy, both of which are members of the European Union. Given that the United Kingdom ranks highly in the printing industry and that it has left the European Union, this situation will surely have an impact on the continent.

To represent the printing industry in the European Union, an organization called Intergraf (the European Printing Industry Association) was established. This association's mission is to develop Europe's competitive potential in the printing sector by fostering social interaction and information exchange. It seeks to guarantee that Europe has a single voice in the printing industry and to establish a regulated environment at the European Union level for companies operating in the printing sector (Intergraf, What We Do). Since most printing enterprises are small, Intergraf develops industrial strategies in line with their needs (Intergraf, 31 March 2020, Industrial Policy). Due to high prices, small businesses do not utilize technology to its full potential. Particularly among the European

Union's member nations, the level of technological adoption varies. Because of this, Intergraf creates strategies as a tool for finding solutions.

The paper and printing industries are impacted by sustainability and environmental awareness initiatives. Further on the agenda are the use of mineral oils in food packaging materials and the rise in popularity of organic printing inks (Tiekstra at all., 2016, p.160). Intergraf requests the cooperation of lawmakers, claiming that the challenging circumstances faced by printing companies due to the rise in energy and paper prices may have an economic impact on all sectors. One of the first industries to be impacted by the spike in energy prices was the paper industry, which uses a lot of energy. Additionally, because the majority of the companies in the printing industry are small businesses, the price shift has a detrimental impact on these companies (Matbaahaber, 6 November 2022).

In addition to the global printing industry, printing technologies are also in a state of change as a result of the changing world order. The demand for digital printing is also increasing because digital printing allows more options to be produced economically in customised printing types for consumers (Smithers, 2018, Global printing market to top $821 billion by 2022). Digital prints provide time and space flexibility through integrated systems that are suitable for connection with global networks and allow remote working and access. Preventing loss of time, automating business processes, preventing waste of resources and being sensitive to the environment, increasing productivity and reducing costs stand out with its features (Tunçel, 2019, p.373).

Global energy demand exceeded energy supply in 2021, which caused energy prices to rise dramatically. Given that Russia is one of Europe's major gas suppliers and that gas is crucial to the European economy, the disputes between Russia and Ukraine in particular are also having an impact on the energy industry. Particularly in Germany, the printing sector is having trouble keeping up with the energy shortage. The Nord Stream pipeline construction has also made it more challenging for Germany to obtain energy. In light of this, Germany has been striving to put its emergency plan's second phase into action. In reaction to changes in the energy market, some printing businesses in Germany are also creating their own liquefied gas tanks. Nevertheless, although European printing industries are making preparations to take their own measures, they are ultimately unable to respond to developments beyond their control (Fortoak, 17 August 2022).

During the Covid-19 pandemic period, the printing sector faced several problems as in almost all sectors. Especially during the quarantine period, there was a tendency towards a paperless working order, as working from home took place. Therefore, there was a decrease in the demand for printed materials such as envelopes, letterheads and business cards (Zipper, 2021). Due to the closure of facilities due to the pandemic and the postponement of many events to be held, there has been a decrease in the demand for printed promotional materials. In addition, the shift of advertisements to digital media also led to a decline in the demand for printed advertising products in this period (Grand View Research). It is estimated that the printing industry in Europe will face some problems until 2027. For example, the company Smithers mentions that inflation in the paper, ink, mould and energy sectors will affect the demand for printing (Smithers, 2022, The Future of European Printing to 2027). The European Union policies for environmental protection, especially for the protection of forests, show an approach to reduce paper consumption. The decrease in paper consumption affects the printing industry.

The demographic makeup of Europe presents another obstacle for the printing industry in the European Union. The printing industry is one that requires technological expertise, making it challenging for Europe's aging population to find employment there. After all, older people have a harder time adjusting to technology than younger people do. As a result, adaptable human resources are a crucial resource for the printing industry in the European Union.

## 2. Data on The Printing Sector in the European Union

The data obtained as a result of the studies on the printing industry in the European Union are given below.

Graph 1: Number of printing enterprises and number of people employed in the printing sector in European Union countries (Eurostat, as cited in Smithers Pira, *European Printing Industry: Market Insights*)
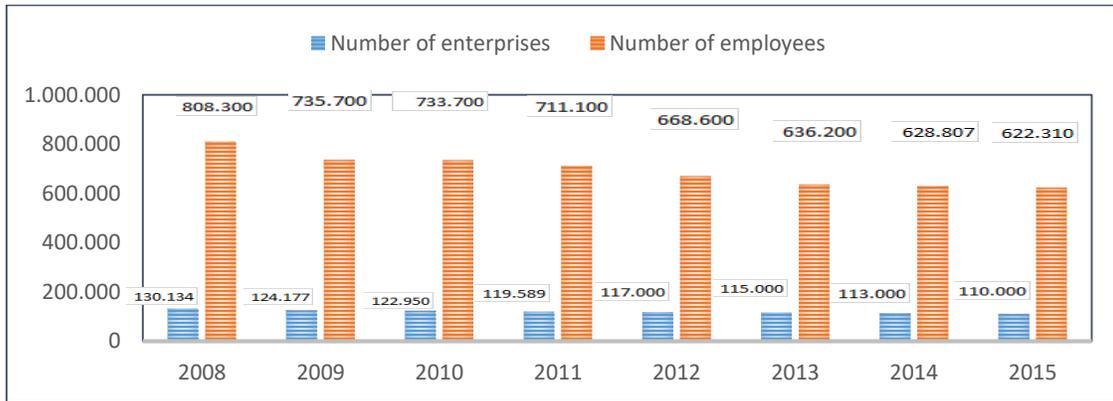

The number of printing-related businesses and the number of persons engaged in the printing industry are depicted in Graph 1 for the countries of the European Union. The number of businesses and employees in the printing industry fell between 2008 and 2015, according to Eurostat data. Almost 20,000 businesses have shut down during the past seven years.

Graph 2: Printing inks demand in European Union countries (EU-28) (tonnes) (Eurostat, as cited in Smithers Pira, *European Printing Industry: Market Insights*)


125

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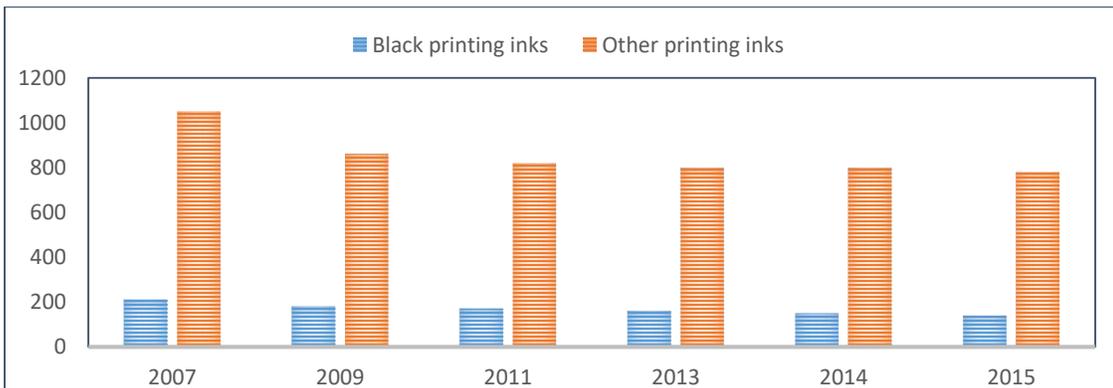
Graph 2 shows that the demand for printing inks in the European Union has decreased over the years. It is seen that the demand for both black and other color inks decreased between 2007 and 2015.

Graph 3: Advertising spending in European newspapers (€ billion) (WAN/IFRA, as cited in Smithers Pira, *European Printing Industry: Market Insights*)
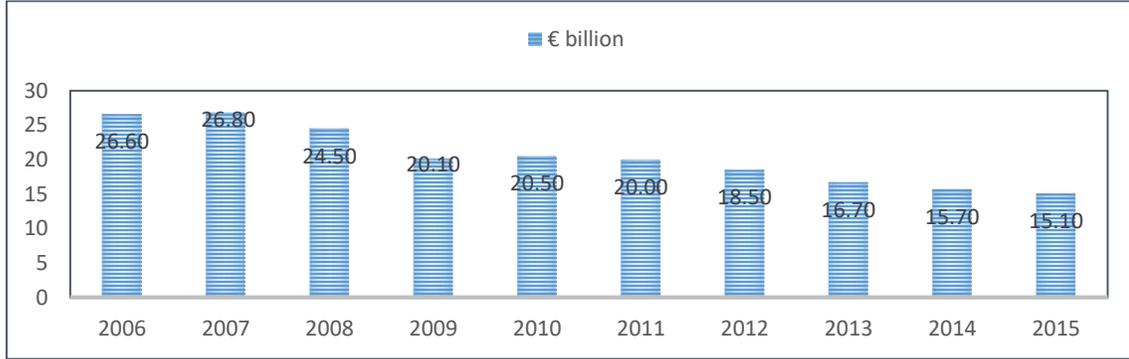
The advertising budgets of European newspapers are displayed in Graph 3. As a result, it has been noted that advertising spending has decreased between 2006 and 2015. The spending fell from €26.6 billion in 2006 to €15.1 billion in 2015. This decline is mostly due to the fact that people now choose to read newspapers online.

Graph 4: Advertising spending of European magazines (€ Billion) (WAN/IFRA, as cited in Smithers Pira, *European Printing Industry: Market Insights*)
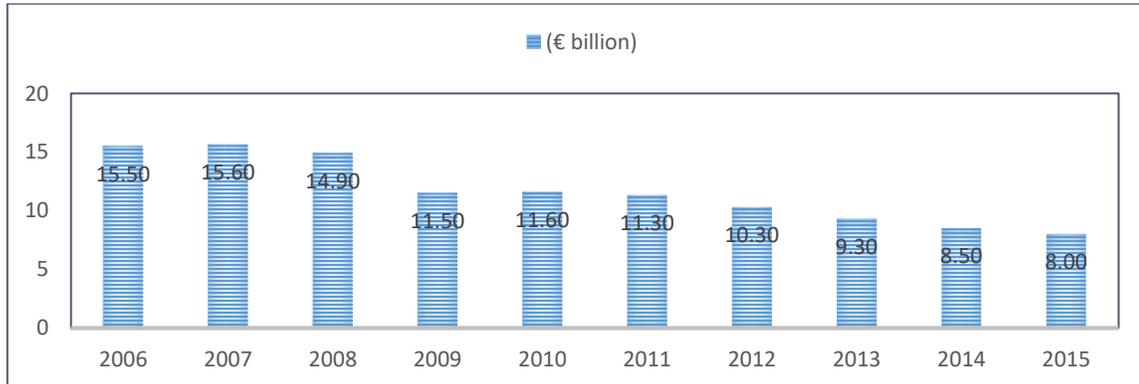
Graph 4 shows that, just like the decrease in the amount of advertising expenditure in newspapers in Graph 3, there has been a noticeable decline in the amount of advertising expenditure in magazines from 2006 to 2015.

3. Opportunities in the Printing Industry in the European Union and Their Impact on the European Union Economy

For a variety of factors, the printing sector in the European Union is diminishing. It's also essential to see the possibilities in this predicament. For instance, it is entirely typical for the printing industry's activity to decline as a result of the closure of restaurants and stores during the Covid-19 outbreak. Nonetheless, the pandemic has also resulted in several circumstances that could present an opportunity for the printing industry. For instance, many companies have set up kiosks with warning stickers for social distance and hand sanitizer. The printing sector is also playing a bigger role in the sector of food and beverages. Signs and information on food and beverages have an important role to play in attracting the attention of consumers, especially when people are choosing products due to their busy schedules. In addition, with the popularization of the cosmetics sector, the content and usage information of cosmetic products shows that printing on the product is a necessity (Ns Packaging, 7 April 2021).

The digitalization of printing enterprises should be improved by providing them with information and implementing industrial strategies through European Union-funded digital hubs. With the occurrence of financial crises and the development of technology, printing enterprises have restructured the products and services they offer. Today, many printing enterprises also offer various services such as design and website management. Therefore, printing enterprises have also undergone a change. In order to keep up with this change, especially the personnel employed in printing enterprises should realize lifelong learning in order to follow new developments closely. Because printing machines are becoming more automated with the development of technology, smart factories are becoming operational, innovative products are emerging, fully digitalized workflows and data transfers are transforming the printing sector (Intergraf, 31 March 2020, Industrial Policy).

Increasing costs of inputs such as ink, pigment and paper and consumers' increasing preference for digital media pose an obstacle to the growth of the printing industry. However, the fact that the printing industry will revive with the spread of green printing activities and the widespread use of environmentally friendly papers and inks for the growth of the market creates new opportunities. The increase in the demand of businesses for printed materials such as brochures and booklets after the pandemic and the development of printing techniques due to technology reveal the expectations that the printing industry will revive (Grand View Research).

Currently, 3D printing technology is progressing toward playing a significant role in the world economy. One of the top countries for 3D printing technology is Germany in particular. Three-dimensional printing technology is currently used by one out of every three significant German industrial companies. Developing three-dimensional printing, which is on the agenda for printing technologies, widely used by European companies will also benefit the EU economy.

The printing sector is not opposed to digital. The printing sector and digital goods and services both play significant roles in the European Union economy. The ability of European Union citizens to access printed goods is crucial for an open, efficient, and democratic communication in the European Union, even though digitization has slowed the printing sector. The trustworthy feature of repression is an evident fact in today's world of rampant fake news and misinformation (Intergraf, 31 March 2020, Industrial Policy). In addition, given the high proportion of elderly people in Europe and the lack of adequate

technological skills among this population, printed materials will remain important for the printing sector.

Conclusion

Printing activities in Europe started with Gutenberg. Afterwards, the printing sector became one of the backbone sectors of the European economy. In general, from 2008 to 2015, it is seen that the number of European printing enterprises and their employees, the demand for printing ink, and the amount of advertising expenditures in newspapers and magazines decreased. Especially in this period, although the economic crisis that in the late 2000s played a significant role, the fact that digital materials are more preferable than printed materials has an important role.

The printing industry in the European Union has undergone significant changes and faces various challenges due to the growth of digital technologies, global competition, and other factors. The industry has evolved from small workshops to large-scale industrial manufactories and has been at the forefront of adopting new technologies. However, the shift to digital communication has resulted in a decline in demand for printed materials like newspapers and magazines.

Global competitiveness is a major issue for the printing sector in the European Union, with low expenses in Asian countries putting pressure on EU countries. Rising labor, raw material, and energy costs in Europe have also affected the industry's profitability. Developing countries like China have been implementing strategies to become leaders in the printing market by offering more services and building closer relationships with customers. The printing industry requires restructuring and harmonization of tax and legislation to cope with these new challenges.

The European printing industry is characterized by small, family-owned enterprises with weak financial infrastructure, limited investment in innovation, and bargaining weaking power. Compared to industrial sectors in eastern countries, European printing companies face strong competition. To improve the industry's strategic vision, it is necessary to develop a Europe-wide network and adopt a customer-oriented approach.

Brexit has raised concerns about the impact on the printing industry, as the United Kingdom is one of the top countries in terms of economic participation and printed goods manufacturing. The exit of the UK from the EU will likely have consequences for the industry on the continent. In fact, the development of the printing industry is also related to foreign policy. As a result, the printing sector is affected by the relations of the European Union, especially with Russia, as this sector is an energy-related sector and the energy issue is one of the main topics of foreign policy. Environmental initiatives and sustainability play a role in shaping the paper and printing industries. Measures are being taken to reduce paper consumption and address environmental concerns. The industry faces challenges due to rising energy and paper prices, which affect printing companies, especially small businesses.

Today, industrial activities are still at the heart of the European economy. Compared to global actors such as the United States and Japan, the European economy does not yet have a sufficient number of globally recognized digital brands. This, of course, also affects the printing industry. It is because the printing sector is a technology-dependent sector. Although the Covid-19 pandemic and the increase in costs caused the printing

industry in Europe to shrink from time to time, it is also necessary to turn this situation into an opportunity. In particular, three-dimensional printing technology should become widespread in European businesses. However, due to the cost of this technology and the employment of personnel with up-to-date technological knowledge in the sector, this situation puts small businesses in trouble. At this point, despite the aging population of the European Union, making arrangements for the presence of individuals who understand technology and have digital literacy skills in the sector will strengthen the place of the printing sector in the economy.

Despite the challenges, there are opportunities for the printing industry in the European Union. For example, the industry can play a role in providing warning stickers for social distancing and hand sanitizers during the COVID-19 pandemic. It also has opportunities in the food and beverage sector for signs and information, as well as in the cosmetics sector for product printing. To support the industry, digitalization should be improved through the provision of information and implementation of industrial strategies funded by the European Union.

The European Union has important duties in order to eliminate the threats faced by the printing sector and to ensure the existence of the sector in the future. The printing industry is a sector that requires high technology and needs to renew it as technology advances. It is therefore necessary to adapt to the latest production processes. Therefore, the European Union needs to invest in the printing sector. It is necessary to provide the funds and incentives and support entrepreneurial activities, especially for small businesses to survive. It should be able to respond to rapidly changing markets in an increasingly competitive environment. Because the printing sector is a sector that has always existed and will always exist, but it is a sector that needs to be shaped according to the changing demands of people and to develop technologies for this. Taking all these into consideration, it is necessary to review the legislation of the European Union and make arrangements in accordance with the conjuncture of the time.

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