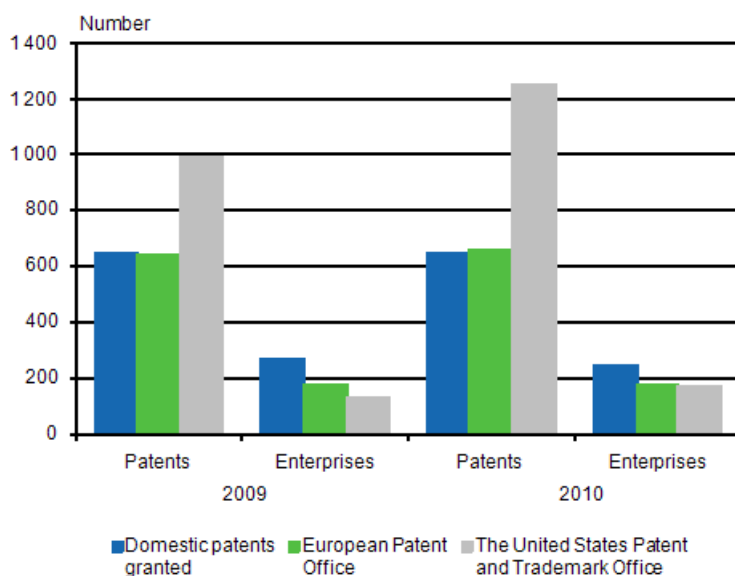


Patenting 2010

Annual number of patents applied in Finland fell further in 2010

The number of patent applications made in Finland decreased by around one hundred from the previous year in 2010. The number went down for both domestic and foreign applicants. By contrast, the number of patents granted in Finland to domestic patentees, similarly as the number of European patents granted to Finnish enterprises and associations, remained on level with the previous year. The number of U.S. patents granted to Finnish enterprises and associations grew by one quarter to about 1,250 patents. These data derive from statistics on patenting in 2010 published by Statistics Finland.

Patents granted to enterprises and associations and enterprises having received patents in 2009 and 2010



A total of 1,833 patent applications were filed in Finland in 2010. Of them, 1,731 were domestic applications. Due to increased international patenting the number of foreign applications made direct in Finland has been falling. The same development continued in 2010, when the applicant was from abroad in 102 of the patent applications filed in Finland. Good one quarter of all applications filed in Finland in 2010 concerned performing operations and transporting.

Domestic patenting by Finnish enterprises and associations fell short of the previous year's level in 2010. Enterprises and associations filed a total of 1,356 patent applications, as against 1,403 in 2009. Patent applications were most numerous in the metal and engineering industry where they totalled 470, filed by 128 applicant enterprises. In 2010 the number of patent applications in the manufacturing industries went down in all by six per cent from the previous year, while in the other industries the total number of applications was on level with the previous year.

Good one third, 37 per cent, of the domestic patent applications made in 2010 were filed by inventors resident in the region of Uusimaa. The respective share for the region of Pirkanmaa strengthened from the year before, being 12 per cent. One year earlier, the share of patent applications assigned to Pirkanmaa according to inventor data was nine per cent and the number of applications was 45 lower.

A total of 923 patents were granted in Finland in 2010, which was 132 patents fewer than one year earlier. The total number was influenced by the decrease in the number of patents granted to foreign patent holders, whereas the number of patents granted to domestic patent holders rose by a few patents. The number of patents granted to domestic enterprises and associations was 648, which was on level with the previous year. The highest number of patents was granted to the metal and engineering industry and, as in previous years, the most common IPC sections in which domestic patents were granted to Finnish enterprises were performing operations and transporting.

European patents granted by the European Patent Office (EPO) to Finnish enterprises or associations totalled 657 in 2010. One year previously, the number of patents granted was 642. Around one half of the European patents were granted to the electronics industry, while the metal and engineering industry was the second biggest grantee of European patents in Finland.

In 2010, the number of patents granted by the United States Patent and Trademark Office (USPTO) to Finnish enterprises and associations went up by good one quarter – by 261 patents – from the previous year. The number of patents granted was 1,251. Of them, 887 were patents for the electronics industry. As European patents, the second biggest grantee of a patent was the metal and engineering industry, to which the United States Patent and Trademark Office granted a total of 135 patents in 2010.

In 2010, a total of 4,644 European patents were validated in Finland, whereas in 2009 the respective number was 4,497. The biggest main sections of the European patents were chemistry and metallurgy and human necessities. Germany and the United States were still the main holder countries of the European patents validated in Finland.

A total of 559 utility design applications were made in Finland in 2010, while one year before 479 applications were recorded. Of the utility design applications, 94 per cent were made by domestic applicants, and around one half of them by private persons. According to the patent classification, utility design applications in relative terms concerned most often the main sections of human necessities, fixed constructions, performing operations and transporting. As with domestic patent applications, the majority of the utility design applications were made by the metal and engineering industry.

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Appendix tables

Appendix table 1. Patent applications filed in Finland, 1985, 1990, 1995 and 2000–2010

| Year | Private assignee | Enterprise/ association | Domestic applications total | Foreign applications | Applications total |
|------|------------------|-------------------------|-----------------------------|----------------------|--------------------|
| 1985 | 681 | 1038 | 1719 | 3480 | 5199 |
| 1990 | 708 | 1360 | 2068 | 4414 | 6482 |
| 1995 | 731 | 1393 | 2124 | 4240 | 6364 |
| 2000 | 695 | 1883 | 2575 | 338 | 2913 |
| 2001 | 627 | 1764 | 2391 | 277 | 2668 |
| 2002 | 550 | 1606 | 2156 | 216 | 2372 |
| 2001 | 467 | 1506 | 1973 | 214 | 2187 |
| 2004 | 443 | 1567 | 2010 | 215 | 2225 |
| 2005 | 464 | 1371 | 1835 | 226 | 2061 |
| 2006 | 419 | 1394 | 1813 | 205 | 2018 |
| 2007 | 452 | 1349 | 1801 | 211 | 2012 |
| 2008 | 401 | 1397 | 1798 | 148 | 1946 |
| 2009 | 401 | 1403 | 1804 | 127 | 1931 |
| 2010 | 375 | 1356 | 1731 | 102 | 1833 |

Appendix table 2. Domestic patent applications by region, 2005–2010

| Region | Year | | | | | |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| | Applications total | Applications total | Applications total | Applications total | Applications total | Applications total |
| Regions Total | 1828 | 1813 | 1801 | 1798 | 1804 | 1731 |
| Uusimaa | 714 | 662 | 716 | 719 | 701 | 643 |
| Itä-Uusimaa | 32 | 14 | 34 | 16 | 26 | 24 |
| Varsinais-Suomi | 139 | 137 | 145 | 122 | 150 | 107 |
| Satakunta | 57 | 46 | 38 | 41 | 45 | 48 |
| Kanta-Häme | 49 | 39 | 35 | 35 | 54 | 32 |
| Pirkanmaa | 179 | 174 | 189 | 196 | 162 | 207 |
| Päijät-Häme | 51 | 68 | 59 | 64 | 63 | 56 |
| Kymenlaakso | 40 | 42 | 44 | 32 | 23 | 32 |
| South Karelia | 29 | 31 | 29 | 35 | 30 | 33 |
| Etelä-Savo | 34 | 35 | 34 | 42 | 43 | 35 |
| Pohjois-Savo | 84 | 77 | 70 | 63 | 85 | 83 |
| North Karelia | 45 | 49 | 34 | 31 | 40 | 37 |
| Central Finland | 120 | 154 | 110 | 107 | 111 | 115 |
| South Ostrobothnia | 21 | 24 | 23 | 25 | 16 | 28 |
| Ostrobothnia | 61 | 47 | 61 | 63 | 56 | 52 |
| Central Ostrobothnia | 4 | 8 | 5 | 11 | 8 | 8 |
| North Ostrobothnia | 137 | 110 | 106 | 95 | 95 | 109 |
| Kainuu | 13 | 12 | 7 | 13 | 16 | 14 |
| Lappi | 18 | 12 | 15 | 16 | 13 | 19 |
| Åland | 5 | 5 | 1 | 1 | 1 | 2 |
| Unknown / Foreign countries | 1 | 70 | 50 | 71 | 67 | 47 |

Appendix table 3. Domestic patent applications of enterprises and associations by industry (TOL 2008), 2009 and 2010

| Industry | 2009 | | 2010 | |
|--|--------------|-----------------------|--------------|-----------------------|
| | Applications | Number of enterprises | Applications | Number of enterprises |
| Total | 1403 | 532 | 1356 | 544 |
| C Manufacturing, total | 834 | 267 | 786 | 273 |
| 10-12 Food industry | 21 | 8 | 3 | 3 |
| 13-15 Textile, clothing, leather and footwear industry | 1 | 1 | 3 | 3 |
| 16-17 Wood and paper industry | 74 | 19 | 74 | 18 |
| 19-22 Chemical industry | 65 | 31 | 55 | 26 |
| 24-25, 28-30 Metal and engineering industry | 510 | 129 | 470 | 128 |
| 26-27 Electrical and electronics industry | 108 | 48 | 128 | 61 |
| Other manufacturing | 55 | 31 | 53 | 34 |
| D,E Electricity, gas and water supply | 2 | 2 | 6 | 5 |
| F Construction | 25 | 20 | 35 | 24 |
| G Wholesale and retail trade | 68 | 50 | 53 | 41 |
| J Information and communication | 56 | 38 | 56 | 33 |
| 72 Scientific research and development | 155 | 22 | 132 | 23 |
| M Professional, scientific and technical activities (excl. 72) | 156 | 86 | 178 | 99 |
| Other industries | 107 | 47 | 110 | 46 |

Appendix table 4. Patents granted in Finland by IPC section, 2010

| IPC section | Total | Finnish assignees total | Finnish private assignees | Finnish enterprises and associations |
|--|-------|-------------------------|---------------------------|--------------------------------------|
| Total of patents granted | 923 | 718 | 70 | 648 |
| A: Human necessities | 115 | 87 | 20 | 67 |
| B: Performing operations, transporting | 221 | 199 | 11 | 188 |
| C: Chemistry, metallurgy | 129 | 58 | 5 | 53 |
| D: Textiles, paper | 118 | 98 | 1 | 97 |
| E: Fixed constructions | 57 | 54 | 13 | 41 |
| F: Mechanical engineering | 89 | 79 | 10 | 69 |
| G: Physics | 73 | 61 | 7 | 54 |
| H: Electricity | 121 | 82 | 3 | 79 |

Appendix table 5. Domestic patents granted to enterprises and associations by industry (TOL 2008), 2009 and 2010

| Industry | 2009 | | 2010 | |
|--|---------|-----------------------|---------|-----------------------|
| | Patents | Number of enterprises | Patents | Number of enterprises |
| Total | 647 | 269 | 648 | 245 |
| C Manufacturing, total | 473 | 163 | 464 | 136 |
| 10-12 Food industry | 6 | 4 | 11 | 5 |
| 13-15 Textile, clothing, leather and footwear industry | 5 | 3 | 4 | 3 |
| 16-17 Wood and paper industry | 23 | 12 | 16 | 8 |
| 19-22 Chemical industry | 41 | 25 | 28 | 14 |
| 24-25, 28-30 Metal and engineering industry | 288 | 72 | 330 | 69 |
| 26-27 Electrical and electronics industry | 96 | 37 | 60 | 25 |
| Other manufacturing | 14 | 10 | 15 | 12 |
| D,E Electricity, gas and water supply | 2 | 2 | 1 | 1 |
| F Construction | 10 | 8 | 8 | 7 |
| G Wholesale and retail trade | 33 | 19 | 21 | 16 |
| J Information and communication | 34 | 24 | 27 | 18 |
| 72 Scientific research and development | 23 | 10 | 36 | 17 |
| M Professional, scientific and technical activities (excl. 72) | 54 | 31 | 65 | 31 |
| Other industries | 18 | 12 | 26 | 19 |

Appendix table 6. European patents validated in Finland by IPC-section and resident country of assignee, 2010

| Resident country of assignee | Total of patents | A: Human necessities | B: Performing operations, transporting | C: Chemistry, metallurgy | D: Textiles, paper | E: Fixed constructions | F: Mechanical engineering | G: Physics | H: Electricity |
|------------------------------|------------------|----------------------|--|--------------------------|--------------------|------------------------|---------------------------|------------|----------------|
| Total of countries | 4644 | 962 | 706 | 1196 | 184 | 165 | 242 | 433 | 756 |
| Finland | 132 | 17 | 32 | 16 | 9 | 9 | 5 | 16 | 28 |
| United States | 1062 | 239 | 84 | 297 | 31 | 13 | 37 | 116 | 245 |
| Germany | 969 | 149 | 206 | 200 | 87 | 55 | 85 | 82 | 105 |
| Switzerland | 351 | 116 | 69 | 108 | 2 | 4 | 16 | 23 | 13 |
| France | 308 | 53 | 51 | 111 | 3 | 5 | 19 | 31 | 35 |
| Japan | 262 | 31 | 34 | 66 | 12 | 1 | 9 | 29 | 80 |
| Great Britain | 207 | 50 | 26 | 78 | | 5 | 6 | 23 | 19 |
| Italy | 203 | 53 | 55 | 52 | 4 | 9 | 7 | 6 | 17 |
| Sweden | 186 | 32 | 28 | 33 | 15 | 23 | 16 | 12 | 27 |
| Netherlands | 130 | 35 | 19 | 34 | 5 | 4 | 4 | 17 | 12 |
| Belgium | 97 | 17 | 11 | 41 | 2 | 7 | 7 | 8 | 4 |
| Denmark | 95 | 25 | 7 | 38 | 2 | 3 | 6 | 6 | 8 |
| Republic of Korea | 93 | 3 | 1 | 6 | | | | 21 | 62 |
| Austria | 87 | 18 | 32 | 11 | 5 | 8 | 5 | 4 | 4 |
| Canada | 58 | 9 | 4 | 8 | | 1 | 3 | 7 | 26 |
| Total of other countries | 404 | 115 | 47 | 97 | 7 | 18 | 17 | 32 | 71 |

Appendix table 7. Patents granted to Finnish enterprises and associations by European Patent Office by industry (TOL 2008), 2009 and 2010

| Industry | European Patent Office 2009 | | European Patent Office 2010 | |
|--|-----------------------------|-----------------------|-----------------------------|-----------------------|
| | Patents | Number of enterprises | Patents | Number of enterprises |
| Total | 642 | 175 | 657 | 178 |
| C Manufacturing, total | 518 | 120 | 516 | 112 |
| 10-12 Food industry | 4 | 3 | 6 | 4 |
| 13-15 Textile, clothing, leather and footwear industry | | | | |
| 16-17 Wood and paper industry | 7 | 5 | 8 | 6 |
| 19-22 Chemical industry | 28 | 17 | 23 | 14 |
| 24-25, 28-30 Metal and engineering industry | 130 | 53 | 136 | 47 |
| 26-27 Electrical and electronics industry | 324 | 27 | 328 | 29 |
| Other manufacturing | 25 | 15 | 15 | 12 |
| D,E Electricity, gas and water supply | 1 | 1 | 2 | 2 |
| F Construction | 2 | 2 | 2 | 2 |
| G Wholesale and retail trade | 6 | 5 | 6 | 6 |
| J Information and communication | 20 | 13 | 17 | 12 |
| 72 Scientific research and development | 20 | 10 | 28 | 20 |
| M Professional, scientific and technical activities (excl. 72) | 25 | 17 | 25 | 16 |
| Other industries | 50 | 7 | 61 | 8 |

Appendix table 8. Patents granted to Finnish enterprises by US Patent and Trademark Office by industry (TOL 2008), 2009 and 2010

| Industry | US Patent and Trademark Office 2009 | | US Patent and Trademark Office 2010 | |
|--|-------------------------------------|-----------------------|-------------------------------------|-----------------------|
| | Patents | Number of enterprises | Patents | Number of enterprises |
| Total | 990 | 134 | 1251 | 174 |
| C Manufacturing, total | 887 | 83 | 1092 | 112 |
| 10-12 Food industry | | | 5 | 2 |
| 13-15 Textile, clothing, leather and footwear industry | 2 | 2 | 2 | 1 |
| 16-17 Wood and paper industry | 3 | 3 | 9 | 4 |
| 19-22 Chemical industry | 25 | 10 | 42 | 19 |
| 24-25, 28-30 Metal and engineering industry | 125 | 33 | 135 | 38 |
| 26-27 Electrical and electronics industry | 723 | 29 | 887 | 39 |
| Other manufacturing | 9 | 6 | 12 | 9 |
| D,E Electricity, gas and water supply | 1 | 1 | | |
| F Construction | | | | |
| G Wholesale and retail trade | 5 | 3 | 8 | 5 |
| J Information and communication | 15 | 12 | 24 | 17 |
| 72 Scientific research and development | 21 | 15 | 40 | 17 |
| M Professional, scientific and technical activities (excl. 72) | 37 | 13 | 55 | 17 |
| Other industries | 24 | 7 | 32 | 6 |

Appendix table 9. Utility model applications filed in Finland by IPC section, 2010

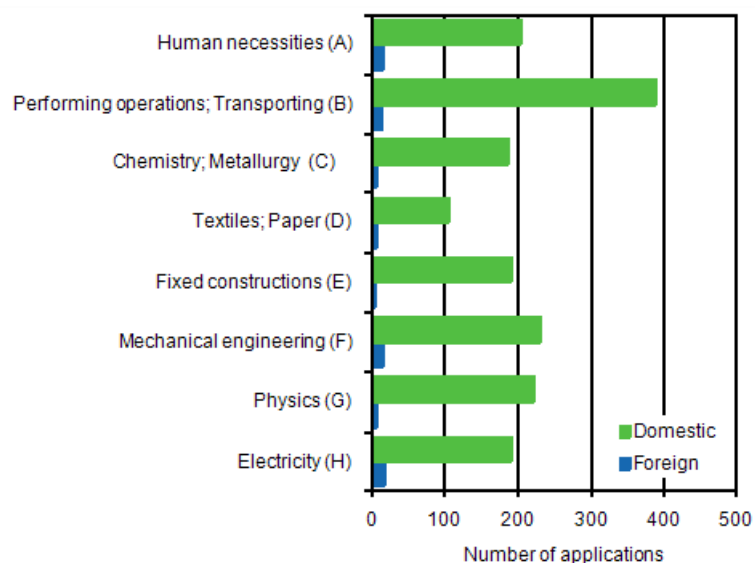
| IPC section | Domestic applications | | | Foreign applications | Applications total |
|--|-----------------------|------------------------|-------|----------------------|--------------------|
| | Private assignee | Enterprise/association | Total | | |
| Total | 262 | 266 | 528 | 31 | 559 |
| A: Human necessities | 54 | 40 | 94 | 9 | 103 |
| B: Performing operations, transporting | 34 | 54 | 88 | 3 | 91 |
| C: Chemistry, metallurgy | 5 | 4 | 9 | 2 | 11 |
| D: Textiles, paper | 3 | 14 | 17 | 2 | 19 |
| E: Fixed constructions | 40 | 58 | 98 | 5 | 103 |
| F: Mechanical engineering | 32 | 20 | 52 | 3 | 55 |
| G: Physics | 13 | 13 | 26 | 3 | 29 |
| H: Electricity | 4 | 26 | 30 | 4 | 34 |
| Unknown | 77 | 37 | 114 | | 114 |

Appendix table 10. Domestic utility model applications of enterprises and associations by industry (TOL 2008), 2009 and 2010

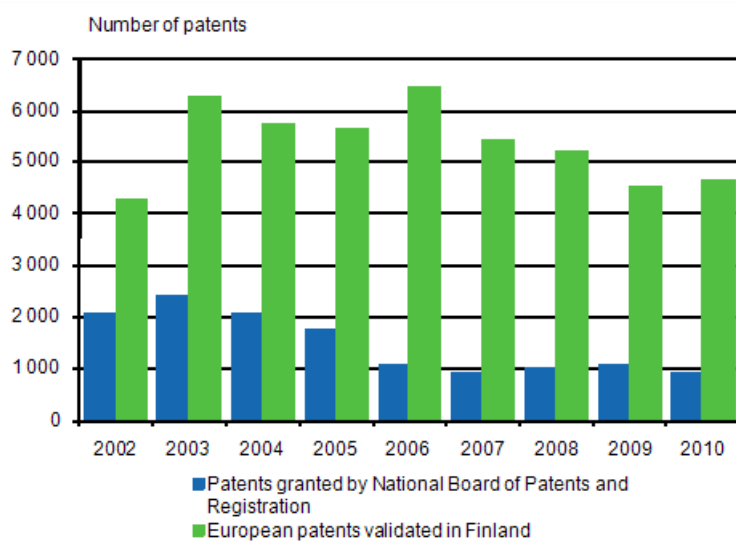
| Industry | 2009 | | 2010 | |
|--|--------------|-----------------------|--------------|-----------------------|
| | Applications | Number of enterprises | Applications | Number of enterprises |
| Total | 260 | 174 | 266 | 176 |
| C Manufacturing, total | 176 | 103 | 159 | 91 |
| 10-12 Food industry | 1 | 1 | | |
| 13-15 Textile, clothing, leather and footwear industry | 2 | 2 | 4 | 4 |
| 16-17 Wood and paper industry | 13 | 12 | 13 | 9 |
| 19-22 Chemical industry | 16 | 12 | 16 | 11 |
| 24-25, 28-30 Metal and engineering industry | 94 | 49 | 78 | 43 |
| 26-27 Electrical and electronics industry | 22 | 8 | 23 | 8 |
| Other manufacturing | 28 | 19 | 25 | 16 |
| D,E Electricity, gas and water supply | | | 1 | 1 |
| F Construction | 17 | 14 | 14 | 10 |
| G Wholesale and retail trade | 21 | 20 | 33 | 27 |
| J Information and communication | 5 | 5 | 5 | 5 |
| 72 Scientific research and development | | | 4 | 3 |
| M Professional, scientific and technical activities (excl. 72) | 31 | 23 | 34 | 24 |
| Other industries | 10 | 9 | 16 | 15 |

Appendix figures

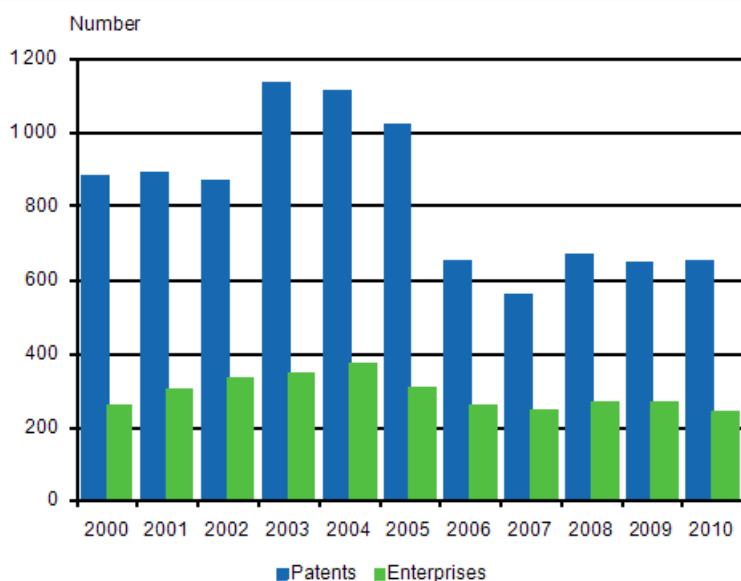
Appendix figure 1. Patent applications filed in Finland by IPC section, 2010



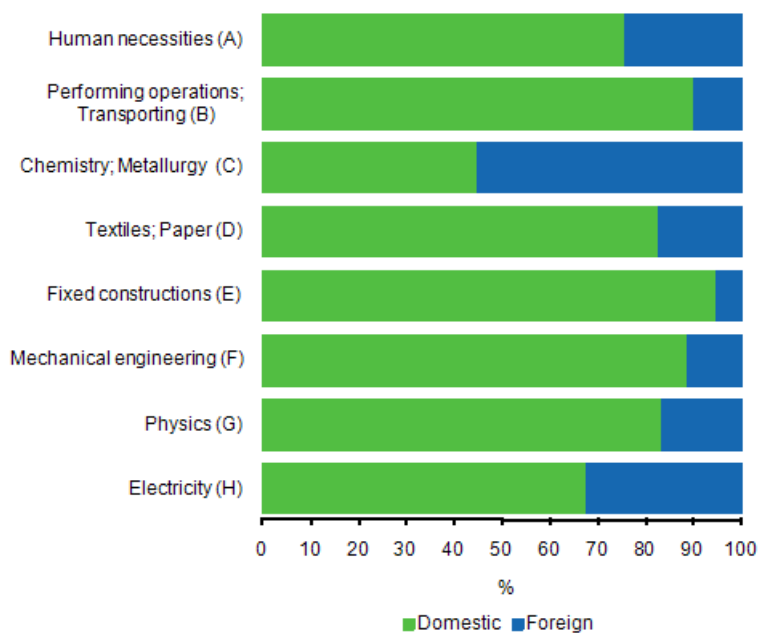
Appendix figure 2. Patents granted and validated in Finland, 2002–2010



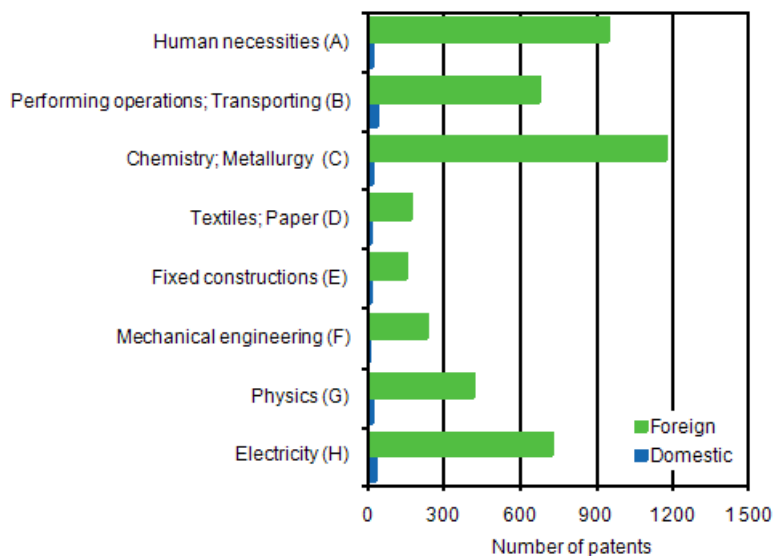
Appendix figure 3. Domestic patents granted to enterprises and associations and enterprises having received patents, 2000–2010



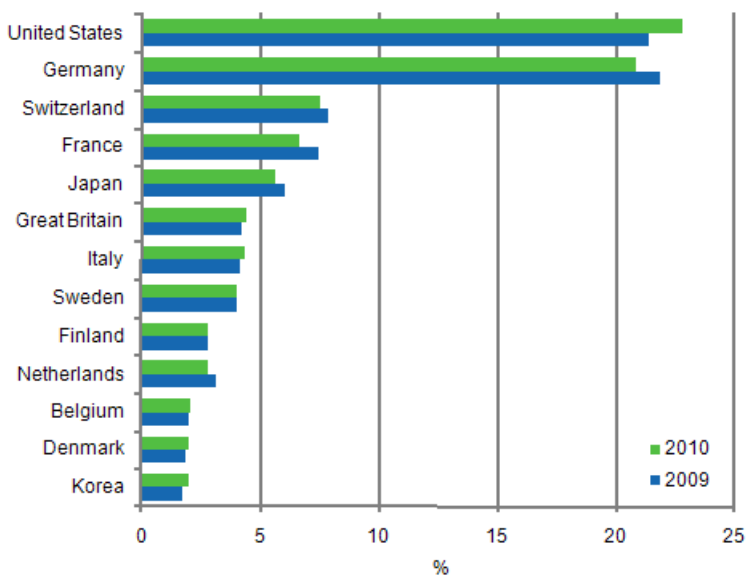
Appendix figure 4. Patents granted in Finland by IPC section, 2010



Appendix figure 5. European patents validated in Finland by IPC section, 2010



Appendix figure 6. Selected countries shares of European patents validated in Finland, 2009 and 2010



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Finlands officiella statistik
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Science, Technology and Information Society 2011

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Source: Patenting 2010. Statistics Finland