

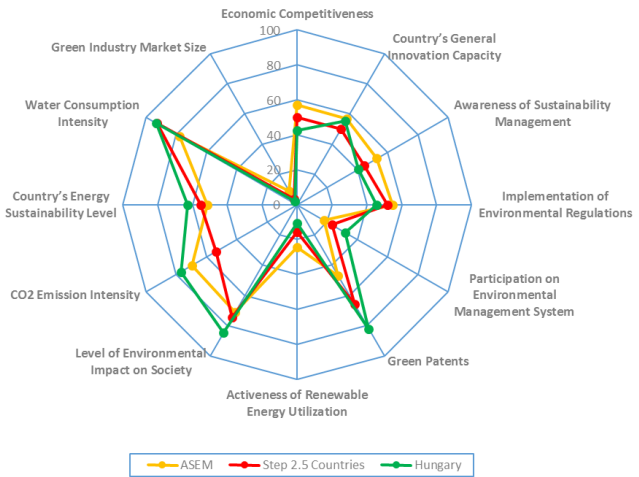


Hungary

| | | | | | | | |
|---|----------------|-------------|------------------------------------|--------------------|--------------------------|------------------------|---|
|  | 12,021 | 9.9 million | 4:31:65 | 0.828 Very high | 4.35 | 4.54 |  |
| Flag | GDP per capita | Population | Industry structure (1st, 2nd, 3rd) | HDI | Sustainable social index | Sustainable env. index | Geographic location |

| | Score |  |
|---|--------------|---|
| ASEI 2015 | 49.34 | |
| Eco-Innovation Capacity | 45.96 | |
| Economic Competitiveness | 42.28 | |
| Country's General Innovation Capacity | 55.32 | |
| Awareness of Sustainability Management | 40.30 | |
| Eco-Innovation Supporting Environment | 45.72 | |
| Implementation of Environmental Regulations | 45.72 | |
| Eco-Innovation Activities | 41.67 | |
| Firms' Participation on Environmental Management System | 32.02 | |
| Green Patents | 82.29 | |
| Activeness of Renewable Energy Utilization | 10.72 | |
| Eco-Innovation Performance | 63.99 | |
| Level of Environmental Impact on Society | 84.84 | |
| CO ₂ Emission Intensity | 76.92 | |
| Country's Energy Sustainability Level | 62.85 | |
| Water Consumption Intensity | 93.12 | |
| Green Industry Market Size | 2.20 | |

- Hungary's eco-innovation activity and performance are higher than the average scores of the same development state group countries. However, eco-innovation capacity and supporting environment are low.
- Green Patents (indicator no. 3.4) and the indicators of the eco-innovation performance of Hungary are higher than the average score of ASEM member countries and the same development state countries.
- Awareness of Sustainability Management (indicator no. 1.5) and Activeness of Renewable Energy Utilization (indicator no. 3.5) of Hungary are lower than the same development state countries.

Table 52 Eco-innovation Policy instruments of Hungary

| | | |
|----------------------------|----------------|--|
| National plan and strategy | Sustainability | <ul style="list-style-type: none"> ■ Economy Development Operational Programme (New Hungary Development Plan) ■ National Biodiversity Strategy and Action Plan ■ National Rural Development Strategy ■ National Sustainable Development Strategy (NSDS) (2007-2025/2050) ■ New Hungary Development Plan (NSRK, 2007-2013) ■ Energy Strategy until 2030 ■ River Basin Management Plan (RBMP) of Hungary ■ National Spatial Structure Plan ■ National Basic Plan for Nature Protection ■ National Spatial Development Concept, National Spatial Structure Plan |
| | Eco-innovation | <ul style="list-style-type: none"> ■ National Environmental Technology Innovation Strategy (NETIS) 2011-2020 ■ National Energy Strategy 2030 ■ Third National Environmental Action Programme 2009-14 ■ Energy Efficiency Action Plan (EEAP) for Hungary until 2016/7 |
| Programme and actions | National | <ul style="list-style-type: none"> ■ SME Voucher 2012 ■ Hungarian National Ecolabel ■ National Environment Programme (NEP) 2009-2014 ■ National Reform Programme |
| | International | |
| Legislation | | <ul style="list-style-type: none"> ■ The Hungarian Climate Change Act (Act LV 2007) |
| Finance | | <ul style="list-style-type: none"> ■ Research and Technology Innovation Fund |
| Information | | <ul style="list-style-type: none"> ■ Joint European Resources for Micro to Medium Enterprises, JEREMIE ■ National Innovation Agency ■ “Innovation Cluster” accreditation |

The R&D field expenditure of Hungary in 2012 was over 301 million Euros. The annual R&D expenditure is 120 Euros per person, which is only a quarter of the EU's average but it exceeds the average of newly joined EU countries. In 2013, the EU and national funding organizations went through a lot of changes. Hungary, like other member countries, established plans and tried to find opportunities to improve eco-innovation performance. Out of the Middle Eastern European countries, Hungary ranked 3rd place in the R&D expenditure. In comparison to that of 2012, Hungary's overall eco-innovation performance decreased and it currently ranked 23 out of 28 Europe countries. This shows the decrease in funds for

eco-innovation as government environment and also decrease in the energy R&D budget and expenditure. The Hungarian government has established the NETIS 2011-2020 plan¹⁷⁹ in order to make the green economy concept main stream and fulfill the scenario mentioned in the government's national energy strategy 2030¹⁸⁰. However, it has agreed to Russia's financial package of building 2 new nuclear reactors at the Paks nuclear plant without social agreement. After 2011, wind energy investments were no longer made; the level of wind energy production remains at 329MW, same as that of 2011 (Hungary planned to reach the wind energy production level of 7-800MW by 2020). Even with green industry activities, policies, and strategies, environmental problems are still expanding. The Norwegian Grand and EEA drew 133 million Euro to support the economic growth Hungary from 2009-2014, among which 79 million Euros were assigned to environment programs (green industry innovation, dual research development, energy efficiency, renewable energies utilization, climate change adaptation). Hungary is behind in the utilization of the renewable energies among the Western European countries and has low building energy efficiency. Geothermal power, though poor in utilization, shows great potential for Hungary's energy production (EIO, 2013h).

¹⁷⁹ National Environmental Technology Innovation Strategy 2011-2020

¹⁸⁰ National Energy Strategy 2030