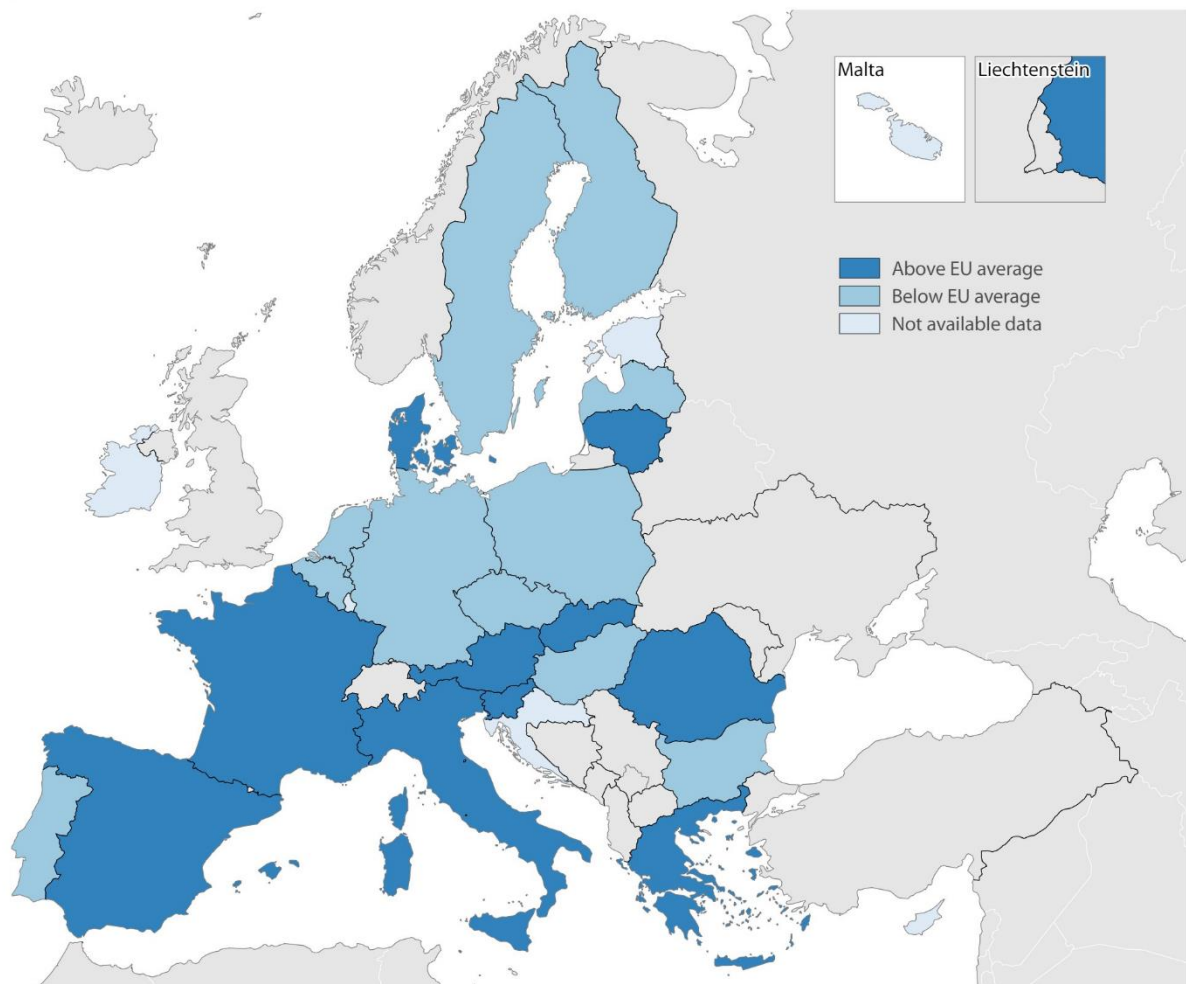


Economic performance of IPR indicators

2022 edition, September 2023 update

IPR indicators for selected EU member states 3Q2023



Source: EUIPO

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
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ECONOMIC PERFORMANCE OF IPR INDICATORS 2022 EDITION, SEPTEMBER 2023 UPDATE

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In May 2021 the EUIPO presented the [economic impact of COVID-19 crisis in IPR-intensive industries](#) with data for the period 2003-2020, including indicators ⁽¹⁾ for all intellectual property rights (IPR), trade marks (TM), designs (DES), patents (PAT) and copyright (CR). The IPR-intensive industries included in this paper were those established in the third edition of the EPO/EUIPO report “*IPR-intensive industries and economic performance in the European Union*”. In October 2022 EPO and EUIPO presented the [fourth edition](#) of the mentioned report with a new selection of IPR-intensive industries. Additionally, in the last two years, more countries publish short-term statistics (STS) indicators which constitute the raw data for the IPR monthly indicators. The 2022 edition of IPR indicators considers the new selection of IPR-intensive industries, new weights for the calculation of indicators as well as all available countries with data since 2019.

These new IPR indicators are based on deflated and volume indicators to eliminate the impact of prices using more aggregated data in the manufacturing sector (NACE divisions). The more extensive list of countries balances out the shorter time series allowing the analysis of economic developments since COVID-19 pandemic.

The new IPR indicators will be updated every quarter to monitor their economic development, for the European Union (EU) and 21 Member States (MS) with a total of 63 out of 135 possible indicators.

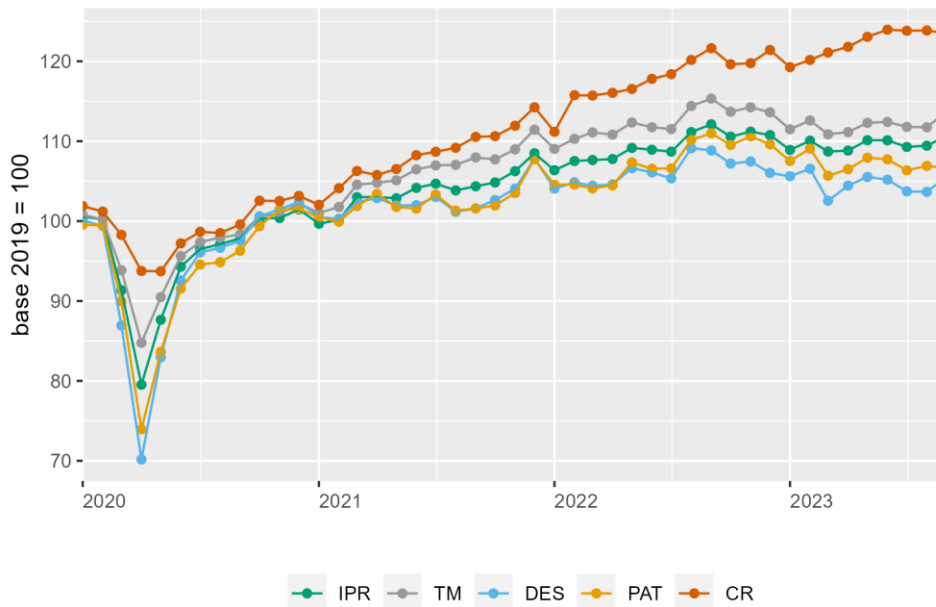
⁽¹⁾ IPR indicators are based on monthly Eurostat’s Short-Term Statistics (STS) covering all sectors of the economy and on previous research of the EUIPO and the European Patent Office (EPO). They monitor the economic performance of industries that use IPRs more intensively than the rest of the economy.

EU Indicators

The five EU IPR indicators showed a stabilisation of their levels in the third quarter of 2023 with growth rates ranging from - 1 % to + 1 % compared with the previous quarter. In September, all IPR, trade mark and design indicators showed a rebound compared with previous months, while patent and copyright indicators registered a decline at the end of the third quarter.

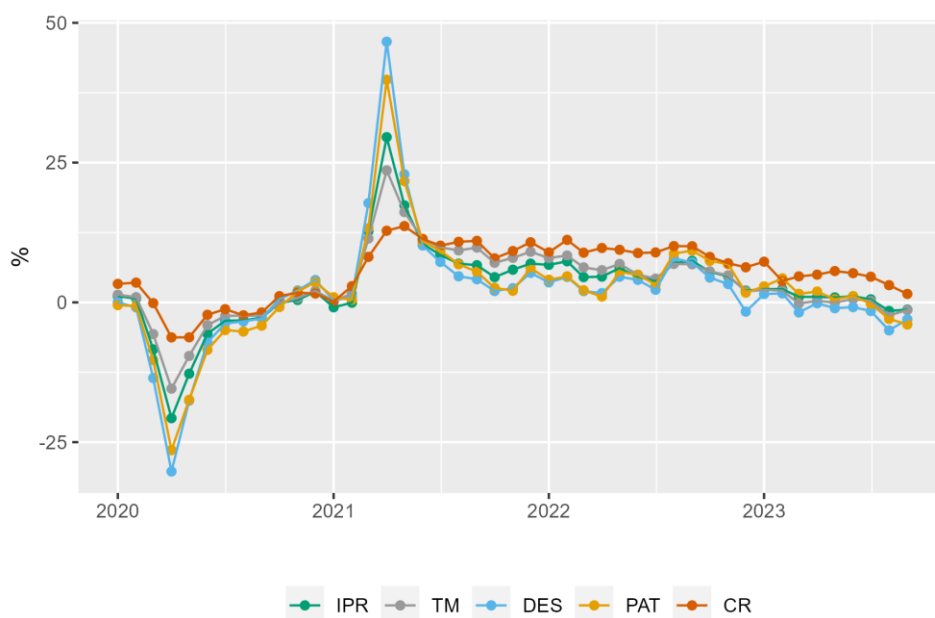
Compared with pre-crisis levels, as shown below in Table 2, after three and a half years, the five EU IPR indicators are all above pre-crisis levels but with large differences: design and patent indicators are less than 10 points above their February 2020 levels and copyright-intensive industries are leaders in growth of all indicators in this period reaching over 25 points above its pre-crisis level in September 2023. Nevertheless, the copyright indicator seems to be at the end of a long upward period, with the highest level among all IPR indicators since 2019 as shown in Figure 1.

Figure 1: IPR indicators in the EU, average 2019=100
January 2020 - September 2023



A year ago, all IPR indicators except copyright had reached the maximum level since 2019. This has resulted in negative annual rates as shown in Figure 2. The three-year upward trend of copyright-intensive industries seems to have reached the end, with a stabilisation of its levels and decreasing but still positive annual rates.

Figure 2: Annual rates of change (%) of IPR indicators in the EU,
January 2020 - September 2023



IPR Indicators at Member State Level

The performance of IPR-intensive industries in the EU MS shows different trends, which is explained by the different structures of their IPR-intensive industries. Not all IPR indicators are estimated for all MS due to data limitations. Cyprus, Estonia, Croatia, Ireland, Luxembourg and Malta are the only MS for which no indicator is estimated; 8 MS allow the estimation of the five IPR indicators (Bulgaria, Czech Republic, Germany, France, Hungary, Latvia, Poland and Romania), although for Poland only since 2021. IPR and trade mark indicators are available for

the same 8 MS; copyright indicator is estimated for 12 MS; indicators for design-intensive industries are available for 13 MS and patent indicator for 17 MS.

Table 1 shows the annual average growth rates for all the IPR indicators and the GDP in the third quarter of 2023 (comparing the third quarter of 2023 with the same quarter of 2022). The map in the cover page indicates in pale blue those countries with average growth in their IPR indicators below the EU rate in the third quarter of 2023 and in dark blue those countries with higher average growth rate than the EU, for the 21 MS for which the IPR indicators can be calculated.

Table 1: Average annual rate of IPR indicators in the third quarter of 2023

Country	GDP	IPR	TM	DES	PAT	CR
EU	↓ 0.0	↓-0.8	↓-1.2	↓-3.2	↓-2.4	↓3.0
AT	↓ -1.6				↓-0.8	
BE	↑ 1.4			↓-1.6	↓-20.6	
BG	↓ 1.7	-2.8	↑-2.9	↑-2.6	↓-8.2	↓3.7
CZ	↓ -0.7	↓-3.1	↓-4.9	↓-2.6	↓-1.7	↓-3.8
DE	↓ -0.4	↓-1.2	↓-2.0	↓-1.7	↓-1.6	↓2.9
DK	↓ 0.3				↓10.8	
EL	↓ 2.1			↓-1.7	↓ 0.9	
ES	1.8				↓ 0.3	
FI	↓ -1.0					↓2.5
FR	↓ 0.6	↓2.2	↓2.1	↓-0.4	↓ 1.4	↓5.4
HU	↑ -0.3	↓-6.2	↓-8.4	↓-6.3	↓-4.2	↓-4.5
IT	↓ 0.1			↑-3.1	↑-0.5	
LT	↓ 0.1			↑-2.9	↓-0.1	
LV	↑ 0.0	↓-6.7	↓-6.6	↓-5.2	↓-4.3	↓-7.2
NL	↓ -0.4			↓-14.5	↓-20.6	
PL	↑ 0.6	↑-1.4	↑-1.9	↑-3.7	↓-0.6	↓3.4
PT	↓ 1.9				↓-14.5	
RO	↓ 2.1	↓1.0	↓1.7	↓-4.5	↓-1.6	↓8.5
SE	↓ -1.4					↑-8.3
SI	1.6					↑3.4
SK	↓ 1.1					↑3.3

Legend: red numbers show negative annual growth rates. Upwards arrows show annual growth rates greater than previous quarter or increasing rates. Red downwards arrows indicate decreasing trends when the current quarter growth rates are below previous quarter rates.

Table 1 above is dominated by negative annual rates (in red), decreasing trends (downwards pointing arrows) and a generally worse performance of IPR indicators than GDP, at MS levels and for the EU as a whole. In the second quarter of 2023 among the eight MS for which all IPR indicators can be estimated, only Hungary presented all negative annual rates. In the third quarter besides Hungary, the Czech Republic and Latvia also registered negative annual rates in all IPR indicators. Seven more MS registered only negative annual rates in their IPR indicators, with the Netherlands showing the worst performance with two-digit negative rates in the two estimated IPR indicators.

France however registered positive annual rates in all IPR indicators, except for design-intensive industries following the second quarter when it was the only MS with all its IPR indicators growing and in an upwards trend. Denmark and Finland's IPR indicators also performed better than their GDP and registered positive annual rates, but with half the annual rate compared to the previous quarter. Only two countries registered in the third quarter of 2023 positive annual rates and upwards trends: Slovenia and Slovakia.

The indicators for all IPR and trade mark-intensive industries are estimated for the same eight MS: Bulgaria, the Czech Republic, Germany, France, Hungary, Latvia, Poland and Romania. Both indicators show similar shapes in their annual rates since 2020, with the IPR indicator reaching deeper trough in 2020 and a higher peak in 2021.

Only France and Romania registered positive annual growth rates in IPR and trade mark indicators in the third quarter of 2023, led in both countries by the service sector. In France the NACE division 61 'Telecommunications', 62 'Computer programming, consultancy and related activities' and group 702 'Business and other management consultancy activities' contributed the most to the annual rates of both indicators' annual rates. In Romania, the indicators of NACE division 62 and group 702 also performed well, added to NACE divisions 63 'Computing infrastructure, data processing, hosting and other information service activities' and 73 'Activities of advertising, market research and public relations'.

Hungary's trade mark indicator showed the worse performance and accumulated 9 months of negative annual rates, with an average rate of – 8 % in 2023.

Figure 3: Annual rates of change (%) of IPR indicators in some EU Member States, January 2020 – September 2023

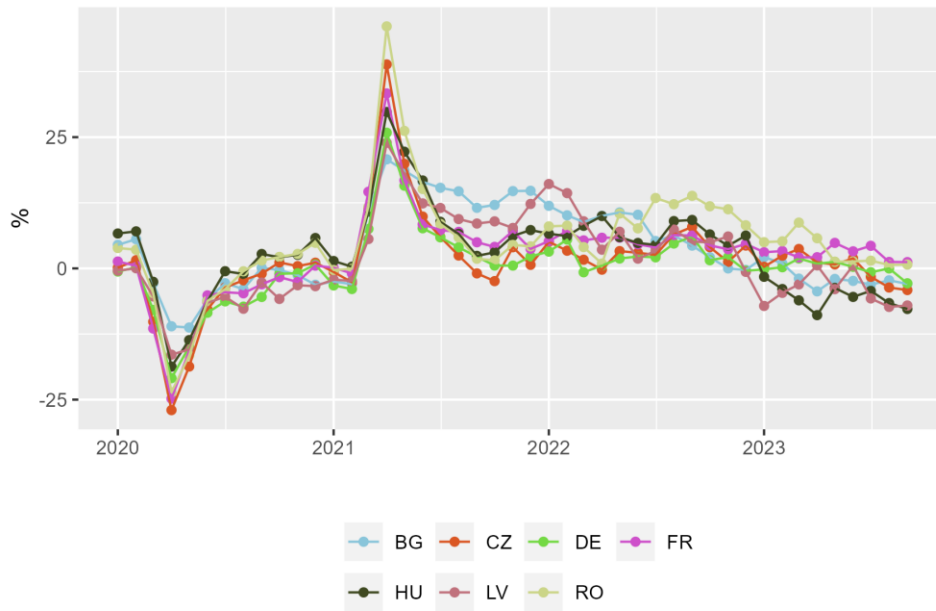
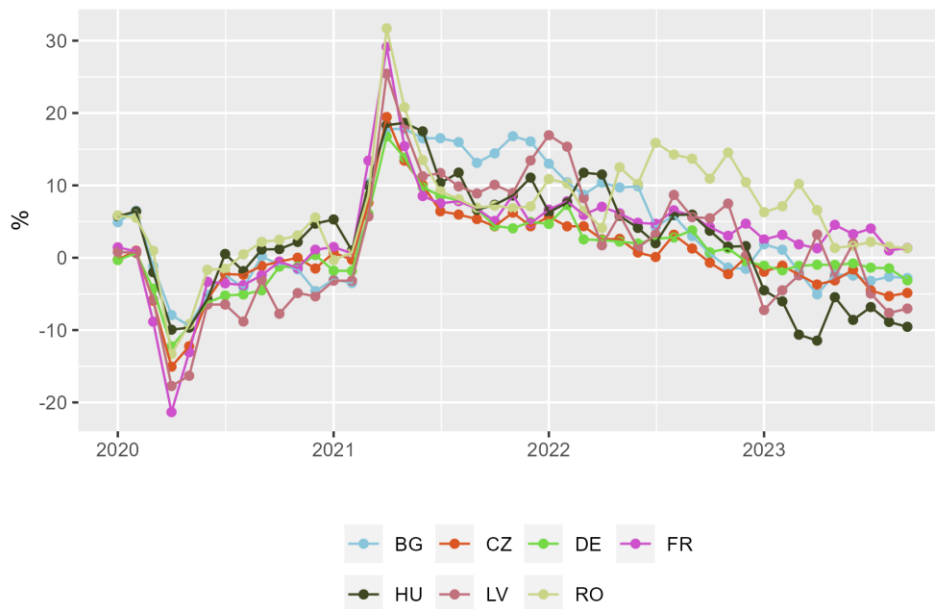


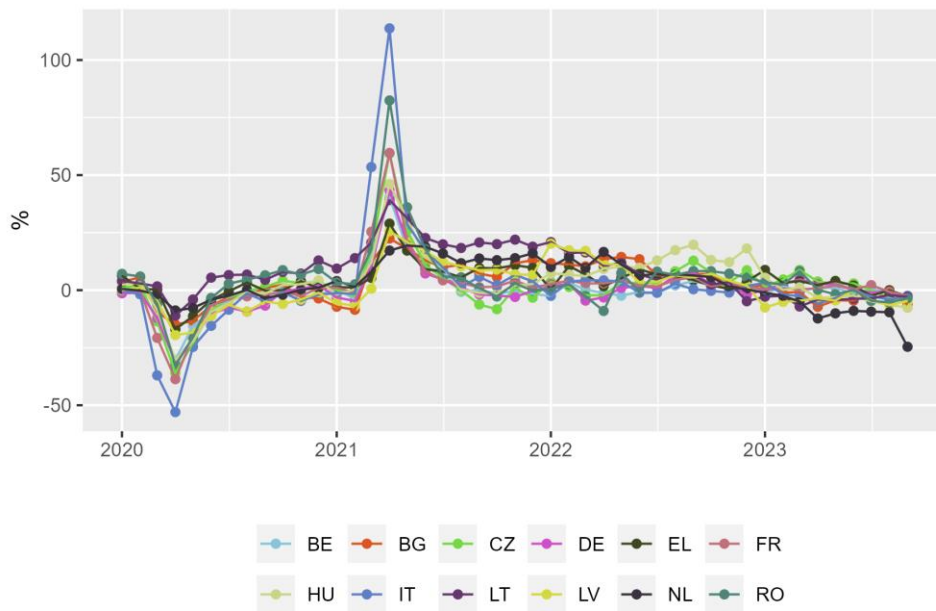
Figure 4: Annual rates of change (%) of trade mark indicators in some EU Member States, January 2020 – September 2023



The indicator for design-intensive industries is available for 13 MS and the patent indicator for 17 MS, representing 90 % of the GDP generated by patent-intensive industries in 2017-2019. Both indicators have registered the deepest trough and the highest peak of all IPR indicators, with larger differences among countries in the patent-intensive industries.

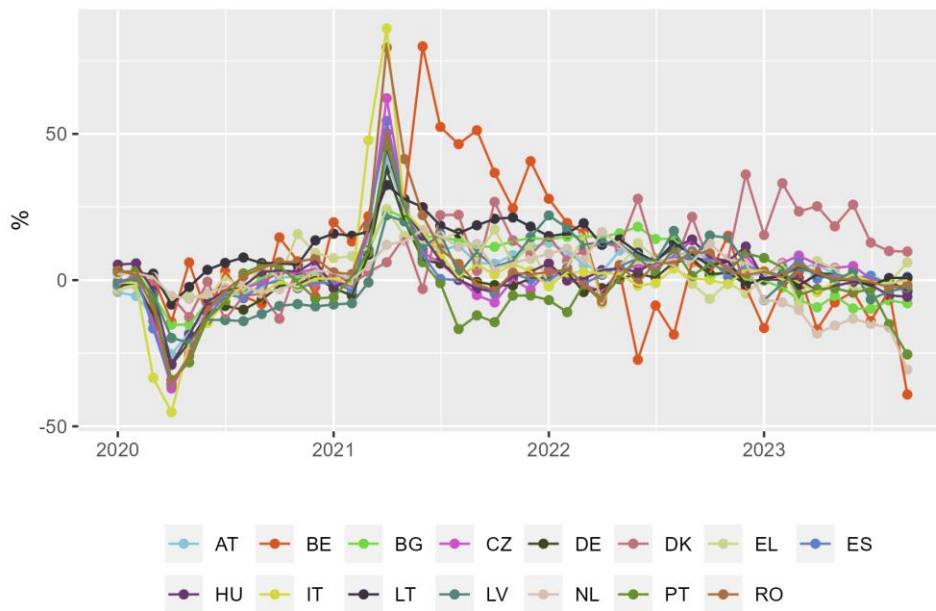
The 13 design indicators showed a negative annual rate in the third quarter of 2023 with the Netherlands standing out with an annual rate of – 14.5 % in the third quarter and – 25 % in September, accumulating 9 months of negative rates. NACE division 28 ‘Manufacture of machinery and equipment n.e.c.’ contributes the most to the negative rates of design-intensive industries, with annual decreases above – 20 % in the second and third quarters of 2023.

Figure 5: Annual rates of change (%) of design indicators in some EU Member States, January 2020 - September 2023



Denmark is the only country with a significant annual growth rate of patent-intensive industries in the third quarter of 2023, explained by NACE division 21 ‘Manufacture of basic pharmaceutical products and pharmaceutical preparations’ which continues registering rates of about 30 % to balance out the negative rates of almost all the Danish industries in the manufacturing sector. Three MS registered slightly positive annual rates, and Belgium and the Netherlands registered the lowest annual rates at about – 20 %, with Portugal registering – 15 %. NACE division 21 is responsible for the bad economic performance of patent-intensive industries in Belgium, and NACE division 29 ‘Manufacture of motor vehicles’ contributes the most to the negative growth rate of Portugal’s patent indicator.

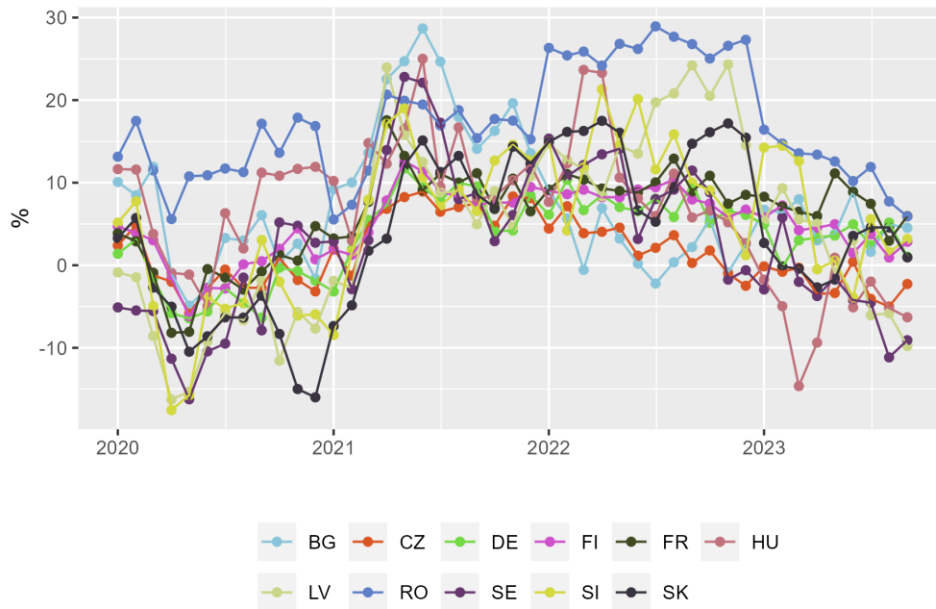
Figure 6: Annual rates of change (%) of patent indicators in some EU Member States, January 2020 - September 2023



The copyright indicator is available for 11 MS (Poland since 2021) and is the best IPR indicator when compared with pre-crisis levels in all MS, as shown in Table 2 below. Regarding the performance in the third quarter of 2023, Romania continues to register the higher annual rates, followed by France, as explained by the high weight of service sector industries, such as NACE divisions 61 and 62 in the copyright indicator.

The copyright indicators for Sweden and Latvia registered annual rates of -7% and -8% , respectively. Industries in the service sector that contribute the most to the worse economic performance of copyright-intensive industries in Sweden are NACE divisions 73 'Activities of advertising, market research and public relations' and 74 'Other professional, scientific and technical activities', and in Latvia, NACE division 61 'Telecommunications' and 73.

Figure 7: Annual rates of change (%) of copyright indicators in some EU Member States, January 2020 - September 2023



IPR Indicators 2022 Edition: Difference to Pre-Crisis Levels, September 2023

Table 2 shows the difference between the IPR indicators values in September 2023 and February 2020, with red numbers showing indicators that are still below pre-crisis levels and green numbers indicating where the indicator has reached or surpassed its pre-crisis level.

In September 2023, the IPR indicators situation has worsened compared to June. German design and patent indicators continue below their pre-crisis levels, and now the German indicator for all IPRs has fallen below the February 2020 level. The Netherlands' indicators suffered the most in the third quarter of 2023, with design and patent indicators in September over 10 and 20 points below their pre-crisis levels. Portugal's patent indicator in June was 20 points below its pre-crisis level and decreased by 10 points in September. It is now in the worst comparative position of all IPR indicators. In September, some indicators for Belgium, Bulgaria and Italy were also a few points below pre-crisis levels.

Table 2: Difference in IPR values between pre-crisis level (February 2020) and September 2023

Country	IPR	TM	DES	PT	CR
EU	11.6	15.3	6.7	7.8	25.9
AT				14.8	
BE			-3.5	-6.5	
BG	7.5	7.2	-2.6	5.7	37.6
CZ	0.4	-0.5	0.6	1.9	2.5
DE	-0.7	2.2	-3.8	-4.7	16.9
DK				35.3	
EL			7.5	15.8	
ES				3.8	
FI					22.4
FR	12.0	14.9	3.0	2.3	34.1
HU	3.8	2.5	8.0	3.0	20.3
IT			-1.1	1.5	
LT			40.2	54.5	
LV	2.4	2.4	0.0	3.5	18.6
NL			-11.5	-21.6	
PL *	NA	NA	NA	NA	NA
PT				-32.2	
RO	18.4	26.1	6.2	7.8	93.7
SE					8.6
SI					22.3
SK					23.1

* IPR indicators for Poland are only estimated from 2021 due to data availability issues and the difference with pre-crisis level cannot be calculated.

Acronyms and Abbreviations

Acronym	Term
AT	Austria
BE	Belgium
BG	Bulgaria
CR	Copyright
CZ	Czech Republic
DE	Germany
DES	Designs
DK	Denmark
EL	Greece
EPO	European Patent Office
ES	Spain
EU	European Union
EUIPO	European Union Intellectual Property Office
FI	Finland
FR	France
GDP	Gross Domestic Product
HU	Hungary
IPR	Intellectual Property Rights
IT	Italy
LT	Lithuania
LV	Latvia
MS	Member States
NACE	Statistical Classification of Economic Activities in the European Community
NL	Netherlands
PAT	Patents
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia

Acronym	Term
SK	Slovakia
STS	Short-Term Statistics
TM	Trade Marks