

IPR-intensive industries and economic performance in the European Union

Industry-Level Analysis Report, September 2019

A joint project between the European Patent Office and the
European Union Intellectual Property Office

Key findings



Background

This joint study by the European Union Intellectual Property Office and the European Patent Office provides a broad, improved assessment of how industries that make intensive use of intellectual property rights (IPR) contribute to EU economies. It updates and extends the findings of a previous study released in 2016.

The study covers a broad range of IP rights – trade marks, patents, designs, copyright, geographical indications (GIs) and plant variety rights (PVRs) – and considers multiple economic indicators, with a focus on gross domestic product (GDP), employment, wages and external trade. Instead of making policy recommendations, the study provides facts and figures that can be used by policymakers to raise awareness of intellectual property as an economic driver.

Key findings

We define IPR-intensive industries as having an above-average use of IPR per employee. Most industries use IP rights to some extent, but this study focuses on areas of the European economy where IP rights make a major contribution.

Key figures for IPR-intensive industries by type of IP right

| IPR-intensive industries | Value Added / GDP (€ billion) | Direct employment (million) | Direct and indirect employment (million) | Imports (€ billion) | Exports (€ billion) |
|--------------------------------------|-------------------------------|-----------------------------|--|---------------------|---------------------|
| Trade mark-intensive | 5,448 | 46.7 | 65.0 | 1,601 | 1,613 |
| Design-intensive | 2,371 | 30.7 | 45.1 | 1,195 | 1,262 |
| Patent-intensive | 2,353 | 23.6 | 34.7 | 1,308 | 1,438 |
| Copyright-intensive | 1,008 | 11.8 | 15.4 | 203 | 295 |
| GI-intensive | 20 | n/a | 0.4 | 1 | 12 |
| PVR-intensive | 182 | 1.7 | 2.6 | 4 | 8 |
| All IPR-intensive¹ | 6,552 | 63.0 | 83.8 | 1,940 | 2,122 |

Economic impact of IPR-intensive industries

The positive of IPR-intensive industries on key economic indicators is growing steadily (see table below). Direct employment in the 353 IPR-intensive industries rose from 61.7 million in 2011-2013 to 63 million in 2014-2016.

| Economic indicators in EU | Contribution of IPR-intensive industries | |
|----------------------------|--|--------------|
| | 2011-2013 | 2014-2016 |
| GDP | 44.0% | 44.8% |
| Employment (direct) | 28.6% | 29.2% |

1 Since the same industry may make intensive use of more than one IP right, the sum of the figures for the individual IPR exceeds the figure for all IPR-intensive industries. 2 The 2011-2013 figures have been re-calculated to take into account methodological changes between the two studies.

GDP

During 2014-2016, IPR-intensive industries generated 44% of total economic activity (GDP) in the EU, with a value of € 6.5 trillion. Trade mark-intensive industries alone were responsible for 37% of EU GDP (€ 5.4 trillion).

Employment

IPR-intensive industries directly generated 29% of all jobs in the EU during the period 2014-2016. On average, 63 million Europeans were directly employed in IPR-intensive industries over this period, out of a total of around 216 million persons employed. An extra 21 million jobs were indirectly generated in industries that supply goods and services to IPR-intensive industries. Taking indirect jobs into account, the total number of IPR-dependent jobs rose to 84 million (39%).

Wage premium

IPR-intensive industries also pay significantly higher wages than other industries, with a premium of 47%. The value added per worker is also higher in IPR-intensive industries than elsewhere in the economy. The wage premium is especially high in patent-intensive industries, where it totals 72% (€ 934 per week).

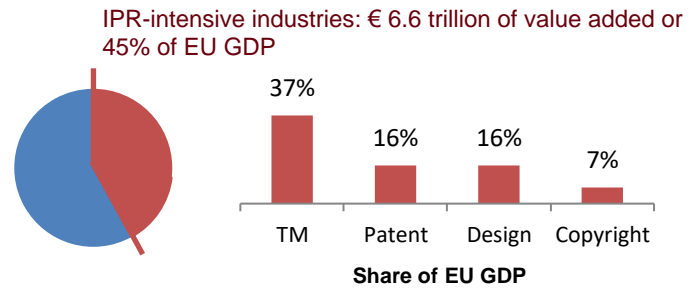
Trade

IPR-intensive industries account for the bulk of EU trade in goods and services, with a very high share of imports (80%), and an even higher share of exports (82%). They generated a trade surplus of € 182 billion for the EU in the period 2014-2016, thus counterbalancing a small deficit in non-IPR intensive trade. Patent-intensive industries alone generated a surplus of € 130 billion.

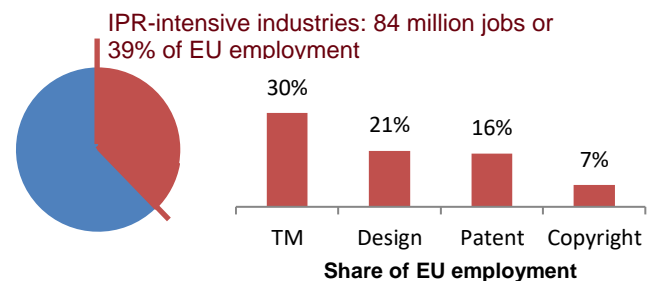
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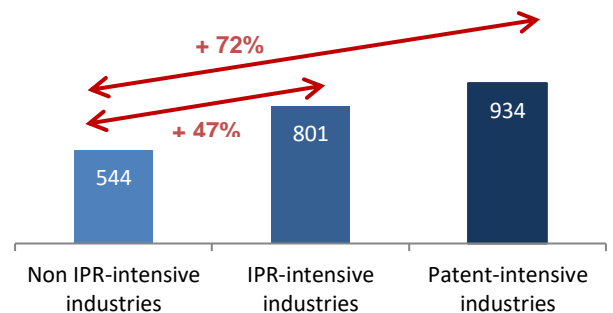
Contribution to EU GDP



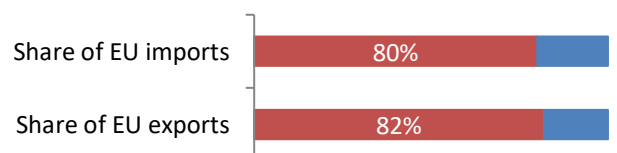
Employment in IPR-intensive industries

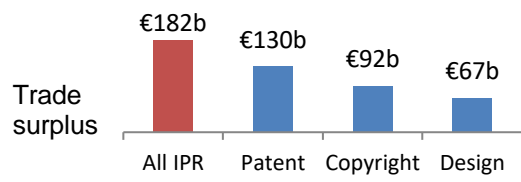


Comparison of average wage (€/week)



IPR-intensive industries in EU external trade in goods and services





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