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Main Innovation Clusters in the US

An innovation cluster is a geographic concentration of interrelated companies and institutions, such as startups, corporate R&D centers, VCs, universities, suppliers, service providers, etc.

There are currently many innovation clusters scattered across the US. For example, according to the Association of University Research Parks (AURP), there are 159 research parks in the country and every state of the federation has at least one.

In fact, Research Parks are an important type of cluster for promoting tech transfer from academia to the industry. Today, there are over 400 Research Parks worldwide and their number is still growing. At the top of the list comes the USA, with 159 research parks, followed by Japan with 111 and China with about 100.

In order to rank innovation clusters according to their relevance, we need to find a way to quantify innovation generation. We choose to use patent activity as a proxy for that.

The US is the leading country in utility patent* generation, with 140,969 utility patents issued in 2015, which represents 47.2% of all utility patents worldwide, according to the US Patent and Trademark Office. Japan comes in 2nd, with 52,409 patents, followed by South Korea with 17,924, Germany with 16,549, Taiwan with 11,690, and China with 8,116.

When we look at US patent activity by state, California is the leading state with 40,196 utility patents generated in 2015. Silicon Valley certainly contributes the most to this number. According to the US Patent and Trademark Office (2015 data), the top 10 states in terms of patent generation are:

1. California, with 40,196 patents
2. Texas, with 9,934 patents
3. New York, with 8,464 patents
4. Massachusetts, with 6,777 patents
5. Washington, with 6,378 patents
6. Michigan, with 5,561 patents
7. Illinois, with 5,028 patents
8. New Jersey, with 4,602 patents
9. Minnesota, with 4,394 patents
10. Florida, with 4,054 patents

Most people believe that Silicon Valley is the only relevant cluster for innovation in the US, which is not true. The ranking above gives us an idea of how scattered innovation really is across the country. This can certainly be explained by the widespread entrepreneurial spirit, excellent quality of research universities, massive investments in R&D (both private and public), government incentives, availability of funds from investors (angel investors, VCs, private equity funds, etc.), among other factors.

* Utility Patents are issued for (i) the invention of a new and useful process, machine, manufacture, or composition of matter, or (ii) a new and useful improvement thereof. Utility patents generally allows its owner to exclude others from making, using, or selling the invention for a period of up to 20 years from the date of patent application filing, subject to the payment of maintenance fees. Approximately 90% of the patent documents issued by the USPTO in recent years have been utility patents, also referred to as "patents for invention".



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