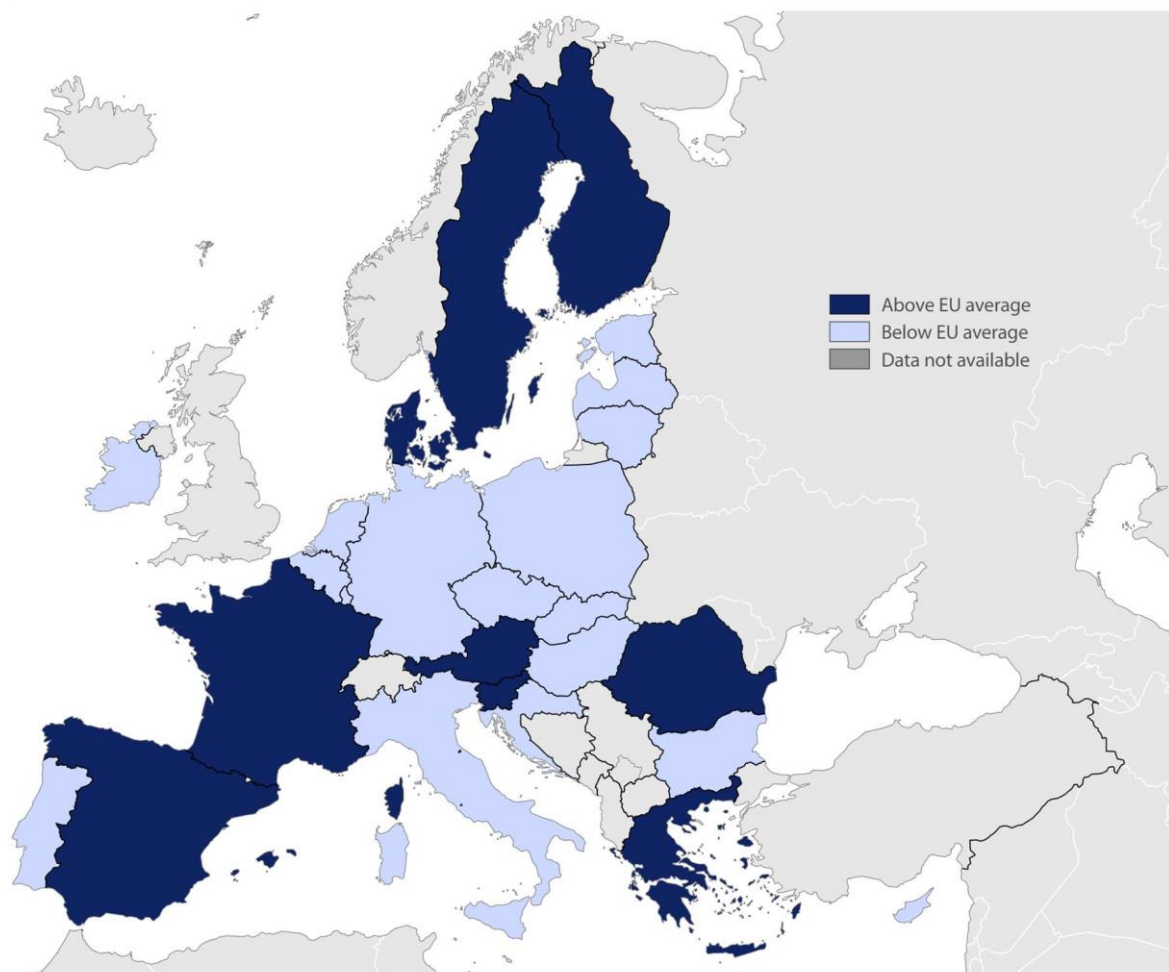


Economic performance of IPR indicators

2022 edition, March 2023 update

IPR indicators for selected EU Member States 1Q2023



Source: EUIPO

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat – IMAGE, 06/2023

ECONOMIC PERFORMANCE OF IPR INDICATORS 2022 EDITION, MARCH 2023 UPDATE

Catalogue number: TB-08-23-059-EN-N

ISBN: 978-92-9156-340-1

DOI: 10.2814/175718

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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 indicators¹ 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 have published 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 the 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.

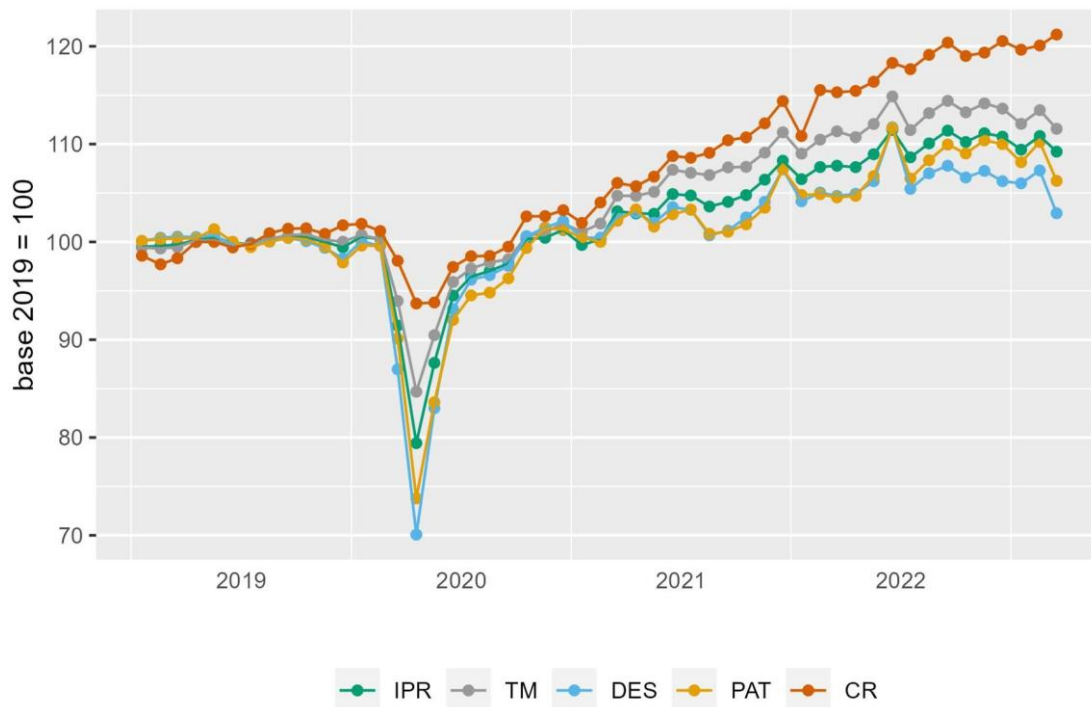
EU INDICATORS

The five EU IPR indicators registered a decrease in January 2023 followed by a recovery in February. In March, they registered another decrease in the level of all IPR indicators except copyright. As a result, in March 2023 only the copyright indicator showed a level higher than at the end of 2022.

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.

All the EU indicators were above the pre-crisis levels registered in February 2020: the copyright indicator was more than 20 points above the previous level and the design indicator was only 4 points above the pre-crisis level.

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



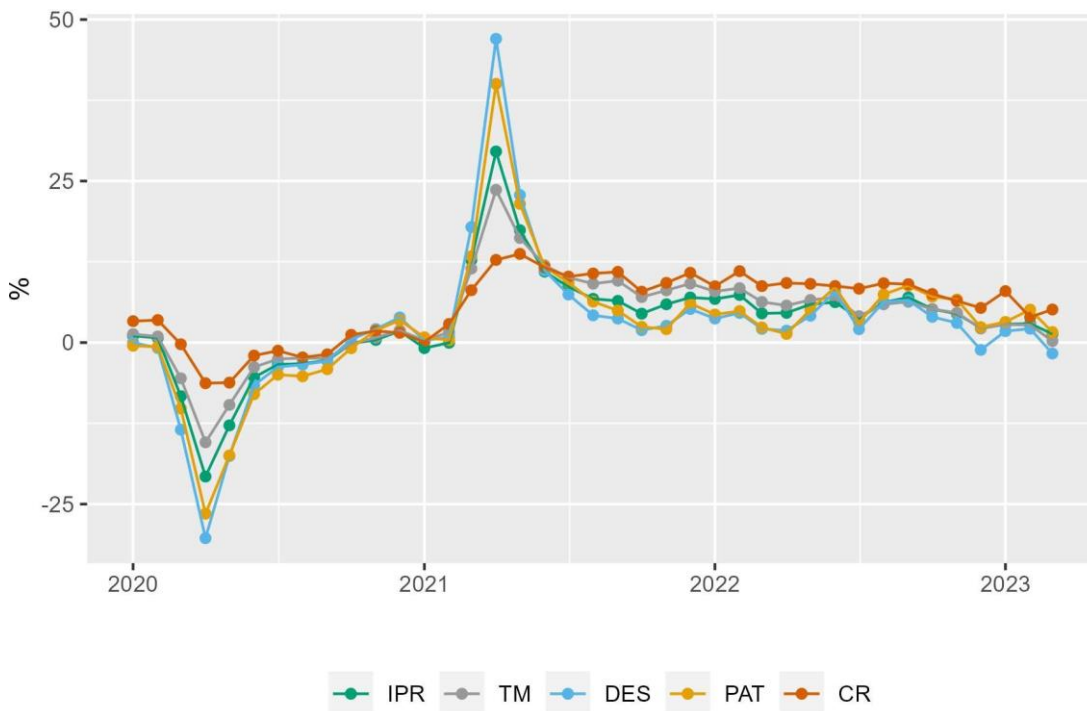
As shown in Figure 2, the copyright indicator is the one that showed greater annual rates of growth at the beginning of the year 2023. The average annual rate of growth in the first three months of the year is 5.6 %. The other four indicators showed a decrease of the rates in March, resulting in average annual growth rate in the first quarter of 3.3 % in patent-intensive industries and lower rates in the remaining IPR indicators.

In all the IPR indicators, the service sector registered higher annual rates, between 5 % and 7 %. This was led by the strong performance of NACE division 79 ‘Travel agency, tour operator, reservation service and related activities’ that is in March 2023 still 8 points below its pre-crisis level. The industries in the trade sector registered negative annual rates in all IPR-, trade mark- and design-intensive industries and the industries in the manufacture sector registered small

growth rates in all IPR indicators except copyright that registered a -8 % annual rate explained by the bad performance of NACE divisions 18 ‘Printing and reproduction of recorded media’ and 26 ‘Manufacture of computer, electronic and optical products’.

As in previous updates, the higher weight of the manufacture sector explains the worse performance of design-intensive industries and the higher importance of the service sector in copyright-intensive industries is behind its better performance.

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



IPR INDICATORS AT MEMBER STATE LEVEL

The performance of IPR-intensive industries in the EU Member States shows different trends, which is explained by the different structures of their IPR-intensive industries. Not all IPR indicators are estimated for all EU MS due to data limitations. Croatia, Cyprus, Estonia, 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, the Czech Republic, France, Germany, Hungary, Latvia, Poland (only since 2021) and Romania). IPR and trade mark indicators are available for the same 8 MS; copyright indicators are estimated for 12 MS; indicators for design-intensive industries are available for 13 MS and patent indicators for 17 MS.

Table 1 shows the annual average growth rates for all the IPR indicators and the GDP in the first quarter of 2023 (comparing the first quarter of 2023 with the same quarter of 2022). The map on the cover page indicates in light blue those countries with an average growth rate in their IPR indicators that is below the EU rate in the first quarter of 2023, and in dark blue those countries with equal or higher average growth rates than the EU.

In general, the economic performance in the EU Member States in the first quarter of 2023 has been worse than in the previous quarter with five countries registering negative annual rates of their GDP and Poland with a zero rate.

Among the four biggest EU Member States, only Spain registered higher annual rates of the GDP and the IPR indicators than the EU average; Italy registered better performance of the GDP but lower annual rates of design- and patent-intensive industries; Germany showed lower rates in the GDP and IPR indicators except in the design-intensive industries; and France registered lower rates in the design- and patent-intensive industries (and the GDP) and rates very similar to those of the EU average of the remainder of the IPR indicators.

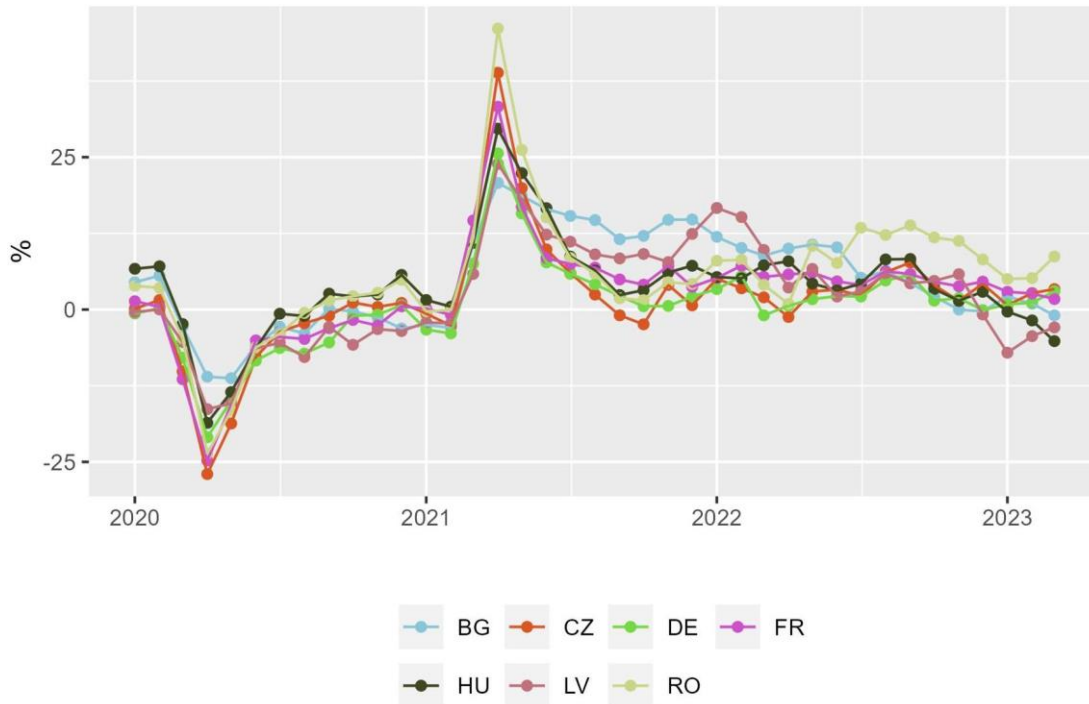
When the performance of the overall economy is compared with the evolution of IPR indicators, in about half of the Member States the IPR indicators performed in the first quarter of 2023 better than the GDP. The worse performance of IPR indicators is registered in Belgium, Hungary, Latvia, Poland, and Slovakia with many indicators registering negative annual rates in the first quarter of 2023.

Table 1: Average annual rate of GDP and IPR indicators in the first quarter of 2023

Country	GDP	IPR	TM	DES	PAT	CR
EU	1.2	2.4	1.9	0.7	3.3	5.6
AT	1.8				3.5	
BE	1.4			-0.1	-5.3	
BG	2.0	0.7	0.7	0.2	-2.9	7.2
CZ	-0.4	2.2	-1.3	4.8	4.7	0.4
DE	-0.5	1.6	-0.1	3.1	2.5	5.6
DK	2.4				23.6	
EL	NA			5.1	-1.2	
ES	3.8				4.1	
FI	-0.3					6.3
FR	0.9	2.4	2.2	0.3	1.7	5.9
HU	-1.1	-2.5	-6.1	4.8	3.0	-4.4
IT	1.9			-0.2	1.0	
LT	-2.7			-4.2	0.0	
LV	0.4	-4.8	-4.6	-5.4	-1.5	6.5
NL	2.1			-5.1	-5.5	
PL	0.0	-0.5	-1.6	-1.5	1.5	10.3
PT	2.5				2.1	
RO	2.8	6.3	7.8	4.9	3.3	14.6
SE	0.8					7.9
SI	0.7					13.1
SK	1.0					-3.7

The indicator for all IPR and trade mark-intensive industries is estimated for the same 8 MS: Bulgaria, the Czech Republic, Germany, France, Latvia, Hungary, Poland and Romania. Both indicators show similar shapes of their annual rates since 2020 with the IPR indicator reaching a deeper fall in 2020 and a higher peak in 2021.

Figure 3: Annual rates of change (%) of IPR indicators in some EU Member States, January 2020 - December 2022

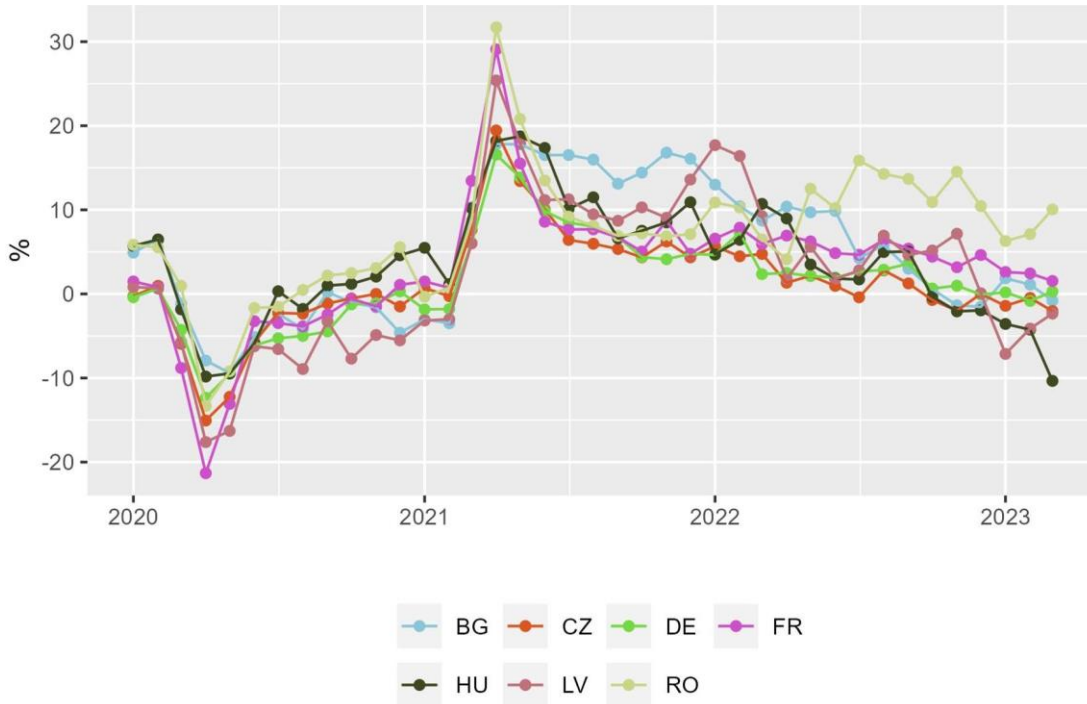


The higher rates in IPR- and trade mark-intensive industries continue to be registered in Romania led by the service sector with double-digit annual growth rates and a recovery of the manufacture sector in March with an average annual rate of 5 % pushed by NACE divisions 28 ‘Manufacture of machinery and equipment’ and 29 ‘Manufacture of motor vehicles, trailers and semi-trailers’ with a 23 % and 12 % annual growth rates in that month respectively.

Latvia, Hungary, and Poland² registered negative average growth rates in both indicators explained by the bad performance of some industries in the manufacture sector such as NACE divisions 20 ‘Manufacture of chemicals and chemical products’, 22 ‘Manufacture of rubber and plastic products’ and 23 ‘Manufacture of other non-metallic mineral products’ in the three countries as well as NACE divisions 28 and 29 in Latvia.

² Poland IPR indicators are not included in the figures due to lack of data before 2021.

Figure 4: Annual rates of change (%) of trade mark indicators in some EU Member States, January 2020 - December 2022



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

Design- and patent-intensive industries in many MS registered negative or zero annual growth rates in the first quarter of 2023 with positive rates in the Czech Republic, Germany, Greece, Hungary, Portugal, Romania and Spain and a strong performance of Danish patent-intensive industries explained by the NACE division 21 'Manufacture of basic pharmaceutical products and pharmaceutical preparations' that has doubled its level in 2021.

On the other extreme, the Dutch design-and patent-intensive industries performed very poorly explained by the NACE division 20 'Manufacture of chemicals and chemical products' with a -20 % average annual rate in the first quarter of 2023.

Figure 5: Annual rates of change (%) of design indicators in some EU Member States, January 2020 - December 2022

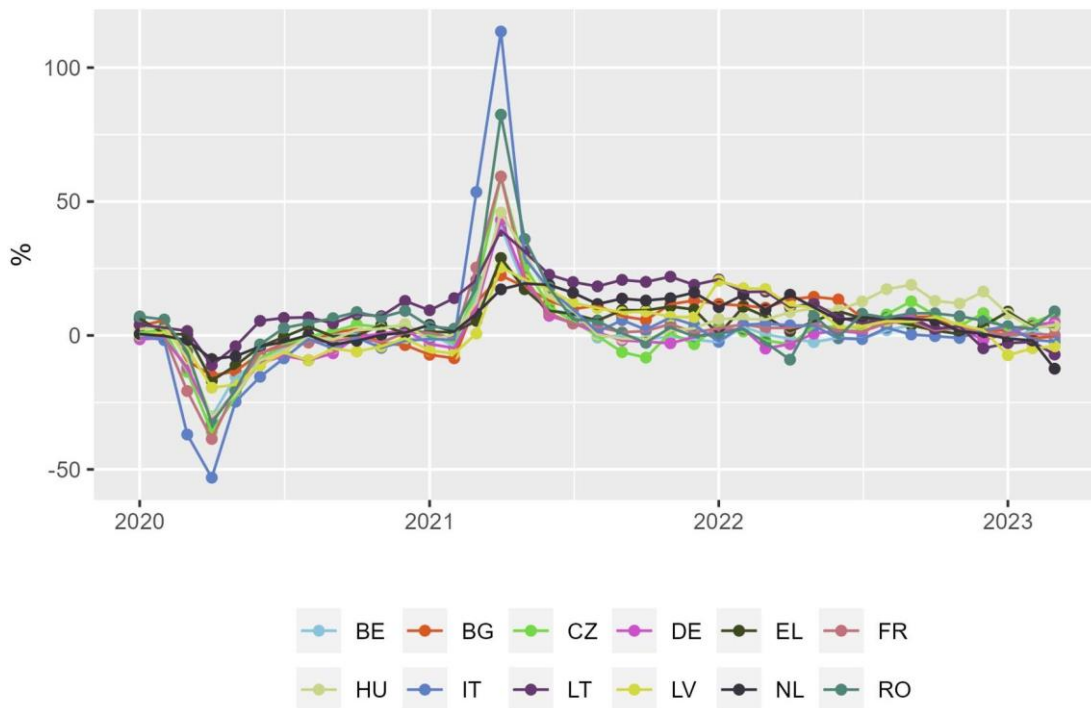
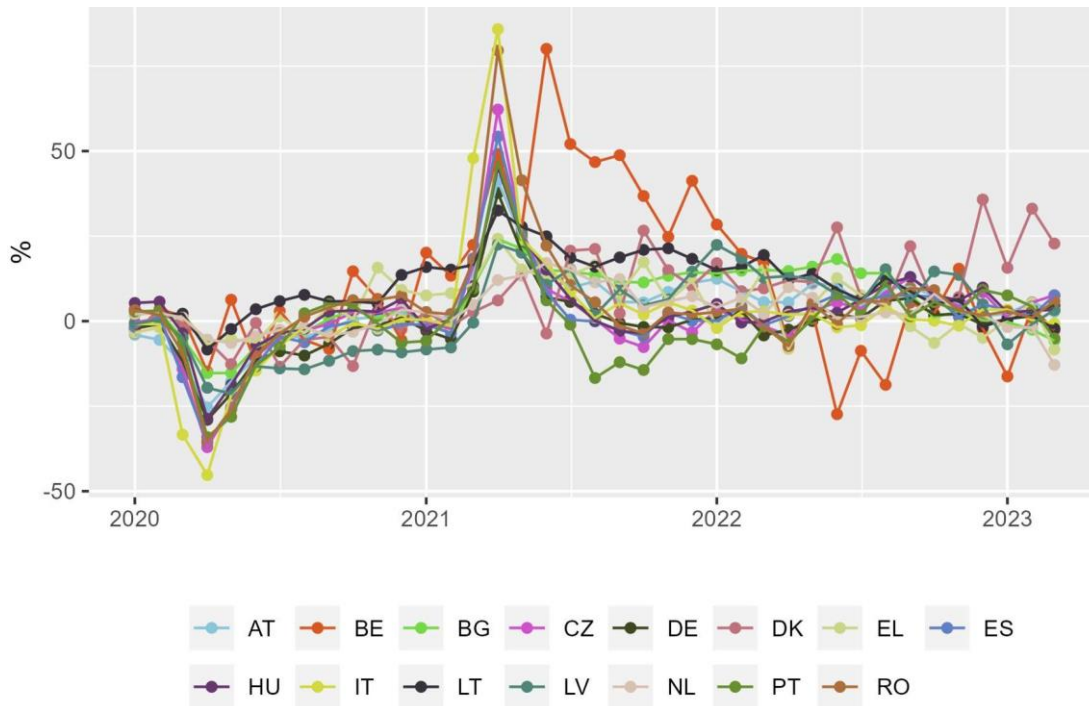


Figure 6: Annual rates of change (%) of patent indicators in some EU Member States, January 2020 - December 2022

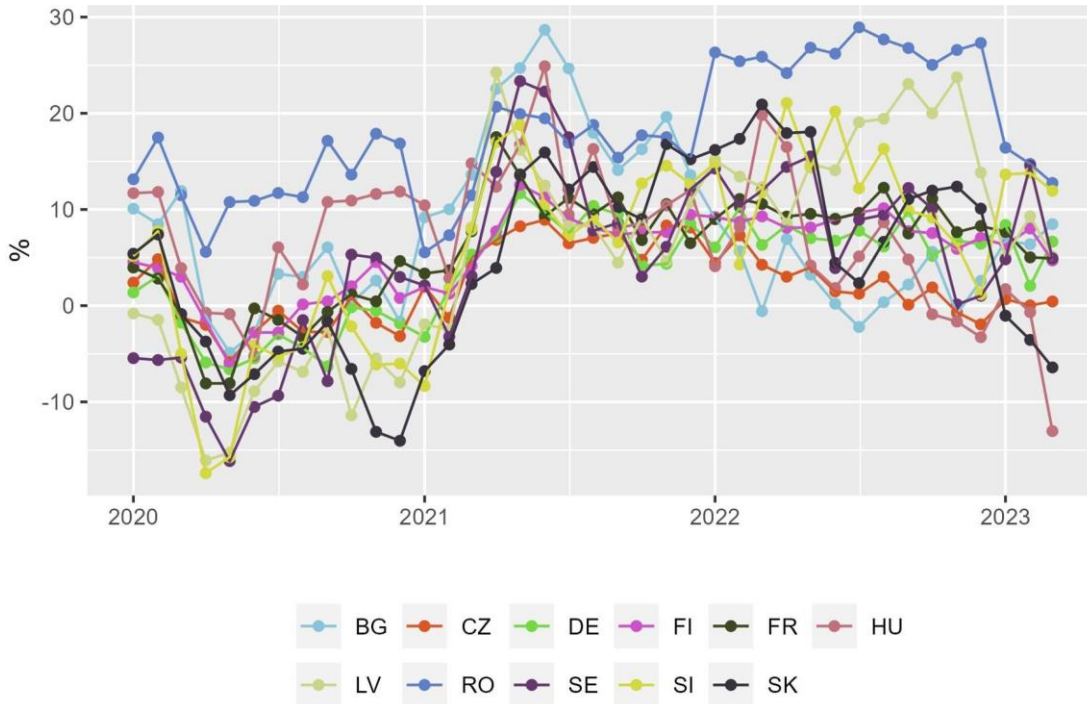


The copyright indicator is available for 11 countries (Poland since 2021) and registered the highest annual rates in many of the Member States.

Three MS registered growth rates in the first quarter of 2023 above 10 %: Poland, Romania and Slovenia explained by the good performance of NACE divisions 61 ‘Telecommunications’ and 62 ‘Computer programming, consultancy and related activities’ as well as NACE division 74 ‘Other professional, scientific and technical activities’ in Slovenia.

On the other extreme, Hungary and Slovakia registered negative average rates of their copyright-intensive industries, explained by decreases in the volume indicator of NACE divisions 58 ‘Publishing activities’ and 73 ‘Advertising and market research’ in both countries as well as 18 ‘Printing and reproduction of recorded media’ in Hungary and 74 ‘Other professional, scientific and technical activities’ in Slovakia.

Figure 7: Annual rates of change (%) of copyright indicators in some EU Member States, January 2020 - December 2022



IPR INDICATORS 2022 EDITION: DIFFERENCE TO PRE-CRISIS LEVELS, MARCH 2023

The table below shows the difference between the IPR indicators values in March 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 March 2023 there are still two MS with design indicators and three MS with patent indicators below their pre-crisis levels.

Table 2: Difference in IPR values between pre-crisis level (February 2020) and the fourth quarter of 2022.

Country	IPR	TM	DES	PAT	CR
EU	9.9	12.7	3.6	7.2	23.4
AT				17.9	
BE			-0.5	42.3	
BG	10.4	10.4	5.0	10.7	34.3
CZ	5.8	3.7	8.1	7.5	6.6
DE	1.1	4.2	-1.8	-2.7	17.5
DK				38.8	
EL			10.7	14.3	
ES				5.7	
FI					20.7
FR	9.6	12.2	3.4	0.9	26.8
HU	5.7	3.5	13.4	6.3	14.8
IT			0.7	1.8	
LT			38.8	51.9	
LV	8.7	8.6	6.9	11.2	25.3
NL			1.7	-8.2	
PL*	NA	NA	NA	NA	NA
PT				-8.6	
RO	20.8	27.2	15.2	13.8	82.5
SE					24.3
SI					25.2
SK					13.8

* 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
IE	Ireland
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

Acronym	Term
SE	Sweden
SI	Slovenia
SK	Slovakia
STS	Short-term Statistics
TM	Trade Marks